VERIFICATION REPORT ECOMAPUÁ AMAZON REDD PROJECT

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Summary:

This final report refers to second project verification audit in the ambit of VCS and Social Carbon standards. The Ecomapuá Amazon REDD Project activity involves avoidance of the unplanned deforestation (AUD) of a subsection of the project area, which is within a private property on Marajó Island, owned by Ecomapuá Conservação Ltda. According to the current monitoring period (**from 01-January-2013 to 31-December-2017**), the emission reduction was achieved by avoiding deforestation of 164.05 ha, resulting in 174,939 tCO2e in emissions reductions. The project applies the VCS Methodology VM0015 - Methodology for Avoided Unplanned Deforestation, version 1.1

Scope of verification

Ecomapuá Conservação Ltda. has contracted Carbon Check Private Ltd. to conduct the conformity assessment of the 2nd monitoring report against the indicators and requirements of the applicable standards and VM0015. Document review, site visits and interviews with stakeholders and PP´s staff were conducted in order to evaluate the project activity implementation and project monitoring conformity. Nonconformities (CARs), Clarifications (CLs) and forward action requests (FAR) were raised when applicable. Two people formed the audit team, where both participated in field audit and document reviews. The site visit spent 5 days, from 7th until 11th May and included visits to several project areas, Institutional meetings and stakeholders' interviews.

The audit team has raised 16 CARs, 11 CLs and 1 FARs. The CARs and CL were all closed before the emission of the final version of this report, as presented in appendix 1, attached to this report.

Based in the entire analysis and CARs and CL addressing, the VVB concludes with significantly level of assurance that the climate benefits presented in the verification report VCS MR Ecomapua_period_02_01 01 2013_31 12 2017_v04 (ref. 33) are real.

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1 INTRODUCTION

Ecomapuá Conservação Ltda. has contracted Carbon Check Private Ltd. to conduct the verification of the 2nd Monitoring Report of the Ecomapuá Amazon REDD Project, for the period from 01-January-2013 to 31-December-2017

1.1 Objective

This report refers to the conformity assessment of the Ecomapuá Amazon REDD Project to the VCS Version 4 and Social Carbon standards requirements. The report presents the VVB assessment and conclusions of the project performance against the applicable standards and methodology

1.2 Scope and Criteria

The scope of the verification is to establish/verify by an independent third-party assessment the conformance of the project to the VCS, Social carbon standard and VM0015 v1.1, requirements.

The VVB focused on the project activities implementation, the project monitoring activities, the non-permanence risk analysis and buffer determination prepared for this monitoring period.

The project encompasses an area of 97,007.22 hectares[1] of private land and has a crediting period of 30 years, from 1 January-2003 until 31-December-2032 and estimates to avoid around 1,157 ha of deforestation, resulting in 942,324 tCO2e in emissions reductions[2]. All material GHG reservoirs sinks and sources and sinks were evaluated following the VCS standard and methodology requirements. The project was evaluated to a reasonable level of assurance.

The following documents were used during the assessment:

[1] The project area was corrected and has in fact an area of 97,007.22 ha instead of 86,269.84 ha, which was defined in the previous VCS PD corresponding to the first baseline period.

[2] Please refer to the updated VCS PD (VCS PD_Ecomapuá_2nd baseline period_v02)

- VCS Program Guide, v4.0;
- VCS Standard, v4.0;
- AFOLU Requirements 2013 v.3.6;
- VM0015, 2002, v1.1;
- AFOLU Non-Permanence Risk Tool, v4.0
- VCS+SOCIALCARBON Monitoring Report Template, v4.0
- VCS+SOCIALCARBON Verification Report Template, v4.0
- SOCIALCARBON_STANDARD_v-5-.0

Also supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment were used by the audit team in its analysis.

The Social Carbon applied indicators are the indicators for an Amazon REDD Project. Version 1.1 – November 08th, 2013, as follow:

Social Resource Indicator	Description
Extent of community education/training and alternative income sources	Evaluates whether the community education/training and alternative income sources implemented by the carbon project extend to the entire project area and, preferably, covering the leakage management area as well.
Social research	Examines level of research into social, demographic and economic aspects of communities in the project. Relevant research for the project includes: - Community satisfaction survey: gauging opinions of the all projects affecting them;

	- Education levels among the youth and the community; - Economic research such as levels of income, means of subsistence; - Communities' views of their own needs; - Demographic research: numbers of people and profiles.
Associations and cooperatives	Evaluates whether communities residing in the project area are involved in associations or cooperatives. Association: Group of two or more people who organize themselves to defend their common interests, without financial ends and existing as a legal entity. Cooperative: Organization consisting of at least twenty private individuals acting cooperatively and mutually assisting each other, with democratic, participatory management, with common economic and social goals, of which the legal and doctrinal aspects are independent of those of other organizations and societies.
Social satisfaction	Evaluates the communities' satisfaction relating to the carbon project. Also evaluates the existence of some kind of community satisfaction survey, which can be conducted through local research, or stakeholders' consultation, among other means.

Human Resource Indicator	Description
Community education	Evaluates the relevant education and training programs related to the project,

and training	including additional programs to the stakeholders and broader community. The following major areas are considered: - Training: technical; IT and digital; courses, etc. - Education: basic and supplementary, environmental awareness-raising, etc.

Health	Evaluates the presence of initiatives and campaigns relating to community health, as well as access and communication with hospitals in neighboring cities.
Leisure, culture and **sport**	Evaluates the presence of projects involving leisure, health and sport within the carbon project area, which benefit the community.
Equipment and **infrastructure**	Evaluates the project proponent's investment and encouragement relating to equipment and infrastructure (sanitation, household, electricity, transport, among others) for the community's benefit.

Financial Resource Indicator	Description

Alternative income sources	Evaluates whether the project created alternative sources of income generation for the communities living within the project area.
Employment opportunities	Direct employment offered by the project: number of people employed in activities related to project (e.g. supervisors and trainers) and provision of official documentation employment (informal and formally documented).
Securing of funds	Evaluates the project proponent' participation in requests for proposals/ programs for securing funds. Also monitors whether project participants were successful, and whether the funds raised are creating activities for community's resident in the project area.
Carbon credit Investments	Evaluates whether proceeds from the sale of carbon credits was invested in the carbon project improvements or activities that benefit the local community.

Natural Resource Indicator	Description
Monitoring Methods	Measures the progression of project's monitoring methods, including for example:

	high-resolution GIS capable of detecting degradation; employment of guards/ supervisors; presence of guard towers or supervision center within project area.
Efficiency of project in countering agents of deforestation/ degradation	Measures the project's ability to reduce deforestation and degradation within the project area over the monitoring period corresponding to this SOCIALCARBON Report.
Non-timber forest products (NTFPs)	Evaluates the sustainable use of natural resources by communities in the project area for income generation. "NTFPs are biological resources or products from flora– which are not wood – obtained from forests for subsistence or for trade. They can come from native, primary or secondary forest, planted forest or agro-forestry systems. NTFPs include a wide range of products including medicinal plants, fibers, resins, latex varieties, oils, rubbers, fruits, nuts, seasonings, dyes, rattan, bamboo, etc." (Brazilian Forest Service, 2013). Sustainable practices are taken to include the following: - Low-impact practices; - Exploitation/ collection practices of each NTFP which are compatible with

	their productivity levels without affecting their regeneration and/or conservation of each utilized species.

Biodiversity Resource Indicator	Description
Biodiversity research	Evaluates the existence of partnerships with universities and environmental bodies, among others, which contribute to/encourage research on biodiversity in the project area.
Biodiversity conservation	Evaluates the existence of biodiversity conservation activities in the project area. E.g.: recovery of degraded areas, planting of native trees, environmental education, partnerships, among others.
Tree nursery and maintenance of planted trees.	Evaluates the presence of a tree nursery, used for tree production in the project area.

Carbon Resource Indicator	Description
Project Performance	Evaluates project performance in relation to verified emissions reductions. Project performance = Units verified in the Monitoring Report corresponding to the

	SCR period/ Estimate of emissions reductions in the VCS PD.
Buffer reduction	Measures the progression of the buffer in the current monitoring period compared to the previous monitoring period, or compared to the VCS PD if current SCR period is Point 0
Stakeholder consultation methodology	Evaluates the methodology used for the stakeholder consultation.

The audit team has crosschecked all the applicable indicators and based on them raised CARs and CLs as presented in appendix 1. The VVB deems that all CARs and CLs raised regarding the SCS, were addressed and closed

1.3 Level of Assurance

The VVB conducted the assessment in order to reach a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the verification team assessment 16 CARs, 11 CLs and 1 FAR were raised. The VVB states that all CARs and CLs raised during the second monitoring period were properly addressed by the PP and closed by the VVB team. Please refer to appendix 1.

1.4 Summary Description of the Project

The Ecomapuá Amazon REDD Project is located on Marajó Island, Pará State, in the Eastern Amazon region of Brazil. The island lies at the mouth of the Amazon River. It has a long history of colonization especially by small-scale subsistence farmers, beginning early in the history of Amazon exploration during the rubber-tapping era. The Marajó *várzea* is a critically valuable ecosystem for many species, but especially noted for its avifauna[2], adding to the importance of the present project.

The objective of the Ecomapuá Amazon REDD Project is to avoid the unplanned deforestation (AUD) of a subsection of the 97,007.22 HA of private land, owned by Ecomapuá Conservação Ltda. This company is a private Brazilian sustainable development firm engaged in renewable energy and carbon finance projects. Ecomapuá Ltda. was created on 19-July-2001, with the goal of "development of sustainable development projects, clean development mechanisms, carbon sequestration" as described in their Social Contract[3]:

Beyond the ecological and carbon benefits of the project, a proportion of the carbon credits generated will be dedicated to improving social and environmental conditions for the project area residents, that is being monitored by the SOCIALCARBON® Standard, which is based in six main pointers: Biodiversity; Natural; Financial; Human; Social and Carbon Resources.

The dynamic of deforestation within the project's reference region involves illegal timber harvesting; extraction of palm heart; and subsistence farming relying on slash and burn practices for cultivation[4], which supplements the income and subsistence from the latter activities. In addition, the PA-159 road construction, which will link Breves to Anajás, is also an important driver of deforestation during the second baseline period (01-January-2013 to 31-December-2022).

According to the updated VCS PD (ref. 32), the REDD project is expected to avoid a predicted 1,157 ha of deforestation, equating to around 942,324 tCO2e in emissions reductions across the second and third baseline periods (01-January-2013 to 31-December-2032).

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification process is conducted in accordance with criteria laid down by VCS standard and SOCIALCARBON, as following:

- contract with PP for the scope and appointment of verification team and technical review team;
- completeness check of Monitoring Report;
- desk review of Monitoring Report by verification team and planning of onsite audit (including sampling approach to be applied);
- physical on-site inspection by verification team;
- follow up activities e.g., interviews;
- reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report;
- independent technical review of the draft verification report and final/revised documentation;
- reporting and closure of TR comments/findings (CARs/CLs/FARs) and final approval for the decision made;
- issuance of final verification report to contracted PP (or authorized representatives).

This document is a Final Verification Audit Report using a desk and field-based audit. Two auditors from Carbon Check Private Ltd. were involved in the preliminary (desk) assessment of project's monitoring report, its annexes and the field auditing in the project area. The auditing team reviewed technical reports and documentation provided by the project proponent to conduct the verification process. The VVB team undertaken an independent GIS analysis for deforestation model and reviewed assumptions, parameters and formulas used to determine the GHG reduction estimates.

No inventory plots were re-measurement, because the carbon stocks were already validated in previous audits. During the field audit, the audit team where focused on direct observations and interviews with project community and staffs. 19 stakeholders from different local organizations and governmental agencies were interviewed, for details, please refer to section 2.3, below.

Also, this second verification contains the analysis of the reviewed baseline (ref#37) of the project, because the second monitoring period is from 01/01/2013-12/31/2017.

According to the VM0015, task 2 is necessary to review the baseline every 10 years from the credit period start date, as the project crediting period started on 01/01/2003 the Project Proponent (PP) is renewing the baseline of the project in this monitoring period. The method utilized by the VVB to analysis the second baseline of the project was to cross-check the documentation presented by the PP with all part 2 steps (step 1 – step 9) of the methodology.

2.2 Document Review

A desk review was conducted by the verification team that included:

a. Review of the data and information presented to verify its completeness;

b. Review of the VCS project activity and its monitoring;

c. Evaluation of data management and the quality assurance and quality control system in the context of their influence to SOCIALCARBON indicators and VM0015 monitored data;

d. supporting documents.

As part of the auditing processes, the following documentation presented was revised:

Ref#	Document title	Electronic filename	observation
1	PD ECOMAPUÁ AMAZON REDD PROJECT. GHG EMISSION REDUCTIONS FROM AVOIDED UNPLANNED DEFORESTATION Document Written by Sustainable Carbon – Projetos Ambientais Ltda. Date of Issue 22-February-2013.	PROJ_DESC_1094_22FEB2013.pdf	Registered PD, available in the VCS project database

2	2nd MONITORING REPORT ECOMAPUÁ AMAZON REDD PROJECT. Document Written By Sustainable Carbon – Projetos Ambientais Ltda. Date of Issue 31-March-2013.	VCS MR Ecomapua_period_02_01 01 2013_31 12 2017_v01.pdf	
3	2nd MR calculation spreadsheet v.1	VCS MR Calculation Ecomapua_period 02_01 01 13_31 12 2017_v01.xlsx	
4	ECOMAPUÁ REDD PROJECT. Monitoramento 2º período – 2013 a 2017 Projeto Florestal de REDD – Ilha do Marajó. Agência Verde 26/01/2018	Relatorio_Ecomapua_Mon2_v1.pdf	
5	VM0015 Version 1.1, 3 December 2012 Methodology for Avoided Unplanned Deforestation	VM0015-Methodology-for-Avoided-Unplanned-Deforestation-v1.1.pdf	
6	VCS Non-Permanence Risk Report_Ecomapuá Amazon REDD Project_2nd MR_v1	VCS Non-Permanence Risk Report_Ecomapuá Amazon REDD Project_2nd MR_v1.pdf	Part of project documentation verified by VVB
7	Herrera_Desenv Agricult Vl Amelia (2003)	HERRERA, dinamica e desenvolvimento da agricultura familiar caso vila amélia breves.pdf	Used in the Social carbon report and

			risk report assessment
8	Diagnóstico Socio Ambiental_FADESP (2002)	Diagnostico Socio Economico das Comunidades Rio Mapua.pdf	Used in the Social carbon report and risk report assessment
9	IPEA_Marajó - condições socioambientais_2016	IPEA_Marajó - condições socioambientais_2016.pdf	Used in the Social carbon report assessment
10	UFPA_Relatorio Analitico do Marajó_2012	UFPA_Relatorio Analitico do Marajó_2012.pdf	Used in the Social carbon report assessment
11	plano desenvolvimento territorial sustentável arquipelágo marajó	plano desenvolvimento territorial sustentável arquipelágo marajó.pdf	Used in the Social carbon report assessment
12	ESTATÍSTICA MUNICIPAL Anajás	anajas.pdf	Used in the Social carbon report assessment

13	THE MARAJÓ ISLAND: HISTORICAL REVISION, HYDROCLIMATOLOGY, HYDROGRAPHICAL BASINS AND MANAGEMENT PROPOSALS	Informações Ilha Marajó_historica_hidroclimatologia.pdf	Used in the Social carbon report assessment
14	criação da Reserva Extrativista Mapuá, no Município de Breves	DECRETO DE 20 DE MAIO DE 2005.doc	Used in the Social carbon report and risk report assessment
15	MARTORANO_Caracterização do uso do solo e vegetação_2002	Relatório.pdf	Used in the Social carbon report assessment
16	Inventario Florestal Amostral para empresa Santana Madeiras_2001	Inventario Florestal Amostral para empresa Santana Madeiras.pdf	Used in the Social carbon report assessment
17	MARTORANO_Caracterização do uso do solo e vegetação_2002	Cartas.pdf	Used in the Social carbon report assessment
18	IFT_Prospecção Manejo Florestal RESEX Mapuá_2012	2012Out04_Relatorio_IFT_Prospeccao_Resex_Mapua_MFCF.pdf	Used in the Social carbon

			report and risk report assessment
19	PROJETO PILOTO DE GERAÇÃO DE RENDA E ALIMENTO ATRAVÉS DE PRODUÇÃO AGRÍCOLA FAMILIAR E MANEJO FLORESTAL SUSTENTÁVEL EM COMUNIDADES RIBEIRINHAS CARENTES NO RIO MAPUÁ - RELATÓRIO FINAL_2007	Relatfinal_ProjPilotodeGeraçãodeRendaeAlimento.pdf	Used in the Social carbon report assessment
20	VCS Standard, v4	VCS_Standard_v4.pdf	
21	GOFC-GOLD, 2016, A sourcebook of methods and procedures for monitoring and reporting anthropogenic greenhouse gas emissions and removals associated with deforestation, gains and losses of carbon stocks in forests remaining forests, and forestation. GOFC-GOLD Report version COP22-1, (GOFC-GOLD Land Cover Project Office, Wageningen University, The Netherlands).	GOFC-GOLD_Sourcebook.pdf	

22	The Monitoring Program of the Brazilian Amazon by satellite – PRODES. Spatial Reserarch National Institute/INPE	http://www.dpi.inpe.br/prodesdigital/prodes.php	
23	INPE - Instituto Nacional de Pesquisas Espaciais, 2018. Portal do Monitoramento de Queimadas e Incêndios. Disponível em http://www.inpe.br/queimadas. Acesso em: 26/04/2018.	https://prodwww-queimadas.dgi.inpe.br/bdqueimadas/	
24	Social Carbon Report (april 2018)	SCR_Ecomapua_Point01v01	
25	The Worldwide Governance Indicators (WGI) project of the World bank	http://info.worldbank.org/governance/wgi/#home	
26	MONITORAMENTO E REVALIDAÇÃO DA LINHA DE BASE DE PROJETO FLORESTAL DE REDD NA ÁREA DA EMPRESA ECOMAPUÁ LTDA_2013	Relatorio_Ecomapua_Mon1_final_v3.pdf	
27	Properties not updated documents (Certificate of Rural Property Registration - CCIRs) and Ecomapuá social contract		Accessed by the DOE in the PP´s office in São Paulo in

			22nd august 2018
28	Annex 3 - Property titles, official property documents	https://drive.google.com/drive/folders/1Ee6NNtW-9lKNs40O0arAQORf3SNUy-hx?usp=sharing	
29	Annex 7 Meeting minutes and videos	https://drive.google.com/drive/folders/1Ee6NNtW-9lKNs40O0arAQORf3SNUy-hx?usp=sharing	
30	Annex 8 - RESEX, Overlap, Disappropriation, and Resolution	https://drive.google.com/drive/folders/1Ee6NNtW-9lKNs40O0arAQORf3SNUy-hx?usp=sharing	
31	*Relatório: MONITORAMENTO E REVALIDAÇÃO DA LINHA DE BASE DE PROJETO FLORESTAL DE REDD NA ÁREA DA EMPRESA ECOMAPUÁ LTDA, 2013*	https://drive.google.com/drive/folders/1Ee6NNtW-9lKNs40O0arAQORf3SNUy-hx?usp=sharing	
32	*VCS PD_Ecomapuá_2nd baseline period*	*VCS PD_Ecomapuá_2nd baseline period_v02.pdf*	Updated VCS PD

33	*VCS MR Ecomapua_period_02_01 01 2013_31 12 2017_v04*	*VCS MR Ecomapua_period_02_01 01 2013_31 12 2017_v04.pdf*	Updated VCS MR
34	SCR_Ecomapua_Point01_v03	SCR_Ecomapua_Point01_v03.pdf	
35	Budget Ecomapuá_2013-2017	Budget Ecomapuá_2013-2017. xlsx	
36	Calculus spreadsheet - VCS MR Calculation Ecomapua_period 02_01 01 13_31 12 2017_v04	VCS MR Calculation Ecomapua_period 02_01 01 13_31 12 2017_v04.xlsx	
37	VCS PD Calculation Ecomapua_2nd baseline period_v02	VCS PD Calculation Ecomapua_2nd baseline period_v02.xlsx	
38	Plano de Ação - Melhoramento do Buffer - Ecomapua	Plano de Ação - Melhoramento do Buffer – Ecomapua.pdf	
39	VCS Non-Permanence Risk Report_Ecomapuá Amazon REDD Project_2nd MR_v4	VCS Non-Permanence Risk Report_Ecomapuá Amazon REDD Project_2nd MR_v4.docx	
40	Relatório 03 - Estudo para a determinação da linha de base e dinâmica de desmatamento do projeto Ecomapuá Amazon REDD. Equipe: Alexandre Uezu, DSc.; Henrique Shirai, MSc.	Relatório_03_EcoMapuá_2020_03_13d.pdf	

2.3 Interviews

The auditing team conducted on-site interviews between 7th and 11th may, with 14 local stakeholders, 3 project staff and 2 government representatives (ICMBio). Also, actors linked to the Project, direct or indirectly, were relevant for the process were interviewed. The subjects addressed during interviews were previously established in function of SC standards indicators, VCS AFOLU, methodology requirements and verification scope. The interviews were conducted in a way the interviewees could explain their participation and give their impression over the project's development.

Conducted interviews are listed in the table below:

Interviewee	Location	Date	Role in the project
Marcelo Haddad	Breves – PA and project field	along 7th and 11th may 2018	MR consultant
David Swallow	Breves – PA and project field	along 7th and 11th may 2018	PP technical representative
Aluizio (Lula)	Project field	along 7th and 11th may 2018	Project staff
Eliane Seiko Maffi Yamada	Skype	4th may 2018	PP GIS consultant
Cesar Pinheiro	Breves – PA and project field	along 7th and 11th may 2018	PP consultant
Antonio (Galo)	Project field	along 7th and 11th may 2018	Vice president of AMOREMA
Janari	Project field	along 7th and 11th may 2018	President of COAMA
Michele	Project field	8th May 2018	Treasurer of COAMA
Jameson	Bom Jesus community	8th May 2018	Communitarian
Dona Tereza Barbosa	Bom Jesus community	8th May 2018	Communitarian
Raimundo Barbosa	Bom Jesus community	8th May 2018	Communitarian
Antonio Barbosa	Bom Jesus community	8th May 2018	Communitarian

Maria do Largamente	Bom Jesus community	8th May 2018	Communitarian
Sebastião Horta	Lago do Jacaré community	9th May 2018	Communitarian
Zacarias	Nossa Senhora de Nazaré community	9th May 2018	Communitarian/professor
João Borges	Lago do Jacaré community	10th May 2018	Communitarian
Maria do Socorro	Lago do Jacaré community	10th May 2018	Communitarian
Silas (Pedro Coelho)	Brasileiros community	10th May 2018	Communitarian
Raimundo	Brasileiros community	10th May 2018	Communitarian
Serafim	Breves – PA	11th May 2018	ICMBio (Mapuá RESEX director)
Simone Albarado Rabelo	Email	2nd May 2018	ICMBio (Terra Grande Pracúuba RESEX directress)
Jeovandro	Breves – PA	11th May 2018	Director of Casa *Familiar Rural*
Benedito Charles	Breves - PA	11th May 2018	Vice president of *Sindicato dos trabalhadores Rural de Breves*
Manuel Raimundo	Breves - PA	11th May 2018	President of *Sindicato dos trabalhadores Rural de Breves*

2.4 Site Inspections

The objective of the site inspections was to evaluate the implementation of project activities, in accordance to the registered project description and monitoring report, during the second monitoring period. Inspections also served to understand the land-use/cover change dynamics in the region. Conducted site inspections are listed in the following table

Location	**Date**

Project area and communities along the Mapuá river (communities: Bom Jesus, Nossa Senhora de Nazaré, Lago do Jacaré, Brasileiros and Vila Amélia)	Between 8th and 10th May 2018
Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), representative	2nd and 11th May 2018
Casa Familiar Rural (CRF)	Between 8th and 10th May 2018
Sindicato dos trabalhadores Rural de Breves (Rural Workers' Union)	11th May 2018
Cooperativa de agricultores do Rio Mapuá e Aramã (COAMA)	Between 8th and 10th May 2018

2.5 Resolution of Findings

The CARs and CL raised, as well as their resolution processes are reported on appendix 1. During this verification process 16 CARs, 11 CL and 1 FAR were raised by the audit team. The resolution of all of them is a pre-condition for the positive verification of this Project. For more information regarding findings resolution, please refer to appendix 1.

2.5.1 Forward Action Requests

1 FAR was raised in the first verification report and closed in the currently verification report. This 2nd verification report has raised one new FAR, please refer to appendix 1.

2.6 Eligibility for Validation Activities

Carbon Check has the CDM certification in scope 14 (AFOLU/LULUCF).

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

As stated by the PP in section 1.9 of the MR, the project activity is not registered and is not seeking registration under any other emission trading program or any other mechanism that includes GHG allowance trading.

In addition, the PP explains that the project area has not created any other form of environmental credit. The project has not been registered in any other credited activity. The project does not intend to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under this VCS project.

3.2 Methodology Deviations

There were no deviations in methodology during this period of monitoring. However, according to the rules of the standard VCS, it is necessary for the project proponent to report the methodological deviations that occurred in the previous verification periods.

As described in the VCS 1° MR, section methodology deviation, an adaptation of the annual deforestation calculation was deemed to be necessary, as presented by the PP, once there were no good-quality images for the years 2002 and 2012. The Landsat images from 2002 had cloud cover obstructing over 80% of the scene, making classification impossible. Therefore, the classification of the images as of the year 2001 was carried out. Given this situation, the deforestation values were quantified based on the deforestation in the 2001 – 2003 period. In order to be conservative, according to the PP, the deforestation in 2002 was assumed to be zero and the deforestation value in the year 2003 was considered as being the accumulated in the 2001-2003 period.

In addition, a similar situation applied to the year 2012. During this year, an error with the Landsat satellite sensor occurred, resulting in images also being unavailable for this year. The deforestation values in 2012 were quantified based on the average deforestation in the 2011 – 2013 period, noting that satellite images from Landsat 8 were available for the year 2013, which is a more recent satellite. Thus, the procedure applied as per the PP, was to divide the deforestation in the

2011 – 2013 period into equal parts in order to distribute it equally among the years 2012 and 2013.

Due that the VVB analysis that this aspect of the actual monitoring report is in accordance with the methodology and the VCS standard, more information please see the appendix #1, CAR#6.

3.3 Project Description Deviations

The project had three new project description deviations from the VCS validated PD:

1. Land-use change analyses were made through MapBiomas images, which is a new platform that produces maps through a pixel-by-pixel classification from Landsat satellites images. The entire process is done with extensive machine learning algorithms through the Google Earth Engine system that offers more detailed, precise and available information. The use of MapBiomas as image reference was made because the region has a high cloud cover throughout the whole year, and thus, the official data from Prodes were highly impacted by this condition.

However, changing the land use data during the second baseline reassessment (ref#37) resulted in different polygons of forest/non-forest areas within the project area at the project start date, showing either deforested areas inside the project area and forested areas outside the project area. According to the applied VM0015 methodology, the project area shall include only forest land at the project start date. Thus, a comparison between 1992 and 2002 has been conducted to include only land qualifying as "forest" for a minimum of 10 years prior to the project start date, in accordance to the methodology.

2. Therefore, the project area was corrected and has in fact an area of 97,007.22 ha instead of 86,269.84 ha, which was defined in the previous VCS PD corresponding to the first baseline period. The old classification method utilized in the previous VCS PD was conservative because a smaller project area resulted in a lower GHG emission reductions generation during the first baseline period.

3. In addition, the correction of the boundaries of forested and non-forested lands within Ecomapuá properties at the project start date also resulted in the rectification of the leakage management area. According to the applied

methodology, the leakage management area shall be located outside the project area and contain only non-forested lands. Thus, a new delineation of the leakage management area had to be carried out. The previous one was located in Fazenda Bom Jesus and presented an area of 817.17 ha. The corrected leakage management area has 12.74 ha and is now split into two properties: Fazenda Bom Jesus and Fazenda Lago do Jacaré. This way, leakage management areas are now more distributed along the project area and more accessible to communities, as most of them live within Fazenda Lago do Jacaré.

4. The project proponent adopted a new value for the biomass stock that meets the requirements of the VM0015 methodology, the old one didn´t met the first criterion that the data used are less than 10 years ago. Because of this they used a new study of a renowned institution (ref#40) and was carried in forests with similar ecologic conditions that to those found in the project area. More details, see appendix 1,CAR#08.

All the three new PD deviations are according with the VCS standard, v4.0, section 3.18, the audit team understand that are parameters available at the time of validation (MR, section 4.1). In this way, the audit team understands that the project proponent has met the requirements of the methodology and standard used, and is therefore in compliance. All the above-mentioned changes were correctly reported in the monitoring report in the appropriate section of PD deviation

In addition, the PP reported, in section 2.2.2 of the MR v.1 all Project Description Deviations verified in the 1st monitoring report, which comprised the 2003 – 2012 period, as required by the VCS rules, which states that project description deviations shall be reported in all subsequent verification reports.

Taking to consideration that these project deviations were already assessed and verified by the VVB in charge of the 1st monitoring report verification, these previous PD deviations will be listed below, but not detailed assessed on its content:

- In the VCS PD, it was realized that the *shapefile* from which the projected areas were derived did not exclude areas considered to be "non-forest" in 2001, but only those from 1993, having a different border from the final file. In this way, the numerical data presented in the tables in the VCS PD differed

from the official spatial file, and the VCS PD made an error in projecting a lower figure than it should have for future deforestation. The source of the discrepancy having been identified, it was necessary to update the values for "forest" and "non-forest" for each simulated year, in accordance with the perimeters of the official *shapefile*;

- The starting year of the projection was altered in the 1st monitoring process, starting from the year of 2003 instead of 2002. This decision was judged to be more conservative than projecting the year 2002, because it decreased the deforestation rate during the historical reference period, which was then utilized to project the deforestation in the 2003 – 2012 period. Given this, it was felt necessary to repeat the entire simulation process referring to the VCS PD. After the entire historical series was re-generated, the Kappa index was applied. In order to be conservative, a correction factor was applied to the new simulated deforestation values obtained for the 2003 – 2012 period. The accuracy assessment was carried out using Kappa statistics, through comparison of the real map from 2001 with the projection of the same year. The Kappa index achieved between these two figures was of 0.7105. Therefore, the correction factor was calculated by considering the 28.95% error resulted from the Kappa index analysis (100%-71.05%), which was applied to the simulated deforestation values obtained for the 2003 – 2012 period, resulting in a total predicted deforestation of 4,929.03 ha. These updated values were used to calculate the cumulative areas for carbon credit generation in the 1st monitoring period.

- Initially the creation of Table 10 (VM0015 v1.1) was judged not to be necessary as the data utilized to formulate the deforestation scenarios included the area history. However, at the time of the VCS PD development, the spatial variables that most likely represent the patterns of baseline deforestation in the reference region were identified, and the digital maps representing the spatial features of each variable were created. Therefore, the Table 10 of VM0015 v1.1 and the digital maps were built.

Based in the above-mentioned analysis and the CAR and CL resolutions presented in the appendix 1, the VVB deems the PD deviation in accordance to the presented in the updated VCS PD (Ref#32) and 2nd MR (Ref#33), as well as in line with the VCS standard v.4 requirements.

3.4 Grouped Projects

Not applicable. This is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

According to the registered PD, the primary objective of the Ecomapuá Amazon REDD AUD project is to avoid the unplanned deforestation (AUD) of an area of 97,007.22 ha within the five Ecomapuá properties. In addition, the PD states that the PP (Ecomapuá Conservação Ltda.) is engaged in improving living standards of isolated communities on the island, where part of the carbon credits generated will be dedicated to improving social and environmental conditions for the project area residents. Specifically contributing to environmental education implemented in the Fazenda Bom Jesus and Vila Amélia, that will benefit 38 families.

Still according to the registered PD, the projects aims also to improve and quantify its social and environmental benefits through application of the SOCIALCARBON® Methodology

During the 2nd monitoring period the project provided courses to the local community about the procedures of organic production and certification of Açaí and obtained the organic certification of the Açaí produced by the communities living within the project area.

Besides the above-mentioned social measures taken by the PP in order to benefit the local communities, the SCR list the following:

- the construction of a new tree nursery,

- provision of university schoolarships for (two) community members
- monetary donations (R$1,500/month) for CFR entity.
- maintains a soccer field in Fazenda Santo Amaro
- the construction of a seed's dryer
- "Projeto Virola" was developed, involving sustainable harvesting of the oil obtained from virola, pracaxi, andiroba and other native seeds
- Creation of the COAMA cooperative.
- creation of Amzn's, which is an online store to sell communities' products

In terms of environmental activities the PP list in the SCR the two biodiversity researches of flora in the region (Non-wood forest products and Diagnosis of the açaizeiro population) regarding to direct conservation activities, the PD, as well as 2nd MR, state the banning of logging in the project area as of the project start date, social education and supervision of deforestation by three supervisors from within the project area communities.

However, despite of these measures, 1,486.90 ha of accumulated deforestation took place during the second monitoring period within the project area, what means an annual average deforestation rate of 0.43% during the 2013 – 2017 period, which is less if compared to the deforestation rate projected for the baseline scenario for the same period, 1.72%,

All the above-mentioned activities were crosschecked in the field by direct observations, stakeholders and project staff interviews and documentation review, based on this analysis, 16 CARs, 11 CLs and 1 FAR were raised as presented in appendix 1

According to the 1st verification report issued by RINA, it was identified two methodology deviations applied to the project, which is an adaptation of the annual deforestation calculation because there were no good-quality images for

the years 2002 and 2012. The deviation was described and justified in the 1st MR v4, as presented below:

"The Landsat images from 2002 had cloud cover obstructing over 80% of the scene, making classification impossible. Given this situation, for the current monitoring period, the deforestation values were quantified based on the deforestation in the 2001 – 2003 period. In order to be conservative, the deforestation in 2002 was assumed to be zero and the deforestation value in the year 2003 was considered as being the accumulated in the 2001-2003 period. The year of 2003 is within the project crediting period, thereby the emission reductions within the current monitoring period were reduced.

During the year 2012, an error with the Landsat satellite sensor occurred, resulting in images also being unavailable for this year. In this case the deforestation values in 2012 were quantified based on the average deforestation in the 2011 – 2013 period. Thus, the procedure applied was to divide the deforestation in the 2011 – 2013 period into equal parts in order to distribute it equally among the years 2012 and 2013. For this case, the satellite images of 2012 and the tables with the results of the GIS for the years 2011 and 2013 were observed.

In this regarding, RINA confirmed that this adaptation is found to be in conformance with the methodology deviations applied in the project, meets the criteria permitted and not have negative impact on the conservativeness of the quantification of GHG emission reductions or removals.

1) Despite of the conclusion of the previous validation/verification, some discrepancies between project implementation and the project description were observed, please refer to appendix 1 of this report.

2) The monitoring system presented by the PP in the MR v.1 states the following:

3) *"Monitoring was performed by the project proponent and outsourced to third parties… All data sources and processing, classification and change detection procedures were documented and stored in a dedicated long-term electronic archive maintained by Ecomapuá Conservação Ltda.'s parent company: Bio Assets, at its office in São Paulo"*

Regarding to this, the operational and managerial structure used for the monitoring plan were distributed as presented in the table below:

Variables monitored	Responsible	Frequency
Monitoring Deforestation and Project Emissions	Ecomapuá Conservação Ltda. together with Sustainable Carbon and Agência Verde	Prior to Verification
Monitoring of non-CO_2 emissions from forest fires	Ecomapuá Conservação Ltda. together with Sustainable Carbon and Agência Verde	Prior to Verification
Monitoring of Leakage	Ecomapuá Conservação Ltda. together with Sustainable Carbon and Agência Verde	Prior to Verification
Monitoring of Natural Disturbance and catastrophic events	Ecomapuá Conservação Ltda. together with Sustainable Carbon and Agência Verde	When a natural event occurs

4) **Table 1.** Type of Monitoring and Party Responsible for Monitoring, as per the MR v.1

The GIS procedure, directly connected to deforestation and project/leakage emissions, as per the MR v.1, were monitored through periodic assessment of classified satellite imagery covering the project area. Agência Verde has supported the Project Proponent for such activity.

According to the PP, for the present monitoring period, Landsat 8 images were classified from 2013 to 2017 having 30m resolution, where high resolution images of Google Earth and Bing Maps were used to conference of the analysed classes. The method used for image classification was not the same as used for the project baseline in the VCS PD (see CAR#6), where automatic classification was used for images cropped from the reference area, employing the Image Classification method from ArcGis 10.2 software.

Still according to the PP in the MR v.1 the automatic classification was followed by interpretation and refinement by analysts, in order to match the automatic results with the field reality. The classification was generated through the Maximum Likelihood Classification algorithm and the Majority Filter method.

Using the same methodology applied to the VCS PD, the process of accumulating "Non Forest" areas was adopted, in such a way that areas classified as "Non Forest" in one year were necessarily included in the same category in the following year.

Classification was first conducted for the whole Reference Region and subsequently cropped to the Leakage Belt and Project Area.

In order to compare the projection and the classification, the land-use file from the projection of baseline deforestation was combined with the classification obtained from satellite images in the current monitoring phase, fixing the areas deforested in 2013. From this procedure a file was generated creating a "projection x classification" matrix, which indicated the accumulated deforestation dynamics from 2013 – 2017, compared to the scenario projected in the VCS PD.

Based on these results, the following matrix was developed for identification of the deforestation dynamics in the given monitored period:

5)

PROJECTION	CLASSIFICATION	WHAT OCCURRED	LABLE APPLIED
Non-Forest	Forest	The deforestation predicted in the VCS PD was avoided	Avoided Deforestation
Forest	Forest	The forest was conserved as predicted	Forest
Non-forest	Non-forest	Deforestation occurred where it had been predicted	Predicted Deforestation

Forest	Non-forest	Deforestation occurred where it had not been predicted	Non-predicted Deforestation

Table 2. Matrix presented in the MR v.1 for the identification of LULC change during comparison of projection versus classification

From the data obtained by this map algebra, analysis of two aspects for project monitoring was possible: quantitative aspects relating to the total avoided deforestation area in the monitored period and the qualitative aspects relating to the spatial distribution of the baseline deforestation model.

Finally, the GHG emission reduction was calculated from a numerical comparison between the projected and classified deforestation within the Project Area, regardless of spatial distribution.

Based on the analysis of the above-mentioned approaches, 16 CARs, 11 CLs and 1 FAR were raised, as presented in appendix 1.

Regarding to the SC methodology, the audit team also crosschecked the sustainable development contributions presented in the SCR point one, against the documentation provided, field observations and stakeholder's interviews and found no discrepancies, For additional information regarding project implementation assessment, please refer to appendix 1.

Regarding to other GHG emission-trading program, according to the proponent, the project has not been registered nor rejected by another GHG program, neither has generated environmental credits during the monitoring period covered by the present verification. Based in the field interviews and observations and desk reviews, the VVB understands the project is not part of any other GHG emission trading program or any other mechanism that includes GHG allowance trading.

Based in the above-mentioned analysis and the CAR and CL resolutions presented in the appendix 1, the VVB deems the project implementation status is in accordance to the presented in the updated VCS PD (Ref#32) and 2nd MR (Ref#33), as well as in line with the VCS standard v.4 requirements.

4.2 Safeguards

4.2.1 No Net Harm

Based in the site visit, stakeholders interviews, project documentation review and the CAR and CL resolutions presented in the appendix 1, the VVB deems the project does not generate net harm. Also the information presented in the updated VCS PD (Ref#32) and 2nd MR (Ref#33) is in accordance to the information gathered by the VVB during site visit.

Regarding to the social, economic and environmental impacts, please refer to CAR 02 and CL 03

4.2.2 Local Stakeholder Consultation

During the site interviews, most of the stakeholders told that were not fully informed about activities carried out by PP, and the same comment was presented by the STR Breves, one of the most relevant and representative actors in the region, that showed concern about the Ecomapua Rural environmental registry (CAR) and mentioned an ongoing public ministry process on this regard.

Based in the evidences presented by the PP (The videos and minutes from the meetings on 15-August-2018 with the STR/Association of RESEX Mapuá Residents representative, and 18-August-2018), the DOE understands that most of the conflicts presented by the stakeholders is not an issue any more, in addition, most of them occurred due to lack of communication in the beginning of the land acquisition by the PP.

Based on the site visit observations, interviews as well as the above-mentioned evidences, the DOE deems that concerns regarding land tenure and natural resources access is due to lack of communication between PP and communitarians, in the past and does not configure a real issues or risks for the community rights or project development.

In addition, as presented in the CL05 responde, the project is currently undertaking an awareness-raising initiative together with the CFR school, ICMbio, IFT, and community entities, in order to better educate the communities about the REDD project and address these communication difficulties. Finally, due to the CL 02 the methodology used for the stakeholder consultation was better detailed in the SCR.

Based in the site visit, stakeholders interviews, project documentation review and the CAR and CL resolutions presented in the appendix 1, the VVB deems the project implementation is in line with the section 3.16 of the VCS standard v.4.

For more information regarding to the local stakeholder consultation, please refer to appendix 1 (CAR 02, CL 03 and CL 05).

4.2.3 AFOLU-Specific Safeguards

Based in the site visit, stakeholders interviews, as well as project documentation review, the VVB is able to verify that the PP has implemented activities to mitigate risks local stakeholders due to project implementation. The analysis' details are presented below.

Despite of some miscommunication identified during the field interviews, the VVB did not find conflicts between the **property rights** of the project proponent and the local stakeholders **land use rigths**. For a detailed assessment of this issue, please refer to section 4.3 below and CAR 04.

Regarding to the **channels of communication** and the processes used by the project proponent to communicate and consult with local stakeholders during the monitoring period, including any information about any conflicts that arose, the PP has presented in the updated MR (Ref#33), the following information:

During the FADESP research in 2002, multiple meetings and consultations were carried out with the residents of the Ecomapuá area. It became apparent that the motivation of the local families to attend the meetings was to get informed about the company's plans and proposals, while they also clearly sought to demonstrate dissatisfaction on the ban of wood extraction in the area.

Through the IAS NGO, the Ecomapuá was able to raise funds to the project area, and held several meetings with the local residents during the Fome Zero Project. It was possible to identify the main difficulties of the communities and future projects to develop the region were discussed with the families. Also, a forestry engineer visited various families in Bom Jesus community aiming to identify the company's image, represented by Mr. Lap Tak Chan.

An explanatory letter was sent to the stakeholders asking their opinion about the project. Moreover, they were also invited to attend a local stakeholders'

consultation in Breves Municipality. The local stakeholders' consultation was held on 07-February-2013 in the Environmental Agency of Breves Municipality (SEMMA).

Furthermore, the participants were informed that the period for requesting information and comments about the Ecomapuá Amazon REDD Project was open. The deadline for comments was 30 days from the presentation date, and it could be done by phone or e-mail, both of which were provided in the presentation and explanatory letters.

a permanent communication channel with local stakeholders was created in order to receive any comments or suggestions regarding the present REDD project. The SOCIALCARBON methodology will also analyze the frequency and methods used for addressing the outcomes of each local stakeholder consultation.

During the monitoring period (2013 – 2017) various meetings and stakeholder consultations were held with the local residents of the Ecomapuá area in order to explain the proposal of the company and enquire their opinion.

A continuous means of communication with stakeholders was also implemented in Rural Family House (CFR). The CFR is an educational institution created to seek a personalized education and an integral formation of the farmer, from his own reality.

During these consultations, there were two requests from the community that were attempted: the construction of a new tree nursery and the provision of two scholarships for community members. In these moments, all the comments were recorded and no negative comment was made.

Based in the abovementioned explanation, the site visit, stakeholders interviews, project documentation review and the CAR and CL resolutions presented in the appendix 1, the VVB is able to confirm with a significantly level of assurance that the project proponent has taken the appropriate measures to ensure that the project has not created negative impacts on local stakeholders, or mitigated such impacts where necessary.

4.3 Accuracy of GHG Emission Reduction and Removal Calculations

The Project Area (PA) boundary was one of the spatial data, that the audit team verified to check the accuracy of the calculus, initially the PA was overlapped with the cartographic and land tenure GIS database and was verified that the PA was

overlapping two Federal Conservation Units of the ICMBio: RESEX Terra Grande Pracuúba and RESEX Mapua, with 41,235 ha and 22,952 ha, respectively. The total overlapping area between the project area and both Federal Conservation Units is of 64,187ha, approximately 74% of the Project area.

According to the federal Law number 9985 from year 2000, which regulates the National Conservations Unit System, establishes in its article 18 that the Extractive Reserve (Reserva Extrativista) is an area used by traditional extractivists population, it´s an area of public domain with a concession of use to the traditional extractivists.

The audit team make contact with the Federal institution responsible by the management of the protected area, the manager of one area (RESEX Terra Grande Pracuúba), Ms. Simone Albarado Rabelo. Ms. Simone, by email contact, described that the institution has already denied support to the project, because of legal conditions, according with the Memorando n°51/2016/CGPT/DISAT/ICMBIO.

The audit team, also, checked with the CAR (Cadastro Ambienal Rural) Pará state database and all five project area proprieties declarations are in pending situation, because of some overlapping issue. Which was confirmed by the interviews in the Breves city with the Amorema and Sindicato dos Trabalhadores Rurais their representatives reported that the FETAGRI (Federação dos Trabalhadores na Agricultura no Estado do Pará) filled a lawsuit in the Public Ministry of Pará against the State Environment Secretary (the institution responsible by the Pará State CAR) to suspend the CAR declaration of the 3 Ecomapuá proprieties that overlap the Extractives Reserves (Mapuá and Terra Grande Pracúuba).

Also, in the mitigation strategies presented in the Land Tenure and Resource Access/Impacts of the risk assessment (ref#6), in order to support the mitigation factor of -2, the PP states: "the project proponent organized several stakeholder consultations in Breves municipality and within the project area, to which the communities within and surrounding the project area were invited, and community representatives attended" however according to the information gathered during site interviews, most of the stakeholders were not fully informed about Project activities, especially the one of the most relevant and representative actors in the region, the STR Breves that also showed concern about the Ecomapua CAR. Finally, it's worth mentioning for legal purposes (land ownership, land management and VCUs tituarity) that around 60% of the Project area is overlaping two Federal conservation unities (RESEX).

Due this findings the audit team raised the CAR#04, the proponent evidenced that has control of the project areas which was partially accepted at the time by the

VVB and must be reanalysed in the next verification event, so the audit team raised a Forward Action Request (FAR) to be checked in the next periodic verification. More details, see the appendix 1, CAR#04 and FAR #01

Parameter	Verification Findings
ACPAt Annual area within the Project Area affected by catastrophic events at year t.	The audit team verified in the field that the project had no areas affected by catastrophic events. The project proponent also did not verify in his monitoring plan areas affected by this type of event. The VVB understands the complexity of mapping this parameter via remote sensing and understands that in the scenario of the occurrence of this catastrophic event and that it may eventually have impacts on the biomass stock, it will be identified by the project's monitoring system in relation to deforestation. Therefore, the audit team attests to the compliance of this parameter with the requirements of the methodology and certification standards.
ΔCUCdPAt Total carbon stock decreases due to catastrophic events at year t.	As the main dependent variable of this parameter was monitored with a value of zero (ACPAt), therefore, the total carbon lost due to the occurrence of catastrophic events was equal to zero.
ABSLLKt Annual area of deforestation within the leakage belt at year t.	The project proponent used correctly the parameter ΔCPSLKt in the MR and is, also, considering the forest loss in the leakage management area during the monitoring period. Also, the project proponent considered in the calculation of the leakage the emissions due the activity displacement leakage, MR, table 36. Therefore, the audit team attests to the compliance of this parameter with the requirements of the methodology and certification standards.
ABSLPA,t Annual area of deforestation in the project area at year t	The project proponent performed a PD deviation correctly reported regarding the source of remote sensing data for monitoring annual deforestation in the project area, this change occurred in conjunction

	with the revalidation of the project's baseline that used MapBiomas data for the new projection of the baseline scenario. The audit team understands that the adoption of MapBiomas information for the project's baseline and for the respective monitoring adds accuracy in function of the methodology used for the annual mapping of land use and occupation, In this way, the audit team understands the compliance of this parameter with the requirements of the methodology and the certification standard.
APFPAicl,t Areas of planned fuel-wood & charcoal activities	This parameter don´t apply to this verification, because is not planned any kind of fuel-wood & charcoal activities.
ΔCPFdPAt Total carbon stock decrease due to planned fuel-wood and charcoal activities	This parameter don´t apply to this verification, because is not planned any kind of fuel-wood & charcoal activities.
ΔCADLKt Total carbon stock decreases due to displaced deforestation at year t.	The project proponent adopt the carbon stock changes due to displaced deforestation equal a zero, according to the applied methodology, it is not necessary to present strong evidence that the deforestation in the leakage belt is attributable to deforestation agents not linked to the project area, in cases where real deforestation is lower than estimated in the baseline. Due that, the audit team see the conformance in the calculus of this parameter.
ΔCPadPAt Total decrease in carbon stock due to all planned activities in the Project Area	The project didn´t planned any kind of activities in the project area that potentially would decrease the carbon stock, according with the validated PD and the MR from the 2013-2017. According to the VM0015, section 7.1.1, such activities are: planned deforestation (build project infrastructure), planned degradation (timber logging, fuel-wood collection or charcoal production).

	In this way, the audit team verified the conformance of the project in the assumption of the proponent in the calculation of this parameter.
ΔCPAiPAt Total iCARease in carbon stock due to all planned activities in the Project Area	The project didn´t planned or monitored any kind of activities in the project area that potentially would iCARease the carbon stock, according with the validated PD and the MR from the 2013-2017. According to the VM0015, section 7.1.1, such activities are those that protected without harvesting leading to carbon sequestration in forest classes at project start are below their carbon stock potential at maturity *in situ*. In this way, the audit team verified the conformance of the project in the assumption of the proponent in the calculation of this parameter.
ΔCPSLKt Total annual carbon stock change in leakage management areas in the project case.	The project proponent adopted a new leakage management area, this PD deviation was described and justified appropriately in the MR v04 in the section 3.2.2. Also, the project proponent makes available to the audit team the shapefile of the new leakage management area. With all the information provided to the VVB it was possible to attest the conformance of the calculus of this parameter in the LMA with the methodology and the standard requirements.
ΔCUDdPAt Total actual carbon stock change due to unavoided unplanned deforestation at year t in the project area.	The project proponent adopted a new value for the biomass stock that meets the requirements of the VM0015 methodology, it is a study of a renowned institution and carried out for forests similar to those found in the project area. As it is a parameter available at the time of validation (MR, section 4.1), this change was correctly reported in the monitoring report in the appropriate section of PD deviation. In this way, the audit team understands that the project proponent has met the requirements of the methodology related with this parameter.
AUFPAicl,t Areas affected by forest fires at year t	The proponent considered non-CO2 gas emissions in the project's emissions accounting, estimating the EBBPSPAt parameter and debiting the project's emission reductions in the monitored period. Conservative assumptions were adopted in this estimate, both with respect to the burned biomass and GWP data.

	It is worth mentioning that VM0015 guides the PP in section 6.2 in adopting the values of the Second Assessment Report of 1996, whereas the standard VCS guides in section 3.14.4: The six Kyoto Protocol greenhouse gases and ozone-depleting substances shall be converted using 100- year global warming potentials derived from the IPCC's Fourth Assessment Report. Thus, the PP adopted the most conservative values for calculating reductions in GHG emissions and, consequently, for credit accounting. Therefore, the audit team understands that the project is in conformity in this aspect in view of the requirements of the methodology and the certification standard, more information appendix 1, CAR#9.
ΔCUFdPAt Total carbon stock decreases due to forest fires at year t.	See verifications findings of this related parameter AUFPAicl,t and the Corrective Action Request #09.
ΔCFCiPAt Total carbon stock iCARease due to fires and catastrophic events at year t.	See verifications findings of this related parameter AUFPAicl,t and the Corrective Action Request #09.
EBBPSPAt Sum of (or total) actual non-CO_2 emissions from forest fire at year *t* in the project area	See verifications findings of this related parameter AUFPAicl,t and the Corrective Action Request #09.
EgLKt Emissions from grazing animals in leakage management areas at year *t*.	The project proponent adopted a new leakage management area, this PD deviation was described and justified appropriately in the MR v04 in the section 3.2.2. Also, the project proponent makes available to the audit team the shapefile of the new leakage management area. With all the information provided to the VVB it was possible to attest the conformance of the calculus of this parameter in the LMA with the methodology and the standard requirements.

EADLKt Total ex *post* iCARease in GHG emissions due to displaced forest fires at year *t*.	See verifications findings of this related parameter AUFPAicl,t and the Corrective Action Request #09.
RFt Risk factor used to calculate VCS buffer credits	Please refer to section 4.6 of this report
ΔCPSPAt Total ex post carbon stock change in the project case	Please refer to appendix 1, CAR#4-CAR#9.
ΔREDDt Ex post net anthropogenic GHG emission reductions	Please refer to appendix 1, CAR#10
VCUt Ex post VCUs tradable at year t	The project proponent failed to present to the audit team the map showing the cumulative areas credited within the project area to guarantee that the cumulative areas don´t generate additional VCUs in future periods, according with the part 3, section 1.3 of the VM0015 methodology. In this way, the audit team see a non-conformance in this aspect addressing the CAR#11 to this parameter.
VCBt Ex post buffer credits at year t	Please refer to appendix 1, CAR#11

The VVB understands that the methods and formulae set out in the project description for calculating baseline emissions, project emissions and leakage have been correctly followed in the 2nd monitoring report. The same understanding applies to the appropriateness of default values used in the monitoring report.

Documentation crosschecking and spreadsheets formula assessment were undertaken by the VVB in order to confirms that no manual transposition errors between data sets have occurred.

Based in the above-mentioned analysis, the site visits, stakeholders interviews, project documentation review and the CAR and CL resolutions presented in the appendix 1, the VVB is able to confirm with a significantly level of assurance the accuracy of GHG emission reductions and removals, including accuracy of spreadsheet formulae, conversions and aggregations, and consistent use of the data and parameters. The VVB also confirms that GHG emission reductions and removals have been quantified correctly in accordance with the project description and applied methodology.

4.4 Quality of Evidence to Determine GHG Emission Reductions and Removals

The reliability of the evidences and the sources used for the determination of GHG emission reductions were all assessed by the VVB, as well as the information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report.

The evidence used to determine GHG emission reductions for the monitoring period was of high quality. A series of workbooks, which contained the high-level calculations for determination of project emissions, leakage emissions and the calculation of GHG emission reductions.

Supporting evidence, includes remotely sensed imagery, data sheets and reports, was made fully available to the audit team. All of the evidence required by the methodology was found to be present during the audit team's review.

Based in the project documentation review (including spreadsheets and annexes), the CAR and CL resolutions presented in the appendix 1, the VVB is able to confirm with a significantly level of assurance the project evidences used to determine the GHG reductions and removals have sufficiecy and appropriateness of quantity. The VVB also confirms that GHG emission reductions and removals have been quantified correctly in accordance with the project description and applied methodology. For more details on this regarding, please refer to appendix 1.

4.5 Non-Permanence Risk Analysis

Internal risk assessment

Project Management

Regarding to the project management risks assessment, the PP states the following:

- the area is vulnerable to invasion by residents... for the purpose of illegal wood collection
- Two representatives of the communities within the project area are charged with supervising and reporting any events – such as unpermitted degradation or resource-use

As mitigation strategy the PP highlights its portfolio significant experience in AFOLU project design and implementation, and stated that: "The Ecomapuá Amazon REDD Project applies the SOCIALCARBON® Standard for forest projects, which include, as the relevant tool specifies, "processes for monitoring progress and documenting lessons learned or corrections that may be needed" to justify the mitigation score". In addition, states that the project also has an action plan in place, where five high-priority actions were identified to diminish the buffer. Please refer to CL 10

based on the documentation review and data provided (please refer to section 2.2 of this report), the stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the applied risk score, as reasonable and applicable to the project. For more information on this regarding, please refer to CL 01 and CL 08

Financial Viability

Regarding to the Financial Viability risks assessment, the PP states that the Project cash flow breakeven point is greater than 10 years, once the project has a very low income from project activities and revenues from the sale of GHG credits. In addition, states that the Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven and the project currently does not have available callable financial resources to cover the total cash out, before the project reaches breakeven. Finally the PP believes not having a

mitigation strategy for this risk, once the project currently has no callable financial resources. therefore the risk rating adopted for this section is 6.

based on the documentation review and data provided (please refer to section 2.2 of this report), stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the risk score, reasonable and applicable to the project. For more information on this regarding, please refer to CL 09

Opportunity Cost

Regarding to the project management risks assessment, the PP states that the NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities, once Baseline activities in the project area are subsistence driven and the project is investing into social projects including a technical school and tree-nursery. To support this statement PP presents the certification of the Açaí as the main achievement obtained by Ecomapuá and the communities during this monitoring period and also the courses to the local community about procedures of organic production and certification of Açaí, with lectures about the organic practices, sustainability, and health and security on the process. For additional information regarding the verification of this risk component, please refer to CL 06, CL 07.

Regarding to the mitigation strategy the PP states that Ecomapuá Conservação Ltda. is not a non-profit organization, and the project is not protected by any legally binding commitment to continue management practices, thus the final score for this risk was set as 0.

Based on the documentation review and data provided (please refer to section 2.2 of this report), stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the risk score, reasonable and applicable to the project. For additional information regarding the verification of this risk component, please refer to CL 06, CL 07.

Project Longevity

Regarding to the project longevity risks assessment, the PP states the following goals are stated in the PP Social Contract: "conservation of forests" and "development of sustainable development projects, clean development mechanisms, carbon sequestration", which demonstrates the long term commitment to conservation by means of this legal agreement registered in federal and state government institutions. In addition, around 74% of the project area overlaps with two federal protected areas (RESEX), which emphasizes the requirement to continue the management practice.

According to risk report calculation tool: VCS Version 4 any project with a legally binding agreement that covers at least a 100-year period from the project start date will be assigned a score of zero.

based on the documentation review and data provided (please refer to section 2.2 of this report), stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the abovementioned assumptions, reasonable and applicable to the project.

Based on this, the risk rated calculated by the tool (0), was deemed in line with the monitored period under analysis.

Considering the assessment presented above, the total internal risk stated as 6 was deemed suitable by the VVB, for the monitored period under analysis.

External risk assessment

Land Tenure and Resource Access/Impacts

Regarding to the Land Tenure and Resource Access risks assessment, the PP reports the following:

- the residents' claim to land does not involve any property titles or documents on their part... the heart of the issue is deemed to be use of resources, rather than land tenure
- in 2005 the Brazilian Government issued a decree to acquire two of the properties,

Fazenda Brasiliera and São Domingos, in order to use them as extractives reserves. Although the property owner, Lap Chan, was willing to sell the properties, the payment to acquire them was never received.

- The extraction of timber and palm heart is not officially licensed, and as such there exists a dispute about access rights in the properties

And concludes that, although disputes over access/use rights still exist within the project area and referred a score of 5 for this risk component, however ponders that this risk decreased when compared to the first monitoring period due to initiatives taken by the project proponent.

In terms of mitigation strategies, the PP considers there is no legally binding contract to continue the management of the area. On the other hand, it considers that projects have implemented activities to resolve the disputes or clarify overlapping claims by two seminars held, on the 6th April 2002 and 3rd/ 4th May 2002, in the Breves House of Culture, which 40 residents of the area attended. That helped to clarify Ecomapuá's good intentions to the residents, besides a sustainable family agriculture project called "Projeto Fome Zero" was implemented by the Instituto Amazônia Sustentável (IAS) NGO in conjunction with UFRA and Petrobrás, starting in 2005 and continuing in the two subsequent years. One of the project's main aims is to resolve access/use rights relating to natural resources disputes by implementing a viable and replicable model of capacity building for family agriculture, through improvement of infrastructure and techniques relating to sustainable forest use.

In addition, the PP states the following activities as part of the strategy to overcome the disputes over land and resources in the Project area:

- Construction of tree nurseries
- Program for Natural Resource Education on Ilha Marajó, Pará, Brazil", developed by University of Georgia in 2010, where students from UG worked together with the teacher at São Benidito and Bom Jesus communities. Together they developed a program for children of the community which would also become a part of the larger adult education program.
- Creation of the community cooperative named COAMA and the organic

certification of the açaí

- Monthly financial donation for the main school in the region: Casa Familiar de Breves,

Based on the documentation review and data provided, more specifically to the ref# 7, 8, 18 (please refer to section 2.2 of this report), stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the risk score (5), and the mitigation strategy score (-2), are reasonable and applicable to the project. For additional information regarding the verification of this risk component, please refer to CAR 02, CAR 04, CL 03, CL 05 and CL 06

Community Engagement

Regarding to the community engagement risks assessment, the PP states the following:

- The FADESP (2002)[13] socio-economic study which took place in the project area, aimed to consult 100% of project area families.
- During the monitoring period (2013 – 2017) various meetings and stakeholder consultations were held with the local residents of the Ecomapuá area in order to explain the proposal of the company and enquire their opinion
- the Mayor, Deputy Mayor and his secretariat were consulted between April and September 20023, these individuals are the legal representatives of the population of Breves municipality, where approximately 60% of the project area is located.
- Communities were consulted during the February 2013 meeting in the Environmental Agency of Breves Municipality (SEMMA) and in 2014 within the project area. The president of the Amorema Association (Associação Amorema) attended, who is the representative of all the Mapuá River communities.

Based on this the PP stated that over 50% of households living within the Project area, who are reliant on the project area have been consulted.

[3] Fundação de Amparo e Desenvolvimento da Pesquisa (FADESP) (2002), 'Comunidades Agroextrativistas do Rio Mapuá – Breves/PA, Diagnóstico Socio-Econômico".

Regarding to the households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, the PP stated that the consultations with the surrounding community have been carried out, specifically through the "Fome Zero 2003" program, however this was estimated not to reach the 20% of total households within 20km of the project area. In the other hand, the PP highlights that the communities were consulted during the meeting in the Environmental Agency of Breves Municipality (SEMMA) in February 2013 and in 2014 within the project area, where the president of the Amorema Association was present, in name of the Mapuá River communities.

As the mitigation strategies, the PP presents the following:

- "A proportion of funds from the sale of carbon credits will be used for socially and environmentally beneficial programs run by the NGO working in the project area: The Institute Amazônia Sustentável".
- "The mission statement of the Fome Zero projects is: to develop a viable and replicable model of capacity building for family agriculture, through improvement of infrastructure and techniques relating to sustainable forest use, in order to create permanent and temporary jobs for the local community".
- "Besides forest conservation, the present project aims to improve and quantify its social and environmental benefits through application of the SOCIALCARBON® Methodology,

Based on the documentation review and data provided (please refer to section 2.2 of this report), stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the risk score (-5), reasonable and applicable to the project. For additional information regarding the verification of this risk component, please refer to CL 03, CL 05, CL 06, CL 09, CL 11.

Political Risk

Regarding to the project management risks assessment, the PP has found the value of - 0.075 for the governance score as per the World Bank Institute Worldwide Governance Indicators for Brazil, taking into the consideration the average of the six WB indicators for the last five available years, between 2012 – 2017.

As mitigation strategy, in order to justify the score -2, the PP explains that the jurisdiction in which the project is located, that is, Pará, Brazil, that is participating in the Governors' Climate and Forest Taskforce (GCF)[4].

based on the documentation review, as the The Worldwide Governance Indicators (WGI) project of the World bank and additional information provided (please refer to section 2.2 of this report), the VVB team deems the rationale, assumptions and justification adopted to support the risk score (2), and the mitigation strategies score (-2), are reasonable and applicable to the project.

Based on this, the political risk rated stated as 0 is deemed suitable for the monitored period under analysis.

Natural risk assessment

Natural Risk (e.g., Fire, Pest and Disease outbreaks, Extreme Weather)

Regarding to the natural risk significance, the PP assumes that:

- **Fire** damage may be considered insignificant because it impacts less than 5% loss of carbon stocks within the project area.
- There is no record of any **pest and disease outbreak** in the project areas of the Ecomapuá Amazon REDD Project, thus the significance is = 0.
- **Extreme Weather**, as strong winds, affects less than 5% of carbon stocks
- No **geological events** damaging the project site were reported therefore the G category significance = 0.

For the likelihood the following assumption was considered:

- **Fire**: INPE sources[5] report that Marajó Island is a minimal fire risk area. Local communities who live inside the project area commonly use fire to clean the areas for planting manioc, however, according to communities 'opinion, the likelihood of fire events within the project region is less than every 10 years.
- **Pest and Disease Outbreaks**: There are no recorded instances of pest and disease outbreaks within the project area in 100 years. Therefore the likelihood = 0.
- **Extreme Weather** – the likelihood of extreme weather was determined using a search of the Brazilian National Institute of Meteorology (Breves Station). During the monitored period, the wind speed has never exceeded 5 m/s, (categories of tropical storm or hurricane). According to

[4] Available at: <https://gcftf.org/member-states/>. Last visited on 10-February-2018.

[5] http://www.inpe.br/queimadas/abasFogo.php

local communities, the likelihood of strong winds causing damage to the forest is less than every 10 years.

- **Geological Risk** – The region has no report of geological incidents and the Global Seismic Hazard map places Marajó Island in the lowest category of risk. Therefore, G category likelihood = 0.

- **Other Natural Risk** – no other sources of natural risk were identified in interview or literature sources.

Based on the documentation review and data provided (please refer to section 2.2 of this report), stakeholders interviews (please refer to section 2.3 of this report), as well as field observations, the VVB team deems the rationale, assumptions and justification adopted to support the risk scores and mitigation scores , reasonable and applicable to the project. For additional information regarding the verification of this risk component, please refer to CAR 4 and CAR 09.

Based in the above-mentioned analysis, the site visits, stakeholders interviews, project documentation review and the CAR and CL resolutions presented in the appendix 1, the VVB is able to confirm with a significantly level of assurance the overall risk rating determined by the project proponent is credible and does not underestimate the project risks.

4.6 SOCIALCARBON Results

4.6.1 Social Resource

Indicator	Extent of community education/training and alternative income sources
Situation	The Ecomapuá Project has made financial donations to the main school of the region since the beginning of 2017: Casa Familiar Rural de Breves (Rural Family House of Breves). It is located within Bom Jesus Community and carries outvocational training of young and adult rural producers. The entity offers medium-level course integrated to professional education at EJA (Education of Young Adults): technical course in forests. The donations have the aims of

	buying food for students and are essential for the maintenance of CFR courses, with 80 students. With the aims of investing in açaí organic production and certification, Bio Assets provided courses to the local community about the procedures of organic production and certification of açaí: Lectures about organic practices, sustainability, and health and security for the process. The company also provided the course "Technological Training of Enterprises for Solidarity" for a community member, called Admilson Rodrigues Barbosa. It was realized by ITS/UFRA. Considering that in the Mapuá region there are nine different communities, Ecomapuá carried out activities with one of them, covering 11% of them.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	1				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CAR 02 and CL 02				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	2. Social Research
Situation	Community satisfaction survey: There is a continuous contact with COAMA (23 cooperative members), with an opened means of communication, where

	the local community can make any comment or complaint about The projects that affect them. Furthermore, there are site visits for the Açaí Organic Certification held twice a year and stakeholder consultations, when cooperative members opinions are collected. All comments are received and analyzed, what helps to define future activities and the action plan. On these events, no negative comments were made. Some request were made, and some of them were attempted: the construction of a new tree nursery, provision of university schoolarships for community members, and monetary donations for CFR entity. This way, the community is satisfied with the project and its benefits. During the stakeholder meetings, an open channel of communication with stakeholders are released, which could be through the website or telephone, then the community can make any request or complaint.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	2				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 05				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	3. Associations and cooperatives
Situation	During the period analyzed, COAMA Cooperative ("Cooperativa de agricultores do Rio Mapuá e Aramã") was

	created to foster peace and inclusion at the community and promote sustainable. development. It has 23 members, and its main members are: Mr. Janari (president), Mr. Galo (manager), Mr. Aluisio (coordinator) and Ms. Micheli Marques (organic production process manager). Furthermore, a cooperative called AMOREMA was founded in 2006 but it includes only people living on the opposite river bank to the project area. Approximately half of the cooperative members live in the project area.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB deemed the above mentioned description acceptable and in line with the adopted score.				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	4. Social Satisfaction
Situation	During this monitoring period, multiple meetings and consultations were carried out with the residents of the Ecomapuá area. It became apparent that the motivation of the local families to attend the meetings was to claim for improvements on the community, as the construction of a new tree nursery, provision of university scholarships for community members, and monetary donations for CFR entity, which were attempted. This way, the community is satisfied with the project and its benefits, as shown in the stakeholders' consultations held, once there wasn't any negative comment about the project.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	5				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 05				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	Community Education and Training
Situation	Organic production and certification course/2015-2017: With the aims of investing on Açaí organic production and certification, Bio Assets provided courses to the local community about the procedures of organic production and certification of Açaí: Lectures about the organic practices, sustainability, and health and security on the process. Technical course in Forests: The Ecomapuá Project provided financial donations (since the beginning of 2017) to the main school of the region: Casa Familiar Rural de Breves (Rural Familiar House of Breves). It is located at Bom Jesus Community and acts in vocational training of youths and adults rural producers. The entity offers medium-level course integrated to professional education at EJA (Education of Young Adults): technical course in forests. The donations has the aims of buying food for students and it is essential for the maintenance of CFR courses, with 80 students. Technological Training of Solidary Enterprises: The company also provided the course "Technological Training of Solidary Enterprises" for a community member, called Admilson Rodrigues Barbosa. It was realized by ITS/UFRA.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approach and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 06				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	Health				
Situation	During the process of Organic Production and Certification, there were lectures for the community about safety practices on the production process				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	2				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 06				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8,				

	9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

Indicator	Leisure, culture and sport				
Situation	The Ecomapuá Company donates R$ 1,500.00 per month to CFR, investing on education. CFR promotes courses to people from the community. The project has also given scholarship at University for two community members. The company maintains a soccer field in Fazenda Santo Amaro, which is also available for people living in other communities within the Mapuá region to come and play, encouraging sport on the community.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB deemed the above mentioned description acceptable and in line with the adopted score.				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	Equipment and infrastructure
Situation	The following investment in infrastructure was made in the period analyzed: Forestry Nursery: The Ecomapuá company built a new tree nursery for the local communities. The community is responsible for the production of seedlings, focusing on native species with high commercial value. These seedlings are planted in degraded

	areas, which in addition to promoting environmental recovery, contributes to income alternatives generation to the community.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	5				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 02 and CL 06				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

4.6.2 Financial Resource

Indicator	Alternative income sources
Situation	During Point Zero, it was observed that the projects undertaken generated alternative income sources; however, most of the activities were abandoned by the communities. Despite that, during this Point period, Ecomapuá's choice of backing açaí as an alternative source is because we believe it is a choice the communities will maintain with the aims of promoting a good income source for the local community. This way, in concert with COAMA, Ecomapuá invested on Açaí organic production and certification. The company provided courses for the local community about the procedures of organic production and certification of Açaí, with lectures about organic practices, sustainability, and health and safety during the process. Twice a year, Bio Assets was responsible for the inspection of COAMA to get the certification, with site visits, where they can also carry out the stakeholders consultation.

	Furthermore, Bio Assets was responsible for the creation of Amzn's, an online store to sell the producers' products (https://amzns.myshopify.com/), which helps considerably in the communication of the products, and consequently to sell them to a specific market. A project called "Projeto Virola" was also developed, involving sustainable harvesting of the oil obtained from virola, pracaxi, andiroba and other native seeds, and for the medicinal properties of the species, such as Virola surinamensis (Roll) Warb. The plant is classified as 'Endangered' in the IUCN Red List of Threatened Species23. Furthermore, seedlings from this tree and other commercially valuable species were produced in the tree nursery by the local community, who collected seeds within the region and started planting together with their production.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6

Score	3
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 06 and CL 07
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

Indicator	) Employment opportunities
Situation	Two representatives of the communities within the project area are charged with supervising and reporting any events, such as unpermitted degradation. Their names and properties of responsibility are as follows: Aluísio, Fazenda Bom Jesus and Manduca, Fazenda Vila Amélia. The representatives call Mr. Chan

	monthly and in return they receive financial help although they are not officially contracted. Also, the IAS NGO hired two employees formally documented to work in securing of funds and carry out activities in Ecomapuá communities. Starting in 2014, Ecomapuá Ltda. was instrumental in the creation of the COAMA community cooperative, which legalizes and organizes the employment status of 22 producers, with the aim of producing organic açaí among other NTFPs. The aim is to expand this sustainable business model to all the REDD project areas in future years.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6

Score	3
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 08
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report..

Indicator	) Securing of funds
Situation	In the period analyzed, Ecomapuá company conducted many RFQs (Request For Quote) with different institutions, as listed below: - Santander 2017 (It was sold the amount of 14,570 VCUs) - Natura and Itaú 2017 (It had no success) - Ipiranga – Carbono Zero 2016 (It had no success)

	- Davina - Proposal of private funding 2015 (It had no success) - Global Forest Watch - GFW Small Grants 2015 (It had no success) - The Bill & Melinda Gates Foundation - Grand Challenges Explorations (GCE) 2014 (It had no success) - Itaú – ItaúEcomudança2014 (It had no success) - AMCHAM – Eco Prize 2014 (It had no success) - MMA (Fundo Nacional Sobre Mudança no Clima) – FINEP Prize 2014 (It had no success).)

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6

Score	4
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB deemed the above mentioned description acceptable and in line with the adopted score.
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

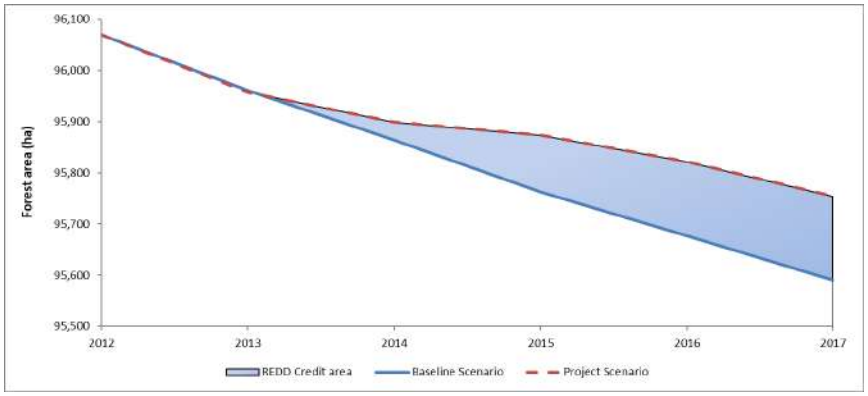
Indicator	Carbon credit investment:
Situation	During this Monitoring Report, the recorded volume of credit sales from 22-January-2015 (date when the first final verification report was issued) until 31-December-2017 was 323,413 VCUs. The income received from carbon credits sale for Ecomapuá was about R$ 1,113 thousand. Meanwhile, the funds invested into the project between 2013 and 2017 are estimated at R$ 588 thousand, being 53% of the income from carbon credits.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CAR 03, CL 09				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 7, 8, 9, 10, 11, 12, 13, 18 and 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

4.6.3 Natural Resource

Indicator	Monitoring Methods				
Situation	Two representatives of the communities within the project area deliver periodic reports to the project proponent, who is responsible for managing the monitoring, quality control and quality assessment procedures: Mr. Lula and Mr. Manduca. Also, they are in charge of supervising and reporting any events, such as unpermitted degradation, to Mr. Chan. Despite that, Ecomapuá company also uses satellite surveillance images to monitor illegal deforestation. To compensate the deforestation observed, the two forest nurseries constructed by Ecomapuá company provide seedlings of native species to reforestation of degraded areas.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3				

	and 2.4 of this report). Based on that the VVB deemed the above mentioned description acceptable and in line with the adopted score.
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 13, 15, 16, 17, 18 e 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

Indicator	Efficiency of project in countering agents of deforestation/degradation				
Situation	Projected deforestation in the baseline (January, 2013 – December, 2017 period): 479.48 ha. Real deforestation in the corresponding monitoring period (January, 2013 – December, 2017 period): 315.43 ha. Comparing: 315.43/479.48 = 65.79%. See below the graphic comparing the Baseline with the Project scenario:  Actual deforestation levels over monitoring period were 65.79% of baseline predictions for the period.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	3				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some				

	inconsistences were found and need addressment. Please refer to CL 04
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 13, 15, 16, 17, 18 e 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

Indicator	Non-timber forest products (NTFPs)				
Situation	Ecomapuá company provided courses regarding the extraction of non-timber forest products to community members, as the Açaí Organic Production course, where the community was thought the organic procedure, sustainability on the production process and safety practices in the organic process. As it can be observed, between 2013 and since 2016, the açaí production iCAReased. The values for açaí collection are iCAReasing, given that this is a legal activity which is encouraged in the project area. It is important to note that açaí-related activities are not a deforestation agent as they do not cause trees to be cut down. On the other hand, açaí production has been positively correlated with forest conservation in a study of Pará state. The main achievement obtained by Ecomapuá during this monitoring period was the organic certification of the Açaí produced by communities living within the project area. The project owner provided courses to the local community about the procedures of organic production and certification of Açaí, with lectures about the organic practices, sustainability, and health and security on the process. An independent certification is responsible for the inspection of organic production twice a year, conducting site visits and also performing stakeholder's consultation. Furthermore, the project proponent was responsible for the creation of Amzn's, which is an online store to sell communities' products (mainly organic açaí) from the project area (https://amzns.myshopify.com/), helping the promotion and marketing of those products.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6

Score	3
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 06
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 13, 15, 16, 17, 18 e 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

4.6.4 Biodiversity/Technology Resource

Indicator	Biodiversity research				
Situation	During this monitoring period, Ecomapuá company has conducted two biodiversity researches of flora in the region: Non-wood forest products: There was made a wide survey on non-wood forest products and comprehensive data was collected. This study was taken in partnership with Beraca (2015). Diagnosis of the açaizeiro population: It was realized at the request of Bio Assets/Ecomapuá Ltda. by César Pinheiro of IFT. It also includes survey of other timber species. This study was made in partnership with IFT (2017).				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB deemed the above mentioned description acceptable and in line with the adopted score.				

Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 13, 15, 16, 17, 18 e 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

Indicator	Biodiversity conservation				
Situation	During this monitoring period (2014), in partnership with CFR, Ecomapuá company constructed a new forestry nursery. This initiative enabled other activities, such as the recovery of degraded areas with native trees. This tool of work has a singular meaning and importance, once it contributes for the stage of the graduating students of the Integrated High School (Technician in Forest). Also, courses were provided to the local community aiming to generate an alternative income source to the local communities replacing the timber harvesting, as the Organic production and Certification of Açaí.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 06				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 13, 15, 16, 17, 18 e 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	Tree nursery and maintenance of planted trees

Situation	The Ecomapuá company built another tree nursery in 2014. The two of the mare available to the local communities. One of them has the capacity of ten thousand seedlings per year, and the other one 1,500.The native trees are used to cover degraded areas, however, there is no control over the number of trees produced/planted in both of them The CFR, which receives donations monthly from Ecomapuá Company, produces seedlings and uses them for reforestation on degraded areas.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	2				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB deemed the above mentioned description acceptable and in line with the adopted score.				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 13, 15, 16, 17, 18 e 19. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

4.6.5 Carbon Resource

Indicator	Project performance				
Situation	Regarding the 2013 – 2017 period: Units verified in the Monitoring Report: 196,090 tCO2e Estimate of emissions reductions in the VCS PD6: 296,256 tCO2e Project performance = 66%				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6

[6] According to the project description deviations detailed in the MR, there were some errors in the baseline projections of the VCS PD. Thus, the emission reductions estimated in the VCS PD during the 1st baseline period were corrected and recalculated.

Score	4
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 04
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 1, 2 and 3. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

Indicator	Buffer reduction				
Situation	Buffer in the VCS PD (Second baseline period): 10% Buffer in the MR: 10% The buffer is currently at the minimum VCS requirements.				
Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6
Score	4				
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CL 06				
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 1 and 6. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.				

Indicator	Stakeholder consultation methodology

Situation	During the period analyzed various meetings and stakeholder consultations were held with the local residents of the Ecomapuá area in order to explain the proposal of the company and enquire their opinion. A frequency of more than one stakeholder consultation per year was observed, once stakeholders consultations were made in several moments of the monitoring period: During the validation of the project, a formal stakeholder consultation was held in Secretaria Municipal do Meio Ambiente (Municipal Secretary of the Environment), with the presence of community members, AMOREMA, SEMAGRI, SEMA, SEMMA, Ecomapuá Conservação, Sustainable Carbon, Nativa Florestal and TUV Rheinland (2013). Consultation about the community opinion concerning the project (2013); A lecture at UNOPAR – North of Pará University was carried to expose the project activity to the community (2014); A formal stakeholder consultation was held in Fazenda Bom Jesus, with the presence of community members, AMOREMA, UFRA-Belém, GIZ, Ecomapuá Conservação, Sustainable Carbon and RINA. It was carried to know the community necessities and try to find a way to meet them. As a consensus, the entities involved agreed to have a closer relationship and formalize a partnership with the aims of providing more benefits to the community (2014); In the meetings with the community for the Açaí organic certifications, which happened twice a year (between 2015 and 2017)there was a consultation about the community's opinion; And in the CFR, there is a continuous means of communication (2013 2017). During these consultations, there were two requests from the community that were attempted: the construction of a new nursery and the provision of two scholarships for community members. In these moments, all the comments were recorded and no negative comment was made.

Description of Scenario 1	Description of Scenario 2	Description of Scenario 3	Description of Scenario 4	Description of Scenario 5	Description of Scenario 6

Score	6
Justification	The audit team during the site visit has undertaken field visits, interviews with stakeholders and revision of the documents provided by the PP regarding to this indicator (please refer to sections 2.2, 2.3 and 2.4 of this report). Based on that the VVB understands the PP approaches and assumptions for this section, however some inconsistences were found and need addressment. Please refer to CAR 02, CL 03, CL 05
Evidence	Evidences collected during the site visit through field observations, stakeholders interviews and desk review of the documents ref# 1 and 6. For more details please refer to sections 2.2, 2.3 and 2.4 of this report.

5 ANALYSIS OF SOCIALCARBON RESULTS

5.1 Current Performance

Resource	Critical	Satisfactory	Sustainable	Average Score	Performance
Social	50%	25%	25%	3.0	Satisfactory
Human	25%	50%	25%	3.8	Satisfactory
Financial	0%	75%	25%	3.5	Satisfactory
Natural	0%	100%	0%	3.3	Satisfactory
Biodiversity/Tech	33%	67%	0%	3.3	Satisfactory
Carbon	0%	33%	67%	5,3	Sustainable

The social carbon parameters were assessed by the audit team by document review (please refer to sections 2.2), site visit observations (please refer to sections 2.4) as well as interviews with project stakeholders, as residents of the project area, partners and local institutions (please refer to sections 2.3). Based on the analysis the VVB

understand that the project concept was well developed and with great potential to reach the sustainability and becoming an example of successful REDD case, however still has some important issues to overcome. The VVB identified that the main weakness, that can affect negatively its performance, can be summarized in three issues, as follow:

- An apparently overestimated baseline model projection, as presented in CL 04 and CAR 10
- Disputes by land tenure and natural resources between project proponent and traditional communities, as presented in CAR 02;
- Overlapping between project area and the RESEX Mapuá, a conservation unit of sustainable use that do not allow private property as presented in CAR 04

On the other hand, the validation team believes that, once these issues are addressed, the project will be able to stablish an effective governance, benefiting not only the project proponent with carbon revenues, but also the communities within the project area.

5.2 Historical Performance

Social	Point Zero	Point One	Point Two	Point Three
	2.0	*3.0*	-	-
Historical Analysis of Social Resources: In Point Zero, the most notable point in the Social resource was the NGO foundation, IAS, and the partnerships established by the Ecomapuá company with different actors. The partnerships resulted in positive actions carried out in the Mapuá region, such as a detailed social/economical/environmental research in the area. During the research it was possible to do a diagnosis of the region, and consult the communities' opinions about the implementation of a sustainable development project in the Ecomapuá area. Community dissatisfaction was observed within the project area during the first monitoring period, due to the ban on harvesting timber, which had been their primary source of income. Thus, during this monitoring period, Ecomapuá company worked in alternative income sources, as the açaí				

organic production, which was the main one. This alternative had success in its commercialization, and the community is satisfied. Also, there was created an association called COAMA Cooperative ("Cooperativa de agricultores do Rio Mapuá e Aramã") which was created to foster peace and inclusion at the community and promote sustainable development.

Human	Point Zero	Point One	Point Two	Point Three
	3.8	*3.8*	-	-

Historic Analysis of Human Resources: In the first monitoring period, the most notable point in the Human resource was the courses provided to local communities. A high investment from Ecomapuá company into courses to encourage alternative income sources and new livelihoods in the local communities was observed. It is important to note that six different courses were provided to three different communities. In Point One, there was a great contribution to the education by providing courses to the local community about the procedures of organic production of Açaí and technical courses in Forests.

Also, in Point Zero, the entrepreneur's investments in infrastructure and equipment for benefit the Mapuá communities stands out, such as a boat acquisition for the Bom Jesus community and the construction of different structures for the community perform different activities, such as tree nursery, aviculture, vegetable gardens, planting of commercially valuable tree species, among others. In this monitoring period, there was constructed a new tree nursery and a seeds dryer.

During FADESP research a total absence of public services was observed, which impacts directly the communities' health. The Ecomapuá company carried out isolated initiatives, such as hiring a doctor to provide medical assistance to community members. In this monitoring period, the project provided lectures about health and security in the organic production process.

There are isolated initiatives to encourage sport activities, such as the soccer field in Fazenda Santo Amaro, which is also available for people living in other communities within the Mapuá region to come and play.

Financial	Point Zero	Point One	Point Two	Point Three
	2.5	*3.5*	-	-

Historical Analysis of Financial Resources: The most notable point in the Financial resource was the different projects carried out by Ecomapuá company to create alternative income sources for the local communities. An important one was the project "Developing a Program for Natural Resource Education on Ilha Marajó, Pará, Brazil", which taught adults in the communities how to raise and plant commercially valuable tree species as part of their normal manioc

production so that they can harvest and sell trees for cash on the next cultivation cycle.

The production of commercially valuable tree species in the tree nursery, and the planting of those seedlings together with the normal crop production, was the most significant alternative income source created by Ecomapuá for the communities living within the project area, who maintained the activity during the analyzed period. Some companies acknowledged their interest in purchasing this production.

During Point One, the focus was the Açaí Organic Certification, which generates a good income source for the community. Bio Assets provided courses to the local community about the procedures of organic production and certification of Açaí, with lectures about the organic practices, sustainability, and health and security on the process. Two times a year, Bio Assets was responsible for the inspection of COAMA to get the certification, with site visits, where they can also hold stakeholders' consultations.

Natural	Point Zero	Point One	Point Two	Point Three
	2.7	*3.3*	-	-

Historical Analysis of Natural Resources: A particular point of the Natural resource was the Ecomapuá investments regarding Non-timber forest products. Ecomapuá company provided two courses regarding extraction of non-timber forest products to community members: Seeds collection and sustainable management of açaí. Also, the company have a thematic online store to sell Amazon products, mainly the organic açaí, called Amzn's.

During the first SCR period, just one monitoring method was used for detecting degradation. The use of one more method, such as GIS, is clearly necessary. The deforestation levels were 32% of baseline predictions for the period. During this monitoring period, there was used satellite surveillance images and periodic reports provided by representatives of the communities to monitor the deforestation. In Point One, the levels were approximately 26% of the baseline predictions, representing a decrease on the deforestation in the area.

Biodiversity	Point Zero	Point One	Point Two	Point Three
	3.0	*3.3*	-	-

Historic Analysis of Biodiversity Resources: During the first monitoring period, a particular point of the Natural Resource category were the formal partnerships with research bodies established by Ecomapuá company to conduct studies of flora in the region. During the period analyzed, the company carried out activities aiming at biodiversity conservation, such as courses promoting and constructing a forestry nursery.

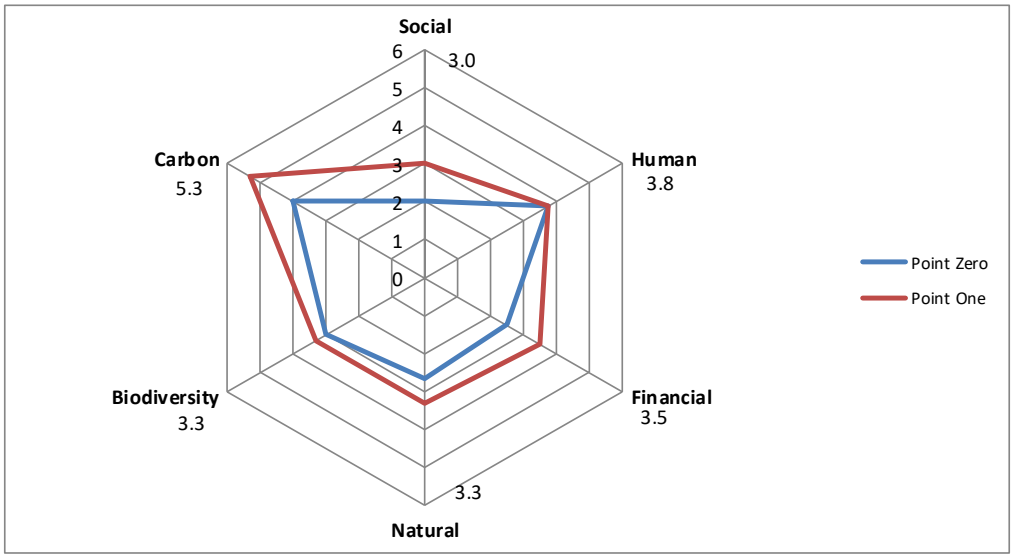
Ecomapuá company built a new tree nursery, what enabled other activities, such as the recovery of degraded areas with native trees. Also, the CFR, which receives monthly donations from Ecomapuá Company, produces seedlings and uses them for reforestation on degraded areas.

Carbon	Point Zero	Point One	Point Two	Point Three
	4.0	*5.3*	-	-

Historic Analysis of Carbon Resources: During the first monitoring period, the project performance was good: 93% of carbon credits predicted for the period were generated. In addition, a 12% buffer reduction was verified when comparing the monitoring period to the VCS PD. During the current monitoring period, the project performance was 105%, and there was a reduction of 29% in the buffer analysis.

In relation to stakeholders' consultation, various meetings and consultations were held with the local residents of the Ecomapuá area in order to explain the proposal of the company and enquire their opinion. In point One, there was at least one stakeholder consultation per year and all the community members were invited to improve the relationship between the company and the residents of the area.

5.3 Performance Hexagon



Score Resource	Point Zero	Point One
Social	2.0	3.0

Human	3.8	3.8
Financial	2.5	3.5
Natural	2.7	3.3
Biodiversity	3.0	3.3
Carbon	4.0	5.3
General	3.0	3.7

6 VERIFICATION CONCLUSION

As a final verification report, this document brings the final conclusion regarding the Verification period: From from 01-January-2013 to 31-December-2017

SOCIALCARBON verification period: From from 01-January-2013 to 31-December-2017

Based in the above-mentioned analysis, site visits, stakeholders interviews, project documentation review, as well as the CAR and CL resolutions presented in the appendix 1, the VVB understands the project complies with the verification criteria for projects and their GHG emission reductions set out in VCS Version 4, including any qualifications or limitations. The VVB also confirm that the project has been implemented in accordance with the project description and subsequently validated variations, as well as VCS standard v.4 requirements.

Regarding to the SCS requirements, as presented in section 4.5, above and appendix 1, the VVB deems the project fully complies with the verification criteria for projects set out in the SOCIALCARBON Standard.

Finally the VVB states with reasonable level of assurance that the quantity of GHG emission reductions in tCO2 equivalents reported by the updated Monitoring Report and calculus spreadsheet (Ref#33 and Ref# 36, respectively) are real and additional, compared to that expected to occur in the baseline scenario, without project activities.

Verified GHG emission reductions and removals in the above verification period are presented in the table below.

Verified GHG emission reductions and removals in the verified period:

Year	Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Net GHG emission reductions or removals (tCO2e)	Buffer pool allocation	VCUs eligible for issuance
2013	113,778	93,332	0	20,446	2,472	17,975
2014	102,985	56,125	18	46,843	4,975	41,867
2015	100,745	32,718	0	68,027	6,965	61,061
2016	85,997	51,192	0	34,805	3,787	31,017
2017	85,646	59,654	23	25,969	2,949	23,019
Total	**489,151**	**293,020**	**41**	**196,090**	**21,149**	**174,939**

Appendix 1. Clarification requests, corrective action requests and forward action requests

Table 1. **Remaining FAR from validation and/or previous verifications**

Finding	FAR 01		
Classification	☐ CAR	☐ CL	☒ FAR
Description of finding *(DOE)*	According to the VVB in the validation report: *"It would be interesting to present the maps of deforestation occurred in the Project Area so separates for each farm"*		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Deforestation maps for each property composing the project area were presented in the MR.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The DOE confirms to have accessed the deforestation map for the entire project area		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	FAR 02		
Classification	☐ CAR	☐ CL	☒ FAR
Description of finding *(DOE)*	74% of project area is overlapping in two Sustainable Use Conservation Units, this issue must be re-evaluated in the next monitoring period, due the evidences presented by the proponent: 1- The overlapping areas were not expropriated, characterizing the owner (Ecomapuá) as a direct possessor of the properties, according to Brazilian Civil Code, art. 1.197, direct possession is marked by temporality, since as part of the implementation process of the Conservation Units created, the areas owned by Ecomapuá should be expropriated. In this way, it will be necessary to reassess this issue in the next monitoring period.		

	In addition, the proponent must present at the next verification the follow update documents: • the updated documentation of the rural property, given that the updated certificates of the rural properties issued by the land office registry of Breves have more than 10 years. • Updated Certificate of Rural Property Registration (CCIR): the proponent presented the protocols requesting updating of the documentation, however, the land agency (INCRA) has not responded so far. • Rural Environmental Registry (CAR): updated without overlapping documentation. • the updated status of the disapropriation process. Thus, due the fact that there isn´t any conflict related to the territorial context beetween the direct possessor (Ecomapuá) and indirect possessor (ICMBio and communities), the VVB had evidence it through interviews, information collected in the field and data provided by the proponent. So, the audit team understands that the ownership of the credits related to the monitoring period analyzed is from Ecomapuá.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	
Conclusion *Tick the appropriate checkbox*	☒ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☐ The finding is closed

Table 2. CL from this verification

Finding	CL 01		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	There are two statements presented in the registered PD that are contradictory: *"conservation activities involve the banning of logging in the project area as of the*		

	project start date" and ," *low-impact logging is being considered by the management of Ecomapuá Conservação as a future income source*"
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The sentence described in the VCS PD "*conservation activities involve the banning of logging in the project area as of the project start date*" should refer to illegal logging activities, rather than logging in general. On the other hand, the sentence "*low-impact logging is being considered by the management of Ecomapuá Conservação as a future income source*" should refer to reduced impact logging carried out under sustainable forest management plan for communities, which was considered at an early project stage, however it has not been implemented.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, the DOE understands the context of each sentence and deems that they make sense with the project proposal. CL 01 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 02		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	It is not clear how the "*seedlings planted in degraded areas*" are able to "*contribute to income alternatives generation to the community*", as stated in the SCR point 01 (ref#24) "Equipment and infrastructure".		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The seedlings cultivated include açaí palm trees and other commercially valuable species, which are planted on the community members' plots of land. Açaí already brings the communities regular income. The other commercial species grown include pracaxi, patauá, muru-muru, ucuúba, and many more, for which markets are being explored, and some will probably bring income in the future. This information was better detailed in the SCR.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, the DOE assessed the version 2 of SCR and confirms this issue was clarified. CL 02 is closed.		

Finding	CL 02
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 03		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	The SCR (ref#24), states that: "*During the consultations, there were two requests from the community that were attempted: the construction of a new nursery and the provision of two scholarships for community members*", but does not explain whether others communities requests were done, neither presented to the VVB associated evidences, e.g. the minutes of these meetings, invitations, etc.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	In 2017, the CFR high school requested donations to Ecomapuá to provide meals for 80 local school children. Monthly donations have been made to support the CFR high school since mid-2017, with the exception of a few months, due to the school being closed because of strikes and lack of government funding. In addition, the COAMA cooperative members requested support for their administrative and organic certification costs, which has been provided. Furthermore, in 2014 the community requested the necessary materials for the construction of a tree nursery, which has been provided. Monthly donations have been made to a young woman of the Mapuá river for the continuation of her studies. Donations to support health needs of various community members have been requested, which were made on a case-by-case basis. This information was better described in the SCR. The receipts relevant to all these transactions have been made available for the VVB team (Annex 5A and Annex 5B).		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	DOE understands that the community as a whole was encompassed, once the CFR high school and COAMA cooperative are representative institutions of the project area. Addition information was included in the SCR v.2 regarding this issue. However the PP does not explain the methodology used for the stakeholder consultation as required in section 21 of the SCR. Also according to the SCR v.2 section 4.1 the PP states "monthly donations have been made to a young woman of the Mapuá river for the continuation of her studies" notwithstanding the annex 5a presents only two donations of R$100 in august 2016 and January 2017. In addition in the same section the PP states "The Ecomapuá Project has made financial donations to the main school of the region since the beginning of 2017"		

	however the annex 5a presents only two donations of R$1500 in October and November 2017.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The methodology used for the stakeholder consultation was better detailed in the SCR. In addition, the frequency of donations for the young woman and for the CFR high school was corrected in the SCR.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, in the updated SCR_Ecomapua_Point01 (Ref #34). the PP provided additional information regarding the methodology used for the stakeholder consultation. Also the frequency of donations for the young woman and for the CFR high school was corrected in this new version of the SCR.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 04		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	It is not clear the suitability of the baseline deforestation model adopted. The annual deforestation rate predicted for the monitored period in the reference region as presented in the VCS MR Calculation Ecomapua_period 02_01 01 13_31 12 2017_v01v.1 is 3,35%. This is much higher than the observed in the monitored period (0,47%) and suggests a significant overestimation of the baseline. In addition, it is not clear the effectiveness of the project activites, considering that the deforestation rate monitored in reference region (without the Project activities) was very similar to that found for the Project area (0.43%/year). Finally, corroborating to this understanding, similar rate was observed for the leakage belt (0,45%/year).		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The reference region is currently adapting to sustainable economic activities, mainly açaí production, which are helping to reduce deforestation rates. According to IBGE, although timber, firewood and palm-heart harvesting continue to be the main economic activities during the 2003-2012 period (which was the period when the baseline model was calculated), a significant change could be observed as from 2014. As described in the MR, a 10% reduction in wood production (both firewood and timber) in the project reference region occurred during the monitoring period (2013-2017). Similarly, palm-heart production reduced around 27% over the same period. On the other hand, the main increase verified in the economic activities in the region during the current monitoring period was from açaí berries. According to IBGE, in 2016, for the first time, açaí represented more than 50% of the total production value within the municipalities composing the reference region, surpassing timber		

	and firewood values. In addition, during the current monitoring period, the açaí economic value is growing at a rate of more than 2%/year. These trends are in accordance with the observed reduction in deforestation in the region. PRODES data show that deforestation rates in the Amazon biome, and in the municipalities of the reference region have also decreased comparing the first baseline period (2003-2012) with the monitoring period (2013-2017). Since 2014, the project proponent has promoted açaí commerce in the project area and reference region through the creation of a cooperative named COAMA and the achievement of the organic certification. Furthermore, several courses have been provided to the local community about the procedures of organic production and certification of Açaí, with lectures about the organic practices, sustainability, and health and security on the process. While both the project area and reference region display decreasing deforestation rates due to sustainable economic activities, the effect will be greater within the project area than in the reference region, as large-scale initiatives are currently underway to promote a sustainable economy, with influential partners such as ICMbio, IFT, Universities and, most importantly, community cooperatives.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The VVB understands the rational presented to support the high rates of deforestation in the reference period and its drop after the project start, however, more structural issues was identified in the baseline calculus (VCS MR Calculation Ecomapua_period 02_01 01 13_31 12 2017_v02) that suggests that the second baseline might be over estimated. Please refer to CAR 10. This CL is closed but the issue remains opened in CAR 10
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 05		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	The SCR (ref#24) in its section "social resources", "social satisfaction" and "Stakeholder consultation methodology", in order to support the maximum score (#6), the PP states: "the community is satisfied with the project and its benefits, as shown in the stakeholders' consultations held, once there wasn't any negative comment about the project". However, in the Land Tenure and Resource Access risk assessment, the PP states: "the residents' claim to land does not involve any property titles or documents on their part... the heart of the issue is deemed to be use of resources". In addition, it is not clear the extension of these benefits or which communities received them during the monitoring period under verification,		

	especially considering that residents estimated more than 800 families in the Mapua river, most of them within the project area. It is not clear the coverage of these consults (how many communities or families were consulted) and where these communities are, once no map of the communities was presented, in addition, no evidences of these meetings and its results (e.g.: minutes of meetings), were presented to the verification team. Finally, during site visit and stakeholders interviews, most of the community members have demonstrated not to have enough information about the project or its activities and also showed concerns about land tenure and natural resources access after the Ecomapua lands purchasing in 2001.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	During the last monitoring period, there were some specific project activities carried out in partnership with UFRA University and Petrobras. Communities were directly involved in these project activities; however, it seems like it is difficult for them to associate these activities with the REDD project. Since the beginning of Ecomapuá's activities within the project area, the company's main intention was to carry out environmental activities that brings possibilities of generation of alternative income sources to local communities, without affecting in anyway the ownership of the land or right to use natural resources by local communities. However, it should also be noted that Ecomapuá has never supported illegal logging activities, which is not a legal practice. This inference is reinforced by report conducted by FADESP (2002), who collected interviews in which residents stated that they could no longer harvest timber within the project area, and also from the protests and complaints observed in certain communities due to the prohibition. Regarding the extent of the benefits from these project activities, the reports relevant to the projects carried out with Petrobrás and UFRA University have been made available to the VVB team, which state all the beneficiaries (Annex 1 and Annex 6). In addition, the activities implemented by Ecomapuá within the project area reinforce that Ecomapuá never raised concerns with local communities about land tenure and natural resources access. After the acquisition of Santana Madeiras by Ecomapuá in 2001, it was natural that the communities had some doubt about Ecomapuá's real intention in the area. However, after more than 18 years of direct activity in the region, Ecomapuá has never questioned the community or raised concerns about land tenure and natural resources access issues. Thus, the overall situation about the understanding of the communities about the objectives of Ecomapuá has improved over the years. Furthermore, videos and meeting minutes will be made available for the VVB team, particularly, the meeting at the CFR school (16-August-2018), and those involving the STR (15-August-2018), clearly show that the communities are indeed aware of these projects (Annex 7).

	Furthermore, public consultations were carried out during the first monitoring period, key representatives of the communities and relevant institutions were invited (Annex 7). The project is currently undertaking an awareness-raising initiative together with the CFR school, ICMbio, IFT, and community entities, in order to better educate the communities about the REDD project and address these communication difficulties. The meeting minutes and videos, which have been made available for the VVB team, show the meetings at the CFR school, Lago do Jacaré communities, and ICMBio's managers of RESEX Mapuá and Terra Grande Pracuúba for evidences of the extent of social initiatives and also that no concern about land tenure and natural resources access has ever been raised by Ecomapuá.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Based in the evidences presented by the PP (CFR school and STR meetings` minutes and videos of august 2018), the DOE understands that most of the conflicts raised in this CL occurred due to lack of communication. The DOE deems that after verification site visit a better communication between PP and communities, as well as, between PP and STR and ICMBio, was set. The DOE also understands that there is no real conflict between PP and communities regarding land tenure or resources access (despite of some misunderstandings from the communities due to lack of communication, occurred in the past). However taking into consideration the lack of communication during the monitored period and the doubts spread in some communities members during the verification site visit, suggest that the maximum score (#6) for this indicator might be overestimated for the monitored period.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The score was corrected in the indicator "social satisfaction" of the SCR to better reflect the real situation during the monitoring period.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	In the section "social resources" item "social satisfaction" the score were adjusted from 6 to 5 to better represent the currently situation for this component. While the Stakeholder consultation methodology was improved and evidences were presented in annex 7 (ref#29).
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 06		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	The SCR (ref#24) in sections "human resources", "financial resources", "natural resources" and "biodiversity resources" lists several courses and benefits provided		

	to the communities. However, it does not specify the number of community members or families had access to these benefits, neither which communities received them, especially considering that there are more than 800 families according to the residents estimative, most of them within the project area.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	According to the SCR Point 1 report, the following courses were provided to Ecomapuá communities during the 2013-2017 period: - Organic Production and Certification – 22 participants from Bom Jesus community; - Technical Course in Forests – 80 participants from Bom Jesus community; - Technological Training of Solidary Enterprises – 1 participant from Bom Jesus community. Considering that in the Mapuá region there are nine different communities, Ecomapuá carried out activities with one of them, achieving 11% of the total.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok the information required by this CL was informed, CL 06 is closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CL 07**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	The SCR (ref#24) in sections "financial resources" the PP refers to "*projeto virola*" however does not explain in what this project consists of (e.g.: training courses, physical infrastructure, prospecting new markets, etc...) and at what stage it is by the time of the 2nd monitoring period. As per the field observation and stakeholders interviews, this project refers to a compensatory initiative undertaken by a log company in the past and not active anymore.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Projeto Virola was an attempt, in the year 2016, to expand the range of products that the COAMA cooperative could supply, include them in their organic certification, and to open up new markets for the cooperative. These non-timber forest products were: ucuúba, pracaxi, pataúá, muru-muru, and andiroba. The stakeholders interviewed are probably confusing it with a different and far older project. The buyer was Beraca, a prominent player in the Brazilian natural products market. The project progressed to an advanced stage, with the money being transacted, however, due to issues within the community, the product was never delivered and		

	a refund had to be enacted. Receipts and further proofs of this are available if required.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok the DOE undestands the explanation provided by the PP regarding the Virola project and deems that CL 07 can be closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 08		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	The SCR (ref#24) in sections "financial resources" the PP states: "*Two representatives of the communities are charged with supervising… they receive financial help although they are not officially contracted" and "COAMA… legalizes and organizes the employment status of 22 producers*". It is not clear what kind of labor relationships were stablished and if they are in accordance to the national labor legislation. In addition, the PP lists only two employees formally documented, hired by IAS NGO, but does not explain the relationship between the project and the IAS.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	No labour relationship exists. COAMA is an independent cooperative, responsible for its own decisions and management. However, COAMA's establishment as a legal entity was financed and administrated by the project proponent, as well as its organic certification. In this way, the legal constitution of the cooperative with its 22 members was supported in a fundamental way by the project. COAMA's independence is considered by all parties concerned to be the best option, as it represents business freedom and independence. As for the two representatives of the community who assist the project proponent, they are paid on a freelance basis. These are not project employees but assistants. This confusion of terms was corrected in the SCR. The IAS NGO did not hire any employee. The two employees that were hired by the project proponent to work in securing of funds and carry out activities in Ecomapuá communities were: David Swallow and Ana Laura Tomaz.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective*	The DOE understands the explanation and the non-existence of labor relationship between community members and project proponent. The adjustments done in section "Employment opportunities" of the SCR v.2 is deemed in accordance to what was observed during the verification site visit. The CL 08 is closed		

action and DOE assessments (#2, #3, etc.) shall be added.	
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 09		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	The PP states in section "Carbon credit investment" of the SCR (ref#24), an income of carbon credits of USD165 thousand and investments in the project estimated at USD886 thousand. However the audit team during the project interviews was informed that around 500 thousand VCUs from the 1st verification period were commercialized, based on this, and considering that the PP did not provide the project budget, the audit team is not able to assess the consistence of the statement presented in the SCR.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The recorded volume of credit sales from 22-January-2015 (date when the first final verification report was issued) until 31-December-2017 was 323,413 VCUs, which is controlled through an internal spreadsheet by Sustainable Carbon. This volume can also be verified in the Markit and APX registries. The income from carbon credits sale for Ecomapuá was about R$ 1,113 thousand. Meanwhile, the funds invested into the project between 2013 and 2017 are estimated at R$ 588 thousand. The evidences of the project budget will be made to the VVB team (Annex 2). Furthermore, the SCR indicator "Carbon Credit Investment" was updated accordingly.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, the Carbon Credit income and project disbursement was clarified in the SCR v.2, however the referred annex 2 (project budget) was not presented to the VVB it is not clear if the spreadsheet presented in annex 5 is supposed to be the referred project budget		
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The project budget during the monitoring period will be made available for the VVB team.		
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, in order to address the last pending issue related to this CL, the PP has presented for the VVB assessment, the document "Budget Ecomapuá_2013-2017" (Ref#35)		

Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 10		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(DOE)*	In the risk assessment report (ref #6), the PP talks on an "Action Plan… (where) five high-priority actions were identified to diminish the buffer". However, the verification team was not able to find this document among the project documentation provided.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The Action Plan was developed after the conclusion of the first verification, pointing out the actions that need to be done in order to decrease the non-permanence risk and increase the scores of Social Carbon indicators. The Action Plan was made available for the VVB team (Annex 4).		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The Action Plan (Annex 4) was not presented to the VVB team		
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The Action Plan will be made available for the VVB team.		
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok the Action Plan pointing out the actions that need to be done in order to decrease the non-permanence risk and increase the scores of Social Carbon indicators, was presented to the VVB (Ref#39)		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CL 11		
Classification	☐ CAR	☒ CL	☐ FAR

Description of finding *(DOE)*	The project proponent adopted two methodologies deviations that are similar, but not the same. The adoption of the deviation was due to the fact of cloud cover obstructing in the years 2002 and 2012 images (MR, v01, section 2.2.1). The VM0015 methodology in the section 2.4.1, indicates some technical approaches to solve this issue, such as: radar, aerial photographs, field surveys; and suggests to the project developer to consults the GOFC-GOLD sourcebook for REDD or consults experts or literature. For the year 2002, the project proponent assumed that the deforestation was zero; but, to solve the same issue to the year 2012, the project makes the average deforestation of the years 2011 and 2013 equal to the deforestation of 2012. Hence, there exists an inconsistency from the methodological approaches adopted by the project proponent to solve the clouds cover issue to the Reference Region. The project proponent didn´t use the methodology orientation to address this issue and didn´t presented any kind of literature that corroborates with the project proponent approaches. The project proponent, has not demonstrated that both approaches do not impact in the conservativeness of the quantification of the GHG emissions reductions (according with the VCS Standards, v3.7).
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The methodology deviations in question were included in the previous Monitoring Report regarding the first monitoring period, Section 2.2.1, which described the different approaches utilized to solve the problem of not having good-quality satellite images for the years 2002 and 2012. The different methods utilized for these years were considered by the VVB team that was conducting the previous verification as the most appropriate approaches to not impact the conservativeness of the GHG emission reductions estimates. All satellite images from the year of 2002 had cloud cover obstructing over 80% of the scenes, which made classification impossible. Thus, deforestation values were quantified based on the deforestation in the 2001 – 2003 period. The most conservative approach utilized was to assume deforestation in 2002 as zero and the deforestation value in the year 2003 was considered as being the accumulated in the 2001-2003 period. This occurred due to two reasons: a) 2002 was within the first baseline period, so the most conservative approach was to assume deforestation in this year as zero because it would reduce baseline emissions and consequently, reduce emission reductions over the first crediting period; b) Furthermore, the year of 2003 was within the first monitoring period, thereby the accumulated deforestation between 2001-2003 in the year 2003 would be accounted as project emissions, reducing emission reductions in the first monitoring period. Regarding the year of 2012, an error with the Landsat satellite sensor occurred, resulting in images also being unavailable for this year. Deforestation values were

	quantified based on the deforestation in the 2011 – 2013 period. The most conservative approach utilized was to divide the deforestation in the 2011 – 2013 period into equal parts among the years 2012 and 2013. The main reason was because 2012 was within the first monitoring period, so assuming deforestation in 2012 as zero would reduce project emissions and increase GHG emission reductions in the last monitoring period, which would not be conservative. Both methodology deviations have been approved by the VVB and by the VCS accuracy review. Therefore, the difference in approach in classification between 2002 and 2012 did not impact the conservativeness of GHG reduction projections. The Section 2.2.1 of the MR – Methodology Deviations – was updated describing that according to VCS rules, previously approved methodology deviations shall be reported in all subsequent MR.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, there isn´t any methodology deviation regarding to the second monitoring report (scope of this verification process). So, according to the VCS rules the proponent reported in the verification report the methodology deviations related to the first monitoring period. In this way the VVB is closing the finding in this CL.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Table 3. CAR from this verification

Finding	**CAR 01**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The description of tables 11 and 12 of the MR (ref#2) are incorrect.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The descriptions of Tables 11 and 12 were corrected in the MR.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, tables 11 and 12 of the MR v.2 were corrected, CAR 01 is closed		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	**CAR 02**

Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The following extracts were identified by the audit team while reviewing the documents: 1. "**Diagnostico Socio Economico das Comunidades Rio Mapua_2002**" (ref#8): *"a ordem de proibição da exploração de palmito, madeira e abertura de clareiras para a realização de roças, por parte da empresa Ecomapuá, a qual se intitula proprietária das terras – propriedade questionada pelo representante do Sindicato Rural e pela comunidade do Jacaré (se recusou a participar do estudo) – causou aborrecimentos, transtornos e ampliou as dificuldades de sobrevivência das comunidades. Por isso, é necessária uma solução negociada para o problema, envolvendo a participação dos interessados (Empresa, Sindicato, Comunitários, Poder Público, Igreja etc)"* 2. **Master thesis "dinamica e desenvolvimento da agricultura familiar caso vila amélia breves_2003"** (ref#7): "*No final dos anos 90, retoma-se a discussão sobre o direito de propriedade na área. Os moradores são comunicados que as terras foram vendidas para um grupo de empresários brasileiros. Reacendem-se novamente os conflitos pela posse da terra na região. Algumas comunidades resistem aos novos proprietários…"* 3. **Study "IFT_Prospecção Manejo Florestal RESEX Mapuá_2012"** (ref#18), statements: *"A criação da Resex ocorreu devido a mobilização das famílias residentes na região a partir de 1999, quando uma empresa denominada Ecomapuá iniciou planos para aglutinar algumas dezenas de moradores em torno de uma Reserva de Desenvolvimento Sustentável particular em regime de concessão governamental por um período de cem anos (PINTO, 2008 apud RENÓ et al, 2010). Esta ação provocou receios nas comunidades ribeirinhas do rio Mapuá que temiam serem expulsas das áreas que residiam há gerações."*. In addition, during the site interviews, most of the stakeholders told that were not fully informed about activities carried out by PP, and the same comment was presented by the STR Breves, one of the most relevant and representative actors in the region, that showed concern about the Ecomapua CAR and mentioned an ongoing public ministry process on this regard. Land conflicts and natural resources access are a critical issue for the project risk assessment as a whole. However, based on these mentioned interviews with stakeholders as well as the above mentioned studies, the PP has not provided evidences that these issues have been solved (or at least been addressed and being		

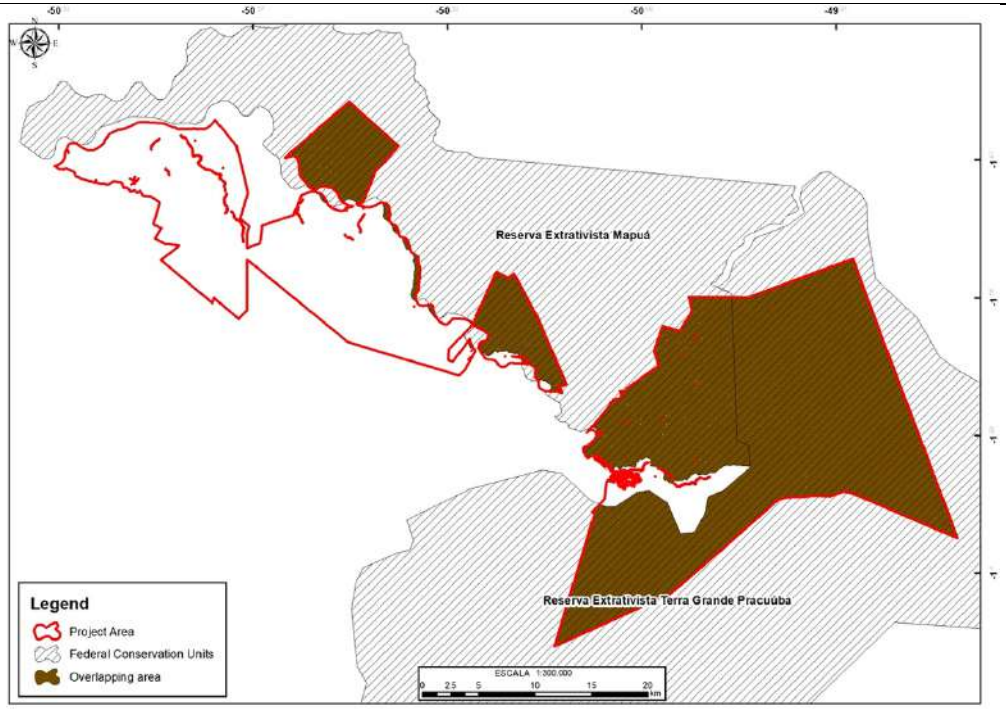
	monitored), in order to be in line with the social carbon assumptions as well as the VCS Non-Permanence Risk assessment (ref#6).
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	After the acquisition of the properties where the project area is located, in 2001, Ecomapuá's main intention was to carry out environmental and social activities that brings possibilities of generation of alternative income sources to local communities, as detailed in the company's Social Contract objectives. However, it was natural and understandable that the communities had some doubt and distrust about the new landowner and Ecomapuá's real intention in the area. Some criticisms were received, as illustrated by the three extracts mentioned above by the VVB team, most of them based on poorly understood interpretations of realities. However, Ecomapuá has been working for more than 18 years in the region, and the company has never questioned the community or raised any concerns about land tenure and natural resources access issues. No community member has been removed from their land, on the contrary, communities have been supported through programs and incentives the project proponent has instigated. Several social and environmental projects have been developed within the project area since the beginning of activities in 2001, however all these activities did not affect in anyway the ownership of the land or right to use natural resources by local communities. Ecomapuá tried to reach the maximum communities as possible in the region, which were directly involved in these project activities; however, it seems like it is difficult for them to associate these activities with the REDD project. Nevertheless, it is important to note that the understanding of the communities about the objectives of Ecomapuá has improved over the years, and the overall situation has improved compared to what it was in early 2000's. Furthermore, it should also be noted that since the beginning of its activities in the region, Ecomapuá has never supported illegal logging activities, which is not a legal practice. Thus, the "prohibition" of harvesting palm heart and timber by Ecomapuá was in fact only reinforcing what was already present in Brazilian law. Regarding the STR opinion, it is important to highlight that Ecomapuá is the official owner of the land as documented in official and legal property documents. According to legal requirements, the execution of the CAR process was obligatory for all properties, and it should be conducted by the project owner within the appropriate legal timeframe. STR is a political entity, with its own goals, which often cause it to position itself in political opinions. The videos and minutes from the meetings on 15-August-2018 with the STR/Association of RESEX Mapuá Residents representative, and from 18-August-2018, particularly the RESEX Manager's comments on STR/Association of RESEX Mapuá Residents' reluctance to cooperate with ICMBio, serve to illustrate the

	conflicts between these organizations that act within the RESEX Mapuá (Please see Annex 7).
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Based in the evidences presented by the PP (The videos and minutes from the meetings on 15-August-2018 with the STR/Association of RESEX Mapuá Residents representative, and 18-August-2018), the DOE understands that most of the conflicts presented in this CAR is not an issue any more, in addition, most of them occurred due to lack of communication in the beginning of the land acquisition by the PP. Based on the site visit observations, interviews as well as the above-mentioned evidences, the DOE deems that concerns regarding land tenure and natural resources access is due to lack of communication between PP and communitarians, in the past and does not configure a real issues or risks for the community rights. Finally, the DOE confirms that Ecomapuá is the official owner of the land, as documented in official and legal property documents (CCIR and Ecomapuá social contract), even considering that this documents are not updated (please refer to CAR 4), accessed by the DOE in the PP´s office in São Paulo (ref #27). The CAR 02 is closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 03**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	In the SCR point one (ref#24), the parameter financial was incorrectly quoted in the performance quantification, as presented in the table of results (0%, 75%, 0%). The total does not reach 100%		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The performance quantification of the financial parameter of the SCR was corrected.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok the performance quantification of the financial parameter of the SCR was rectified. CAR 03 is closed.		
Conclusion	☐ To be checked during the next periodic verification		

Tick the appropriate checkbox	☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 04		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	It was reported by the local's resident and by the project proponent Cesar Pinheiro, a common event of strong winds which open areas inside the forest in the reference region. Near from Aramã river, this kind of event occurred in 2017; also, the local community from the Lago do Jacaré reported that it occurred a forest fire that affected a considerable area and almost reached the local's houses. In this way, the project proponent has failed in monitoring this kind of events (ACPAt - Annual area within the Project Area affected by catastrophic events at year t) in the project area during the verification period. Also, this is the first parameter monitored that appear in the section 3.2 of the MR, that is directly dependent of the Project Area and in this way was conducted an GIS analysis of the Project Area boundaries. The audit team compared the Project Area boundaries with the ICMBio Conservation Units boundaries shapefile and verified an overlapping area between the project area and two federal conservation units: RESEX Terra Grande Pracuúba and RESEX Mapua, with 41,235 ha and 22,952 ha, respectively. The total overlapping area between the project area and both Federal Conservation Units is of 64,187ha, approximately 74% of the Project area, see figure below.		



The federal Law number 9985 from year 2000, which regulates the National Conservations Unit System, establishes in its article 18 that the Extractive Reserve (*Reserva Extrativista)* is an area used by traditional extractivists population, it´s an area of public domain with a concession of use to the traditional extractivists.
The audit team make contact with the Federal institution responsible by the management of the protected area, the manager of one area (RESEX Terra Grande Pracuúba), Ms. Simone Albarado Rabelo. Ms. Simone, by email contact, described that the institution has already denied support to the project, because of legal conditions, according with the *Memorando n°51/2016/CGPT/DISAT/ICMBIO*.
The audit team, also, checked with the CAR (Cadastro Ambienal Rural) Pará state database and all five project area proprieties declarations are in pending situation, because of some overlapping issue, according to the respective receipts of declarations:

PA-1501808-3EC68E1ED74A4E1FBCE07788BEAB521B;
PA-1501808-6FAF9D228C4F4B6B9DB0C970949E5A59;
PA-1501808-42302E4B58F343D98A336B012228E9F3;
PA-1501808-AD1B59AFC704428EB1D1234EE048BE75;
PA-1501808-E9EC9556BE8A4A42911A074631F3A1EB

	During the interviews in the Breves city with the Amorema and Sindicato dos Trabalhadores Rurais their representatives reported that the FETAGRI (*Federação dos Trabalhadores na Agricultura no Estado do Pará*) filled a lawsuit in the Public Ministry of Pará against the State Environment Secretary (the institution responsible by the Pará State CAR) to suspend the CAR declaration of the 3 Ecomapuá proprieties that overlap the Extractives Reserves (Mapuá and Terra Grande Pracúuba). Also, in the mitigation strategies presented in the Land Tenure and Resource Access/Impacts of the risk assessment (ref#6), in order to support the mitigation factor of -2, the PP states: "the project proponent organized several stakeholder consultations in Breves municipality and within the project area, to which the communities within and surrounding the project area were invited, and community representatives attended" however according to the information gathered during site interviews, most of the stakeholders were not fully informed about Project activities, especially the one of the most relevant and representative actors in the region, the STR Breves that also showed concern about the Ecomapua CAR. Finally it's worth mentioning for legal purposes (land ownership, land management and VCUs tituarity) that around 60% of the Project area is overlaping two Federal conservation unities (RESEX). Due this fact, the audit team understand that the project proponent doesn´t have the control in all the project areas in which the GHG emissions reductions accounted, so is in non-conformance with the requirements of the VM0015 and with the VVM, v3.2, in the section 3.2.1, affecting all the calculations of parameters monitored in the MR in the second monitoring period that depends of the project area.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Santana Madeiras Ltda. was the previous owner of all properties composing the project area. On 19/07/2001, Ecomapuá Conservação Ltda. was created and acquired the company Santana Madeiras Ltda. with the following goal: "development of sustainable development projects, clean development mechanisms, carbon sequestration". This acquisition was consolidated through an amendment of the company's social contract, which defined the new company's shareholders and changed its legal name from Santana Madeiras Ltda. to Ecomapuá Conservação Ltda. The Social Contract serves to illustrate that the Santana Madeiras company was the owner of the lands in the past, and only the shareholders and company name were changed. This document will be made available to the VVB team. Mapuá Extractive Reserve was created in 2005 and Terra Grande Pracuúba Extractive Reserve was created in 2006, both by Federal Decrees. Both Reserves were created based on social interest for disappropriation purposes. Law number 4,132/62 regarding disappropriation provides for a timeframe of 2 years for indemnification to be provided to the proprietor, otherwise the decree lapses. Ecomapuá has not received neither land tenure immission, nor declaration of expropriation, or payment of compensation since the creation of these Reserves. Thus, the decrees of social interest that authorized the creation of both Extractive Reserves had their effects ceased on 21-May-2007 (Mapuá) and 06-June-2008 (Pracuúba). The Ecomapuá Amazon REDD Project was validated based upon these premises.

	Given the above, no disappropriation of the properties occurred. Furthermore, the land tenure and the ownership of environmental assets (carbon rights) were addressed by lawyer Dr. Celso Coccaro for the present REDD project activity. After a vast analysis of the circumstances involving this issue, his team concluded that the Federal Decrees that created both Extractive Reserves lost their effects due to expiration, according to the biennial term established by Law 4,132/62. In addition, the REDD carbon project implemented by Ecomapuá Conservação Ltda., which has been active for more than 17 years, is compatible and fully inserted in the idea of extractive protection, being in line with Extractive Reserves objectives. Therefore, project ownership is demonstrated by property right of the land, which assures that conservational process that generates GHG emission reductions and/or removals are from Ecomapuá Conservação Ltda. ownership. Proof of title documentation will be made available to the VVB team. The validity of Ecomapuá's property titles has already been verbally supported by ICMBio Mapuá Extractive Reserve Manager, Mr. Serafim, in the meetings on 15-August-2018 in Breves and 17-August-2018 at Lago do Jacaré properties. Regarding the relationship in the past between the project proponent and ICMBio, a 2014 interview with the former Resex Mapuá manager, Giovanni Salera Jr., as published on this blog, serves to clarify its positivity and functionality. The CAR process for all properties is being conducted within the appropriate legal timeframe. Ecomapuá duly pays all taxes on all five project area proprieties, therefore the execution of the CAR process was obligatory. Therefore, Ecomapuá carried out the CAR of all properties according to legal requirements. The project conducted meetings with the ICMbio RESEX Manager Luiz Serafim, and the STR/ AMOREMA representative Benedito Charles da Silva Almeida on 15-August-2018. Further meetings were conducted in collaboration with Mr. Serafim in both the lower and upper Mapuá regions, on 16 and 17 August, with extensive collaboration on community issues discussed. Furthermore, the *Memorandum n° 51/2016/CGPT/DISAT/ICMBIO* refers to the *Memorandum n° 238/2016/GABIN/DISAT/ICMBIO.* The latter states that ICMBio has been notified by Brazilian Minister of Environment (*Ministério do Meio Ambiente*) to deny support to any forest carbon project. The justification is that REDD projects developed at a project level are not in accordance with the National Strategy for REDD+ (ENREDD+), because it may result in double counting with payment for results with Governmental initiatives for deforestation control. However, it is still not clear what types of measures the Brazilian Government will make to implement REDD+ and coordinate the national, sub-national and private sector efforts, in order to guarantee that safeguards are in place. It is important to note that the ENREDD+ was established by Ordinance n° 370 from 02-December-2015, thus after the validation of the present project activity.

	Several forest carbon projects have been developed in Brazil, most of them following the Verified Carbon Standard. REDD projects are one of the only payments for environmental services that private landowners can get for the conservation of their lands in Brazil. Based on the carbon market, such initiatives are a very important method for deforestation reduction in a project level, being incentivized by all Brazilian State Governments within the legal Amazon, members of the GCF Task Force. As a result, disagreements between federal and state government agencies are in place, resulting in a lack of definition regarding financing, benefit-sharing and safeguards for local initiatives. As an example, the States of Acre and Mato Grosso implemented their Jurisdiction and Nested REDD+ Programs. Therefore, there are significant obstacles to the implementation of ENREDD+. Finally, a strong partnership is in the making between Ecomapuá ICMbio, with the following subjects discussed and already put into action: collaborative creation of a cooperative in the upper mapuá region; financial support by of ICMbio by Ecomapuá for relevant trip expenses and administrative costs, using carbon credit revenue; and resolution of the overlap issue.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The VVB has visited the ecomapua office in Sao Paulo on 17th August 2018, in order to check the land tenure documentation. Regarding to the land ownership, the PP presented the following: The Law number 4,132/62 states that land disappropriation must be indemnification in a deadline of 2 years, otherwise the decree lapses. Ecomapuá has not received neither land tenure immission, nor declaration of expropriation, or payment of compensation since the creation of these Reserves (2005 for RESEX Mapuá and 2006 for RESEX Terra Grande Pracuúba). Thus, the decrees of social interest that authorized the creation of both Extractive Reserves had their effects ceased on 21-May-2007 (Mapuá) and 06-June-2008 (Pracuúba). Based on the abovementioned and support documentation provided to the auditors as annex 3, 7 and 8 (Ref# 28, 29 and 30), the VVB deems that the land tenure, as well as the right over the carbon credits, remain in possession of the PP. Notwithstanding, some issues still need to be addressed in order to close this CAR, as follow: 1. It is not clear the discrepancy in the areas stated in the property deed, annex 3 (Ref# 28), presented by the PP and the verification report (table 1), the discrepancy was observed in all properties; 2. All the land tenure certifications are older than 10 years; 3. It is was not presented the updated CCIRs from 2017. The PP provided the CCIRs from 1998/99, and the most recent one (sto. Amaro farm) is from 2002. 4. The PP presented several documents and meeting records regarding the communication and alignment between project proponent, director of RESEX Mapuá, STR Breves and population within the Project area. Based on the site visit interviews, registries and documentation, as annex 3, 7 and 8 (Ref# 28, 29 and 30). It is the VVB opinion that the main stakeholders have the same understanding regarding the Ecomapuá land ownership, resex prerrogatives and project activities, however did not provide any documentation or meeting records for the RESEX Terra Grande Pracuúba.
Corrective Action or	After the acquisition of Santana Madeiras Ltda., Ecomapuá Conservação Ltda. hired a duly qualified engineer

clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	to carry out technical appraisals of all properties, which were developed according to the best available technology at that time. These technical appraisals contain all topographic plans, descriptive notes and definition of the perimeter coordinates for each property. However, differences were observed in the sizes of the areas compared to what is described in the land tenure documentation. Thus, Ecomapuá opened a formal request to INCRA in order to update the size of all properties according to the technical appraisals. An example of the request submitted to INCRA in 2000 will be made available to the VVB team, which was submitted to Fazenda Vila Amélia, however the same documentation for the other farms were also submitted concurrently. In addition, Ecomapuá also requested INCRA to update all CCIR documentation. However, due to the bureaucracy of the entity, Ecomapuá has never received any response about the updating of the properties' areas. Ecomapuá made a personal check in INCRA about the status of this process and found that all properties' areas were updated in accordance to the technical appraisals. However, no formal response from INCRA has been obtained regarding this update on the size of the properties. An example of the INCRA's response for Fazenda Bom Jesus, which was never received by Ecomapuá, will be made available to the VVB team. In 2018, Ecomapuá protocolled a new request in INCRA asking for a response about this matter, which will be made available to the VVB team. Thus, Ecomapuá is still waiting for this update by INCRA regarding the size of the properties, which is necessary to obtain the updated ownership documentation. In addition, the notary office requires a previous approval from INCRA in order to update the land tenure certification. It is important to note that Ecomapuá has not made any transactions of its properties since their acquisitions. Therefore, in order to define the properties boundaries for establishing the carbon project area, the coordinates, limits and azimuths that are described in the technical appraisals of each property were utilized. It is important to note that these technical appraisals were the most accurate documents available that contained all coordinates of properties boundaries. Furthermore, these documents were already under possession and approved by INCRA in order to update the size of the properties; however, the delay for receiving a response from INCRA was not expected by the project proponent. According to the Annex IV of the validated VCS PD, the vectorization and edition of the boundaries described in these technical appraisals through azimuths, landmarks and distances had to be carried out in order to define the project area. The procedures to define all properties' boundaries composing the Ecomapuá Amazon REDD Project, which are described in the Annex IV of the VCS PD, were checked and validated by the VVB during the VCS PD validation in 2012/2013. Regarding the communication and alignment between the project proponent and Terra Grande Pracuúba Extractive Reserve, during the fourth quarter of 2018, several conferences were held with ICMBio Terra Grande Pracuúba Extractive Reserve Manager, Ms. Simone Rabelo. Some issues were addressed, such as overlapping areas, agreement attempts and common objectives of the two organizations. After these calls, Ecomapuá was invited by the RESEX manager to participate in a Meeting of the Deliberative Council of the Terra Grande Pracuúba RESEX, which was held on December 6th and 7th, 2018. Ecomapuá accepted the participation and extended the invitation to the Lago do Jacaré community, which is the property that overlaps with this RESEX. It is worth mentioning that this community was not invited by the RESEX to attend this meeting. In addition, Ecomapuá also invited the manager of Mapuá RESEX, Mr. Serafim;

	however, he could not participate. During this meeting, a presentation of Ecomapuá and the REDD project was conducted to all the 35 participants. Mr. Chan, the project owner, presented the work that has been carried out by Ecomapuá within the region since the acquisition of Santana Madeiras in the early 2000s. Furthermore, he also presented the current focus of the company on the organic açaí and the common objectives with both RESEX (Mapuá and Terra Grande Pracuúba) regarding the generation of alternative income sources for communities living in the region. Besides Mr. Chan, Mr. Janari, President of the COAMA Cooperative, Edilson and José Carlos, from the Santa Maria / Lago do Jacaré communities, and Marcelo from Sustainable Carbon also lectured about the projects that have been developed since 2003 within the region. The Terra Grande Pracuúba Extractive Reserve Manager, Ms. Simone Rabelo affirmed that the indemnification due to disappropriations of Ecomapuá properties is indeed delayed, as Ecomapuá has not received any payment since the creation of the RESEX. However, she declared to the community that even without being able to provide direct support to the project, if the community is in favour of receiving Ecomapuá activities, the RESEX will also agree. The decision belongs to the community. After that, the main communities' leaderships that attended the meeting talked to Mr. Chan and Janari about the creation of a Cooperative to sell açaí. Mr. Chan stated that Ecomapuá would help creating another Cooperative in this region and could provide financial support to the organic certification. All evidences of this communication and alignment between Ecomapuá and Terra Grande Pracuúba Resex will be made available to the VVB team. Therefore, links were established with the two RESEX managers, which may result in important future partnerships to implement forest conservation activities and improve the life quality of the communities living in the region. Furthermore, on 06-December-2018 project proponents interviewed local residents from four different communities within the project region about the frequency and impact of the occurrence of forest fires and strong winds. The Non-Permanence Risk report, section Natural Risks, was revised according to their opinion, and buffer emissions were recalculated. In addition, when significant, forest fires and strong winds occurred within the project area during the monitoring period were accounted by the parameters ACPAt and EBBPSPAt. This was corrected in the MR.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Due to the complexity of the territorial planning in the Amazon, the VVB understands that the situation in the project area, where 74% is overlapping in two Sustainable Use Conservation Units, should be re-evaluated in the next monitoring period, due the evidences presented by the proponent: 1- The overlapping areas were not expropriated, characterizing the owner (Ecomapuá) as a direct possessor of the properties, according to Brazilian Civil Code, art. 1.197, direct possession is marked by temporality, since as part of the implementation process of the Conservation Units created, the areas owned by Ecomapuá should be expropriated. In this way, it will be necessary to reassess this issue in the next monitoring period. In addition, the proponent must present at the next verification the follow update documents: • the updated documentation of the rural property, given that the updated certificates of the rural properties

	issued by the land office registry of Breves have more than 10 years. • Updated Certificate of Rural Property Registration (CCIR): the proponent presented the protocols requesting updating of the documentation, however, the land agency (INCRA) has not responded so far. • Rural Environmental Registry (CAR): updated without overlapping documentation. Thus, due the fact that there isn´t any conflict related to the territorial context beetween the direct possessor (Ecomapuá) and indirect possessor (ICMBio and communities), the VVB had evidence it through interviews, information collected in the field and data provided by the proponent. So, the audit team understands that the ownership of the credits related to the monitoring period analyzed is from Ecomapuá. However, because it is a dynamic situation, VVB understands that this must be addressed as a FAR (please refer to FAR 02), where the proponent must present in the next verification the updated documentations of the rural property (certificates of updated rural properties, CCIR and CAR) and also the updated status of the disapropriation process.
Conclusion *Tick the appropriate checkbox*	☒ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☐ The finding is closed

Finding	**CAR 05**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent adopted in the section 4.3 of the MR that the two possible sources of leakage emissions were considered equal to zero. The VM0015 meth, in section 1.2.1, part 3, address the monitoring methods to the emissions related to the leakage prevention measures, to the section 8.1, part 2 of the VM0015. The project proponent has not presented in the MR all the steps related to monitoring the leakage prevention activities, for example the monitoring of the Leakage Management Areas. Further, in the emission due to activity displacement leakage the project proponent failed to present a strong evidence that the deforestation in the leakage belt is attributable to deforestation agents not linked to the project area.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	According to the planned interventions carried out by Ecomapuá Amazon REDD Project during this monitoring period within the leakage management area, no activities that decreased carbon stocks and/or increase in GHG emissions were implemented by Ecomapuá. The leakage prevention measures carried out by the present project did not include agricultural intensification, fertilization, fodder production and/or other measures to enhance cropland and grazing land areas. However, the parameter annual carbon stock change in the leakage management area in the project case (ΔCPSLKt) was corrected in the MR, which now accounts for the annual area of forest loss within the leakage management area during the monitoring period. In addition, according to the applied methodology, it is not necessary to present strong evidence		

	that the deforestation in the leakage belt is attributable to deforestation agents not linked to the project area, in cases where real deforestation is lower than estimated in the baseline.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent corrected the parameter ΔCPSLKt correctly in the MR and now is considering the forest loss in the leakage management area during the monitoring period. Also, the project proponent included in the calculation of the leakage the emissions due the activity displacement leakage, MR, table 36. However, the project proponent didn´t make available the leakage management areas shapefile in the GIS data 2nd MR. In this way, the VVB is not closing this NCR due the necessity to the project proponent to make available this data.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The leakage management area shapefile will be made available for the VVB team.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent adopted a new leakage management area, this PD deviation was described and justified appropriately in the MR v04 in the section 3.2.2. Also, the project proponent makes available to the audit team the shapefile of the new leakage management area. With all the information provided to the VVB it was possible to attest the conformance of this aspect with the methodology and the standard requirements. CAR 05 is closed
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 06		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent monitored this parameter (ABSLPA,t) in the MR using their own methodology, according to the document Relatorio_Ecomapua_Mon2_v1.pdf. The classification method described in this document is the Maximum Likelihood Classification, which is an algorithm that exists in the ArcGis software. In the section 1.10 of the validated PD is described that the project proponent used a different remote sensing technique to make the image classification of the historical reference period images. The classification method used was the cluster. According to the section 2.6 of the VM0015 it´s necessary to develop a GIS and remote sensing methodology to guarantee a consistent time series analysis of LU/LC-change and to achieve that is necessary to mitigate risks introducing new artifacts.		

	Despite the fact that the project proponent deforestation data related to the monitoring period has identified a bigger area compared with the PRODES data, the project proponent failed to replicate the same classification method to the monitoring period images to guarantee a time series consistent analysis. Also, the audit team identified an inconsistency between the spatial and tabular data, the 2013 classified shapefile presented in the respective attributable table a value of 84,023 ha, but in the excel file the table 8 sheet presented a different value of 84,650 ha to the same parameter.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Although different software was used between the 2nd Monitoring Report and the PD, the algorithms used are very similar and in both, after automatic classification, were followed by the interpretation and refining done by an analyst, in order to adapt the automatic results to the reality of the terrain. The PD utilized the Cluster algorithm from the Idrisi software, which is based on the grouping of spectral categories with similar reflectance patterns. The cluster algorithm analyzes the histogram of the bands used, identifying their peaks and using them as reference for grouping the most frequent values and associating them with the most common land use types. However, these spectral categories are not the final information classes and thus, they need to go through the refining of an analyst who interprets the results, identifying the land use class that each group represents, by comparing the results of the classification with the characteristics of the terrain, which can lead to adjustments in the automatic classification results. After this, the likelihood methodology was adopted, which refines what was generated by the unsupervised classification. Isolated pixels were encompassed using the likelihood methodology, through the contiguity filter and the Maxset method. The 2nd MR utilized the Maximum Likelihood Classification from the ArcGis Software, which is very similar to the previous classification methodology. The maximum likelihood algorithm assigns classes to the pixels, considering the values of the spectral patterns in the image. These patterns are based on training areas samples, which are provided by an analyst that assigns radiometric values of the pixels. The next step takes into account the contextual information of the image, i.e., classification depends both on the value observed in this pixel and on the classes assigned to its neighbors. The Maximum Likelihood algorithm is an efficient classifier in which the training classes are used to estimate the distribution of the pixels contained in each class of n bands. After the classification, the filter was utilized to adjust pixels that have been wrongly classified or have been isolated. This step is similar to the Idrisi contiguity filter. It is important to highlight that the classification of the year 2013 carried out through the cluster algorithm in the Idrisi software at the time of the PD was used to calibrate the classifications carried out in the MR between 2013 to 2017, which were performed through the Maximum Likelihood Classification of the ArcGis software. According to the applied methodology, Section 2.6, changing data analysis techniques for classification analysis during a monitoring period is permitted, provided that interpretation with

	the new technique overlaps the interpretation with the old technique by at least 1 year and cross calibration is conducted. This procedure was carried out as previously described. In addition, the Agência Verde Report, which was made available to the VVB team (Annex 9), justifies the change in methodological approach and duly details changes to their classification methodology. The Section 2.1 of the MR was updated with this information. Furthermore, the inconsistency between the spatial and tabular data for forest area within the project area in the year 2013 was corrected in the MR and calculation spreadsheet. The correct value is 84,023 ha.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Despite of the different remote sensing techniques to classify the land use images in the PD and the 2°MR, the VVB understand that the methods are similar, producing the same products, also in both situations the project proponent interpreted and refined the results achieved. However, the audit team see this change as a deviation from the PD and should be reported in the MR appropriate section, 2.2.2.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The PD containing the second baseline reassessment was revised, and now the same classification methods between the PD and the 2nd monitoring report were utilized.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The audit team verified based on the data and information provided by the proponent that the data used for the preparation of the second baseline are the same used in this verification period to monitor the emission reductions, in the case of Mapbiomas, as described in the MR v04 and the baseline revalidation PD. Thus, the VVB understands that the proponent has met the requirements of the VM0015 methodology on this regard and, therefore, it is in compliance with the certification standard. Therefore, the audit team closes this CAR.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 07		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent didn´t evidence that the leakage management area was monitored in the MR from the period of 2013-2017. In addition, the boundary of the leakage management areas in shapefile format wasn´t available with the rest of the GIS data that the project proponent made available to the verification team. According to the VM0015 in the section 1.1.4 the boundaries of the leakage management areas must be clearly defined using the common projection and GIS software formats used in the project.		

	This parameter is presented in the MR in the section 3.2 and the calculus is directly dependent of the detected area of forest loss in the leakage management area, which apparently the project proponent failed to monitored in this monitoring period. Therefore, there is an inconsistent calculation of ΔCPSLKt (Total annual carbon stock change in leakage management areas in the project case).
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The MR was corrected to account for deforestation within the leakage management area (LMA) during the current monitoring period. However, it is important to note that according to the applied methodology, at the project start date, leakage management areas shall be non-forest land. Therefore, in 2002, LMA was composed only of non-forest areas, thus deforestation during the current monitoring period accounted for regenerated forests that were deforested again between 2013-2017. Thus, the parameter annual carbon stock change in the leakage management area in the project case (ΔCPSLKt) was corrected in the MR, which now accounts for the annual area of forest loss within the leakage management area during the monitoring period. Furthermore, the boundary of the leakage management areas in shapefile format was made available for the VVB team (Annex 10).
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent corrected the MR accounting now the deforestation in the Leakage Management Area was considered in the calculus of the leakage emissions. However, the project proponent didn´t make available the leakage management areas shapefile in the GIS data 2nd MR. The VVB needs to access these data in order to be able to close this CAR.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The leakage management area shapefile will be made available for the VVB team.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent adopted a new leakage management area, this PD deviation was described and justified appropriately in the MR v04 in the section 3.2.2. Also, the project proponent makes available to the audit team the shapefile of the new leakage management area. With all the information provided to the VVB it was possible to attest the conformance of this aspect with the methodology and the standard requirements. In this way this finding was closed by the audit team.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 08**

Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The calculation of this parameter, according with the equation presented in the MR, section 4.2 is directed dependent of the AUDPAicl,t (Areas of unplanned deforestation in forest class *icl* at year *t* in the project area; ha) parameter, so this is related also to CAR#06 above. The other parameter to calculate the carbon stock change due to unavoided unplanned deforestation is the ΔCtoticl (Average carbon stock change of all accounted carbon pools in forest class *icl* at time *t*; tCO2e/ha), and the value used by the project proponent to this parameter has two inconsistencies: 1. Difference of values between the study referenced by the project proponent in the MR excel file, sheet "Carbon stock". In the cited sheet the proponent presents a total biomass value of 371.13Mg/ha in areas of Alluvial Dense Tropical Rainforest, but in the referenced study (NOGUEIRA, 2008) the table 7, page 109, presents to the same kind of forest that exists in the project area the total biomass value of 360.8 Mg/ha. 2. Disrespect to section 6.1.1 of VM0015, which indicates how to assess existing data and only use it, in case it if fulfils certain criteria, and the first criterion was not followed by the project proponent that is to use data with less than 10 years. The referenced study was published in February of 2018 and used the RADAM Brasil Inventory data. This information has more than 10 years from the initial of this verification process.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The parameter bb (Average biomass stock per hectare in the below-ground biomass pool of initial forest class icl in Mg/ha) was corrected in the MR and MR spreadsheet. The previous value took into consideration the default below-ground biomass values of the applied methodology, which estimates a root-to-shoot ratio of 0.24 for tropical rainforest having above ground biomass values above 125 tons/ha. However, Nogueira (2008) values for Alluvial Dense Tropical Rainforest should be used, which results in a below ground biomass of 61.50 Mg/ha (instead of 71.83 Mg/ha according to default values from methodology). Furthermore, a project description deviation was included in the MR in order to correct this value for future verifications. Nogueira (2008) is a renowned scientific literature utilized as a reference for carbon stocks estimates in different forest types within the Brazilian Amazon. This study was published in 2008 and used the RADAM Brasil Inventory data. RADAM was based on large-scale wood volume inventories and sample plots installed in different forest phytophysiognomies. However, Nogueira (2008) updated RADAM values with new sample plots and new allometric equations to improve the biomass model. In addition, it also conducted new biomass stock estimates for the Amazon biome, using several mathematical adjustments factors for wood density, volume and biomass expansion factors, and incorporating non-measured components (such as trees <5 cm of DBH and canopy biomass). Therefore, Nogueira (2008) did not use the results of the RADAM Project in its entirety, it made new equations to calibrate and adapt the estimates, together with new sample plots to update biomass carbon stocks. In this way, the VCS PD and the VCS PD describing		

	the second baseline period of Ecomapuá Amazon REDD Project were validated by different VVBs using this reference for defining carbon stock estimates.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Despite of the data quality in the Nogueira (2008) study and his reputation as a renowned scientist in the field of carbon stocks estimates, his doctorate thesis was published in February of 2008. In the verification process the VVB needs to analysis the $\Delta Ctot_{icl}$ and according to the VM0015 section 6.1.1, the first criterion was not followed by the project proponent that the data used are less than 10 years ago. So, the project proponent needs to review the carbon stock data used in the way that fulfill the all 5 five criterions established in the methodology. Due that this CAR is not closed.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The VCS PD for the 2nd baseline reassessment was revised and included a more recent and updated study focused on the forest type that occurs within the project area. Thus, above ground biomass carbon stocks from the doctorate thesis of Cunha (2018) for riparian dense tropical rainforest have been considered, which is consistent with the methodology requirements. Cunha (2018) conducted a six-year forest inventory between 2012 and 2017 in the National Forest of Caxiuanã, Eastern Amazonia, which is located close to the south-western portion of Marajó Island. Results were analysed in terms of growth, mortality and recruitment of tree species with Diameter at Breast Height (DBH) ≥ 10 cm. Long-term plots were installed, and all trees, lianas and palm trees with a DBH ≥ 10 cm were identified and analysed in terms of above ground biomass. An allometric equation was utilized to estimate the above ground biomass per hectare. This doctorate thesis was elaborated as part of the Biodiversity and Biotechnology Program at Museu Paraense Emílio Goeldi, from the Federal University of Pará (UFPA).
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent adopted a new value for the biomass stock that meets the requirements of the VM0015 methodology, it is a study of a renowned institution and carried out for forests similar to those found in the project area. As it is a parameter available at the time of validation (MR, section 4.1), this change was correctly reported in the monitoring report in the appropriate section of PD deviation. In this way, the audit team understands that the project proponent has met the requirements of the methodology and standard used, and is therefore in compliance. CAR 08 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 09**

Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent did not monitor the forest fires in the project area. According with the MR, section 3.2, this parameter must be monitored and accounted when a forest fire occurs. The project proponent presented in the section 4.3 of the document "Relatorio_Ecomapua_Mon2_v1.pdf" an explanation that in the monitoring period (2013-2017) there wasn´t any significant fire risk in the project area. Also, in the section Natural risks of the risk assessment (ref#6), in order to support the mitigation factor of -2, the PP states: GIS mapping analysis showed that there was no fire within the project area. The audit team cross-checked this information with the Fire Program of INPE (*Instituto Nacional de Pesquisas Espaciais*) which give free access to fire alarms to all Brazilian Biomes in shapefile format. The INPE fire data of the monitoring years showed 504 fire alarms inside of the Project Area divided along the years in this way: 2013: 86 fire alarms; 2014: 64 fire alarms; 2015: 91 fire alarms; 2016: 140 fire alarms; 2017: 122 fire alarms. Further, the audit team during the site visit identified as a common practice of the local communities who live inside the project area, the use of fire to clean the areas for planting the manioc. This technique known as *coivara* consists in cleaning the areas in regeneration or degraded process cutting all the tress followed by the use of fire to clean the biomass left in the ground. In addition, it was related by the local community from *Lago do Jacaré* property a forest fire in the 2015 that burned a considerable area near from the centre of the community.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The usual deforestation process in the region involves fire to clean the area. The monitoring of forest fires during the current monitoring period was carried out. When not accounted as unplanned deforestation (ΔCUDdPAt), forest fires were included as areas affected by catastrophic events (ACPAt). Furthermore, non-CO2 emissions resulting from deforestation and fire were included as project emissions through the parameter EBBPSPAt. This was corrected in the MR and calculation spreadsheet. Moreover, local residents from four different communities within the project region were interviewed in order to collect data about the frequency and impact of the occurrence of forest fires in the region. This information was used to correct the Non-Permanence Risk Report, Natural Risks. Furthermore, the *coivara* method was better described in this report.		

	The fire training course, provided by the project proponent and a contracted fireman in 2018, which was made available to the VVB team, represents the project's mitigation and adaptation to this problem. Furthermore, unplanned logging activities carried out by local communities within the project area were also accounted as project emissions.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent failed to estimate the EBBPSPAt parameter, because the project proponent adopted an approach which is to consider that all the deforestation areas will resulting in areas burned, but it wasn´t considered the non-CO2 fires from areas in *pousio,* for example. The INPE data from the monitoring fire program, identified 504 fire alarms in the project area during the monitoring period, mostly of them located in old deforestation areas, probably as the audit team identified in the field, this fire alarms are due that *coivara* practice in the project area. The *coivara* practice is adopted by the local communities for manioc plantations in the project area. Normally, after the first slash and burn cycle, the small agriculture leaves the area for a period of 10 years to regenerate, this practice is known as *pousio*; after that period of time, the small agriculture comes back to the area to make the second slash and burn cycle in the regenerated forest. Due that is necessary to considering the non-CO2 emissions from fires in areas that weren't recently deforested in the project area in the EBBPSPAt parameter. So, the VVB didn´t had enough evidences to close this CAR.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The local community who lives within the project area adopts the *coivara* practice for agriculture plantations. Usually, the agricultural cycle involves the clearing of an approximately 4 hectare plot of land per family to be used for 2.5 years, followed by a fallow period, and subsequent re-use of the same area. The total length of the production/fallow cycle is 10 years. Thus, non-CO2 emissions from the burning cycle of regenerated forests due to the *coivara* practice was considered as project emissions in the EBBPSPAt parameter.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The proponent considered non-CO2 gas emissions in the project's emissions accounting, estimating the EBBPSPAt parameter and debiting the project's emission reductions in the monitored period. Conservative assumptions were adopted in this estimate, both with respect to the burned biomass and GWP data. It is worth mentioning that VM0015 guides the PP in section 6.2 in adopting the values of the Second Assessment Report of 1996, whereas the standard VCS guides in section 3.14.4: The six Kyoto Protocol greenhouse gases and ozone-depleting substances shall be converted using 100-year global warming potentials derived from the IPCC's Fourth Assessment Report. Thus, the PP adopted the most conservative values for calculating reductions in GHG emissions and, consequently, for credit accounting.

	Therefore, the audit team understands that the project is in conformity in this aspect in view of the requirements of the methodology and the certification standard, so the VVB ends this CAR.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 10		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent has made an incorrect assumption in the table 8_ex ante, MR excel file, cells C29, K29 and S29. The proponent used ex-post values instead of the ex-ante values obtained in the modelled baseline for the year 2013 to the RR, PA and LB areas. Due to that, the annual deforestation estimative in the Project Area (ex-ante values) jumped comparing the year 2013-2014, but these values are not real because it was considered ex-post values for the year 2013, causing an error in the calculation. This approach impacted in the calculus conservativeness of this parameter in the MR excel file, sheet table 36, causing an outlier value, comparing with the other years. The others years (2013, 2015, 2016 and 2017) had at least 4 time less GHG emissions reductions comparing with 2014 value. According to the VCS standard, v3.7, section 2.4.1, one principle of the VCS is related with the conservativeness to ensure that net GHG emissions reductions are not overestimated. Further, the project proponent has not made available the second baseline GIS data so that the verification team could cross-check the information and the calculus related to this parameter.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The MR spreadsheet, Table 8_ex ante sheet, was corrected with the ex-ante values for the year 2013 to the RR, PA and LK. Furthermore, the projection of future deforestation for the second baseline period was remodeled in order to revise the high deforestation rate previously considered for the year of 2014 and to correct the mistake of using the ex-post values of 2013 to develop the deforestation projections for the 2013-2022 period. Thus, the comparison between the projected and real deforestation maps was performed for the year of 2011. The methodology was the same one utilized in the 1st MR and VCS PD: Markov chains, followed by calibration of the simulation model, and the use of Markov chains coupled with cellular automata algorithm. The 6-year interval was maintained for the entry maps. The input maps were from 1999 and 2005, in raster format with a pixel of dimension 30m x 30m, in order to project the year of 2011. According to the Kappa index obtained through the comparison between the simulation and real maps for the year 2011, the index of 0.85 was obtained, which means an excellent concordance level.		

	Therefore, a new projection of future deforestation was carried out for the 2013-2022 period. The projection method was the same, i.e., in order to simulate the year 2013, the Markov module was applied with the input maps of 2001 and 2007. The interval of years between the two maps was 6 years and the interval to be projected from the second map was specified in 6 years. These changes were updated in the MR, spreadsheet and in the project description deviations. In addition, the second baseline GIS data was made available to the VVB team (Annex 9).
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	This finding is regarding the use of the ex-post values in the ex-ante sheet to the year 2013, this error caused a high deforestation rate to the year 2014. Actually, the VVB, after analysis the *MONITORAMENTO E REVALIDAÇÃO DA LINHA DE BASE DE PROJETO FLORESTAL DE REDD NA ÁREA DA EMPRESA ECOMAPUÁ LTDA, 2013* report (REF#31), noted that the second baseline had an error in the choose of the confirmation period (2013), the project proponent selected a year that was included in the second monitoring period. Due that, the annual deforestation estimative in the Project Area (ex-ante values) jumped comparing the year 2013-2014 This approach impacted in the calculus conservativeness of this parameter in the MR excel file, v01, sheet table 36, causing an outlier value, comparing with the other years. The others years (2013, 2015, 2016 and 2017) had at least 4 time less GHG emissions reductions comparing with 2014 value. The project proponent adopted an approach to solve this CAR, correctly inserted in the MR v02, section 2.2.2, according to the VCS standard v3.5, section 3.6. The approach consisted in remodel the second baseline chosen a correct date as a confirmation period, the project proponent used the same period as calibration (2001-2007) and chose the year 2011 as a confirmation period. However, the project proponent adopted an incorrect approach in the remodeling process. According to the *ECOMAPUÁ REDD PROJECT Auditoria, 2018* report, in page 5, the project proponent simulated the year 2013 and the others of the remodeled baseline, based in the land use maps from 2001 and 2007. According to the VM0015, section 4.2.3, page 53, the approach used by the project proponent to selected the most accurate deforestation risk maps was the option “a” and the methodology sets up that is necessary to prepare the final risk map using the data from the calibration and the confirmation period. Besides of this new error in the second baseline, the project proponent needs to follow all the steps established in the VM0015, sections 2, 3 and 4 which are regarding to develop a baseline. The section 4.2.2, needs a special attention, which is to guide the project proponent to prepare the deforestation risk maps. In this section the project proponent needs to produce several risk maps using different combinations of factor maps and modelling assumptions in order to allow comparison and select the most accurate map. Due that, the VVB didn´t close this CAR.

Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The VCS PD regarding the 2nd baseline reassessment was revised and the baseline scenario was corrected. According to the applied methodology, information on agents, drivers and underlying causes of deforestation were updated. The projected annual areas of baseline deforestation for the reference region was revisited and adjusted for the second baseline period. The deforestation risk map was created considering the variables using Dinamica EGO Software. The spatial variables that most likely represent the patterns of baseline deforestation in the reference region were identified, and the digital maps representing the spatial features of each variable were created. Several risk maps using different combinations of factor maps and modelling assumptions have been produced in order to allow the comparison and selection of the most accurate deforestation risk map. In order to conduct the calibration and validation of the most accurate deforestation risk map, the methods of similarity degree with exponential decay due to distance were utilized. The revised baseline scenario was then applied to the baseline emissions of the 2nd monitoring report.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added*	The project proponent hired a new institution to carry out the necessary studies according to the VM0015 methodology and is validating a new baseline for this new credit period (2013-2017), so this CAR was closed and the analysis of the new baseline unfolded into 5 new CARs (# 12-16).
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 11**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent has not presented to the audit team the map showing the cumulative areas credited within the project area to guarantee that the cumulative areas don´t generate additional VCUs in future periods, according with the part 3, section 1.3 of the VM0015 methodology.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The map showing the cumulative areas credited within the project area was presented in the MR, Figure 10, which shows the cumulative areas credited within the project area to guarantee that these areas do not generate additional VCUs in future periods. The GIS data were made available to the VVB team (Annex 9).		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent didn´t presented the map with this characteristic: "*map showing Cumulative Areas Credited within the project area shall be updated and presented to VCS verifiers at each verification event. The cumulative area cannot generate additional VCUs in future periods.*" (VM0015, section 1.3). It is necessary to show in this map the credited areas from the previous verification from the project area and the figure 10 in the MR v02 only presents the areas from the current verification. Due that the VVB is not closing this CAR.		

Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The map showing cumulative areas credited within the project area from previous verification events was presented in the MR.
DOE Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent presented in the monitoring report version 04, figure 06, which is a map showing the areas already credited to the project during the previous crediting periods. Thus, the monitoring report is in compliance with this aspect and requirement of the methodology, so the audit team deems the compliance of this aspect and closes this CAR.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Assessment of the 2nd BASELINE

Finding	CAR 12		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	According to the VM0015, task 2, section 2.2.1, the process of revisiting the baseline projections after 10 years of the project crediting period start, is to adjust the annual areas of baseline deforestation and must be used as new data the information collected in the monitored LU/LC changes, in the reference region during the past fixed baseline period (2003-2012). The project proponent used the data from 1998-2012 as a new reference period, in this way contradict the VM0015 procedures, so the VVB see this approach as a non conformance then the audit team address this new corrective action. (PD section 3.4 - Historical reference period).		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The reference period for the reassessment of the second baseline period was corrected and now comprises the analysis of images from the past fixed baseline period (2003 – 2012), in accordance with the methodology.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The VVB analyzed the adjusted project baseline again, according to the latest version of the monitoring report (v04 of April 25, 2020) and the annex referring to the elaboration of the model for the new project baseline (Report 04 - Study for the determination of the baseline and dynamics of deforestation of the Ecomapuá Amazon REDD project) and could verify the conformity of the documentation submitted by the proponent to the certification standard and with the methodology used. In this way, the audit team ends this finding.		
Conclusion	☐ To be checked during the next periodic verification		

Tick the appropriate checkbox	☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 13		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The project proponent in the revisiting baseline process used LU data from the Mapbiomas to the second baseline. This new remote sensing data that had became available in this last years and has some advantages, such as the methodological approach of data collection which allows the Mapbiomas data to has less clouds and shadows than the PRODES data. However, one issue related to the project area appeared because of the difference of the land use data. According to the VM0015, part 2, section 1.1.2, at the project start date (01/01/2003), the project area must include only forest land. The VVB analysed the GIS database available by the PP especially the Mapbiomas data from 2002 and find different polygons of deforested areas inside of the project area, also in the excel file VCS PD Calculation Ecomapua 2nd baseline period v01, spreadsheet, table 08, shows deforested areas from 1998-2002 inside of the project area. In this way the VVB is addressing this Corrective Action to this aspect of the project description (PD section 3.3).		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	During the reassessment of the second baseline period, land-use change analyses were made through MapBiomas images, which offers more detailed, precise and available information. However, changing the land use data during the second baseline reassessment resulted in different polygons of forest/non-forest areas within the project area at the project start date, showing either deforested areas inside the project area and forested areas outside the project area. According to the applied VM0015 methodology, the project area shall include only forest land at the project start date. Thus, a comparison between 1992 and 2002 has been conducted to include only land qualifying as "forest" for a minimum of 10 years prior to the project start date, in accordance to the methodology. Therefore, the project area was corrected, and this was included as a project description deviation in the 2nd Monitoring Report and explained in the VCS PD for the second baseline reassessment.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	Ok, the audit team checked the corrections made by the proponent in the new versions of the project documentation and can conclude that they are in accordance with the requirements of the certification standard and the methodology used. Thus, VVB ends this non-compliance.		
Conclusion	☐ To be checked during the next periodic verification		

Tick the appropriate checkbox	☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 14		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	According to the VM0015 methodology, part 3, task 2, section 2.2.1 at the time of renewal of the baseline, it is necessary to carry out the adjustments according to the methods described in part 2 of the methodology. In part 2, step 2.5, of VM0015, the need for an accuracy assessment of the maps produced in step 2 is established. The project proponent submitted the accuracy assessment only for the year 2012, with the respective confusion matrix, which is present in the annex: report 03 Ecomapuá 2020_03_13d. However, this approach contradicts what is provided in the methodology used, characterizing, therefore, a non-conformity in this stage. The proponent must also provide the VVB with the points used to visually determine the land use (from the adopted reference period), as well as the respective classifications (mapbiomas X visual analysis) and the confusion matrix generated for all maps produced in the step 2 for an independent analysis of the accuracy assessment. In this way, the audit team addresses this CAR so that the PP can resolve this issue.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The accuracy assessment was conducted for all the maps produced for the 2003-2012 period. The points used to check the correctness of classification and the confusion matrices will be sent to the VVB team.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent submitted a verification report of the land use data that were used for the preparation of the second baseline of the project, as a reference period. The process of validating the land use data presented by the project proponent complied with all the requirements of the methodology and the certification standard for the years 2003, 2008 and 2012. Thus, the audit team closes this CAR.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 15		
Classification	☒ CAR	☐ CL	☐ FAR

Description of finding *(DOE)*	According to the VM0015 methodology, part 3, task 2, section 2.2.1 at the time of renewal of the baseline, it is necessary to carry out the adjustments according to the methods described in part 2 of the methodology. In part 2, step 2.6, of VM0015, it´s established that the project proponent needs to present a detailed methodological procedure that was used in pre-processing, classification, post classification processing, and accuracy assessment of the remotely sensed data and must be carefully documented in an Annex to the PD. The project proponent didn´t present this necessary document as an annex of the PD, so is not in conformance with the methodology. In this way, the VVB address a CAR to the PP solve this issue.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The detailed methodological procedures used in pre-processing, classification, post classification processing, and accuracy assessment of the remotely sensed data was included as an Annex in the VCS PD.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent met the requirements of the VM0015 methodology and inserted in the updated PD with the new baseline, Annex IV, which contains a detailed description of the procedures used with the remote sensing data to estimate the second baseline of the project and, consequently , serve to verify the monitoring periods. In this way, the audit team understands the existence of a conformity in this aspect and, therefore, ends this CAR.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 16**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	According to the VM0015 methodology, part 3, task 2, section 2.2.1 at the time of renewal of the baseline, it is necessary to carry out the adjustments according to the methods described in part 2 of the methodology. In part 2, step 4.2.3, of VM0015, it´s necessary to select the most accurate deforestation risk map to confirm the quality of the model. The project proponent conducts in the reviewed PD (table 30) an analysis, however didn´t select the m13 model which had the best fit statistical similarity value. Either the project proponent needs to make available to the VVB the GIS data of the deforestation risk and predict maps for the confirmation period tested in the section 4.2.3, to the audit team conduct an independent analysis of accuracy.		

	The project proponent didn´t follow the methodology requirements so is not in conformance in the issues described, in this way, the VVB address a CAR to the PP solve this issue.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	This was corrected. The most accurate deforestation risk map was selected for the projection of future deforestation in the project's reference region.
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The project proponent in the revision process of the second baseline of the project remade the land use and occupation models and selected the "m08" model which has the highest similarity index to project the land use changes in the land use scenario. baseline. Thus, the project proponent met the requirements of the methodology with regard to this aspect and is, therefore, in compliance with the certification standard, so the audit team closes this CAR.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

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