



**Verified Carbon
Standard**

VERIFICATION REPORT

CIKEL BRAZILIAN AMAZON REDD APD PROJECT

Earthood

Document Prepared by Earthood Services Private Limited

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Summary:

The project CIKEL BRAZILIAN AMAZON REDD APD PROJECT, registered under the VCS Project ID 832¹, has an area of 27,434.7 hectares and is located in Paragominas municipality, Pará State, Eastern Amazon of Brazil. The project was validated and verified according to the VCS standard. The current verification was also carried out according to the criteria of the VCS standard. The objective of the activities is to avoid emissions from planned deforestation on a property in the State of Pará, Brazil. This was verified for the monitoring period from 19/July/2010 to 18/July/2017.

CIKEL BRAZILIAN AMAZON REDD APD PROJECT – AVOIDING PLANNED DEFORESTATION hereinafter CIKEL BRAZILIAN AMAZON REDD APD belongs to the Agriculture, Forestry, and Other Land Uses (AFOLU) sector in the Reducing Emissions from Deforestation and Forest Degradation (REDD), avoided Planned Deforestation (APD) category.

During this monitoring period, activities developed included: Implementation of FSC certification, Surveillance and Property Security to prevent encroachment by outside agents, Monitoring activities within the area of the REDD project, in order to preserve it, Monitoring areas of High Conservation Value (HCV) through satellite imagery.

Earthood Services Private Limited (hereinafter ESPL), as part of the list of available validation and verification bodies has been contracted by CARBONEXT TECNOLOGIA EM SOLUÇÕES AMBIENTAIS LTDA and CBNS NEGÓCIOS FLORESTAIS S/A. to carry out the verification process of the project activities in accordance with the VCS standard, with an assurance level of 95% and 5% materiality.

¹ <https://registry.verra.org/app/projectDetail/VCS/832>

The purpose of the second verification is to verify the implementation of the project activities during the monitoring period from 19/July/2010 to 18/July/2017 this includes review of relevant documents and monitoring report (v09 18/07/2023), onsite visit, interviews and consultation of secondary sources of information, preparation of the report on the findings, feedback with the project proponent and preparation of the final report in accordance with the standard VM0007 REDD Methodology Module, REDD Methodology Framework (REDD-MF) - version 1.0, applicable local environmental laws, and other applicable references. As a result, 02 Requests for Forward Action (FAR), 07 Requests for Clarification (CL), and 04 Requests for Corrective Action (CAR) were processed by the initiative proponent.

The document review, interviews, and site visit allowed ESPL to gather sufficient evidence to fully assess the verification criteria and determine that the project is being implemented in accordance with the Monitoring Report (v09 18/07/2023) and the assessment of the assertions. The reductions were calculated correctly, based on the methodology and modules used. In summary, CIKEL BRAZILIAN AMAZON REDD APD PROJECT, as described in the Monitoring Report, meets all relevant requirements for VCS verification methodology VM0007 v1.0 has been correctly applied. The project generates a net GHG emission reduction of 5,186,724 tCO₂e and 4,364,505 tradable credits (VCUs) applying a VCS credit buffer (VBC) of 10% for the monitoring period from 19/July/2010 to 18/July/2017.

CONTENTS

1	Introduction.....	6
1.1	Objective.....	6
1.2	Scope and Criteria	6
1.3	Level of Assurance.....	7
1.4	Summary Description of the Project	8
2	Verification Process.....	9
2.1	Method and Criteria.....	9
2.2	Document Review	10
2.3	Interviews.....	11
2.4	Site Inspections.....	16
2.5	Resolution of Findings	23
2.5.1	Forward Action Requests	24
2.6	Eligibility for Validation Activities	24
3	Validation Findings	25
3.1	Participation under Other GHG Programs	25
3.2	Methodology Deviations.....	25
3.3	Project Description Deviations.....	25
3.4	Grouped Project	31
4	Verification Findings	31
4.1	Project Implementation Status	31
4.1.1	Sustainable Development	33
4.2	Safeguards	35
4.2.1	No Net Harm	35
4.2.2	Local Stakeholder Consultation	39
4.3	AFOLU-Specific Safeguards	41
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	42
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	47
4.6	Non-Permanence Risk Analysis.....	48
5	Verification conclusion	49

APPENDIX 1: DOCUMENTATION PROVIDED BY THE PROJECT.....51

Appendix 2: FINDINGS78

1 INTRODUCTION

Earthood Services Private Limited, as the Conformity Assessment Body, conducted the independent second verification of the CIKEL BRAZILIAN AMAZON REDD APD PROJECT, in Brazil, on behalf of CBNS NEGÓCIOS FLORESTAIS S/A. The third-party assessment was carried out in an objective, neutral and consistent manner, in accordance with the requirements of the VCS standard and rules and the approved methodological procedures.

1.1 Objective

Verification is carried out as a systematic, independent, and documented process for the evaluation as follows:

- The project activity was implemented in accordance with the validated project document description.
- The monitoring was carried out in compliance with what was described in the validated monitoring plan.
- GHG emission reductions were calculated free of errors and omissions and misrepresentations.
- The extent to which GHG emission reductions reported in the monitoring report are materially accurate.
- The project implemented the activities in compliance with the criteria of benefits for the climate, the community and biodiversity.

1.2 Scope and Criteria

The scope of the verification is to establish that:

- The project activity has been implemented in accordance with the validated Project Description Document and produces GHG emission reductions.
- The Monitoring Report and other supporting documents provided are complete, updated, and verifiable considering the applicable requirements, standards, evaluation criteria and conditions of the certification program.
- The actual monitoring systems and procedures comply with the systems and procedures described in the validated monitoring plan, including the approved methodology, modules and applicable tools.
- The data is recorded and stored according to the monitoring methodology and calculations are appropriate and consistent.
- GHG emission reductions determined in this verification process are only accounted for the monitoring period determined by the project.

This process includes the independent and objective revision to determine that the monitoring report meets the criteria defined by the following documents:

- VCS Standard v4.4
- VCS Program Guide v4.3
- AFOLU Non-Permanence Risk Tool v4.0
- VM0007 REDD Methodology Module, REDD Methodology Framework (REDD-MF) - version 1.0
- CP-AB “VMD0001 Estimation of carbon stocks in the above- and belowground biomass in live tree and non-tree pools” - version 1.0
- CP-W “VMD0005 Estimation of carbon stocks in the long-term wood products pool” - version 1.0
- BL-PL “VMD0006 Estimation of baseline carbon stock changes and greenhouse gas emissions from planned deforestation”, version 1.0
- LK-ASP “VMD0009 Estimation of emissions from activity shifting for avoided planned deforestation”, version 1.0
- LK-ME “VMD0011 Estimation of emissions from market-effects”, version 1.0
- VMD0015 Methods for monitoring of greenhouse gas emissions and removals (M-REDD), v2.0
- X -STR “VMD0016 Methods for stratification of the project area”, version 1.0
- X-UNC “VMD0017 Estimation of uncertainty for REDD project activities”, version 1.0
- T-ADD “VT0001 Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities”, version 3.0
- Tool for testing significance of GHG emissions in A/R CDM project activities, version 1.0

On the other hand, verification criteria are in accordance with ISO 14064-3:2006 and Validation and Verification manual v3.2.

1.3 Level of Assurance

The level of confidence is 95% of the verification statement, agreed with the project proponent, as well as the manner and timing of gathering evidence or proof to obtain a reasonable level of confidence, in accordance with the provisions of the applicable requirements. Likewise, materiality is less than 5% for the project.

ESPL ensures the conformance of the project with VCS rules by considering a materiality threshold of less than 5% in terms of errors, omissions, and misrepresentations relative to total reported GHG emission reductions.

1.4 Summary Description of the Project

Project name	CIKEL BRAZILIAN AMAZON REDD APD PROJECT
Sectoral scope	14 - Afforestation, Forestation and Other Land Use
AFOLU Project category	Reduction Emission from Deforestation and Degradation (REDD) - Avoided Planned Deforestation (APD)
Project Proponent	CBNS NEGÓCIOS FLORESTAIS S/A
Baseline and monitoring methodology	VM0007 REDD Methodology Module, REDD Methodology Framework (REDD-MF) - version 1.0
Location of the project activity	Paragominas municipality, Pará State, Eastern Amazon of Brazil
Area	27,434.7 hectares
Project crediting period	20 years From 19 July 2007 to 18 July 2027
Monitoring period	19/July/2010 to 18/July/2017
Verified emission reductions in the above reporting period	5,186,724 tCO _{2e}

2 VERIFICATION PROCESS

The verification of this monitoring period under the VCS standard was requested to ESPL by CBNS NEGÓCIOS FLORESTAIS S/A. The audit of the Monitoring Report, supporting documentation, field visit, and interviews has provided this VVB the evidence to ensure compliance with all applicable criteria for the project with reasonable assurance. The project activities seek to promote the emissions reductions of GHG.

2.1 Method and Criteria

Verification process consisted of the following four phases: i) a desk review and investigation on secondary sources of applicable information, ii) on-site assessment iii) the resolution of findings and iv) issuance of the final verification report with the conclusion. The verification process is conducted in accordance with criteria laid down by VCS standard. The verification process involved the following:

- Contract with the project proponent for the scope and appointment of verification team and technical review team.
- Completeness check of Monitoring Report.
- Desk review of conformance to VCS rules, Monitoring Report Document by the verification team and planning of onsite audit (site inspection to confirm project boundaries, check project description and interviews with stakeholders).
- Project conformance to the applied methodology, including their modules.
- Physical on-site inspection by the audit team (to confirm project boundaries, check project description, confirm stable forest area and interviews with stakeholders).
- 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.
- Reports, calculation checks, QA/QC confirmation, and resolution of findings.
- Issuance of the draft of verification report.
- Internal review of the project documentation to confirm if the procedures established and implemented by ESPL were duly complied with and if said opinion or conclusion was reached objectively and in compliance with the applicable rules and requirements. The independent technical reviewer can approve the report in the way it was presented by the lead auditor or return it, with comments or findings that must be resolved by the verification team.
- Issuance of the final verification report.

The sampling plan consisted included review of 100% of project documents, spreadsheets, cartographic information, all land ownership and proof of carbon rights certificates, and all documents submitted as evidence for verification. In addition, on-site inspections and interviews with stakeholders, were

scheduled². The audit team looked for identified potential risks of errors, omissions, and misrepresentations related to the verification criteria. Based on the selected approach, the audit team considers the selected sample design to be sufficient for decision making regarding the analysis of the project and its compliance with the applicable requirements.

The audit team count with extensive expertise in forestry, social, ecological and biodiversity issues in the project region, qualified according to VCS requirements. As below:

Bibiana Duarte: Senior Lead Auditor. Forestry Engineer, qualified under the ISO 14064 and 14065 to lead validation and verification processes of Carbon Emission Reduction projects for VCS standard and others. More than 10 years of work and relevant experience in ecological, biodiversity and social aspects in forestry projects. Main auditor since 2017, successfully auditing carbon projects in Brazil, Colombia, and Peru.

Table 1 Audit Team

Name	Role
Bibiana Duarte	Lead Auditor/Sectorial Specialist/technical expert

Table 2 Technical reviewer

Name	Role
Pablo Rodríguez	Technical reviewer and technical expert

The project was assessed for conformance to the criteria described in this report.

2.2 Document Review

The documentary review was performed on 20 to 24, June 2022, based on the information provided by the Project Proponent before the on-site visit (see APPENDIX 1: DOCUMENTATION PROVIDED BY THE PROJECT). The auditor scrutinized all project documentation, ensure consistency with the type of project, validated the completeness, and identify any deviation from VCS program. The desk review included an examination of the project details, data and parameters, and quantification of GHG reductions. The verification team conducted a desk review that included the following:

- A review of the Project Document, the applied methodology, including applicable tools, modules, monitoring plan and quality assurance and quality control procedures.
- A review of the data and information submitted to verification its integrity.
- An evaluation of compliance with the applicable regulations to validate the regularity of the activity.
- An evaluation of documents proving the land tenure and / or carbon rights of the project.
- An evaluation of the controls envisaged to guarantee the quality of the information and the documentary control of the project.

² Tracks and photos were recorded in a GIS system by the audit team and the interviews are available in ESPL's document management.

- Other supporting documents (cartography, spreadsheets, etc.).

As part of the desk review, an office audit (lead auditor and audited team) was carried out on the main points of the project that require attention.

2.3 Interviews

During the site inspections 11 interviews were conducted that were deemed relevant to compliance with the legal requirements and technical aspects of the project. The group of people for the interviews was selected based on their role they play in the project, their influence on the development of the project at the local or regional level, and their location in the project area. Accordingly, the interviewed were people from local institutions and associations, landowner, employees, local community leaders, indigenous, and academics (universities).

Table 3 Interviews³

Date	Interviewed	Role	Topic
June 27, 2022	Elizangela Avelar	Administrative supervisor - Cikel	<p>The main topic was her task at the company, and some generalities about Cikel. She mentioned her main responsibilities in the company are making payments and reviewing the payroll. She also mentioned the company has about 254 employees and 3 partner companies with 60 employees associated.</p> <p>She clarified Cikel's employees are under the modality of job 'portfolio', which includes transportation, accommodation, food and occupational risks.</p> <p>When new personal is admitted by the company, they passed through an integration, where they received information about the company, some rules from the code of conduct and training for specific labours related with job.</p> <p>In addition, she highlights the company develops many activities with its employees, which they try to carry out whenever there are symbolic dates to integrate the team.</p> <p>Furthermore, she mentioned she has been working at the company for 14 years and that in her current group of work there is 6 women. She knew about the carbon project since 2016 and she finds its topic of carbon market very interesting, and she highlighted the important work of the company in curbing deforestation in the area.</p> <p>Finally, she emphasized the issue of invaders in the project region, that there are 7 land invaders and that it is a problem that has been in the area for some time.</p>
June 27, 2022	Rosinaldo dos Santos Silva	Heavy machine operator - Cikel	<p>He has been working at Cikel since 2003, in his current position approximately 30 employees work with him, in three different shifts. He also mentioned that there are neither women nor indigenous people in his work group.</p> <p>He works with machinery; his work team is responsible for the management and transport of waste from tree cuts for the 'yard' and they work from 7:00 am to 5:30 pm.</p> <p>He clarified the company give him the necessary safety implements for his work, and training to handle this machinery.</p>

³ Interviews were recorded by the audit team and are available in ESPL's document management.

Date	Interviewed	Role	Topic
			<p>He mentioned that he hasn't heard of squatters in the area and there haven't been any fires while he's been working there.</p> <p>He heard about the carbon project in 2009 approximately, the company told them about it, gave them some training about CO2, explaining everything related to the carbon project. He also clarified he has heard about the code of conduct (they cannot hunt in there) and that in case he had something to talk with the company, he can speak directly with his boss.</p> <p>Finally, he emphasized he likes to work in there, and he had 3 children, all of them are studying at the school.</p>
<p>June 27, 2022</p>	<p>Valmir Piñeros</p>	<p>Heavy machine operator - Cikel</p>	<p>He has been working at Cikel since 2014 and his current responsibility is to collect trees and waste that have been previously cut, leaving the waste in the yard and the wood apart of that.</p> <p>He clarified all the implements necessary for develop his job in the safest way possibly. He also mentioned his working hours are from 6:00 am to 11:30 am and from 1:00 pm to 5:00 pm; and also, he mentioned in his working group there is not women.</p> <p>He highlighted he received training on how to perform his job, certified operational training, and how to cause the slightest damage to the forest but nothing about fire training.</p> <p>He also mentioned he has not heard of invaders in the area but he knew about a fire event in 2016, where less than 1 ha was burn by an accident.</p> <p>About the carbon project, he said he heard about a week ago, because the company told them about it, with general details.</p> <p>Finally, he mentioned he likes to work at Cikel, and he has 4 children, all of them go to school.</p>
<p>June 28, 2022</p>	<p>Ana Cristina Mendez de Oliveira</p>	<p>Professor at the Federal University of Pará</p>	<p>The main topic was the mammal monitoring work developed by her team, which began in 2019 at the Rio Capim farm.</p> <p>She highlighted the importance of the area in which the study is carried out, the fact that this northeastern area of the Amazon, located in the state of Pará, is divided into 8 centers of endemism, this work is developed in the Bethlehem endemism center, which is the most destroyed and degraded by anthropic causes in the region.</p> <p>She also mentioned that although mammals are not as megadiverse a group as arthropods, they have a very high morphological and physiological diversity, and she also highlighted its importance and the niches that this diversity constitutes, because some are responsible for the dispersal of seeds, pest control, pathogen control, recycling of nutrients, among other services for the ecosystem.</p> <p>She mentioned that the monitoring is done first from the place and then thanks to the camera traps, they have a total of 21 trap cameras distributed in the area, located at strategic points; these have a heat and motion sensor which means that when the animal passes in front of it activates and captures the image. The image is saved, with location, date, and time.</p> <p>So far, they have registered 27 species of terrestrial mammals, of which 4 are in a state of vulnerability (danger of extinction, 1 in critical danger). Highlights the sighting of 5 of the most threatened primates in the world, cites the case of the capuchin monkey. She also highlighted that they have registered a large number of animals with puppies in the area, citing the case of the jaguar. Likewise, it highlights that many jaguar specimens have been sighted.</p> <p>As drivers of deforestation, she mentioned this area has been widely colonized, so indiscriminate logging and agriculture have caused much</p>

Date	Interviewed	Role	Topic
			<p>of the deforestation. It also highlights the growing demand and therefore production of soybeans, in addition to the use of burns. Finally, she emphasized that he finds Cikel's work very important, his vocation to maintain the forest and that he thinks it is important that a carbon credits project like that be installed in the area.</p>
<p>June 28, 2022</p>	<p>Nazaha da Sousa</p>	<p>Teacher - Rouxinol community</p>	<p>She has been teacher there for 5 years, she works with children between 4 and 7 years and she has 50 students, everyone from the community.</p> <p>She mentioned she has known Cikel for 10 years and she highlighted the company give them several courses about agriculture, vegetables, technification of techniques and handcrafts; all of these courses are certified and developed in the school of the community and have an average attendance of between 15 to 20 people. She clarified the last one was developed the last month.</p> <p>Furthermore, she mentioned there is not members of the community who works at Cikel, and that the community to Cikel is made by WhatsApp, but she emphasized she can contact them directly.</p> <p>About the community, she also clarified the majority works in coal activities, but they also plant watermelon, cucumber, vegetables and fruits, to eat and sell at market fairs. There is fishing and hunting for self-consumption but not in the Cikel's areas; and they use fire to clean soil for planting.</p> <p>Finally, she highlighted that when Cikel arrived in the area life in the community improved. And they do not perceive affectation, emissions from cars and boilers do not reach them.</p>
<p>June 28, 2022</p>	<p>Thiago de Paula Protásio</p>	<p>Senior Teaching Professor Federal Rural University of the Amazon</p>	<p>The main topic was research project associated with biomass energy that his team developed in Cikel's area for 5 years ago. He mentioned that in this time they have worked to improve the process, located in the Amazon biome and they are always in favour of environmental, economic, and social improvements, focused on quality.</p> <p>He highlighted they make collections every year, always seeking to increase the performance of the process, since, if they increase the performance of the solid fraction, they reduce gas emissions. They are also interested in this process being replicated in other areas of Brazil, since it highlights that their model uses waste.</p> <p>The agreement with Cikel means that the company seeks advice on the data and to scientifically analyze their data, to make a general measurement of gases; in return, they have free access to investigate in the area, to the data collected in Cikel. Use the data scientifically</p> <p>He mentioned one report is made per year, but they have 4 so far because in 2019 it was not sent due to the pandemic. These reports have information about quality of wood and charcoal, and indicators of coal productivity.</p> <p>He also highlighted they published in biomass and bioenergy journal, an article with their job, it was about biomass as a sustainable and renewable source.</p> <p>About the carbon project he mentioned he saw 2 documents about it, the first one talked above about the project, the other was called "friends of the climate", which had a project inscription, detailed the objectives of the project mission.</p> <p>Furthermore, as the drivers of deforestation, he considers the main one is cattle ranching. He thinks that in some areas if Cikel were not there, they would already be degraded, without vegetation cover.</p> <p>Finally, he considers that Cikel is an example for its progress in environmental and scientific issues and because its methods of</p>

Date	Interviewed	Role	Topic
			removing waste are positive for natural rewatering, and it helps the faster regeneration of seedlings.
June 28, 2022	Lucas Mazzei	Forest engineer researcher of Embrapa (public research company)	<p>The main topic was the relationship between he and the company, he has known Cikel since 2005, when he began to develop some research work in the city and since 2003 when he began working in Belem. However, since 1999 he supported some research in the company. At the moment he mentioned he is related to Cikel by the agreement between Embrapa and Cikel, whose objective is to monitor the dynamics of the forest to evaluate its resilience. Stresses that they are interested in three major focuses, wood, carbon and biodiversity; all associated with the dynamics of the trees. This association is approximately from 2000.</p> <p>The association was given by the interest of Embrapa in seeking funding to develop research. The partnership involves a technical and financial exchange, allowing field monitoring, they are interested in monitoring data. Cikel offers all logistical support, accommodation, food, transportation, support staff in the field</p> <p>He also clarified his main responsibility is monitoring, they have 4 experimental sites, where there are approximately 400 ha of inventoried trees. He also mentioned that there is not monitoring in the whole area since it takes many resources.</p> <p>He also highlighted the monitoring of 2006 was published in 'Forest Ecology and Management' international journal, in 2010. He mentions that as part of their conclusions, they found that the more intense the exploration, it was found that the forest grew in carbon, because it was having a change in the floristic composition, getting trees that are being very productive.</p> <p>Finally, between drivers of deforestation, he mentioned illegal forest exploitation, and he emphasized in the weakness of institutions in this topic.</p>
June 29, 2022	Jesus Andrade Ramos and Milton Esmeraldo Andrade	Barreirinha Community	<p>They mentioned they have lived there since 1969, as indigenous community which currently has 166 families and 50 children; in their territory they have school for children, and cultural and sacred sites. They also mentioned this community subsist on agriculture, they plant cassava and other agricultural products such as fruits and they also fish time to time and hunting some animal for self-consumption. They also clarified they has seen wildlife in the area.</p> <p>They clarified the total size of the community area is 4600 hectares, where they have no risk of invaders or fires, however they highlight a forest fire event that occurred in 2014, which was natural.</p> <p>About Cikel, they mentioned the channel of communication is by WhatsApp and that the company offers them courses frequently about baking, açaí, cassava, among others; this year they have done 4 courses as the last year to.</p> <p>About the carbon project, they clarified the company went the last week to talk about some generalities of this project.</p> <p>Finally, they mentioned the community have a positive perception of Cikel, they mentioned that before there was an environmental impact in the area, but now there are no negative impacts.</p>
June 30, 2022	Romario Amaranye	Cazique Ararandewa Community	<p>He mentioned that he is the leader of the indigenous community, there are two leaders in the community. Their area is 5000 hectares, where live 26 families, and 30 children. He also mentioned they do not have a school; they are trying to get it with the public ministry due to the absence of infrastructure.</p>

Date	Interviewed	Role	Topic
			<p>The activity that they develop there is agriculture (they have pork and chickens and use fire to clean area), they make cassava flour, they sell it to a restaurant, but they also fish and hunt for their food. He mentioned they have sighted wildlife, 6 species of monkeys and a lot of birds in the area.</p> <p>He also mentioned they have lived there for 22 years, and since this time, they have known Cikel. They have a positive perception of the company, which he said is recognized throughout the region. When he wants to talk about something with the company, he does it by WhatsApp, that is the means of communication.</p> <p>He clarified Cikel give them some benefits such as wood, technical support (electrician), help with fuel for the health care truck, trainings, between other, he said Cikel always help the community. In return, they collaborate with surveillance, against invaders, hunters, fishermen.</p> <p>He also highlighted the activities carried out by Cikel benefit them. The only negative thing that stands out is the emissions from the boilers, which are felt there. The rest emphasizes that it is positive, that the company helps them a lot.</p> <p>About problems in the area, he emphasized there are invaders in there, mainly cattle ranchers. He mentioned that every year there is an invasion. These invaders end up with everything, highlights, earth, wood, animals, fish. They control it by supervising, with the Public Prosecutor's Office.</p> <p>About health, the community have two nursing technicians, who work 20 days there, have 1 dentist, and are in the process of hiring a doctor. Everyone is vaccinated, up to 3rd dose of COVID, also influence</p> <p>About the carbon project, he heard about it in 2010, but he mentioned the last week the company went to talk about it too.</p> <p>Finally, he pointed out that the main negative impact of Cikel is emissions, that there was a time when those emissions from burning wood reached them too much. That they are concerned about the health implications they may have.</p>
June 30, 2022	Stone Cesar Cavalcante	Environmental Management Technician of SEMA	<p>He is a forestry engineer, working in forest project analysis. State licenses for teachers include afforestation, forest management and alternative land use plan, licenses for activities and authorizations.</p> <p>He mentioned he has been working at SEMA for 6 years and has known Cikel for 15 years. In fact, he has analyzed 6 POAS of them.</p> <p>He clarified there are two types of licenses, management plane and suppression plane, and their main difference is the activity developed, the first one is related with forestry activities and the second one with an alternative use of land (such as agroforestry. agricultural, among others).</p> <p>He also mentioned the average time in which a project is approved is approximately 6 months, and that wood from suppression licenses can be marketed, but in case of species with special category, the project must make compensation.</p> <p>Furthermore, he highlighted as the main drivers of deforestation, the illegal logging, illegal sale of timber, soybean, corn and livestock plantations</p> <p>About carbon project he mentioned that he doesn't understand much about this topic, but he emphasized that the company talked about the project, its specifications, and generalities.</p> <p>Finally, about the communication channel with Cikel, he clarified it is made direct, he has known them for a long time, so he has his</p>

Date	Interviewed	Role	Topic
			contacts. he emphasized that the official channel is by email, but he can also communicate in person.
June 30, 2022	Manuel Ramos	Health techniques in the Surubijú Community	<p>He mentioned the community has a cacique, which is his father, named Benedict; he also mentioned the community have lived there for 17 years. They sell flour as their main activity, but they also fish and hunt for self-consumption.</p> <p>About the company, he mentioned he knows a little, they help each other with surveillance, but there are no other benefits. Although, he mentioned there was a course in 2018, in Cikel.</p> <p>In relation of communication, he clarified that to talk with the company, they must go to Cikel for that, there is no WhatsApp number.</p> <p>Finally, about the project company, he mentioned he has heard about it.</p>

2.4 Site Inspections

As a part of the project verification, an on-site inspection was carried out through visits to Cikel Brazilian Amazon REDD APD Project location, in the Paragominas municipality, Pará State, Eastern Amazon of Brazil, during the days of June 26, 2022, to July 01, 2022:

- Ensure that the geographic area of the project, as reported in the PD and Monitoring report and its consistency with the annexes (GIS).
- Observe the Implementation status of the project and forest activities.
- Perform a risk-based review of the project area to cover the project boundary.
- Verifying possible substantial discrepancies between the activities described in the monitoring plan and those carried out on site.
- Perform a risk-based review of the project area to ensure that the project is in conformance the eligibility requirements of the VCS requirements and the applicability conditions of the methodology.
- Confirmation that the quality control and quality assurance procedures were in place.

Table 4 Audit plan on site.

Date	Topic
June 27, 2022	<p>Opening Meeting assistants: Francisco Matos-CIKEL Josue Ferreira-CIKEL Levy Ferreira-CIKEL Davi D´Lippi- CARBONEXT Jessica Guin- CARBONEXT</p> <p>Introduction of the lead auditor Presentation of the Audit team Audit objective, scope and criteria, roles, and responsibilities Schedule discussion/remarks Review of the Audit plan. General Conditions of Service, Impartiality / Confidentiality. Confirmation of schedules and dates, interviews with institutional and local actors, field check. Interview with project proponents</p>

Date	Topic
	CL/CAR/FAR, Technical review Questions and answers session
June 27, 2022	Interview with stakeholders: Cikel Workers: -Elizangela Avelar- Supervisora administrative -Rosinaldo dos Santos Silva- machine operator -Valmir Piñeros da Silva- skidder operator Audit desk-Document revision: Legal compliance- Forest harvesting and waste permit SISFLORA webpage, permission of suppression Contracts and/or agreements with the participants Land tenure. Site inspection of Lontra area: Project limits, UPAs 14 and 16, Flora -Fauna review, APPs review.
June 28, 2022	Interview with stakeholder: Lucas Mazzei- IMBRAPA investigator Ana Cristina Mendez-Professor of UFPA Thiago de Paula Protásio-Professor and investigator of UFRA Nazaha de Sousa-Rouxinolh community member- school teacher Site inspection Chapeu virado: Project limits, Flora UPA 22-Fauna, APPs review, forest management areas Industry activities revision: carbon industry management Audit desk-Document revision: Baseline
June 29, 2022	Interview with stakeholder: Indigenous land Barreirinha Jesús Andrade de Ramos-community leader Milton Andrade- community leader Esmeraldo Andrade- Cacique Calculé, Calculé II, UPA 15, Site inspection: Project limits, Flora UPAs-Fauna HCVA, APPs review, forest management areas within monitoring period.
June 30, 2022	Interview with stakeholder: Indigenous land Ararandewa: -Jesús Andrade Indigenous land Surubiju Stone Cesar Cavalcante Environmental Management Technicia -SEMA Site inspection sector Prainha: Project limits, Flora UPAs, APPs review, forest management areas within monitoring period. Audit desk-Document revision -Risk tool -Quality system team, Document management, capture, and compilation of Project information- Anderson Levy Silva- manager of quality - Financial tables -Spreadsheet review

Date	Topic
	-Review of VCUs calculations in accordance with applied methodology and relevant tools.
July 07, 2022	Closing Meeting: -A general presentation of the partial conclusions and results of the audit, the CARs/CLAs/ detected. -Confirmation of dates to deliver final findings and resolution of findings.

The visit began with the opening meeting and subsequent site inspection with the lead auditor and the audited team. The activities, the boundaries of the project, the monitoring, the responsible persons and all the aspects to ensure the information provided by the project proponent. Confirmation of boundaries and activities was verified on site (yellow line) as shown below:

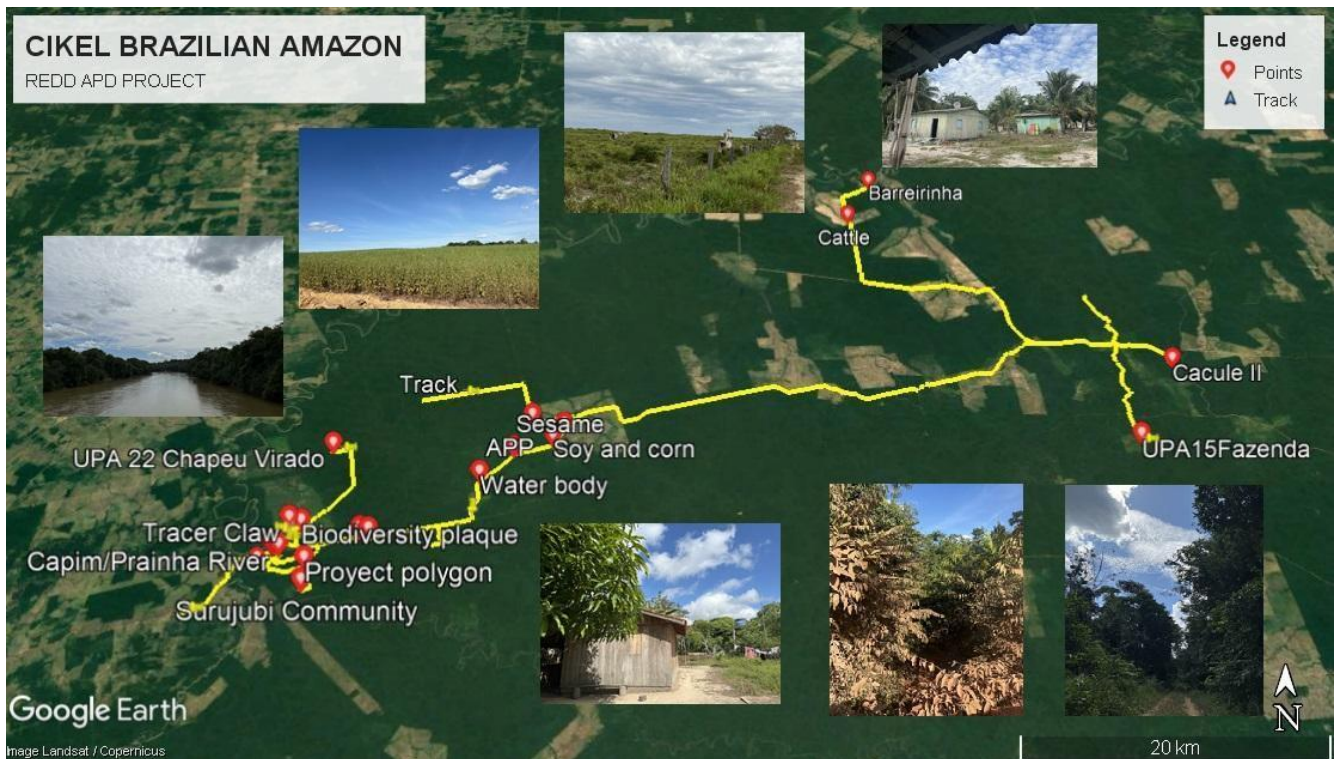






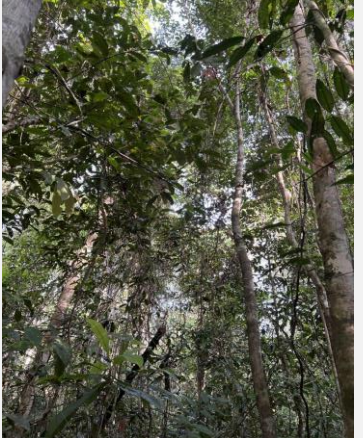







Figure 2-1 Site inspection⁴.

⁴ Tracks and photos were recorded in a GIS system by the audit team, and they are available in the document management of ESPL


Table 5 Check point

Site	Coordinate		Photo
	Latitude	Longitude	
Ararandewa Community	3° 40'59.18"S	48° 51'7.37"W	
Project Plate	3° 40'24.26"S	48° 50'42.14"W	
Capim River	3° 40'26.13"S	48° 50'36.29"W	
Proyect polygon	3° 41'7.92"S	48° 49'14.97"W	
Surujubi Community	3° 42'9.14"S	48° 49'9.02"W	
Tracer Claw	3° 39'11.13"S	48° 50'15.79"W	

Site	Coordinate		Photo
	Latitude	Longitude	
			
Mogno Plantation	3° 39'30.49"S	48° 49'55.69"W	
Biodiversity plaque	3° 39'20.58"S	48° 49'45.48"W	
UPA 22 Chapeu Virado	3° 35'18.40"S	48° 49'15.92"W	

Site	Coordinate		Photo
	Latitude	Longitude	
Project Plate	3° 39'42.56"S	48° 47'19.14"W	
Conservation plate	3° 39'45.61"S	48° 46'58.52"W	
Water body	3° 36'52.31"S	48° 42'51.83"W	
APP	3° 35'31.01"S	48° 41'33.13"W	
Soy and corn crop	3° 34'55.74"S	48° 39'56.89"W	

Site	Coordinate		Photo
	Latitude	Longitude	
Sesame crop	3° 34'12.61"S	48° 39'29.73"W	
Stable forest type	3° 33'41.97"S	48° 40'54.73"W	
Barreirinha community	3° 16'56.02"S	48° 24'19.80"W	 
Cattle- Common practice	3° 19'50.98"S	48° 25'44.81"W	
Farm Cacule II	3° 30'14.27"S	48° 12'2.59"W	

Site	Coordinate		Photo
	Latitude	Longitude	
UPA 15 Farm Sumal	3° 34' 45.54"S	48° 14' 42.86"W	

2.5 Resolution of Findings

The identification of the findings was determined after reviewing the documentation and the results of the on-site inspections. The findings relate to non-compliance with the requirements of the VCS standard, non-compliance with local environmental laws and rules and or approved methodological procedures. Project information must meet the requirements of the standards by presenting the correct evidence, being consistent with what has been validated, and being based on relevant, verifiable, and internationally recognized sources.

The on-site inspections allowed us to verify that the procedures for obtaining project information and data were relevant, reliable, and transparent. The sampling effort ensured that the relative importance result be less than 5%, which was agreed with the project proponent. The information and data were checked for consistency to ensure that there were no errors, omissions, or misrepresentations in the information.

A Corrective Action Request (CAR) shall be raised if one of the following situations occurs:

- Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient.
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impact the quantity of emission reductions.
- Issues identified in a FAR during validation/verification to be verified during verification have not been resolved by the project participants.

A Clarification Request (CL) shall be raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

A Forward Action Request (FAR) is issued for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

The findings detected were: 02 forward action requests (FAR), 04 corrective action requests (CAR) and 07 Requests for Clarification (CL). All finding included the issues raised, the responses provided by the project proponent and the final conclusions are included in Appendix 2: FINDINGS.

2.5.1 Forward Action Requests

As result of findings report, 02 forward action requests FARs were raised during the verification of this project (see Appendix 2: FINDINGS):

1. The project proponent described in section 1.11 of the monitoring report that it does not have fauna monitoring results from 2014 to 2017 due to transitory budget problems, but that the activities were resumed as of 2019, which can be verified in future verifications. However, for the current monitoring period, it was verified that the project contributes to more than 3 SDGs in compliance with the requirements of the VCS standard.

For next verification, the project proponent shall present results of fauna, according to the frequency of monitoring.

2. Evidence of the effectiveness of communication for the project, during the monitoring period, is unclear.

The project proponent is requested to demonstrate the effectiveness of the communication in compliance with the VCS requirements, regardless of similar criteria being assessed in FSC audits.

For the next verification, the requirements of the VCS standard that apply to evaluate the effectiveness of the communication and consultation system with stakeholders must be reviewed, regardless of the similarity with the criteria evaluated in the FSC audit processes. Therefore, the proponent of the project must present the specific supports for compliance with the requirements of the VCS standard on effective communication with stakeholders, during the monitoring period to be evaluated.

2.6 Eligibility for Validation Activities

Earthood Services Private Limited is accredited for the validation and verification projects for the scope 14 AFOLU sector as well as by the VERRA board.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project is registered in the VCS, complying with the requirements of the standard. The project is not registered under another GHG program.

3.2 Methodology Deviations

Deviation from the methodology wasn't found during this monitoring period.

3.3 Project Description Deviations

The following deviations from the Project Description presented for the current monitoring period (described in Section 3.2.2 of the MR) were validated by the audit team. All deviations from the project description were applied during the current monitoring period, that is, from July 19, 2010, to July 18, 2017.

The proponent of the project made some modifications to the PD which correspond to the inclusion of the "Tool for testing significance of GHG emissions in A/R CDM project activities, version 1.0" in the section 2.1 of the PD. This tool was not used in the PD, the project proponent used it for the current monitoring report, so the inclusion in the PD was to maintain consistency. Likewise, the proponent of the project updated in section 2.1 in the PD version 3.1 to 4.0 of the AFOLU Non-Permanence Risk Tool. This update was necessary, since as mentioned in section 1. Introduction and Scope of the AFOLU Non-Permanence Risk Tool v4.0: *"This document will be updated periodically, and readers should ensure that they are using the most up-to-date version of the document. document"*.

The VVB reviewed section 3.2.2 of the MR and verified that the deviations are clearly described and justified and that they do not imply changes to the PD considering the requirements of Section 3.20.2(1) of the VCS Standard, v4.4. The modifications relate to the inclusion *"Tool for testing significance of GHG emissions in A/R CDM project activities, version 1"*, and the Updating of the AFOLU Non-Permanence Risk Tool version from 3.1 to 4.0 in the section 2.1 of the PD.

Carbon Stocks and Forest Inventory

Carbon stocks values previously used for this project were maintained for the MR2. Methodology and results of the forest inventories follows all requirements pointed out in VM0007 v1.0 modules (VMD0001 v1.0 and VMD0015 v2.0) and counted with CBNS and other entities to produce this data. A QA/QC procedure was also adopted to guarantee the data integrity and all records about this robust carbon stock estimation were provided by the project proponent.

The main parameter related to forest inventory and field measurements in VMD0015 (M-REDD, v2.0) is CAB_{tree,i}, defined as *"Carbon stock in aboveground biomass in trees in the project case in stratum i"*. This parameter originates from VMD0001 (CP-AB, v1.0) where monitoring frequency must occur at least every ten years for baseline renewal or at least every five years where carbon stock enhancement is

included. Because no carbon stock enhancement was considered to this MR, the monitoring frequency should be after 10 years, on July 19, 2017.

This MR covers a crediting period until July 18, 2017 so there is no need for another remeasurement for CAB,tree,i parameter, according to VM0007 v1.0 modules VMD0001 v1.0 and VMD0015 v2.0. The clarification about the baseline reassessment is evidenced.

During this monitoring period, 29.32 hectares of deforestation were detected in the project area, therefore leading to insignificant emissions from deforestation, given that it represents less than 5% of the total project emissions, according to the “Tool for testing significance of GHG emissions in A/R CDM project activities, version 1.0”. So, there would be no need of remeasuring carbon stock. Besides that, carbon stocks changes related to deforestation and forest degradation are already being discounted throughout project emissions. Thus, the re-measurement is not necessary to assess carbon loss once it is already being calculated.

Also, the secondary forest (FS) stratum is expected to increase its carbon stock due to forest growth. So, using a 2011 value can be understand as conservative.

According to Section 3.20.2 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation once it differs from original measurement and monitoring plan, but not from methodology requirements. The deviation doesn't affect the applicability of the methodology, additionality or the appropriateness of the baseline scenario. The explanation about the biomass estimates in the monitoring report is evidenced.

The VVB ensured that the carbon stock values for the current monitoring period followed the requirements of the VM0007, v1.0 methodology modules, verifying compliance with the monitoring frequencies for the data and parameters used in the estimates. It was verified that improvements in carbon stocks are not considered for the current monitoring period.

For the evaluation of emissions from deforestation, the audit team reviewed the deforested areas through GIS analysis and on-site visit, and the correct application of the tool to test the significance of GHG emissions in Activities of A/R CDM projects, version 1.0. It was concluded that emissions from deforestation are not significant.

According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules and that does not affect the net reductions or VCU's claimed.

Adjustment due to removal of the Permanent Preservation Areas

During the validation process 0.2 ha of Permanent Preservation Areas (PPA) were considered part of the project area, and these constitute a part of the planned deforestation areas. However, according to Brazilian legislation, forest suppression is not allowed in PPAs. Therefore, to take a more conservative approach, PA areas were removed from the current monitoring report, since it is a very small area this adjustment is not significant and does not impact the project's emission calculations. When the PA is

updated from 27,434.9 to 27,434.7 hectares there is no change in the net REDD benefits and in the total VCUs.

According to Section 3.20.2 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation once it excludes an area. The deviation doesn't affect the applicability of the methodology, additionality or the appropriateness of the baseline scenario since it only excludes an insignificant area of the PA.

ESPL evaluated the excluded areas through GIS analysis, land tenure analysis and verifying compliance with Brazilian legislation. It was verified that the emission reduction estimates are not affected because it is an insignificant area. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

Market leakage

When the Project Description was prepared, the sale of timber was carried out only for the international market. Thus, it was not considered for the Leakage Market, according to VMD0011 v1.0 LK-ME, "*per the VCS AFOLU requirements international market leakage is not considered*". However, for the monitoring period, the sale of wood was carried out for the national market, so in this MR this parameter was monitored.

According to Section 3.20.2 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation because market attractiveness shifted from international to national. The deviation doesn't affect the applicability of the methodology, or the appropriateness of the baseline scenario. This deviation causes an impact on the project additionality because the timber price has lowered. In addition, this deviation did not impact in VCUs claimed, because until the first monitoring period, the sale of timber was carried out only for the international market, and the LKMarketEffects, timber parameter was not applicable.

The VVB evaluated the correct application of the VMD0011 module v1.0 for monitoring the parameters on the leakage market. The positive impact on the additionality of the project was verified because the timber market is less attractive due to the low prices of timber products, the grazing activity becomes more attractive, which would be the scenario in the absence of the project. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

Compensation/reforestation accounting

The VVB verified the section 3.2.2.3 in the MR and the compensation/reforestation accounting was updated because of the misunderstood applicability of some default values used to calculate carbon sequestration of a reforestation activity that would occur on the baseline scenario because of the allowed suppression activity.

According to item 2 of Section 3.20.2 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation once it updates miscalculation values. The deviation doesn't affect the applicability of the methodology, additionality, or the appropriateness of the baseline scenario since it only changes the baseline carbon accounting based on more reliable data.

ESPL evaluated the updating of data (described in the section 3.2.2.3 in the MR) for the estimates in the baseline scenario and verified that these are adequate data from reliable sources. It was verified in the review of the calculation sheets that the removals due to reforestation are discounted as removals that would have occurred hypothetically in the baseline scenario and therefore are not part of the carbon credits. In addition, it was verified that it does not have an effective impact on the VCUs claimed in the first verification, because the adjustments applied for the current period would have generated a greater number of credits in the previous monitoring period, which are no longer being claimed by the project proponent.

Reforestation is a mandatory environmental compensation activity due to the suppression activity allowed under Brazilian law. It was verified that the additionality of the project is not affected since the proponent of the project does not deforest and is not forced to reforest. In addition, removals due to reforestation are not counted, being an activity that is not eligible and is not carried out in the project areas. The additionality analysis of section 2.5 of the validated PD was reviewed and it was verified that the project activity, without the income from carbon credits, continues to be less financially attractive and maintains its additionality.

According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

Change of Project Proponent Name

At this MR, the new project proponent is “*CBNS Negócios Florestais S/A*” (formerly the Project Proponent was “*CKBV Florestal Ltda.*”). The alteration of the project proponent is due to administrative changes. The seven farms were leased among the Economy Group companies and until be further leased to CBNS (a Cikel Economic Group Member). The seven farms were initially leased among “*Cikel Economic Group*” and were posteriorly leased to “*CBNS Negócios Florestais S/A*”. These processes mostly happened in an administrative level, the direct management of the farm and the Project Area did not suffer any implications due to these changes since the staff was not altered because of name alteration. Therefore, forest management and other project activities did not suffer any implication due to the proponent change of name. Many of the employees and partners involved in the beginning and early years of the project are still working directly with it (as can be seen in staff documentation). The relationship between the company, local community and stakeholder did not change. The following table summarizes the information (table 15 from MR):

Table 6 Demonstration of ownership possession rights of the Project Area.

Propriety	Number and location of the legal registry	Current Land owner	Possessor of the Land and former Cikel REDD Project Owner between 2010 and 2017	Current Possessor of the Land and new Cikel REDD Project Proponent
RIO CAPIM VI	4594 (Paragominas).	MADEIREIRA MATINHA S/A	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
RIO CAPIM IV	4828 (Paragominas).	MADEIREIRA MATINHA S/A	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
CIKEL IX	8709 (Paragominas).	CKBV FLORESTAL LTDA.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
SUMAL	2501 (Paragominas).	RONDON IMÓVEIS LTDA.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
CACULÉ	8824 (Paragominas).	RONDON IMÓVEIS LTDA.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
CAUAXI II	15394(Paragominas)	RONDON IMÓVEIS LTDA., as per Public Deed of Asset Purchase and Sale.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97

According to Section 3.20.2 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation once it changes project proponent's name. The deviation doesn't affect the applicability of the methodology, additionality, or the appropriateness of the baseline scenario. The project proponent provided the adequate supports to confirm the companies that make up the group and to confirm ownership.

The VVB evaluated the name change of the project proponent by reviewing the documentation provided on the group of companies and property rights to conclude that there are no implications for the project from such a change. This only involves administrative issues and does not affect the implementation of the project. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

Change on the Other Entities Involved in the Project

During the past years between the validation and the current verification the project proponent changed its technical support, which provides assist regarding the development of the carbon project. This support was presented in the project description as “Other Entities Involved in the Project” and, they were provided by Forest Capital and TerraCarbon LLC. Nowadays they do not have any relation with the project. Currently, the project proponent count with Carbonext Consultoria Ltda for a technical carbon support, therefore the company is now presented as “Other Entities Involved in the Project”.

According to Section 3.20.2 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation once it changes other entities involved. The deviation doesn't affect the applicability of the methodology, additionality, or the appropriateness of the baseline scenario.

ESPL evaluated the change of other entities involved because technical support from Carbonext Consultoria Ltda. was required for the current monitoring period. The audit team understands the dynamism of project implementation and the need to involve entities according to technical requirements in each monitoring period. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

Correction in the application of formula 10 of VMD0015 V2.0

The project proponent evaluated the interpretation of two parameters (Vext and LDF) related in equation 10 of module VMD0015 V2.0. In the PD, the volumes of logs and residues were summed as Vext and were considered in the calculation of emissions from logging gaps. However, during for this monitoring period, it was found that Vext should consider only the commercial volume exploited, since forest residue emissions are already included in the LDF parameter, as described in VMD0015 v2.0.

According to Section 3.20 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation. The deviation doesn't affect the applicability of the methodology, additionality, or the appropriateness of the baseline scenario, as it is a necessary adjustment to avoid double counting of emissions. In addition, this deviation did not impact in VCUs during the first monitoring period, because the correction would have generated a greater number of VCUs in the previous period, which the project proponent will no longer claim.

The VVB evaluated through the review of the monitoring methodological module VMD0015 V2.0 and the reproduction of the calculations (in which the changes in the values of ΔCP_{SelLog} were evidenced) that the proponent of the project complies with the indications of the parameters of the equation 10 of the module. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

Correction in the application of formula 10 of VMD0015 V2.0

The project proponent, to be more conservative, applied the T-SIG tool (Tool for testing significance of GHG emissions in A/R CDM project activities) to analyze whether the post-deforestation stock would be significant for the previous and current monitoring period. The VVB reviewed that in the methodology and its tools it refers to post-deforestation herbaceous carbon pools as negligible (i.e. de minimis). Under this

context, the project proponent had designed all the ERR calculation based on the “de minimis” pasture carbon pool premise, since the project conception in the PD, given that pasture vegetation (i.e., post-deforestation vegetation) is classified as “herbaceous” (See section 3.2 and 5.1.5 of the Monitoring Report). Even though, for this monitoring period, the tool T-SIG was applied, emphasizing conservatism.

The VVB ensured the assessment of the significance of the post-deforestation pasture carbon stocks (CBSL,post,I) in the ERRs calculations. The pasture stock now represents 7.0% of the total ERRs of the current monitoring period. In the first monitoring period, the pasture stock is not significant (4.4% of the total ERRs of the 1° monitoring report), so there was no over-issuance of credits. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

According to Section 3.20 of the VCS Standard version 4.4, this deviation fits as a Project Description Deviation. The deviation doesn't affect the applicability of the methodology, additionality, or the appropriateness of the baseline scenario. The VVB ensured that the inclusion of this carbon pool is done following the requirements of VMD0006 v1.0, that there is no impact on additionality because this parameter is not associated with the additionality, and that there is no change in the baseline scenario (suppression plan followed by livestock activities), so there is no impact on the appropriateness of the baseline scenario. Therefore, the rationale for the Δ CBSL,planned calculation remained the same for the PD and the present monitoring report, with no changes in the baseline emissions from planned deforestation. According to the above, this deviation is adequately described and justified, and it was verified that the project continues to comply with the VCS rules.

3.4 Grouped Project

The project isn't a grouped project, and therefore new project activity instances do not required validation.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The audit team verified the following:

Table 7 Evaluation of the project implementation

Item	Verification
Presence of any material discrepancies between project implementation and the project description.	There were not find any material discrepancies between project implementation and the project description after the verification process.
The implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system.	After the resolution of the findings (Appendix 2: FINDINGS) and validated the project description deviations, the monitoring plan has been implemented in accordance with what has been validated, the site assessments & observations, interviews and

Item	Verification
	assessment of the documents provided by the project. In addition, the project attached to the corresponding cartographic information. Furthermore, the internal audit procedures described for the resolution of conflicts and non-conformities were verified, and the procedures for internal audits were verified.
The existence of any material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.	There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.
Whether the project has participated or been rejected under any other GHG programs since validation or previous verification	The project has not participated or been rejected any other GHG programs.
Whether the project has received or sought any other form of environmental credit or has become eligible to do so since validation or previous verification.	The project has not received or sought any other form of environmental credit.
Whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program or any other mechanism that includes GHG allowance trading.	The project is registered in the VCS standard, complying with the requirements of the standard. The project is not registered under another GHG program. There is no risk of double counting.
Whether the project has implemented the activities that result in the SD contributions described in the monitoring report.	The audit team carried out the documentary review and observations on the site and confirms that the project contributes to the UN sustainable development goal.

On field observations and interviews, the VVB verified that the technical activities of the REDD+ component implemented during the second monitoring period (19/July/2010 to 18/July/2017) are environmental education activities, low-Impact Forest Management technical training, annual assessment of social activities, vegetation cover monitoring and surveillance activities. In addition, the data and parameters were verified through the recalculation, review of spreadsheets and geographic information.

Although in information management evidence of processes implemented by the project was lost (see CAR 11), the audit team verified that it corresponds to supports on employee training and activities with community members (such as photos, videos, and attendance lists) and that the project proponent took the measures necessary and described them to avoid the loss of information due to this type of event (see section 2.3 of the monitoring report). The measure adopted regarding the use of a server that minimizes the risk of information loss was reviewed. In addition, it was confirmed through the documentary review and the storage of the information on the server that this situation has no impact on other types of project data. Mainly it was verified that there is no impact on the GHG emission reduction estimates as the hacker attack did not affect the ERR calculations, since the original spreadsheet and biomass inventory were still available.

The VVB verified through the onsite inspections and interviews that the social activities contribute to GHG emission reductions, considering the results of their implementation in the reduction of deforestation and other positive impacts that are related to social activities such as trainings of forest management,

environmental education, and institutional articulation, which were implemented during the current monitoring period.

The status of implementation of project activities, during the current monitoring period, promoted the expected benefits. This was evidenced in the field visits and interviews in which the benefits resulting from the following activities implemented in the current monitoring period were verified: monitoring deforestation through satellite imagery; monitoring of facilities by the security team to prevent deforestation and encroachment; implementation of FSC, low-impact forest management; technical training in low-impact forest management and environmental education by CBNS NEGÓCIOS FLORESTAIS S/A.

Regarding the FSC processes of the project, FAR #2 is presented during the current verification process (see section 2.5.1 of this report), which refers to the effectiveness of the communication system and consultation with stakeholders, regardless of the similarity with criteria evaluated in the FSC audit processes. Therefore, it is necessary that in future verifications specific supports be presented on compliance with the requirements of the VCS standard related to the effectiveness of communication.

Through field observations, interviews, and document review, the audit team confirmed that there are no significant discrepancies between project implementation and the project description. In summary, the audit team finds that the project was implemented as described in the project description.

4.1.1 Sustainable Development

The project will contribute to the following sustainable development goals through the implementation of its activities during the current monitoring period (Section 1.11 of MR):

- **UN SDG 06:** the project implemented activities to increase de protect of water-related ecosystems, through monitoring yearly from 2011 to 2017 by satellite, it was found that there was no degradation or deforestation in the High Conservation Value (HCV) area 2, which is associated with floodplain lakes and marginal environments of the Rio Capim, and it is within the Cikel REDD project area. The monitoring of these areas is through satellite imagery covering and carrying out the surveillance of the property, including ground and fluvial monitoring.
- **UN SDG 13:** the project implemented activities to increase tonnes of greenhouse gas emissions avoided or removed, by conserving 27,434.7 ha of tropical rainforest, CIKEL BRAZILIAN AMAZON REDD APD project has prevented the release of 5,186,724 tonnes of carbon into the atmosphere during the monitoring period. This forest cover change is monitored through satellite imagery covering and carrying out the surveillance of the property, including ground and fluvial monitoring.
- **UN SDG 15:** the project implemented activities to ensure the conservation and sustainable use of forest and inland freshwater ecosystems and their services; through the conservation of 27,434.7 ha of tropical rainforest, the project has prevented the release of 5,186,724 tCO₂e into

the atmosphere during the monitoring period. This is monitoring in the same way as the previous SDG.

CIKEL BRAZILIAN AMAZON REDD APD project also developed activities to promote the implementation of sustainable management of all types of forests and halt deforestation; the project proponent mention that promoted in this monitoring period the sustainable management of the forest through FSC certificate. The monitored parameters are and will be sourced from annual post-harvest assessment reports prepared for SEMA.

In addition, the project implemented activities to reduce the degradation of natural habitats and halt the loss of biodiversity, through the conservation of 27,434.7 ha of tropical rainforest, the project has reduced degradation and prevented habitat and biodiversity loss. These activities are monitored as the same way that SDG 13 activities.

Furthermore, CIKEL BRAZILIAN AMAZON REDD APD project implemented activities to protect and prevent the extinction of threatened species. Between 2010 and 2014, records of fauna sightings were made in the Rio Capim Complex. Not all animals seen had the species properly identified, but 12 genera of birds, 20 genera of mammals and 2 genera of reptiles were recorded. Of the species observed, 15 are threatened (NT, VU, EN and CR) according to the Red Lists of the IUCN⁵ and ICMBIO⁶. Were sighted four species of apes classified as EN (endangered) and CR (critically endangered), endemic of this region: *Cebus kaapori*, *Chiropotes satanas*, *Alouatta ululata* and *Ateles marginatus*.

By monitoring and conserving 27,434.7 ha of tropical rainforest, the project has preserved several threatened species and prevented habitat loss, as mentioned above. The monitoring of this activities is developed by a partnership with Pará Federal University, which has been doing research in their forest to apprise the local biodiversity and the preservation of high conservation areas and species, and it is also monitored as the same way that SDG 13 activities.

The project proponent maintained remote sensing monitoring of HCV areas to identify possible deforestation, in addition to maintaining the terrestrial monitoring plan, in order to guarantee forest integrity, preventing illegal deforestation, invasions and forest fires.

Since 2019, the company has resumed monitoring biodiversity through a research partnership with the Federal University of Pará, through the Laboratory of Vertebrate Ecology and Zoology, for the monitoring and development of research with terrestrial mammals in the area of Rio Capim Complex.

⁵ <https://www.iucnredlist.org/>. Accessed July 20, 2022

⁶ ICMBIO, 2018. Accessed July 20, 2022

4.2 Safeguards

4.2.1 No Net Harm

In section 2.1 of Monitoring Report states that the company is a pioneer in supporting research and development of techniques that cooperate with the continuous improvement of forest management and the responsible use of natural resources. Since 1995, the enterprise has provided area and support to the *Instituto Floresta Tropical* (IFT; Tropical Forest Institute), which is the school for low-impact management in native forests. These techniques, conceived and tested at the Rio Capim Complex (RCC). As a result of this partnership, CBNS was a pioneer in the implementation of a Sustainable Forest Management Plan (PMFS; *Plano de Manejo Florestal Sustentável*) in the Amazon, providing for a 35-year cutting cycle, the correct selection of trees for cutting, as well as the implementation of operational techniques that minimize the impact intervention in the forest, guaranteeing the continuity of the forestry business.

Also, this work led the company to obtain the FSC® forest certification, in 2001, which attests that the economic, social, and environmental benefits are obtained in equality and balance. Since 2000, the company has partnered with EMBRAPA and the Federal Rural University of the Amazon (UFRA; *Universidade Federal Rural da Amazônia*), for the development of studies and research aimed at getting to know the forest and subsidizing, through the results obtained, new work practices, expanding the productive capacity of the enterprise, in addition to allowing adjustments to the PMFS.

The project proponent also mentioned that some works developed in this partnership: '*Recovery plan of areas of Euxylophora paraensis Huber (Pau-amarelo)*', an experiment that aims to know the dynamics and growth of seedlings of Pau-amarelo; a National Forest Inventory; research called "*Phenology of Commercial Forest Species*", which main objective is to identify the species with commercial potential, verify the flowering/fruiting period throughout the year and the dispersion process; the quantification of forest residues and the relationship between forest residues and charcoal; the monitoring of forest residue removal areas; the use of volume equations for analysis and elaboration of regional equation; the fauna identification and protection actions in forest management operations; the wildlife Monitoring by Sighting; the identification and monitoring of areas of High Conservation Value (HCV); the implementation of the Solid Waste Management Plan ("PGRS"); among others.

Other activities are developed by CBNS NEGÓCIOS FLORESTAIS S/A, such as the inspections and renovations carried out on company's infrastructures (7 inspections over 2011 to 2016 years); the "Safe Behavior" program (which main purpose is to reduce indicators related to occupational accidents); the Work Accident Reduction Program (which aims to reduce work accidents by targeting employee behaviour); the Monitoring Operational Procedures Guide; the plan for Preventing and Combating Forest Fires; the development of training courses for its employees and for companies that carry out forestry

operations in their management areas (7 trainings carried out over 2011 to 2015 years); and the assessment standard established in its Community Relations in FMA document.

Besides, according with section 2.1 of MR and corroborated by this audit team, the company held some meetings between September 2014 to May 2015 with the communities called Ararandeuá, Surubiju and Barreirinha, indigenous people of the Amanayé ethnicity, in order to identify the places where these communities carry out exploration activities (hunting, fishing, collection of forest products) within the area of the Rio Capim Complex. After that, between May 2015 and April 2016, the company carried out further consultations with community members to identify and map potential environmental and social risks according to community perceptions, during these meetings the community identified some positive associated with the company, such as the maintenance of access roads from the community to the city, the carpools provided for community members to travel to the city and especially in cases of emergencies, the fact that the forest management activities do not interfere with the way of life of the community, the security in the sense of keeping the forest preserved derived from have the company as neighbour, among others.

Information related with the social activities developed by the company were assessed and verified by the VVB, the project proponent provided adequate supports to verify the aforementioned information.

The project proponent emphasizes that the project itself does not have negative impacts on the community, given that it is a forest conservation project, but it mentioned some impacts associated with sustainable forest management operations that take place not only in the project area, but in the entire Rio Capim Complex. Some aspects of the charcoal plants that are located within the Rio Capim Complex are also mentioned, but there are no charcoal plants within the REDD project area. This information was presented in order to show transparency and demonstrate that there are dialogues between CBNS NEGÓCIOS FLORESTAIS S/A and the community, and that actions are taken to mitigate any impacts mentioned by them.

The impacts identified and its mitigation action executed are presented in the following table:

Table 8 Mitigation Plan of Social and Environmental Impacts.

Community	Problem	Impact	Mitigation Action Executed
Indigenous Ararandeuá	Potential risk of accidents in the harbor as it is very close to the bridge	Security	In 2015, an improvement was carried out in the lighting of this berthing point. In 2016, in conversation with community leaders, they said that the problem was solved, that it was good to dock, and the lighting greatly minimized the risk of accidents.

Community	Problem	Impact	Mitigation Action Executed
	Smoke from the charcoal plant: it is not constant, with the highest incidence during the summer and when it occurs, it is during the morning.	Health	In 2015, this proposal to monitor smoke through equipment was changed. Monitoring began to be carried out qualitatively, through conversations with community residents. During the meetings with the community, it was reported that the smoke was at tolerable levels. In addition, the company has been seeking innovative technologies for its production matrix, in this way, the company celebrated a partnership with the “Universidade Federal Rural da Amazônia” (UFRA) to carry out several research to seek opportunities for improvement in its processes and ovens.
	During the forest management operation, the hunting moves away.	Subsistence	In June 2015, community leaders were informed about the start of activities and the locations where they were taking place. In 2016, they stated that in the winter period the presence of hunting increased in the managed areas of UPA 15 and surroundings, near the Surubiju River, because at the end of the management, the sprouting of seedlings and seeds increases, which makes the incidence of animals increase (manly tapir, wild pig, and deer)
Indigenous Barreirinha	CBNS's representation in the community is weak.	Personal Satisfaction and Institutional Image	In 2015, the monitoring team was in the process of structuring, and the person hired to carry out the social monitoring in the field started its activities in September 2015. In April 2016, the field mapping of areas used by communities was carried out with community leaders. This field mapping was important for the rapprochement between the company and the community and aimed to identify the areas of use by communities in company's areas and their productive potential, allied to an objective of identifying possibilities of partnership/support for the development of productive chains of non-timber forest products to be possibly developed by the communities, as well as to re-establish the trust of the community with the company.
	Create and frustrate expectations.	Personal Satisfaction and Institutional Image	This field mapping was completed in April 2016, and was discussed with the community leader, Mr. Ezídio, about the areas identified and the potential of each area, and some ideas emerged about the possibility of partnerships, mainly focused on the management of Açai (for food/market) and Guarumã (for handicrafts). He was satisfied and decided to meet with all the residents of the community, about how the company could contribute (partnership or support) to the development of some production chains of non-timber forest products.
Indigenous Surubiju	Difficulty getting a ride in company cars	Economic and Quality of life	The drivers were oriented and whenever possible they have given rides to the Indigenous people.

Community	Problem	Impact	Mitigation Action Executed
	During forest management, jaguars flee to the side of the community	Security	Community leaders were informed about the start of activities and the locations where they were taking place.
	The company takes a long time to return contacts (Annual meetings)	Personal Satisfaction	<p>In 2015, the monitoring team was in the process of structuring, and the person hired to carry out the social monitoring in the field started its activities in September 2015.</p> <p>In April 2016, the field mapping of areas used by communities was carried out with community leaders. This field mapping was important for the rapprochement between the company and the community and aimed to identify the areas of use by communities in company's areas and their productive potential, allied to an objective of identifying possibilities of partnership/support for the development of productive chains of non-timber forest products to be possibly developed by the communities, as well as to reestablish the trust of the community with the company.</p> <p>Mr. Bilu from the Surubiju community accompanied the team in the mapping of the company. Some ideas emerged about possibilities for partnerships, mainly focused on the management of Açai (for food/market). He was satisfied and decided to meet with the community leaders and with all the residents of the community, about how the company could contribute to the development of this potential productive chain of Açai.</p>
Rouxinol Community	Dust caused by the speed of trucks	Quality of Life/Health	The awareness was carried out only by drivers of light vehicles;
		Security	<p>Maintenance was carried out on the access road that connects the property's entrance and the PA-150 highway. The signs were installed in the stretches where maintenance was carried out.</p> <p>Speed bumps were placed on the roads close to the Rouxinol and Vila Preguiça communities. The placement of the speed bumps was previously agreed with the residents, where they signed an agreement on their installation. The speed bumps were placed as well as correctly signposted. In conversation with residents, an improvement was identified in terms of the speed of vehicles that travel there, as well as a reduction in the risk of accidents.</p>

Community	Problem	Impact	Mitigation Action Executed
	They are unaware of the company's job vacancies	Economic	HR made vacancies available in the communities, where six employees from the surrounding communities were hired, four for the residues extraction sector and two for the charcoal industry. In addition to these, the service provider company (Uthil Group) hired an employee from the Ararandeuá community, and the JP company hired two employees from the communities surrounding of the project area for the 2015 harvest.

The VVB assessed that as a mitigation measure for the above, the identification of impacts to local communities and those surrounding the project area has been verified, the project proponent attached the evidence on the impacts to local communities and those surrounding the project area and they were verified.

In addition, in section 3.1 of MR (Table 11), the project proponent mentioned that social activities such as the mapping of important forest areas (through participatory mapping) for community members, combined with environmental awareness activities, contributes positively to the reduction of GHG emissions, as community members understand the need to conserve natural resources for the maintenance and perpetuation of their traditions and way of life. Explanation in the monitoring report and supports on environmental awareness activities were verified.

4.2.2 Local Stakeholder Consultation

According to section 2.2 of MR, the company carried out the consultation with during the monitoring period through its CBNS group, which includes the communities' groups presented before; local stakeholders were presented to the CIKEL BRAZILIAN AMAZON REDD APD project as well given them opportunity to express their feedback about it. For the consultation, individuals, neighbours, and communities were mapped that live within the project area and within a 20Km radius of it.

The CBNS group developed its own standards and procedures to establish guidelines to deal with the multiple aspects of interaction with the local communities called Social Responsibility Guidelines (PRORS 03). Through this guideline the company carried out the consultation following the next steps:

1. Identification of local communities
2. Meeting between the company and each community, in which ensure a better understanding of local community of the project, an introduction of the CBNS group and is established and presented a consultation channel to the community. All meetings, actions and projects may be registered
3. Define a periodicity for contact
4. If necessary, meetings can be requested as needed by the community or CBNS

This process consists of community meetings, individual interviews, and participatory mapping with accessible language and clear way of communication. The meetings are an opportunity not only to clearly

present to the community the company activities and their possible impacts, but also to get their feedback on how positive or negative these impacts they are observing.

The project proponent highlights that throughout the monitoring period, all sustainable logging that happened in the area has been yearly audited by FSC certification. During each FSC audit, interviews were carried out with leaders and residents of local communities existing in the vicinity of the forest management area. The audits mainly intended to evaluate the maintenance of traditional use rights of resources, the relationship with CBNS Group and the socio-environmental impacts arising from forestry activity.

The meetings with communities were carried out in the following dates:

- 28 March 2011 – Meeting with Rouxinol community to present and discuss the REDD+ project.
- 30 March 2011 – Meeting with Barreirinha community to present and discuss the REDD+ project.
- 20 January 2012 – Meeting with Ararandeuá community to present and discuss the REDD+ project.
- 28 May 2013 – Meeting requested by Ararandeuá community to discuss the interaction between the company and the locals.
- September 2014 to May 2015 – Communities Relationship in FMA (PROR03).
- 05 April 2015 – Meeting with Ararandeuá community to assess Social Impact aiming to develop a mitigation plan.
- April 2016 – Social Impacts Mitigation Plan Report Publication.

The communication channel between CBNS group and the local communities existed before the carbon project, and it is still active. None of the questions and issues discussed in the meetings presented above were directly related to the REDD+ project, since the avoided planned deforestation project has little or no direct impact on the communities, especially if compared with other company's activities.

Furthermore, as states in section 2.2 of MR, and in accordance with VCS Standard v4.4, CBNS NEGÓCIOS FLORESTAIS S/A informed in advance about the audit process; administrative employees and leaders of the company operational teams, surrounding communities and representatives of institutions were previously informed about this process. The community members were first communicated through the WhatsApp messaging application or phone call and a date for a face-to-face visit was arranged to present the project and explain the audit process. During the meetings with the community, a folder with a summary in Portuguese of the project was also distributed, and it was provided by the project proponent to verification and validation body, as the attendance lists of the meetings held.

Accessible language and appropriate communication are a pillar found in all CBNS Group communities' affairs protocols. In this way, it's foreseen in the procedure PRORS 03 that the professionals making the communications have the necessary language skills to be understood by the public in question. The mentioned guideline also foresees that the customs, way of life and history of occupation of the community members be identified, in addition to involving at least one representative of each family

during the participatory mapping process. This process allows any community member to participate in the social diagnosis, regardless of gender, race, or age.

ESPL verified that the project proponent carries out the consultation and maintains communication with the stakeholders (Rouxinol, Barreirinha, and Ararandeuá communities) through activities or mechanisms such as meetings and participatory mapping activities, and through the availability of its channel communication. Those responsible evaluate each communication and, if so, attend to the demands by implementing the necessary actions. In addition, the VVB verified through the interviews, visit, and supports of meetings that communication was made in a culturally appropriate manner, including language and gender sensitivity.

4.3 AFOLU-Specific Safeguards

According to section 2.3 of MR, the implementation of the project did not bring negative impacts to the community members, as stated by them during the meetings and participatory mapping carried out with community members. Besides, the company has a conflict management procedure (O1_PROSP Conflict Management), which includes the following steps:

- Contact, in which the company stays connected with local communities and neighbours, each month as possible. When a possibility or situation of conflicts is identified, the case must be registered immediately with the Property Security area, so that the prevention and/or resolution of the identified situation can proceed.
- Identification, in which in case of a conflict is confirmed, property security area must identify the type of conflict and collect information about it, in addition to reinforcing security at the site and keeping alert.
- Conciliation, in which property security shall mediate with the agent(s), seeking resolution through conversations and awareness of the agent(s) about the possible implications.
- Other alternatives, in which if the situation is not resolved, the social responsibility sector must analyse the situation to identify the type of conflict and call an external intermediary, which could be the public agency related to the conflict which will seek a consensus with the community and the company about a resolution model.
- Records, that step is for remains that all activities, incident reports and court records must be registered in the Qualyteam software by the Social Responsibility and Property Security team.

The audit team carried out the documentary review on land tenure and concluded that there is regularity of the property, and there is no burden, encumbrance, or limitation to the full use of it, nor is there any obstacle to the realization of the CIKEL BRAZILIAN AMAZON REDD APD project. The project area is owned by the project proponents and does not affect neighbouring land ownership private or belonging to indigenous and traditional communities or to the government.

The VVB verified through the evidence of compliance with the codes of conduct and ethics (Section 2.3 of the monitoring report), the interviews and the on-site visit, that the project proponent and the other entity are not involved in any form of discrimination and sexual harassment. In addition, it was verified by following the communication guidelines of the PRORS 03 procedure (Section 2.2 of the monitoring report) that the project proponent communicated the necessary relevant information to local stakeholders during the monitoring period and that the communication considered cultural characteristics such as language and gender sensitivity; In this case, the project identified the customs, way of life and history of occupation, In addition to involving at least one representative of each family during the participatory mapping process. This process allows any member of the community to participate in the social diagnosis, regardless of their gender, race, or age. It is important to highlight that there are no traditional peoples and communities in the project area and that accessible language, and a clear way of communication is a pillar found in all the communities of the CBNS Group.

Through site visit observations, documentary review and interviews, the audit team concludes that the project proponent has taken the appropriate measures to mitigate the negative impacts on local stakeholders, doesn't generate negative impacts in land use rights and maintains communication with stakeholders about relevant project information.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

ESPL was able to confirm that the equations, sources, assumptions, parameters, and statistical procedures met the methodological and standard requirements. The procedures for quantifying baseline emissions, the project emissions, leakage, and emission reductions were performed in accordance with the applied methodology.

Table 9 Data and Parameters Available at Validation.

Parameter	Description	Value applied	Verification
LDF	Logging damage factor for logging stratum z, in stratum i	0.53 t C m ⁻³	This parameter is verified. Is the default value for broadleaf and mixed according with VMD0015
CF	Carbon fraction biomass	0.47 t C t ⁻¹ d.m	This parameter is verified. Is the default value from IPCC 2006 GL
D _i	Basic wood density of species j	0.67 t d m.m ⁻³	This parameter is verified according with its source (Forest Products Laboratory (LPF) of the Brazilian Forest Service database)
WW _s	Wood waste. The fraction immediately emitted through mill inefficiency by class of wood products	0.24	This parameter is verified. Is in accordance with VMD0015
SLF _s	Fraction of wood products that will be emitted to the atmosphere within 5 years of	0.2	This parameter is verified. Is in accordance with VMD0015

Parameter	Description	Value applied	Verification
	timber harvest by class of wood products		
Ofs	Fraction of wood products that will be emitted to the atmosphere between 5 and 10 years of timber harvest by class of wood products	0.84	This parameter is verified and it has been appropriately calculated.
NewR _{i,t}	New calculated forest clearance in stratum i at time t by the baseline agent of the planned deforestation where no leakage is occurring	0 ha	This parameter was evaluated during the validation process. Confirmed that the values in MR are equal to those reported in the PD.
FG _{BSL,t}	Average projected annual volume of fuelwood to be gathered in the project area in the baseline scenario in stratum i at time t	Set at start of baseline period (m ³ yr ⁻¹)	This parameter was evaluated during the validation process. Confirmed that the values in MR are equal to those reported in the PD.
DM _{mn}	Mean wood density of commercially harvested species	0.65 t.d.m.m ⁻³	This parameter is verified.
LF _{ME}	Leakage factor for market effects calculations	0.4	This parameter is verified. Is the default value for fuelwood/charcoal in all circumstances, as states VMD0011
PRODFC _{BL,t}	Production of fuelwood/charcoal in year t in the baseline case	484,687.06 Tons of fuelwood/charcoal per year	This parameter is verified and it has been appropriately calculated.
LIF	Factor for calculating the emissions arising from the creation of logging infrastructure (roads, skid trails and decks) during logging operations per cubic meter extracted	0.29 t C m ⁻³	This parameter is verified.
PML _{FT}	Mean merchantable biomass as a proportion of total aboveground tree biomass for each forest type	0.80%	This parameter is verified according with its source (Brown, S., Lugo, A.E., 1992)
PRODMB _{BL,t}	Production of biomass in commercial species that is merchantable in year t in the baseline case	88,727.82 Tons of biomass in commercial species that is merchantable per year	This parameter is verified and it has been appropriately calculated.

Table 10 Data and Parameters Monitored.

Parameter	Description	Value monitored	Verification
$\Delta CP_{Def,i,t}$	Net carbon stock change as a result of deforestation in the project case in the project area in stratum i at time t	0 tCO _{2e}	This parameter has been appropriately calculated applying equation 3 of VMD0015
$\Delta CP_{DistPA,i,t}$	Net carbon stock change as a result of natural disturbance in the project case in the project area in stratum i at time t	0 tCO _{2e}	This parameter has been appropriately calculated applying equation 20 of VMD0015
$A_{Def PA,u,i,t}$	Area of recorded deforestation in the project area stratum i converted to land use u at time t	0 ha	This parameter has been appropriately calculated.
$A_{Dist PA,q,i,t}$	Area impacted by natural disturbance in post-natural disturbance stratum q in stratum i , at time t	0 ha	This parameter has been appropriately calculated.
$A_{DegW,i,t}$	Area potentially impacted by degradation processes in stratum i	0 ha	This parameter has been appropriately calculated.
$C_{DegW,i,t}$	Biomass carbon of trees cut and removed through degradation process from plots measured in stratum i at time t	0 tCO _{2e}	This parameter has been appropriately calculated.
AP_i	Total area of degradation sample plots in stratum i	0 ha	This parameter has been appropriately calculated.
$\Delta C_{DegW,i,t}$	Net carbon stock changes as a result of degradation in stratum i in the project area at time t	0 tCO _{2e}	This parameter has been appropriately calculated applying equation 8 of VMD0015
$C_{LG,i,t}$	Actual net project emissions arising in the logging gap, in stratum i at time	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 10 of VMD0015
$V_{EXT z,i,t}$	Volume extracted from logging stratum z , in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated.
$C_{EXT z,i,t}$	Biomass carbon stock of timber extracted within the project boundary for logging stratum z , in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 11 of VMD0015
$C_{LR i,t}$	Actual net project emissions arising from logging infrastructure in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 12 of VMD0015
$\Delta C_{SKID,i,t}$	Change in carbon stock resulting from skid trail creation in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 13 of VMD0015

Parameter	Description	Value monitored	Verification
$L_{SKID,i,t}$	Length of skid trails	Values available in logging emissions Sheet	This parameter has been appropriately calculated.
SK	Skid trails emission factor	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 14 of VMD0015
W_{SKID}	Mean width of skid trails	Values available in logging emissions Sheet	This parameter has been appropriately calculated.
$\Delta C_{ROAD,i,t}$	Change in carbon stock resulting from logging road creation in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 17 of VMD0015
A_{ROAD}	Area of roads in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated.
$\Delta C_{DECKS,i,t}$	Change in carbon stock resulting from logging deck creation in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated applying equation 18 of VMD0015
A_{DECKS}	Area of logging decks in stratum i at time t	Values available in logging emissions Sheet	This parameter has been appropriately calculated.
$C_{WP,i,t}$	Carbon stock in wood products pool from stratum i, at time t	Values available in pa wood prod carbon pool sheet	This parameter has been appropriately calculated applying equation 2 of VMD0005
$C_{WP100,i,t}$	Carbon stock entering the wood products pool at the time of deforestation that is expected to be emitted over 100-years from stratum i; t CO ₂ -e ha ⁻¹	Values available in pa wood prod carbon pool sheet	This parameter has been appropriately calculated applying equation 6 of VMD0005
$V_{EXT,s,i,t}$	Volume wood product class “s” (sawnwood) extracted from stratum i at time t	Values available in pa wood prod carbon pool sheet	This parameter has been appropriately calculated.
$\Delta CLK-AS,planned$	Net greenhouse gas emissions due to activity shifting leakage for projects preventing planned deforestation	0 tCO ₂ e	This parameter has been appropriately calculated applying equation 9 of VMD0009
$A_{defLK,i,t}$	The total area of deforestation by the baseline agent of the planned deforestation in stratum i at time, t	0 ha	This parameter has been appropriately calculated.
$LKA_{planned,i,t}$	The area of activity shifting leakage in stratum i at time t	0 ha	This parameter has been appropriately calculated applying equation 5 of VMD0009

Parameter	Description	Value monitored	Verification
FG _{LP,t}	Volume of fuelwood gathered in the project area	Values available in leakage market - fuelwd. & chcl pool sheet	This parameter has been appropriately calculated.
C _{BSL,XBFWC,t}	Carbon emission due to displaced fuelwood/charcoal harvests in stratum i in the baseline scenario at time t	Values available in leakage market - fuelwd. & chcl pool sheet	This parameter has been appropriately calculated applying equation 7 of VMD0011
AL _{FW/C,i}	Summed emissions from fuelwood/charcoal harvests in stratum i in the baseline case potentially displaced through implementation of carbon project	Values available in leakage market - fuelwd. & chcl pool sheet	This parameter has been appropriately calculated applying equation 6 of VMD0011
LK _{MarketEffects,FW/C}	Total GHG emissions due to market leakage through decreased harvest of fuelwood and charcoal sold into regional and/or national markets	Values available in leakage market - fuelwd. & chcl pool sheet	This parameter has been appropriately calculated applying equation 5 of VMD0011
PRODFC _{LMA,t}	Production of fuelwood/charcoal in year t in leakage management areas	87,773.34 tons per year	This parameter is verified.
C _{BSL, XBT}	Carbon emission due to displaced timber harvests in the baseline scenario in stratum i in time t; t CO ₂ -e	Values available in leakage market - timber hav sheet	This parameter has been appropriately calculated applying equation 4 of VMD0011
AL _{T,i}	Summed emissions from timber harvest in stratum i in the baseline case potentially displaced through implementation of carbon project; t CO ₂ -e	Values available in leakage market - timber hav sheet	This parameter has been appropriately calculated applying equation 3 of VMD0011
LK _{MarketEffects,timber}	Total GHG emissions due to market- effects leakage through decreased timber harvest; t CO ₂ -e	Values available in leakage market - timber hav sheet	This parameter has been appropriately calculated applying equation 2 of VMD0011
PMP _i	Merchantable biomass as a proportion of total aboveground tree biomass for stratum i within the project boundaries	0.63%	This parameter is verified.
LF _{ME}	Leakage factor for market effects (Timber Harvest) calculations	0.2	This parameter is verified.

The audit team reviewed the quantification of GHG emission reductions in accordance with VM0007 REDD methodology:

- Quantification of project emissions was verified by the VVB by reviewing the decrease in carbon stock due to planned and unplanned deforestation in the Project Area through recalculation, spreadsheets review and geographic information. During field inspections, the

VVB verified that there was no significant and unplanned reduction in carbon stock during the monitoring period in the monitored area.

- This verification body team ensured that no manual transfer errors occurred between data sets during the monitoring process, as most of the parameters used by the project proponent had already been validated.

ESPL ensures project compliance with the VCS Program by considering a materiality threshold of less than 5% in terms of total errors, omissions, and misrepresentations relative to total reported GHG emission reductions.

ESPL carried out re-calculations to verify the correct application of the equations of the methodology, and the accuracy of the result.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The evidence used to determine the GHG reductions of GEI was of sufficient quantity and appropriate quality⁷. The audit team took the following steps to assess the quantity and quality of the evidence for emission reductions:

- Recalculation and assurance of areas from project shapefiles. In addition, the VVB evaluated the KML file through GIS analysis of the project areas described with geographic coordinates in the monitoring report and with the location and control points taken in the field visit (see section 2.4 of this report).
- Recalculation and assurance of the of GHG emission reductions considering parameters, area, equations, etc.
- Comparison of what was recalculated with what was presented by the project proponent in its spreadsheet and the monitoring report.

The GHG emission reductions ex-post estimates were determined by the project proponent using sufficient quantitative evidence and properly qualitative evidence, as it was verified by the audit team.

Although in information management evidence of processes implemented by the project was lost (see CAR 11), the audit team verified that it corresponds to supports on employee training and activities with community members (such as photos, videos, and attendance lists) and that the project proponent took the measures necessary and described them to avoid the loss of information due to this type of event (see section 2.3 of the monitoring report). The measure adopted regarding the use of a server that minimizes the risk of information loss was reviewed. In addition, it was confirmed through the documentary review and the storage of the information on the server that this situation has no impact on other types of project data. Mainly it was verified that there is no impact on the GHG emission

⁷ According to 240822_MR2_SPREADSHEET_Cikel_1assessment File

reduction estimates as the hacker attack did not affect the ERR calculations, since the original spreadsheet and biomass inventory were still available.

4.6 Non-Permanence Risk Analysis

The project proponent uses the VCS non-permanence risk report to identify risks and mitigation measures to the project aspects. Justifications and mitigation measures were provided to calculate the total score, fulfilling the objectives of the VCS tool.

Table 11 Evaluation of the project risks

Risk	Assessment of rationale, assumptions, and justification	Assessment of quality of documentation and data provided	Conclusion
Internal risks			
Risk rating= 2			
Project management Risk rating= -4	The audit team evaluated the justification for the risk rating and the actions to mitigate the risk of illicit activities within the project area.	The documentation provided is the description of activities of mitigation and the experience of the project proponent that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate. The VVB finds that the mitigation measures are appropriate to cover risk.
Financial viability Risk rating= 0	The audit team evaluated the justification for rating the risks on project cash flow breakeven point	The documentation provided is a financial analysis that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate.
Opportunity cost Risk rating= 6	The audit team evaluated the justification for rating the risk and the mitigation since the project is legally protected.	The documentation provided is the description and supports on forest regulations that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate.
Project longevity Risk rating= 0	The audit team evaluated the justification for rating the risk and the mitigation on legal agreement or requirement to continue the management practice.	The documentation provided is the description and supports on possession and permitted uses of the land that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate.
External risks			
Risk rating= 0			
Land Tenure and Resource Access/Impacts Risk rating= 0	The audit team evaluated the justification for rating the risk and the mitigation.	The documentation provided is the description and supports on forest and land tenure regulations that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate.
Community Engagement Risk rating= -5	The audit team evaluated the justification for the risk rating on the consult to the stakeholders associated with the project area.	The documentation provided is a socioeconomic study that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate. Local populations are not reliant on the project area, the risk is not relevant to the project location.

Risk	Assessment of rationale, assumptions, and justification	Assessment of quality of documentation and data provided	Conclusion
Political risk Risk rating= 0	The audit team evaluated the justification for rating the governance risk and the mitigation on Country implementing REDD+ Readiness or other activities.	The documentation provided is a description of the participation of Brazil in REDD+ activities and governance indicators that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate.
Natural risks Risk rating= 2.5			
Fire Risk rating= 0.5	The audit team evaluated the justification for rating the fire risk and the actions of mitigation.	The documentation provided is the description of significance of the risk that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate. The VVB finds that the mitigation measures are appropriate to cover risk.
Extreme Weather Risk rating= 2	The audit team evaluated the justification for rating the fire risk and the actions of mitigation.	The documentation provided is the description of significance of the risk that allowed for assessment by the audit team and is therefore of good quality.	Risk rating is appropriate. The VVB finds that the mitigation measures are appropriate to cover risk. The other natural risks evaluated do not apply or are insignificant
Overall Non-Permanence Risk Rating Overall Risk Rating = 10			

The audit team performed a complete review of the risk analysis against the requirements of the AFOLU Non-Permanent Risk Tool. The audit team concludes that the assignment of risk scores is appropriate and in conformance to the AFOLU Non-Permanence Risk Tools⁸.

5 VERIFICATION CONCLUSION

The project complies with the verification criteria for projects set out in VCS. The project has been implemented in accordance with the validated project description and the deviations were justified.

The audit team concludes, with reasonable assurance, that the quantification of the net GHG emission reductions, during the verification period, is free of material misstatement and complies with the verification criteria.

Monitoring period: from 19/July/2010 to 18/July/2017.

⁸ See VCS-Non-Permanence-Risk-Report-CIKELMR02 V4.0

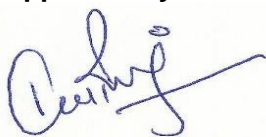
The audit team confirms, with reasonable assurance, that the project generates a net reduction of GHG emissions of 5,186,724 tCO₂e and 4,364,505 tradable credits (VCUs) ⁹ applying a buffer of 10% due the Non-Permanence-Risk calculation.

Table 12 Verified GHG emission reductions in the verification period.

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	VCUs eligible for issuance
July/2010	-8,980	150,729	0	-159,709	0	-159,709
2011	1,721,787	323,366	393,378	1,005,043	139,842	865,201
2012	930,686	372,336	406,125	152,226	55,835	96,391
2013	880,463	156,078	383,655	340,730	72,439	268,291
2014	1,616,322	20,483	447,134	1,148,705	159,584	989,121
2015	924,796	75,632	374,791	474,373	84,916	389,456
2016	1,733,120	0	489,779	1,243,341	173,312	1,070,029
2017	1,431,904	68,984	380,903	982,016	136,292	845,724
TOTAL	9,230,098	1,167,608	2,875,765	5,186,724	822,220	4,364,505

The justification of the differences between the ex-ante (5,400,598 tCO₂e) and ex post (5,186,724 tCO₂e) calculations was verified. The main differences are related to the inclusion in the estimation of the baseline of the removals due to reforestation, the post-deforestation carbon stocks (CBSL,post,i) calculation, the correct application of the Vext and LDF parameters, larger area, and volume of FSC certified forest management in the MR2 than expected in the PD and the inclusion of market effects leakage. The above correspond to deviations from the project description (see section 3.3 of this report), which were verified by the VVB. VCS-Non-Permanence-Risk-Report-CIKELMR02

Approved by:



Dr. Kaviraj Singh
Managing Director

Date: 27/07/2023

Earthood Services Privated Limited

Place: Gurgaon, Haryana

⁹ The VCU result is presented by rounding off figures in the annual discrimination of the calculations. The foregoing justifies the difference of some units when the buffer of 10% is applied directly to the net emission reduction.

APPENDIX 1: DOCUMENTATION PROVIDED BY THE PROJECT

Folders		Files
		20230718_VCS_MR2_Cikel_VERRA.pdf
		2023.07.10_MR2_SPREADSHEET_Cikel.xlsx
		VCS_NPRR_CIKELMR02 VCS_NPRR_CIKELMR02.pdf
	04052023_PDD APD CIKEL.pdf	
	Bibliography	2009_Programa de Monitoramento de Fauna_Cikel.pdf
		2017 ecosystem_marketplace_2017.pdf
		Nbr_10004-2004-Classificacao-De-Residuos-Solidos.pdf
		Rosa et al 2016.pdf
		V4_04_Ch4_Forest_Land.pdf
		Winjum_Forest Harvests and Wood Products_ Sources and Sinks of Atmospheric Carbon Dioxide.pdf
Monitoring Report		2009_Fauna_Programa de Monitoramento.pdf
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Biodiversity Evidence		B5.png
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		2011_ Validation Report of HCV Areas.pdf
		2013_Plano de Monitoramento.pdf
		2014_2018.Relatório de Monitoramento.pdf
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2012	2012_Tabela de inventario de fauna _SUMAL.xls		
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	UPA 06- medição 05 - 2013.xls		
	UPA 07 Medição 05-2013.xls		
	UPA 09 Medição 04-2013.xls		
2014	UPA 15 Medição 02-2013.xls		
	Monit. de Fauna UPA 08-2014.xlsx		
	Monit. de Fauna UPA 14-2014.xlsx		
	Monit. de Fauna UPA 15-2014.xlsx		
Carbon Stocks		Monit. de Fauna UPA 16-2014.xlsx	
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		Higuchi 1998 - Equação alométrica.pdf	
		Resultados do Inventario de Biomassa Florestal.pdf	
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				20112105_Reunião com Clientes.pdf
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			2011_Impactos Sociais_Estrada Rural.doc
		2015	2015_2016_Validacao Areas de Uso_Comunidades.pdf
			2015_Lista frequencia_Avaliacao Impacto.pdf
			2015_Plano de Mitigação Impactos Sociais e Ambientais.pdf
		2016	2016_Plano de Mitigação Impactos Sociais e Ambientais.pdf
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	Fire Spots VIIRS by Nasa - LB ABC.shx
	Fire Spots VIIRS by Nasa - PA.cpg
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	Local communities.shx
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	Natural Risk - Winds.sbn
	Natural Risk - Winds.sbx
	Natural Risk - Winds.shp
	Natural Risk - Winds.shp.xml
	Natural Risk - Winds.shx
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	Project Area Buffer20km.dbf
	Project Area Buffer20km.prj
	Project Area Buffer20km.sbn

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			2011_Condição das Áreas de Vivência.pdf
			2011_ESTUDO DA PERCEPÇÃO DE RISCO.pdf
			2011_Programa Comportamento Seguro.pdf
			2012_PRAT.pdf
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			2013_PPRA.pdf
		Estudo_Identificação de Riscos.pdf	
	Waste Management	2010_Contract_Transcidade.pdf 2011_Coopcomar.jpg	
	Monitoramento Operacional	GPOM - Derruba de árvores.pdf GPOM-Estradas florestais .pdf GPOM-Operação de arraste.pdf GPOM-Pontes e Bueiros .pdf	
	Monitoramento Patrimonial	2011_Plano Segurança Patrimonial - Revisado.doc PROGM-06-01-PORTARIAS.doc PROGM-06-02-VIGILANCIA DAS FAZENDAS.doc	
	Relatório de Monitoramento_Terceiros	2011_Relatorio_Monitoramento_MazaI_Caculé.pdf 2015_Relatorio_Monitoramento_JP_UPA_17_RIOCAPIM.pdf 2015_Relatorio_Monitoramento_TerraBrasil_SUMAL_UPA16.pdf 2016_Relatorio_Monitoramento_JP_UPA_17_RIOCAPIM.docx	
	Vistorias		2013_Auditoria Interna _IFT.pdf 2013_Auditoria Interna _JP.pdf 2013_Auditoria Interna_MazaI.pdf 2013_Auditoria Interna_Rancho Alegre.pdf 2013_Auditoria Interna_SOMA.pdf 2013_Auditoria Interna_Terra Brasil.pdf 2013_Relatorio de Auditoria Interna_CKBV.pdf 2014 - Auditoria Interna - CKBV RC.pdf 2014 - Auditoria Interna - JP Souza.pdf 2014 - Auditoria Interna - Montana.pdf 2014 - Auditoria Interna - Rancho Alegre.pdf

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			2015_Laudo_Alojamento.pdf
			2015_Reformas Calculé.pdf
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			2016_LAUDO DE VISTORIA ALOJAMENTOS CIKEL.docx
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NPRR	Land Tenure and Resource Access	VCS-Non-Permanence-Risk-Report-CIKELMR02.docx	
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		Bibliography	Allen_etal_1999.pdf
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	Financial Analysis	FINAL CIKEL APD Non-permanence Risk Analysis.xlsx	
	Cikel Business Group	CACULÉ - CBNS..pdf	
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			POTY	2022.05.10 I CADEIA DOMINIAL - Faz. Poty.pdf 2022.05.31_ARRENDAMENTO - CKBV.pdf 2022.05.31_ARRENDAMENTO 1 ADITIVO - CKBV.pdf 2022.05.31_CESSÃO - CKBV.pdf
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			SUMAL	2022.05.10 I CADEIA DOMINIAL - Faz. Sumal.pdf 2022.05.31 I ARRENDAMENTO 1 ADITIVO CKBV.pdf 2022.05.31 I ARRENDAMENTO CKBV.pdf 2022.05.31 I CESSÃO CKBV.pdf
		Legal aspects N.2	CBNS Florestal Ltda. - Matriz	Pesquisa TJPA - CIKEL BRASIL VERDE SA (positiva).pdf TRF Pesquisa - CIKEL BRASIL VERDE SA (POSITIVA).pdf TRF Pesquisa parte 2 - CIKEL BRASIL VERDE SA (POSITIVA).pdf
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		Monitoring and security		April2013_Contrato NOSERG_Vigilancia Armada.pdf
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		Mrs Brandão_a.pdf
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	Previous Years	2000_PMFS_Cikel Rio Capim.pdf
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	Contract with third parties	CONTRATO SOMA_UPA 14_Caculé.pdf	
		CONTRATO TERRA BRASIL_UPA 15_Sumal.pdf	
		CONTRATO_JP SOUSA_UPA 15_Rio Capim.pdf	
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			AUDEF 2044 UPA 14 CACULÉ .pdf
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AUDEF 2349 UPA 14 RIO CAPIM IV .xlsx			
AUDEF 2396 UPA 15 SUMAL .xlsx			
AUDEF 2524 UPA 16 RIO CAPIM IV .xlsx			
AUDEF 273133 UPA 20 CAUAXI I.xlsx			
AUDEF 2970 UPA 16 SUMAL .xlsx			
AUDEF 3013 UPA 17 RIO CAPIM IV .xlsx			
Residue		AUMP_3173_SUMAL UPA 16.xlsx	
	AUMP_3182_RIO CAPIM UPA 17.xlsx		
	AUMP_4070_CAUAXI UPA 20.xlsx		
FSC Documentação		005147_Resumo Público de Avaliação de Recertificação do Manejo-2006a2011.pdf	
		2019_CKBV FSC FM CVA Reativação.pdf	
		2021_CKBV FSC FM CVA Reativação.pdf	
		Certificados FSC.pdf	
		FSC-STD-BRA-01-2001 V1-1Terra Firme Amazonia Brasileira PT_0.pdf	
	CVA	CKBV RC FSC FM CVA mai14.pdf	
	Relatório Anual	2010_CKBV Rio Capim FSC FM audit POR.pdf	
		2011_Cikel Rio Capim FM Reassess POR.pdf	
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		2013_CKBV Rio Capim FSC FM audit POR.pdf	
		2014_CKBV RC FSC FM audit POR_CC.pdf	
		2015_CKBV Rio Capim FSC FM audit POR.pdf	
		2016_CKBV Rio Capim FSC FM Reassess POR.pdf	
		2016_Resumo Público de Avaliação de Recertificação do Manejo.pdf	
2017_CKBV Rio Capim FSC FM audit POR.PDF			
	005146_Resumo Público de Auditoria Anual 2010.pdf		

Folders		Files
	Resumo Público Anual	005146_Resumo Público de Auditoria Anual 2011.pdf
		005147_Resumo Público de Auditoria Anual 2010.pdf
		005147_Resumo Público de Auditoria Anual 2012.pdf
		005147_Resumo Público de Auditoria Anual 2013.pdf
		005147_Resumo Público de Auditoria Anual 2014.pdf
		005147_Resumo Público de Auditoria Anual 2015.pdf
		005147_Resumo Público de Auditoria Anual 2017.pdf
	Logging regeneration	Castro 2012 - PETECO.pdf dados peteco.xlsx
	Operational License	AUMP Residuo_UPA 14_Caculé.pdf
		AUMP Residuo_UPA 14_Rio Capim .pdf
		AUMP Residuo_UPA 15_Rio Capim.pdf
		AUMP Residuo_UPA 16 _SUMAL_VIGENTE.pdf
		AUMP Residuo_UPA 16_Rio Capim.pdf
		AUMP Residuo_UPA 17_Rio Capim.pdf
		AUMP Residuo_UPA 20_Cauaxi II.pdf
		AUMP_Residuo_UPA 20_Rio Capim.pdf
		AUTEF Caculé 2011_UPA 14.pdf
		AUTEF Cauaxi II 2017_UPA 20.pdf
		AUTEF Rio Capim 2011_UPA 14_VIGENTE.pdf
		AUTEF Rio Capim 2012_UPA15.pdf
AUTEF Rio Capim 2013_UPA16.pdf		
AUTEF Rio Capim 2014_UPA17.pdf		
AUTEF SUMAL 2012_UPA15.pdf		
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AUTEF_AUMP_Caculé_UPA 13 .pdf		
Standard Operating Procedure	01 - ITGM - PESQUISA DE SATISFAÇÃO ALIMENTAR.doc	
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	Prevenção Contra Perdas de Documentos.pdf	
	01 SFM Operations	05 ITRSA_Construção e Manutenção de Estradas e Pátios.doc
		07 ITRSA_InventárioFlorestal.doc
		13 ITRSA_Derruba de Árvores.doc
		14 ITRSA_Traçamento de Árvores e Planejamento de Arraste.doc
		17 ITRSA_Arraste.doc
		18 ITRSA_Transporte de Toras.doc
		22 ITRSA_ExploraçãoResíduos.doc
		23 ITRSA_Monitoramento de Operações Florestais e Avaliação de Impactos.doc
		IT FLOR 002 R00 Inventário Florestal 100% e continuo.pdf
		IT FLOR 006 R00 Traçam árvores e planejamento arraste.pdf
IT FLOR 007 R00 Arraste e romaneio de toras.pdf		
IT FLOR 010 R00 Arraste de resíduos florestais.pdf		

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		IT FLOR 012 R00 Monitoramento exploração florestal.pdf	
	02 HSE	01 ITMA_Gerenciamento de Resíduos.pdf 02 ITMA_Gestão de Água_CosumoQualidade.pdf 03 ITMA - Gestão de Efluentes.pdf 09 ITOSMA_InventárioFauna.pdf 23 ITOSMA_AvaliaçãoMonitoramentoDanosFlora_RC.pdf IT FLOR 003 R00 Monitoramento de fauna.pdf ITSEG-01-CAT-COMUNICACAO DE ACIDENTE DE TRABALHO.pdf ITSEG-03-GESTÃO DOS RISCOS FÍSICOS.pdf ITSEG-04-GESTÃO DOS RISCOS QUÍMICOS.pdf ITSEG-05-GESTÃO DOS RISCOS BIOLÓGICOS.pdf PROSEG-01-POLITICA DE SEGURANCA E SAUDE OCUPACIONAL.pdf Programa de Gerenciamento de Resíduos Sólidos (PGRS) 2014.pdf	
	03 Infrastructure	04 ITRSA_Planejamento de Estradas e Pátios.doc 27 PROGM_Carvoaria_CRC_Jul2017.doc IT FLOR 001 R00 Planej construção infraestrutura.pdf	
	Cheklis	Check List - Atividade florestal - Construção de Estradas..xls Check List - Atividade florestal - Derruba de Arvores..xls Check List - Atividade florestal - Planj. de Arraste..xls Check List - Atividade florestal de Arraste de toras..xls Check List - Atividade florestal de traçamento de toras..xls Check List Motosserra..xls	
Trainings		2013_Treinamento de Lideranca.pdf	
		2014_Treinamento JP.pdf	
		2015_Treinamento Arraste_SOMA.pdf	
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		PO_Programa de Treinamento Padrão.doc	
		2015_Treinamento Estradas e Pátios	
		2015_Certificados JP.pdf 2015_Certificados Montana.pdf 2015_Certificados Terra Brasil.pdf 2015_Treinamento Pátios e Estradas.pdf 2015_Treinamento SOMA.pdf	
	Photos	2014_Treinament o JP	WP_006489.jpg WP_006490.jpg WP_006491.jpg
		2015_Treinament o Resíduos Florestais	20150608_151720.jpg 20150608_151724.jpg 20150608_151730.jpg

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			20150608_151734.jpg
			20150608_151740.jpg
			20150608_151747.jpg
			20150608_151751.jpg
			20150608_151755.jpg
			20150608_161238.jpg
			20150608_161254.jpg
			20150608_161302.jpg
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			20150608_161329.jpg
			20150608_161346.jpg
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			20150608_165327.jpg
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			20150608_165550.jpg
			20150608_165648.jpg
			20150608_170343.jpg
			20150608_170813.jpg
			IMG-20150609-WA0011.jpg
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			IMG-20150609-WA0026.jpg
			IMG-20150609-WA0027.jpg
			IMG-20150609-WA0028.jpg
		Verra Findings Round 1	Evidence 01
			Project_Area_v2_2023_02_02.kml

Folders			Files
			Screen Shot_KML updated.jpg Evidence 02 VCS-Non-Permanence-Risk-Report-CIKELMR02.pdf VCS-Risk-Report-Calculation-Tool-CIKEL_MR2.xlsx Evidence 03 Folder: Gender Criteria 02022023_Declaração_Codigo de Conduta.pdf Evidence 04 CIKEL APD analysis Feb2012 post-visit.xlsx PDD APD CKBV.pdf Evidence 05 CIKEL APD analysis Feb2012 post-visit.xlsx 0202023_MR2_SPREADSHEET_Cikel_VERRA.xlsx 01022023_VCS_MR2_Cikel_VERRA.pdf 01022023_VCS_MR2_Cikel_VERRA_TRACK CHANGES.pdf
		Verra Findings Round 2	04052023_PDD APD CIKEL.pdf 17052023_MR2_SPREADSHEET_Cikel.xlsx 20230522_VCS_MR2_Cikel_VERRA.pdf 20230522_VCS_MR2_Cikel_VERRA_TRACK CHANGES.pdf VCS_NPRR_CIKELMR02.pdf Folder #2: 04052023_PDD APD CIKEL.pdf PDD APD CIKEL_V2_TRACK CHANGES.pdf Folder #4: Folder: 3.2.2.3, 3.2.2.6, 3.2.2.7 Folder #5: 2006_Suppression Plan.pdf SPREADSHEET_FINDING#5.xlsx VMD0006 BL-PL Planned baseline.pdf Folder PD: 04052023_PDD APD CIKEL.pdf PDD APD CIKEL_V2_TRACK CHANGES.pdf
		Verra Findings	Folder Evidence:

Folders			Files
		Round 3	2023.07.10_MR2_SPREADSHEET_Cikel.xlsx 2023.07.18_VCS_MR2_Cikel_VERRA.pdf SPREADSHEET_FINDING#5_V3.xlsx VCS-Non-Permanence-Risk-Report-CIKELMR02.pdf

APPENDIX 2: FINDINGS

CL ID	01	Date: 18/07/2022
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Description of CL

In reviewing the land ownership documents, the following issues were identified.

1. The updated “*matriculas*” were not available, but the “*extrato de filiação da cadeia dominial*” with information about the area and about the encumbrances. The project proponent is requesting to provide the “*certidão da Matrícula em inteiro teor*” of the 06 Properties. The “*Certidões de filiação vintenária*” are dated April 2022, except for the certificate of Fazenda Cikel IX, which is from April 2021. The Project Proponent is requested to provide updated information to verify the proof of rights.

2. There are no in the “*documentos de transferência / cessão do Arrendamento*” of Cikel Brasil Verde S.A to CBNS Negócios Florestais referring to the Fazendas Rio Capim IV, Rio Capim VI, and Sumal.

3. A probable and possible questioning is identified in relation to the lease of the Fazenda Cikel IX. Several encumbrances are registered in this registry, including a Fiduciary Alienation (*Alienação Fiduciária*) and 8 premonitions (*averbações premonitórias*) reporting the existence of 8 Tax foreclosures by the Federal Union against the owner Cikel, prior to the execution of the Lease Agreement in September 2019. The Project Proponent is requested to clarify the situation due to the eventual risk and permanence of the project.

Project participant response

Date: 03/08/2022

1. Please bear in mind that the “*extrato de filiação de cadeia dominial*” documents have the same validity and enforceability as the “*matriculas*” documents, since they both were (and are) issued by the same competent Real Estate Registry Office and contemplate information regarding ownership, area, liens/encumbrances, asset enrolments, as well as the ownership chain domain (history about the asset transactions).

Moreover, please the document related to Fazenda Cikel IX on the folder ‘Land Tenure’ under the name answer ‘CAR01-1 Cikel IX 2022’

2. Please find attached Rio Capim IV, Rio Capim VI and Sumal assignment/cession documents in favor of CBNS NEGÓCIOS FLORESTAIS S.A.

Also, note that CKBV FLORESTAL LTDA., enrolled at corporate taxpayer nº 03.501.232/0001-11, was previously referred as CIKEL BRASIL VERDE MADEIRAS LTDA. and as CIKEL BRASIL VERDE S.A. Therefore, considering the corporate transformation (Stock Corporation to LLC), as well as the modification of the corporate name in 2 (two) occasions, the assignment/cession was properly executed.

The information can be consulted directly in “*extrato de filiação de cadeia dominial*” of Fazenda Cikel IX, according to the excerpt below:

Conforme ata da 8ª Assembléia Geral Extraordinária da CIKEL BRASIL VERDE S.A., realizada no dia 15 de setembro de 2004, arquivada no Cartório do Guamá para todos os efeitos legais e na JUCEPA sob NIRE 15300017793, a empresa passou de sociedade anônima para limitada, ficando assim denominada CIKEL BRASIL VERDE MADEIRAS LTDA. **CERTIDÃO:-** certifico e dou fê,

3. The abovementioned liens/encumbrances related to Fazenda Cikel IX do not imply in the impossibility of possession assignment/cession to third parties, as per dispositions contained in Brazilian Federal Law Nº 9514/1997. Regarding the Fiduciary Alienation (real estate collateral) and also 8 (eight) Premonitions (purely informative about the asset

CL ID	01	Date: 18/07/2022
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owner debts), it is worth to mention that Fazenda Cikel IX still remains in CIKEL economic group estate. This is, even if the Fiduciary Alienation (real estate collateral) and 8 (eight) Premonitions result in eventual asset deprivation, the period between 2011-2017 shall remain intact.

Documentation provided by project participant

1. Document "CAR01-1 Cikel IX 2022" at the folder: "Auditoria MR\Findings MR2\CAR 01".

Farm	File Name
Faz. Sumal	Matrícula 2501 - Faz. Sumal
Faz. Rio Capim VI	Matrícula 4594 - Faz. Rio Capim VI
Faz. Rio Capim IV	Matrícula 4828 - Faz. Rio Capim IV
Faz. Cauaxi II	Matrícula 8707 - 15394 - Faz. Cauixi II
Faz. Cikel IX	Matrícula 8709 - Faz. Cikel IX
Faz. Caculé	Matrícula 8824 - Faz. Caculé

2. Documents "CAR01 - 2 assignment-cession documents Rio Capim IV and Rio Capim VI" and "CAR01 - 2 assignment-cession documents Sumal" at "Auditoria MR\Findings MR2\CAR 01"

DOE 1 st assessment	Date: 15/08/2022
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The updated "*matriculas*" were not available. The certificate of the chain of title, now updated 07/29/2022, with information about the area and the encumbrances. This document, although it has a presumption of validity and contains the information indicated on the form, but does not replace the certificate of the full content of the registration. Specifically in relation to the Hacienda Caculé, a domain ownership certificate No. 8,824 with 28,277 hectares was initially submitted and now another domain affiliation certificate No. 8,823 with 36,297 hectares, relating to a farm of the same name.

1. The Project proponent is requested to update "*certidões de inteiro teor das matrículas*" not older than 30 days.
2. The Project proponent is requested to clarify/confirm which area/record is correct. If the area that is the subject of this project is indeed the Fazenda Caculé property with registration 8.823, the deadline for the transfer of the lease must be requested from CBNS Negócios Florestais, as for the other areas.

Project participant response	Date: 23/08/22
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1. We apologize for attaching the wrong document for your analysis (real estate record file n° 8823 is incorrect). Please find attached the updated real estate record file n° 8824, related to Fazenda Caculé. Also, regarding Fazenda Cikel IX, we submit in this opportunity the updated real estate record file n° 8709

Documentation provided by project participant	Date: 23/08/22
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CL 01 FOLDER:

- "Certidão matrícula 8709" – Cikel IX (**updated**)
- "Certidão matrícula 8824" – Caculé (**updated**)
- "Certidão matrícula 2501" – Sumal (same file previously shared)
- "Certidão matrícula 4594" – Capim VI (same file previously shared)
- "Certidão matrícula 4828" – Capim IV (same file previously shared)

CL ID	01	Date: 18/07/2022
<ul style="list-style-type: none"> • “Certidão matrícula 8707” – Cauaxi II (same file previously shared) 		
DOE 2 nd assessment		Date: 31/08/2022
<p>The clarification and the supports were verified and compliance with the requirements regarding the project proponent is evidenced.</p> <p>Finding closed successfully</p>		
CL ID	02	Date: 18/07/2022
Description of CL		
<p>1. The implications for the project of the change of company name of the Project Proponent are not evident (section 1.3 of Monitoring report).</p> <p>The project proponent is required to clarify what are the implications for the project of the change of company name.</p> <p>2. According to the Program-Definitions_v4.1, a Project Description Deviation, is a deviation from the project design, procedures and other specifications set out in the project description. However, the change of company name of the Project Proponent is not evidenced in section 3.3.2 of the Monitoring report.</p> <p>Comparing the monitoring reports with the validated PD, changes related to other entities involved in the project are evident (section 1.4 of the Monitoring report). However, change of the section “other entities are not evidenced in section 3.3.2 of the Monitoring report</p> <p>The project proponent is required to include the Project Description Deviation accordingly.</p>		
Project participant response		Date: 28/07/2022
<p>1. The alteration of company name of the Project Proponent is due to administrative changes. The Project Area is composed of seven properties which are wonned by companies that compose the Cikel Economic Group. The seven farms were leased among the Economy Group companies and until be further leased to CBNS (a Cikel Economic Group Member). These processes mostly happened in an administrative level, the direct management of the farm and the Project Area did not suffer any implications due to these changes since the staff was not altered because of name alteration. Therefore, forest management and other project activities did not suffer any implication due to the proponent change of name. Many of the employees and partners involved in the beginning and early years of the project are still working directly with it (as can be seen in staff documentation). The relationship between the company, local community and stakeholder did not change. More detailed information can be found on Table 16 in section 3.2.2 of the monitoring report.</p> <p>2. Section 3.2.2 “Project Proponent Deviation” has been updated to address these requirements.</p>		
Documentation provided by project participant		
<p>1. Table “Demonstration of ownership of project area by CBNS group companies” in section 3.2.2 of the monitoring report</p> <p>Documents “Mr Ferreira_a”, “Mr Ferreira_b”, “Mr Mazzei”, “Mr Neto”, “Mrs Brandão_a” and “Mrs Brandão_b” can be found at ‘\Auditoria MR\Findings MR2\CL 02\Staff’</p>		
DOE 1 st assessment		Date: 15/08/2022
<ol style="list-style-type: none"> 1. The justification for the change of name of the Project Proponent was reviewed. 2. The supports of the companies that form the Cikel economic group are not evidenced. There is no evidence of the support for the updating of the landowners according to what is described in table 16 of the monitoring report. 		
Project participant response		Date: 23/08/2022
<p>2. The new Project Proponent is “CBNS Negócios Florestais S/A” (formerly the Project Proponent was “CKBV Florestal Ltda.”, which, as previously clarified, was referred as CIKEL BRASIL VERDE MADEIRAS LTDA. and, previously, as CIKEL BRASIL VERDE S.A., considering the corporate transformation of Stock Corporation to LLC, as well as the modification of the corporate name in two occasions). Please bear in mind that the Project Area is composed properties which were initially leased to CKBV Florestal Ltda. and were posteriorly assigned to “CBNS Negócios Florestais S/A”, being certain that the possession rights are recognized and accepted by Verra for carbon credit generation, in accordance with the VCS Standard v4.4 section 3.6.1:</p>		

CL ID	02	Date: 18/07/2022
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“6) An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions or removals which vests project ownership in the project proponent.”

The properties ownership was not changed, only the possession was transacted, according to the “Contract of Agreement of Cession” made available. Table 16 (sixteen) from the MR summarizes the information:

Propriety	Number and location of the legal registry	Current Land owner	Possessor of the Land and former Cikel REDD Project Owner between 2010 and 2017	Current Possessor of the Land and new Cikel REDD Project Proponent
RIO CAPIM VI	4594 (Paragominas).	MADEIREIRA MATINHA S/A	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
RIO CAPIM IV	4828 (Paragominas).	MADEIREIRA MATINHA S/A	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
CIKEL IX	8709 (Paragominas).	CKBV FLORESTAL LTDA.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
SUMAL	2501 (Paragominas).	RONDON IMÓVEIS LTDA.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
CACULÉ	8824 (Paragominas).	RONDON IMÓVEIS LTDA.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97
CAUAXI II	15394(Paragominas).	RONDON IMÓVEIS LTDA., as per Public Deed of Asset Purchase and Sale.	CKBV FLORESTAL LTDA. CNPJ 03.501.232/0001-11	CBNS NEGÓCIOS FLORESTAIS S.A. CNPJ nº 03.496.757/0002-97

Documentation provided by project participant 1st assessment

2. Folder CL 02: Contract of Agreement of Cession (Contrato de Cessão de Direitos e Obrigações) of each propriety

DOE 2 nd assessment	Date: 31/08/2022
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The clarification and the supports were verified and compliance with the requirements regarding the project proponent is evidenced.

Finding closed successfully

CAR ID	03	Date: 18/07/2022
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Description of CAR

1. There is no evidence that the project has the suppression permit and complies with the eligibility of the REDD-APD activity: “activities that reduce net GHG emissions by stopping or reducing deforestation or degradation on forest lands that are legally authorized and documented for conversion” (appendix 1 of VCS Standard v4.2).

In section 1.5 of the 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 states “The project start date is July 19, 2007, which is the date of issuance of the Authorization of Forest Exploitation (AUTEF) in the project area”. However, said authorization was not add in the annex files.

In section 1.1 of the 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 states ...and to pursue this new business activity CBNS had initiated plans to legally convert (suppress) 20% of its forest property in the Rio Capim Complex to pasture. However, they chose not to proceed with the suppression plan and to conserve the forest through a REDD project based on avoided emissions from planned deforestation...

2. There is no evidence of support on the longevity of the project in the risk analysis in VCS-Non-Permanence-Risk-Report-CIKELMR02, regarding the legal authorization of the suppression.

The project proponent is requested to provide the legal authorization of suppression as evidence of eligibility, start date, and support for the assertion made in the risk tool.

Project participant response	Date: 26/07/2022
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CAR ID	03	Date: 18/07/2022
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1. As described in module VMD0006, Version 1.0 (version of the methodology at the time of project validation), in order to demonstrate that there is an imminent risk of planned deforestation on the property, it is necessary to comply with the following requirements:
 - Legal permissibility for deforestation (Permissibility must be with reference to relevant laws and legal requirements. When considering legal permissibility the area of allowed deforestation must be considered relative to total property areas including areas already deforested):
 - According to the law nº 4771 from September 15, 1965¹⁰: Art. 16. Forests and other forms of native vegetation, with the exception of those located in permanent preservation areas, as well as those not subject to the limited use regime or subject to specific legislation, are susceptible to suppression, provided they are maintained, as a legal reserve, at least:
 - Eighty percent,(80%) in the rural property located in a forest area located in the Legal Amazon
 - Suitability of project area for conversion to alternative non-forest land use: As demonstrated in Section 2.5 of the PD (Common Practice), the project region is an important area for livestock production, and the project area was deemed suitable for livestock in the 2006 business plan.
 - If government approval is required for deforestation to occur, the intention to deforest within the project area must be demonstrated by evidence:
 - *“Documentation that a request for approval has be filed with the relevant government department for permission to deforest and convert to alternative land use”*: the company initiated the approval process in July 2006 with submission of its request to IBAMA (Protocol nº 02018.006149/06-99)¹¹ to exclude the planned suppression area (including the project area) from the existing Forest Management Plan area (to permit conversion to an alternative use).
 - Intent to deforest—intention to deforest must be demonstrated by the following form of evidence originating prior to the date of all evidence on pursuit of carbon finance/consideration of REDD (prior to 30 October 2007, when CBNS initiated correspondence with IMAZON to discuss potential for carbon project development)¹²:
 - *Where a specific baseline agent has been identified: a valid and verifiable land use management plan for deforesting the project area* – The company completed its suppression and business plans for the project area in 2006¹³. The baseline rate of deforestation for the project area is defined in the suppression plan.

In 2007, the environmental legislation that regulated the minimum % of Legal Reserve was Law 4.771/1965 (“Previous Rules”) (revoked in 2012 by the current Forest Code). The Previous Regulation, specifically in its Art. 16., established as a Legal Reserve area for the Amazon Biome the equivalent of 80% (eighty percent) of a given rural property. However, it also established in its Art. 15 that any exploitation of native forests (example: suppression) would depend on the establishment of specific rules. Furthermore, in its Art. 44, the same Previous Regulation determined that until the enactment of the due regulation(s) provided for in Art. 15, that in the North Region, exploitation would be allowed as long as tree cover was maintained in at least 50% (fifty percent) of a given rural property.

Analyzing the regulations issued by the Secretary of State for the Environment of the State of Pará, it was possible to verify the establishment of specific regulations for Sustainable Forest Management only on November 27, 2009, with the creation of Decree nº 1976¹⁴, which created the Program Support for Forest Management – PAMFLOR.

That said, considering that the protocol to start the process of suppression of 20% (twenty percent) of the vegetation took place in 2006 (in the normative context captured by the Previous Regulation and before the creation of PAMFLOR), CBNS chose to preserve at the time the balance of 30% (thirty percent) of its forest areas, since it had the prerogative to exploit 50% (fifty percent).

After the company chose not to proceed with the suppression, they obtained an Authorization for Forestry Exploitation (AUTEX nº 96/2007)¹⁵, of one of the properties that had previously been destined for suppression, demonstrating the interest in the continuity of the management, which was the official milestone of the project's start date.

¹⁰ http://www.planalto.gov.br/ccivil_03/leis/l4771.htm Accessed July 26,2022

¹¹ Available in the PDF “2006_Protocol of adjustment of PMFS”

¹² Document “Reunião Mercado de Carbono_2007”

¹³ Available in the PDF “2006_Suppression Plan”

¹⁴ <https://www.semas.pa.gov.br/wp-content/uploads/2018/05/Lei-Florestal.pdf> Accessed July 26,2022

¹⁵ Available in the PDF “Autex 96-2007_UPA 10”

CAR ID	03	Date: 18/07/2022
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It is worth mentioning that the version of the VMD0006 methodology at the time of project validation (May 2012) was 1.0 (currently the methodology is at v 1.3), and the understanding at the time of validation was that the evidence presented met the established criteria, so much so that they were accepted by the VVB auditors and by VERRA itself.

2. CBNS has specified in its management plan, amended in February 2012, that the project area will be maintained under sustainable forest management through at least July 2107 (100 year from the project start date). The proper Protocol can be found at "Auditoria MR\Findings MR2\CAR 03".

Documentation provided by project participant

1. PDF "2006_Protocol of adjustment of PMFS" - Protocol nº 02018.006149/06-99 to IBAMA
 PDF "2006_Suppression Plan"
 Document "Reunião Mercado de Carbono_2007" - correspondence with IMAZON to discuss potential for carbon project development
 PDF "Autex 96-2007_UPA 10" - Authorization for Forestry Exploitation issued on July 19,2007.
2. PDF "Project Longevity Protocol" at "Auditoria MR\Findings MR2\CAR 03"

DOE 1 st assessment	Date: 15/08/2022
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1. The Authorization for Forest Exploitation (AUTEF) and the evidence of the threat of planned logging were reviewed.
2. The support on the longevity of the project in the risk analysis were reviewed.

Technical review

It is not clear how the closure of the find is justified. In the support (Project Longevity Protocol) the PP is committed for a period of 100 years, which goes beyond the project's accreditation period (20 years) and having received the benefits of the carbon market, there would be no support conditions for ensure the permanence of the project and mitigate this risk, as indicated by the Finding in point #2.

Project participant response	Date: 13/09/2022
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According to the Non-Permanence Risk Tool v4.0:

Item 2.2.4 Project longevity:

- 1) Project longevity is the number of years beginning from the project start date that project activities will be maintained, which may be longer than the project crediting period where projects can demonstrate that activities that maintain carbon stocks on which GHG credits have previously been issued will continue beyond the project crediting period.

5) Legal agreement or requirement to continue the management practice refers to any legally enforceable agreement or requirement, such as a conservation easement or protected area law that would require the continuation of the management practice that sequesters carbon or avoids emissions for the entire project longevity. Any project with a legally binding agreement that covers at least a 100-year period from the project start date shall be assigned a score of zero for project longevity.

Thus, the tool foresees conservation mechanisms that maintain the carbon stock for a longer period than the REDD project period.

The document "Project Longevity Protocol" it's a spontaneous commitment by the CBNS company to SEMA (Secretary of Environment and Sustainability) to preserve the forests of the project area for a period of 100 years, assuming that the only economic activities to be developed in the area will be the REDD project and sustainable forest management. In other words, the company has committed not to carry out suppression in the project area for the next 100 years, even if the suppression of surplus forest areas is legally permitted and the livestock activity is financially attractive in the region (as described in the definition of the project baseline). At the end of the REDD+ project cycle, forest management activities will continue to be developed in the area, so that there will still be an economic activity that will provide the necessary revenue to monitor and conserve the forest.

TR 2 nd assessment	Date 27/09/2022
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CAR ID	03	Date: 18/07/2022
<p>The legal validity of the "Project Longevity Protocol" document is unclear, since, although it supports an intention, it is signed individually and there is no support that the organization to which it is addressed has within its legal functions to follow up on this type of commitment.</p> <p>On the other hand, the conservation of areas in the long term is covered by acts of declaration, either as Natural Heritage Reserves or other types of protected areas, a situation that is not evidenced in the supports presented.</p>		
<p>Finding closed successfully</p>		

CL ID	04	Date: 18/07/2022
<p>Description of CL</p> <p>1. In section 3.2.1 of the Monitoring report V01 does not describe nor justify any methodology deviations applied during this monitoring period</p> <p>The Project Proponent does not include evidence to demonstrate the following:</p> <ul style="list-style-type: none"> The deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals. The deviations relate only to the criteria and procedures for monitoring or measurement, and do not relate to any other part of the methodology. <p>The Project Proponent is required to complete said numeral and justify each assumption.</p> <p>2. In 3.18.3 of the VCS Standard v4 states <i>"Methodology deviations shall be permitted at validation or verification and their consequences shall be reported in the validation or verification report..."</i> However, the consequences of methodological deviations are not reported in section 3.2.1 of the MR.</p> <p>The Project Proponent is required to meet the requirement set by the standard.</p>		
<p>Project participant response</p>		Date: 27/07/2022
<p>According to VCS Standard v4.4, methodology deviations can be used where <i>"they represent a deviation from the criteria and procedures relating to monitoring or measurement set out in the methodology (i.e., deviations are permitted where they relate to data and parameters available at validation, data and parameters monitored, or the monitoring plan)"</i>. This MR didn't deviate from any criteria and procedures related to monitoring or measurement, so it is not necessary to demonstrate consequences of methodology deviation. All made deviations met the concept of Project Description Deviations. Section 3.2.2 in the MR was updated to demonstrate how each deviation met VCS Standard requirements of Project Description Deviations and not Methodology Deviations.</p>		
<p>Documentation provided by project participant</p> <p>NA</p>		
<p>DOE 1st assessment</p>		Date: 15/08/2022
<p>The absence of methodological deviations was verified.</p>		
<p>Finding closed successfully</p>		

CAR ID	05	Date: 18/07/2022
<p>Description of CAR</p> <p>1. 3.19 VCS-Standard v4 <i>"The procedures for documenting a project description deviation depend on whether the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario"</i> however, in the 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 does not state the interpretation of the deviation impacts the applicability of the methodology, additionality or the baseline scenario for each deviation.</p> <p>The project proponent is requested to state the interpretation of the deviation impacts the applicability of the methodology, additionality, or the baseline scenario for each deviation.</p> <p>2. In section 3.2.2 and 5 of the MR, Carbon Stocks and Forest Inventory, there is no evidence that measurements are made prior to any verification event, according to the frequency of data and parameters of the M-REDD module. The Project Proponent is requested to provide the measurements requested in VMD0015-M-REDD.</p> <p>3. The assertion <i>"Stock estimates from the initial field inventory completed in 2011 (using measurements from 2005 to 2011), are valid for 10 years (per VM0007)"</i>, is not described in the methodology.</p>		

CAR ID	05	Date: 18/07/2022
<p>In section 9.3.2 of the VM0007 states Ex-post monitoring must have two key aspects: TASK 1. Monitoring according to monitoring plan <i>Information required to periodically reassess the project baseline must be collected during the entire project crediting period. Key variables to be measured are:... Where required, carbon stock data, as specified in Module M-REDD...</i> The Project Proponent is requested to clarify where in the VM0007 methodology could be found said statement and the applicability in the project at a hand.</p> <p>4. In PD section 4.3 states <i>...Where necessary (per above), forest carbon stocks will be re-estimated from new field measurements. Fifteen (15) sample plots will be randomly located in areas within the Rio Capim Complex representative of the stratum(a) where deforestation was detected, and measured following field procedures...</i> Due the Project Proponent used the biomass value result of the “plots randomly located in areas within the Rio Capim Complex” is required to describe the procedures “To ensure that GHG fluxes are estimated in a way that is accurate, verifiable, transparent, and consistent across measurement periods, the project must establish and document clear standard operating procedures and procedures for ensuring data quality” for this monitoring period (Sec.9.3 VM00007)</p> <p>5. VM0007, 9.3.1. Due the phrase “Also, the secondary forest (FS) stratum is expected to increase its carbon stock due to forest growth. So, using a 2011 value can be understand as conservative”. This Audit team requires to the project proponent to justify how the data results in conservative following the <i>Guidelines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks and the Good Practice Guidance for Land Use, Land-use Change and Forestry</i>”</p> <p>6. There is no evidence that the following applicability condition of the M-REDD module is met: “Logging operations may only conduct selective logging that maintains a land cover that meets the definition of forest within the project boundary”. The Project Proponent is requested to provide enough evidence to support said applicability condition.</p> <p>7. In section 3.2.2 of the MR, natural forest regeneration studies do not cover the current monitoring period.</p> <p>8. According to Appendix 1 of VCS Standard v4.2, there is no evidence that the regeneration described by the project corresponds to a human-assisted natural regeneration of woody vegetation so that it can be an eligible activity of the project.</p>		
Project participant response	Date: 22/07/2021	
<p>1. Section 3.2.2 was updated to indicate how each deviation impacts the applicability of the methodology, additionality or the baseline scenario.</p> <p>2. PD’s Annex 4 (“Forest Biomass Inventory Results for the Rio Capim property, CBNS, REDD project areas, Paragominas, Para, Brazil”) is referenced in Section 3.2.2 and was made available to the VVB during this verification. This document is a report made in 2011 by entities involved (Terra Carbon LLC and Embrapa) in the forest inventory process. The biomass assessment was based on direct field measurements from 2005 to 2011 aiming to determine forest carbon stock in 2007 (project start date). Therefore, field measurements were made prior to this verification event. Moreover, plots selection, strata representativeness, field measurement and data processing were made based on best practices guidelines and QA/QC procedures, which can be consulted on the report. The main parameter related to forest inventory and biomass estimations in VMD0015 (M-REDD, v2.0) is $C_{AB,tree,i}$, defined as “Carbon stock in aboveground biomass in trees in the project case in stratum i”. This parameter originates from VMD0001 (CP-AB, v1.0) where monitoring frequency must occur at least every ten years for baseline renewal or at least every five years where carbon stock enhancement is included. The project start date was July 19, 2007, and so the first baseline assessment. PD’s Annex 4 was made to estimate carbon stock for this project start date. Because no carbon stock enhancement was considered to this MR, the monitoring frequency should be after 10 years, on July 19, 2017. However this MR covers a crediting period until July 18, 2017 so there is no need for another remeasurement for $C_{AB,tree,i}$ parameter, according to VM0007 modules (VMD0001 and VMD0015).</p> <p>3. The rationale used to consider direct field measurements from 2005 to 2011 was already explained on the item above. Moreover, in section 9.3.2 of the VM0007 it is state that for baseline reassessment should be done at a minimum of 10 years, but as explained previously the monitoring period doesn’t exceed this period. Besides that, there are no requirements about that for REDD APD projects, only for AUD. M-REDD’s carbon stock and leakage required procedures, pointed out in section 9.3.2 of the VM0007, were met.</p> <p>4. Section 3.2.2 of the MR bring this remeasurement concern as a project description deviation. This is not obliged by the methodology, so it can be only understood as a deviation from the monitoring plan proposed on the PD. The same section in the MR explains why not remeasuring didn’t affect GHG accounting. PD’s Annex 4 explains how the following concern was achieved “To ensure that GHG fluxes are estimated in a way that is accurate, verifiable, transparent, and consistent across measurement periods, the project must establish and document clear standard operating procedures and procedures for ensuring data quality”. As explained before, this report follows best practices guidelines and QA/QC procedures to ensure proper plots selection, strata representativeness, field measurement and data processing.</p>		

CAR ID	05	Date: 18/07/2022
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5. The data used to estimate carbon stock of the FS strata comes from field measurements following VMD0001, so it is not considered a default data and doesn't have to follow the *Guidelines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks*. Table 3A.1.5 of the *Good Practice Guidance for Land Use, Land-use Change and Forestry* brings values of annual increment in different natural regeneration scenarios which is the context of the FS strata. For the scenario of Wet Tropical Forest in America, independently of the forest age, there is the tendency of positive annual increment. So, this forest on 2011 had the lower carbon stock of the monitoring period, therefore using this value can be understood as the most conservative choice once carbon enhancement is not being claimed.

Besides that, as it was stated on the PD: "The project area is made up of a combination of mature forest and secondary forest, the latter having initiated since 1992, the year of acquisition of the property by CKBV. Although the secondary forests are accumulating biomass over the project crediting period, for accounting purposes the project conservatively assumes stable stocks and no biomass monitoring is conducted in areas undergoing carbon stock enhancement, as permitted in the methodology monitoring module VMD0015, hence $\Delta C_{P,Enh,i,t}$ is set to 0".

6. Section 5.2.3 "Emissions due to FSC-certified selective logging" has been updated to address this requirement.

7. Natural Forest regeneration (or logging regeneration) studies aimed to understand how forest regeneration was after logging, independently of the year. The study data was used because the experiment was conducted on Rio Capim Complex (same forest of the PA), with the same logging goal (timber and residue extraction), intensity (maximum of 30 m³/ha) and techniques (low impact logging).

Additionally, the study was selected because according to *Guidelines for National Greenhouse Gas Inventories* (IPCC, 2006) and its three methodological tiers, the data can be classified as Tier 3 once it achieves its definition: "Tier 3 inventories are advanced systems using measurements and/or modelling, with the goal of improving the estimation of greenhouse gas (GHG) emissions and removals, beyond what is possible with Tier 1 or 2 approaches". Moreover, *IPCC Guidelines and REDD Monitoring and Verification* (Srivastava, 2008) complements that "Higher tier methods will likely be used for REDD estimates especially for significant pools", which is case once AGB pool is the most significant.

8. The logging regeneration considered in this MR doesn't correspond to a human-assisted natural regeneration of woody vegetation (an ARR activity). The logging regeneration is associated with the forest management activity happening in the REDD project scenario. This logging regeneration is a consequence of the low impact logging activity which is based on the concept that a forest can be sustainably managed with long logging cycles due to the forest regrowth potential after a disturb (logging). There are innumerable scientific papers that corroborates with this phenomenon, and it is even described in the low impact logging state regulation ("*Normative Instruction N°5, from 19/05/2011*").

Section 5.3.1 of VM0007 states that "increases in the project scenario can be accounted for", which allows logging regeneration to be accounted since this wouldn't occur on a baseline scenario (pasture).

Documentation provided by project participant

2. Document "Resultados do Inventário de Biomassa Florestal" referenced as "Forest Biomass Inventory Results for the Rio Capim property, CBNS, REDD project areas, Paragominas, Para, Brazil" (folder "CAR 5").

7. Documents "Guidelines for National GHG Inventories" and "IPCC Guidelines and REDD Monitoring and Verification" (folder "CAR 5").

8. Document "Normative Instruction N5" (folder "CAR 5").

DOE 1 st assessment	Date: 15/08/2022
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1. There is no evidence of the description of the effect of additionality due to the deviation of compensation, as it is a mandatory activity in environmental legislation. In addition, there is no evidence that plantation areas are eligible for the project.

The project proponent is requested to include in the monitoring report the response on additionality to expand the clarification.

2. The response regarding compliance with the frequency of biomass estimates, in particular, the confidence intervals described in module VMD0001 V.1.0, is not clear. The Project proponent is requested to clarify the consistency between the confidence intervals described in module VMD0001 V.1.0 and the application in the project.

3. It is verified that number 5 of module VMD0001 describes the following: "...Above- and belowground biomass stock estimates are valid in the baseline (i.e. treated as constant) for 10 years, after which they must be re-estimated from new field measurements...". However, in section 3.2.7 of the VCS Standard states "the project proponent shall, for the duration of the project, reassess the baseline every six years and have this validated at the same time as the subsequent verification."

The Project proponent is requested to clarify how the rule will be met with respect to the baseline reassessment of the standard requirement. As set out in the VCS Standard, where the rules and requirements under an approved GHG

CAR ID	05	Date: 18/07/2022
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program conflict with the rules and requirements of the VCS Program, the rules and requirements of the VCS Program shall take precedence.

4. The document “*Resultados do Inventário de Biomassa Florestal para a propriedade Rio Capim, CIKEL, áreas do projeto REDD, Paragominas, Pará, Brasil*” was reviewed. The latest version of the document is not shown, however, operating procedures and procedures for ensuring data quality were reviewed. OK
5. The values used by the project from the Table 3A.1.5 of the Good Practice Guidance for Land Use, Land-use Change and Forestry, were reviewed.
6. Section 5.2.3 was reviewed, however, there is no evidence of the supports of multitemporal analysis. The project proponent is requested to Indicate the access route to the satellite image analysis maps.
7. The monitoring of natural regeneration is not clear since the regeneration dynamics may have changed during the monitoring period. The Project proponent is requested to Clarify compliance with module VMD0017 on data uncertainty and uncertainty compliance with the Guidelines for National Greenhouse Gas Inventories (IPCC, 2006).
8. The supporting scientific documentation is not evidenced, and it is not evidenced how the significance of the increase in carbon through regeneration has been demonstrated.

Project participant response	Date: 23/08/2022
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1. The response on additionality to expand the clarification was updated on the monitoring report.
2. The section 5.1 was updated to include an explanation about the confidence interval.
3. The item 3.2.7 of the VCS Standard v4.2 states: “For all IFM, APDD (except where the agent is unknown), RWE, APWD, APC, and ALM project types, the project proponent shall, for the duration of the project, reassess the baseline every ten years and have this validated at the same time as the subsequent verification. For all AUDD, APDD (where the agent is unknown), AUC and AUWD project types, the project proponent shall, for the duration of the project, reassess the baseline every six years and have this validated at the same time as the subsequent verification”. The Cikel REDD+ is classified as APDD and the agent of deforestation is known, because is the proponent. Therefore, baseline validation every 6 years does not apply to the project. Furthermore, this item also states: “2) *The latest approved version of the methodology or its replacement shall be applied at the time of baseline reassessment*”, therefore, it would only be applicable at the time of reviewing the baseline, which is not the case for the project in this monitoring report, because the baseline will be revised in the next MR, when the period after 19/07/2017 will be monitored.

6. The link for the source of the database was included in the footnote nº31 (section 5.2 page 127)

7. This carbon pool was not considered any longer as justified on CAR 05.8 (topic below).

8. The significance test to the logging regeneration was conducted based on T-SIG module (Tool for testing significance of GHG emissions in A/R CDM project activities, v.1). According to “070622_MR2_SPREADSHEET_Cikel_Audit Version 01”, made available previously to the VVB, the logging regeneration for this monitoring period accounted for 231,664.21 tCO₂e. Additionally, according to “VCU” tab of “240822_MR2_SPREADSHEET_Cikel”, the net REDD benefits accounted for 6,399,586 tCO₂e. Therefore, $231,664.2 / 6,399,586 * 100 = 3,62\%$. In conclusion, logging regeneration is not significant (lower than 5%) and will be no longer considered as a carbon pool.

Documentation provided by project participant

2. FOLDER CAR 05: Forest Biomass Inventory Results for the Rio Capim property
8. “240822_MR2_SPREADSHEET_Cikel_1assessment” with updated VCUs.

DOE 2 assessment	Date: 31/08/2022
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1. The clarification in the monitoring report is evidenced about the effect of the additionality due to the deviations.
2. The explanation about the biomass estimates in the monitoring report is evidenced.
3. The clarification about the baseline reassessment is evidenced.
6. The project attached to the corresponding cartographic information.
7. It was verified that the project meets the requirements on uncertainty.
8. The significance of the logging regeneration was verified.

Technical review

The justification for closing the Finding is not clear. When examining the responses of the Finding, it is not clear why the closure is determined, taking into account that the measurements that originate the data (2005 to 2011) are not all within the range that is justified (2007 to 2017) and this generates an error that may be inadmissible.

Project participant response	Date: 13/09/2022
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CAR ID	05	Date: 18/07/2022
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The measurements that originated the data were collected during 2005 to 2011 to estimate biomass for the year of the project start date, which is 2007. Different year data were used for this estimation to get a better strata representativeness, which in this case was logged forests¹⁶ and non-logged forests. All this data was used to estimate the carbon stock for 2007 once VM0001, v.1.0 allows using data within 5 years of the project start date:

5 PROCEDURES

Frequency of measurement for baseline above- and belowground biomass stocks

Measurements of initial stocks employed in the baseline must take place within ± 5 years of the project start date, for simplicity referred to here as stocks at $t=0$.

Above- and belowground biomass stock estimates are valid in the baseline (i.e. treated as constant) for 10 years, after which they must be re-estimated from new field measurements. For each stratum, where the re-measured estimate is within the 90% confidence interval of the $t=0$ estimate, the $t=0$ stock estimate takes precedence and is re-employed, and where the re-measured estimate is outside (i.e. greater than or less than) the 90% confidence interval of the $t=0$ estimate, the new stock estimate takes precedence and is used for the subsequent period.

Additionally, this data is valid for 10 years as pointed out above.

The first baseline assessment on carbon stock was done on July 19, 2007 (project start date), with expiration on July 19, 2017. However, this MR covers a crediting period from July 19, 2010 until July 18, 2017 so there is no need for remeasurement during this period.

Biomass data valid period (no need for remeasurement): 19/07/2007 - 18/07/2017

Monitoring report period: 19/07/2010 - 18/07/2017

TR 2 nd assessment	Date: 27/09/2022
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According to the PP's response, the monitoring data is valid for 10 years, which means that the inventories from 2005 to 2006 would not be valid at the end of the monitoring period defined by the project (07/19/2010 - 07/18/2017).

The PP does not indicate based on what information the amounts of removals for the outdated period (Between 2016 and 2017) will be based.

The Project Proponent is requested to justify the use of information that not correspond to the monitoring period, consistency, transparency and demonstrate conservativeness when is using that type of data

Project participant response	Date: 03/10/2022
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As described in the document "Resultados do Inventário de Biomassa Florestal para a propriedade Rio Capim, CIKEL, áreas do projeto REDD, Paragominas, Pará, Brasil" (shared previously), the biomass value for 2007 (start date of the project) was calculated considering the average of inventories carried out between 2005 to 2011. As forest growth over the years is not being accounted for, considering the same average value from 2007 to 2017 is conservative.

In addition, the stock of tC/ha obtained through the local inventory (175 tC/ha AGB for FOD "Dense Ombrophyllous Forest") is lower than the official data of the "Fourth National Inventory of Anthropogenic Greenhouse Gas Emissions and Removals, 2020) where the tC/ha value for the Ds - Submontane Dense Ombrophyllous Forest¹⁷ (same forest type as the project area) is 182.5¹⁸ (above and below ground), therefore, the primary data is more conservative than the secondary data.

Documentation provided by project participant

Folder "TR- 2nd findings" :

"Fourth National Inventory of Anthropogenic Greenhouse Gas Emissions and Removals": file named as "4Comunicação"

Due the evidence provided by the Project proponent the **Finding closed successfully.**

¹⁶ The logging impact is also being accounted by other parameters during carbon accounting process. So, it can be understood that logging impacts on carbon stocks is even being twice considered (for conservativeness issues).

¹⁷ IBGE, 2008 http://geoftp.ibge.gov.br/informacoes_ambientais/vegetacao/mapas/unidades_da_federacao/pa_vegetacao.pdf

¹⁸ Table 23 of the Fourth National Inventory of Anthropogenic Greenhouse Gas Emissions and Removals

CL ID	07	Date: 18/07/2022
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Description of CL

Program Definitions v4,1 and VCS Standard v4.2, Section 3.2.15

Section 3.2.15 of the VCS standard states “Where an event occurs that is likely to qualify as a loss event (see the VCS Program document Program Definitions for the definition of loss event), the Project Proponent shall notify Verra within 30 days of discovering the likely loss event”

In the report VCS-Non-Permanence-Risk-Report-CIKELMR02 states “The images presented and discussed on the Fire Report show the location of fire spots in the PA and the comparative analysis of satellite images to demonstrates that no significant damage was caused to vegetation because of the fire occurrence.

The loss in carbon stock based on satellite analyses is classed as: Insignificant (less than 5% loss of carbon stocks) ...” However, that assumption does not have any support to corroborate the value of the loss event.

The project proponent is required to assess whether a loss event occurred or not based on the Loss event definition from the Program Definitions v4.1 document. If a loss event occurred during the current monitoring period, this VVB is required the Project Proponent to submit a lost event report, update the monitoring report and assess the updates in the verification report accordingly.

The Project Proponent is requested to provide an accuracies data about the area was affect by the fire events.

DOE 1st assessment

Date: 15/08/2022

According to NASA FIRMS MODIS or VIIRS Fire/Hotspot Data¹, nine heat points were detected within the Project Area over the period of MR2 (19 Jul 2010 – 18 Jul 2017), as shown in Figure 1 below and in the shapefiles provided².

Four of the nine fire events were detected through MODIS imagery, which has 1000m of spatial resolution¹, and five were detected by VIIRS with a resolution on 375m¹. Therefore, assuming a conservative approach, the maximum area impacted in each fire event corresponded to the total pixel size, which is far from what was observed in the field. The fire events happened in a dense tropical forest (*floresta umbrofila densa*) stratum, where the biomass stock is 642 tCO₂-eq. Table 1 synthesize all this information and shows the maximum possible area impacted by each fire event.

Table 13 Highest emission possible from each fire event reported during the Monitoring Report (2010-2017).

Year	Fire detection sensor	Number of pixels where fire was detected inside the Project Area	Pixel resolution (ha)	Maximum possible area affected by fire (ha)	Maximum possible lost of carbon stock (t CO ₂ -eq)	Maximum possible emission/ total VCU already issued (%)	
2010	MODIS	1	100,0	100,0	64.200	1,95%	1,95%
2012	MODIS	1	100,0	100,0	64.200	1,95%	2,78%
	VIIRS	3	14,1	42,2	27.084	0,82%	
2015	MODIS	2	100,0	200,0	128.400	3,91%	4,18%
	VIIRS	1	14,1	14,1	9.028	0,27%	
2016	VIIRS	1	14,1	14,1	9.028	0,27%	0,27%

This most conservative approach considers that in each fire event all carbon stock inside the area corresponding to one pixel is lost. Even in this hypothetical conservative scenario each fire event, or even during each year of the monitoring period, there was no emission that corresponds to more than 5% of the VCUs already issued (3,284,853 VCUs).

It is important to make it clear that Table 1 shows the worst possible scenario, not the damage that truly happened in the Project Area. CBNS monitoring team assessed the fires and it was observed that they were small and with little and no impact. However, the area of influence of fire was not measured, thus we presented the calculus based on the pixel area (maximum possible impacted area).

CL ID	07	Date: 18/07/2022
Other analyses were carried out to better assess the fire impact over the PA during this monitoring period (GIS imagery and fire scar data), and they can be found in the Fire Report file.		
¹ Source: https://firms.modaps.eosdis.nasa.gov/download/Readme.txt		
² Pathway: \Auditoria MR\MR02\GIS files\Fire Spots		
Documentation provided by project participant		
Document "Fire Report" at the folder : "Auditoria MR\Findings MR2\CAR 07".		
DOE 1 st assessment		Date: 15/08/2022
The report was reviewed describing that the forest fire events during the monitoring period were insignificant.		
Finding closed successfully		

CAR ID	08	Date: 18/07/2022
Description of CAR		
<p>1. In section 1.11 of the 070622_VCS_MR2_Cikel_Audit Version 01 states "<i>Between 2010 and 2014, records of fauna sightings were made in the Rio Capim Complex. Not all animals seen had the species properly...</i>" There is no clear why are there a lack of fauna monitoring from 2014 to 2017.</p> <p>The project proponent is requested to present results of fauna monitoring during the period 2014 to 2017</p> <p>2. Contribution to National Sustainable Development Priorities:</p> <p>The project proponent is requested to indicate how the project contributes to achieving any nationally stated sustainable development priorities and how the goals are being monitored. Section 1.11 of the 070622_VCS_MR2_Cikel_Audit Version 01 must be updated with such information.</p>		
Project participant response		Date: 25/07/2022
<ol style="list-style-type: none"> In the section 1.11 was included an explanation about the lack of data from 2015 to 2017. The section 1.11 was updated. 		
Documentation provided by project participant		
<ol style="list-style-type: none"> "Fauna_Guia fotografico Rio Capim" and "Relatório 2021_Monitoramento de fauna de mamíferos terrestres" PDFs in the Folder CAR 08 		
DOE 1 st assessment		Date: 15/08/2022
<ol style="list-style-type: none"> The project describes in section 1.11 of the monitoring report that it does not have fauna monitoring results from 2014 to 2017 due to transitory budget problems, but that the activities were resumed as of 2019, which can be verified in future verifications. However, for the current monitoring period, it was verified that the project contributes to more than 3 SDGs in compliance with the requirements of the VCS standard. FAR The description of the contributions by the project to achieving any nationally stated sustainable development priorities and monitoring of the SDGs was verified in section 1.11 of the monitoring report. OK 		
Considering the lack of evidence mentioned above, the CAR 8.1 is updated as a FAR for the next verification process		

CAR ID	09	Date: 18/07/2022
Description of CAR		
<ol style="list-style-type: none"> There is evidence of a contradiction between the eligibility of the project area (REDD) and the reforestation activities for compensation. In addition, it is not clear in the PD and MRs the definition of reforestation as a project activity and the differentiation of areas according to what is described in section 2 of the methodology (Identification of the Most Plausible VCS-eligible Activity(ies)).e.g: ... <i>In such cases the areas that are eligible for different categories must be captured by different strata and clearly delineated (i.e., without spatial overlap), and the procedures outlined below applied to each of them separately.</i> In addition, there is no consistence with the Table 4 since Module M-REDD is not applicable with ARR. In the case of post-deforestation, the pasture carbon pools do not meet those described by the methodology in its module VMD0015 M-REDD: "<i>Herbaceous non-tree vegetation is considered to be de minimis in all instances</i>". 		

CAR ID	09	Date: 18/07/2022
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The project proponent is requesting to clarify the consistence of modules applied with the selected Methodology and the eligible activities.

Project participant response	Date: 03/08/2022
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1. The legal permit to conduct the suppression activity requires that the company compensate for the loss of forest by replanting an existing un-forested area, stipulated in the following laws:

- **The State Law n. 6462 of 2002**¹⁹ establishes in article 10 – The person or entity that explores, uses, transforms or consumes forest raw material remains obligated to promote reforestation.
- **The Normative Instruction n. 06 of 2006**²⁰ article 18, clarifies that the volume of credit granted for reforestation will be 150m³/ha (one hundred fifty cubic meters per hectare) ...forest plantation.

Thus, to be in compliance with the law, suppression of the project area in the baseline further requires reforestation of 9,299 ha (1,394,791 m³ sawlogs / 150 m³/ha). In conformance with the suppression plan, the company would plant the area over a 10 year period in the baseline, with 930 hectares planted per year. Although technically the reforestation activity would be outside the accounting boundary of the project in the baseline, because non-forest areas are not eligible project areas, for completeness in project accounting, sequestration resulting from this activity is included in the project baseline, as the planned deforestation could not have legally occurred without it. Thus, there is no inconsistency with the M-REDD module as it is not an ARR activity. This is also a conservative approach as it reduces baseline emissions.

2. The pasture carbon pool was excluded in the case of the post-deforestation.

Documentation provided by project participant

NA

DOE 1 st assessment	Date: 15/08/2022
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1. It was verified that the removals attributable to reforestation for compensation were only considered within the quantification of the baseline.

2. The project proponent was requesting to clarify the consistence of modules applied with the selected Methodology and the eligible activities. However, the requesting has not been developed, also the project proponent is requested to clarify if Pasture carbon pool should be considered in the baseline quantification, considering that its exclusion only applies to the scenario with a project (numeral 5 y 6.3 of VMD0015).

Project participant response

2. As explained in the section 2.3 Carbon pools in the PD, the carbon pool from soil organic carbon was excluded in the baseline because “*Significant changes in this pool are not expected to occur in the baseline – note that the IPCC default stock change factor for permanent grassland is 1.0, which signifies no change from original, undisturbed stocks (managed forest), which is also 1.0 (IPCC 2006GL Vol 4 AFOLU Chapter 6 Grassland, Table 6.2 and IPCC 2006GL, Chapter 5 Cropland, Table 5.10)*”. An explanation was also included in the section 4.2 of the MR.

Factor	IPCC default	Definition	Source
Land use (F _{LU})	1	All permanent grassland is assigned a land-use factor of 1.	TABLE 6.2 IPCC 2006 Grassland
Soil stock change factors (F _{LU} , F _{mg} , F _i) for land-use conversions to cropland	1	Managed forest	TABLE 5.10 IPCC 2006 Cropland

DOE 2 assessment	Date: 31/08/2022
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Monitoring 5.1 ...The values provided are used to estimate the net GHG emissions and removals for the project crediting period...

There is evidence of adjustments in the baseline calculations in consistence to described in 5.1 Baseline Emissions and section 4.1

Finding closed successfully

¹⁹ <http://extwprlegs1.fao.org/docs/pdf/bra181236.pdf> Accessed July 27,2022

²⁰ <http://www.ibama.gov.br/sophia/cnia/legislacao/MMA/INO006-151206.PDF> Accessed July 26, 2022

CAR ID	10	Date: 18/07/2022
Description of CAR		
<p>1. The value of parameter DMmn (0,67) and LFME (0,2) do not correspond to the validated value. The project proponent is requesting to clarify said situation.</p> <p>2. It was not possible to verify the value applied the parameter: pasture carbon pool. In addition, the value zero monitored of parameter ADef PA,u,i,t is not clear. The project proponent is requesting to provide evidence of the consistence of the parameter used for pasture carbon pool and clarify why the value for the monitored parameter ADef PA,u,i,t corresponds to zero.</p> <p>3. There is no evidence that the parameters CBSL,i, Cdest, i, CBSL,i and others, are measure before verification event, according to the frequency of data and parameters of the M-REDD module. The project proponent is requesting to provide evidence about the measure of the monitored parameter.</p>		
Project participant response		Date: 03/082022
<p>1. The value of 0.67 for DMmn parameter was applied incorrectly. The calculations were updated using the value of 0.65, validated on Project Description.</p> <p>The value of 0.2 for LFME parameter was applied incorrectly on Market Effects Leakage Through Decreased Harvest of Fuelwood and Charcoal Sold into Regional and/or National Markets. The calculations were updated using the value of 0.4, validated on Project Description.</p> <p>As described on Section 3.2.2, the Market-Effects Leakage Through Decreased Timber Harvest were not considered on Project Description validation, but in the current Monitoring Period must be included. The definitions of LFME parameter for this kind of effect is different from the validated parameter for Market Effects Leakage Through Decreased Harvest of Fuelwood and Charcoal Sold into Regional and/or National Markets. Following the VMD0011 LK-ME v1.0 criteria, the leakage factor (LFME) was adopted as 0.2, given that the mean merchantable biomass as a proportion of total aboveground tree biomass (PML) for dense forest in Amazon Biome is 27% greater than merchantable biomass as a proportion of total aboveground tree biomass for the project boundaries (PMP), as demonstrated on Sections 3.2.2, 5.2 and calculations spreadsheet (tab LEAKAGE MARKET - TIMBER HAV).</p> <p>PML parameter was obtained from the literature by deduction from the Volume Expansion Factor (VEF) parameter for dense forest in the Legal Amazon, as described in the table on page 20 of VMD0011 LK-ME v1.0, merchantable trees have a DBH greater than 30 cm. As mentioned by Nogueira, 2009, the values of VEF that consider merchantable trees with DBH greater than 30 cm are described by Brown, S., Lugo, A.E., 1992. The VEF value presented by Brown, S., Lugo, A.E., 1992 for dense forest in the Legal Amazon is 1.25. From the $PML=1/VEF$ deduction, the value obtained for the PML parameter is 0.8.</p> <p>PMP parameter was calculated based on the forest inventory data (direct field measurement) by selecting commercial trees as those with DBH equal or higher than 30 cm, and multiplying it by the strata representativeness in the project area (spreadsheet "PMP - Commercial proportion").</p> <p>The tool includes the Leakage management adjustment factor LK_{MAF} and Fuelwood/charcoal leakage management adjustment factor $LKFC_{MAF}$. These parameters were included in the MR review on Sections 3.2.2 and 5.3. For the deduction, the parameters $PRODMB_{BL}$ / $PRODFC_{BL}$ were included on Section 4.1 and $PRODMB_{LMA}$ / $PRODFC_{LMA}$ were included on Section 4.2. The calculations are demonstrated on Sections 3.2.2, 5.3 and calculations spreadsheet (tabs LEAKAGE MARKET - TIMBER HAV and LEAKAGE MARKET - FUELWD. & CHCL).</p> <p>2. The reason for not considering the deforestation detected in the PA was clarified in section "5.2.1 Emissions due to deforestation and natural disturbance". The calculation rationale can be checked on the "DEFORESTATION" tab of the spreadsheet 020822_MR2_SPREADSHEET_Cikel</p> <p>The pasture carbon pool was excluded in the case of the post-deforestation.</p>		

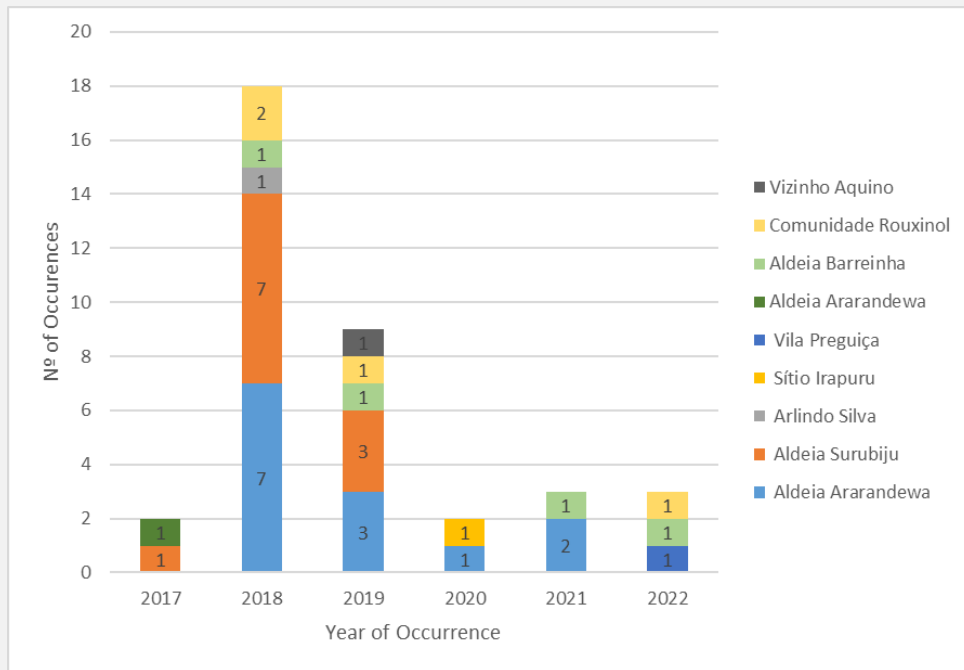
CAR ID	10	Date: 18/07/2022
<p>3. In the section 3.2.2 “Carbon Stocks and Forest Inventory” it was included an explanation about the CBSL, I parameter. In addition, in section 5.1 an explanation about the CBSL and Cdest parameters was included.</p>		
<p>Documentation provided by project participant</p>		
<p>1. The spreadsheet “PMP - Commercial proportion” was provided in the folder “CAR 10”.</p> <p>2. 020822_MR2_SPREADSHEET_Cikel “CAR 10”</p>		
DOE 1 st assessment		Date: 15/08/2022
<p>1. It was verified that the parameters were adjusted.</p> <p>2. The project has justified the value of the parameter ADef PA,u.</p> <p>3. Explanation on parameter monitoring checked.</p>		
<p>Finding closed successfully</p>		

CAR ID	11	Date: 18/07/2022
<p>Description of CAR</p>		
<p>1. In section 2.2 of the MR, communication about the current audit process is not evidenced Local Stakeholder Consultation: The project proponent is required to clearly demonstrate how communicated the process of VCS Program verification and the validation/verification body’s site visit as per the requirement.</p> <p>2. There is no evidenced in section 2.3 of 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 the Effectiveness of resolution of conflicts and communication with stakeholders. The Project Proponent is requested to demonstrate Effectiveness of resolution of conflicts and communication with stakeholders.</p> <p>3. The project proponent states that <i>It is important to point out that the public consultation and communication system implemented by the company also meets the requirements of FSC® certification in criterium.</i> The project proponent is requested to demonstrate how the requirements of FSC about effectiveness of communication comply with the requirements in this kind of projects and how is it management in a system control differentiated by project and its effectiveness.</p> <p>4. In 2.3 of 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 requires “the implementation of the project did not bring negative impacts to the community members”</p> <p>In VCS-Monitoring-Report-Template-v4.1 states <i>In for AFOLU projects with no impacts on local stakeholders, provide evidence of such.</i> The project proponent is required to explain in Section 2 (depending on the impact being positive or negative) if the communities living outside the project area are impacted by the project activities and how that was determined and its supports. If the communities are negatively impacted, provide mitigation measures for each impact depending on the impact.</p>		
<p>Project participant response</p>		Date: 21/07/2022
<p>1. It was included in the section 2.2, sub-section “Communication about the monitoring report and audit process” the process to communicate to the stakeholders about the verification visit.</p> <p>2. The company has always maintained an open communication channel with the community over the years, as it was verified in the field during the visits to the community carried out in 2022 by Carbonext team. However, many records were lost due to a hacker attack that caused the loss of many documents stored in the cloud. As described in the section 2.3, due to some technical problems, the company lost part of the data history to actually measure the effectiveness of resolutions and conflicts during the period of this monitoring report. The mitigation actions of the risk of lost data are described in section 2.3 and 4.2. Other procedures implemented by the company to measure the effectiveness of resolutions were:</p>		

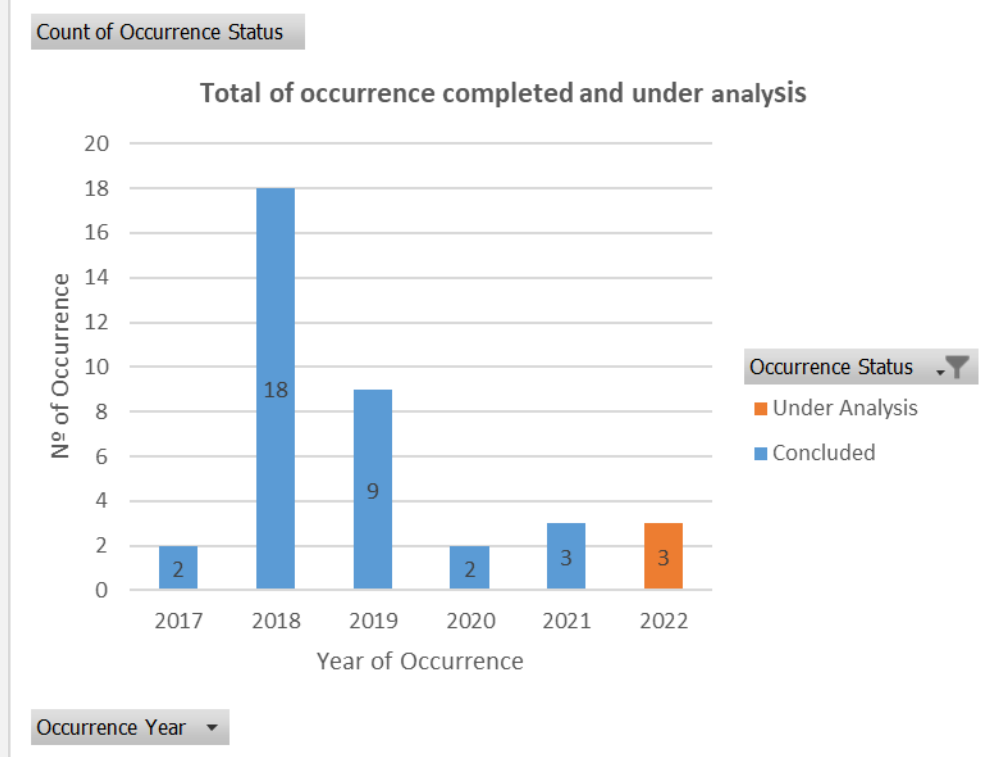
CAR ID	11	Date: 18/07/2022
Description of CAR		

- I. Implementation of the Qalyteam system for managing conflicts, complaints, various requests. It allows recording the implemented action plans and verifying their effectiveness. This System was implemented in January 2022.
- II. Elaboration of the Operational Procedure “PGSC 000 Community Socio-Environmental Management Plan”, establishing goals and indicators for communications, monitoring and actions with the community. It also makes clear the scope of the procedure for the Cikel REDD project.
- III. Preparation of the “PRO GA 001 Management of Communication, Conflicts and Handling of Non-Conformities”, which determines the flow of receiving, recording and dealing with conflicts and other requests.

The company was able to retrieve some records of requests made by community members from previous years, but none of these data are from this monitoring report (the data from 2017 are after July 2017), thus, these data are not included in the MR. These requests were recorded recently in Qalyteam, so it was possible to extract this information according to the chart below:



CAR ID	11	Date: 18/07/2022
Description of CAR		



Of the requests and occurrences registered, 100% were complete and can be checked in the file “2017_2022_Records of Requests and Occurrences_Qualyteam”. Those under analysis are from 2022 and are yet to be completed.

Although there is no history relevant to the monitoring period, the company has implemented improvements to ensure the transparency and organization of information.

- Whenever a company enters the FSC certification process, a public consultation is carried out, involving the greatest possible number of interested parties. For the certification body, it is important to know if the company knows its surroundings, if it deals with the social and environmental impacts that forest management activities generate and if it dialogues and negotiates with local and/or traditional communities. The assessment of social impacts, provided for in the FSC Principles and Criteria²¹, requires the involvement and participation of stakeholders in the identification of potential negative impacts generated by forest management activities. Therefore, the method adopted to assess social impacts must provide for a consultative process, which means that stakeholders must be visited and consulted, so that they can report to the company how they are affected, positively or negatively, by management activities. It is important to identify and record negative social impacts and respond to them. Actions and measures must be defined to treat, minimize and prevent future occurrences of the same situation. Some of these actions, in some cases, may imply changes in management planning. Thus, in order for CBNS to maintain the FSC certification during the monitoring period of the Cikel REDD project, it was necessary to meet all these FSC certification requirements, which are in line with the VCS Standard v4.2 – Safeguards “Project activities shall not negatively impact the natural environment or local communities. Project proponents shall identify and address any negative environmental and socio-economic impacts of project activities and shall engage with local stakeholders during the project development and implementation processes.” Therefore, the fact that the company has the FSC certification audited annually during the monitoring period attests that this communication and these impact mappings were carried out. Thus, as an improvement action, they developed the procedure "PRO GA 001 Management of Communication, Conflicts and Handling of Non-

²¹ IMAFLORA, 2012. <https://www.terra-brasilis.org.br/ecotecadigital/pdf/os-requisitos-sociais-do-padrao-fsc-para-manejo-florestal-em-terra-firme-na-amazonia-brasileira.pdf>. Accessed July 28, 2022

CAR ID	11	Date: 18/07/2022
Description of CAR		
<p>Conformities” which, among other things, establishes that requests and complaints from community members will be registered in the Qualyteam system. This quality management system will concentrate the management of documents, non-conformities and indicators, facilitating the strategic planning of actions, measurement of effectiveness, organization of evidence and history of actions. The system also allows associating each item with different areas and projects, so it will be possible to distinguish what is specifically pertinent to the Cikel REDD project. It is worth mentioning that this system was implemented by CBNS in January 2022, so it does not have the recorded history regarding this monitoring period.</p> <p>4. As described in section 2.1, between 2015 and 2016 a participatory mapping was carried out with the community members to capture the positive and negative perceptions of the company's activities. In the table “Positive aspects mentioned by the community about CBNS” in section 2.1, the positive perceptions of community members are described, while in the table “Mitigation Plan of Social and Environmental Impacts” in the same section, are described the negative perceptions and mitigating actions proposed and approved by the community members, in addition to the results obtained. In section 2.1 No Net Harm it is described that the negative impacts mentioned by the community are associated with forest management activities, which take place throughout the Rio Capim complex, not only in the project areas. The impact of smoke from the charcoal plant is also mentioned, but it is not within the project area and is an activity that has taken place since before the project was conceived, however, in the Mitigation Plan of Social and Environmental Impacts table, the action plan is mentioned and in section 2.2 there is also more information on how this impact has been addressed.</p>		
Documentation provided by project participant		
Folder “CAR 11 -> 01.Meetings” has all the relevant evidence of communication Folder “CAR 11 -> 02. Impacts” has the impact mapping reports for the years 2015, 2016 and 2018 PGSC 000 Community Socio-Environmental Management Plan PRO GA 001 Management of Communication, Conflicts and Handling of Non-Conformities 2017_2022_Records of Requests and Occurrences_Qualyteam		
DOE 1 st assessment		Date: 15/08/2022
1. The description and evidence of the communication on the current audit process was verified. 2. The justification of the project was verified on the evidence of the conflict resolution process and the measures taken for the risk of loss of information. 3. Evidence of the effectiveness of communication for the project, independent of the FSC audit, is unclear. The new measures taken to control the information are pending for future verification. 4. The identification of impacts to local communities and those surrounding the project area has been verified, but support for mitigation measures implemented has not been demonstrated (2015-2016).		
Project participant response 1 st assessment		
4. Evidence was provided to support the mitigation measures implemented, the section 2.1 No Net Harm was also updated.		
Documentation provided by project participant 1 st assessment		
4. Folder CAR 11: <ul style="list-style-type: none"> • Folder “Defensive Driving Training_Photos”: Photos of defensive safety training carried out for CBNS employees and third parties, covering topics such as: risks of high-speed driving and first aid in case of accidents. • PDF “18-08_Relato das ações das lombadas na Rouxinol”: Visit Report to the Rouxinol community on the actions taken by CBNS to minimize dust, such as installing traffic signs, speed bumps and training their drivers. • PDF “18-08_Relato iluminação do porto na portaria da ponte”: Report about the light reflector installed near the CBNS entrance and the bridge to improve lighting and reduce risks when mooring boats. 		
DOE 2 assessment		Date: 31/08/2022

CAR ID	11	Date: 18/07/2022
Description of CAR		
The project proponent attached the evidence on the impacts to local communities and those surrounding the project area and they were verified.		
Considering the lack of evidence mentioned above, the CAR 11.3 is updated as a FAR for next verification process		

CL ID	12	Date: 18/07/2022
Description of CL		
The project proponent is required to indicate how the annual assessment of the social activities (along with other social activities) during the monitoring period impacted (and/or resulted in) the GHG emissions reductions and removals. Section 3.1 of the 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 must reflect the evidence that demonstrates such impacts.		
Project participant response		Date: 25/07/2022
The table “Impact of project activities on GHG emissions” was included in section 3.1.		
Documentation provided by project participant		

DOE 1 st assessment	Date: 15/08/2022
There is no evidence to support environmental awareness activities.	

Project participant response 1 st assessment	Date: 16/08/2022
Environmental awareness activities are intrinsic to the participatory mapping process of areas of high conservation value for community members and areas of customary use, as community members understand the need to conserve natural resources for the maintenance and perpetuation of their traditions and way of life. The explanation in “Table 11. Impact of project activities on GHG emissions” has been updated to clarify this relationship.	
Documentation provided by project participant 1 st assessment	

CL 12 folder:

- **2015_2016_Validacao Areas de Uso Comunidades:** Validation report of areas of use by community members
- **2015_Lista frequencia Avaliacao Impacto:** attendance list of participating community members
- **2015_Plano de Mitigação Impactos Sociais e Ambientais:** impact mitigation plan mapped together with the community
- **“News_Educação Ambiental_2019” and “News_Educação Ambiental_2022”:** disclosure in the CBNS internal newspaper of environmental education activities carried out with the communities

DOE 2 nd assessment	Date: 31/08/2022
Explanation in the monitoring report and supports on environmental awareness activities were verified.	

Finding closed successfully

CL ID	14	Date: 18/07/2022
Description of CL		
<i>Monitoring Report Template, v4.0, Section 4.3.</i>		
Section 4.3 of the document 070622_VCS_MR2_CIKEL_AUDIT VERSION 01 shall describe the procedures for handling the internal audits (excluding the financial audit and FSC audits) and any non-conformities identified.		
Project participant response		Date: 28/07/2022
The CBNS prepared the procedure “PRO GA 001 - Management of Communication, Conflicts and Handling of Non-Conformities” to meet this requirement. The procedure was also mentioned in section 4.3		
Documentation provided by project participant		

CL ID	14	Date: 18/07/2022
Description of CL		
Folder CL 14-> PRO GA 001 Gestão de comunicação, conflitos e tratativa de não conformidades		
DOE 1 st assessment		Date: 15/08/2022
The internal audit procedures described for the resolution of conflicts and non-conformities were verified. However, the procedures for other types of internal audits, which are different from financial and FSC audits, are not evidenced. The project proponent is requesting to Clarify if the project performs another type of internal audit, such as to ensure data quality.		
Project participant response 1 st assessment		Date 24/08/22
It was included the procedure "PRO SGQ 002 - Auditoria Interna" in the folder CL 14, which deals with the processes of all kinds of internal audits carried out by the company CBNS, including the Cikel REDD project in the scope.		
DOE 2 assessment		Date: 31/08/2022
The procedures for internal audits were verified.		
Finding closed successfully		

CL ID	15	Date: 18/07/2022
Description of CL		
The risk analysis score does not match between the "VCS-Non-Permanence-Risk-Report-CIKELMR02" and the spreadsheet VCS-Risk-Report-Calculation-Tool-CIKEL_MR2.xls		
Project participant response		Date: 03/08/2022
The risk analysis score has been properly updated and final version of the "VCS-Non-Permanence-Risk-Report-CIKELMR02" and the spreadsheet "VCS-Risk-Report-Calculation-Tool-CIKEL_MR2.xls" can be found at Auditoria MR\Findings MR2\CL 15		
Documentation provided by project participant		
-VCS-Risk-Report-Calculation-Tool-CIKEL_MR2.xls -VCS-Risk-Report-Calculation-Tool-CIKEL_MR2.xls At MR\Findings MR2\CL 15		
DOE 1 st assessment		Date: 15/08/2022
The score was adjusted on file.		
Finding closed successfully		