



**Verified Carbon
Standard**

INTEGRATED PROJECT FOR REFORESTATION AND AGROFORESTRY ON DEGRADED LANDS IN NICARAGUA



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Project ID	2365
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Version	6.0
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Client	MLR Forestry of Nicaragua S.A.

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Summary:

Description of the project

Carbon Check (India) Pvt Ltd has been appointed by MLR Forestry of Nicaragua S. A. to carry out the 2nd periodic Verification of the project “Integrated Project for Reforestation and Agroforestry on Degraded Lands in Nicaragua”, for the monitoring period: 02-March-2021 to 31-August-2024, with regards to the relevant requirements of AR-ACM0003 v2.0 (dated 04-10-2013)^{B01/} and VCS Standard v4.7 (dated 16-04-2024)^{B01/}.

The project titled “Integrated Project for Reforestation and Agroforestry on Degraded lands in Nicaragua”, falls under the Afforestation, Reforestation and Revegetation (ARR) category under Verified Carbon Standard (VCS). The VCS project has applied CDM Methodology AR-ACM0003 “Afforestation and reforestation of lands except wetlands” version 02.0^{B01/}.

The project is a grouped project with 1st joint validation and verification completed and registered on the VCS platform on 02-May-2022. Current verification is 2nd periodic verification of the project starting from 02-March-2021 till 31-August-2024. The estimated project area is 4,031.3 hectares to be planted until 2032 in Nicaragua, of which 1,974.6 hectares are to be commercial plantations and the remaining 2,056.7 hectares Protection area. (here, the project's geographical boundary is the country of Nicaragua). Current verification includes areas from 1st PAI since no new instances were added during this monitoring period. A total area of 2,286.3 ha (439.7 ha of pure teak, 379.9 ha of teak in cacao and 1,466.7 ha of protection area,) is included in this verification. All group instances and related properties are owned by MLR Forestal. 1st PAI is implemented in the districts of Siuna and Bonanza in the Northeast of Nicaragua^{07/}.

For the current monitoring period (02-March-2021 till 31-August-2024), Ex-post calculations are done based on monitored data form 1st PAI. The project has achieved net GHG removal 82,834 and eligible VCUs for issuance are 63,782 tCO₂e (after inclusion of buffer deductions). The project reports a net carbon stock increase of 82,834 tCO₂e. Based on a non-permanence buffer risk rating of 23%, a total of 19,052 buffer credits are required. Of these, 1,768 credits have already been withheld, leaving 17,284 to be withheld in this round. Additionally, 15,912 VCUs have already been issued, and 47,870 VCUs are available under current monitoring period for issuance.

The project is designed in compliance with the AR-ACM0003: Afforestation and reforestation of lands except wetlands 2.0^{/B02/}.

The three carbon pools selected for the project are:

- **Above ground biomass (AGB)**
- **Below ground biomass (BGB)**
- **Soil organic carbon (SOC)**

Table 1: Dates & Timelines of VCS project:

Start Date	01-July-2016
Crediting period	01-July-2016 – 30-June-2056 (40 years)
Monitoring period	02-March-2021 – 31-August-2024 (3 years 5 months))

The purpose and scope of verification

The purpose of the verification was the independent evaluation of the project's compliance with the VCS Standard v4.7 & AR-ACM0003 v02.0^{/B01/} the project's baseline, monitoring plan, project implementation, carbon captured by the project, methodology requirements^{/B01/} and compliance with the relevant VCSA^{/B01/} and host party criteria. These are validated and verified in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria and the project has been implemented in compliance with the monitoring plan stated in the VCS MR^{/02/}. Carbon Check's objective is to perform a thorough, independent assessment of verification of the project activity.

Verification of a scope is defined as an independent and objective review of the VCS Project Description (MR)^{/02/} against the relevant criteria and guidance documents provided by VCS including the following^{/B01/}.

- VCS Program Guide (v4.4, dated 29-08-2023)
- VCS Standard (v4.0 of dated 19-09-2019) (at time of project registration)
- VCS Standard (v4.7, dated 16-04-2024) (Latest version)
- AR ACM0003 (v02.0, dated 04-10-2013)
- Program Definitions (v4.5, dated 16-04-2024)
- Registration & Issuance Process (v4.6, dated 16-10-2024)
- AFOLU Non-Permanence Risk Tool (v4.2, dated 03-05-2024)
- VCS Validation and Verification Manual (v3.2, dated 19-10-2016)
- AFOLU Guidance: Example for Calculating the Long-Term Average Carbon Stock for ARR Projects with Harvesting.

Based on the requirements above, the VVB has assessed if the project meets the applicability criteria of the selected baseline^{/B01/} and monitoring methodology, “AR-ACM0003 “Afforestation and reforestation of lands except wetlands” version 02.0^{/B01/}. VVB has also assessed the claims and assumptions made in the VCS PD^{/01/} and further achieved in the VCS MR^{/02/} in accordance with the monitoring plan provided in the VCS MR^{/02/}.

The method and criteria used for verification

To conduct the verification audit, Carbon Check (India) Private Limited (CC IPL) conducted an assessment including a desk review of the Project Document (PD)^{/01/} and supporting documents in compliance with the requirements stated in the VCS Validation and Verification Manual v3.2^{/B01/}. Thereafter, verified the details and information from VCS MR^{/02/} during the on-site inspection^{/table15-i01-i15/} and desk review.

The number of findings raised during the verification^{/Appendix 4/}

During the verification, a total of 21 findings have been raised, which includes 07 Corrective Action Requests (CARs), 14 Clarification Requests (CLs) and 00 Forward Action requests (FARs).

Any uncertainties associated with the verification

No uncertainty associated with the project implementation and calculations of GHG removals have been observed by the VV team.

Summary of the verification conclusion

Based on the on-site inspection^{/table15-i01-i15/}, the review of the VCS MR^{/02/} and supporting documents, the CC IPL team confirms that the project VCS MR^{/02/} has been developed taking appropriate assumptions and values in compliance with the requirements of VCS Standard v4.7^{/B01/} and the methodology applied^{/B01/}.

In accordance with the requirements of VCS Standard version 4.7^{/B01/}, and the methodology applied, AR-ACM0003 version 02.0^{/B01/}, the verification team confirms that all the values and assumptions included in the VCS MR^{/02/} including objectives, scope and criteria, level of assurance, baseline and monitoring plan are valid and applicable.

The VVB, based on the on-site inspection^{/table15-i01-i15/} and the review of documents including VCS MR^{/02/}, confirms that the project implementation and the calculation of carbon^{/03/} captured by the project are in accordance with:

- ✓ Monitoring plan and other assumptions stated in the VCS MR^{/01/}
- ✓ Applied CDM methodology, AR-ACM0003 “Afforestation and reforestation of lands except wetlands” version 02.0^{/B01/}

✓ Host country regulations

Ex-post carbon achieved by the project in 2nd Monitoring period by 1st PAI:

Crediting Period	Achieved (ex-post) carbon sequestration	Eligible VCUs after buffer deduction
02-March-2021 to 31-August-2024	82,834 t CO ₂ e	47,870 tCO ₂ e ¹

¹ Total VCUs eligible are 63,782 VCUs, considering 15,912 VCUs have already been issued during last monitoring period, and 47,870 VCUs are available under current monitoring period for issuance.

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1 INTRODUCTION

1.1 Objective

The purpose of this report is to document the compliance of the monitoring of the registered VCS project “Integrated Project for Reforestation and Agroforestry on Degraded Lands in Nicaragua” (hereafter referred to as project) with the requirements of the Verified Carbon Standard (VCS)^{/B01/} and the applied CDM methodology^{/B01/}. This project is owned by the project proponent, MLR Forestry of Nicaragua S.A. (hereafter referred to as “PP”).

As per the VCS PD^{/01/}, VVB has ascertained the following on the VCS project:

Table 1: Project details

VCS category	Afforestation, Reforestation and Revegetation (ARR)
Applied methodology	CDM Methodology “AR-ACM0003 “Afforestation and reforestation of lands except wetlands” version 02.0”
Sectoral scope	14: Agriculture, Forest and other Land Use (AFOLU)

The verification objective of the project includes:

- ✓ Assessment of compliance with the VCS Program Guide, version 4.4^{/B01/}, VCS Standard version 4.7^{/B01/} and other relevant VCS requirements.
- ✓ Assessment of compliance with the applied CDM methodology AR-ACM0003 version 02.0^{/B01/}.
- ✓ Assessment of project compliance with the relevant rules including host country legislation.

1.2 Scope and Criteria

The scope of verification is to assess the conformance of the VCS MR^{/02/} and other relevant supporting documents against the VCS requirements^{/B01/} and applied methodology^{/B01/} and tools^{/B01/}, including the assessment of:

- ✓ Physical infrastructure, activities, technologies, and processes of the VCS project
- ✓ Project’s physical boundaries,
- ✓ GHG sources, sinks and/or reservoirs.
- ✓ Stakeholder involvement,
- ✓ Environmental impacts,
- ✓ Baseline and additionality justification
- ✓ Monitoring plan and

- ✓ Estimated GHG removals and long-term average calculation

The verification criteria follow the guidance documents provided by VCS including the following^{B01/}: VCS Standard version 4.7, VCS Program Guide version 4.0, AFOLU Non-Permanence Risk Tool version 4.2, AFOLU Guidance: Example for Calculating the Long-Term Average Carbon Stock for ARR Projects with Harvesting version 4.0, and the applied CDM methodology AR-ACM0003 “Afforestation and reforestation of lands except wetlands” (version 02.0).

1.3 Level of Assurance

For teak, The total tree volume equation from Fallas Zúñiga (2017)² is used by PP to obtain values of teak. VVB upon review of the paper, confirms the equation has been validated through extensive research specifically on clonal teak plantations, confirming teak's adaptability and productivity in reforestation projects. The paper is widely cited, confirming the reliability of the equation. Supporting the specific gravity value, the IPCC 2006 guidelines prescribe a standard specific gravity of 0.55 t/m³, which is widely recognized and used in forestry practices. Further upon review of Kraenzel (2003), it was found that the reference emphasized Biomass Expansion Factors (BEF) for tropical reforestation projects, using a BEF value of 1.53³ that includes roots, explicitly for teak. This combination of validated methodologies and values ensures the reliability and accuracy of carbon stock determinations, supporting the project's estimations effectively. VVB reviewed the methodology for estimating shrub crown cover in cacao plantations. Remote sensing analysis using drone imagery was utilized to determine the percentage of shrub crown cover. This approach allowed for precise estimation of the cacao biomass.

For protection area calculations, The AGB equations from Saatchi et al. (2011) and Chave et al. (2005) are used by PP. these sources are well-documented and widely used in the scientific community for biomass estimations^{4 5}. Saatchi et al. (2011) developed a benchmark map of forest carbon stocks, utilizing extensive data from in situ inventory plots, LIDAR samples, and satellite imagery. This comprehensive approach underscores the robustness and reliability of their AGB equations, which have been validated across diverse tropical forest regions¹.

² [Funciones alométricas, de volumen y de crecimiento para clones de teca \(Tectona grandis L.f\) en Costa Rica | Semantic Scholar](#)

³ [iforest.sisef.org/pdf/?id=ifor1733-009&sm=1&ext=pdf&form=MG0AV3](http://forest.sisef.org/pdf/?id=ifor1733-009&sm=1&ext=pdf&form=MG0AV3)

⁴ (PDF) [PNAS-2011-Saatchi-1019576108](#)

⁵ (PDF) [Can recent pan-tropical biomass maps be used to derive alternative Tier 1 values for reporting REDD+ activities under UNFCCC?](#)

Similarly, Chave et al. (2005)⁶ provided a critical reassessment of allometric models for estimating carbon stocks in tropical forests. Their equations are based on a large dataset of over 2,400 trees, taking into account factors like wood density, trunk cross-sectional area, and tree height. These models have been tested and proven reliable across different forest types, including secondary and old-growth forests, dry, moist, and wet forests. These literature evidences confirm that AGB equations from Saatchi et al. (2011) and Chave et al. (2005) are reliable, widely used, and relevant for accurate biomass estimations.

In line with section 4.1.2 of VCS Standard, v4.7 requirement for verification, VVB intends to evaluate the reasonableness of the assumptions, limitations, and methods that support a statement about the outcome of future activities. Following VCSA requirements, VVB has employed an evidence-gathering plan to provide a reasonable level of assurance for the verification service.

1.4 Summary Description of the Project

The registered VCS grouped project aims to increase carbon sequestration and to contribute to local sustainable development by afforestation and reforestation activities which include commercial teak plantation, agroforestry (teak with cacao) and protection area natural regeneration. The project has demonstrated the compliance with the approved CDM Afforestation and Reforestation Methodology AR-ACM0003 (version 02.0)^{B01/}. Project is a grouped project, during the current monitoring period no new PAIs were added, hence continuation of first PAI.

The project area is located in the Northeast of Nicaragua. In 2019-2020 project established 545.6 ha of teak and cacao, deviating from the original PDD plan due to hurricane damage repairs and cacao expansion. This deviation does not impact any issued credits. In the same period, the protection area was reduced by 18.9 ha due to the transfer of the Miranda farm to a neighbouring native community, but this area was increased by 28.9 ha because an area selected for teak plantation was reevaluated as unsuitable and added to the protection area; between 2021 and 2022, 26.0 hectares of pure teak plantations were established, and management activities were executed as planned, between 2021-2024, teak plantations expanded by 53.4 ha, while protection areas increased by 10.0 ha. All the deviations taken do not affect the project baseline, additionality or applicability of methodology, and comply with section 3.21 of VCS standard v4.7. For the current monitoring period the calculated GHG emission removal is based on a total of 439.7 ha of pure teak, 379.9 ha of teak in cacao and 1,466.7 ha of protection area, for a total project area of 2,286.3 hectares, which has resulted in a total sequestration of 82,834 tons of CO₂e^{/03/}.

⁶ [442_2005_100_Article_1..13](#)

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification of the project includes the following assessment activities:

- ✓ Contract review & signing
- ✓ Appointment of team members based on competencies
- ✓ Assessment Planning
- ✓ Desk review on VCS MR^{/02/} and carbon sequestration calculations (ex-post)^{/03/} and other documents.
- ✓ Interviews with the stakeholders and local stakeholder meeting(s) during the on-site inspection^{/table15-i01-i15/}
- ✓ Reporting and recording of assessment
- ✓ Findings and their closure
- ✓ Additional validation activities
- ✓ Submission of final report

A project-specific verification plan was developed to guide the auditing process to ensure efficiency and effectiveness. The purpose of the verification plan is to present a risk assessment to determine the nature and extent of the necessary verification procedures, thus reducing the risk of auditing errors to a reasonable level. The verification of the VCS MR^{/02/} were conducted in compliance with the requirement documents as stated in APPENDIX 3: List of Documents.

Sampling/Verification Plan

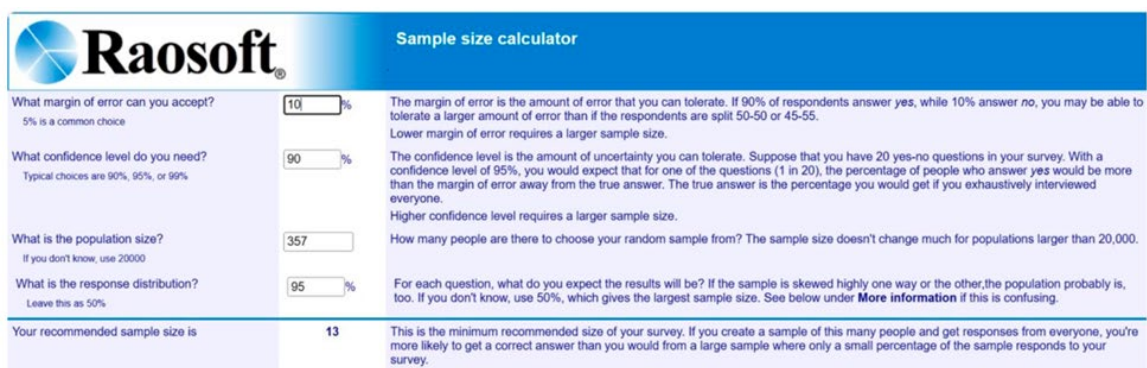
In order to ensure a complete, transparent and timely execution of the verification task, the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion. Various tools had been established in order to ensure an effective assessment planning.

Sampling approaches during verification:

The verification team of the VVB has used Raosoft (<http://www.raosoft.com/samplesize.html>), an online survey software tool for calculating sample size by using precision level, confidence level and response distribution for determining the sample size. VVB team has opted for 10% margin of error and 90% confidence level in determining the VVB's sample size. The total permanent sample selected by PP i.e., 357 sample plots. Accordingly, VVB team plan to take 13 samples from the designated project region included under the project activity for the reported monitoring

period with pro-rata sample size calculated based on weighted area multiplied by the VVB sample size. Moreover, PP has taken an individual tree approach for monitoring teak plantation between cocoa. The VVB team has opted for a 15% margin of error and 90% confidence level in determining the VVB's sample size. The total permanent sample selected by PP i.e., 936 sample plots. Accordingly, the VVB team plans to take 06 samples from the designated project region included under the project activity for the reported monitoring period with pro-rata sample size calculated based on weighted area multiplied by the VVB sample size. **Hence, the total VVB sample size is taken as 13 plots and 6 individual trees.**

For PSPs:



Raosoft Sample size calculator

What margin of error can you accept?
5% is a common choice

10 %

The margin of error is the amount of error that you can tolerate. If 90% of respondents answer yes, while 10% answer no, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.

What confidence level do you need?
Typical choices are 90%, 95%, or 99%

90 %

The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer yes would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.

What is the population size?
If you don't know, use 20000

357

How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.

What is the response distribution?
Leave this as 50%

95 %

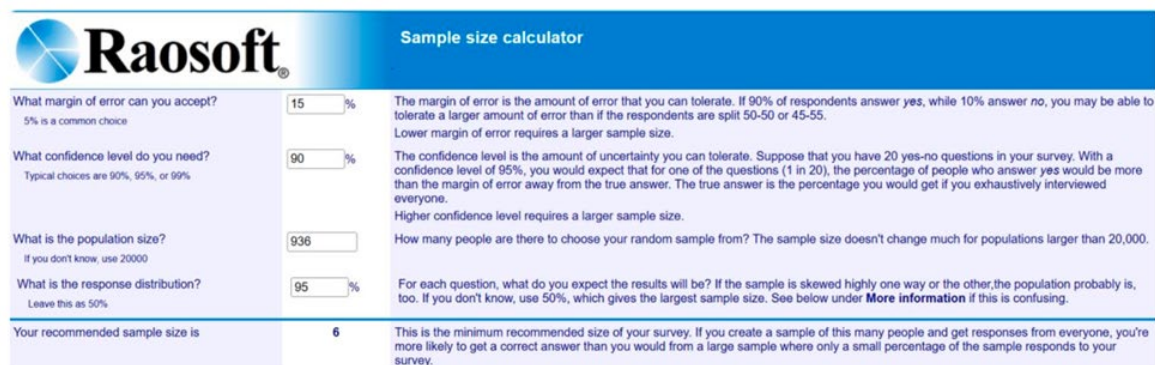
For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.

Your recommended sample size is

13

This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

For Individual trees:



Raosoft Sample size calculator

What margin of error can you accept?
5% is a common choice

15 %

The margin of error is the amount of error that you can tolerate. If 90% of respondents answer yes, while 10% answer no, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.

What confidence level do you need?
Typical choices are 90%, 95%, or 99%

90 %

The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer yes would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.

What is the population size?
If you don't know, use 20000

936

How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.

What is the response distribution?
Leave this as 50%

95 %

For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.

Your recommended sample size is

6

This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Table 2: Sampling approach

☐	No sampling approach has been used by the VT to verify the monitored parameters	
☒	A sampling approach has been applied by the VT for the following monitored parameter(s)	
	☐	No sampling approach has been used by the VT to verify the monitored parameters

	A sampling approach has been applied by the VT for the following monitored parameter(s):			GPS location of each site, DBH, Height, Tree count, area of sample plot
	Strata	No of PSPs	VVB Acceptance sampling number (pro-rata divided based on weighted area)	
	Pure teak	167	06	
	Cocoa	109	04	
	Protected area	47	03	
		34		
	Individual teak tree	936	06	
Total				357 PSPs + 936 Individual trees
				13 PSPs + 06 Individual trees

ASP: Acceptance Sampling

Table 3: Audit team

S.No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of VCS Validator and Verifier or Outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Findings preparation
1.	Team Leader /Technical Expert	IR	Kapoor	Isha	CC IPL	×		×	×
2.	Technical Expert/ Verifier	IR	Angulo	Pablo	CC IPL	×	×	×	×
3.	Trainee Assessor	IR	Redkar	Pranav	CC IPL	×			×

Technical reviewer and approver of the Verification report

S.No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of VCS Validator and Verifier or Outsourced entity)
1.	Technical Reviewer	IR	Singh	Vikash Kumar	CC IPL
2.	Approver	IR	Anand	Amit	CC IPL

Table 4: VCS Verification time frame:

Milestone Description	Time
Date of contract signing with the VVB	23 rd August 2024
Submission of requisite documents to the VVB	04 th October 2024
VV plan sent to PP	10 th October 2024
Onsite visit	10 th October 2024 to 13 th October 2023.
DVR and Findings submission to PP	17 th October 2024

2.2 Document Review

During the document review, CC IPL has applied standard auditing techniques to assess the quality of information provided. The verification is performed primarily based on the review of the VCS MR^{02/} and the supporting documentation^{01-13/}.

For verification, this process includes:

- A review of data and information presented to verify completeness and consistency in accordance with VCS Standard (version 4.7)^{B01/} and AR-ACM0003 (version 02.0) requirements^{B01/}.
- A review of the current monitoring report^{02/} and monitoring methodology^{B01/}, paying particular attention to the applicability conditions of the methodology, baseline and additionality related requirements
- A review of the monitoring plan and the project's compliance with relevant VCS criteria.



Figure 1. Onsite inspection & interviews

2.3 Interviews

The table below describes the on-site inspection interview^{/table15-i01-i15/} process and further identifies personnel, including their roles, who will interview and/or provide information additional to that provided in the VCS MR^{/02/} and supporting documents^{/01-13/}.

During the on-site inspection^{/table15-i01-i15/}, the following stakeholders will interview

- Project proponent,
- Stakeholder members
- Chief/ head of the village and
- Community members

Table 5 : Project representatives and stakeholders interviewed:

S.no	Interview			Date	Subject	Team Member
	Last name	First name	Affiliation			
/i-01/	Ruiz	Ana	MLR Forestal	10 th October 2024 - 12 th October 2024	Head of Environmental office and Certifications	PA
/i-02/	Hernandez	Jaime	MLR Forestal	10 th October 2024- 12 th	Head of Cartography	PA

				October 2024		
/i-03/	Sequeira	Ariel	MLR Forestal	10 th October 2024-12 th October 2024	Head Monitoring and measurements Office	PA
/i-04/	Lopez	Luis	MLR Forestal	10 th October 2024-12 th October 2024	Head ESMS department	PA
/i-05/	Domke	C.	MLR Forestal	10 th October 2024-12 th October 2024	General Manager	PA
/i-06/	Jiron	Candis	MLR Forestal	10 th October 2024-12 th October 2024-	HHRR Head Office	PA
/i-07/	Lazo	Mabel	MLR Forestal	10 th October 2024-12 th October 2024	Social management office	PA
/i-08/	Talavera	Scarleth	MLR Forestal	10 th October 2024-12 th October 2024-	Payroll management	PA
/i-09/	Maldonado	Elizabeth	Empalme Community Leader	10 th October 2024	-Social work plan participation -Annual community assembly participation	PA

					-Community Engagement Plan participation -Grievance mechanism -Community Benefits, risk, cost.	
/i-10/	Valdivia	Jorleni	Empalme La Bu Community Leader	10 th October 2024	-Social work plan participation -Annual community assembly participation -Community Engagement Plan participation -Grievance mechanism -Community Benefits, risk, cost.	PA
/i-11/	Solano	Ana	Union La Bu Community Leader	10 th October 2024	-Social work plan participation -Annual community assembly participation -Community Engagement Plan participation -Grievance mechanism -Community Benefits, risk, cost.	PA
/i-12/	Cerna	Yelia	Union La Bu Community member	10 th October 2024	-Social work plan participation -Annual community assembly participation -Community Engagement Plan participation -Grievance mechanism -Community Benefits, risk, cost.	PA
/i-13/	Rivera	Maximino	Workers	12 th October 2024	-Grievance procedure -Training -SOPs	PA
/i-14/	Espinosa	Santana	Workers	12 th October 2024	-Grievance procedure -Training -SOPs	PA

/i-15/	Deysi	Lopez	Workers	12 th October 2024	-Grievance procedure -Training -SOPs	PA
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PA – Pablo Angulo



Figure 2. Onsite pictures with community leaders & member and MLR monitoring Forest team.

2.4 Site Visits

The verification on-site inspection^{/table15-i01-i15/} was conducted from 10th October 2024 to 13th October 2024.

Sampling/Verification Plan

To ensure a complete, transparent and timely execution of the verification task, the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion. Various tools have been established to ensure effective assessment planning.

Step 1- Identification of Materiality threshold

As per section 4.1.8. of VCS Standard (version 04.7),

“The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG carbon removals and/or removals shall be five percent for projects and one percent for large projects”.

Table 6: Materiality threshold

Applicable threshold level	Threshold	Category
□	1 %	Large projects: Carbon removals or removals for registered large scale project activities achieving a total removal more than 300,000 tonnes of CO ₂ e

		per year
☒	5 %	Projects: Carbon removals or removals for registered small-scale project activities achieving total removal of less than or equal to 300,000 tonnes of CO ₂ e per year

As per the VCS PD published for GSC, the GHG removals from the project have been estimated as <300,000 tCO₂e/year. Hence, the applied materiality threshold would be 5%.

Step 2- Identification of risks, their level and assessment

Based on the risk analysis the verification has been planned in accordance with the latest applicable version of Guideline: “Application of materiality in verifications”. The risk assessment has been used in developing the verification and evidence-gathering plans. Any input into the risk assessment shall be recorded.

The risk assessment output may address how the verification is planned with respect to the following:

- GHG emissions SSRs.
- boundaries.
- data management details.
- management controls.

Table 07: Identification of risks, their level and assessment

No.	Risk that could lead to material errors, omissions, or misstatements	Assessment of the potential risk		Assessment of the records/information/interview with personnel to check controls/mitigation measures
		Risk level	Justification	
1.	Raw data generation Raw data generation including sampling approach, Implementation of monitoring procedures,	High	Inadequate implementation of monitoring procedures including the sampling plan/equations of sampling standard, errors in sampling size other sampling plot data, change of personnel,	The risk has been mitigated by reviewing the raw data sheets and cross-checking the same with the carbon calculation spreadsheets and VCS MR.

	mal operation by operational personnel, change of monitoring procedures, Insufficient accuracy, change of technology, Accuracy of values supplied by Third Parties.		undetected measurement errors, inappropriateness of management system procedures in Compliance with VCSA Principles and Requirements v1.2, non-application of management system procedures, inappropriate QA/QC measures of third parties etc.	
2.	Data collection, Transposition and aggregation/ Data and Information Flow Wrong data transfer from raw data aggregated reporting forms in both logbooks and electronic formats, lab analysis data, IT Systems, spread sheet programming, Manual data transmission, Data protection Responsibilities, Data transfer to the author of the monitoring report, Data transfer to the monitoring report, Unintended use of	High	Unintended usage of old/obsolete data, Incomplete documentation, Ex post corrections of records, Ambiguous sources of information, non-application of management procedures, mistakes during manual data transfer, Unintended change of spread sheet programming or data base entries, Problems caused by updating/upgrading or change of applied software.	The risk has been mitigated by reviewing the raw data sheets and cross-checking the same with the carbon calculation spreadsheets of VCS monitoring report.

	outdated versions of monitoring report as per the template prescribed by VCS.			
3.	Calculation Methods Applied formulae Miscalculation and errors in spreadsheet calculation.	Medium	Risk due to miscalculation of applied formulas.	The risk has been mitigated by reviewing the raw data sheets and cross-checking the same with the carbon calculation spreadsheets, of VCS monitoring report.
4.	Project Implementation & Operation Data from sample plots including coordinates of sample plots, cross-check of raw data, cross-check of management system manual, cross-check of carbon calculation sheet data including area, check of trainings, check of responsibilities, check of QA/QC documentation.	Medium	Risk due to miscalculation of applied formulas.	The risk has been mitigated by reviewing the raw data sheets and cross-checking the same with the carbon calculation spreadsheets, of VCS monitoring report.

2.5 Resolution of Findings

The objective of the verification is to resolve any outstanding issues (issues that require further elaboration, research or expansion) which have to be clarified/corrected prior to final VVB's conclusions on the project's baseline, monitoring plan from the VCS MR^{/02/} and subsequently the project implementation, monitoring practices and Material discrepancies identified during the verification are addressed either as CARs, CLs or FARs ^{/APPENDIX 4: FINDINGS LOG/}.

Corrective Action Requests (CAR) are issued, where:

- ✓ mistakes have been made with a direct influence on project results requiring adjustments of the VERs in monitoring report.
- ✓ applicable methodological specific requirements have not been met.

A Clarification Request (CL) are used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

A Forward Action Request (FAR) has been issued, where:

- ✓ the actual project monitoring and reporting practices requires attention and /or adjustment for the consecutive verification period, or
- ✓ an adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high-quality GHG removals in the future, i.e., by deviations from standard procedures as defined by the MP. Therefore, such aspects should receive a special focus during the consecutive verification. A FAR may originate from lack of data sustaining claimed GHG removals

The VVB on every issue raised during the verification process has used the table format given below:

CAR/CL/FAR	Section no.	Date:
Description of CAR/CL/FAR		
PP response		Date:
Documentation provided by PP		
VVB assessment		Date:

A total of 00 FAR, 07 CARs, and 14 CLs had been raised. Please refer to APPENDIX 4: FINDINGS LOG below for the details of the FARs/CARs/CLs.

2.5.1 Forward Action Requests

No forward action request (FAR) has been raised during the current verification. Furthermore, VVB has Identified 2 FARs raised during previous monitoring; However, VVB has evaluated the supporting documentation provided by PP regarding these two FARs and found sufficient and satisfactory evidence. Therefore, the FARs have been closed. Please refer to APPENDIX 4: FINDINGS LOG below for the details of the FARs.

According to FAR 1 “Based on the VERRA review process, the VVB shall interview a larger proportion of stakeholders in the next verification. If by the next verification Verra has not provided more specific guidance on community sampling, and the CDM guidance is not

appropriate, it is expected that the VVB will consult Verra regarding appropriate sample sizes i.e. the proportion of stakeholders to be interviewed” During onsite inspection^{/table15-i01-i15/}, The Periodic verification team of the VVB has used Raosoft (<http://www.raosoft.com/samplesize.html>), an online survey software tool for calculating sample size by using precision level, confidence level and response distribution for determining the sample size. VVB team has opted for 10% margin of error and 90% confidence level in determining the VVB’s sample size. The total permanent sample selected by PP i.e., 357 sample plots. Accordingly, VVB team plan to take 13 samples from the designated project region included under the project activity for the reported monitoring period with pro-rata sample size calculated based on weighted area multiplied by the VVB sample size. Moreover, PP has taken an individual tree approach for monitoring teak plantations between cocoa. The VVB team has opted for a 15% margin of error and 90% confidence level in determining the VVB’s sample size. The total permanent sample selected by PP i.e., 936 sample plots. Accordingly, the VVB team plans to take 06 samples from the designated project region included under the project activity for the reported monitoring period with pro-rata sample size calculated based on weighted area multiplied by the VVB sample size. Hence, the total VVB sample size is taken as 13 plots and 6 individual trees. VVB interviewed available stakeholders, team members of MLR forestal, community leaders, members and workers. This process comprehensively includes stakeholders involved in the project hence VVB affirms onsite interviews^{/table15-i01-i15/} were found sufficient to close FAR 01.

FAR 02, was raised for LTA calculations, “The PP shall calculate the long-term average at the project level or according to whatever guidance is available at the time of the next verification.” VVB confirms PP has calculated LTA based on both Ex-ante and Ex-post. Considering LTA calculations apply only to pure teak and cocoa-teak plantations, LTA was calculated based on those values. The estimated LTA was expected to reach by year 16, comparing this to the Ex-post LTA, which was based on current monitored data, the LTA value is expected to be reached by year 17, considering the land transfer due to non-eligibility, revised rotation period and monitored values the difference in achieving LTA is acceptable. Therefore, VVB confirms FAR 02 is closed.

2.6 Eligibility for Validation Activities

The project activity falls under sectoral scope 14/14.1 and the CCIPL is accredited for validation and verification of project activities under this scope. Additionally, CCIPL has only undertaken the verification process as This is the 2nd periodical verification of the VCS project and it has already completed its 1st joint validation and verification and registered on the VCS platform on 2nd May 2022. The joint validation and 1st periodical verification was conducted by RINA Services S.p.A. As per VCS Standard 4.7, clause 4.1.27 point “1) *Initial validation and the first verification of a project may be undertaken by the same validation/verification body. However, the subsequent verification shall be undertaken by a different validation/verification body.*”

3 VALIDATION FINDINGS

3.1 Methodology Deviations

Based on the review of registered VCS PDMR and current MR^{02/}, VVB confirms that PP has taken deviation from applied methodology, there is a deviation from the applied methodology, the project has changed the sampling method used for sampling teak trees in teak-cacao agroforestry systems by individual tree sampling system methodology.

Impact of the Deviation:

- **Sampling density:** The alternative method maintains a high sampling density. Every 33rd tree is sampled, which covers 3% of the entire teak population, ensuring that the sample size is robust.
- **Conservativeness:** The deviation does not reduce the conservativeness of the GHG emission removals quantification, as the systematic method still captures sufficient data to make reliable estimates.

According to clause 3.20.1 of VCS standard 4.7, “*Deviations from the applied methodology are permitted where 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).*”

Hence, VVB confirms that deviation taken by PP did not change data and parameters. PP has deviated from the conventional permanent sampling plot method to systematic sampling where trees are counted from the west and each 10th tree and from that tree every 33rd tree is sampled from the entire plot. Data and parameters monitored, such as DBH, height will remain the same.

According to clause 3.20.2 of VCS standard 4.7, “*Methodology deviations shall not negatively impact the conservativeness of the quantification of reductions or removals, except where they result in increased accuracy of such quantification. Deviations relating to any other part of the methodology shall not be permitted.*”

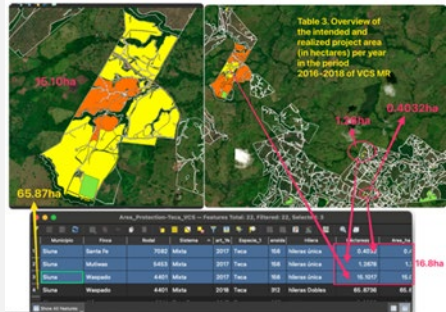
Upon review of the Ex-post carbon calculation spreadsheet^{03/}, VVB confirms that the deviation does not impact the conservativeness of quantification, for example, if a plot has 100 trees, trees no.10, 43 and 76 will be sampled, resulting in a sample size of 3% of the total population with higher representativity covering entire plot.

VVB confirms that the alternative method is well-justified due to the structure of the agroforestry system, and it offers a consistent and representative sampling of the teak trees. Since the sampling density is not compromised and the representativity is likely improved, VVB confirms that the deviation does not negatively impact the project's goals, particularly in terms of conservativeness for GHG removals.

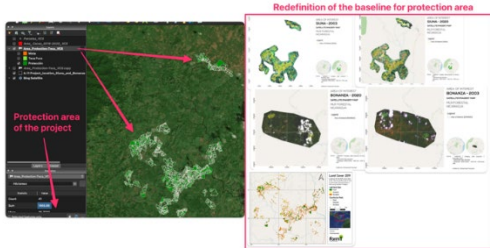
3.2 Project Description Deviations

As per the VCS MR^{/02/}, PP has requested for few deviations. VVB has assessed these deviations by conducting a detailed review to ensure they do not affect the overall integrity and credibility of the project with respect to the applied methodology as well the registered PD. The deviations, the reason for the deviation and the VVB assessment are detailed in the below table:

Table 08: Project Description Deviations

Project Aspect	Deviation ^{/02/}	Reason for Deviation ^{/02/}	Assessment
Area Deviation	There is a difference between the planned area (2,315.71 ha) and the actual managed area (2,286.3 ha), with specific shifts in teak and agroforestry areas and a reallocation of some land to indigenous communities.	Factors like hurricane damage, transfer of land unsuited for teak cultivation to protected areas for natural regeneration, and land transfer to indigenous communities led to these deviations.	PP has provided a revised area distribution in MR. upon review of values provided in MR, carbon calculation sheet. Based on the review of GIS files^{/07/}, VCS PD^{/01/} and VCS MR^{/03/}, VVB confirms that this deviation is justified and does not negatively impact to project applicability or adherence to the methodology. The figure below shows the reported change, and its verification based on the GIS files^{/07/}. 

Planting Density of Pure Teak	The registered PD has specified one density regimen (625 trees/ha), but three regimens were used instead (625 trees/ha, 500 trees/ha, and 312 trees/ha for mixed agroforestry areas).	The adjustment was made due to the fast growth of teak in the area and unsuitable soil for cacao in some areas.	The introduction of varied planting densities seems to be justified considering the growth patterns. VVB has further verified the appropriateness of the adjustments made in carbon calculations ^{/03/} and confirms that this deviation does not negatively impact the project's applicability or adherence to the methodology. Further considering the tree growth, PP has selected density as 500 trees/ha after 1 st harvest for uniform distribution ^{/08/} .
Planting Density of Teak-Cacao	Three planting regimens for teak-cacao were implemented: single rows in old and new cacao, and double rows in new cacao.		VVB confirms that his deviation is justified as that the new design is consistent with project objectives, The regime now excludes the area between the double rows of teak due to the absence of cacao planting. This adjustment results in a lower effective area for cacao cultivation. and this has been further confirmed through on-site inspection ^{/table15-i01-i15/} cross verification of monitored data ^{/09/} and review of carbon calculation spreadsheet. ^{/03/}
Lowered Rotation Time for Teak	The rotation period was reduced from 20 to 18 years, with an additional rotation round added.	This change is due to the excellent growth of teak in the project area.	Due to the change in rotation period, the project's longevity remains unaffected. VVB upon review of the carbon calculation sheet ^{/03/} confirms that PP has demonstrated 3 rotation periods till the 54 th year. VVB confirms that his deviation is justified and does not negatively impact to project applicability or adherence to the methodology.

Adjusted LTA outcomes	Adjustment of rotation length from 20 to 18 years	To reflect actual field practices and enable modeling of three harvest cycles over 54 years instead of two over 40 years. Justified in Section 3.2.2 of the Monitoring Report.	VVB confirms recalculated LTA is based on current monitored values, traceable to ER calculation sheet ^{03/} , and conservatively estimated. The deviation is transparently documented and maintains the integrity of GHG accounting. VVB confirms that his deviation is justified and does not negatively impact to project applicability or adherence to the methodology.
Redefinition of the Baseline for Protection Areas	A new baseline map shows areas previously identified as pasture and fallow now classified as secondary forest due to better remote sensing data.	Correction to PD	Based on the review of GIS files ^{07/}, VCS PDMR^{01/} and VCS MR^{02/}, VVB confirms that this deviation is justified and does not negatively impact the project applicability or adherence to the methodology. The figure below shows the reported change, and its verification based on the GIS files^{07/}. Further, review of the GIS files^{07/} and steps demonstrated by PP to stratify the conservation area VVB confirms that accuracy was increased due to the use of high-resolution imagery, resulting in redistribution % of the identified baseline in conservation/protected area. this deviation is justified and does not negatively impact project applicability or adherence to the methodology. 
Assisted Natural	The PD incorrectly stated that	Correction to PD	PP stated that due to drafting error, PD includes pure teak, agroforestry of cocoa

Regeneration (ANR)	ANR was being applied to pure teak and agroforestry stands, while it was only being applied to protection areas.		and teak under ANR. VVB identifies the correction as valid and appropriate ^{/08/} .
Smallholder Certification	The PD incorrectly stated that the project proponent supports smallholder certification, when it is limited to technical assistance.	Correction to PD	This is a minor deviation and more of a misstatement rather than a material change. It does not affect the baseline or the applicability of the methodology.
Chemical Treatments	Contrary to what was foreseen, the project avoids chemical treatments, only using herbicides for weed control in small volumes.		VVB confirms that the shift towards zero chemical treatments is positive from an environmental standpoint and aligns well with VCS Safeguard requirements. VVB during the onsite visit ^{/table15-i01-i15/} observed herbicides in smaller volumes. This does not negatively impact the project's alignment with the methodology and is acceptable.
Monitoring in protection area	In the protection area, only the tacotales and pasture land were	Measurement was not undertaken due to time constraints and cost-ineffectiveness, as the remnant	VVB confirms that carbon from the remnant forest is not claimed in this monitoring period. The deviation is transparently documented and conservatively applied.

	measured and remnant forest is temporarily excluded.	forest is time-consuming to assess and offers low carbon gain.	
Monitoring in agroforestry teak and cacao area	The old cacao agroforestry stands with teak in the distanced Bonanza are not monitored and temporarily excluded.	Measurement was not undertaken due to time constraints and cost-ineffectiveness, with visual inspection indicating limited growth.	VVB confirms that these stands are excluded from monitoring in this round. The deviation is justified, traceable, and conservatively applied to ensure integrity of reported emission reductions.

Based on the above assessment, VVB confirms that none of these deviations appear to invalidate the application of the VCS methodology^{/B01/} or undermine the appropriateness of the baseline scenario and additionality.

3.3 New Project Activity Instances in Grouped Projects

There is no new project activity instance during the monitoring period.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No.

4 VERIFICATION FINDINGS

4.1 Project Details

Based on the review of the VCS MR^{/02/} and verified during the on-site inspections^{/table15-i01-i15/}, VVB confirms that the project involves a teak plantation, cocoa-teak agroforestry system and protected areas which were pasturelands and shrublands with scattered trees in pre-

project scenario and have been subject to assisted natural regeneration interventions, including enrichment planting.

The VCS project falls under the category of Afforestation, Reforestation and Revegetation (ARR) and is a grouped project. It has been developed under the VCS sectoral scope 14: Agriculture, Forestry and Other Land Use (AFOLU) under CDM methodology AR ACM0003 v2.0^{/B01/}.

Furthermore, VVB confirms that the project does not include a REDD+ component, as carbon credits are derived exclusively from sequestration through restoration rather than avoided deforestation or degradation. VVB has reviewed the document for national ENDE-REDD+ Program⁷ in Nicaragua and confirms that ARR projects are not automatically subject to Jurisdictional and Nested REDD+ Requirements unless the host country mandates nesting for all land-based carbon projects. Nicaragua's REDD+ strategy does not impose such a requirement.

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	VVB confirms that this is the 2 nd periodic verification of the VCS project. The project has undergone joint validation and verification for the period of 01-July-2016 to 01-March-2021 and successfully registered on the VCS platform on 2 nd May 2022, which resulted in 15,912 VCUs eligible for issuance. The current monitoring period is 2 nd monitoring period, with data monitored for time period: 02 March 2021 to 31-August-2024, this is due to unverified areas from the last verification.
Double counting and participation under other GHG programs	Based on a review of VCS MR ^{/02/} , and through own research in registries, VVB confirms that the project is being already validated and registered on verra registry. The issuance of VCUs will ensure the avoidance of double counting as the credits generated from the project will be sold as offsets on VCS registry publicly, the series number of the issued credits can be tracked to avoid any potential double counting.
No double claiming with emissions trading programs or	Based on a review of VCS MR ^{/02/} , Web review VVB confirmed that Nicaragua does not have its own voluntary or regulatory program or scheme that allows for trading in GHG credits or allowances such as an emission trading program including cap-and-trade emission trading schemes. VVB confirms that the project is not included under any emissions trading program or binding emission limits.

⁷ Estrategia ENDE -REDD+ 2018 -2040 <https://faolex.fao.org/docs/pdf/nic222577.pdf>

binding emission limits	
No double claiming with other forms of environmental credit	Based on a review of VCS MR ^{/02/} and during on-site VVB confirms that the project does not claim with other forms of environmental credit. PP is certifying plantations as per the FSC and Rainforest Alliance, FSC certification is a mark of responsible forestry and sustainable practices ⁸ that helps consumers identify sustainable products, it does not involve carbon or any other environmental credit. Hence VVB confirms there is no double claiming with any other form of environmental credit.
Supply chain (scope 3) emissions double claiming	Based on a review of VCS MR ^{/02/} , supporting declaration and interviews during the on-site visit ^{/table15-i01-i15/} , The VVB confirms that the project does not affect the emissions footprint of products in the supply chain, including those associated with timber harvesting activities. This conclusion was drawn based on a review of the supply chain emissions statement published by the PP, which is available at <u>"MLR Forestal y la importancia de la certificación Verified Carbon Standard (VCS) - MLR"</u> . The statement outlines the PP's assessment of upstream and downstream emissions impacts and indicates no material change attributable to the project activities.
Sustainable development contributions	Based on a review of VCS MR^{/02/}, on-site visit and supporting documentation^{/11/}, VVB confirms that the project presents evidence that the project has promoted formal employment with gender equality, implemented a social investment plan, implemented a sustainable livelihood through agroforestry practices for cacao production. Taken measures to conserve and protect as well as regrow vegetation through assisted natural regeneration of protected areas. The project has implemented the activities that result in the SDG contribution described in section 1.12 of the current monitoring report. SDG 1: No Poverty (SDG Target 1.1 & SDG Indicator 1.1.1) VVB has reviewed employment records, and VVB confirms that the project has implemented 538 long-term jobs, based on the review of employee files and employment records from 2016 to 2024^{/11/} provided by PP. PP further provided a reference for the legal minimum salary for agriculture and confirmed that PP complied with the host country's legal minimum wage according to the ILO

⁸ FSC Certifications Explained and Benefits | Ellspo Eco

Convention. Additionally, PP provided evidence of additional benefits granted to employees, aiming to generate living wages and improve their living conditions. Further during the Onsite visit^{/table15-i01-i15/}, VVB physically verified employment contracts and salary slips. Documents^{/11/} were found appropriate.

SDG 8: Decent Work and Economic Growth

(SDG Target 8.3 & SDG Indicator 8.3.1)

VVB confirms the project is positively contributing to decent work and economic growth. VVB has reviewed employment records and confirms that the project has provided job opportunities. Based on the review of employee files and employment records from 2016 to 2024 ^{/11/} provided by PP, VVB confirms the employment was provided to both men and women. without differentiation in wages or conditions based on gender 100% of the workforce is under an indefinite-term contract. PP also provided a reference for the legal minimum salary for agriculture and confirmed compliance with the host country's legal minimum wage according to the ILO Convention, VVB confirms that salaries are above the legal minimum of the agricultural sector. Additionally, PP provided evidence of extra benefits granted to employees, aiming to generate living wages and improve their living conditions. During the onsite visit^{/table15-i01-i15/}, VVB physically verified employment contracts and salary slips, the documents^{/11/} were found valid and appropriate. This promotes decent work and economic growth in the project area.

SDG 12: Responsible Consumption and Production

(SDG Target 12.6 & SDG Indicator 12.6.1)

VVB reviewed the FSC certification report^{/11/}, the Rainforest Alliance annual report, and the audit report. These documents confirm that PP adheres to the requirements and guidelines of the certifications. Therefore, VVB confirms that the project contributes to SDG 12: Responsible Consumption and Production. on-site inspection/interviews ^{/table15-i01-i15/}, verifies that the project effectively presents to the community and stakeholders an annual report summarizing the technical, economic and sustainability management of the project. Consequently, VVB confirms the appropriateness of SDG 12.

SDG 13: Climate Action

(SDG Target 13.0)

Considering the project involves afforestation, reforestation, and revegetation, the project involves assisted regeneration of a protected area. The current monitoring period includes an additional 53.4 hectares of pure teak plantation.

	A total area of 2,286.3 hectares has been planted so far, resulting in a total of 82,834 tCO₂e as demonstrated in the carbon calculation sheet. VVB confirms the appropriateness of SDG 13, VVB, reviewed ex-post carbon calculation spreadsheet^{/03/}, and on-site inspection/interviews ^{/table15-i01-i15/}, verifies that the project effectively by the activity. VVB confirms project activity contributes to SDG 13: climate action. SDG 15: Life on Land SDG Target 15.1 & SDG Indicator 15.1.1 and 15.1.2) The project is positively contributing to SDG 15: life on land. According to the distribution mentioned by PP, 1466.7 Ha are under protected areas, which are regenerated through assisted natural regeneration. This will increase biodiversity and ecosystem resilience. The project is located in tropical climatic conditions hence project is contributing to an increase in terrestrial tropical moist deciduous forest. Upon review of SDG monitoring documents^{/11/} and review of VCS MR^{/02/}, GIS files^{/07/} and Ex-post carbon calculation spreadsheet ^{/03/}, VVB confirms project contributes to SDG 15.
Additional information relevant to the project	Based on the review of supporting documents provided by PP^{/01-13/}, VCS MR^{/02/} and through on-site inspection^{/table15-i01-i15/}, VVB confirms that not commercially sensitive information has been excluded from the public version of the project description.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Based on the review of VCS MR^{/02/}, VVB confirms that stakeholder identification has not been change since validation and verification project.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	Based on the review of VCS MR ^{/02/} , community engagement documents ^{/05/} and On-site inspection/interviews ^{/table15-i01-i15/} , VVB confirms that stakeholder identification has not been changed since validation and verification project.

Legal or customary tenure/access rights	VVB, based on the review of the land ownership titles during on-site inspection/interviews ^{/table15-i01-i15/} confirms that there are no conflicting rights identified in the project area.
Stakeholder diversity and changes over time	VVB, based on the on-site inspection/interview ^{/table15-i01-i15/} , through the review of VCS MR ^{/02/} confirms that there has been no change in stakeholders over the time since the validation and verification project.
Expected changes in well-being	Based on on-site inspection & interviews ^{/table15-i01-i15/} , VVB concludes that the project has been properly designed and implemented, supporting the community by generating direct and indirect employment ^{/11/} and contributing to climate change mitigation ^{/03/} . Therefore, VVB confirms that the project has no negative impact on local stakeholders and has the necessary mitigation plan in place for any risks that may arise in the future.
Location of stakeholders	VVB, based on the GIS files ^{/07/} , and on-site inspection/interviews ^{/table15-i01-i15/} , confirms that the location of stakeholders is the present project area in districts of Siuna and Bonanza.
Location of resources	VVB, based on the GIS files ^{/07/} , and on-site inspection/interviews ^{/table15-i01-i15/} , confirms that the current project is being implemented in district of Siuna and Bonanza in Northeast of Nicaragua.

4.2.2 Stakeholder Consultation and Ongoing Communication

Between 2022 and 2023, MLR Forestal conducted sustained stakeholder consultations through mass community assemblies, targeted outreach to indigenous territories, and bilateral engagements with neighbouring landowners. Assemblies held in April each year engaged over 350 participants and featured transparent communication on certifications, biodiversity metrics, and grievance procedures. Indigenous communities, particularly the Mayangna Sauni Arungka Matumbak and Sauni As were consulted via tailored plans and governance-respecting sessions across multiple months, with records maintained via signed *actas*⁹ and operational plans. Monitored results, including biodiversity indices and water quality, were shared through

⁹ In MLR's case, each assembly generated an *acta* signed by attendees and community leaders, confirming transparency, consensus, and validation of proceedings. These signed *actas* serve as verifiable evidence of engagement

educational initiatives and community meetings. All consultations were carefully documented and incorporated stakeholder input ranging from grievance resolution to infrastructure requests, ensuring responsive and inclusive project governance.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	Based on the review of VCS MR^{/02/} and on-site inspection & interviews^{/table15-i01-i15/}, VVB confirms that project proponent had been in constant interaction with the communities and their leaders, this fact has been evidenced with the records of meetings^{/05/} done during this monitoring period. MLR Forestal sustained a proactive and structured approach to stakeholder consultation throughout 2022 and 2023, embedding community dialogue, grievance responsiveness, and transparency into its sustainability operations. The organization carried out ongoing consultations with both neighbouring mestizo communities in Siuna and indigenous territories in Bonanza through mass assemblies, household visits, targeted workshops, and institutional engagements. Over 100 community visits were documented in 2022 alone, aimed at maintaining close, regular contact with local leaders, educators, religious figures, and government entities. These efforts were complemented by capacity-building sessions, environmental education programs, and bilateral coordination meetings with landowners whose properties adjoin MLR's holdings. • The main points covered during the visit and meeting with community members were: dissemination of community complaints procedure, evaluate and address, signing of agreements, characterization of the population and social activity as part of social program, measurement of boundaries, project activity (inform the communities about the wood extraction and harvesting activity) and community reforestation campaigns and talks and training about relevant topic for the community (emergency attention, community complaints, school dropout forecast and Women's leadership training and Climate Change). • The main points addressed during the assemblies with the community members were: brief presentation of the MLR, community agreements, community complaints procedure, disclosure of the social program and carbon sequestration

	certification, call for jobs and benefits of working in the MLR, identification and ratification of leaders representing the entire community and various points proposed by the community, disclosure of biodiversity management programs, local employment and living wage plan and disclosure of the public summary of the annual forest management plan.
Date(s) of stakeholder consultation	Based on the review of VCS PD ^{/01/} , VCS MR ^{/02/} , on-site inspection & interviews ^{/table15-i01-i15/} and records of stakeholder consultations ^{/05/} , VVB confirms that stakeholder consultation had been conducted between December 2020 and February 2021, furthermore, stakeholder consultation is a continuous process for the project policies and had been evidenced along the project lifetime and current monitoring period. The primary dates of stakeholder consultations were aligned around community assemblies. In 2022, these occurred between April 18 and April 22, across the communities of Unión La Bú, Empalme La Bú, San Miguel 1, Bethel 2, and landowner groups from Mutiwás, Tadazna, and Waylawas. These were mirrored in 2023 with comparable dates and structure, emphasizing continuity. For indigenous territories, multiple sessions were reported throughout the year particularly in May, July, October, and November 2022 including territorial assemblies in Ispayul-ilna and Sakalwas as part of ongoing cooperation frameworks.
Communication of monitored results	Based on the review of VCS MR ^{/02/} , on-site visit and supportive documents ^{/05/} , VVB confirms that the project proponent shares a annually public summary of forest monitory and forest management plan ^{/08/} with the communitarian leaders as part of continuous communication policies of the project, where the project proponent inform to the communitarian about the results of all implemented plan and agreements engaged with the community. MLR also emphasized the communication of monitored results, particularly regarding biodiversity assessments, water consumption, and grievance resolution. These were shared with stakeholders via assemblies, instructive materials, presentations, and bulletins. For instance document "A17c Informe Anual Desarrollo Sostenible 2022" mentions, biodiversity indices (Shannon-Wiener) and species conservation records were communicated during school activities and local meetings, enabling communities to understand the ecological impact of forestry activities. Similarly, information about water quality and

	consumption levels from wells (Danlí, Mutiwás, Labú, Waspado) was summarized and disclosed in environmental education sessions, reinforcing transparency. Communities were briefed on the results of macroinvertebrate water assessments and advised on safety protocols for chemical applications.
Consultation records	Based on the review of VCS MR ^{/02/} , the on-site visit ^{/table15-i01-i15} confirms that comprehensive consultation records were maintained. Each community assembly generated signed actas confirming leader ratifications, attendance logs, and summaries of issues addressed. For example, the 2022 assemblies documented participation of 350 individuals and the formal ratification of 44 community leaders. In indigenous territories, separate minutes were recorded for each session, including input on the transfer proposals of Finca Miranda. MLR also maintained databases for community censuses, grievance tracking, donor support, and biodiversity monitoring. These records provided structured evidence for compliance ^{/11/} with FSC, VCS, IFC, and Rainforest Alliance standards.
Stakeholder input	Based on the review of VCS MR ^{/02/} , on-site visit and supportive documents ^{/08/05/} , VVB confirms that the project proponent updates annually the community engagement plan based on results obtained from the following up of communitarian assemblies. Grievances are also recorded with grievance protocol in place ^{/06/} . MLR annual reports ^{/05/} and Grievance records show meaningful contributions from community leaders, landowners, indigenous authorities, and workers. In 2022, community grievances and worker complaints were formally registered, covering topics such as land boundary disputes, infrastructure issues, transportation, and workplace conditions. Community leaders also shared feedback during assemblies, requesting improvements in signage, road safety, access to emergency training, and transparency in employment practices. Indigenous authorities co-authored annual operational plans, selected institutional logos, and negotiated infrastructure support (e.g., computers, printers) as part of cooperative frameworks. Input from local universities further shaped MLR's strategy around education and agroforestry research. The documented resolution rate of grievances and integration of local feedback into operational changes points to a consultative model rooted in responsiveness and mutual respect.

Based on the VVB review and on-site inspection & interviews^{/table15-i01-i15/}, the VVB confirms that MLR Forestal demonstrated transparent and proactive stakeholder communication prior to each validation and verification event. This included structured assemblies and outreach activities where project design, biodiversity monitoring results, water consumption metrics, and grievance redress actions were shared with affected communities using accessible formats and visual materials^{/05/}. The VVB concludes that stakeholders were appropriately informed of project risks, benefits, and the socioeconomic implications of agroforestry operations. Benefit-sharing mechanisms with indigenous territories, ongoing FPIC procedures, and dissemination of national labor regulations were observed and deemed consistent with VCS requirements. Furthermore, the VVB validated that communities were briefed on the validation/verification process, including the role and schedule of the VVB itself, with evidence supported by signed actas and extensive documentation. These findings support the conclusion that MLR Forestal complies with stakeholder engagement protocols outlined in the VCS Program.

4.2.3 Free, Prior, and Informed Consent

No new PAIs are added during the current monitoring period, Project is already validated and registered. The area involved in the current verification was already validated during 1st joint validation verification of the project. Further considering the project is implemented on lands owned by MLR Forestal de Nicaragua S.A. which is also PP for this project.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	NA
Outcome of FPIC discussion	NA

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	Based on the review of VCS MR ^{/02/} , on-site visit ^{/table15-i01-i15/} and supporting documentation ^{/06/} , substantial number of grievances have been registered during the current monitoring period, most of the received grievances are from community and employees; all received grievances has been tracked and resolved according to the approved grievance procedure. Grievances are described in table below.

Grievance redress procedure	Based on the review of VCS MR ^{/02/} , on-site visit ^{/table15-i01-i15/} , and supportive documents ^{/06/} provided by project proponent, VVB confirms that project proponent maintains a grievance register ^{/06/} and stakeholders are free to voice grievance regarding to the project activity, furthermore, the grievance redress procedure that led to the project proponent to manage efficiently all grievance raised from stakeholders in the project.
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Grievances received	Resolution and outcome	VVB assessment
2021		VVB during the onsite visit ^{/table15-i01-i15/} discussed this with PP's team as well as community members. VVB also reviewed policy documents ^{/12/} . VVB confirms grievances were documented well along with actions taken to resolve them. VVB upon review of community engagement documents ^{/05/} confirms that issues were discussed during community meetings. VVB confirms received grievances were appropriately resolved. To address identified problems regarding sexual harassment, VVB has raised findings to explain in detail the procedure and steps taken to address this issue. VVB reviewed following ^{/12/}
From communities: 2 grievances Worker's misbehaviour with community members	HR took up the case, reviewed the facts and got in direct communication with the workers involved. Talks on better driving behaviour was given.	
From communities: 1 grievance About an unpaved trail in a farmer's property	Operations and Forestry teams reviewed the case, had multiple visits, which result in the farmer accepting a non-founded grievance.	

From communities: 1 grievance About a dead animal on the project trail	Management team took up the case; agreement reached with the parties.	- Guideline for reporting sexual harassment (file Instructivo para denunciar acoso) - Procedure for assessing and addressing (file Procedimiento para evaluar y abordar) - Minutes of the committee formation for addressing and evaluation (file Acta comite evaluar y abordar) - General Human Resources Policy (file Politica General de RRHH) - Internal risk assessment, including gender and harassment (file Anexo Herramienta evaluacion de riesgos) VVB upon review of these documents^{/12/} and onsite interviews^{/table 15-i01-i15/} confirm that grievances specific to sexual harassment were addressed with strict measures.
From workers: 3 grievances Health and security conditions	Health and Safety Officer took corrective measures. Restock of PPE and aid kits.	
From workers: 17 grievances Long working hours, mistreatment, poor camp conditions, food and transport hours	HR and field supervisor reviewed the case, talk with the parties and the corresponding measures/ warnings were done. Talks to remind supervisor on better practices and explanation on contract conditions were given. 100% of complaints were closed.	
From workers: 3 grievances Sexual harassment among workers	HR team had meetings with workers, one worker was fired, and other prevention measures were taken for women safety. 100% Complaints closed.	

From workers: 1 grievance Worker misbehaviour	HR and field teams reviewed the case. A warning was given to the worker as well as talks reminding camp rules. Case closed.	
From workers: 12 grievances About payments and salaries	HR took up the cases, had meetings with workers and corresponding measures were taken for more transparency and information on payments. 100% of complaints were closed.	
2022		
From communities: 13 grievances fences in poor condition and damage to internal gates.	Forestry and field supervisors visited the places, and the proper repair was carried out. 100% of complaints were closed.	
From communities: 2 grievances Worker's misbehaviour with community members	HR took up the case, reviewed the facts and got in direct communication with the workers involved. 100% of complaints were closed.	

From communities: 1 grievance Blocked trail access	Security team review the facts and authorized access to community members.	
From workers: 16 grievances About problems with transportation, food, payment system and accommodation.	HR took up the case, reviewed the facts and got in direct communication with the workers. Measures like stricter guidelines for cooks, talks for better driving and some basic utilities for the camps were taken. 100% of complaints were closed.	
2023		
From communities: 7 grievances Mostly about fences in poor condition and damage to internal gates.	Visit to the places and the proper repairs were carried out by MLR, as appropriate. 100% of complaints were closed.	

From workers: 5 grievances About (bad) food, low salaries and long working hours.	HR team took up the case. Talks about contract conditions were given, measures for better food quality and quantity. 100% of complaints were closed.	
From workers: 12 grievances Worker's misbehaviour inside camps and with community members	The security team and HR team took up the case. Corresponding warning to misbehaved workers. In one identity supplantation case, worker was fired. 100% of complaints were closed.	
From workers: 2 grievances Sexual harassment between workers	The committee to evaluate and address grievances took up the case. The one who committed the acts was warned and measures were taken to keep women workers in the camps in a safer space.	
2024		

From communities: 8 grievances fences in poor condition and damage to internal gates	Forestry and field supervisors visited the places, and the proper repair was carried out, most of the times by MLR. 100% of complaints were closed.	
From communities: 1 grievance Worker's misbehaviour inside with community members	HR team took up the case. Corresponding warning to misbehaved workers. 100% of complaints were closed.	
From workers 6 grievances Mistreatment to workers and bad food	HR and forest teams took the cases. There were conversations to remind field supervisors and cooks on better practices, as well as provision of better food.	

4.2.5 Public Comments

Based on the review of VCS MR^{02/} and documentation from previous verification^{13/}, VVB confirms that no comments or suggestions were received during public commenting period. During current monitoring period, through the grievance mechanism, specific questions were raised during the annual assemblies, which were in turn addressed at the moment. According to the Assemblies minutes, all comments were addressed, and none drove changes to the project.

Comments received	Actions taken by the project proponent	Evidence-gathering activities, evidence checked, and assessment conclusion
NA	NA	NA

4.2.6 Risks to Local Stakeholders and the Environment

4.2.6.1 Management Experience

Based on on-site inspection^{/table15-i01-i15/}, the review of VCS MR^{/02/} and the review all CVs from the management staff in the supporting documentation^{/08/}, VVB confirms that the project proponent has implemented a recruitment procedure based on qualification requirements and responsibilities for the management team with significant experience accordingly in their respective professional fields.

4.2.6.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	Based on the review of VCS MR ^{/02/} and supportive documents ^{/08/} provided by PP, VVB confirms that there mitigation measures, addressed to the Social Management Program; Environmental Management Plan; General Management Plan and the monitoring Plan.
Risks to stakeholder participation	Based on the review of VCS MR ^{/02/} and supportive documents ^{/08/} No risk identified in the project related to the stakeholder participation.
Working conditions	Based on the review of VCS MR ^{/02/} and supportive documentation ^{/11/} provided by PP, VVB confirms that there is a risk identified related to the injuries and damages to employees during planting and maintenances activities, this risk has been addressed in the Social and environmental management plan, the Annual Operational Plan and the General management plan ^{/08/} .
Safety of women and girls	Based on the review of VCS MR ^{/02/} , SOPs ^{/08/} and on-site inspection/interviews ^{/table15-i01-i15/} , VVB confirms that there is not risk identified in the project related to the safety of women and girls.

Safety of minority and marginalized groups, including children	Based on the review of VCS MR ^{/02/} , SOPs ^{/08/} and on-site inspection/interviews ^{/table15-i01-i15/} , VVB confirms that there is not risk identified in the project related to the safety of minority and marginalized group, including children.
Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers	Based on the review of VCS MR ^{/02/} , on-site visit, and supportive documents ^{/08/} provided by PP, VVB confirms that there is a risk related to change in the quality of surface and groundwater due to use of pesticides; this risk has been addressed in environmental management plan and the annual monitoring plan, quality parameters in soil, water and soil were in the optimal range. Nevertheless, the project proponent has evidenced the use of restricted list of chemicals, a record of chemical applicated ^{/08/} , both measurements are part of the mitigation activities and project policies ^{/12/} indeed.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	Based on the review of VCS PD ^{/01/} , VCS MR ^{/02/} , SOPs ^{/08/} and on-site inspection/interviews ^{/table15-i01-i15/} , The project adheres to ILO Convention 111, ratified by Nicaragua and integrated into its Labour Code. During on-site inspection/interviews ^{/table15-i01-i15/} VVB noted that complaints are handled through the grievance mechanism by the dedicated Attention and Response team. VVB confirms that there is not risk identified in the project related to the discrimination.
Sexual harassment	Based on the review of VCS PD ^{/01/} , VCS MR ^{/02/} , SOPs ^{/08/} and on-site inspection/interviews ^{/table15-i01-i15/} , VVB confirms that there is no risk identified in the project related to sexual harassment and all sexual harassment related events reported during monitoring have been followed up and resolved immediately and the various mechanisms available to report any related events have been presented. VVB, further confirmed that Nicaragua has not ratified ILO Convention 190; thus, the PP excluded it from the project's

	policy framework. However, its principles are indirectly supported through FSC certification (2018–2023), which upholds worker dignity, non-discrimination, and safe working conditions. As part of the review, VVB assessed FSC audit reports specifically Section 3.2 of the 2022 “Reporte de Auditoría FSC–MLR” which references Nicaragua’s commitment to the “Convention on the Elimination of All Forms of Discrimination Against Women.” Additionally, the GRH INS02 Instructivo para denunciar Acoso outlines MLR Forestal’s harassment reporting procedures, including definitions, reporting channels, confidentiality measures, and access to support services for all stakeholders.
Gender equity in labor and work	Based on the review of VCS MR^{/02/}, Human Resources policy^{/12/} in SOPs^{/08/} and on-site inspection/interviews^{/table15-i01-i15/}, VVB confirms that the project aligns with ILO Convention No.100, which Nicaragua has ratified and largely integrated into its Labour Code and there is not risk identified in the project related to the gender equity in labor and work.
Forced labor	Based on the review of VCS MR^{/02/}, Procedure for Evaluating and Addressing in SOPs^{/08/} and on-site inspection/interviews^{/table15-i01-i15/}, VVB confirms that the project operates in alignment with ILO Conventions No.29 and 105, which Nicaragua has ratified and largely integrated into its national Labour Code and there is not risk identified in the project related to the forced labour.
Child labor	Based on the review of VCS MR^{/02/}, Procedure for Evaluating and Addressing in SOPs^{/08/} and on-site inspection/interviews^{/table15-i01-i15/}, VVB confirms that the project aligns with ILO Conventions No. 183 and 182, both ratified by Nicaragua and largely incorporated into its Labour Code and there is not risk identified in the project related to the children labor.
Human trafficking	Based on the review of VCS MR^{/02/}, Procedure for Evaluating and Addressing in SOPs^{/08/} and on-site inspection/interviews^{/table15-i01-i15/}, VVB confirms that the project complies with ILO Conventions No. 29 and 105, both ratified by Nicaragua and largely reflected in its national Labour Code and there is not risk identified in the project related to the human trafficking.

4.2.7.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
	Based on the review of VCS MR ^{/02/} and supportive documents ^{/12/08/} provided by PP, VVB confirms that the project integrates a gender and generational, diversity, and human rights vision. Hence, no risk to Human Rights.

4.2.7.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
	Based on the review of VCS MR ^{/02/} and supportive documents ^{/08/10/} provided by PP, VVB confirms that the project has mechanism for engagement with indigenous people. It involves engagement social expert, who frequently visits and take in consideration of any queries and problems faced by communities and implements CSR activities. The project has a multiannual engagement plan jointly elaborated with the community leaders of Mayangna Sauni Arungka Matumbak. Accordingly, engagement and social programs are updated based on annual population census.

4.2.7.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
	Based On-site impactation, on the review of VCS MR ^{/02/} and the supporting documentation ^{/08/} , the project has addressed this risk in the Procedure for Land Acquisition and the Stakeholder Participation Plan ^{/08/} . The project is implemented on properties owned by MLR Forestal de Nicaragua S.A , to include new areas, PP is actively acquiring suitable plots for project implementation. According to “MLR - Plan General de Manejo bajo VCS 270224_ES” PP has outlined objectives to reduce risk to property rights after land acquisition. Risks such as ownership disputes, areas with land rights to Indigenous communities, plots having high conservation values (HCV) or critical areas for flora and fauna identified by regulatory bodies, legal claims over

	ownership, and boundary disputes were identified. MLR Forestal de Nicaragua S.A. mitigates property rights risks through its "Land Acquisition Procedure." This involves thorough legal evaluations to ensure clear and uncontested ownership and correct documentation. The company respects indigenous and community land rights, avoiding territory infringements. Accurate technical evaluations prevent boundary disputes, guaranteeing well-defined plots. Consequently, where Miranda farm is voluntarily transferred In document "INFORME ANUAL DE DESARROLLO SOSTENIBLE 2023"^{/05/} PP has reported <i>"Numerous assemblies and consultations were conducted to ensure compliance with the Free, Prior, and Informed Consultation (CPLI) requirements, as per international conventions and the territory's Bioprotocol governance mechanisms."</i> During Onsite visit VVB, checked the "agreements for the transfer of the miranda estate from MLR forestal to the communities of the matumbak territory" and confirms voluntary transfer of miranda farm, and ownership transfer to communities.
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4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	Based on on-site inspection, the review of VCS MR ^{/02/} , VVB confirms that the project does not include benefit sharing in the project. All properties are owned by PP, i.e. MLR Forestal de Nicaragua S.A. Further, VVB confirms communities are benefited due to the project in terms of employment.
Benefit sharing during the monitoring period	NA

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	Based on the review of VCS MR ^{/02/} and supportive documents ^{/08/} provided by PP, VVB confirms that there are two risks identified i.e. use of exotic species for plantations and use

	of herbicide for weed control. Respective mitigation measurement, addressed to the environmental management plan, protection area restoration plan, the annual operational plan and monitoring plan; furthermore, project proponent has evidenced the monitoring of mitigation or preventive measurements addressed for each risk identified Monitoring of water quality parameters has been carried out ^{/08/} by PP. Planting of native species in the protection area.
Soil degradation and soil erosion	Based on on-site visit, the review of VCS MR ^{/02/} and supportive documentation ^{/08/} provided by PP, VVB confirms that there is a risk identified with the respective mitigation measurement, addressed to the environmental management plan, general management plan, protection area and biodiversity management plan. Nevertheless, the impact of project by increasing the vegetal cover due to plantation and Cacao reduce effectively the erosion risk.
Water consumption and stress	Based on the review of VCS MR ^{/02/} and supportive documentation ^{/08/} provided by PP, VVB confirms that there is a risk identified with the respective mitigation measurement, addressed to the environmental management plan, the Annual Operational Plan and monitoring plan ^{/08/} . Nevertheless, the water consumption rate was authorized through title concession by National Water Authority ^{/08/} , which is a state entity that manages, controls and monitors water use.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	The project activities had taken place on severely degraded areas that according to the SEIA are not critical habitats for the threatened species present in the project area (3 species) ^{/08/} . Although monitoring was intensive, none of these species could be associated with habitats within plantations and/or protection areas.

Areas needed for habitat connectivity	The protection area covers riparian forests that according to the SEIA can be considered crucial for habitat connectivity. Following the restoration activities on those areas, the areas are on track to be positively impacted by the project activities. According to biodiversity monitoring ^{08/} , the biodiversity index has remained stable over time (2020-2023), which is expected to increase along the restoration efforts.
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Evidence gathering activities, evidence checked, and assessment conclusion	
Habitats for rare, threatened, and endangered species	No risk was identified in the project related to the habitats for rare, threatened, and endangered species. Assisted natural regeneration of area designated as protected area will lead to increased habitats for all the species in protected area.
Areas for habitat connectivity	No risk was identified in the project related to the Areas for habitat connectivity. Further, VVB confirms that due to the assisted natural regeneration of the protected area, the project increases the area for habitat connectivity.

4.2.8.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
Teak (<i>Tectona grandis</i>)	Based on on-site inspection, the review of VCS MR ^{02/} and supportive documents in NPR report ^{04/} provided by PP, VVB confirms that the project has used the teak (non-native and introduced specie) as main specie for reforestation, the project has provided the corresponding justification for the use of this specie as well as the mitigation measurement in the establishment of the planted area. VVB upon web review ¹⁰ confirms teak is non-invasive and does not have a negative impact on the local ecosystem.

¹⁰ (PDF) Teak: a global overview

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
	PP has provided a biodiversity baseline which confirms no existing invasive species have been identified in the project area.

Evidence gathering activities, evidence checked, and assessment conclusion	
Invasive species	The project involves teak plantations which are non-invasive, exotic species in project area. VVB upon web review ¹¹ confirms teak is non-invasive and does not have a negative impact on the local ecosystem. VVB confirms no invasive species in introduced due to project implementation.

4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	Based on on-site inspection, the review of VCS MR ^{/02/} and supportive documents ^{/07/08/} provided by PP, VVB confirms that there is a low risk in the ecosystem conversion related to land use change due to the plantation establishment (specifically in the removal of some existent vegetation); Nevertheless, a mitigation measurement was addressed in Forest Management Plan, Land Management plan, Procedure for Land Acquisition and Land use and land change analysis shown in VCS PD ^{/01/} , the project activities were oriented only in degraded land.

4.3 Accuracy of Reduction and Removal Calculations

The equations and choices provided in the methodology as well as all other methodological tools, are correctly quoted in the VCS MR^{/02/}. The carbon removals of the project are calculated using the formulae mentioned in the applied methodology; AR-ACM0003 version 02.0 ^{/B01/}. The verification team reviewed the emission removal spreadsheets (ER sheet) ^{/03/} and checked all the formulae, concluding that they are correct and in accordance with the monitoring plan of the PD and the applied monitoring methodology.

¹¹ (PDF) Teak: a global overview

The auditing team conducted a thorough review of the SOPs^{/08/} and the Project Implementation Plan^{/08/} for the reforestation initiative. During the on-site visit^{/table15-i01-i15/}, the VVB verified the monitoring procedures and the implementation of the validated monitoring plan, as well as noted deviations in monitoring methodology. Monitoring individual tree growth is systematically carried out across various reforestation types, including commercial teak plantations, cacao agroforestry systems, and protected areas. This is done through Permanent Sample Plots (PSPs) and the Individual Tree Sampling System (ITSS) i.e. Deviation taken in the project. The SOPs provide detailed methodologies for plot establishment, tree measurement, and data collection, ensuring consistency and reliability. VVB during onsite visit^{/table15-i01-i15/}, confirmed the compatibility of MRV personnel.

In the teak plantations, inventory procedures assess diameter, height, and volumetric growth from the age of two years. The monitoring employs a 2% sampling density using circular PSPs, with internal audits in place to ensure precision. Similarly, the cacao and teak agroforestry systems apply rectangular PSPs for cocoa and Individual tree sampling method for teak planted between cocoa, to ensure detailed coverage and accurate measurements. These procedures were verified during the on-site visit. Protection areas follow a structured sampling approach for different baseline strata (pastures, brushwood, and secondary forests) with a minimum 0.5% sampling density.

A specialized monitoring team, trained annually^{/10/} and overseen by the Head of Monitoring, Measurement, and Cartography, is responsible for field data collection and internal audits. Comprehensive quality assurance and quality control (QA/QC) procedures, aligned with IPCC guidelines, support data integrity. These procedures were also verified by the VVB during their visit. VVB also observed the deviations were addressed effectively, ensuring that the project's objectives were met with high accuracy and reliability.

Baseline emissions

The baseline emission quantification was previously performed in 2019 and, therefore, calculations and associated uncertainties have not been updated during this verification period. The quantification methodology used in the last verification period has been carried over and is demonstrated in the current MR^{/02/} and is as follows.

The estimation of carbon stock and changes in carbon stock in tree and shrub biomass within the project boundaries was conducted using the CDM methodology AR-TOOL14 (version 04.2). Four distinct carbon stock strata were identified by PP: Pastureland, Tacotales (abandoned pastureland), Remnant Forest, and Cacao plantations with remnant indigenous trees. Drone imagery and vegetation sampling were employed to accurately delineate these strata.

To improve the baseline distribution's accuracy during the measurement of the protection area, deviation was taken. a new baseline map is created through remote sensing. During desk review, VVB verified the deviation by review of GIS shapefiles^{/07/}. Some areas previously categorized as pastureland and tacotales were shifted to forest, allowing for a more accurate and conservative estimation of carbon growth. Despite these baseline distribution changes, the overall baseline carbon stock increased and hence can be considered as a conservative approach towards baseline emissions.

The baseline carbon stocks for trees and shrubs were calculated using detailed methodologies outlined in AR-TOOL14, Chapters 8 and 11. Trees preserved and those felled for land preparation were inventoried to estimate their above-ground biomass and carbon stock; this included accurate measurements of tree species and dimensions by using allometric equations from relevant literature. For shrubs, a simplified measurement method based on shrub crown cover was used, particularly for remote sensing analysis via drone imagery. VVB

The carbon stock in trees and shrubs under the baseline scenario was effectively quantified and recorded, providing a comprehensive assessment of the existing biomass pools before project activities began. VVB confirms that validated baseline emissions were included and subtracted from project emissions calculated in ex-post sheet^{t/03/}.

During the on-site visit, the VVB verified the applied monitoring method and the validated monitoring plan's implementation, ensuring compliance with the SOPs. The assessment confirmed the efficacy of the project's monitoring procedures in capturing accurate data and inclusion of deviations accordingly.

Project Emissions:

Stratification: The project stratifies carbon pools by different reforestation typologies: teak plantation, agroforestry teak with cacao, and protection areas, in accordance with validated PD. Selected carbon pools including above-ground biomass, below-ground biomass, soil organic carbon (SOC), and leakage are incorporated. There are three identified types of reforestation: teak plantation (I), agroforestry teak with cacao (II) and protection area (III). VVB confirms stratification for pure teak and teak with cocoa was based on year and planting density. For SOC, stratification is based on region. The protection area is stratified based on the baseline identified i.e. baseline vegetation.

The stratification presented in MR revised and made consistent with ER sheet, KML files. The project is stratified by reforestation typology, planting year, density, and region. Protection areas are stratified by baseline vegetation strata and year of inclusion to improve biomass precision.

I. Teak Plantation

- 625 trees/ha, Siuna — 2016, 2017
- 500 trees/ha, Siuna — 2020, 2022

- 312 trees/ha, Siuna — 2019, 2020

II. Agroforestry Teak with Cacao

- Old cacao, Siuna — single row, 156 trees/ha, 2019
- Old cacao, Bonanza — single row, 156 trees/ha, 2020
- New cacao, Siuna — single row, 156 trees/ha, 2017, 2019, 2020
- New cacao, Siuna — double row, 312 trees/ha, 2018

III. Protection Area (from 2020)

- Pasture land — Siuna, Bonanza
- Tacotales — Siuna, Bonanza
- Remnant forest — Siuna, Bonanza

Furthermore, based on revised KML file, VVB verified area reported by PP and confirms that stratification of the areas reported is consistent with KML files.

Stratum	Area
Teak Plantation	
625 trees/ha, Siuna	106.91 ha
500 trees/ha, Siuna	58.21 ha
312 trees/ha, Siuna	274.58 ha
Total “Pure teak”	439.7 ha
Agroforestry Teak with Cacao	
Old cacao, Siuna — single row, 156 trees/ha, 2019	69.78 ha
Old cacao, Bonanza — single row, 156 trees/ha, 2020	60.73 ha
New cacao, Siuna — single row, 156 trees/ha, 2017, 2019, 2020	183.52 ha
New cacao, Siuna — double row, 312 trees/ha, 2018	65.87 ha
Total “Teak + Cocoa Agroforestry”	379.9 ha
Protection Area	
Pastureland — Siuna, Bonanza	604.094 ha
Tacotales (shrubland) — Siuna, Bonanza	213.309 ha

Remnant forest — Siuna, Bonanza	649.27 ha
Total “Protection area”	1466.7 ha

Actual net GHG removals by sinks:

The project includes three different reforestation types, VVB upon review of MR^{/02/} and carbon calculation sheets^{/03/} (Ex-ante and Ex-post), confirms that project includes harvesting. harvesting is applied in the teak plantation (I) and teak/cacao (II), but not in the protection areas. Leakage is also accounted. the methodology AR-ACM0003 version 02.0 is followed. The estimated net GHG emission removals (t CO₂e) per year are calculated as:

$$\Delta C_{AR-VCS,t} = \Delta C_{AR-VCS,t_TEAK} + (\Delta C_{AR-VCS,t_TEAKINCAO} + \Delta C_{AR-VCS,t_CACAO}) + \Delta C_{AR-VCS,t_PROTECTION}$$

The carbon stocks of the trees and shrubs different reforestation types are estimated using the following tools:

- AR-TOOL14, Chapter 8. Estimating carbon stock in trees at a point in time
- AR-TOOL14, Chapter 11. Estimating carbon stock in shrubs at a point of time

Reforestation type I: teak plantation

The baseline carbon stock is subtracted from the current stock to determine changes over time.

$$\Delta C_{p_TEAK_PROJ} = \Delta C_{p_TEAK_PROJ,t2-BSL} - \Delta C_{p_TEAK_PROJ,t1-BSL}$$

The methodology includes a detailed analysis of tree biomass changes, calculated per substratum, with a focus on the weighted average carbon stocks derived from two distinct strata: pastureland and tacotales. The carbon stock is reported at 17,400 t CO₂e as of 2021, reflecting the growth and health of the teak trees. The total carbon increase since the last verification is calculated at 30,525 t CO₂e, with a net increase of 13,125.5 t CO₂e, indicating a positive trend in carbon sequestration.

Reforestation type II: Teak in cocoa

Due to time constraints and the remote location of the Bonanza municipality, the 60.7 ha teak in cacao in this area has not been measured and will be exempted from this verification round. VVB confirms carbon increase in this area will not be claimed in this verification round.

$$\Delta C_{p_TEAK_PROJ} = \Delta C_{p_TEAK_PROJ,t2-BSL} - \Delta C_{p_TEAK_PROJ,t1-BSL}$$

The baseline carbon stock is subtracted from the current stock to determine changes over time. In 2021, the carbon stock in the Teak in Cacao stratum was not verified. Thus for this stratum $C_{TREE_PROJ,t1} = 0 \text{ t CO}_2\text{e}$. For increment of the planted teak trees, newly planted cacao in the new cacao and double row substrata and SOC compared to the baseline. The total tree carbon stock is estimated based on field measurements in which the 33rd or 66th tree is measured, this deviation is taken to effectively sample teak trees planted in agroforestry system. VVB reviewed the methodology for estimating shrub crown cover in cacao plantations. Remote sensing analysis using drone imagery was utilized to determine the percentage of shrub crown cover. This approach allowed for precise estimation of the cacao biomass, ensuring accurate calculations of carbon stock increase compared to the baseline. By combining these methods, the average cacao biomass was determined to be $7.94 \text{ t d.m. ha}^{-1}$, with an associated uncertainty of 6.1%, which is below the 10% threshold specified in the methodological tool. Consequently, no uncertainty discount was applied for cocoa.

Considering carbon sequestration by teak $1,068.1 \text{ tCO}_2\text{e}$, by Cocoa $3078.3 \text{ tCO}_2\text{e}$ and by SOC, $4,323.4 \text{ tCO}_2\text{e}$, total carbon removals by strata: teak in cocoa is $8,470.1 \text{ tCO}_2\text{e}$. The previous verification round had a carbon increase of $280.5 \text{ tCO}_2\text{e}$ compared to the baseline. Hence final carbon increase value is $8,189.6 \text{ tCO}_2\text{e}$

Reforestation type III: Protection area

The change in tree and shrub biomass is estimated by estimating the tree and shrub biomass in each baseline stratum. ΔSOC is only relevant for baseline strata 1, 2 and 4 since these are degraded areas. Where remnant forest patches exist ΔSOC is conservatively neglected.

The changes in biomass are estimated using the following equations:

$$\Delta C_{tree} = \frac{44}{12} * CF_{TREE} * \Delta B_{TREE} \quad (\text{Eq. 3 AR-TOOL14})$$

$$\Delta C_{TREE_PA_PROJ} = C_{TREE_PA_PROJ,t2} - C_{TREE_BSL_3}$$

$$\Delta C_{SHRUB} = C_{SHRUB,t2} - C_{SHRUB,t1} \quad (\text{Eq. 24 AR-TOOL14})$$

$$\Delta C_{SHRUB_PA_PROJ} = C_{SHRUB_PA_PROJ,t2} - C_{SHRUB_BSL_2}$$

In the previous verification round, the protection area was not verified and as such had a carbon increase of $0.0 \text{ t CO}_2\text{e}$ compared to the baseline.

Sample plots were set up in pasturelands (47 plots) and tacotales (34 plots), determining tree and shrub biomass. Measurements included tree height, diameter at breast height (DBH), and species identification. Over eighty tree species were identified, and both trees (DBH >10cm) and shrubs (DBH 5-10cm) were measured.

Using allometric equations from the literature, the total biomass per tree was estimated, and the results were aggregated per plot. The mean change in tree biomass per hectare was determined to be 44.4 t d.m. ha⁻¹, with an associated uncertainty of 13.1%. To account for variance conservatively, a 25% uncertainty discount was applied, resulting in a final discount of 1.65 t d.m. ha⁻¹ for both substrata. Hence values of b_TREE/ha and C_tree/ha were discounted therefore. The carbon stock increase compared to the baseline in trees and shrubs in the is 34,783.5 tCO₂ ha⁻¹. $\Delta SOCAL_t$ results in the amount soil organic carbon change within the protection areas, amounting to 9,055.4 tCO₂e in total. Considering both pools. The current total carbon increase compared to the baseline for Protected area is 43,838.9 tCO₂e.

Overview of GHG removals per stratum

The three mentioned strata encompass all the project's emission reductions. This results in a current carbon stock increase of 82,834.1 tCO₂e compared to the baseline. In the previous verification round, 17,680.1 tCO₂e was verified, leaving an increase of 65,154.0 tCO₂e eligible VCUs between the previous and current verification rounds.

Leakage

The VCS PD^{/01/} revealed that former landowners and property users had relocated to areas that were either already deforested or historically deforested. As a result, applying the methodological tool "Estimation of the increase in GHG emission attributable to displacement of pre project agricultural activities in A/R CDM project activity" indicated that leakage is insignificant. This assessment corroborates that the project does not contribute to significant displacement of agricultural activities, and thus, its emission reductions remain reliably quantified.

LTA

PP has demonstrated LTA based on ex-post data^{/03/}. VVB confirms PP has calculated LTA based on both ex-ante and ex-post^{/03/}. Considering LTA calculations apply only to pure teak and cocoa-teak plantations, LTA was calculated based on those values. Based on year-wise data, and current monitoring data, the LTA value obtained is **2,93,356.2** tCO₂e which is expected to be reached by year 17, considering the land transfer due to non-eligibility, revised rotation periods the difference in achieving LTA is acceptable¹². Furthermore, obtained LTA values and removals by protection area are then added to determine the total project removals. VVB confirms that due to removals from the protection area being continued throughout the project crediting period without harvesting, the project is eligible for issuance of credits obtained from removals from the protection area beyond LTA cap is reached.

¹² Deviation is presented in section 3.2 of this report.

The ex-post LTA calculation for the total area with rotational forestry (Teak & Teak-in-cacao). All scenarios are to date GHG emission reductions and removals at year

		Baseline scenario: to date GHG emissions and removals at year t	Baseline scenario: Teak-in-cacao: to date GHG emissions and removals at year t	Baseline scenario: to date GHG emissions and removals at year t	Teak: to date GHG emissions and removals at year t	Teak-in-Cacao: to date GHG emissions and removals at year t	Project scenario: to date GHG emissions and removals at year t	Annual change in GHG benefit	Expected total GHG benefit to date	Total credits available each year
Calendar year	Year	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	tCO ₂ e	VCUs
t	t	BE1	BE2	BE	PE1	PE2	PE	PEt – PEt-1	PE t – BE t	
2016	1	-	-	-	-642.7	-	-642.7	-	-642.7	-
2017	2	-	-	-	142.0	142.9	284.9	927.6	284.9	284.9
2018	3	-	-	-	5,764.2	610.7	6,374.8	6,089.9	6,374.8	6,089.9
2019	4	-	-	-	7,212.3	3,459.0	10,671.3	4,296.5	10,671.3	4,296.5
2020	5	-	-	-	16,767.8	6,297.3	23,065.1	12,393.7	23,065.1	12,393.7
2021	6	-	-	-	27,678.5	7,795.2	35,473.7	12,408.6	35,473.7	12,408.6
2022	7	-	-	-	29,535.4	16,774.2	46,309.6	10,835.9	46,309.6	10,835.9
2023	8	-	-	-	30,204.7	16,138.8	46,343.6	34.0	46,343.6	34.0
2024	9	-	-	-	59,192.3	17,674.9	76,867.1	30,523.6	76,867.1	30,523.6
2025	10	-	-	-	65,857.5	27,427.6	93,285.2	16,418.0	93,285.2	16,418.0
2026	11	-	-	-	74,066.9	30,185.3	104,252.1	10,967.0	104,252.1	10,967.0
2027	12	-	-	-	97,384.5	36,244.3	133,628.8	29,376.6	133,628.8	29,376.6
2028	13	-	-	-	102,708.5	39,341.7	142,050.1	8,421.3	142,050.1	8,421.3
2029	14	-	-	-	134,272.7	42,867.5	177,140.1	35,090.0	177,140.1	35,090.0
2030	15	-	-	-	174,173.8	46,267.2	220,441.1	43,301.0	220,441.1	43,301.0
2031	16	-	-	-	223,533.9	49,554.3	273,088.3	52,647.2	273,088.3	52,647.2
2032	17	-	-	-	277,889.6	52,740.0	330,629.6	57,541.3	330,629.6	20,268.0
2033	18	-	-	-	304,453.9	55,834.0	360,287.8	29,658.3	360,287.8	-

2034	19	-	-	-	339,457.7	58,844.6	398,302.3	38,014.5	398,302.3	-
2035	20	-	-	-	330,538.4	59,725.9	390,264.3	-8,038.0	390,264.3	-
2036	21	-	-	-	354,508.3	54,837.9	409,346.2	19,081.8	409,346.2	-
2037	22	-	-	-	322,128.5	46,004.3	368,132.7	-41,213.4	368,132.7	-
2038	23	-	-	-	325,148.6	25,630.1	350,778.7	-17,354.1	350,778.7	-
2039	24	-	-	-	345,644.0	30,426.3	376,070.3	25,291.7	376,070.3	-
2040	25	-	-	-	359,395.2	33,949.9	393,345.1	17,274.8	393,345.1	-
2041	26	-	-	-	362,755.4	35,062.0	397,817.4	4,472.3	397,817.4	-
2042	27	-	-	-	370,220.1	38,465.1	408,685.2	10,867.8	408,685.2	-
2043	28	-	-	-	330,916.3	41,638.3	372,554.6	-36,130.6	372,554.6	-
2044	29	-	-	-	316,122.2	44,605.7	360,727.9	-11,826.6	360,727.9	-
2045	30	-	-	-	289,685.6	47,391.5	337,077.1	-23,650.9	337,077.1	-
2046	31	-	-	-	285,032.7	50,017.2	335,049.9	-2,027.2	335,049.9	-
2047	32	-	-	-	276,346.1	52,501.2	328,847.2	-6,202.7	328,847.2	-
2048	33	-	-	-	267,145.0	54,859.2	322,004.1	-6,843.1	322,004.1	-
2049	34	-	-	-	313,872.3	57,104.5	370,976.7	48,972.6	370,976.7	-
2050	35	-	-	-	333,627.3	59,248.3	392,875.7	21,898.9	392,875.7	-
2051	36	-	-	-	358,931.8	61,300.5	420,232.3	27,356.7	420,232.3	-
2052	37	-	-	-	370,034.0	63,269.3	433,303.4	13,071.0	433,303.4	-
2053	38	-	-	-	375,721.2	63,108.9	438,830.1	5,526.7	438,830.1	-
2054	39	-	-	-	396,773.3	57,179.0	453,952.3	15,122.2	453,952.3	-
2055	40	-	-	-	354,007.9	47,350.1	401,358.0	-52,594.3	401,358.0	-
2056	41	-	-	-	352,608.6	26,163.3	378,771.9	-22,586.1	378,771.9	-
2057	42	-	-	-	369,743.9	30,426.3	400,170.2	21,398.4	400,170.2	-
2058	43	-	-	-	380,186.9	33,949.9	414,136.9	13,966.6	414,136.9	-
2059	44	-	-	-	380,239.0	35,062.0	415,301.0	1,164.1	415,301.0	-
2060	45	-	-	-	384,467.6	38,465.1	422,932.7	7,631.7	422,932.7	-
2061	46	-	-	-	341,977.0	41,638.3	383,615.3	-39,317.4	383,615.3	-
2062	47	-	-	-	324,022.7	44,605.7	368,628.4	-14,986.9	368,628.4	-
2063	48	-	-	-	294,952.6	47,391.5	342,344.1	-26,284.4	342,344.1	-
2064	49	-	-	-	288,192.9	50,017.2	338,210.1	-4,134.0	338,210.1	-
2065	50	-	-	-	277,926.2	52,501.2	330,427.3	-7,782.8	330,427.3	-
2066	51	-	-	-	267,671.7	54,859.2	322,530.8	-7,896.5	322,530.8	-
2067	52	-	-	-	313,872.3	57,104.5	370,976.7	48,445.9	370,976.7	-
2068	53	-	-	-	333,627.3	59,248.3	392,875.7	21,898.9	392,875.7	-
2069	54	-	-	-	358,931.8	61,300.5	420,232.3	27,356.7	420,232.3	-
	Sum								15,841,235.5	293,356.2

LTA									293,356.2	
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Based on the review of the VCS MR^{/02/}, the data and parameters used for the calculation of GHG carbon removals and removals for this verification period are as follows:

Table 09: Data and parameters monitored

Data/Parameters to be monitored	Source of data/ calculation method	VVB Assessment ^{/B05/}
Diameter at Breast Height of the trees	Measurements have been performed by the team, following the monitoring Refer to ex-post carbon removals sheet	VVB confirms the value applied is valid after reviewing the raw data sheets ^{/09/} . VVB during the on-site inspection ^{/table15-i01-i15/} also verifies the DBH measurement through measuring diameter at DBH and cross checking it against the raw data sheets. Further, VVB also checked the SOPs ^{/08/} and confirms the data collection method is accurate.
H	Measurements have been performed by the team, following the monitoring Refer to ex-post carbon removals sheet ^{/02/}	Height has been measured using Manual hypsometer for our internal records and subject to be used in the future instances of the project.
A _{PLOT}	For this monitoring period 8.6 ha, which is 2.1% was monitored in sample plots in the teak plantations. This was measured across 172 PSPs. For teak in cacao, in the single rows every 33rd tree was measured for 3.0% of the total area. In total 3.0% of the trees were measured. The teak in old cacao in Bonanza was not measured due to time constraints and as such is not considered in this monitoring period. For the cacao, mixed with teak, a total of 5.5 ha was measured, which is 3.5% of the total area. This was measured across 109 PSPs. In the protection area, only the	VVB confirms the value applied as valid after reviewing the raw data sheet ^{/09/} and KML files ^{/07/} for first PAI.

	tacotales and pastureland were measured due to time constraint and the cost-ineffectiveness of currently measuring the remnant forest (time consuming with low carbon gain). As such, carbon from the remnant forest will not be claimed in this monitoring period. In total 4.05ha were measured, for 0.5% of the total area. In total, 81 PSPs were measured.
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After reviewing VCS MR^{02/} and carbon calculation spreadsheet^{03/}, VVB has ascertained that all calculations of carbon sequestration are in compliance with the requirements stated in VCS Standard v4.7 and methodology applied AR-ACM0003 V 2.0.

The carbon removals due to changes in carbon stocks in soil organic carbon (SOC) is being claimed by PP for this MP and hence, the same was assessed by VVB found to be valid and appropriate in-line with Tool 16: Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities.

The equations for the calculation of GHG removals by sink as provided in the VCS MR and confirmed with the applied methodology AR-ACM0003 (version 2.0) have been checked and found to be correct. The values as provided in the VCS MR^{02/} have been compared with the carbon calculation sheet and were also reviewed and found to be consistent with the applied methodology and tools.

During the current monitoring period, the spatial distribution of biomass was shaped by a combination of natural events and methodological deviations that influenced project execution. Notably, the documented impacts of Hurricanes Eta and Iota (2019) altered site conditions and planting decisions, including the replacement of pure teak with mixed teak–cacao systems. Anthropogenic drivers, such as adjusted thinning regimes, planting under three different density schedules (312, 500, 625 trees/ha), shortened rotation periods from 20 to 18 years, and enrichment-focused restoration are deviations from the original methodology outlined in the PD. These are thoroughly documented in Section 3.2 of the MR and section 3.1 of this report. The updated stratification based on monitored data and revised remote sensing analysis provides a more comprehensive and spatially explicit overview of project conditions, strengthening the reliability of biomass estimates. By directly incorporating these deviations into carbon quantification and LTA recalculation, the MR enhances methodological transparency. This assessment, supported by PSP slope measurements, GIS overlays, and planting records, directly addresses the absence of an evaluation of natural and anthropogenic influences on biomass distribution, and ensures alignment with VCS compliance.

Based on assessment above, VVB confirms the accuracy of GHG removals, including accuracy of spreadsheet formulae, conversions and aggregations, and consistent use of the data and parameters. The data and information flow, including any manual transposition, were checked and found to be consistent. VVB found a clear audit trail of all the data/information used for the GHG removal calculations. VVB further confirms that all parameters have been used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the formulae laid out in the applied methodology AR-ACM0003 (version 02.0) and requirements of the monitoring plan.

4.4 Quality of Evidence to Determine Reductions and Removals

VVB, during the verification, has checked the information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report. This assessment reveals that there are various raw data sources (both external and internal) for the preparation of monitoring report, namely default values from methodology^{B01/}, Monitoring Data and Raw field data sheets^{/09/}, KML files^{/07/}. This raw data is then recorded and transferred in the carbon calculation spreadsheet^{/03/} and then finally to the monitoring report^{/02/}. The quality of supporting documents^{/01-13/} that the PP provides as evidence is adequate. Monitoring Data and Raw field data sheets^{/09/} have been provided by the PP, which tallies with the data provided in the carbon calculation spreadsheet^{/03/}.

PP has demonstrated LTA based on ex-post data. VVB confirms PP has calculated LTA based on both ex-ante and ex-post^{/03/}. Considering LTA calculations apply only to pure teak and cocoa-teak plantations, LTA was calculated based on current monitoring values of those strata. Based on current monitored data, the LTA value is expected to be reached by year 17, considering the revised rotation period, revised LTA calculations based on monitored data, land transfer due to non-eligibility, the difference in achieving LTA is acceptable.

The monitoring personnel at site are well trained^{/10/} and follow reproducible routines. Thus, they are competent to carry out the relevant tasks with sufficient accuracy. The quality of supporting evidence submitted to VVB for verification is adequate and found to be verifiable. Monitoring data and raw field data sheets^{/09/}, KML files^{/07/} and other supporting documents related to monitoring SOPs^{/08/} were checked by the assessment team to confirm the authenticity of the documents and to check the correctness of the calculations. The detailed information flow with the roles and responsibilities of the individuals and the monitoring system have been discussed and found to be appropriate.

Based on the above, the VVB confirms the sufficiency and appropriateness of the quality of evidence provided by the PP to determine the GHG removals and further deems them to be acceptable.

Table 10: Verification documentation

Sr.No.	Documents	Pertinence
i.	Carbon calculation spreadsheet ^{/03/}	To demonstrate the carbon sequestration calculation as per the applied methodology and tool
ii.	Project operation ^{/08/}	To demonstrate compliance with VCS ARR requirement section A 1.1 of the VCS standard v4.7.
iii.	Shapefiles/KML files ^{/07/}	To demonstrate project boundary, area and ownership of project area
iv.	Standard operating procedures/Monitoring manual ^{/08/}	Written procedures for plantation, monitoring and field data collection for personnel involved
v.	Permanent Sample plot monitoring Field data ^{/09/}	Field data sheet with height, DBH and other data pertaining to each sample plot selected by the PP

4.5 Non-Permanence Risk Analysis

The VCS AFOLU Non-Permanence Risk Tool v4.2^{/B01/} has been used by the Project Proponent to assess overall project risk. The VVB reviewed the Non-Permanence Risk Report^{/04/} provided with supporting documentation^{/04/} and confirmed that the Project adheres to the requirements set out in the VCS AFOLU Non-Permanence Risk Tool. Each risk factor was thoroughly assessed for conformance. VVB based on desk review, Onsite inspection/interviews ^{/table15-i01-i15/}, confirmed implementation of mitigation activities, which were validated at time of validation. The final score was calculated to be 23%.

Table 11: Risk associated with project implementation and their assessment:

Risk		VVB Assessment and Justification
INTERNAL RISK	Project Management	Based on the review of VCS Non-Permanence Risk Report ^{/04/} , VVB confirms that the project has an adaptive management plan included a monitoring plan.
		VVB confirms, Project management risk mentioned in the tool does not apply to the project as PP has demonstrated inapplicability of risks identified under project management. Project involves teak plantation and it is associated with more than 25 percent of the stocks on which GHG credits have previously been issued but teak is well adapted to project region, PP has provided literature reference in VCS Non-

	Permanence Risk Report^{104/}, further upon own web review¹³, VVB confirms risk is not applicable. Considering PP's sole ownership on project lands. There is ongoing enforcement identified by PP, but it is covering less than 50% carbon stock. To prevent encroachment by outside actors to protect the entire project area, There is a security team deployed by MLR Forestal observed during onsite Visit /table15-i01-i15/. Hence, Risk is not applicable VVB upon review of the CVs of The management team, VVB confirms team has significant experience in their respective professional fields and is capable to undertake this project. Hence risk is inapplicable. The Management Team is based in Managua and Siuna; Managua is within one day's travel from the project area (both Siuna and Bonanza), while the Siuna office is located on the project site itself. VVB during an onsite visit visited the office. Hence confirms the presence of the management team in the project area and the country. The impact of 2 hurricanes (Eta y Lota) at the end of 2019 were promptly reported by the management team. Considering project was jointly validated and verified for period of 01-July-2016 to 01-March-2021 the damage due to hurricanes was not considered as loss event. But damage was reported in previous certification as well as MR of current verification. Mitigation: Project Management team already includes individuals with significant (i.e., more than five years) experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the VCS Program or other approved GHG programs. Considering no risk was identified for project management. Mitigation does not apply to project. VVB confirms that a project management risk score 0 is acceptable.
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¹³ (PDF) Teak: a global overview

	Financial Viability	VVB, based on the review of the financial cash flow^{/04/} the project cash flow breakeven point is expected to be at start of 2025, which is within 4 years from actual risk assessment. Cash flow in includes carbon revenues, commercial revenue streams associated with the project and upfront investments. Cash flow out includes project implementation costs, costs associated with GHG credit generation and interest expenses. Company has secured investment to cover the funding period till breakeven point. Mitigation: Project has available, callable and secured financial resources, at least 80% of total cash out before project reaches breakeven. The project will be financed in its entirety by the contribution of the partners, bank financing and the sales that the project will generate, so it will have the necessary cash to support the expenses before breakeven. Based on the financial risk identified above, VVB confirms that the overall financial risk score is 0.
	Opportunity Cost	VVB based on review of VCS Non-Permanence risk report^{/04/} provided by PP and on-site inspections^{/table15-i01-i15/}, confirms that the baseline activities are subsistence driven, upon interviews it was revealed to VVB that , lands before project implementation were used for cattle grazing. Project has net positive impact on communities, as demonstrated in section 4.1 of this report, VVB confirms that Project contributes positively towards SDG 1,8,12,13 and 15. Mitigation: Project is owned solely by PP. The protection area, which is a forest area, and which represents the majority of the project carbon credits, is safeguarded by law. Specifically, Law No. 462, the "Law on Conservation, Promotion, and Development of the Forest Sector," states in Article 25 that "the substitution of natural forest by forest plantations is prohibited."

		Furthermore, MLR has included a Private Wildlife Reserve within its protection area. In 2020, the Nicaraguan government, through MARENA, designated 66.97 hectares of the Matiz Farm as a protected area, providing it with additional protection status. Hence, legal binding commitment to continue management practices, Based on the assessment of the net impacts of the project on the social and economic well-being of the communities who derive livelihoods from the project area, VVB confirms that the socio-economic impacts of the project on communities are positive, hence the risk score 0 is acceptable.
	Project Longevity	Project is already registered on the verra registry before 1 January 2024¹⁴. According to NPRT^{/04/}, Carbon calculation sheets^{/03/} and VCS MR^{/02/} the longevity of the VCS project activity is 40 years. VVB has reviewed Project management plan "Plan de Gestion"^{/08/}, VVB confirms that PP has project management plan and PP has implemented project activities as per validated plan in current monitoring period. Project is owned solely by PP. The protection area, which is a forest area, and which represents the majority of the project carbon credits, is safeguarded by law. Specifically, Law No. 462, the "Law on Conservation, Promotion, and Development of the Forest Sector," states in Article 25 that "the substitution of natural forest by forest plantations is prohibited." Furthermore, MLR has included a Private Wildlife Reserve within its protection area. In 2020, the Nicaraguan government, through MARENA, designated 66.97 hectares of the Matiz Farm as a protected area, providing it with additional protection status. Hence, legal binding commitment to continue management practices. Risk score 15 is valid and appropriate. VVB confirms that the risk score 15 is acceptable and in compliance with NPR Tool^{/04/}.
	Total Internal Risk (PM + FV + OC + PL)	VVB confirms that total internal risk score 15, which is deemed appropriated and valid.

¹⁴ [Verra Search Page](#)

EXTERNAL RISK	Land Tenure and Resource Access/Impacts	VVB based on onsite inspections^{/table15-i01-i15/}, and on review of the VCS Non-Permanent Report^{/04/} and other documentation provided by PP^{/08/}, the project includes the land that belongs to MLR Forestal hence Ownership and resource access/use rights are held by same entity i.e. MLR Forestal, and no disputes exist over land tenure of ownership. This is further demonstrated in section 4.2.7.4. of this report. Mitigation: Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the duration of the project crediting period. By law, the protection area should be kept as forest and thus management practices will continue over the duration of the project crediting period. the transfer of the Miranda Estate to the Matumbak Territory was an inclusive, transparent, and legally compliant process that strengthened property rights for the indigenous community. The process followed IPLC and FPIC guidelines and was well documented^{/05/}. VVB confirms that the risk score 0 is acceptable.
	Stakeholder Engagement	VVB based on onsite inspection^{/table15-i01-i15/}, on review of documentation^{/05/} and on-site interviews confirms that there are no households living within the project area, neither are they reliant on the project area. Project area is privately owned land by PP. Hence the risk score 0 is acceptable.
	Political Risk	As per the VCS Non-Permanence Risk Report^{/04/}, the country's calculated governance score is -0.98, This has been further confirmed by reviewing the World Bank Institute Worldwide Governance Indicators score for Nicaragua, https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access. Hence risk rating 6. Mitigation: The project is in a country that: 1) is party to the Paris Agreement and has submitted an NDC to the UNFCCC Secretariat in the last five years; 2) includes AFOLU commitments (conditional or unconditional) in its NDC, and 3)

NATURAL RISK		has a documented and active climate change plan that includes the project activity. Nicaragua submitted its uploaded NDC in 2020; it includes AFOLU commitments; it has an active climate change plan (Política Nacional de Mitigación y Adaptación al Cambio Climático y el Sistema Nacional de Respuesta al Cambio Climático) The project is in a country that: 1) is party to the Paris Agreement and has submitted an NDC to the UNFCCC Secretariat in the last five years; 2) includes AFOLU commitments (conditional or unconditional) in its NDC, and 3) has a documented and active climate change plan that includes the project activity. VVB confirms that risk score 4 is acceptable.
	Total External Risk (LT + CE + PC)	In conclusion, VVB confirms that the total external risk for the (LT + CE +PC) VCS project gives 4, which is deemed appropriate and valid.
	Fire	Based on the review of NPR report^{104/}, VVB confirms that the fire risk in the Bonanza and Siuna regions is classified as low, supported by INETER (2025)¹⁵ and TECDEA (2019)¹⁶ assessments. The area receives over 2700 mm of rainfall annually, limiting ignition and fire spread. No major droughts or fire incidents were recorded over the past 80 years (Global Forest Watch). Tectona grandis exhibits drought tolerance and moderate fire resistance (Galeano et al., 2019¹⁷; de Camino, 2002¹⁸; Sinacore et al., 2019¹⁹). Mitigation includes eco-corridors, 4m cleared road buffers, and manual biomass removal consistent with MLR Forestal protocols. The documented resilience and management practices support a robust low fire risk classification, PP has demonstrated with adequate references. There is no fire reported in the project area Hence total risk score for the risk of fire i.e., 0.25 is acceptable.

¹⁵ [Portal de Mapas Interactivos de Vulnerabilidades y Amenazas Naturales](#)

¹⁶ [Version-Avanzada-MGAS-del-ERPD.pdf](#)

¹⁷ [Physiological and molecular responses to drought stress in teak \(Tectona grandis L.f.\) | PLOS One](#)

¹⁸ [\(PDF\) TEAK \(Tectona grandis\) in Central America](#)

¹⁹ <https://www.frontiersin.org/journals/forests-and-global-change/articles/10.3389/ffgc.2019.00082/pdf>

Extreme weather (incl. hurricanes)	Based on the review of VCS MR^{02/}, VVB confirms that hurricanes have demonstrated to be a risk to the plantation, as the wind strengths and exceptional rainfall can lead to damage to the plantation and carbon stock, through fallen trees, broken stems, and uprooting of trees. This occurred at the end of 2020, when two major hurricanes crossed the RACCN region 10 days apart, leading to partial damage to the plantation. The impact of 2 hurricanes (Eta y Lota) at the end of 2019 were promptly reported by the management team. Considering project was jointly validated and verified for period of 01-July-2016 to 01-March-2021 the damage due to hurricanes was not considered as loss. But damage was reported in previous certification as well as MR of current monitoring period. It is considered that due to the topography of the terrain, the geographical spread of the stands over the area, and difference maturity levels of the tree plantations, potential future hurricane impacts will also be significant but not major.
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Other extreme weather risks considered are drought and exceptional rainfall. The exceptional rainfall mainly occurs as result of hurricanes. Considering the factual likelihoods of hurricanes in the Central American Pacific coast region, the decrease or little change in frequency, the limited increase in storm intensity and rainfall intensity in a 2 degrees climate change scenario, The likelihood of intense cyclonic activity directly impacting the project area remains low. Historical data²⁰ from NOAA²¹ confirms that only six Category 1–5 hurricanes have struck Nicaragua over the past century, with dual landfalls in 2020 (Eta and Iota) representing statistically exceptional events. Climate models referenced in IPCC AR5²² and GFDL²³ projections suggest a 1–10% increase in hurricane intensity and a 10–15% increase in rainfall intensity within a 100 km radius of major storms under a +2°C warming scenario. However, the frequency of Category 4–5 events is not expected to rise significantly. The VVB reviewed the updated natural risk assessment for Siuna and Bonanza, using INETER (2025) and NOAA records. Risks from earthquakes, volcanoes, droughts, floods, and tsunamis remain low, while hurricane vulnerability is moderate. Historical data show six major hurricanes in 120 years, three affecting the project area, including Eta and Iota in 2020, which damaged 475.7 ha of new plantations later excluded from validation, keeping carbon stock losses below 5%. The likelihood of future hurricanes is rated as more than once every 10 years, with climate models projecting slightly higher intensity but stable or declining frequency of stronger storms.

²⁰ [Portal de Mapas Interactivos de Vulnerabilidades y Amenazas Naturales](#)

²¹ [Historical Hurricane Tracks](#)

²² [Chapter 11: Weather and Climate Extreme Events in a Changing Climate | Climate Change 2021: The Physical Science Basis](#)

²³ [Global Warming and Hurricanes – Geophysical Fluid Dynamics Laboratory](#)

		Mitigation: In the design of the plantation risk mitigation of extreme weather, including hurricanes, has been considered. The geographical spread of the terrain, the planning of eco-corridors that also function as windbreaks, and the topography in the terrain result in limiting potential extreme weather damage. Preventive measures are not applicable in case of extreme weather and hurricanes. As such, a score of 0.5 was assigned to mitigation. Hence total risk score for the extreme weather (incl. hurricanes) 2 is acceptable.
	Pest and diseases	Based on the review of VCS PD^{/01/} and VCS MR^{/02/}, VVB confirms that the major tree species accounting for carbon is teak (<i>Tectona grandis</i>), which is not very vulnerable to pests and diseases.²⁴ VVB confirms through GIS files^{/07/} that the project area consists of different isolated areas (not all connected) hence, not susceptible to mass spread of pest and disease Mitigation: In the design of the plantation forest patches are conserved and eco-corridors are established, thereby providing space to native flora and fauna that limit pests and disease risks (MLR Forestal, 2018). The company applies Integrated Pest Management (specific to cocoa) to reduce risk of pests. It allows the use of organic products and actions that rule out the application of chemicals on some farms owned by the company. In the case of leaf-cutter ants, which feed on teak leaves, the company has been applying neem (<i>Azadirachta indica</i>) to combat the ants with organic herbicides. VVB confirmed implementation of these activities during onsite visit. VVB confirms the risk score for the pest and diseases 0.25 is acceptable.
	Geological Risk (G)	N/A
	Other natural risk (ON)	N/A
	Total Natural Risk = (NR-c + NR-nc + SLR)	In conclusion, VVB confirms that the total natural risk for the VCS project gives 3.25, which is deemed appropriately and acceptable.

²⁴ Teak (*Tectona grandis* Linn. f.): A Renowned Commercial Timber Species

Table 12: Overall Risk Rating

Risk Category	Rating
Internal Risk	15
External Risk	4.00
Natural Risk	3.25
Overall Risk Rating (a + b + c)	23 %

Thus, the VVB concludes that the applied risk score of 23% is adequate for the project activity and in line with the requirements of the VCS standard and AFOLU NPRT requirements

5 VERIFICATION OPINION

5.1 Verification Summary

The verification activities conducted by CCIPL included:

- Assessment of the grouped project (including 1st PAI) compliance with VCS rules/requirements and the applied baseline and monitoring methodology to confirm all the requirements of verification (including eligibility of AFOLU projects and grouped project, applicability of the applied baseline and monitoring methodology, baseline scenario, additionality, permanence risk, data and parameters at validation, monitoring plan including parameters, ex-ante estimated GHG removal including methodological equation for the ex-post carbon removal calculation, global and local stakeholders consultation and addressal of comments, environmental analysis, SDG benefits from the project) .
- Collection of information, documents and data supporting the reported GHG removals.
- Assessment of biomass inventory and GHG calculation spreadsheets^{03/}.
- Assessment of monitoring practices on the field^{table15-i01-i15/09/}.
- Assessment of information management system.
- Assessment of whether the project has been implemented in accordance with the VCS MR; and
- Assessment of whether the provisions made in the monitoring plan were consistently and appropriately applied.

The VVB has raised 11 clarification requests (CLs) and 07 corrective action requests (CARs)

for the 2nd periodic Verification, all of which have been successfully closed. Zero (00) Forward Action Request (FAR) has been raised.

The VVB has reviewed the requested issuance of Verified Carbon Units (VCUs) for the current verification round. The project demonstrates a net carbon stock increase of 82,834 tCO₂e compared to the baseline. Applying the revised non-permanence buffer risk rating of 23%, a total of 19,052 buffer credits are required. Of these, 1,768 credits have already been withheld, with the remaining 17,284 credits withheld in this round.

The VVB confirms that 15,912 VCUs have already been issued and that 47,870 tCO₂e are available under current monitoring period for issuance.

Verification Period: From 02-March- 2021 - 31-August-2024

The verification for the project was conducted using a combination of document reviews and interviews^{/table15-i01-i15/} with relevant personnel, assessing conformity with criteria specified in the report. VV team's key assessment activities included the planning the assessment process with risk analysis and preparing evidence-gathering plans to ensure the project's effective verification.

The assessment involved a detailed desk review of the Monitoring Report , including ex-ante (Considering FAR from last verification regarding LTA calculations) and ex-post carbon sequestration calculations^{/03/} and other key documents. The team examined the completeness of data provided by the PP and evaluated the monitoring methodology, paying attention to measurement frequency, personnel competencies, and quality assurance/quality control (QA/QC) processes. The assessment also included evaluations of data management systems and their impact on GHG removals reporting. Interviews with stakeholders and local people took place during the on-site inspection^{/table15-i01-i15/}.

A project-specific verification plan guided the audit, focusing on reducing audit risk through an evidence-gathering approach, using techniques such as inquiry, analytical testing, confirmation, recalculation, examination, retracing, sampling, cross-checking, and reconciliation. Verification focused on verifying data completeness, consistency, and project compliance with the VCS Standard (version 4.7), including a review of the Current VCS MR, VCS PDMR from previous monitoring period, baseline, additionality, and monitoring methodology. For verification, similar processes ensured data completeness, adherence to the monitoring plan, and the QA/QC framework's effectiveness.

An on-site inspection^{/table15-i01-i15/} was conducted from 10th October 2024 to 13th October 2024, involving ground-truthing and sample plot visits across within the project boundary. Acceptance sampling confirmed the data's reliability, with no material discrepancies identified.

5.2 Verification Conclusion

CCIPL has performed the verification of the registered VCS grouped project “*Integrated Project for Reforestation and Agroforestry on Degraded lands in Nicaragua*”. The GHG statement provided is the responsibility of the project participant.

This assessment has been performed based on all guidance and criteria as provided in VCS Standard version 4.7, VCS Program Guide version 4.4 VCS Validation and Verification Manual version 3.2 and Registration & Issuance Process version 4.6 the updated project documentation, the carbon sequestration calculation spreadsheets^{/03/}, PSP’s raw data sheet^{/09/} provided by the PP and on-site inspection^{/table15-i01-i15/}, observation by the VVB. The project specific information has been provided in the VCS PD as required by the VCS Standard and meets the requirements of the applied baseline and methodology. The monitoring plans described in the registered project documentation^{/13/} is assessed along with verification activities. VVB gives an unmodified opinion as there are enough evidence to support the claims in the project activities.

The verification has been conducted in a reasonable level of assurance as there is enough evidence provided by project proponent. VVB also confirms that the verification of the GHG statement was conducted in accordance with ISO 14064-3.

Table 13: Verified GHG carbon removals and carbon dioxide removals in the above verification period:

The non-permanence risk rating (%)	23%
If applicable, the Long-term Average (LTA), whether it has been properly updated, and if it has been reached.	LTA was calculated as 293,356.2 tCO₂e for the teak and teak in cacao strata combined and is expected to be achieved by 17th year. The protection area has no LTA as there is no harvesting. the expected total GHG benefit to date is 82,834 CO₂e
Whether a loss has been appropriately accounted for, in accordance with the VCS Program rules, if applicable.	No loss occurred

Table 14: Verified GHG emission removals as verified during current verification^{/02/03/}

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Buffer pool allocation (tCO ₂ e)	Reductions VCU (tCO ₂ e)	Removals VCU (tCO ₂ e)	Total VCU issuance (tCO ₂ e)	Status
01/Jul/2016 - 01/Mar/2021	0	- 17,680	0	1,768	0	15,912	15,912	Already issued
02/Mar/2021- 31/Dec/2021	0	- 15,665	0	4,156	0	11,510	11,510	To be issued in this round
01/Jan/2022- 31/Dec/2022	0	- 18,650	0	4,948	0	13,703	13,703	To be issued in this round
01/Jan/2023- 31/Dec/2023	0	- 18,502	0	4,908	0	13,595	13,595	To be issued in this round
01/Jan/2024- 31/Aug/2024	0	- 12,335	0	3,272	0	9,063	9,063	To be issued in this round
Total	0	-82,834	0	19,052	0	63,782	63,782	

The VVB has reviewed the requested issuance of Verified Carbon Units (VCUs) for the current verification round. The project demonstrates a net carbon stock increase of 82,834 tCO₂e compared to the baseline. Applying the revised non-permanence buffer risk rating of 23%, a total of 19,052 buffer credits are required. Of these, 1,768 credits have already been

withheld, with the remaining 17,284 credits withheld in this round.

The VVB confirms that 15,912 VCUs have already been issued and that 47,870 tCO₂e are available under current monitoring period for issuance. The allocation of buffer credits and issuance of VCUs is consistent with the monitoring data, the ER sheet, and the Verification Report. The approach is transparently documented and conservatively applied, ensuring the integrity of the project's carbon accounting and risk management.

5.3 Ex-ante vs Ex-post ERR Comparaisons

Table 15: Ex-ante vs Ex-post comparaisons

Vintage period	Ex-ante estimated reductions	Achieved reductions	Percent difference	Explanation of the difference
01-Jul-2016 - 01-Mar-2021	-	17,680	-	These removals have been verified last verification round, only over teak and the SOC for teak in cacao. With the new verification round, each year has its separate vintage, as such, these removals cannot be compared with the ex-ante estimated removals.
02-Mar-2021 - 31-Dec-2021	34,974.3	- 15,665	-55%	A large part of the difference can be explained by the exclusion of the teak in cacao in Bonanza, the exclusion of the remnant forest in the protection area and the early measurement of most of the teak, for both the teak and teak in cacao strata.
01-Jan-2022 - 31-Dec-2022	35,612.1	- 18,651	-48%	
01-Jan-2023 - 31-Dec-2023	35,682.4	- 18,503	-48%	
01-Jan-2024 - 31-Aug-2024	31,861.6	- 12,335	-61%	
Total	152,384.4	82,834	-46%	

VVB based on the assessment above confirms that there is a difference between estimated and achieved carbon calculations.

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

VVB confirms that PP has not provided any commercially sensitive information, The information provided by PP can be made public.

Section	Information	Justification	Assessment method and conclusion

APPENDIX 2: ABBREVIATIONS

AGB	Above Ground Biomass
AFOLU	Agriculture, Forest and other Land Use
ARR	Afforestation, Reforestation and Revegetation
BEF	Biomass Expansion Factor
BGB	Below Ground Biomass
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Limited
CO_{2e}	Carbon Dioxide Equivalent
CL	Clarification Request
DBH	Diameter at breast height
DW	Dead Wood
GIS	Geographical Information System
KML	Keyhole Markup Language
LULC	Land Use Land Cover
LULUCF	Land use, Land-use Change, and Forestry
DVR	Draft Verification Report
FA	Final Approval

FAR	Forward Action Request
FVR	Final verification Report
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
MP	Monitoring Period
MR	Monitoring Report
PAI	Project Activity Instance
PD	Project Design
PP	Project Proponent
QC/QA	Quality control /Quality assurance
SOC	Soil Organic Carbon
TA	Technical Area
TIFF	GIS format for raster dataset
TR	Technical Review
VVB	Validation & Verification Body
VVS	Validation and Verification Standard
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX 3: LIST OF DOCUMENTS

S.no	Documents	Reference
/01/	VCS PD - PROJ_DESC_2365_21MAY2021	
/02/	VCS MR - VCS MR 2365 02Mar2021-31Aug2024 v9	Version 10.0, 10-December 2025
/03/	Carbon calculation spreadsheet - VCS 2365 ER sheet 2024_Ex_Ante 20250107 - VCS 2365 ER sheet 2024_Ex_Post 20251203	
/04/	Non-permanent risk report - Non Permanence Risk Report-Calculation Tool 2365 - VCS 2365 Non Permanence Risk Report - VCS_NPR from Project Hub - NR- Fire risk - NR-Extreme weather (W)	
/05/	Stakeholder details and consultation details - A8a Informe asambleas comunitarias 2023 - A8b Memoria Asambleas Comunitarias 2022 - A17b Informe Anual Desarrollo Sostenible 23 - A17c Informe Anual Desarrollo Sostenible 22 - GS-Memoria Asambleas Comunitarias Abril 2022 - Plan operativo anual para la implementacion de lineamientos GTI y MLR - Registro de Relacionamiento Comunitario 2021-2024	
/06/	Grievances - A.9a Grievances communities '21-24 - A.9b Grievances workers '21-24	

	- Acta comité Evaluar y Abordar - AR-Anexo-S03-Herramienta-Basica-de-Evaluacion-de-Riesgos 2024 - For 6 Para Inducción de Nuevos Ingresos - GRH INS02 Instructivo para denunciar Acoso - GRH PR10 Procedimiento de Evaluar y Abordar - Promesa Evaluar y Abordar - SGI PO02 Política General de RRHH vs 2	
/07/	GIS Files & LULC Report - Área del Proyecto CC - Shapefile sampling plots - A.11 Project_location_Siuna_and_Bonanza - Land Cover Change Analysis Report - Area_Cacao_2016-2020_VCS - Area_Protection-Teca_VCS	
/08/	Project Implementation documents - AR-SGI Programa de Gestion Social - As Plan de seguridad y salud Comunitaria - Auditoria de la Calidad de Datos del Inventario y valores 2023-2024 - EIAS -MLR FORESTAL - GDS-PL-03 - Plan de Participación Partes Interesadas - GSPR01_Procedimiento Quejas - IPCC 2008 GPG_LULUCF_FULLEN - IPCC 2019 19R_V4_Ch04_Forest Land - MLR - Plan de Gestión de la Biodiversidad - MLR - Plan General de Manejo bajo VCS 270224_ES - Suarez et al., 2019 - AGB tropical and subtropical forests - refinement IPCC default rates	
/09/	Monitoring Data and Raw field data sheets - A.13 Raw data monitoring 2024 MLR - MM MN01 Monitoreo Áreas de Teca VS 2 - MM MN04 Monitoreo Áreas de Protección vs 2	

	- MM MN05 Monitoreo de Áreas Cacao vs2	
/10/	Training records - AR-Registro de Charlas y Capacitaciones HSE 2024 - GRH PL01 Plan de Formación y Capacitación 2024 vs2 - GRH PR 02 PROCEDIMIENTO PARA LA FORMACION Y CAPACITACION DEL PERSONAL 2020	
/11/	SDG evidence SDG 1 & 8 - Año 2022 - Año 2023 - Año 2024 SDG 12 - FSC CERTIFICATE 2018- 2023 - Reporte de Auditoría FSC 2016 to 2024 - Reporte de Auditoria RA-MLR 2021 to 2023 - Reporte de Auditoría UTZ 2017 to 2020	
/12/	Policies - Promesa Evaluar y Abordar - SGI PO02 Política General de RRHH vs 2	
/13/	Previous Periodic verification documents - MON_REP_2365_01JUL2016_01MAR2021 (2) - R&I_PRR_2365_17_AUG_2021 - VERIF_REP_2365_01JUL2016_01MAR2021 (1)	
/B01/	• VCS Program Guide (v4.4, dated 29/08/2023) • VCS Standard (v4.7, dated 16/04/2024) • AR ACM0003 (v02.0, dated 04/10/2013) • Program Definitions (v4.5, dated 16/04/2024) • Registration & Issuance Process (v4.6, dated 16/10/2024) • AFOLU Non-Permanence Risk Tool (v4.2, dated 03/05/2024)	

	• VCS Validation and Verification Manual (v3.2, dated 19/10/2016) • AFOLU Guidance: Example for Calculating the Long-Term Average Carbon Stock for ARR Projects with Harvesting.	
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APPENDIX 4: FINDINGS LOG

• Table 1. FAR from previous validation/ verification

FAR	01	Section no.	2.5	Date: 25/11/2021
Description of FAR				
Based on the VERRA review process, the VVB shall interview a larger proportion of stakeholders in the next verification. If by the next verification, Verra has not provided more specific guidance on community sampling, and the CDM guidance is not appropriate, it is expected that the VVB will consult Verra regarding appropriate sample sizes i.e. proportion of stakeholders to be interviewed.				
Project participant response				Date: 30/10/2024
Several and frequent spaces of participation have been held during the monitoring period. From the development and implementation of a social engagement plan, annual community assemblies and meeting across communities in the area have been taken place.				
Documentation provided by project participant				
Minutes of annual community assemblies 2021-2024 were previously sent				
VVB assessment				Date: 18/11/2024
Based on the review of (folder Apertura de Buzones, Relacionamiento Comunitario) provided by PP, VVB confirms that the PP has provided enough evidence to clarify the compromise and community engagement from the PP with the community and stakeholders of the project. Further during onsite visit VVB has interviewed 15 stakeholders.				
FAR is closed.				

FAR	02	Section no.	LTA	Date: 29/04/2022
Description of FAR				
The PP shall calculate the long- term average at the project level or according to whatever guidance is available at the time of next verification.				
Project participant response				Date: 30/10/2024
Additional information has been provided in the monitoring report in section 5.2.2 on the different LTAs, when they are reached and on the average project LTA for the areas with harvesting.				
Documentation provided by project participant				
VVB assessment				Date: 27/12/2024
Based on the review of the ex-ante carbon calculation sheet and VCSMR provided by PP, VVB confirms that PP has provided complete evidence of LTA calculation and the estimated year when the LTA cap is reached.				
Further according to section 3.2.30 (7) of VCS standard v4.7, <i>"The long-term average GHG benefit shall be calculated at each verification event, meaning the long-term average GHG benefit may change over time based on monitored data."</i>				
PP demonstrated the LTA in the ex-post based using monitored data and estimates based on the current growth of biomass till the end of the crediting period.				
FAR is closed.				

Table 2. CL from this Verification

CL	01	Section no.	1.8 VCS MR	Date: 13/10/2024
Description of CL				

As per the section 1.8 of the VCS MR, the PP has provided maps and the location of the project area, which demonstrate the land cover within the project area. However, the PP has not provided a shapefile that includes the land cover information, specifically pertaining to the plantation regimen.	
PP shall provide shapefiles for the same.	
Project participant response	Date: 30/10/2024
Shapefiles for the project plantation, including teak, cacao and protection areas, with their regimen, year of plantation and area, are shared. It is to note that the protection areas include area with baseline of grasslands, forests and tacotales; the forest area are not considered for this monitoring period.	
Documentation provided by project participant	
In folder <i>Shapefiles</i> : - File Area protection-teca_VCS.shp - File Area cacao 2016-2020.shp	
VVB assessment	Date: 18/11/2024
Based on the review of shapefiles provided by PP, VVB confirms that the shapefiles shared show in table of attribute the detail the planted area, species planted, year of plantation and the different regimes of the plantation in the project complying and clarified as per the requested raised above , so that the shapefiles are aligned with the VCSMR.	
CL has been closed.	

CL	02	Section no.	1.12 VCS MR	Date: 13/10/2024
Description of CL				
As per the section 1.12 of VCS MR, the PP show as Sustainable Development Contributions the project has created over 500 direct jobs stating, <i>"During the monitoring period, MLR Forestal promoted formal employment with gender equality, creating over 500 direct jobs in a poor region and offering salaries above the legal minimum for the agricultural sector."</i> PP shall clarify if the wages/ salaries comply with host country's legal minimum wage, as per ILO Convention. While doing so, PP shall provide appropriate evidence in the form of country's minimum wage reference and salary slips or contracts with employees. PP has provided the supportive documents from the project start date. instead of this monitoring period.				
Project participant response				Date: 24/10/2024
Regarding the salary, a foot note was inserted in the MR (section 1.12) indicating that the average salary of the field workers (the lowest salary for a project direct employee) is above the legal minimum wage for the agricultural sector in Nicaragua: "The legal minimum salary for the agricultural sector in 2021 was C\$4,414.91 per month, C\$4,723.95 in 2022, C\$5,196.34 in 2023 and C\$5,721.17 in 2024. MLR complies with the legal salary requirements for all their employees, as seen in the contracts' salaries. In addition, there were other contributions that generate a living wage such as payment of daily food three times a day, lodging, transportation to and from communities as well as within the plantations, as well as economic support for specialized medicine for the worker and his family nucleus." Bear in mind that new legal salary values entries into force on 01-March of the corresponding year.				
Documentation provided by project participant				
- 41 contracts and salary slips from employees from 2021- 2024 (folder Expediente trabajadores) - List of all employees 2022-2024 (folder Nomina)				
VVB assessment				Date: 18/11/2024
Based on the review of employee files and employment records from 2016 to 2024 provided by PP, VVB confirms that PP has submitted the appropriate evidence and supportive documents for the monitoring period as requested. This confirmed that PP complied with the host country's legal minimum wage according to the ILO Convention. Additionally, PP provided evidence of additional benefits granted to employees, aiming to generate living wages and improve their living conditions. Further during the Onsite visit, VVB physically verified employment contracts and salary slips. Documents were found appropriate.				

CL has been closed.

CL	03	Section no.	2.1.2 VCS MR	Date: 13/10/2024
Description of CL				
PP shall provide the corresponding documentation, - As per Section 2.1.2 of the VCS Monitoring Report (MR), a total of five annual community assemblies were conducted. However, based on the supporting documentation provided, the report for the community assemblies held in 2024 is missing. Additionally, the PP has not provided the Community Engagement Plan. - The multiannual engagement plan (with the community leaders of Mayangna Sauni Arungka Matumbak).				
Project participant response				Date: 25/10/2024
The 2024 community assembly minutes, together with a summary list of the engagement activities (visits, assemblies, meetings) between 2021-2024 are shared. The communities' engagement plan and the specific engagement plan with indigenous communities, where the Matumbak community is specifically included are shared.				
Documentation provided by project participant				
- Report of community assemblies hold in 2024 (CL03 Informe asambleas comunitarias 2024) - Summary community activities 2021-2024 (CL03 Relacionamiento comunidad 2021-2024) - Community Engagement Plan (CL03 Plan de Participacion Partes Interesadas) - Annual plan for engagement with indigenous communities, including Matumbak community (CL03 POA Comunidades Indigenas) - Annual Social plan 2024 (CL03 POA Social MLR 2024)				
VVB assessment				Date: 18/11/2024
Based on the review of the files (folder Relacionamiento Comunitario and Plan operativo anual para la implementación de lineamientos GTI y MLR) provided by PP, VVB confirms that PP has supplied all the required support documents for the annual community assembly during the monitoring period. Additionally, PP has demonstrated the mutual engagement plan with the community leaders of Mayangna Sauni Arungka Matumbak. - The main points covered during the visit and meeting with community by the PP were: dissemination of community complaints procedure, evaluation and address, signing of agreements, characterization of the population and social activity as part of social program, measurement of boundaries, project activity (inform the communities about the wood extraction and harvesting activity) and community reforestation campaigns and talks and training about relevant topic for the community (emergency attention, community complaints, school dropout forecast and Women's leadership training and Climate Change). - The main points addressed during the assemblies with the community members for the project were: brief presentation of the MLR, community agreements, community complaints procedure, disclosure of the social program and carbon sequestration certification, call for jobs and benefits of working in the MLR, identification and ratification of leaders representing the entire community and various points proposed by the community, disclosure of biodiversity management programs, local employment and living wage plan and disclosure of the public summary of the annual forest management plan.				
CL has been closed.				

CL	04	Section no.	GIS shapefiles	Date: 13/10/2024
Description of CL				
The KML file provided by the PP for the project location does not contain detailed information in the Table of Attributes (ToA) necessary to verify the newly planted areas during the monitoring period or the total planted area as indicated in the Project Design Document (PPD). It is required that the KML and shapefiles comply with the requirements specified in Sections 3.11.1 and 3.11.2 of the VCS v4.7.				

PP shall provide a KML/shapefiles accordingly the requirements described in the points above.	
Project participant response	Date: 30/10/2024
Shapefiles files for the planted areas, according to requirements 3.11.1 and 3.11.2 are provided. It is to note that MLR holds ownership of all project areas.	
Documentation provided by project participant	
In folder <i>Shapefiles</i> : - File Area protection-teca_VCS.shp - File Area cacao 2016-2020.shp	
VVB assessment	Date: 18/11/2024
Based on the review of files provided by PP, VVB confirms that the kml/shapefiles contain all detailed information and now are aligned with the requirements of VCS methodology applied.	
CL has been closed.	

CL	05	Section no.	2.2.2 VCS MR	Date: 13/10/2024
Description of CL				
As per Section 2.2.1 of the VCS Monitoring Report (MR), the risk assessment identifies the risk as "Changes in the quality of surface and underground water due to the use of pesticides." However, the PP has not provided evidence of the monitoring results for water quality parameters as defined in the Environmental Management Plan. Additionally, with regard to the risk of changes in surface and groundwater quality due to pesticide use, the record of chemical applications has not been provided in the supporting documentation.				
The PP is required to provide clarification on this matter, along with the corresponding documentation as required.				
Project participant response				Date: 25/10/2024
The monitoring reports for water, including quality and quantity indicators are shared for the two wells part of the project (4 pozos & Danli) approved for the project. Regarding chemical use records, the record of herbicides and fertilizers used in 2020-2024 are shared. Also the management plan for chemicals, updated in 2024.				
Documentation provided by project participant				
In folder <i>CL05</i> : - Underground water use and quality reports (files Informe_ ANA_4 Pozos/Danli, several years) - Water lab results (file Analisis de Calidad de agua 2024) - Folder with registry of herbicides and fertilizer use 2021-2024 (sub folder Quimicos2021-2024) - Management plan for chemicals, updated 2024 (file Plan de Gestion de agroquimicos v6)				
VVB assessment				Date: 18/11/2024
Based on the review of files (GDS-Informe ANA-4 Pozos 2023.pdf and Folder Quimicos) provided by PP, VVB confirms that PP has provided the evidence the monitoring results of the water quality parameter as was defined in the section 2.2.1 of the VCSMR. Additionally, has provided the record of chemical applications and its respective agrochemical management plan.				
CL has been closed.				

CL	06	Section no.	2.3.1 VCS MR	Date: 13/10/2024
Description of CL				
As per Section 2.3.1 of the VCS Monitoring Report (MR), the risk related to sexual harassment has been identified as "no risk." However, according to the monitoring results of grievances received between 2021 and 2023, five cases of sexual harassment were registered.				

The PP is required to provide clarification regarding the assessment of this specific risk, based on the information presented above. Furthermore, the PP should outline the measures taken to address and prevent the recurrence of such cases.	
Project participant response	Date: 25/10/2024
The Section 2.3.1 of the MR is corrected, from a “no risk identified”, to “Low risk of harassment, particularly affecting field workers who stay overnight on field camps”. Following the first grievance on the matter, MLR developed measures to prevent, monitor and assess reports of sexual harassment, such as: a procedure for evaluating and addressing sexual harassment, a guideline for reporting sexual harassment, measures in the General Human Resources Policy, including that all new employees must be instructed on the subject of evaluating and addressing sexual harassment, and the internal risk monitoring is annually updated on the matter (section 5.1, question #20), in which is classified as <i>low risk</i>. Based on this, a <i>committee to address and evaluate cases of child labour, forced labour, discrimination and violence and harassment at work</i> was conformed in January 2024. There is evidence on the grievance register that such grievances (5) have been assessed and resolved.	
Documentation provided by project participant	
Folder CL 06 contains documentation related to existing measures in relation to sexual harassment: - Guideline for reporting sexual harassment (file Instructivo para denunciar acoso) - Procedure for assessing and addressing (file Procedimiento para evaluar y abordar) - Minutes of the committee formation for addressing and evaluation (file Acta comite evaluar y abordar) - General Human Resources Policy (file Politica General de RRHH) - Internal risk assessment, including gender and harassment (file Anexo Herramienta evaluacion de riesgos)	
VVB assessment	Date: 18/11/2024
Based on the review of the files (GRH INS,GRH PR,GRH PRO3,GRH PRO5) provided by PP, VVB confirms that regarding the risk related to sexual harassment identified as “no risk”, PP has provided all the evidence and documentation to support the monitoring, evaluation and immediate resolution of any harassment event, and has presented the various mechanisms available to each of the employees to report any event.	
CL is closed.	

CL	07	Section no.	Permanent sampling plots of VCS MR	Date: 13/10/2024
Description of CL				
The raw data monitoring provided for all permanent sampling plots indicates that each plot contains the coordinates. However, no KML or shapefiles of the sample plots for the project area have been provided. The PP shall provide KML or shapefiles for the permanent sampling plots established in the project.				
Project participant response				Date: 25/10/2024
Shapefiles of the permanent sampling plots are shared				
Documentation provided by project participant				
In folder shapefile sampling plots: Shapefile of permanent sampling plots (Parcelas_VCS.shp)				
VVB assessment				Date: 18/11/2024
Based on the review of file provided by PP, VVB confirms that the kml/shapefile of sample plots in the project area was provided with the detailed information as per the requirements of methodology applied.				
CL has been closed.				

CL	08	Section no.	3.2.2 VCS MR	Date: 13/10/2024
Description of CL				
As per Section 3.2.2 of the VCS MR, regarding the project description deviation, the PP has not provided evidence of the redefinition of the baseline for the protection area as a result of the new baseline map based on remote sensing assessment of satellite imagery from 2019.				

The PP shall provide the remote sensing assessment report for the new baseline distribution in the protection area accordingly.	
Project participant response	Date: 23/10/2024
Added in Section 3.2.2 the explanation of the remote sensing assessment to the report, also added an explanation on how the new sampling plots were selected, based on the new baseline distribution.	
Documentation provided by project participant	
VVB assessment	Date: 18/11/2024
Based on the review of files provided by PP, VVB confirms that PP has clarified the redefinition of the new baseline for the protection area additional has provided shapefiles and the LULC analysis report that support the detailed description in the section of 3.2.2 of VCSMR.	
CL has been closed.	

CL	09	Section no.	LTA	Date: 13/10/2024
Description of CL				
During previous joint validation and verification, a FAR has been raised.				
<i>"The PP shall calculate the long- term average at the project level or according to whatever guidance is available at the time of next verification."</i>				
The VVB has reviewed the MR and EX-post sheet. The calculations provided do not clarify when the Long-Term Average will be reached. PP shall provide the LTA calculations considering overall crediting period and year of achieving long term average.				
Project participant response				Date: 30/10/2024
Additional information has been provided in the monitoring report in section 5.2.2 on the different LTAs, when they are reached and on the average project LTA for the areas with harvesting. For each substratum, it was already provided when the LTA will be reached (based on the ex-ante calculation of the LTA). An ex-post calculation is impossible, as the LTA is calculated over the entire project lifetime. The Ex-ante LTA has been updated from the previous monitoring report due to new insights (shorter rotation length and different planting and thinning regimes).				
Documentation provided by project participant				
VVB assessment				Date: 18/11/2024
FAR was raised during last monitoring period for demonstration of LTA calculations, Based on the review of files (VCS2365 ER ex-post sheet and VCSMR) provided by PP, VVB noted following,				
- In Ex- ante calculations, According to CDM AR-ACM003, C_{Tree_Bsl} is termed as carbon in baseline trees. Through review of ex-ante sheet (Under Tab_EA_Teak, EA_Teak in Cacao, column M52 to M106) PP, VVB observed PP has estimated C_{Tree_Proj} with the addition of carbon in baseline trees which is not in compliance with applied methodology. PP is requested to clarify the same for both sheets. - Under sheet EA_Teak, cell B111, the mentioned regime 3 is not consistent with the MR as the tree initial density is 500 trees/ha. The same goes with cell B171. PP shall clarify and correct the inconsistency. PP is requested to address the inconsistency in the 3 tree density regimes mentioned in the MR and Carbon calculation sheet. - The LTA calculations are based on multiple subclassification hindering final value of LTA, Considering harvesting is applied only for Teak plantation (I) and Teak + cacao plantation (II), PP has calculated LTA for both further adding subclassification in each regime as per planting density considering harvesting and replantation cycle of 18 years. PP has calculated LTA regime wise. PP is requested refer to "The VCS Program guidance document AFOLU Guidance: Scenario 4: ARR project with a rotational planting and harvest cycle"				

- PP shall justify how the LTA value of 189.3 tCO₂e in MR and carbon spreadsheet is appropriate. In sheet EP_Total, under the cell Z18, the total sum of LTA is divided again with value in Y18. However, the LTA values already derived in the sheet (Ex ante & ex-post) is divided with total sum of carbon change for each regime.
- Based on the review of the ER sheet, the LTA values for Ex-post (EPTeak) have been derived from Ex-ante (EATeak), which represent the estimated values. PP shall calculate the LTA using the Ex-post values for the current monitoring period.

CL is still open.

Project participant response

Date: 19/12/2024

Ex-Ante sheet has been updated. Regimes match the MR. The LTA is now calculated for the complete project area with rotation, not subdivided anymore. LTA in the ex-ante sheet has been updated with the newest insights on rotation length, planting density etc. LTA cannot be calculated yet using ex-post monitoring as the project is too young (only 8 years for the oldest trees and 2 monitoring rounds, which is not enough data to make good growth estimations). This will be adjusted in the next monitoring period(s)

VVB assessment

Date: 27/12/2024

- In Ex- ante calculations, According to CDM Methodology AR-ACM0003, C_{Tree_Bsl} is termed as carbon in baseline trees. Through review of an ex-ante sheet (Under Tab_EA_Teak: column M, row 71 to 248, EA_Teak in Cacao: column N, row 76 to 260, Under tab_EA_Protection: column M, row 52 to 236). PP, VVB observed PP has estimated C_{Proj} with the addition of carbon in baseline trees instead of subtraction which is not in compliance with applied methodology. As per equation 5 provided in methodology, baseline should be subtracted from Actual net GHG removals by sinks. PP has correctly demonstrated the carbon calculation in Ex-post sheet is requested to rectify the calculation in ex-ante sheet. Further based on revised calculation, PP should revise LTA calculations.

5.7. Net anthropogenic GHG removals by sinks

18. The net anthropogenic GHG removals by sinks shall be calculated as follows:

$$\Delta C_{AR-CDM,t} = \Delta C_{ACTUAL,t} - \Delta C_{BSL,t} - LK_t \quad \text{Equation (5)}$$

Where:

- $\Delta C_{AR-CDM,t}$ = Net anthropogenic GHG removals by sinks, in year t ; t CO₂-e
- $\Delta C_{ACTUAL,t}$ = Actual net GHG removals by sinks, in year t ; t CO₂-e
- $\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks, in year t ; t CO₂-e
- LK_t = GHG emissions due to leakage, in year t ; t CO₂-e

[This point is still open.]

- Regime is made consistent with MR. Further PP has provided LTA calculation year wise considering data from all the regimes.
- PP is requested to update LTA value in section 5.4 of MR according to estimated value calculated in ex-ante carbon calculation sheet. **[This point is still open.]**
- According to section 3.2.30 (7) of VCS standard v4.7, *"The long-term average GHG benefit shall be calculated at each verification event, meaning the long-term average GHG benefit may change over time based on monitored data."*
PP must compute the LTA in the ex-post based using available monitored data and estimates based on current growth of biomass till the end of crediting period. **[This point is still open.]**

CL is still open.

Project participant response

The ex-ante calculation has been adjusted to align with the requested approach for accounting for the baseline by subtracting it in the first year (as shown, for example, in cell R72 of the EA_Teak sheet). This means that in the PE (column V of EA_Teak), the baseline carbon stock has already been deducted. Since the baseline carbon stock (i.e., the "without-project" scenario) does not increase over time, as

confirmed in the PDD, the baseline emissions (BE) values in the LTA_Calculation sheet are set to zero. This is because the carbon removal associated with the baseline has already been accounted for in the PE.

LTA values in the MR report is adjusted according to the newly calculated ex-post LTA.

The ex-post LTA has been updated from the ex-ante LTA using the latest monitoring data. The Ctree, DBH, and tree counts for the measured years have been incorporated into the LTA sheets within the Ex-post ER Excel. To ensure consistency, the DBH values for years before the monitoring period were adjusted where necessary to smooth the carbon sequestration curve. Similarly, tree densities before and after the monitoring period were adjusted to account for differences in present densities, also to ensure a smoother curve. The CSHRUB_Proj (column L in LTA_Teak in Cacao) has been modified based on the measured carbon stock in both the new cacao areas and the cacao planted in double rows. In the new cacao, the teak planted in 2019 is underperforming compared to the 2017 and 2020 cohorts, resulting in an inverted growth pattern across strata. However, this is not a concern for LTA carbon calculations because early growth rates can vary naturally and typically stabilize as the trees mature. Any initial underperformance is expected to balance out over the long term. The adjusted values are coded with a different colour-scheme in the LTA calculation sheets.

VVB Assessment	Date: 09/01/2025
VVB reviewed the revised ex-ante sheet, ex-post sheet and revised MR, VVB confirms that ex-ante and ex-post sheets are updated as per the requirement of methodology, and the baseline is subtracted from Actual net GHG removals by sinks. PP has correctly demonstrated the carbon calculation in both the Ex-ante and Ex-post sheets. Further based on the Values, PP has revised the LTA calculations. Based on monitored values, PP has appropriately demonstrated ex-post LTA.	
CL is closed.	

CL	10	Section no.	MR section 3.2	Date: 13/10/2024
Description of CL				
VVB has reviewed VCS MR and noted that PP has taken deviation from registered project design description. PP shall provide justification as per VCS standard 4.7, clause 3.21.2, and clarify the impact of deviation on the applicability of the methodology, additionality, or the appropriateness of the baseline scenario.				
Project participant response				Date: 28/10/2024
According to VCS 4.7, clause 3.21.2, option 2) <i>"Where the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in conformance with the applied methodology, the deviation shall be described and justified in the monitoring report. This shall include a description of when the changes occurred and the reasons for the changes. The deviation shall also be described in all subsequent monitoring reports. Examples of such deviations include changes in the procedures for measurement and monitoring"</i>				
Then a justification as per the applicability of the methodology, additionality or the appropriateness of the baseline scenario AR ACM0003 v 2.0 is written in the MR Section 3.2.2.				
Documentation provided by project participant				
VVB assessment				Date: 18/11/2024
Based on the review of VCS MR provided by PP, VVB confirms that PP has clarified and provided the justification regarding to the the impact of deviation on the applicability of the methodology accordingly.				
CL has been closed.				

CL	11	Section no.	VCS MR & Ex- post Carbon Calculation sheet	Date: 13/10/2024
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Description of CL	
As per the previous joint validation verification, time-period for 1st verification was 01-07-2016 to 01-03-2021. However, as per section 5.4 of the current VCS MR and carbon calculations spreadsheet, carbon calculations are based on values from 2017 to 2024. Further these calculations have also been included in previously issued MR (for 1st MP). Moreover, there are inconsistency in values for GHG removals throughout the MR. Also, according to contract between VVB and PP, current monitoring period is from 01/03/2021-31/08/2024. PP shall transparently provide details on actual monitoring period. While doing so, PP shall provide clarification regarding area from previous monitoring which was not verified during 1st verification.	
Project participant response	Date: 30/10/2024
The monitoring period has been adjusted. Explanations have been given on why parts of the project have not been verified during the last monitoring period. This was mainly due to areas being so recently planted and the carbon sequestered being so minimal, that it was decided to include the monitoring of these areas only in the subsequent monitoring period. 1 error in Table 1 regarding the project area has been rectified. In Table 3 & 4 a small numerical issue has been rectified. Small rectification in the area measured in the conversation area on page 41 and the LTA's and when they are reached for the Teak in Cacao are adjusted in 5.2.2. The ER sheet has been adjusted, as a small error in the LTA in teak-in-cacao was discovered. This has also been adjusted in the monitoring report. The total amount of credits wasn't affected by this as no teak-in-cacao stratum reached the LTA yet.	
Documentation provided by project participant	
VVB assessment	Date: 18/11/2024
VVB confirms the monitoring period for second monitoring is 01-July-2016 to 31-August-2024. An addendum was signed between VVB and PP, for a revised monitoring period. Further, VVB Found following discrepancy in ER sheet. - PP is requested to provide the Ex-ante and Ex-post sheets separately. - Based on the review of the carbon spreadsheet, PP shall demonstrate the ex-ante calculations until the whole crediting period as it is demonstrated only till 2030. - PP is requested to justify the empty cells in the sheet EP_Teak (column H, I, J, K) and EP_Cocoa (Column G, H, I, J). - For Sheet EP_Protection, 81 PSPs were monitored during current monitoring period which complies with MR where as error is found from row 83, column AK:AS, Furthermore this values/cells contribute to calculation of "Current Woody biomass carbon stock". PP is requested to provide clarification in this regards.	

AK83		=XLOOKUP(AL83,C:C,A:A,,0,1)																							
U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
0	0	0	4	25.2	131	119	47.6			7.0	0.0	0.5	0.0		Muhiasa	533PPFA01	Tacotala	2020	Suna	500	9.3	6.7	14.9		
0	0	0	6.1	25.2	131	119	47.6			32.2	0.0	0.4	0.0		Muhiasa	551PPFA02	Tacotala	2020	Suna	500	5.1	10.2	10.240.5		
0	0	0	4.5	25.2	131	119	47.6			17.7	0.0	0.5	0.0		Muhiasa	551PPFA01	Tacotala	2020	Suna	500	0.3	5.8	23.6		
0	0	0	4.6	25.2	131	119	47.6			30.5	0.0	0.5	0.0		Muhiasa	552PPFA00	Tacotala	2020	Suna	500	1.1	21.1	44.6		
0	0	0	4.8	25.2	131	119	47.6			40.2	0.0	0.4	0.1		Muhiasa	552PPFA03	Tacotala	2020	Suna	500	2.7	53.0	2.810.4		
0	0	0	4.6	25.2	131	119	47.6			20.1	0.0	0.5	0.0		Muhiasa	554PPFA01	Tacotala	2020	Suna	500	1.9	27.3	1.353.7		
0	0	0	4	25.2	131	119	47.6			7.0	0.0	0.5	0.0		Alo	651PPFA01	Tacotala	2020	Suna	500	6.7	133.9	17.533.5		
0	0	0	5.1	25.2	131	119	47.6			45.3	0.0	0.4	0.1		Alo	651PPFA02	Tacotala	2020	Suna	500	2.0	60.2	3.628.9		
0	0	0	0	25.2	131	119	47.6			-	-	-	-		Alo	651PPFA03	Tacotala	2020	Suna	500	2.2	43.4	1.882.9		
0	0	0	6	12	101	100	8.3			55.6	0.0	0.5	0.0		La Bu	653PPFA02	Tacotala	2020	Suna	500	4.1	81.8	6.890.7		
0	0	0	11	12	101	100	8.3	0.4	80.8	-	-	-	-		Santa Fe	710PPFA02	Tacotala	2020	Suna	500	4.1	82.5	6.758.1		
0	0	0	14	12	101	100	8.3	0.7	45.6	-	-	-	-		Santa Fe	710PPFA02	Tacotala	2020	Suna	500	3.4	67.1	4.507.1		
0	0	0	8	12	101	100	8.3	0.5	52.0	-	-	-	-		Santa Fe	710PPFA04	Tacotala	2020	Suna	500	6.3	125.5	16.734.4		
0	0	0	14	12	101	100	8.3	0.7	121.2	-	-	-	-		Santa Fe	710PPFA05	Tacotala	2020	Suna	500	7.6	152.8	23.358.1		
0	0	0	9	12	101	100	8.3	0.7	35.5	-	-	-	-		Santa Fe	710PPFA02	Tacotala	2020	Suna	500	4.8	96.9	9.394.3		
0	0	0	13	12	101	100	8.3	0.5	276.8	-	-	-	-		Santa Fe	710PPFA09	Tacotala	2020	Suna	500	2.7	53.2	2.829.6		
0	0	0	5	12	101	100	8.3			218	0.0	0.4	0.0		Alo	652PPFA03	Tacotala	2020	Suna	500	2.2	44.7	1.956.4		
0	0	0	15	12	101	100	8.3	0.7	495.4	-	-	-	-		San Miguel	654PPFA03	Tacotala	2020	Suna	500	0.1	2.8	7.9		
0	0	0	6	12	101	100	8.3	0.7	22.4	-	-	-	-		Santa Fe	710PPFA04	Tacotala	2020	Suna	500	3.5	63.0	4.744.6		
0	0	0	0.5	12	101	100	8.3	0.4	6.1	-	-	-	-												
0	0	0	11	12	101	100	8.3			51.5	0.1	0.4	0.1												
0	0	0	7	12	101	100	8.3	0.5	4.7	-	-	-	-												
0	0	0	15	12	101	100	8.3	0.8	154.3	-	-	-	-												
0	0	0	10	12	101	100	8.3	0.5	207.3	-	-	-	-												
0	0	0	12	12	101	100	8.3	0.6	240.2	-	-	-	-												
0	0	0	8	12	101	100	8.3	0.5	5.4	-	-	-	-												
0	0	0	9	12	101	100	8.3	0.3	24.4	-	-	-	-												
0	0	0	10	12	101	100	8.3			42.7	0.0	0.4	0.1												
0	0	0	0	25	101	100	4.0			-	-	-	-												
0	0	0	9	25	101	100	4.0	0.7	114.4	-	-	-	-												
0	0	0	7	25	101	100	4.0	0.7	38.2	-	-	-	-												
0	0	0	6	25	101	100	4.0	0.5	12.1	-	-	-	-												
0	0	0	1.8	25	101	100	4.0	0.4	1.1	-	-	-	-												
0	0	0	5	25	101	100	4.0	0.5	12.2	-	-	-	-												
0	0	0	0.3	25.2	170	164	23.8	0.5	23.8	-	-	-	-												
0	0	0	4.6	25.2	170	164	23.8	0.5	5.2	-	-	-	-												
0	0	0	9.6	25.2	170	164	23.8	0.5	45.4	-	-	-	-												
0	0	0	6.5	25.2	170	164	23.8	0.4	30.5	-	-	-	-												
0	0	0	9.8	25.2	170	164	23.8			41.0	0.0	0.4	0.1												
0	0	0	7.9	25.2	170	164	23.8			26.8	0.0	0.4	0.0												
0	0	0	17.1	25.2	170	164	23.8	0.4	111.6	-	-	-	-												
0	0	0	16.1	25.2	170	164	23.8			109.1	0.1	0.4	0.2												
0	0	0	9.6	25.2	170	164	23.8			29.4	0.0	0.4	0.1												
0	0	0	6.6	25.2	170	164	23.8	0.5	45.0	-	-	-	-												
0	0	0	9.6	25.2	170	164	23.8			39.4	0.0	0.4	0.1												

Project participant response

Date: 19/12/2024

Zero values in the measurements are actual zero's. In some plots no trees were present, either because the plantation was too young, there was wind damage or lightning damage. These zero's are actual values so they need to be feed in the calculation. The screenshot data provided has been removed, but this data did not affect the calculations.

Ex-ante and ex-post calculations are provided separately, in excel sheet as required. To note that Ex ante is calculated until 54 years, which correspond to 3 full rotations.

VVB assessment

Date: 27/12/2024

Based on review of updated calculation sheet, VVB confirms that both sheets are separately provided along eith revisions in EP_Protection sheet, further Justification provided by PP for empty cells in sheetsheet EP_Teak (column H, I, J, K) and EP_Cocoa (Column G, H, I, J).is deemed to to acceptable to VVB.

CL is closed.

Project participant response

Date: 19/12/2024

Zero values in the measurements are actual zero's. In some plots no trees were present, either because the plantation was too young, there was wind damage or lightning damage. These zero's are actual values so they need to be feed in the calculation. The screenshot data provided has been removed, but this data did not affect the calculations.

Ex-ante and ex-post calculations are provided separately, in excel sheet as required. To note that Ex ante is calculated until 54 years, which correspond to 3 full rotations.

VVB assessment

Date: 27/12/2024

Based on review of updated calculation sheet, VVB confirms that both sheets are separately provided along with revisions in EP_Protection sheet, further Justification provided by PP for empty cells in sheetsheet EP_Teak (column H, I, J, K) and EP_Cocoa (Column G, H, I, J).is deemed to be acceptable to VVB.

CL is closed.

CL

12

Section no.

TR

Date: 06/02/2025

Description of CL

The project category on the project page is “AFOLU Activity-ARR”

<https://registry.verra.org/app/projectDetail/VCS/2365>

Accordingly project has applied the approved large scale CDM methodology AR-ACM0003, Version 2.0 “Afforestation and reforestation of lands except wetlands”.

However, as per the registered joint PD/MR and joint validation/verification report, the project also involves “Protected area” and the project proponent has claimed carbon removal from these protected areas during this monitoring period by adding new project instances.

While this is an issues of validation/registration stage, the ARR category and the applied baseline and monitoring methodology have only limited to “afforestation and reforestation of any land”.

Project participant response

Date: 12/02/2025

No New Areas Added Beyond the Approved Scope

The areas referred to as "protected areas" are **not newly introduced project instances** but rather **designated zones within the originally validated project area** that are undergoing active forest restoration. All activities remain **within the same project area as defined in the PDD**. These areas were **pasturelands and shrublands with scattered trees before project initiation** and have been subject to assisted natural regeneration interventions, including enrichment planting. This has been explicitly documented in **Section 1.11.3 of the PDD** and was verified during the **CC audit visit in September last year**.

Documentation provided by project participant

VVB assessment

Date: 18/02/2025

VVB confirms that PP has adequately addressed concerns regarding the classification of "protected areas" and their compliance with the applied methodology. PP has confirmed that no new project instances or areas were added beyond the originally validated scope. Instead, these areas, previously pasturelands and shrublands with scattered trees, were actively restored through assisted natural regeneration and enrichment planting.

CL has been closed.

CL	13	Section no.	TR	Date: 06/02/2025
Description of CL				
The validation report also refers to the following: <i>"Section 3.1 of Validation report - "According to the VCS Standard the project can be considered eligible under VCS, since it meets the following criteria:</i> <i>a) the project activity falls into the ARR AFOLU project category as explained above.</i> <i>b) The project area, where the proposed A/R project is implemented, <u>a jurisdictional REDD+ Program is under development</u>. The same was confirmed from the MARENA website http://www.marena.gob.ni/Enderedd/ /43/ and the Forest Carbon partnership website https://www.forestcarbonpartnership.org/country/nicaragua /44/"</i>				
Project participant response				Date: 12/02/2025
It is crucial to clarify that the carbon credits claimed from these areas are derived exclusively from sequestration through restoration, in full alignment with the ARR methodology under which the project was validated. There are no claims related to avoided deforestation or degradation, which are fundamental criteria for categorization as a REDD+ project. If these areas had been natural forests undergoing mere protection without active interventions, a REDD+ classification might have been warranted. However, this is not the case here, as these areas were degraded lands actively being restored.				
Documentation provided by project participant				
VVB assessment				Date: 18/02/2025
VVB confirms that the carbon removals claimed are solely based on sequestration from restoration activities, without any claims related to avoided deforestation or degradation. Since REDD+ projects primarily focus on emissions reductions through forest protection, the inclusion of these areas does not require a REDD+ classification.				
CL has been closed.				

CL	14	Section no.	TR	Date: 06/02/2025
Description of CL				

VCS Standard, version 4.7, section 3.2.2	
<i>“Where projects are located within a jurisdiction covered by a jurisdictional REDD+ program, project proponents shall follow the requirements in this document and the requirements related to nested projects set out in the Jurisdictional and Nested REDD+ Requirements.”</i> The new area added during the monitoring period under “protected area” must follow the requirement above, which was not assessed at the time of initial validation. Project Proponent is requested to re-visit this requirement and do the needful.	
Project participant response	Date: 12/02/2025
The reference to VCS Standard v4.7, Section 3.2.2 applies to projects within a jurisdictional REDD+ program, requiring nesting only if the area falls under such a framework. ARR projects are not automatically subject to JNR requirements unless the host country mandates nesting for all land-based carbon projects, which Nicaragua’s REDD+ strategy does not require. The strategy focuses on deforestation and degradation, aiming to reduce emissions, without explicitly mandating ARR projects to be nested within the national REDD+ framework. Furthermore, Version 4.7 of the VCS Standard applies to new areas added to a project. As demonstrated in Argument 1, no new areas have been introduced—only shifts in baseline and implementation within the existing project boundary. Therefore, this requirement does not apply to the project in question. Given the above points, the project remains fully compliant with its approved ARR methodology, and there has been no deviation from the originally validated project scope. As the protected areas do not function as REDD+ components, there is no requirement for alignment with the Jurisdictional and Nested REDD+ framework.	
Documentation provided by project participant	
VVB assessment	Date: 18/02/2025
VVB confirms that PP has appropriately demonstrated that the Jurisdictional and Nested REDD+ (JNR) requirements under VCS Standard v4.7, Section 3.2.2 apply only when new areas are added within a jurisdictional REDD+ program. In this case, the project remains within its originally validated boundary, and Nicaragua’s REDD+ strategy does not mandate ARR projects to be nested. Therefore, the project remains fully compliant with the methodology, and there is no deviation requiring adherence to JNR requirements.	
CL has been closed.	

Table 3. CAR from this verification

CAR	01	Section no.	VCS MR	Date: 13/10/2024
Description of CAR				
PP shall revise following sections of MR, • Section 1.2, Auditing history: PP shall rectify duration of time period for current monitoring period. • In section 1.6, PP shall reframe the sentence according to submission and issuance dates. • Section 1.7, PP shall describe the crediting period in years. • Section 1.9, PP shall revise the table with appropriate reference ID of tools. • Various sections of MR has mention of CO₂, PP shall mention in appropriate format i.e. CO₂. • The date format is not given as per the VCS template instructions. • PP shall provide no. of PSPs as per strata in section 4.2 of MR. • Thought the MR, Various fonts are used, PP shall adhere to VCS guidelines for font and font size.				
Project participant response				Date: 24/10/2024

- In Section 1.2, current monitoring period is adjusted - In Section 1.6, the dates were corrected to “<i>The last monitoring report was submitted on 31-May-2021 (Joint MR) and successfully verified on 02-May-2022 (RINA)</i>”, - In Section 1.7, the crediting period has indicated as <i>forty years which is within VCS credit period requirement</i>. - In Section 1.9, Corresponding ID were added when possible. Some Tool do not have an ID (CDM tools) as seen in: https://cdm.unfccc.int/methodologies/DB/C9QS5G3CS8FW04MYXXDFOQDPXWM4OE - The appropriate format CO₂ and CO₂e was applied throughout the document - The appropriate date format dd-Month-yyyy was applied throughout the document - In Section 4.2, the number of sampling plots has been stated - The correct font and font size (Franklin Gothic book, 10.5) was applied throughout the document. - The VCS standard on title page has been adjusted.	
Documentation provided by project participant	
Monitoring report adjusted (file VCS 2365 MR 01032021-31082024 v2)	
VVB assessment	Date: 18/11/2024
Based on the review of VCS MR provided by PP, VVB confirms that PP has updated and integrated the following in VCS MR:	
- Section 1.2 has been rectified with current monitoring period. - Section 1.6 submission and issuance dates has been corrected. - Section 1.7 the crediting period has been described in years accordingly. - Section 1.9 the table has been revised and the reference ID tools has been added. - Appropriated format for CO₂ and CO₂e has been applied throughout the document. - Appropriated date format as per VCS template instruction has been applied throughout the document. - In section 4.2 the number of PSPs as per strata has been provided - Fonts (Franklin Gothic book, 10.5) has been applied throughout the document. - PP is requested to rectify the latest version VCS standard on title page.	
CAR is closed.	

CAR	02	Section no.	Non-Permanence Risk Report	Date: 13/10/2024
Description of CAR				
In the Non-Permanence Risk Report, - The date format is not given as per the VCS template instructions. - The section for monitoring period is differed to monitoring period define in VCS MR. - The table given is not in line with the VCS template instructions. PP shall fill the cover page in compliance with the VCS template instructions.				
Project participant response				Date: 24/10/2024
- The appropriate date format dd-Month-yyyy was applied throughout the document - The monitoring period is adjusted throughout MR and NPRR - Table Overall Non-Permanence Risk Rating and Buffer Determination adjusted in NPR report.				
Documentation provided by project participant				
File VCS 2365 Non Permanence Risk Report 2021-2024 v2				
VVB assessment				Date: 18/11/2024

Based on the review of the Non-Permanent Risk Report provided by PP, VVB confirms that in section 4 regarding to Overall Non-Permanence Risk Rating. the table is not in compliance with section 4.2 of the VCS template instructions. PP shall fill the report in compliance with the VCS template instructions accordingly. Further PP is requested to revise the date of issue on the title page. PP shall provide the PDF version of the NPRT from the Verra project Hub.	
Project participant response	Date: 19/12/2024
NPR report is adjusted. The report from the NPRT from Verra Project Hub is send separately.	
VVB assessment	Date: 27/12/2024
Upon review of Digital NPRT report and revised documents, VVB confirms revisions are appropriate. CAR is closed.	

CAR	03	Section no.	AFOLU Non-Permanence Risk Tool	Date: 13/10/2024
Description of CAR				
As per the AFOLU Non-Permanence Risk Tool version 4.2, in the sheet named Overall NPR rating & Buffer det, the value for internal risk, external risk and natural risk are empty, additional the rest of section of this sheet are empty. PP shall correct the inconsistency in the values.				
Project participant response				Date: 30/10/2024
The corresponding table on sheet <i>Overall NPR</i> in the AFOLU Non-Permanence Risk Tool was adjusted following the other sheets results.				
Documentation provided by project participant				
File <i>Non Permanence Risk Report-Calculation Tool 2365</i>				
VVB assessment				Date: 18/11/2024
Based on the review of NPRR provided by PP, VVB confirms that all pointed raised above have been updated accordingly. Values were found consistent. CAR has been closed.				

CAR	04	Section no.	OSV Observation	Date: 13/10/2024
Description of CAR				
Based on the review of the VCS MR and supporting documentation related to the risk assessment for pollutants, the PP has only analyzed and provided evidence for consecutive monitoring parameters for water. For soil, the monitoring parameters are focused on those useful for plantation establishment and management, and not specifically related to pollution. PP shall correct the inconsistency in the point accordingly.				
Project participant response				Date: 24/10/2024
There is not regulation in place in Nicaragua that obliges to monitor pollutants in soil, that is why the Environmental monitoring plan do not monitor for this. MLR elaborate further with an analysis of legal requirements, where this type of analysis is not stated In Section 2.4, row <i>soil degradation and erosion</i> , pollutants were not identified as a risk for soil. With these in mind, Section 2.2.2 was corrected to indicate monitoring of quality parameters only in water, not in soil.				
Documentation provided by project participant				
- Matrix of legal requirements regarding the soil component (file CAR04 Requisitos Legales Suelos 2024)				
VVB assessment				Date: 18/10/2024
Based on review of the files and the response provided by PP, VVB confirms the clarification provided by PP is enough and the finding raised above has been clarified satisfactory. CAR has been closed.				

CAR	05	Section no.	5.2.2.3 VCS MR	Date: 13/10/2024								
Description of CAR												
As per the section 5.2.2.3 of the VCS MR, about the carbon stock in protection area, the table 28 define the total change in the carbon stock for protection area, where the increment in carbon stock is 43,839. Nevertheless, the table 29 shows that is value is for teak in cacao instead of protection area.												
PP shall rectify this inconsistency.												
Project participant response				Date: 23/10/2024								
Table 29 has been amended to clarify that this is in fact the carbon stock in the protection area												
Documentation provided by project participant												
VVB assessment				Date: 18/10/2024								
Based on review of the VCS MR and VCS ER Export sheet provided by PP, VVB confirms that the table numbers are revised throughout the MR. In section 5.2.2.3 of VCS MR, Table 33 is titled as teak but shows values for protection area (image shown below). PP is requested to rectify the inconsistency.												
Table 33. Carbon increase in teak compared to the previous verification round.												
<table><tr><td>Reforestation type</td><td>Current carbon stock</td><td>Previous carbon stock</td><td>Δ Carbon</td></tr><tr><td>Protection area</td><td>43,838.9</td><td>0</td><td>43,838.9</td></tr></table>					Reforestation type	Current carbon stock	Previous carbon stock	Δ Carbon	Protection area	43,838.9	0	43,838.9
Reforestation type	Current carbon stock	Previous carbon stock	Δ Carbon									
Protection area	43,838.9	0	43,838.9									
Project participant response				Date: 19/12/2024								
Title of Table 33 adjusted												
VVB assessment				Date: 27/12/2024								
VVB confirms the revisions in VCS PD.												
CAR is closed.												

CAR	06	Section no.	5.2.2.1 & 5.2.2.3 VCS MR	Date: 13/12/2024
Description of CAR				
As per the section 5.2.2.1 of the VCS MR, about the carbon change in SOC in teak plantations, the table 19 is empty.				
As per the section 5.2.2.3 of the VCS MR, about the Carbon increase in teak compared to the previous verification round, the table 33 the title of the table is for protection area.				
PP shall rectify this inconsistency.				
Project participant response				Date: 19/12/2024
Inconsistency in Table 19 is corrected Inconsistency in Table 33 is corrected				
Documentation provided by project participant				
VVB assessment				Date: 27/12/2024
Upon review of revised PD, VVB confirms the corrections in the table and revisions in table number. CAR is closed.				

CAR	07	Section no.	VCS 2365 ER sheet 2024_Final -to use.xlsx	Date: 13/12/2024
Description of CAR				

Regarding the ER sheet in the sheet called “Areas” the Stand code 4401(planting year 2017) and code 4402 (planting year 2018); Nevertheless, the ER was designed as code 4401 (year 2018) which causes an error in the “EP_Cacao” sheet in the “Current Tree Carbon Stock” section for “Double Row” plant systems. PP shall rectify this inconsistency whether the code is 4401 or 4402 for “EP_Cacao” sheet planted in 2018.	
Project participant response	Date: 19/12/2024
The stand code is 4401 is year 2021; while the Teak in cacao stand code 4402 is year 2018. Issue is fixed	
Documentation provided by project participant	
VVB assessment	Date: 27/12/2024
Upon review of ER sheet, tab “EP_Cacao”, 4401 is for 2017 plantations and 4402 is for 2018 plantations. Inconsistency is addressed. CAR is closed.	

APPENDIX 5: COMPETENCE CERTIFICATES



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Isha Kapoor

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), A 6.4 AS (V1.0) ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Validator/Verifier (Trainee)	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☐ SDG Expert	☐ Expert Social aspect	☐ Expert Environment aspect	☐ Health Expert
☒ Regional Expert for India			

in the following Technical Areas:

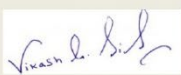
☐ TA 1.1	☐ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☒ TA 14.1	☒ TA 15.1	☐ TA 16.1		

Issue Date

20th January 2025

Expiry Date

19th January 2026



Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

Revision date	Summary of changes
Dec 2023 ¹	Change in the template due to revision in TA and function
April 2024	Revision due to A6.4 Implementation
Jan 2025	Revised as per the latest organogram.

CC IPL_FM 7.9 Certificate of Competency_ V7.0_17012025

¹ Please refer to previous version of FM 7.9 for the revision history



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Pablo Angulo

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), A 6.4 AS (V1.0) ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|---|---|--|---|
| ☐ Validator | ☐ Verifier | ☐ Team Leader | ☒ Technical Expert |
| ☐ Technical Reviewer | ☐ Validator/Verifier (Trainee) | ☐ Gender Expert | ☐ Plastic Waste Expert |
| ☐ CCB Expert | ☐ Legal Expert | ☐ Financial Expert | ☐ Environmental, Health and Safety financial matters |
| ☐ SDG Expert | ☐ Expert Social aspect | ☐ Expert Environment aspect | ☐ Health Expert |
| ☒ Regional Expert for Costa Rica and Spanish speaking countries | | | |

in the following Technical Areas:

- | | | | | |
|---|---|----------------------------------|----------------------------------|----------------------------------|
| ☐ TA 1.1 | ☐ TA 1.2 | ☐ TA 2.1 | ☐ TA 3.1 | ☐ TA 4.1 |
| ☐ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☐ TA 7.1 | ☐ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☐ TA 13.1 | ☐ TA 13.2 |
| ☒ TA 14.1 | ☒ TA 15.1 | ☐ TA 16.1 | | |

Issue Date
20th January 2025

Expiry Date
19th January 2026



Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

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¹ Please refer to previous version of FM 7.9 for the revision history



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|--|---|---|--|
| ☒ Validator | ☒ Verifier | ☒ Team Leader | ☒ Technical Expert |
| ☒ Technical Reviewer | ☐ Validator/Verifier (Trainee) | ☐ Gender Expert | ☒ Plastic Waste Expert |
| ☒ CCB Expert | ☐ Legal Expert | ☒ Financial Expert | ☒ Environmental, Health and Safety financial matters |
| ☒ SDG Expert | ☐ Expert Social aspect | ☒ Expert Environment aspect | ☐ Health Expert |
| ☒ Regional Expert for India/RSA and Spanish speaking countries | | | |

in the following Technical Areas:

- | | | | | |
|---|---|----------------------------------|---|---|
| ☒ TA 1.1 | ☒ TA 1.2 | ☐ TA 2.1 | ☒ TA 3.1 | ☒ TA 4.1 |
| ☒ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☒ TA 7.1 | ☐ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☒ TA 13.1 | ☒ TA 13.2 |
| ☒ TA 14.1 | ☒ TA 15.1 | ☐ TA 16.1 | | |

Issue Date
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Expiry Date
19th January 2026



Mr. Amit Anand
CEO

Revision History of the document:

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April 2024	Revision due to A6.4 Implementation
Jan 2025	Revised as per the latest organogram.

CCIPL_FM 7.9 Certificate of Competency_V7.0_17012025

¹ Please refer to previous version of FM 7.9 for the revision history