



VERIFICATION REPORT FORTALEZA ITUXI REDD PROJECT



Document Prepared by Icontec

Contact Information Martha Corredor mcorredor@icontec.org

Project Title	Fortaleza Ituxi REDD Project
Version	2
Report ID	02

Report Title	Verification Report for the: Fortaleza Ituxi REDD Project
Client	Carbonext
Pages	49

Date of Issue	12-April-2021 report issued
Prepared By	ICONTEC
Contact	Martha Corredor mcorredor@icontec.org Phone: (571) 607 88 88 Ext.: 1381 Address: Carrera 37 # 52 – 95 Bogotá – Colombia www.icontec.org
Approved By	Victor Nieto
Work Carried Out By	Ruby Acosta Bastidas y Victor Nieto

Summary:

This final report is part of the second verification of the FORTALEZA ITUXI REDD PROJECT, for the monitoring period 15/12/2015 and 31/12/2019. The total reduction of GHG emissions generated in this monitoring period was estimated at 212,935 tCO₂, which corresponds to an annual average of 53,234 tCO₂; however, the project aims to reduce CO₂ emissions by 4,267,919 tCO₂ in 30 years (15/12/2013-14/12/2043), in an area of 46,592 hectares of private forest located in the municipality of Lábrea in the Fazenda Nossa Senhora das Cachoeiras do Ituxi in the deforestation arch. Deforestation in the area is intended to be controlled through actions such as sustainable forest management and surveillance and control of the area.

ICONTEC has carried out the verification of the FORTALEZA ITUXI REDD PROJECT. Due to the COVID19 pandemic, a protocol for remote auditing was implemented. The proponent complied with all the requirements, equipment, and procedures for the protocol, ensuring the quality of the information provided. To develop the audit under the remote audit protocol and ensure the quality of the procedure, planning and preparation operations were carried out and an audit plan and document were produced that Verra approved on November 9th 2020.

The opening meeting was held on November 16th 2020, and the closing meeting was held on December 9th 2020. In this period of time, the proponent and his staff and other related experts examined the project area. Forest inventory data and data from 13 plots were corroborated, overflights were carried out to verify the dynamics of land-use change in the project boundaries, and interviews were conducted with related key stakeholders on three scales (project level, local and regional). The scope of the verification was the assessment of the conformity of the information in the Monitoring and Implementation Report with the VCS requirements.

The purpose of the field evaluation was to determine the Project's compliance with the VCS Standard and the validated PDD. The scope of the verification was to assess the conformity of the validated Project, once implemented, with the VCS requirements and the requirements in the PDD.

The auditor inspected the Monitoring Report version 1, in which 6 CAR and 4 CL were reported (see verification protocol in appendix 1 of this verification report). However, all these non-conformities raised during the verification process were duly closed (corrections, clearer explanations, and other supporting documents). In the technical inspection four new CAR which the project proponent resolved.

Once all the non-conformities detected had been duly resolved, ICONTEC made this final verification and estimation report with a reasonable level of confidence that the Project meets all the verification criteria. The evaluation team has no restrictions or uncertainties regarding the project's compliance with the verification criteria; therefore, the audit team concludes that the cumulative net reductions or removals of GHG emissions during the monitoring period have been quantified according to VCS standards. A 21% cushion discount rate was applied, which resulted in 170,766 tons of accumulated VCU of CO₂.

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1 INTRODUCTION

1.1 Objective

The objective of the verification audit was to conduct an independent evaluation of the project to:

- Ensure that the methods and procedures have been implemented in accordance with the validated project description including the monitoring plan.
- Evaluate the probability that the implementation of the planned GHG project will produce the increases in GHG removals declared by the person responsible for the project area.
- Verify compliance in the implementation of the mitigation project activities, including those associated with the strategy selected for the project.
- Evaluate and verify compliance with the principles of the monitoring, verification and reporting systems necessary to comply with current legislation.

1.2 Scope and Criteria

Verification Scope: The scope of the verification audit is to verify the emissions reductions and/or removals of the "FORTALEZA ITUXI REDD+ PROJECT" Brazil against the Verified Carbon Standard, the identified methodology and the validated PDD throughout the monitoring period from February 15/12/2015 and 31/12/2019.

The objectives of this audit included the verification of the projects calculated removals with the Verified Carbon Standard requirements and any additional requirements of VCS AFOLU projects. In addition to this, the audit assessed the project regarding the validated baseline scenarios presented in the PD.

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

- VCS Program Guide v.4
- VCS Methodology VM0015 "Methodology for Avoiding Unplanned Deforestation", Version 1.1, December 3 2012. At: <https://verra.org/wp-content/uploads/2018/03/VM0015-Methodology-for-Avoided-Unplanned-Deforestation-v1.1.pdf> (last visited in 28/09/2020)
- VCS Standard v.4
- VCS AFOLU Requirements v.3.6

- VCS AFOLU Non-Permanence Risk Tool VT0001 "Tool for the demonstration and assessment of additionality in VCS agriculture, forestry and other land use (AFOLU) project activities", Version 3.0, February 1 2012. At: <https://verra.org/wp-content/uploads/2017/11/VT0001v3.0.pdf> (last visited in 28/09/2020).
- "AFOLU Non-Permanence Risk Tool", VCS Version 3, Procedural Document, October 19 2016, v3.3. At: https://verra.org/wp-content/uploads/2018/03/AFOLU_Non-Permanence_Risk_Tool_v3.3.pdf (last visited in 28/09/2020)
- CDM – Executive Board "Tool for testing significance of GHG emissions in A/R CDM project activities (Version 01)" EB 31. At: <https://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-04-v1.pdf> (last visited in 28/09/2020)

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

1.3 Level of Assurance

Through the ICONTEC audit process, it was ensured that 95% of the project complies with the requirements established in the VM00015 methodology for REDD projects, in accordance with the established rules and VCS Program Guide v.4 and the VCS Standard v.4 principles. Based on the audit findings, it can be concluded that this is a reasonably assured positive assessment statement that the project's GHG assertion is materially correct and is a fair representation of the GHG data and information.

The assessment was carried out to provide a reasonable level of assurance in accordance with defined audit criteria and materiality thresholds within the scope of the audit. Based on the audit findings it can be concluded that this is a reasonably assured positive assessment statement that the project's GHG assertion is materially correct and is a fair representation of the GHG data and information.

All reviews of the verification report were subjected to an independent internal technical review, prior to being presented to the client, to confirm that all verification activities were completed in accordance with the necessary instructions required by ICONTEC. The technical review was performed by a qualified technical reviewer in accordance with ICONTEC's project verification qualification scheme. The audit team was made up of the following people:

Table 1. Audit team

Name	Position in the team
Ruby Acosta Bastidas	Chief Auditor
Victor Nieto	Audit Supervisor

1.4 Summary Description of the Project

The FORTALEZA ITUXI REDD PROJECT aims to protect forests located in one of the regions with the highest deforestation rate in the Amazon Biome: the municipality of Lábrea. The “Deforestation Arch” has already reached the South of the municipality 10 years ago. Lábrea has been one of the most heavily deforested municipalities in the Amazon Biome. Besides the damage caused to natural ecosystems, the land-use changes have provoked severe social conflicts due to land-grabbing, increased agriculture and cattle ranching activities, contributing to the displacement of families from the area.

In the Lábrea region, the pressure of deforestation originates from the neighboring states of Acre and Rondônia. These States have already undergone intense deforestation processes in the past, mainly due to the expansion of agriculture and cattle ranching. According to Vitel (2009) the deforestation in Lábrea is closely related to the proximity of roads: the increase in the deforestation rate observed in recent years is mainly attributed to the “Jequitibá” and “do Boi” (or “do Baiano”) Roads. The “do Boi” Road (Ramal do Boi) is about 100 km long and reaches the “Ituxi” waterfalls, which are located inside the Project Area (“Fazenda Nossa Senhora das Cachoeiras do Ituxi”).

In the specific case of the project area (“Fazenda Nossa Senhora das Cachoeiras do Ituxi”), professional land-grabbers, and even politicians have already organized illegal occupation that has been denounced by the landowners and controlled by authorities. Under deforestation pressure and financial difficulties in activities in the project area, sale of farmland to private investors is considered the most plausible baseline scenario. In recent years, project area landowners have already been approached to sell their farms (some offers are documented). In this scenario, the regional BAU is probably the most plausible future scenario (deforestation above Brazilian Forest Code limits the implementation of cattle ranching). With project activity approval, the landowner intends to improve the surveillance mechanisms inside the project area, as well as implement activities that will result in benefits for the climate, the community and biodiversity. Sustainable forest management activities are carried out in the project area, which also help to maintain the areas under supervision of the farm staff. The harvest activities are predominantly carried out by clients, who possess all equipment and personnel needed to perform low-impact logging/harvesting activities.

Sustainable forest management is the main tool to guarantee surveillance in the project area. The presence of workers in management activities is the first factor to inhibit the pressures of invasions inside the project area. Coupled with sustainable forest management, the project activity has increased surveillance to avoid further invasions. Additionally, two surveillance posts will also be placed around the farm and new motorcycles will be purchased, with a view to ensuring security at the project site and surrounding areas.

Estimated reductions of net GHG emissions: 4,267,919 tCO₂e, corresponding to avoiding the deforestation of 5,391.6 hectares for 30 years; On the second verification 15/12/2015 to 31/12/2019, the audit team corroborated the materiality of 212,935 VCUs minus the buffer discount for a total of 170,766 VCUs eligible for issuance.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification was carried out under a virtual/remote audit protocol designed by ICONTEC (I-PS-011 Remote Field Audit Instruction) and approved by Verra, where the schedule was proposed with the personnel and field teams that would help with the information capture. This protocol was designed due to the mobility restrictions arising from the global COVID19 pandemic. A combination of activities was carried out, such as the reviewing of documents, virtual and telephone interviews with institution officials at the regional level, regional experts and neighboring communities of the project and also with the relevant personnel. On-site inspections were carried out by means of plane overflights in order to review the dynamics within the project limits. 5% of the forest inventory plots were reviewed and the materiality of the project was corroborated. The relevant project information was verified and it was concluded that it meets the criteria described in Section 1.2 of this report. The auditor wrote a finding report that the project proponent clarified and corrected, finally complying with the requirements for the verification of 170,766 VCU carbon verified in the period of 15/12/2015 to 31/12/2019. This findings report can be consulted in Annex 1. The development of the audit was subject to the identification of high risks or difficulties in carrying out activities in the field in person.

The instructions developed by ICONTEC are defined under the following references: IAF MD4: 2018 mandatory document for the use of information and communication technologies (ICT) for audit / evaluation purposes; IAF ID3: 2011 informative document to manage extraordinary events or circumstances that may affect accreditation bodies, certification or certified organizations and the IAF ID12: 2015 principles of remote evaluation.

In this sense, the present remote audit carried out by ICONTEC must guarantee the same level of assurance, the relative importance of the sampling plans and compliance with materiality in the verification process, as is conventionally carried out in visits to the sites.

In this way, given the mobility difficulties and counting on the development of methods based on remote techniques by the developer, it was possible to carry out the verification audit remotely for The FORTALEZA ITUXI REDD PROJECT. The following table presents the risk analysis and mitigation measures taken within the audit process.

No.	Risks	Risk Level	Risk Treatment on the Verification Plan
1	Limited access to the area	High	- The Project Proponent has technological tools that can be used differently in the project area. - The project area has internet access that allows real-time videoconferences with the participants and strategic actors. - GPS, video cameras, and software that allow video scenes are available to be analyzed. - The project proponent has qualified personnel to travel to the project area and advance the collection of the required information using the technological tools included in the audit. - Overflights will be carried out to verify the status of coverage in the project area, in the region where there are leaks and threats to the project limits
2	Interference or low-quality communication	High	There is internet and local means of communication via cel phones, however the field teams who will revise the forestry inventory will not be able to be in permanent contact.
3	Difficulties in interviewing project participants	High	Add specifications from the field staff that will carry out the process of data collection and registration of information from interviews with key stakeholders, overflights, and forest inventory.
4	Access of the Project Proponent to the area due to mobility restrictions by COVID -19	High	Describe restrictions due to outbreaks of Covid-19 within the ranch or local regional or national regulations
5	Access to the implementation areas of project activities in forests and access to leakage management areas.	Medium	- The Project Proponent has personnel in the area who can enter each of these areas and collect remote information through the use of GPS and video cameras to record the project activities. It also has the resources to carry out an air tour by plane to verify the state of the roofs inside the project area, as well as the verification of pressures and threats in the project area boundaries
6	Lack of evidence in the implementation of controls	Medium	- The Project Proponent has personnel in the area who can enter each of these areas and collect remote information through the use of GPS and video cameras to record the project activities.
7	Lack of controls	Low	- There are protocols for the measurement and custody of the information. Data collection is supported by digital tools.
8	Identification of errors in the calculation methodology	Low	- Team meetings or telephone interviews with CARBONEXT project personnel to review: Ex-Post Quantification of Emission Reductions – estimation of the net anthropogenic removals by sinks (methodology equations) evidence for input data and removals calculations parameters and leakage (Uncertainty and conservativeness).

According to the risk analysis, the minimum criteria were established to take into account the capture of evidence by remote means which was used to support the field audit. These are the technical criteria to be considered by the project proponent to support the recording of remote evidence for compliance with the requirements established in each of the standards considered for the monitoring period and its verification by the audit team.

Table 3. Materials and equipment of the remote audit

ID	Technological means	Technical specifications	Number of technological equipment
1	Internet	DESCRIPTION OF THE INTERNET SYSTEM: 1-Broadband Satellite Internet 2-KA Band satellite transmission / reception system 3-Composition of the equipment, (1 satellite modem, 1 Etria RX / TX, 1 0.70cm diameter antenna) 4-The connection arrives at the client through the Modem in RJ45 interface 5-The system is powered by common Bivolt, Solar or Generator energy, provided by the customer 6-The system is connected to the client's computer or on his wi-fi router, made available by the client 7-The coverage of the internet signal will depend on the customer's network structure, that is, the strength of the wi-fi router 8-The plan contracted by the client has 10MB of download per 3MB of Upload and has 50GB of monthly deductible.	1
2	GPS	- Model: Garmin 64sc - Power supply: 2 batteries (AA) - GPS Error: 3,65 m (+/-12 ft). - System UTM Wgs 84	2
3	GPS	- Model: Garmin 78sc - Power supply: 2 batteries (AA) - GPS Error: 3,65 m (+/-12 ft). - System UTM Wgs 84	2
4	Cameras photographic	- Camera: Moto G7 Plus –Android System 9 (Pie) Processor Qualcomm Snapdragon 636 (octa-core de até 1,8 GHz) - External memory:64 GB - Camera model: duple - Image sensor 16 e 5 megapixels (apertures of f/1.7 e f/2.2) - Recording of video Full HD+ (2270x1080 pixels) - Battery: 3.000mAh	5

A detailed audit plan was carried out following the virtual audit protocol which was approved by both the project proponents and Verra, each of the activities carried out are shown below:

Table 4. Schedule of activities for remote audit

DATE	TIME	PLACE	ACTIVITY	CRITERIA	MEANS OF VERIFICATION	AUDITOR	AUDITORED
Day 1	08:00-12:00	Headquarters of the proponent in (local)	Pilot test to check equipment, quality of interviews and tours to strategic points of the Project. floristic inventory verification pilot.	VCS Standard	Technical and professional human team that carried out the forest inventory, measuring tape, GPS, video camera, making videos of taking measurements.	RAB	Carbonext TECHNIC TEAM
Day 1	14:00-18:00	Headquarters of the proponent in (local)	Opening Meeting - Introduction of the auditor - Presentation of the validation-verification team Presentation of the CARBONEXT TECHNIC TEAM 's team - Audit objective - Schedule discussion/ remarks - Review of the plan of validation-verification activities	VCS Standard	Microsoft Teams videoconference	RAB	Carbonext TECHNIC TEAM

DATE	TIME	PLACE	ACTIVITY	CRITERIA	MEANS OF VERIFICATION	AUDITOR	AUDITORED
			Questions				
Day 2	8:00 12:00	Headquarters of the proponent in (local)	Interviews with Actors belonging to the project, operator, administrator Owner of the property. Verification of the implementation of activities for the management and control of deforestation.	G.1, G.5, CL3.1, CL3.2, CL3.3, CM3.1 , CM3.2 , CM3.3 , B3.1, B3.2, B3.3	Microsoft Teams videoconference	RAB	Carbonext TECHNIC TEAM Ricardo Stoppe (landowner) Janaína Dallan (Technical Advisory) Ganete Eloí (collaborator)
Day 2	14:00 18:00	Project headquarters	Interviews with: with four neighbors of the project area to review possible effects of the implementation as well as identification of pressures and threats on the project area	G3, G.4, G.5 CL3.1, CL3.2, CL3.3, CM3.1 , CM3.2 , CM3.3 , B3.1, B3.2, B3.3	Cell phone calls, video recordings, or combinations of both.	RAB	Carbonext TECHNIC TEAM Adson Freire Elcio Moço José Capelaso Cleyliane Lopes de Moura
Day 3	8:00 12:00	Project headquarters	Interviews with the key institutional municipal actors, to verify regional actions. Verification of the implementation of activities for the management and control of deforestation.	G3, G.4, G.5 CL3.1, CL3.2, CL3.3, CM3.1 , CM3.2 , CM3.3 , B3.1, B3.2, B3.3	Cell phone calls, video recordings, or combinations of both.	RAB	Carbonext TECHNIC TEAM Mr Carlos Pantosa – IDAM LABREA – Amazon Development Institute Mr Josafá Novais Macedo – IDAM Amazon State (Instituto de Desenvolvimento Agropecuário e Florestal Sustentável do Estado do Amazonas)

DATE	TIME	PLACE	ACTIVITY	CRITERIA	MEANS OF VERIFICATION	AUDITOR	AUDITORED
							Mr Jose Carlos Moraes Araujo – SEDAM Secretaria de Estado do Desenvolvimento Ambiental
Day 3	14:00 18:00	Project headquarters	Carbon plot review (floristic inventory)	CL3.1, CL3.2, CL3.3, CM3.1 , CM3.2 , CM3.3 , B3.1, B3.2, B3.3	Remote review by the audit team of the information from the videos taken in the field	RAB	Carbonext TECHNIC TEAM
Day 4	8:00 12:00	Project headquarters	Documentary review, carbon calculations Interview to see: Ex-Post Quantification of emission reductions – estimation of the net anthropogenic removals by sinks (methodology equations) evidence for input data and parameter to the removal calculations, leakage (Uncertainty and conservativeness), SIG, legal compliance, monitoring report interviews with key actors	B3.1, B3.2, B3.3, GL.1	Remote review by the audit team of the information from the videos taken in the field	RAB	Carbonext TECHNIC TEAM Luiz Fernando de Moura Renan Kamimura (SIG)
Day 4	14:00 18:00	Project headquarters	Documentary review, carbon calculations	B3.1, B3.2,	Remote review by the audit team of	RAB	Carbonext TECHNIC TEAM

DATE	TIME	PLACE	ACTIVITY	CRITERIA	MEANS OF VERIFICATION	AUDITOR	AUDITORED
			Interview to see: Ex-ANTE	B3.3, GL.1	the information from the videos taken in the field		Luiz Fernando de Moura Renan Kamimura (SIG)
Day 5	8:00 12:00	Project headquarters	Review of all documentary supports of the monitoring plan	B3.1, B3.2, B3.3, GL.1	Remote review by the audit team of the information from the videos taken in the field	RAB	Carbonext TECHNIC TEAM
Day 5	14:00 18:00	Project headquarters	Closing Meeting - Audit conclusions - Deadlines for closing audit findings - Questions	VCS Standard	Microsoft Teams videoconference	RAB	Carbonext TECHNIC TEAM

2.2 Document Review

The documentary review was performed from November 7th 2020 to March 3rd 2021 as two reviews took place in order to conclude that the project met the requirements of the selected methodology. The project was first reviewed based on the information provided by the project proponent before the remote site visit. All answers to the findings provided by the proponent were compared with the Voluntary Carbon Standard version 4, and other relevant requirements defined by VCS. This information crosschecking allowed the identification of findings that were declared in Appendix A - Verification Protocol. In addition, the following documents, among others were checked:

FORTALEZA DO ITUXI REDD PROJECT (PL1654) VALIDATION REPORT FOR N. S. DA CACHOEIRA DO ITUXI (March 30 de 2019)

PROJECT DESCRIPTION "FORTALEZA ITUXI REDD PROJECT" (01 de Julio 2019)

PROCEDIMENTO PARA LEVANTAMENTO DE CAMPO DE INVENTÁRIO FLORESTAL E LEVANTAMENTO DE FAUNA PROJETO DE QUANTIFICAÇÃO DE BIOMASSA E ESTOQUES DE CARBONO

EQUAÇÕES PARA ESTIMATIVA DE VOLUME DE MADEIRA PARA A REGIÃO DA BACIA DO RIO ITUXI, LÁBREA, AM. THAINES, F.; BRAZ, E. M.; MATTOS, P. P. de; THAINES, A. A. R. 2010 EMBRAPA

DETERMINAÇÃO DO VOLUME, DO FATOR DE FORMA E DA PORCENTAGEM DE CASCA DE ÁRVORES INDIVIDUAIS EM UMA FLORESTA OMBRÓFILA ABERTA NA REGIÃO NOROESTE DE MATO GROSSO97 TRAVAGIN, SOARES, SILVA VOL. 39(1) 2009: 97 - 104

BIOMASSA DA PARTE AÉREA DA VEGETAÇÃO DA FLORESTA TROPICAL ÚMIDA DE TERRA-FIRME DA AMAZONIA BRASILEIRA. 1998

PLANO DE MANEJO FLORESTAL SUSTENTAVEL PMFS IMOVEL FAZENDA N.S. DAS CACHOEIRAS DO ITUXI LABREA-AM MANAUS – 2013.

PLANO OPERACIONAL DE EXPORTAÇÃO POE, SETEMBRO 2013.

MONITORING REPORT “FORTALEZA ITUXI REDD PROJECT” 14-December-2015 to 31-December-2019 CARBONEXT

SISTEMA DE GESTÃO DA QUALIDADE 2020

CONTRATO NOSSA SENHORA DAS CACHOEIRAS DO ITUXI SERVI LOS AUTONOMOS

PROCED FORTALEZA ITUXI CONTROLE PATRIMONIAL E COMBATE A INCENDIO

CALCULATION MR2 08 09 2020

MONITORING REPORT FORTALEZA ITUXI REDD PROJECT

BRIGADA DE INCENDIO FLORESTAL

RELATORIO DE MINISTERIO DO MEIO AMBIENTE 2017

RELATORIO DE MINISTERIO DO MEIO AMBIENTE 2018

RELATÓRIO TÉCNICO DE VISTORIA RTV No 226/2016 GECF GOVERNO DO ESTADO DO AMAZONAS.

RELATÓRIO TÉCNICO DE VISTORIA RTV No 226/2016 GECF GOVERNO DO ESTADO DO AMAZONAS.

RELATÓRIO TÉCNICO DE VISTORIA RTV No 001/17 GECF GOVERNO DO ESTADO DO AMAZONAS.

RELATÓRIO TÉCNICO DE VISTORIA RTV No 115/18 GECF GOVERNO DO ESTADO DO AMAZONAS.

RESUMO DOCS EXPLORACAO

PLANO DE MANEJO PLORESTAL SUSTENÁVEL PMFS INMÓVEL FAZENDA N.S DAS CACHOEIRAS DO ITUXI LÁBREA- AM

PLANO OPERACIONAL DE EXPLORAÇÃO-POE UNIDADE DE PRODUÇÃO PLORESTAL – UPF SETEMBRO DE 2013

PLANO OPERACIONAL DE EXPLORAÇÃO-POE UNIDADE DE PRODUÇÃO PLORESTAL – UPF SETEMBRO DE 2016

GOVERNO DO ESTADO AMAZONAS AUTORIZAÇÃO PARA USO DE MATÉRIA PRIMA PLORESTAL No 001/ 17

FICHA DE CAMPO IF PROCESSAMENTO DADOS CORRIGIDA. Xlsx

METODOLOGIA DO LEVANTAMENTO FLORÍSTICO PROJETO CARBONO

2.3 Interviews

Ten interviews were conducted in order to verify the information described by the proponent in the project's support documentation and a multiscale approach was used for the selection of the interviewees. Three regional actors belonging to environmental institutions were chosen; these experts had good knowledge of the dynamics of regional deforestation and therefore it was possible to show that the significant increase in regional deforestation is due to the advance of monocultures and the increase in extensive livestock farming. In addition to this, it was discovered that the institution's control over the dynamics of illegal land occupation is insufficient, and that there is insufficient support for the formulation of forest management plans that contribute to the sustainable management, which makes it more difficult for the landowners to keep their land.

Interviews with neighbors and institutional actors corroborated the information provided by the project proponent regarding excessive bureaucracy, high costs and delays in the authorization of sustainable management plans; these procedures do not facilitate the implementation of sustainable productive alternatives for landowners, which results in the landowner's decision to implement monocultures and extensive cattle ranching. It was also noted that actors outside the project illegally invade territories to implement large scale productive projects.

It was found that the REDD+ Project has successfully contributed to strengthening the technical capacities of the project area's neighbors, and formed a new REDD+ project, contributing to the reduction of deforestation at a more regional level.

Four interviews were carried out with project employees in which it was possible to show that the project has control over the forest area due to control and surveillance schemes around the property limits, where the access roads are regularly monitored in order to prevent external actors invading the territory. The sustainable forest management strategy and the capacity-building activities that the project has carried out for ecological management and health, among others, were corroborated.

The documents that support this information are on video in the Audit Mask delivered by the proponent and in the documents attached to the Monitoring Report

Next, all the interviewees and their functions are listed.

Table 5. Interviews with key stakeholders

Actor Class	Interviewed name	Function
Institutional regional experts	Mr Carlos Pantosa	IDAM LABREA – Amazon Development Institute
	Mr Josafá Novais Macedo	IDAM Amazon State (Instituto de Desenvolvimento Agropecuário e Florestal Sustentável do Estado do Amazonas)
	Mr Jose Carlos Moraes Araujo	SEDAM Secretaria de Estado do Desenvolvimento Ambiental
Project neighbors	Adson Freire	Landowner
	Elcio Moço	Landowner
	José Capelaso	Landowner
	Cleyliane Lopes de Moura	Landowner
Project workers	Ricardo Stoppe	Landowner
	Janaína Dallan	Technical Advisory Carbonex
	Ganete Eloi	Field coordinator

2.4 Site Inspections

The site inspections were carried out from November 18th 2020 to December 5th 2020. The objectives of the site visit were to assess the accuracy of the Monitoring Report, including the project implementation status, assess compliance with the monitoring plan, assess whether project activities were being implemented in accordance with the project description, and assess the quality of field data collection techniques.

In the verification of FORTALEZA ITUXI REDD PROJECT, a work plan with detailed activities was agreed with the proponent and then approved by Verra. The audit addressed field actions and document review, verifying all the components of the project. The process began with an opening meeting held on December 16th where the assurance level of the project was agreed at 95% and the confidence level at 5%. The on-site verification was designed in order to provide evidence with which to evaluate the materiality of the project in terms of the change in land use in the project area. The supervision of the cover change in the reference area, project area and leakage area was done via an overflight of a total of 4 hours of flight by plane, (the route can be seen in Figure 1). The forestry inventory was verified in 13 plots distributed in the project area.

Plots	E	N
38	802765	9006357
52	807406	9007917
56	808184	9009190
58	816939	9021702
100	819709	9020731
105	822812	9015251
146	823618	9010287
151	825796	9013571
163	171233	9020494
172	175386	9016687
177	178270	9020440
178	178265	9018046

Table 6. Plots selected for remote
FORTALEZA ITUXI PROJECT

231	817206	9016818
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inventory supervision of the

Figure 1. Overflight tour to verify project boundaries and the status of land use change.

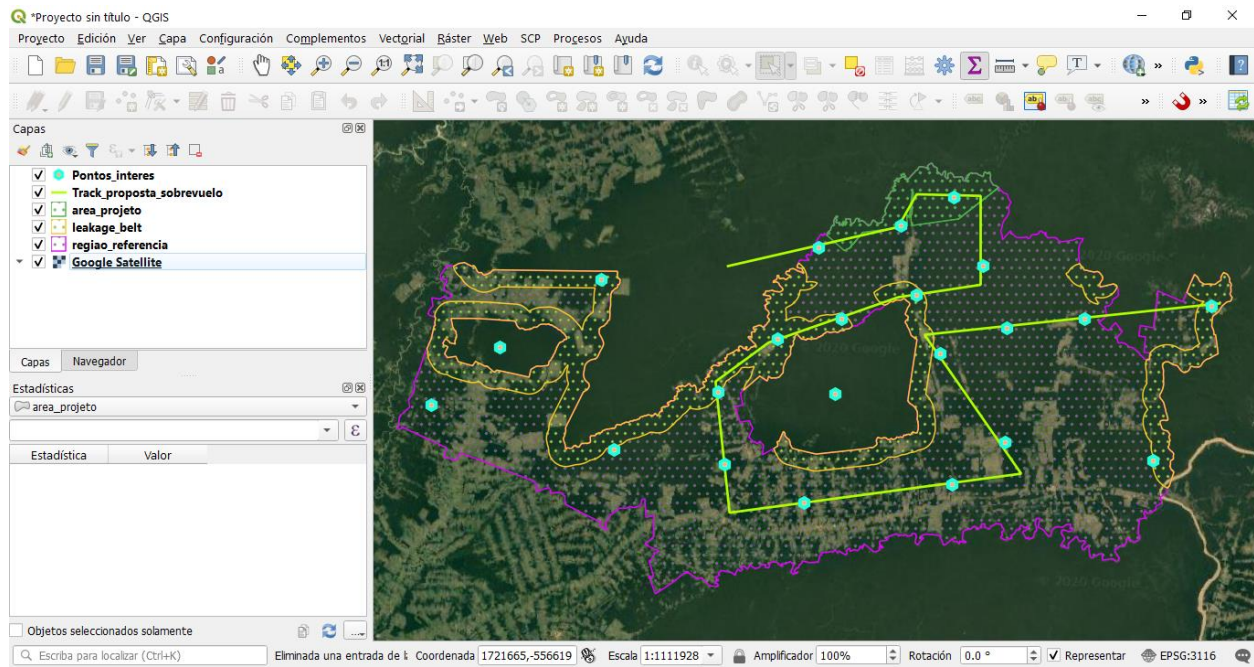


Table 7. Verification of some points of interest in land use in the overflight over the project area, the leak area and the reference area

Site	S	W	Evidence	Assurance of sampling in remote audit
Reference región	-9° 0'19,368''	-66° 18'10,89''		This point is the first of the tour, the reference region is observed in a preserved area of forest very close to the edge of the project area.
Project area	-8° 54'31,68''	-66° 0'47,874''		This is the second point in the tour, the evidence can be seen in the audit support video at 9:11:53 of the video made on November 17, 2020. You can see the forest standing, without any type of land use change.
Project area	-8° 58'46,23''	-66° 11'26,214''		This is the third point in the tour, the evidence can be seen in the audit support video at 8:53:07 of the video made on November 17, 2020. You can see the forest standing, without any type of land use change.
Reference región	-8° 58'48,072''	-66° 2'30,67''		There is evidence of burning and recent tree felling and some access roads. This shot was obtained from the overflight video at 09:15:28 of the video taken on November 17, 2020
cituron leak	-9° 0'19,368''	-66° 18'10,89''		In this area you can see the pasture for extensive livestock in the forest. This evidence is from the area of leakage and can be seen in the video at 9:42
cituron leak	-9° 0'19,368''	-66° 18'10,89''		There is evidence of deforestation and soil degradation. Some access roads are visible. This shot was obtained from the video of the overflight at 09:45:35 of the video taken on November 17, 2020

Reference region	-9° 38'52,3542''	-66° 0'22,422''		Here we can see access roads to the forest and evidence of extensive cattle ranching. The evidence can be seen in the video of the overflight made on November 17, 2020 at 9:50:37 am
Reference region	-9° 36'33,864''	-65° 44'3,66''		Large expanses of pasture are observed, but livestock is not visible. This evidence is found in the video made on November 17, 2020 at 10:32 am and is saved in the Audit file.
Reference region	-9° 18'36,9''	-65° 27'33,81''		Large areas of tree felling are observed in the hillside ecosystem. This evidence can be seen in the video made on November 17, 2020 at 10:35:52
Reference region	-9° 15'53,04''	-65° 25'11,484''		A recently burned and deforested area with access roads is observed. The evidence can be seen in the video made on November 17, 2020 at 10:35:52
Reference region	-9° 18'36,9''	-65° 27'33,81''		An deforested area with access roads is observed. The evidence can be seen in the video made on November 17, 2020 at 11:30:52

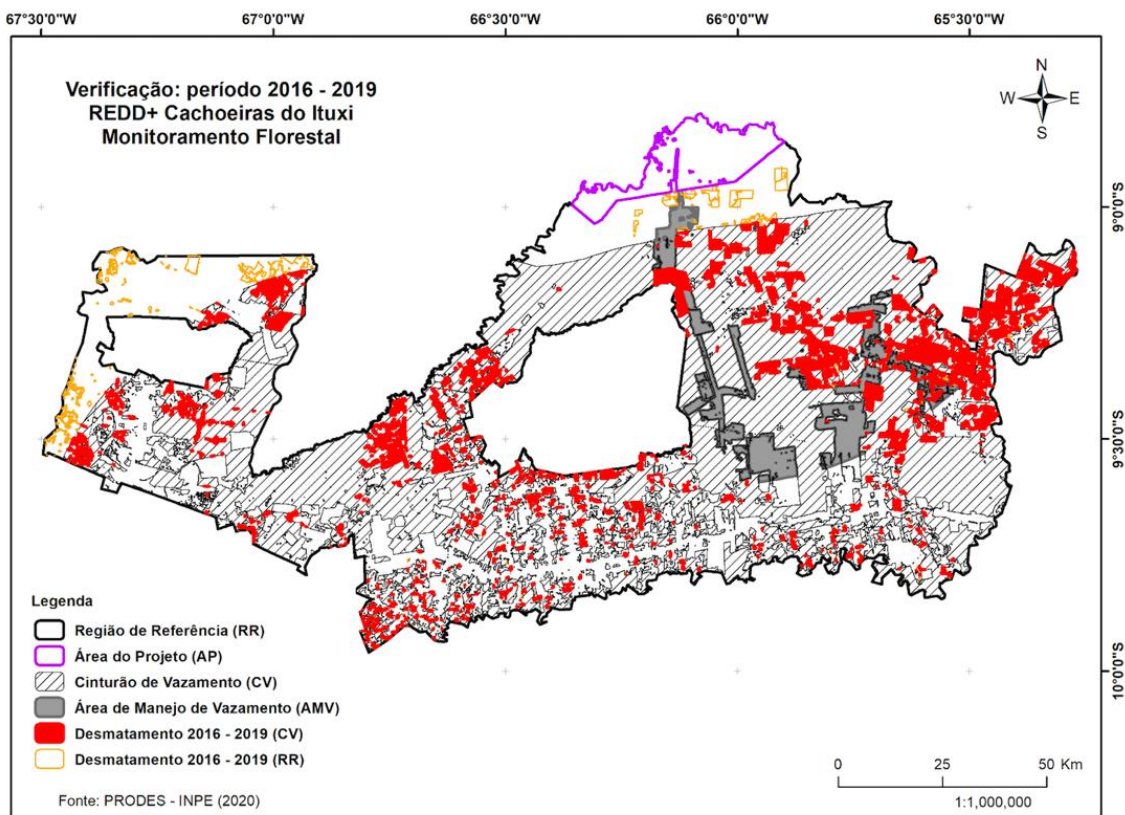


Figure 2. Project area with recent deforestation

An overflight was carried out with a route established and agreed with the project proponent and with GPS points indicated in the three areas, (project area, leakage belt and reference area), in order to observe the change of coverage. On board the plane was the pilot and a qualified technician who took the video evidence, both of the overflight route and the observed area, taking the selected points as reference. Below are the points, images and observations regarding the area covered in the overflight.

2.5 Resolution of Findings

The CARs and CL raised, as well as their resolution processes are reported in Appendix 1. During this verification process 7 CARs, and 7 CL were raised by the audit team. Their resolution 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

No FAR was raised.

2.6 Eligibility for Validation Activities

ICONTEC has not undertaken validation activities as part of the verification of this project. However, ICONTEC holds accreditation for validation for the relevant sectoral scope 14 under which this project activity is classified.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

As stated in the PDD of July 1, 2019 and in section 1.12.4 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

Two methodologies were used in the first project verification for the calculation of biomass contents in the forest with local inventories, research data and scientific publications. This is allowed by the VM0015 methodology; however, the methodology requires data from 10 years earlier. The deviation from the methodology lies in the fact that the proponent used data from more than 10 years earlier, from a local study conducted by Cummings et al. (2002). In this case, it can be assumed that the methodological deviation corresponds to 1 year previous to this, since, according to VM0015, the data must be published in 2003 (10 years before the project start date). The proponent used the standard deviation between these plots to determine the 90% confidence interval for the uncertainty analysis.

Another methodological deviation has to do with the calculation of the carbon stock in forest products: although data on wood harvesting plans are available for the project area (allowing the use of Method 1), Method 2 has been applied for conservative purposes. This is considered a deviation, because Method 1 is generally applicable when data on wood

harvesting plans is available for the project area: in the case of this project, wood harvesting data is available, but Method 2 has been applied.

In the second verification, a deviation was made in the methodology of VM0015 for the calculation of total carbon, in relation to not making the total discount in total emissions, due to the increase in the deforestation rate in the leakage belt, since deforestation activity has accelerated in the last 10 years, which affects the feasibility of the project. The proponent demonstrated that it has total control of the project area, through its forest management plan, however, as it is well documented, the clearing in Brazil has increased throughout the deforestation arc and especially in the municipality of Lábrea. For this reason, it is supported both by documentation as well as in the interviews carried out by the audit, that this phenomenon is verifiable and, in this case, it is not necessary to discount the emissions of the leak belt in carbon accounting.

The average deforestation rate in the Reference Region from 2008 to 2013 has been estimated at 4,035 hectares, while it has increased by 14,715 hectares from 2013 to 2016 (that is, an increase of 265%). This increase in deforestation has been motivated by profits in wood production and in land clearing for livestock, as historically observed in the project's baseline; however, the intensity of degradation and deforestation activities has increased due to the collapse of environmental inspection bodies.

3.3 Project Description Deviations

Application of the methodology

The methodological deviation of VM0015 of the VCS, which was carried out in the verification period 12/15/2015 to 31/12/2019 by the project proponent, is in the discount of emissions and this has to do with the carbon accounting related to the increase in emissions in the leakage belt. The methodology proposes the discount of the increase in carbon emissions in the leakage area due to the increase in the deforestation rate of the carbon stock reported for the monitoring period in the project area; however, due to the increase in uncontrolled deforestation in the reference area, such a discount would make the project non-feasible. The progression in increasing deforestation is much faster from 2014 to 2019. The preliminary linear regression model points to an annual increase of 9,300 hectares of deforestation. According to the coefficient of determination (R^2), this variation is explained by 97.6% using a linear model.

Deforestation in the Reference Region has continued to increase; 2017 (23,304 hectares), 2018 (26,116 hectares) and 2019 (30,670 hectares). Therefore, it is reasonable to say that ex-post deforestation rates have reached levels much higher than those predicted by deforestation models up to 2013. All calculations presented in the Project Description prioritized conservative approaches, including those related to spatial deforestation of the projections.

The total leakage measured in the leakage belt area has been discounted by the average increase in deforestation in the municipality of Lábrea during the verification period (that is, 3.9 times higher than expected). Therefore, in accordance with the general situation which demonstrates the high increase in the deforestation rate at the national and municipal level, regardless of the implementation of the project, the proponent understands that the deviation does not negatively impact the conservatism of the quantification of the reductions of GHG emissions. Deviations relate only to monitoring or measurement criteria and procedures, and are not related to any other part of the methodology.

In this context, the real deforestation values in the leakage belt were divided by 3.9 (that is, an increase in external deforestation in the leakage belt and the Reference Region, measured throughout the Municipality of Lábrea using official PRODES data). As a correction for an unusual temporary increase in deforestation in Lábrea, it has also been shown that the excessive increase in deforestation in the area of the leakage belt cannot be attributed to Project Activities.

Additionality.

The current scenario of baseline estimates and leakage leads to the following problems that make this project activity unfeasible:

Current underestimation of carbon credits in relation to the current deforestation that occurs in neighboring regions;

Excessive leakage (much higher than the estimated ex-ante leakage), which exceeds all the emission reductions foreseen for this Project.

Conclusion

The deviation made in the Project applies the principle of conservatism and is supported by regional, national data and makes the continuation of the Project possible. It is determined that the methodological deviation is necessary and complies with the methodology and standards of the VCS.

3.4 Grouped Project

This is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The ICONTEC audit team confirmed that the FORTALEZA ITUXI REDD PROJECT is fulfilling the objective of protecting the forests located in one of the regions with the largest deforestation site in the Amazon Biome in the municipality of Lábrea. It is verified that this region has been reached by the “arc of deforestation” in the last 10 years, causing the deterioration of ecosystem services and socioeconomic imbalances. Icontec's audit team corroborates the facts through remote inspection and interviews with key stakeholders. The expansion of agriculture and extensive cattle ranching are the major drivers of deforestation, causing land cover-ups and the movement of local actors. The change in land use takes place around access roads, causing deforestation in herringbone pattern in the Brazilian Amazon.

The ICONTEC audit team, has verified that in the REDD project area there is a high probability of change of land use, due to extensive cattle-ranching and single-crop farming. The implementation of Sustainable Forest Management strategies requires carbon incentives to maintain forest conservation and monitoring activities, confirming that the scenarios envisaged by the Project are real. The project area has many pressures and threats from the actors that cause deforestation in the region, which has a history of illegal occupation and pressure from landowners trying to buy the land with the intention of changing its use.

It was verified that the Sustainable Forest Management Plan began activities on 15/12/2013, and that through its activities it has exercised strong control in the project area, thus ensuring that the carbon reserves anticipated are maintained in accordance with the project component's calculations. The ICONTEC audit team corroborated, through interviews with project workers, that the main roads where deforestation occurs in the vicinity of the project area are "Jaquitibá" and "Do Boi" and that these are being monitored by the project proponent in order to prevent the entry of external actors and avoid illegal occupation and the illegal extraction of wood.

In 2012-2013 the deforestation rate in the Amazon increased significantly by 28%. The transformation has been driven by infrastructure works carried out by the Brazilian Government such as the paving of roads, the installation of hydroelectric plants and the construction of ports, which have changed the socioeconomic dynamics and contributed to deforestation in the region. The current environmental regulations of the Forest Code and the weakness of the control entities do not contribute to the implementation of sustainable management plans in the area surrounding the Project, nor does the government contribute effectively to the implementation of sustainable projects and has reduced the number of conservation areas. In spite of this the project proponent has created a new Redd strategy with neighboring landowners and has thus achieved a reduction in deforestation in the Project's reference area.

In the Project Document – PD, it mentions that the project area and its reference zone will present an increase of up to 28% in the deforestation rate with projections in the period from 2009 to 2040 according to a study by Vitel (2009), however the deforestation projections in the monitoring report were above the projections estimated by this author. This excessive increase in deforestation in the leakage belt and the reference region would affect the Project's continuity, for which there is a methodological deviation in carbon accounting, reducing this discount in percentage terms with municipal deforestation reports. The deviation made is reliable and conservative.

The "Displacement Leakage Factor" (DLF) is conservatively considered as 0.05, since at this time the actors around the Project are working on the formulation of another REDD project. The possible deforestation agents have the opportunity to participate in leak prevention activities during the life of the Project.

The ICONTEC team confirmed that the activities proposed to avoid deforestation by the project proponent in the Project Description Document have already been developed and the progress described in the Monitoring Report is reliable.

Regarding the estimates in the carbon stock, no material discrepancies were found. The forest inventory was verified by means of the remote verification of 13 plots that represent the 5% of the forest inventory used to make the carbon estimates. The carbon calculations have been reviewed and no inconsistencies in the quantification procedures have been found.

The ICONTEC audit team concludes that the FORTALEZA ITUXI REDD PROJECT complies with the VCS criteria and with the VM0015 methodology and that the reduction of deforestation in the project area of 46,592 hectares in the reference period from 15/12/2015 to 31/12/2019 is 212,935 (tCO₂e)

4.2 Safeguards

4.2.1 No Net Harm

The ICONTEC audit team verified that the project proponent has taken actions to involve the neighboring community in order to strengthen their capacities, improving sustainable production practices and forest monitoring. These activities carried out in the Project reference area have promoted a new REDD project in order to curb accelerated deforestation in the reference area. This acts as a collateral benefit of the Project but also as a way to control leakage.

Interviews with key stakeholders show that the proponent has complied with AFOLU's Social and Environmental Safeguards and that the Project has demonstrated in the audit that it does not generate negative impacts on the well-being of other stakeholders.

4.2.2 Local Stakeholder Consultation

The INCONTEC audit team verified that the project proponent consulted with the interested parties and that they maintain continuous communication and that benefits have been granted to the community, strengthening their capacities by providing such training as sustainable forest management and management of fires. The audit team also demonstrated that the proponent of the Project supports health and well-being processes in the communities around the Project and that a work and training plan that was established in the DP has been followed.

4.3 AFOLU-Specific Safeguards

ICONTEC verified that the project proponent has carried out actions to involve the community in strengthening their capacities in order to improve sustainable production practices and forest monitoring. These activities are carried out in the Project reference area, promoting a new REDD project with the purpose of stopping accelerated deforestation in the reference area. This is one of the Project's collateral benefits, but also a way to control leakage.

Interviews conducted with key stakeholders show that the proponent has complied with AFOLU's Social and Environmental Safeguards and that the Project demonstrated in the audit that it does not generate negative impacts on the well-being of other stakeholders.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The following chart shows the parameters used for Project component's carbon calculations. These were used to calculate the reductions and removals.

Data / Parameter	CF
Data unit	tC/tdm
Description	Default value of carbon fraction in biomass
Source of data	Values from the literature (e.g. IPCC 2003. Good practice guidance for land use, land-use change and forestry. Kanagawa: IGES, 2003. Available at: < http://www.ipccnggip.iges.or.jp/public/gpglulucf/gpglulucf.html >)
Value applied	0.5
Justification of choice of data or description of measurement methods and procedures applied	The default value was used for conservativeness purposes.
Purpose of Data	Calculation of baseline emissions
Comments	If new and more accurate carbon fraction data become available, these can be used to estimate the net anthropogenic GHG emission reduction of the subsequent fixed baseline period.

Data / Parameter	44/12
Data unit	Dimensionless
Description	Carbon mass to CO ₂ e mass conversion factor

Source of data	From scientific literature: 2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 4 AFOLU
Value applied	44/12
Justification of choice of data or description of measurement methods and procedures applied	Conversion from C to CO ₂ based on molecular weights
Purpose of Data	Calculation of baseline emissions
Comments	IPCC standard value

Data / Parameter	R
Data unit	t root d.m.t-1 shoot d.m.
Description	Root to shoot ratio appropriate to species or forest type / biome; note that as defined here, root to shoot ratio is applied as belowground biomass per unit area: aboveground biomass per unit area (not on a per stem basis)
Source of data	Average of following references: 0.37 root-shoot ratio (R), according to "2006 IPCC Guidelines for National Greenhouse Gas Inventories", V. 4, Ch. 4, AFOLU, pg. 4.49, Table 4-4; and 0.24 root-shoot ratio, according to VM0015, Appendix 3, Table 2. Root to shoot ratios
Value applied	0.31
Justification of choice of data or description of measurement methods and procedures applied	Local values are not known, and the IPCC and VM0015 factors are conservative values.
Purpose of Data	Calculation of baseline emissions
Comments	Peer-reviewed work performed in the region of the Project Area, with a similar vegetation typology. The statistical quality of model is in conformance with methodology requirements.

Data / Parameter	BEF
Data unit	dimensionless
Description	Biomass Expansion Factor
Source of data	According to "Brown, S., A. J. R. Gillespie, and A. E. Lugo, 1989. Biomass estimation methods for tropical forests with applications to forest inventory data. Forest Science, 35:881-902". (Table 4; pg. 890; minimum value deducted from lowest limit.: 1.743 - 0.083 = 1.66)
Value applied	1.66

Justification of choice of data or description of measurement methods and procedures applied	BEF was applied for conversion of merchantable volume to total aboveground tree biomass.
Purpose of Data	Calculation of baseline emissions
Comments	N/A

Data / Parameter	Cabicl
Data unit	tCO2/ha
Description	Average carbon stock per hectare in the aboveground biomass pool of initial forest class icl
Source of data	Local biomass inventory, made in the Project Area in 2020.
Value applied	577
Justification of choice of data or description of measurement methods and procedures applied	0.31 root-shoot ratio (R) was applied (average of following references: 0.37 root-shoot ratio (R), according to "2006 IPCC Guidelines for National Greenhouse Gas Inventories", V. 4, Ch. 4, AFOLU, pg. 4.49, Table 4-4; and 0.24 root-shoot ratio, according to VM0015, Appendix 3, Table 2. Root to shoot ratios) 1.66 Biomass Expansion Factor (BEF) was applied for conversion of merchantable volume to total aboveground tree biomass, according to "Brown, S., A. J. R. Gillespie, and A. E. Lugo, 1989. Biomass estimation methods for tropical forests with applications to forest inventory data. Forest Science, 35:881-902". (Table 4; pg. 890; minimum value deducted from lowest limit.: $1.743 - 0.083 = 1.66$) 0.589 t/m³ wood density was applied, according to Nogueira (2008).
Purpose of Data	Calculation of baseline emissions
Comments	Files related to the local biomass assessment are available for consultation by the audit team.

Data / Parameter	Cbbicl
Data unit	tCO2/ha
Description	Average carbon stock per hectare in the belowground biomass pool of initial forest class icl
Source of data	Local biomass inventory, made in the Project Area in 2020.
Value applied	176
Justification of choice of data or description of	0.31 root-shoot ratio (R) was applied (average of following references: 0.37 root-shoot ratio (R), according to "2006 IPCC Guidelines for National Greenhouse Gas Inventories", V. 4, Ch. 4,

measurement methods and procedures applied	AFOLU, pg. 4.49, Table 4-4; and 0.24 root-shoot ratio, according to VM0015, Appendix 3, Table 2. Root to shoot ratios) 0.589 t/m ³ wood density was applied, according to Nogueira (2008).
Purpose of Data	Calculation of baseline emissions
Comments	Files related to the local biomass assessment are available for consultation by the audit team.

Data / Parameter	Cabfcl
Data unit	tCO ₂ /ha
Description	Average carbon stock per hectare in the aboveground biomass pool of post-deforestation class fcl
Source of data	Weighted average (by area obtained in Terra Class database): 2006 IPCC Guidelines for National Greenhouse Gas Inventories, V. 4, Chapter 6: Grassland, pg. 6.27, Table 6.4 (for Pasture: 76.1% of area) 2006 IPCC Guidelines for National Greenhouse Gas Inventories, V. 4, Chapter 4: Forest Land, pg. 4.63, Table 4.12 (for Pasture with regeneration: 23.9% of area)
Value applied	61.1
Justification of choice of data or description of measurement methods and procedures applied	Conservative default value from IPCC, to estimate post-deforestation land use carbon stock.
Purpose of Data	Calculation of baseline emissions
Comments	Conservative average to be used in calculations, based on uncertainties in source values.
Data / Parameter	Cbbfcl
Data unit	tCO ₂ /ha
Description	Average carbon stock per hectare in the belowground biomass pool of post-deforestation class fcl
Source of data	Weighted average (by area obtained in Terra Class database): 2006 IPCC Guidelines for National Greenhouse Gas Inventories, V. 4, Chapter 6: Grassland, pg. 6.27, Table 6.4 (for Pasture: 76.1% of area) 2006 IPCC Guidelines for National Greenhouse Gas Inventories, V. 4, Chapter 4: Forest Land, pg. 4.63, Table 4.12 (for Pasture with regeneration: 23.9% of area)
Value applied	40.5

Justification of choice of data or description of measurement methods and procedures applied	Conservative default value from IPCC, to estimate post-deforestation land use carbon stock.
Purpose of Data	Calculation of baseline emissions
Comments	Conservative average to be used in calculations, based on uncertainties in source values.
Data / Parameter	EI
Data unit	N/A
Description	Ex ante estimated effectiveness index
Source of data	Local assessment
Value applied	0.9
Justification of choice of data or description of measurement methods and procedures applied	The project design team conservatively considers that surveillance activities are able to attain 90% of effectiveness in avoiding unplanned deforestation inside the Project Area.
Purpose of Data	Calculation of project emissions
Comments	This value is an ex ante estimate. Accurate and actual values will be monitored and reported in verification periods.
Data / Parameter	DLF
Data unit	N/A
Description	Displacement Leakage Factor
Source of data	Local assessment
Value applied	0.05
Justification of choice of data or description of measurement methods and procedures applied	If deforestation agents do not participate in leakage prevention activities and project activities, the Displacement Factor shall be 100%. Where leakage prevention activities are implemented the factor shall be equal to the proportion of the baseline agents estimated to be given the opportunity to participate in leakage prevention activities and project activities. The project design team estimates that 100% of potential deforestation agents in the Reference Region will be given the opportunity to participate in leakage prevention activities. Thus, the "Displacement Leakage Factor" (DLF) is conservatively considered as 0.05.
Purpose of Data	Calculation of leakage
Comments	This value is an ex ante estimate. Accurate and actual values will be monitored and reported in verification periods.
Data / Parameter	Deforestation
Data unit	ha

Description	Maps of forest cover areas converted into non-forest areas
Source of data	Measured through data from PRODES/INPE project
Value applied	Yearly variable: deforestation values are presented for the Reference Region, Leakage Belt and Project Area (projections) in the VCS-PD
Justification of choice of data or description of measurement methods and procedures applied	The project area is located within a region that is subject to a monitoring program that is approved or sanctioned by the national government (PRODES). The data generated by such program is used in this Project. PRODES data are applicable for use in this Project, according to the criteria listed below (Methodology VM0015): i) PRODES monitoring occurs in the entire project area and leakage belt. ii) PRODES monitoring occurs in the entire reference region and covers the beginning, middle and end of the fixed baseline period. iii) PRODES monitors conversion of forest land to non-forest land. iv) Monitoring occurred during the entire fixed baseline period.
Purpose of Data	Calculation of baseline emissions
Comments	N/A

The data used is appropriate for estimating GHG emission reductions and removals, including the precision of spreadsheet formulas, conversions, equations, data, and parameters. The leak estimation represents a methodological deviation that is clearly supported and follows the principles of conservatism. The applied methodology VM0015 is met in each of the steps followed by the proponent in the monitoring proponent, so it can be ensured that the emission reductions reported by the Project are reliable.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

A remote audit protocol was conducted showing, in a field video, the methodology implemented by field personnel for the calibration of equipment for performing the measurements of the 13 plots of the verified forestry inventory. No material discrepancies were found in the forestry inventory carbon contents, nor in the carbon calculations and the equations used by the project are found to be adequate. The methodological deviation conducted in the deforestation rate in the leak area is duly supported by documentation and complies with the principles of conservatism, likewise the activities performed to carry out the Forestry Management Plan have been duly supported and documented. It has been concluded that the evidence and facts provided by the project proponent are clear and reliable. The audit team found no discrepancies between the documentary information and the information found in the audit process with regard to the GEI removal reduction.

4.6 Non-Permanence Risk Analysis

In the ICONTEC audit team verification of the risk analysis carried out by the project proponent, using the projects AFOLU v3.3 risk tool, there were no inconsistencies or discrepancies. The proponent conservatively evaluated its risk, having a global non-permanence risk classification and buffer determination of 21. The results are shown below:

Risk factor	Score	Findings	NCR/OBS
Internal risks			

Risk factor	Score	Findings	NCR/OBS
Project management	-4	The project was developed in the area of native forests in the Brazilian Amazon, reforestation with non-native species is not part of the project activity (a=0). The project did not generate carbon credits previously (b=0). The project staff and associated technical consultants are made up of professionals highly qualified for the task, as can be seen in the brief professional description presented by the proponent in the non-permanence risk analysis report (ref.1, appendix 1) (d=0, e=-2). Project staff maintain a physical presence at the Nossa Senhora da Cachoeira do Ituxi farm, the project area. A risk mitigation and adaptive management plan (ref. 10) was presented by the project proponent. The document includes processes for monitoring progress over a set of activities related to the REDD project, such as fire prevention, surveillance protocols and revisions of the farm management plan (f=-2). The score of this risk component was correctly applied by the project proponent.	None
Financial viability	0	The project financial worksheet shows the breakeven point between is less than 4 years and the farm owner has secured the amount of funds needed to implement the project so far. The score of this risk component was correctly applied by the project proponent.	None
Opportunity costs	0	The project proponent considers NPV from the most profitable alternative land use activity as between 20% more than and up to 20% less than from project activities, justifying it with financial parameters taken from scientific articles (ref. 29) in comparison with the project own financial indicators (ref. 30) (d)=0)	None
Project longevity	15	The project area is located in an area with an approved forest management plan that constitutes a legal agreement with the competent authorities to harvest the area in observation of reduced impact logging principles define by law, and the continuity of the management practices for 30 years (harvesting cycle), for the entire project longevity. Moreover, the project's legal reserve (80% of the farm) is registered with the relevant government offices. Brazilian Forest Code determines that, once allocated, legal reserve may not be changed even in cases of documentation transfer, land dismembering or area rectification. (b)=15)	None
Total internal risk	11	The score associated with the project internal risk was evaluated by the VVB team and considered to be correct according to the referred VCS tool.	None
External Risk			

Risk factor	Score	Findings	NCR/OBS
Land Tenure and Resource Access/Impacts	1	The rights to the land and its resources belong to Ricardo Stoppe Junior, the project proponent, as verified by the VVB team through document evaluation and proof of title to the land (a)=0). There are no ongoing disputes over land tenure or ownership in the project area, but overlapping rights remain characterized in the northern portion of the farm, where the Iquiri National forest is located. The project area is not overlapped with this area. (c)=0, d)=5). Project area is protected by legally binding commitment (f)=2). The project proponent has earned a favourable legal opinion towards his property rights g)=2).	None
Community Engagement	5	There are no households living within the project area (a)=0) The project proponent has conservatively considered that Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted (b)=5).	None
Political Risk	0	The VVB team assessed the country's political risk independently using the World Bank tool and agrees with the score assigned by the project proponent (c)=2) as well as the associated mitigation measures (f=-2)).	None
Total External risk	6	Due to the above, the VVB team finds that the risk of loss in carbon stocks associated with aspects external to the project has been correctly considered by the proponent.	None
Natural risks	4	Sufficiently supported by scientific literature and secondary data, the proponent considers the risk associated with the carbon loss in the project area due to natural effects as significant, which was considered plausible by the VVB team. The risk associated with fire was considered in function of the high frequency of hot spots, the low intensity of fires and the existence of an adaptive management plan focused in fire prevention measures. The risk associated with pests and diseases was considered as null, due to the biodiversity intrinsic to the biome, which was considered as plausible by the VVB team. The risk of carbon stocks loss due to extreme weather was considered due to droughts caused in the amazon forest because La Nina effect. The risk of geological hazards such as landslides was considered as null according to Tominaga (2009). The risk of Blowdowns was considered as null according to Espirito Santo articles (2009). The VVB team reviewed the referenced scientific literature in order to confirm the proponent's conclusions regarding the significance and probability of the events in question.	None

Risk factor	Score	Findings	NCR/OBS
OVERALL NON-PERMANENCE RISK RATING AND BUFFER DETERMINATION: 21			

5 VERIFICATION CONCLUSION

ICONTEC has verified that the Project complies with Verified Carbon Standard version 3.7 with all non-conformities. The Monitoring Plan has been executed in accordance with the Project Description Document with validated deviations. The verification covers a project area of 46,592 hectares located in the municipality of Lábrea in Brazil. The purpose of the verification audit is to verify the implementation of the validated GHG Project. The data and information supporting the GHG report are historical in nature and are based on the forest inventory survey for carbon calculation. The verification evaluation included the monitoring period from December 15th, 2015 to December 31st, 2019, and verified the calculation of the reductions achieved and / or removal of emissions during the monitoring period with a reasonable level of safety.

ICONTEC can issue a positive verification dictation for 212,935 (tCO₂e) before discounting the reserve credit, according to the MONITORING REPORT version 1.1, at the close of January 6th 2021 for the Monitoring Period from December 14th 2015 to December 31st December 2019. Likewise, the total amount of credits to be deposited in the reserve deposit is 170,766 VCU. For non-AFOLU projects, use the following table:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2013	0	0	0	0
2014	1,079,891	188,986	53,995	836,911
2015	163,324	91,788	8,166	63,370
2016	14,365	71,351	718	-57,704
2017	164,040	80,777	8,202	75,060
2018	16,112	60,444	806	-45,137

2019	165,515	69,843	8,276	87,396
2020	17,856	49,536	893	-32,573
2021	170,218	59,231	8,511	102,476
2022	19,635	38,632	982	-19,979
2023	167,067	47,834	8,353	110,880
2024	21,356	27,722	1,068	-7,434
2025	155,478	35,593	7,774	112,111
2026	8,704	15,375	435	-7,106
2027	156,247	-61,949	7,812	210,384
2028	8,679	-82,247	434	90,492
2029	148,068	-73,849	7,403	214,514
2030	8,562	-93,341	428	101,475
2031	147,186	-85,020	7,359	224,846
2032	8,401	-104,439	420	112,420
2033	144,178	-96,402	7,209	233,371
2034	8,265	-115,535	413	123,387
2035	142,565	-107,646	7,128	243,083
2036	8,120	-126,631	406	134,345
2037	144,446	-118,540	7,222	255,764
2038	7,989	-137,726	399	145,316
2039	138,954	-130,171	6,948	262,177
2040	7,891	-148,818	395	156,315

2041	140,060	-49,064	7,003	182,121
2042	7,816	-62,288	391	69,713
2043	266,891	-36,381	13,345	289,927
Total	3,657,879	-792,935	182,894	4,267,919

For AFOLU projects, include quantification of the net change in carbon stocks. Also, state the non-permanence risk rating (as determined in the AFOLU non-permanence risk report) and include the total number of buffer credits that need to be deposited into the AFOLU pooled buffer account.

For AFOLU projects, use the following table:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)	Buffer pool allocation	VCUs eligible for issuance
2016	15,753	-2,353	0	18,106	3,802	14,304
2017	165,910	2,117	0	163,793	33,122	130,671
2018	17,669	168,558	0	-150,889	-31,687	-119,202
2019	167,553	-14,372	0	181,925	36,932	144,993
Total	366,884	153,949	0	212,935	42,169	170,766

APPENDI A: NONCONFORMITIES

Clarifications and corrective action requests	Reference	Summary of project proponent response	Verification Team conclusion
<u>Clarification Request CL1</u> Clarify within the MONITORING REPORT "FORTALEZA ITUXI REDD PROJECT" what differences were found in the carbon content report between the first verification of the Project and in the current verification.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	In item "2.3.2 Project Description Deviations" of the Monitoring Report, we described the differences in calculations between the first and the current verification report. We inserted a Table enumerating these differences (e.g. use of biomass inventory, correction of leakage due to abnormal increase in deforestation, changes in the amount of timber harvested).	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Clarification Request CL2</u> The MONITORING REPORT "FORTALEZA ITUXI REDD PROJECT, must specify and describe which are the communities or families that will be part of the new REDD proposal and which kind of articulation agreements have been exposed in terms of area monitoring and management plans among others.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	In topic "2.2 Local Stakeholder Consultation" of the MR, the new "Unitor REDD Project" is mentioned. The articulation has been made directly with 14 neighboring landowners (total of 98,000 hectares), so we described in item "2.2 Local Stakeholder Consultation" of the Monitoring Report: landowners/companies; name of farms (in a total of 14 farms); area of the Reference Region and Project Area. The relationship between actors for monitoring REDD areas is briefly described in the text.	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Clarification Request CL3</u> It should be clarified how the communication channel is developed between the interested parties in order to express concerns. The Documentation should include a proposal for the construction of the social organizational structure of the REDD actors in the territory.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	The main interested parties in this Project are Neighbors and Ituxi Farm Workers: the communication channel between the interested parties and the project proponent is the farm secretary and spokeswoman (Ganete Eloi). As the Project Region has low complexity in terms of social context, Ganete is the only person in charge to communicate problems, demands and conflicts to the	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED

Clarifications and corrective action requests	Reference	Summary of project proponent response	Verification Team conclusion
		landowner. In this context, the organogram is very simple, composed by Neighbors and Workers in the base, Secretary and Spokeswoman in the middle, and the project proponent (landowner) in the top. In addition, the Project Proponent has a direct communication channel (WhatsApp Group) with all interested parties in the region. This explanation has been added in "2.1 No Net Harm" and "4.3 Monitoring Plan".	
<u>Clarification Request CL4</u> The proponent must clarify how it contributed to reducing deforestation at the municipal level in Lábrea.		At the municipal level (Lábrea), the project activity will contribute, over the first 10-years period, to reduce deforestation corresponding to 17% of the annual average deforestation in the municipality: in 10 years (2013-2023), the Project will avoid deforestation of 2,961.8 hectares, which represents 17% of the annual average deforestation rate (based on 2008-2019 data: 17,328 hectares). Moreover, the Project Proponent has recruited 14 neighbor farms for a new REDD Project, totalizing 98,000 hectares of protected forest in Lábrea. This explanation has been added in "1.11 Sustainable Development" of the Monitoring Report.	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Corrective Action Request CAR1</u> The documentary base of the MONITORING REPORT "FORTALEZA ITUXI REDD PROJECT" is disarticulated in different and separated	VCS Standard Version 4 Requirements	A directory was organized in the Carbonext cloud, including cartography, information on the forest inventory, surveillance and monitoring information, carbon calculations, forest management plan, shape files, satellite images, among others.	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED

Clarifications and corrective action requests	Reference	Summary of project proponent response	Verification Team conclusion
files that are sent by email. The project proposer must present all the supports in a compiled and orderly manner (cartography, information on the forest inventory, surveillance reports and monitoring, carbon calculations, forest management plan, shape files, satellite images, among others). The documentation must be presented in a coherent way.	Document 16 de September 2019, v4		
<u>Corrective Action Request CAR2</u> The methodology and impact findings on the management plan related to the extraction of timber and non-timber products, must be included and attached in the documentary support.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	As evidences for this aspect, we are providing the Forest Management Impact Reports (Relatório Técnico de Vistória_2016.pdf; Relatorio de Vistoria_Ituxi_2018.pdf) which are conducted by the environmental entities as condition for obtention of Operation Licenses. These reports evidence that the official entities have monitored management impacts and endorsed the practices adopted by the project proponent. Regarding the methodology used to quantify the impacts of forest management in terms of carbon emissions or stock reductions, the Monitoring Report is now further describing the premises adopted: In "4.3.1 Monitoring of actual carbon stock changes and GHG emissions within the project area", subtopic "Monitoring of carbon stock changes and non-CO2 emissions from forest fires", further details on the calculation of ex post carbon stock decrease due to planned	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED

Clarifications and corrective action requests	Reference	Summary of project proponent response	Verification Team conclusion
		logging activities have been provided. These explanations were also added in "5.2 Project Emissions", referring to results in "Table 29. Ex post carbon stock decrease due to planned logging activities (Table 25b of VM0015)".	
<u>Corrective Action Request CAR3</u> Methodology and results of the monitoring of the access points to the forest must be attached.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	In folder "SURVEILLANCE", the audit team can find the file "Proced_Fortaleza_Ituxi Controle Patrimonial e Combate a Incendio", which is the contingency plan of the farm. This document describes the methodology for monitoring the access points. In the same folder, the audit team can find photographic records and documents related to the most recent occurrences in the farm.	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Corrective Action Request CAR4</u> The MONITORING REPORT document "FORTALEZA ITUXI REDD PROJECT" has several images that are not visible.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	The project team has checked the Monitoring Report and replaced / re-dimensioned all the images that were not clearly visible. The figure whose numbers were written directly through the text was deleted.	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Corrective Action Request CAR5</u> Attach to the documentation the proposed "capacity building" plan that the Project will execute in the next verification period for the social actors.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	The training schemes are presented in tables in pages 63 and 65 of the Monitoring Report. In the next verification period, the same scheme will be executed, as we do not foresee any structural change in the composition of social actors in the next monitoring period. In these same tables, the columns "Unit" and "Goal" indicate the specific categories of social actors involved (i.e. employees and neighbors), as well as the	

Clarifications and corrective action requests	Reference	Summary of project proponent response	Verification Team conclusion
		number of actors to be involved in the trainings.	
<u>Corrective Action Request CAR6</u> The reasons of why discounts are not made in carbon accounting due to increased deforestation in leakage area should be evidenced and clarified in greater detail.	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	In item "2.3.1 Methodology Deviations" of the Monitoring Report, we present the same text as presented in the Technical Note to VERRA prior to this verification process, as a consultation on our methodology. The text explains the abnormal increase in deforestation in the region for the recent years. In this same topic, we added a clear and detailed explanation of the calculation applied to discount the excessive leakage and to obtain the current leakage for this monitoring period.	15/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Corrective Action Request CAR7</u> The documentary base of the MONITORING REPORT "FORTALEZA ITUXI REDD PROJECT", If it is incomplete, not all the audit evidence is attached and organized in a single folder, the opening and closing minutes signed by the participants are not found, as well as the audit plan captured by Verra in the Drobox link where the documents rest project support there are empty folders with no information. https://www.dropbox.com/s/h/zekngtebfe72vuq/AAB9DgfdBrfaDxV5gCLBJ0kTa/SURVEILLANCE/PHOTO%20RECORDS?dl=0&subfolder_nav_tracking=1	VCS Standard Version 4 Requirements Document 16 de September 2019, v4	A single folder has been created and organized in a way that all audit documents are inside the "Audit" subfolder, containing videos, interviews, audit plan, and all documents produced during the audit to meet requirements of the remote process.	30/02/2021 Proponent has properly addressed the Corrective Action Request. CLOSED

Clarifications and corrective action requests	Reference	Summary of project proponent response	Verification Team conclusion
<u>Clarification Request CL5</u> The project proponent must attach an updated legal document from the competent authorities where it is determined who is the owner of the property in the current verification period.	VCS Standard Requirements Document V4.0 (19 September, 2019) Metodology VM0015	The document of land title has been presented to the audit team (Folder: 8 - LAND TENURE_CL5; File: 1285- Certidão de Inteiro Teor_Ituxi). The document has been updated in 31/03/2021.	05/03/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Clarification Request CL6</u> In the document, VALID_REP_1654_30MAR2019 (1) .pdf it is mentioned that the Overall non-permanence risk rating and buffer determination: 21, the proponent must clarify this Buffer in the Monitoring Report for the final carbon calculations and determination of the VCU's	VCS Standard Requirements Document V4.0 (19 September, 2019) Metodology VM0015 Non-Permanence Risk Report: VCS Version 4.0	1) The level (%) of discount for buffer is indicated in page 46 (Risk factor used to calculate VCS buffer credits) of the Monitoring Report, and it has been cited more explicitly: a) A footnote has been added in page 97, mentioning the buffer discount. b) The text in page 109 also mentions: "this project activity has 21% non-permanence risk rating". (Folder: 6 - MR2 AND CALCULATIONS; File: !ITUXI_Monitoring Report2_01_04_2021)	05/03/2021 Proponent has properly addressed the Corrective Action Request. CLOSED
<u>Clarification Request CL7</u> In carbon calculations, not all equations are linked, it is difficult to verify the calculations.	VCS Standard Requirements Document V4.0 (19 September, 2019) Metodology VM0015	In the current worksheet, all the links with external files have been corrected, so that all links are internal and can be read in any computer, even in absence of those external files. (Folder: 6 - MR2 AND CALCULATIONS; File: CALCULATION_MR2_01_04_2021)	05/03/2021 Proponent has properly addressed the Corrective Action Request. CLOSED