

Terms of Reference for Project Verification against the ACORN Methodology V1.1

Introduction

ACORN (Agroforestry CRUs for the Organic Restoration of Nature) is an initiative developed by Rabobank. The objective is to increase the accessibility of the international carbon market for smallholder farmers in the developing world. The Plan Vivo Foundation has certified and supported the development of two key components of the ACORN program:

- **ACORN Framework** – A set of requirements that all ACORN projects must meet. These requirements detail out what projects need to adhere to be eligible to generate high-quality carbon credits.
- **ACORN Methodology** – Rules and procedures around the estimation of climate benefits from ACORN projects

The purpose of these two documents, in addition to the [ACORN platform](#), is to improve the efficiency of the registration, reporting and validation process, whilst also ensuring that all ACORN projects are of a high enough quality to also align with the Plan Vivo Standard.

This Terms of Reference (ToR) can be used for third-party validation of an ACORN project against the ACORN **Framework V1.0** and **Methodology V1.1**, both approved under the Plan Vivo Standard version 4.0 (2013).

Objectives

The purpose of verification is to ensure a thorough, independent assessment of the biomass and carbon benefit calculations for quality assurance of the CRUs generated and that they fall within the reported range and adhere to the accuracy requirements listed in the ACORN Methodology. This includes an assessment of the:

- Veracity and accuracy of the information included in the ADD and Annual Report(s),
- Ground truth data collection
- CRU calculation sheets
- Adjustment factor justifications

Scope and Methods

The verification process involves application of auditing techniques including:

- i. A critical review of project documentation and any other relevant documentation or supporting evidence to enable the project to be properly assessed against the ACORN Framework and Methodology. During field visit(s) the Validator and Verification Body (VVB) must verify, measure and inventorize biomass values following the method for collecting ground truth data. The data of minimum 6 plots during the fixed measurement month (+/-2 months) must be collected by an independent body (following AM-004 Module for Representative Sampling Strategy Ground Truth v1.0). These remeasurements should include at least 1 ground truth plot from the previous year.
- ii. Preparation of the verification report in the outline given in Annex 1 and submission of this with any supporting evidence to the Plan Vivo Secretariat.

Each of the requirements from the ACORN Methodology, that a VVB should give input, are provided along with guidance on how to assess in the verification report template (Annex 1). VVBs are expected to assess and give opinions on all of these requirements with information taken from the field visits, assessment of the Annual Report(s) and ADD, and requests for further supporting information from ACORN and the Local Partner organizations. Sources of information should be identified and, wherever possible, cross-checked with other sources to ensure that the validation report represents an accurate and relevant assessment of the project.

Sampling Plans

It is expected that the VVB appropriately samples elements of the project to create an image of whether compliance is achieved on a larger scale. These elements include, but are not limited to:

- Project sites
- Participant, community member, and Local Partner staff interviews

The template in Annex 1 of this ToR will, on multiple occasions, give guidance that information should be collected or confirmed through a sampling process. Sampling should be completed according to an appropriate sampling plan. A minimum of 20 farmers have to be interviewed during the verification on site visit. These farmers shall be from different ecoregions and/or communities.

Outputs

The output of the verification is an **ACORN Verification Report**. Along with any supporting documents, it presents the review findings and details of the project's compliance with each of the relevant requirements in ACORN Methodology (some requirements may not be necessary or possible to assess at verification). The template for the verification report is given in Appendix 1. The verification report template includes the following sections in each of the two broad themes. All these need to be completed:

A. Requirement

The verification report should describe how the project meets each requirement of the ACORN Methodology. This section gives the specific requirement that needs to be assessed by the VVB. In some sections, very similar requirements have been grouped together for efficiency. Refer to the ACORN Methodology for further clarification.

B. Guidance notes for VVBs

This section indicates how the specific requirements might be assessed by the VVB by giving some suggestions about where the necessary verification information might be obtained. Other sources or means of answering the verification question might also be possible if available.

C. Findings (describe)

In this section the VVB should answer the verification questions. This should be a comprehensive response (rather than a simple yes/no) explaining the reason for the answer given. The findings should be used to justify the decision given under 'conformance'.

D. Conformance

In this section the VVB should indicate whether conformance with the ACORN Methodology has been achieved.

E. Corrective Actions (describe)

Where the VVB finds that the project is not compliant with a given requirement of the ACORN Methodology, the report should specify the corrective actions needed for compliance and propose a timescale within which it must be implemented. A New Information Request and an Observation may also be applied where felt appropriate by the VVB.

Corrective Action Request (CAR): A non-conformance with the ACORN Methodology that is likely to influence the ability of the project to deliver the benefits intended. A CAR needs to be corrected prior to the completion of the verification.

Procedural Corrective Action Request (PCAR): A non-conformance that is likely to arise due to the result of the existent processes in place by Acorn, or lack thereof. A PCAR is first identified by the VVB and confirmed by Plan Vivo in consultation with Acorn. A procedural non-conformity is a systemic non-conformity that needs to be addressed on the project level - corrected prior to the completion of the validation/verification - and on the programme level.

New Information Requests (NIRS): A requirement is insufficiently met or not clear enough to determine its compliance to the Acorn Framework and Methodology. The verification team needs other additional information to complete the assessment.

F. Acorn's Response (if applicable)

In the draft verification report, this section should be left blank in order for ACORN to provide a reply to any CARs/PCAR and/or NIRs raised. ACORN must then explain why they believe compliance has been achieved and/or why the CAR/PCAR/NIRs has been addressed. Tables, extracts of project documentation, photos, Excel tables etc. may be referred to or inserted into this section to demonstrate compliance.

G. Status (if applicable)

After Acorn's response(s) to the CARs/PCAR and/or NIRs raised, the VVB should assess whether the reply has sufficiently (CLOSED) or not sufficiently (OUTSTANDING) addressed the CAR/PCAR and/or NIRs raised. If deemed appropriate, they may opt to convert a CAR into a Forward Action Request (FAR) (see below). The reviewer should also provide supporting arguments for the decision by explaining what steps have been taken by the Project Coordinator in order to demonstrate compliance.

H. Forward Actions (describe, if applicable)

If deemed appropriate by the VVB, a CAR may be converted into a FAR if it may reasonably take a long period of time to resolve and it is unlikely to materially affect the project's delivery of the intended benefits. Any FARs should be given a timeframe to resolve and all FARs should also be summarized in Table 3 of the Verification Report. No more than three FARs should be open to close the verification assessment, and in such event, the FARs should be converted to CARs.

I. Others

The reviewer may find areas where procedures, data or documentation could be clarified or improved, but which are not deemed material enough to impose a corrective action. In this case, the reviewer

should make observations or recommendations, which the Plan Vivo Foundation will follow up with ACORN at its discretion. These should also be included in the report.

Verification Opinion

The verification report will include a summary verification opinion, as to whether:

- i. The project documents represent an accurate and clear description of the project and its activities.
- ii. Based on an objective assessment of the project, the project is compliant with the ACORN Methodology.

At the discretion of the VVB, a project may receive a positive verification opinion with open FARs (up to three) where an agreed time-frame is reached for meeting them. Projects with open CARs (OUTSTANDING) should resolve the CARs with the VVB before a positive verification opinion can be given.

Project Documentation and Supporting Evidence

The project coordinator will make all project documentation needed for the verification available to the VVB at least 2 weeks before the field visit. Please refer to Appendix 2 for the List of documentation required.

The VVB reviewer is expected to use their expert knowledge and professional judgment to evaluate all the available evidence to determine which of the requirements of the ACORN Methodology are satisfied by the project as designed and documented.

Publication of Verification Reports

The ACORN verification report and all of its contents and any drafts will remain confidential until the ACORN publishes its contents following the VVB's decision regarding a successful Verification. All verification reports will be published on the ACORN website.

Annex 1: Project Verification Report Template

The project verification report should be completed using the following template as a guide. Additional material such as photographs, copies of documents or parts of documents (providing material evidence) may also be added if relevant to the validation. **Please, do not modify the format of this report without prior approval from the Plan Vivo Secretariat.**

Name of Reviewers:

- **Ahalee Bhowmik** – Team Leader/Technical Expert
- **Kiran KV** – Team member/Technical Expert
- **Pranav Redkar** – Trainee Assessor
- **Adriana Perez Jimenez** - Local Expert
- **Isha Kapoor**- Technical Reviewer

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Date of Review: 1st July 2025

Project Name: Solidaridad Colombia

Project Description: The Solidaridad Colombia Project is a Acorn Validated smallholder agroforestry Planting project initiative aims to enhance the quality and productivity of coffee and cocoa farms through agroforestry, while building resilience to climate change and reducing carbon emissions. The project is implemented in six regions within Colombia: Risaralda, Tolima, Huila, Caldas, Antioquia, and Santander. VVB, based on the on-site interviews and Shapefiles^{E/} confirms that the areas planted are in Risaralda, Tolima, Huila, Caldas, Antioquia Bolivar and Santander region and the main species used in the agroforestry system include *Coffea arabica*, *Coffea canephora*, *Theobroma cacao*, and various native shade trees such as *Inga ornata*, *Cedrela odorata*, and *Albizia carbonaria*.

The project started in January 2019 and by March 2023^{D/}, a total of 3782 farmers were onboarded with a total of 6391 ha of area. This includes both coffee and cocoa farmers. During the second reporting period, the project saw significant expansion, incorporating more coffee producers and new cacao producers. According to latest Annual report i.e. 2023-2024^{D/}, till March 2024 total 17,776 farmers were reported in project this value includes 3782 farmers included in last reporting period, resulting in addition of 13994 farmers with 38,604 Ha. The crediting period of the project is 20 years, and it is undergoing first verification for monitoring Period (March 2020 – March 2024) after successful validation in year 2024^{I/}. VVB has further

performed an independent web-search/reference of literature¹ or website reviewed to cross-verify that the species planted are native to the project region and will have net positive impact in and/or around the region.

The project has generated a total of 32861 Carbon Removal Units (CRUs) till March 2024, this vintage wise description given below. The planting of shade trees has created a better micro-climate, improved soil quality, and increased biodiversity on farms. Farmers receive training on sustainable practices, and the project councils facilitate community involvement and feedback.

Year	CRUs generated	CRUs available after added remaining CRUs from last reporting period	CRUs sold	Available CRUs for next reporting period
Historic	5745**	-	2967	2778
2019-2023	25289	28067	12249	15818
2023-2024	1827	17645	16119	1526
Total	32861		31335	

** To build trust with farmers and demonstrate the project's concept, a total of 5745 CRUs were issued during the initial phase. This included 5616 CRUs generated by the first cohort of coffee farmers, and 129 CRUs from early adopters in the cocoa segment. This initial issuance contributed to greater farmer participation over time.

During the reporting period from 2019 to 2023, participation significantly increased, leading to a total generation of 25289 CRUs. Although the concept of annual reporting was formally introduced in 2022, the first “annual” report included cumulative data from the project’s start in 2019. Furthermore, in reporting period 2023-2024, reported CRU generation is 1827 CRUs, which is deemed to be acceptable to VVB based on carbon calculation data package^{/C/}. Hence, VVB confirms total CRUs 32861 generated till March 2024 and 31335 CRUs sold.

List of Principal documents reviewed (including list of sites visited and individuals/groups interviewed):

A. Solidaridad Colombia Acorn Project Design Document

- Solidaridad Colombia ADD y1.2
- Solidaridad Colombia ADD Y2.8
- Solidaridad Colombia ADD Y3.2
- Solidaridad Colombia ADD Y3.3

B. ADD Annexes

- Annex 1: Map of Project location and ecoregion
- Annex 2: Land tenure documentation (sample-based)
- Annex 3: Organization structure
- Annex 4: Local partner and farmer business case
- Annex 5: Letter to national government
- Annex 6: Project council reports

¹ [Plants of the World Online | Kew Science](#)

- Annex 7: Input data for adjustment factor calculations
- Annex 8: Farmer contract
- Annex 9: Local partner contract
- Annex 10: Case studies on risk of climate change
- Annex 11: Solidaridad certificate of registration.
- Annex 12: National laws
- C. Carbon calculation sheets
 - VDP_Colombia_Cacao_final030924_updated_20250312_&_20250408
 - VDP_Colombia_Coffee_final030924_updated_20250312_&_20250408
- D. Annual reports
 - Solidaridad Colombia Annual Report y01
 - Solidaridad Colombia AR y0.2
- E. GIS and shapefiles
- F. Stakeholder consultation and ongoing communication
 - Surveys
 - GRIEVANCES
 - WhatsApp communication
 - brochures
- G. Project management plans
 - Training_engagement
 - 1. PROTOCOLO DE VIAJES (TERRESTRES-FLUVIALES-AEREOS)
 - 2. PROTOCOLO DE SEGURIDAD EN ZONAS RURALES
 - 3. PROTOCOLO DE COMPORTAMIENTO – SEGURIDAD
 - 4. PROTOCOLOS DE SEGURIDAD PARA VISITAS VIP
 - Acorn Guidance Manual v0.1
 - ACORN__1
 - Acorn_Agroforestry_Methodology_v1.1
 - CENICA_1
 - GT data - guidance chapter
 - REMOTE_1
 - REMOTE_2
 - SOP Collecting and Processing Ground Truth v.20241108
- H. Miscellaneous
 - Funding available Colombia
 - Sustainability Policy Framework
- I. Validation report of project
- J. Onsite interview/ inspection
 - Table 1: List of individuals interviewed:
 - Table 2: Farmer interviews
 - 09 Tenure agreement and Participant Agreement verified on-site.
 - Field data
 - Onsite notes
 - Attendance

Visited sites: Total 9 farms were visited of coffee and cocoa plantation.

Sr. No.	Farmers Name	Total Area (Hectares)	Lat/long
1.	[REDACTED]	3 ha	2.3586221 N– 75.8941563W
2.	[REDACTED]	1.3 ha	2.2132943N – 75.5346978 W
3.	[REDACTED]	1 ha	2.2134103 N- 75.5351438W
4.	[REDACTED]	2.5 ha	2.2202399N – 75.5651191W
5.	[REDACTED]	1 ha	2.2218149N – 75.5634544W
6.	[REDACTED]	1 Ha	2.2625594N – 75.3022382W
7.	[REDACTED]	2 ha	2.2602.845N – 75.3030062W
8.	[REDACTED]	3 ha	2.2590318N – 75.3042478W
9.	[REDACTED]	1.5 ha	2.2219129N – 75.5013339W

Table 1: List of individuals interviewed:

Sl. No.	Name (Organization)	Date	Type
1	[REDACTED] (Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
2	[REDACTED] (Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
3	[REDACTED] (Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
4	[REDACTED] (Acorn)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
5	[REDACTED] (Acorn)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
6	[REDACTED] (Field technician, Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype

7	██████████ (Field technician, Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
8	██████████ (Field technician, Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
9	██████████ (Field technician, Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
10	██████████ (Regional data coordinator, Acorn)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
11	██████████ (Coordinator, Solidaridad)	23 rd September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
12	████████████████████ (Farmer onboarded after validation)	23 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
13	████████████████████ (Farmer onboarded after validation)	23 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
14	████████████████████ (Farmer onboarded after validation)	23 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
15	████████████████████ (Farmer onboarded after validation)	24 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype

16	██████████ (Farmer onboarded after validation)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
17	██████████ (Farmer)	24 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
18	██████████ (Farmer onboarded after validation)	25 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
19	██████████ (Farmer)	25 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
20	██████████ (Farmer)	25 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
21	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
22	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
23	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
24	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype

25	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
26	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
27	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
28	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
29	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
30	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
31	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
32	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
33	██████████ (Farmer)	27 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype

34	[REDACTED] (Farmer onboarded after validation)	26 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype
35	[REDACTED] (Farmer onboarded after validation)	26 th September 2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype

Description of field visit: An on-site visit took place over 5 days from 23rd September 2024 to 27th September 2024 in Colombia. Opening meetings followed by discussion, group interview, and document review were conducted with the Project Coordinator (Solidaridad) and local partner in La Plata, Huila. The following on-site visit was conducted from 23rd September 2024 to 27th September 2024.

Agroforestry Site

Table 2: Farmer interviews

Sr. No.	Farmers Name	Total Area (Hectares)	Lat/long	VVB Assessment
1.	[REDACTED]	3 ha	2.3586221 N–75.8941563W	VVB, based on the Acceptance Sampling have cross-verified the data and parameter of 09 sample plots period that occurred during the 1 st periodic verification along with interviews conducted with relevant farm holders. Through these interviews, VVB confirms that all individual plots range between 0.1 and 10 hectares. The local partner promotes the use of native species in agroforestry systems. VVB has also cross-referenced the species database with Plants of the World Online ² , confirming that all 144 species included in the project are either native or naturalized. Furthermore, VVB confirms that there has been no increase in the total number, weight, or grazing days for any
2.	[REDACTED]	1.3 ha	2.2132943N – 75.5346978 W	
3.	[REDACTED]	1 ha	2.2134103 N–75.5351438W	

² [Plants of the World Online](#) | [Kew Science](#)

4.		2.5 ha	2.2202399N – 75.5651191W	livestock type relative to the baseline scenario. Additionally, there is no evidence of carbon stock loss due to tree harvesting, either during or after the crediting period, as observed during the first periodic verification, furthermore the farmers also confirmed that they want to plant more shade trees which will result in a better micro-climate for the farms and for coffee and cocoa growing, an increase in pollinators, the conservation of soil, economic benefits for farmers, and articulation with other projects. VVB also confirms that no heavy machinery has been used for site preparation or management. Farmers emphasized the difficulties of importing or exporting machinery and materials due to poor road conditions and the steep slopes of the mountainous terrain. Lastly, the VVB confirms that no synthetic (nitrogen-based) fertilizers are being used within the project area; instead, farmers exclusively utilize organic fertilizers, such as decomposed cocoa leaves and organic matter, to improve soil nutrition. VVB, furthermore confirms that PC has signed the has signed Participant Agreements with all individual farmers, who are also aware of the clause stipulating that 80% of the revenue generated from the Carbon Removal Units (CRUs) will be distributed to them. Additionally, the farmers are informed about the grievance mechanism and are kept up-to-date with ongoing communications regarding Project Council meetings and the training sessions regularly conducted by Solidaridad. .
5.		1 ha	2.2218149N – 75.5634544W	
6.		1 Ha	2.2625594N – 75.3022382W	
7.		2 ha	2.2602.845N – 75.3030062W	
8.		3 ha	2.2590318N – 75.3042478W	
9.		1.5 ha	2.2219129N – 75.5013339W	

During the on-site inspection, continuous discussions and interviews were conducted with farmers, community members, selected security staff, women's groups, and project staff. Site conditions and the technical capabilities of project staff were observed. The interview

with the Acorn & Solidaridad Team was conducted from 23rd September 2024 to 26th September 2024. A closing meeting with project coordinators and participants was held at La Plata, Huila on 27th September 2024.

Risk Assessment:

In line with The Acorn Framework v1.0^{/A/}, VVB has followed a risk-based assessment approach based on review of the ADD^{/A/}, to evaluate correctness, completeness, and consistency of the data reported. An evidence-gathering plan has been developed to assess and mitigate any risk associated with description and justification for the project particulars. VVB has also evaluated and cross-checked the uncertainty analysis performed by the PC for addressing any sample errors, measurement error of model inputs and model prediction error, and estimation of project area.

Monitoring System Evaluation:

During the on-site interviews^{/J/}, VVB conducted a thorough examination of the monitoring system selected by the Project Coordinators. In order to assess the suitability of the monitoring system, VVB employed a two-pronged approach:

- Cross-checking the appropriateness of the technology and competence of MRV personnels^{/G/} using the technology.
- Cross-checking the appropriateness of the monitored values derived from the system^{/G/} and the appropriateness of the ground truthing exercise collaborated by MRV personnels^{/G/} for sample plots.

For bullet 1, VVB undertook a comprehensive review of the SOP^{/G/} documentation pertaining to the monitoring system, evaluating the standardized monitoring processes^{/G/}. Subsequently, VVB scrutinized the competency certificates of the MRV personnel^{/G/} engaged in this standardized monitoring. Further verification occurred through on-site interviews^{/J/} conducted during the inspection. The assessment outcomes are as follows:

- ✓ The remote sensing technology used for monitoring is deemed appropriate.
- ✓ VVB, further confirms the appropriateness of the SOP^{/G/} used for using this monitoring system.
- ✓ Adding further, the MRV personnels^{/G/} were found competent and VVB confirms that they can appropriately apply this standardized process to yield the monitoring results.
- ✓ In addition to above, VVB has cross-checked the raw data^{/K/} of following parameters and compared it by performing few witnesses' measurement of sample plots by using acceptance sampling:
 - i) Tree Height
 - ii) Diameter at Breast Height
 - iii) Number of trees

Based on the observations made during the on-site inspection^{/J/}, VVB affirms that the monitoring approach employed by the Project Coordinator has been determined to be

accurate and suitable. This conclusion was further verified through a ground truthing exercise carried out by the VV team during the on-site inspection^{/J/}. A comparative analysis of both sets of results, namely the raw data used in carbon calculation and the outcomes of the on-site witness^{/J/} performance, revealed a high degree of similarity, with negligible or no discernible variation.



On-Site Field Measurement:

The field measurement performed by the VVB team reveals no material discrepancy and has been found to be aligned with the monitoring measurements conducted by PC. The PC has used the ruler method while VVB has used both Nikon rangefinder and ruler method for the measurement of tree height. Both the devices were calibrated on site and have been found to be accurate and applicable for the field measurements.

The DBH has been verified through the diameter tape. Furthermore, the VVB has also interviewed^{/J/} the MRV personnel involved project monitoring and field measurement from PC's side and found them competent to perform such standardized measurements for tree parameters (tree height and diameter). The equipment used for the measurement was found appropriate as the results from VVB's equipment reveals comparable and/or consistent results. VVB also interviewed^{/J/} PC's MRV team and noted that there exists a standardized monitoring SOP^{/G/} has been employed for the project monitoring and/or reporting of field measurement activity.

Data Transfer and QA/QC Verification:

The monitoring raw/field data^{/K/} have been cross-checked with the one transferred to VDP work sheet and found that there were no material errors or omissions during the transfer of data from one platform to other. Hence, VVB confirms that no discrepancy was observed in the data and information flow system applied by the PC. VVB during the desk review of project documentation has checked the following documents to assess the PD's QA/QC process and to cross check the results presented in the VDP work sheet^{/K/} with the raw data sheets^{/K/}:

1. Latest Annual report^{/D/}.
2. Agreements with landowners have been verified during the on-site inspection^{/J/}, which is evidence of the total land area implemented under the project. This is also evidence for the title of the land and this agreement also confirms the relinquishment of carbon credit rights from landowners to the PC.

3. Shape files of each of the plots^{/E/}.
4. SOP/Protocol for the project^{/G/}
5. Raw records of field measurement done by the PC^{/K/}
6. Records of training^{/G/}

VVB has interviewed^{/J/} personnel responsible for the carbon calculation^{/C/} including those who transferred the data in the mobile software and further trans imposed it to the excel sheets. This review of the system reveals correct data and information flow, and no discrepancy was found. The QA/QC of the data/information flow including data archiving based on this assessment has been found to be adequate and applicable.

Conclusion:

Through the above-mentioned activities, the VVB confirmed the following aspects in relation to the project activity:

- Implementation and operation of the project,
- Correctness of the data flow for generating, aggregating, and reporting monitoring parameters,
- Proper implementation of procedures for operations and data collection,
- Cross-check the information provided in the documentation with other sources,
- Accuracy of GHG removal data and ER calculations,
- Effectiveness of QA/QC procedures to prevent or correct errors or omissions in reported parameters.

Verification Opinion:

CC IPL has conducted the First (01st) periodic verification of the registered Acorn project “*Solidaridad Colombia*” for the Monitoring Period (March 2020 to March 2024). This assessment has been performed based on all guidance and criteria as provided in The Acorn Framework 1.0.

The purpose of this report is to document the compliance of the proposed Acorn project “*Solidaridad Colombia*” (hereafter referred to as “project”) with the requirements of the Acorn Framework^{/A/} and the applied Acorn Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry (Version 1.1)/A/, Acorn Validation and Verification Cycle – Sampling Approach and Program Certification^{/A/}, and subsequent decisions by the Acorn Standard Secretariat.

The verification was conducted on the basis of the following:

- ✓ Assessment of compliance with the Acorn Framework^{/A/}.
- ✓ Assessment of compliance with the applied Acorn Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry (Version 1.1) ^{/A/}.
- ✓ Assessment of project compliance with the relevant rules including host country legislation

The verification activities conducted by CC IPL included: collection of information, documents and data supporting the reported GHG removals; assessment of biomass

inventory and GHG calculation spreadsheets; assessment of monitoring practices on the field; assessment of information management system; assessment of whether the project has been implemented in accordance with the validated documentation; and assessment of whether the provisions made in the monitoring plan were consistently and appropriately applied.

VVB, at conclusion, confirms the reasonableness of the assumptions, limitations and methods, used to forecast information, and based on the evaluation (as detailed in this report), confirms that sufficient and appropriate information has been provided in the Acorn ADD & Annual Report for future estimate, any limitation and methods, used for the forecast.

The verification has been performed using a risk- based approach. The verification assessment has been conducted to indicate the reasonableness of assumptions, limitations, and methods supporting the statement made by the project coordinator regarding the ex-ante i.e., constant values for the relevant data and parameters. Based on the review of the Acorn design description (ADD), data package (carbon calculation spreadsheet) and relevant supporting evidence (i.e., Project supporting documentation, GIS files and Maps, peer review literature, species-specific research studies) VVB confirms that all the assumptions and statements made by the Project coordinator are valid and appropriate with the possible reasonableness.

The project activity provides the information in ADD and Annual reports as required by the ACORN Framework V1.0, Methodology V1.1 and in Carbon Check's opinion meets the requirements of the Acorn framework has successfully achieved emission reduction in current monitoring period. The current monitoring period generated total 32861 CRUs. During the verification, a total of 25 findings have been raised, which includes 13 Corrective Action Requests (CARs), 00 Procedural Corrective Action Request (PCARs), 09 New Information Request (NIR), 00 Observations, 05 FAR from previous validation and 3 FARs from this periodic verification has been raised which will be addresses and cross-verified in the next periodic verification.

The VVB concludes with a reasonable level of assurance that the project is in conformance with Acorn Framework (Version 1.0)^{/A/}, Acorn Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry (Version 1.1)^{/A/}, Acorn Validation and Verification Cycle – Sampling Approach and Program Certification^{/A/}, Validation ToR Standard V5^{/A/}. No qualifications or limitations exist with respect to the verification opinion reached by the auditor. CCIPL confirms that the project has been implemented in accordance with the validated project documentation and applied Acorn requirements.

The VVB, hereby certifies that the quantity of CO₂ benefits acquired by the project activity from 2019-2024, 32861 tCO₂e (including buffer reduction) as described in the table below:

Year	CRUs generated	CRUs available after added remaining CRUs from last reporting period	CRUs sold	Available CRUs for next period	CRUs for reporting period
Historic	5745**	-	2967	2778	
2019-2023	25289	28067	12249	15818	
2023-2024	1827	17645	16119	1526	
Total	32861		31335		

Table 1. Summary of draft report on Corrective Actions (Insert Numbers)

Theme	CARs	NIRS	PCARs
Project council	-	01	-
Other stakeholder consultation	-	01	-
Signed Agreements	01	01	-
Benefit Sharing Mechanism	-	01	-
Carbon regulations	01	-	-
Agroforestry Design	01	-	-
Business Case	01	-	-
Grievances	-	01	-
Monitoring Plan	01	-	-
Buffer Pool	-	-	-
Livelihoods Monitoring	-	-	-
Ecosystem Monitoring	-	-	-
Reporting-Annual reports	01	01	-
Double-counting	-	01	-
Applicability conditions	02	-	-

Carbon Baseline	02	01	-
Model development	01	01	-
Model application	-	-	-
Pre-project trees adjustment factor	-	-	-
Uncertainty adjustment factor	-	-	-
Leakage adjustment factor	01	-	-
Quantification of carbon benefits	01	-	-

Table 2. Summary of open Forward Actions (if any)

Forward Action Requirement (FAR)	Description	Process to Resolve	Time Frame to be Closed By
List the FAR number (and the CAR it relates to if not obvious)	<i>Describe the non-compliance</i>	<i>Describe how this is to be resolved and who the evidence should be submitted to for review</i>	<i>When should the FAR be closed by</i>
01	Considering that the ADD is the project's main public-facing document and a key channel for disseminating information, and that a conscious decision was made to present a sales price that differs from the actual market price, how is transparency ensured for project participants regarding the real commercialization value of the credits and the appropriate distribution of revenues?	During current verification, the VVB reviewed this pricing methodology and the mechanisms through which commercialization insights are shared with participants. The following observations were made: • Chatbot-Based Communication: The Local Partner has developed a WhatsApp chatbot tailored to project participants, through which farmers can access individualized CRU issuance data. This digital channel enhances accessibility and understanding of personal performance metrics in a user-friendly format. • Limitations in Revenue Transparency: While the chatbot increases data access at the individual level, it does not fully address transparency related to the actual sale price of CRUs or the disbursement of associated revenues. Specifically, there is no structured mechanism for farmers to track real-time market pricing or verify the per-unit revenue that flows to them. • Annual Reporting Gaps: Although Annual Reports cover sales and pricing details, they may not be readily accessible or easily understood by all participants. As such, the link between reported market prices and participant-level benefit sharing remains opaque to some stakeholders. In view of the conservative financial projections presented in the ADD and the limited visibility provided through participant-level tools such as the WhatsApp chatbot, the PC shall establish clear communication protocols that transparently convey real CRU	During subsequent verification

		<i>sales values and associated revenue flows to project participants. This finding was initially raised as CAR 04 during the TRP round of Plan Vivo. However, the justification and evidence provided by the Project Coordinator (PC) were not sufficient to close the CAR. Therefore, CAR 04 has been converted into FAR 01, which will be reviewed during the next periodic verification.</i>	
02	<i>The argument presented is that recent extreme events have not significantly affected “people.” However, the primary concern here is not the direct impact on individuals, but rather the financial performance of the systems due to environmental variables—which, in turn, indirectly affects people. Therefore, even in the absence of records showing direct human impacts, the key issue remains how such events could impact the plantations.</i>	<i>Should at minimum provide a qualitative vulnerability analysis, citing secondary sources or simplified regional models. This finding was initially raised as CAR 06 – Topic 3 during the TRP round of Plan Vivo. However, the justification and evidence provided by the Project Coordinator (PC) were not sufficient to close the CAR. Therefore, CAR 06 – Topic 3 has been converted into FAR 02, which will be reviewed during the next periodic verification</i>	<i>During subsequent verification</i>
03	<i>Asserting that the risk of illegal logging is low solely because of training sessions and awareness-raising efforts appears to</i>	<i>The potential risk of illegal logging was initially raised as a Corrective Action Request (CAR 06 – Topic 6) during the current verification cycle. Concerns stemmed from the observation that risk mitigation efforts—primarily focused on training and awareness—offered a simplified narrative, lacking robust evidence to substantiate a low logging risk classification.</i>	<i>During subsequent verification</i>

be an overly simplistic and insufficient justification. Additionally, considering the early age of the trees, it is highly unlikely that any extraction has occurred to date.

Project participants come from communities with certain financial vulnerabilities. Factors such as commodity price fluctuations (e.g., coffee and cocoa) and reduced productivity due to climatic conditions could influence a shift in perception—viewing timber reserves as a form of financial security. The most compelling argument presented in the ADD to justify the low risk is the lack of financial attractiveness of logging.

Key contextual elements, such as the financial vulnerability of project participants and potential shifts in livelihood strategy due to commodity price fluctuations (e.g., coffee and cocoa), were noted. These could lead to a re-evaluation of timber resources as fallback financial assets. While tree age limits immediate extraction feasibility, longer-term economic pressure may shape farmer incentives.

The most compelling justification presented in the ADD relates to the low financial attractiveness of timber harvesting, further supported by Colombian market studies.

The local partner highlighted that farmers are acutely aware of challenging terrain characteristics (e.g., steep slopes and high altitude), which further diminish the feasibility of logging and reinforce reliance on perennial crops like coffee and cocoa.

After review, the VVB acknowledges that while the justification has been supplemented, it remains qualitative and context-dependent. This finding was initially raised as CAR 06- Topic 6 during the TRP round of Plan Vivo. However, the justification and evidence provided by the Project Coordinator (PC) were not sufficient to close the CAR. Therefore, CAR 06 -Topic 3 has been converted into FAR 03, which will be reviewed during the next periodic verification. This reflects the need for continued scrutiny and documentation of behavioral, economic, and ecological drivers that influence logging risk within the project area.

Analysis is needed to be provided to support this claim or to demonstrate that logging is indeed economically unviable, as proposed. It is recommended a more robust approach to sustain low logging risk.

Table 3. Assessments requested by reviewers from ADD and/or technical specification review process

Relevant requirements within Methodology	Description of concern	VVB comments	Corrective actions (if any)	ACORN response	Resolved?
		<i>After assessing the project against the raised concerns, please include comments on whether any aspects of the project are non-compliant with the Plan Vivo Standard.</i>	<i>Please write “none” if no correction actions required.</i>	<i>If corrective actions required, ACORN must provide response detailing changes made to address concerns.</i>	<i>(for VVB) Has ACORN’s response resolved the concerns.</i>
5.4	<i>Insufficient numbers of sample plots were assessed.</i>	<i>Increase the number of farms assessed in the next verification</i>	FAR 01 from previous validation: <i>According to the requirement, insufficient number of farms assessed.</i> -	-	<i>Yes, VVB has increased number of farms as well and number of people interviewed</i>

					wed during current verification.
4i	<i>Analysis of the soil organic carbon has not been provided.</i>	<i>Analyze the soils as per requirement in the following verification.</i>	FAR 02 from previous validation: <i>The requirement of soil organic carbon has not been assessed.</i>	-	Yes
7.1.4.1 & 7.2.1	<i>The description, details of the model was missing. PC shall provide the model once it has been validated.</i>	<i>Provide the model once it has been validated</i>	FAR 03 from previous validation: <i>The model has not been provided yet.</i>	<i>The model used in Colombia was S4G's (space 4 model. The validation of this model is in progress and should be completed by end of August. Ground truthing data was collected according to the requirements in the Acorn Methodology in two ecoregions Cauca valley montane forests and Cauca valley dry forests). One model has been created for each ecoregion , the ecoregions were classified according to WWF "terrestrial scheme". See Annex 1 of ADD to demonstrate the two ecoregions that models have been built for and the distribution of farmers in each.</i>	Yes Model was provided to VVB.
CRU Calculation Excels	<i>All the formulas provided in the excel sheet is hard coded. It doesn't allows the readers to</i>	<i>Provide a more detailed excel (calculations) in the</i>	FAR 04 from previous validation: <i>For the next verification, please, add</i>	<i>The PC has provided an additional excel document with two examples of how the calculation has been done.</i>	Yes

follow and understand the calculations.

next verification to allow the follow up of the formulae (traceability)

all the formulae behind the calculation in the main excel document to reproduce the calculations of all the data.

4.2.19 & 4.2.20

In the following verification, the auditor should review the grievance reports, which should be reported after first verification as mentioned in the ADD . The information above shows the way to solve the FAR.

Grievances will indeed be reported as mentioned in the ADD after first verification

FAR 05 from previous validation *In April 2024, the VVB has closed the FAR due to the proper resolution by the PP.*

Provided the Grievance mechanism and justified some complaints received

Yes, In April 2024, the VVB has closed the FAR due to the proper resolution by the PP.

4.2.15

Some of the farmers were not aware of the Agroforestry Design.

Farmers should be provided with a field manual/ SOP which shall include the entire process of implementation, maintenance, practices etc.

CAR 01: *VVB, during the interviews with the individual farmers found that the farmers had not been provided with relevant Standard Operating Procedures or any manuals to guide them in implementing their agroforestry design.*

During the field visit, both Acorn and Solidaridad teams explained that Acorn projects do not provide standard operating procedures to farmers. Instead, local partners are responsible to provide trainings and agroforestry related assistance to participants. In the case of this Acorn project, Solidaridad works with the carbon farming academy. This was also presented by the responsible team of

Yes

		-		Solidaridad through an online meeting in which the carbon farming academy platform was shown and explained to the auditing team.
4.2.14	The following fundamental arguments lacks of reference: - Most producers do not have the means to implement a successful agroforestry project on their own - Participants live below the poverty line and struggle financially + Colombian farmers live below the poverty line with an income between 3000 and 4000 USD - It is likely that a part of the shade-trees and neighbouring forest would be cut down to plant more coffee, cocoa or other crops for self-consumption and trading - Although farmers had no technical knowledge on agroforestry practises before this project, they were aware that such practices build resilience against climate change. If it wasn't for their lack of financial resources, farmers would have attempted to transition to	More information is needed in Part C: Additionality Assessment in the ADD as per Section 4.3.1 and 2 of the Acorn Framework	CAR 02: 1. Detailed information and referencing are missing from the following points in ADD: a. "Positive list" section, item B: Law and regulations are only listed. There is no explanation of how each of regulation relates with the proposed project interventions. b. "Barrier analysis" section: Although most statements seems to be the rural reality struggled by farmers and experienced by Solidaridad	ADD has been updated to address these remarks. Unfortunately, the link no longer seems to exist. Update reference how demonstrate similar findings on inequalities of farmers in Colombia. Rural Policy Review of Colombia 2022 Knowledge for policy. The last two arguments are based on the knowledge and experience of our local partner

agroforestry before the project implementation.

through working with them, it is important for "carbon documentation" to have all statements somehow referenced (or a proxy rationale based on numbers, statistics, etc).

2. "Positive list" section, item "c": Please correct units to "mm"
3. "Barrier analysis" section: Please correct footnotes number references + footnote broken link (<https://desarraigocafe.com/>)

4.1.7

1. Description for the selection of species and timber species is not transparent.
 2. No descriptions and explanation are made of native/naturalised characteristics.
- Justification on the selection of the species shall be provided. PC shall also provide the clarification for the use of the timber species describing about the harvesting plan. More*

CAR 03: The following issues should be corrected/clarified:

1. PC to provide with and publish information referred for selection of tress.

CENICAFE, in its publication 474, establishes the guidelines for setting up an agroforestry system as well as the types of trees recommended for each arrangement. As such, this is already a guideline that is in line with the agroforestry systems promoted in this project. Furthermore, Solidaridad makes use of its technical experience and

Yes

- | | | |
|--|---|--|
| <p>3. Not clear if species would include food and/or medicinal components.</p> <p>4. Explanation for the choice of using timber trees and how the eligibility will be maintained throughout the project lifetime is not transparent.</p> | <p>information is needed in Part F: Project Activities in the ADD as per Section 4.1.7 and 4.1.3 of the Acorn Framework</p> | <p>2. Coffee and cocoa not included as the agroforestry species, therefore, no descriptions and explanation is made of native/naturalised characteristics.</p> <p>3. For coffee system is not clear if species would include food and/or medicinal component. However, trees should have some type of cultural value (and also be ornamental as described).</p> <p>4. For cocoa system, only timber trees will be used. Moreover, as planned harvesting of timber trees is not possible due to eligibility criteria of Acorn, Solidaridad should explain better on the choice of using timber trees and how will the eligibility will be</p> |
|--|---|--|
- CENICAFE's research, it makes the most demanded trees available to producers, so that the producer can select the tree that best suits their farm. The publication of CENICAFE can be found [here](#).
- 2.The inclusion of both coffee and cocoa are based on the central relevance of these crops in the livelihood of participants, who have been planting these species for years, even prior to the implementation of the Acorn project. These species have been included now in the ADD.
3. Other species details have been added in the ADD to substantiate the decision to include these. In this regard, the Acorn framework requires these species to have "Impact on biodiversity or other provision of key ecosystem services in the project and surrounding areas". The section F of the ADD provides this information and it does not require the species to have food or medicinal properties.
4. Similarly to point number 1 of this CAR, the selection of trees has been done based on Solidaridad's on ground expertise and preferences of participating farmers. At the same time, the timber species mentioned in this CAR are also pointed out by CENICAFE as recommended species, reassuring the suitability for local conditions. Furthermore,

			maintained throughout the project lifetime.	Solidaridad sensitizes participants on the importance of carrying no harvesting and Acorn's eligibility requirements. More importantly, the auditing team was able to verify the absence of timber harvesting activities among interviewed farmers during the field visit.	
4.2.17	More information is needed for the Business case.	More information is needed for the Business case excel spreadsheet, sheet 'input - assumptions per year'	CAR 04: "Part I: Payments and Benefit Sharing" calculates CRUs price as around 20 euros (120/6). However, project financial modelling is based on 30 euros and ADD document price is around 10 euros (162.695/17357).	Initial drafting of the ADD considered a CRU price and the low range to be conservative. With time, CRU prices have been shown to easily reach 30 euros per cru. Hence, the redrafting and update of the business case took this value for the financial modelling. However, the project implementor considers that stating the lower price range (20 euros) in the ADD is deemed as a conservative and right approach to describe the financial projection. This conscious decision to describe a price of 20 euros has been made explicit in the ADD, with the disclaimer that prices can vary. Note: Confidential document provided to VVB upon request.	No, Converted to FAR 01
4.2.21 and 4.2.22	The key observations are as follows: a. The trees were not properly marked, making traceability difficult.	The client is requested to provide the corrected values for the first three plots using the appropriate approach. Additionally, to enhance the QA/QC of field	CAR 05: During the on-site inspection, VVB selected sample plots for acceptance sampling and observed that the client has collected the ground truth data for 60 selected	Values for the initial 3 plots have been reassessed and updated data provided to the validator for verification purposes. Additionally, attached to this you can find the document containing the Standard operating practice for data collection and quality assurance. In addition, we provide	Yes

- b. The tree height measurements, PC is sample plots during the the data collection training material which measurements did not align requested to cross-check VVB's visit only. However, is used as guidance by the data collectors with the methodology's SOP. the ground truthing data during the inspection of
- c. There is a need for in the future. the first three plots, VVB noted that the procedures for monitoring tree height were not in compliance with the SOPs outlined in the methodology. The key observations are as follows:
 - a. The trees were not properly marked, making traceability difficult.
 - b. The tree height measurements did not align with the methodology's SOP.
 - c. There is a need for improvement in recording field data using the appropriate monitoring equipment, along with further training and capacity building for MRV personnel.

However, VVB confirms that PC employed the ruler method to measure the heights of the trees for the remaining 57 sample plots. VVB determined that the error was isolated and not systemic error. As a result, the client is requested to provide the corrected values for the first three plots using the appropriate approach. Additionally, to enhance the QA/QC of field measurements, PC is requested to cross-check the ground truthing data in the future.

5.8.3

1. the following points are not clear as per the requirements of the Acorn Framework: Insufficient (local) nurseries
2. Animal or human interference
3. Negative Project Cashflow
4. Political Instability

More information is needed in Part L: Reversal Risk Assessment in the ADD as per Section 4.9.2 of the Acorn Framework

CAR 06:

Based on the review of Part L: Reversal Risk Assessment under Table describing risks, risk levels, suggested mitigation measures and justifications, the following points are not clear as per the

1. 1. Solidaridad has created a Particular consortium for supporting ly sustainable coffee production. As resolv part of the activities, they have ed identified the certified nurseries (point 3 available in the country, to ensure & 6 that there is enough supply of conver seedlings for farmers. Solidaridad d to has established strategic FAR) partnerships to ensure a strong

5. *Natural Risks*

6. *Logging risk*

requirements of the Acorn Framework:

1. *"Insufficient (local) nurseries": Solidarid is ask to clarify what type of support and alliance is made with nurseries that could prevent seeds and seedlings supply. Moreover, a, overview should be provided on supply and demand for seedlings (ex. estimation of seedling needs for project X installed capacity of nurseries) to emphasize if this type of risk is actually low, as reported.*

2. *The topic of "Animal or human interference"*

support network for the project, including the provision of plant material through local nurseries. Refer to FAR 2 & 3

These partnerships with associations and nurseries guarantee an adequate supply of native species seedlings and cacao required for the project, minimising the risk of shortages. Based on estimated seedling needs, the capacity of these nurseries is sufficient to meet the project's goals, reinforcing the low-risk classification regarding the availability of plant material. Details of partnered seedling suppliers can be found here. Partnerships with nurseries + political instability.

2. *As witnessed during the field visit, the presence of livestock was minimal and non-existent on participating plots of this Acorn project. The combination of cacao and coffee as crops with grazing cattle is an exception. At the same time, producers are aware of the importance of conserving shade trees, which would lead them to take necessary measures to guard shade trees from possible animal interference. Furthermore, the slops of coffee plots do not*

- doesn't address its concerns (ex. Erect fencing, help mediate disagreements between perceived land boundaries). Solidaridad is requested to explain how animal or human interference will not harm the agroforestry systems to justify the low risk proposed.
3. "Negative Project Cashflow": As Solidaridad has limited reserves to deal with unforeseen events, more information and analysis should be carried out to demonstrate the proposed score of
- allow for the presence of cattle such as cows, which could interfere with the crops. This has also been witnessed by the auditor during their field visit.
3. The likelihood of natural disasters in the project area leads to a low risk of negative cash flow. More specifically, droughts and wildfires are the event with highest potential for impact in terms of carbon sequestration. In the case of Colombia, the last 10 years have seen a remarkable low number of people affected by wildfires and the latest significant drought to affect a big number of people took place in the late 1990's. Statistics for these hazards can be found here. Finally, it is important to highlight that Solidaridad promotes trees and agroforestry systems as a risk mitigating measure, addressing from droughts likelihood to erosion on steeped plots.
4. The security assessment mentioned in the CAR has been annexed and shared for your verification.
5. Solidaridad does not only monitor the development of natural disasters and hazards but also analyses the likelihood of these based on historical events. In this regard, based on the hazard trends for the last 50 years, the risk for droughts and fires

- low risk. For example: how much of project loss could be covered with Solidaridad reserves, likelihood of natural disasters, etc.
6. The continuous training and sensitisation on the importance for retaining trees is a core element of this project. This is done through trainings via the carbon farming academy platform and through plot visits by field technicians. Nonetheless, it must also be noted the result of the field visits and farmer interviews during the verification of this project. During these, the experience of the validator visiting the plots and interviewing participants should be considered. In terms of logging events, none of the visited plots showed signs of tree harvesting and none of the interviewed participants indicated to have harvested its trees nor having performed any commercial activities related to logging.
4. "Political Instability": Please provide evidences of security assessments that Solidaridad have access.
 5. "Natural Risks": Although Solidaridad has already done a valuable work on perception and impact of climate change, more assessment on the historical events and likelihood of each type of risk should be done.

Moreover, due to the medium risk identified,

Solidaridad shall give more detailed information of the effective actions that will be carried out to avoid impacts to the project (if this is already proposed on the Coffee, Forest and Climate

agreement, more information on how this will be implemented on the specific project structure needs be detailed).

6. *"Logging risk": Please provide evidence for the statements corroborating to low risk of logging (non profitability*

of logging trees,
tree replating
after cutting
down, etc)."

4.5 and 4	<i>Inconsistencies found based on the review of the KML shapefiles and Remote Sensing Analysis.</i>	<i>PC shall provide a clarification about these KML plots and shall consequence provide the evidence in compliance with Acorn Framework section 7.7.</i>	CAR 07: Based on the review of KMLs and shapefiles provided by PC, VVB confirms that there are some inconsistencies detailed as follows: 1. PC in part L (Applicability conditions) of ADD, shows that the project area was not cleared of native vegetation within 5 years of the start of the project intervention. Nevertheless, PC does not provide such evidence of this point; the ADD mentioned that "a verbal check was performed with the local partner who confirmed this, and t-5 checks from remote sensing measurements confirmed it as well".	1. According to the Acorn Guidance Manual v1.0 available on the Acorn and Plan Vivo website (also see attached), the remote sensing-based approach for deforestation is only for risk management purposes. A failed polygon can be overruled by the local partner and a justification has to be submitted to Plan Vivo for approval. The procedure for Deforestation is found in the guidance document (page 159). The number of failed polygons is outlined in the ADD part "D". 2. The number of total hectares has for coffee and cacao plots has been updated both in sheet "1. Cru Calculation" in column "Calculated Plot Area" and in sheet "7. Plot Details" in column "Calculated Plot Area". Furthermore, the ADD has been updated to and is now aligned with the Geojson file in terms of total project area. Please note that the total project areas indicates the area of onboarded plots but it doesn't mean all these plots have generated CRUs. GEOJSON file shared represent total size of all farms(plots).	Yes
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PC shall provide a clarification and the corresponding evidence to demonstrate the land cover status 5 years before the start date of the project in accordance with Acorn Framework section 5.1.2.

2. The total sum of plot area shown in *geojson files related to Cocoa plots is 21,067.90 ha vs 20,924.38ha, calculated from the same file; differing at 143.52ha. Furthermore, in the same way for coffee plots, the total sum reported was 25,730.66ha vs 25,591.93ha, calculated from the coffee plots *geojson file; differing, at 138.73ha.

Additionally, a discrepancy between the total Project area reported in ADD and the Annual report was exhibited; ADD shows a

3. 'Based on the additional information we notice that the year when the data layer was created differs from that of the onboarding of the farmer or the start of the project (sometimes with a difference of 10 years). Some examples include plot CO209171 – 350783 in year 2014 indeed there is water unlike year 2024, where this is not the case. Similarly plots CO222303 – 386701 & CO222275 – 386617, where the observation is from year 2002, but the farmers are onboarded in 2024. Other discrepancies we note are related to plots nearby waterbodies (for example rivers CO222476 – 387220), where the coarse resolution of the data layer (250m) can be the source of the error.

4. Acorn has in place a quality check for overlapping polygons and erroneous geometry. Please refer to the "Geometry checks.pdf" file to know the checks developed to onboarded plots.

In the data packages you can find CRU summaries. At tab 4c for Cacao and 1a for coffee - all the way to the right.

The data packages are updated again with table 5 a.b.c. – was missing but remains the same as before.

total project area of 6,996.74ha vs 6391ha in Annual report vs total area of *geojson files.

PC is requested to provide a clarification about this point and share plot files (*geojson) aligned with the ADD and Annual report accordingly.

3.The wetland assessment is based on the dataset of [Global Surface Water](#)³. When overlaying all the project plots (Coffee and Cocoa) with the Global Surface Water layer, it is evidenced that there are some plots that intersect with a pixel of water. This result indicates that there is a plot within water body or possible wetland indeed. The figure below exhibits the overlapping of some plots of Cocoa

Following the logic of the Geometry check, - the GeoJson files are updated and additional overlap analysis can be found under:

- Colombia plots overlap over 10p ONHOLD
- Colombia plots overlap below 10p ACTIVE
- Colombia plots NOoverlap 5m gps inaccuracy

This is a combination of both cacao and coffee and overlapping plots removed. In principle for:

- Plots with >10% overlap are put 'on hold' until LP provides new geometry for the plot
- Cancel x CRUs – 2 plots with CRUs.
- Plots with <10% overlap remain active

³ Global Surface Water : is a data set that depict the location and temporal distribution of water surfaces at the global scale over the past 38 years and provides statistics on the extent and change of those water surfaces. The dataset, produced from Landsat imagery (courtesy USGS and NASA), will support applications including water resource management, climate modelling, biodiversity conservation and food security.

with water layer and clearly depicts that some plots have water pixels inside.

PC shall provide a clarification about the plots and in consequence provided the evidence accordingly with Acorn Framework section 7.7.

4. There are plots of Coffee with boundary that are overlapped with boundary of the neighbor plot; this issue of overlapping has influence in terms of area estimation because there are some common are in all plots that present this condition.

PC shall provide a clarification about this point and update plot of Coffee files accordingly

Requirement 4.5 and 4 Applicability conditions from the methodology	<i>Inconsistency found under framework section 5.2, positive list requirement</i>	<i>VVB requests PC to clarify about fulfilment of the requirement mentioned out under framework</i>	CAR 08: <i>According to framework section 5.2, positive list requirement VVB found that requirement (c) & (d) are</i>	<i>This table has been updated on the ADD. Yes While the human development index for different regions within the project area is above 0.6 HDI, the mean annual precipitation reaches 358mm for the</i>
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		section 5.2, positive list requirement	not met in the ADD, considering the stated requirement, at least one of the requirements should be met. VVB requests PC to clarify about fulfilment of the requirement.	wettest area (Risaralda). The previous value shown in the ADD was reflecting the total annual precipitation, which is different from the mean annual precipitation. In the case of the latter, no region in which the project is implemented has a mean annual value higher than 600mm per year (16698-WB_Colombia Country Profile-WEB.pdf)	
Section 6 Carbon Baseline pre-project tree adjustment factor from Methodology	As per the requirement of Acorn Framework, clarification is needed on how the AGD modelled for 2020 obtained from GT conducted later.	PC is requested to clarify that how AGD has been modelled for 2020.	CAR 09: In the excel spreadsheet, PC has mentioned that AGB for each plot expected for year 2020 is collected or year 2020 based on GT data. However, the earliest date of GT data collection is January 2021 for coffee and November 2022 for cocoa. Please clarify how the AGD modelled for 2020 obtained from GT conducted later.	This is described in the document on Model calibration. The model is not calibrated for yearly variability but for biomass range. The goal of model calibration is to cover the full range of biomass variability. Therefore, at any given time when the model is applied, the measured value should be in the calibration range. The model is verified for the year of verification with data collected on that year. If the model meets the accuracy acceptance criteria and is calibrated for the project range, additional calibration from different time periods is not necessary.	Yes
Section 6 Carbon Baseline pre-project tree adjustment factor from Methodology	a. Lack of the word cocoa for the Nutritional Variety and Agricultural Productivity. b. This additional step raises questions about whether the final value accurately reflects the biodiversity as	a) Clarification is needed as per Part D: project baseline assessment in the ADD b) More info required Needed to be corrected	CAR 10: The following issues should be corrected/clarified: a. On Nutritional Variety and Agricultural Productivity, on topic 2, probably lack of the word cocoa (2nd line).	The word cocoa was included in the ADD as described in the point a. of this CAR. Regarding the Gini-Simpson Index, the calculation was modified following the FAO methodology (Tool for Agroecology Performance Evaluation (TAPE) - Test version). In this, the final result is an average of the three calculated indices	Yes

measured by the index. To verify the validity of the final result, a more detailed explanation of this conversion process is needed, particularly how it aligns with the ecological factors and the original methodology of the Gini-Simpson Index.

- c. Two list of species >2m and non of <2m. There is probably a mistake.*

- b. Initially, the Gini-Simpson Index was calculated following the standard formula relative abundance of each species. However, it seems that a conversion or adjustment was applied afterward to reach the final figure, which was not clearly explained.*

- c. Two list of species >2m and non of <2m. There is probably a mistake.*

(Crops, Livestock and vegetation indexes). The ADD was modified accordingly. In terms of tree species 2m>, the two lists used are correct and both of them aim to display number of trees higher than 2 meters. As such, these reflect the distribution of trees per species for each agroforestry system (coffee and cocoa). This data is derived from the initial ground truthing exercise on plots of belonging to the different crops .

4.5.4. and Section 7.1.1,7.1.2., 7.1.3. and 7.1.4

Model validation report does not provide sufficient details based on the guidance provided in section 7.1 of Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry, v1.1

PC shall provide further information especially on sample plot for ground truth data collection, remote sensing imagery, model calibration and uncertainty assessment

CAR 11: *The Model validation report provided by PC does not provide sufficient details based on the guidance provided in section 7.1 of Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry, v1.1, 2023. PC is requested to provide further information*

Further details can be found in RS process description. **Yes**

				especially on sample plot for ground truth data collection, remote sensing imagery, model calibration and uncertainty assessment	
4.6.1, 4.6.2 from Framework and 8 from Methodology	<i>If cattle ranching is a relevant activity in the region, arguments for this type of activity being shift is not presented.</i>	<i>More clarification is needed in Part M: Technical specifications in the ADD as per Section 4.1.6 of the Acorn Framework</i>	CAR 12: <i>There are significant areas of grassland class within the surrounding areas of the project. No explanation is given if those are natural conserved areas or used for cattle ranching. If cattle ranching is a relevant activity in the region, arguments for this type of activity being shift is not presented.</i>	<i>The observed grasslands are not protected areas, but private owned lands. More importantly, despite the grassland type of area observed, it must be pointed out the project participants rarely have cattle on their land. This was also seen during the field visit, in which majority of interviewed farmers indicated to not own any cattle (cows) or those who did, do so for self-consumption of milk and not as a commercial activity. Therefore, no grassing is expected to be shifted from participant's plots to the grassland type of areas (as mentioned in this CAR) due to the project implementation. As an example, the plots in which coffee is produced are located on highly steeped hills (as evidenced during the field visit), making their lands not apt for cattle grazing and reducing the likelihood of participants having cattle. Finally, the leakage adjustment factor of the Acorn methodology takes into consideration the landcover of surrounding areas to determine whether a potential shifting of</i>	Yes

				<i>activities outside of participants areas can lead to a reduction of carbon in other areas. In this regard, grasslands are not considered to be a significant source of carbon pool.</i>
Requirement 4.5.3 from Framework and Section 9 Quantification of carbon benefits from methodology	<i>The values provided in the excel carbon calculation spreadsheet are hard-coded. It doesn't allow the reader to understand the traceability of the formulas.</i>	1. <i>PC is requested to provide the complete calculation procedure mentioned in the methodology (all relevant equation) and their cross references in the excel spreadsheet.</i> 2. <i>PC is requested to provide cross references within the spreadsheet on the data calculation and present the values with their units for replicability</i>	CAR 13: 1. <i>The CRUS generated for the reported period 03/2022 – 03/2023 is mentioned as 7372, however, the calculation procedure in line with the equation 11 of methodology in which the value has been obtained is not provided in the excel spreadsheet. PC is requested to provide the complete calculation procedure mentioned in the methodology (all relevant equation) and their cross references in the excel spreadsheet.</i> 2. <i>It has been observed that all the values provided in the excel</i>	<i>Updated data packages for both coffee and cocoa will be provided for review. CRU summaries can be found at CRU calculations tabs for cacao 4a and for coffee 1a all the way to the right</i> Yes

spreadsheet are hardcoded and units are not given appropriately. PC is requested to provide cross references within the spreadsheet on the data calculation and present the values with their units for replicability

4.2.3 and 4.2.18	<i>VVB has identified the missing evidence necessary to fulfil the requirements of Acorn Framework v1.0: 4.2.3 & 4.2.18</i>	<i>PC is requested to provide the following documents as per the requirements of Acorn Framework v1.0: 4.2.3 & 4.2.18</i>	NIR 01: As per the requirements of Acorn Framework v1.0: 4.2.3 & 4.2.18, the following documents are missing: • Minimum 2 Project council of 2020 & 2021, One more project council of 2022 and Minimum 2 Project Council of 2024 • Minutes of meeting/Report of meeting held twice a year during current	This project had a total of 2 project council sessions during the first reporting period (March 2022- March 2023) as at that moment the project had only one project council. During the second reporting period (March 2023 – March 2024) the project established an additional project council given the geographical expansion. From here onwards, the project councils were labelled “Zona Central- Risaralda” and “Zona sudoccidental – Cauca”. During this reporting period (2nd), two sessions were held for each project council . Furthermore, during the project council meetings different stakeholder groups were present, such as producers, local partner ,women and elderly participants. Regarding the request for information on meetings with	Yes
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- monitoring period.
- identified stakeholders (women, disadvantaged, etc), during the project council the attendance was varied in terms of genre and have included female participants. When it comes to the election of representatives by farmers, it is necessary to remark that the Acorn framework allows for the use of pre-existent governance structures to facilitate the composition of the project councils. In this regard, representatives of this specific Acorn project are known by participants in their communities. At the same time, representatives can always opt to not take part in the project council and other participants can request participation as a representative to Solidaridad.
- The project coordinator shall provide records for meetings held with the specific target group. e.g. women, social advantages etc.
- Details of established project council with protocol followed for nomination of members.
- Details of lead farmer chosen by participants.

4.2.16	As per the requirement of Acorn Framework, the records, minutes, and photographs of community meetings and training workshops are missing	PC shall provide the records, minutes, and photographs of community meetings and training workshops	NIR 02: The records, minutes, and photographs of community meetings and training workshops, as specified in the guidance, are missing.	Community meetings as such are not a strict requirement of the Acorn framework. More importantly, it is important to stress that the guidance manual content does not represent a strict requirement. On this topic, community meetings are a suggested and advice approach for starting projects in order to achieve farmer engagement during the design phase of the project. In this regard, Solidaridad Colombia's project is	Yes
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currently undergoing its 3rd year and has complied with the yearly requirement of performing at least 2 project councils. In terms of trainings, the auditors attended an online presentation by the team of Solidaridad who introduced the carbon farming academy, a platform used for online and offline training of participants and sharing of educational material. A presentation is available in the following [link](#) and also [here](#).

This is not explicitly stated in the Framework v1.0 it is more advice provided to Acorn from PV as a best practice and developed overtime. Under version 2.0 it this will be more specifically addressed in the participant agreements.

To-be-participant agreement: “The project participants, including you, are represented in the project council via appointed representatives. These representatives are selected and appointed either by a democratic election process, an existing governance structure or another method approved by Acorn. If you are appointed as a representative in the project council, you will collect input from other participants to prepare for the council meeting. We expect you to share the meeting outcomes with the

				participants you represent in a timely manner”.	
4.2.15	As per the requirement of Acorn Framework leaflets regarding Project Council meetings and their outputs/minutes, is absent	PC shall provide the leaflets regarding Project Council meetings and their outputs/minutes	NIR 03: The leaflets regarding Project Council meetings and their outputs/minutes, is absent	Project council meetings reports are shared again as an answer for NIR 01 and project council invite flyers and messages are attached to this document to address this specific NIR (03)	Yes
4.2.12	“Standard Terms to Project Implementation and Carbon Removal Unit Purchase” are also missing from the provided documents.	ARR - 3 Project finances tabel 3b	NIR 04: “Standard Terms to Project Implementation and Carbon Removal Unit Purchase” are also missing from the provided documents.	The document is attached for your control. However, it is important to note that this document (“ Standard Terms to Project Implementation and Carbon Removal Unit Purchase”) has been renamed as “Participant agreement” to facilitate the understanding by participants. As such, this document has been requested to interviewed farmers during the field visit.	Yes
4.2.19 and 4.2.20	As per the requirement of Acorn Framework Grievance logbook/ records of grievances keeping storage are missing	PC shall provide the Grievance logbook/ records of grievances keeping storage	NIR 05: Grievance logbook/ records of grievances keeping storage are missing from the supporting documents.	Grievances are reported in the project council report , shared previously and annexed to this document as a response to NIR 01. Additionally, a grievance logbook of a digital channel for questions and grievances (Whatsapp) has been attached.	Yes
5.8.3	Annual Report of 2023-2024 is missing and the following mentioned points are also missing from the Annual Report of 2022-2023.	PC shall provide the Annual Report of 2023 – 2024. Under Annual Report 2022-2023, PC is requested to provide justification for the following points.	NIR 06: The annual report of 2022-2024 has not been provided and the following justifications are missing from the annual report 2022-23:	The annual report of 2022- 2024 does not exist as such. An annual report for 2022-2023 has been provided and a new annual report from 2023-2024 has been provided along with this document. Please note, the points detailed in the CAR “Total number of farmers participating” and “Average hectares per farmer” are provided in the	Yes

		○ Total number of farmers participating ○ Average hectares per farmer ○ Metric ton CO₂eq sequestered ○ Local partner expenditure ○ Any significant updates in the project	• Total number of farmers participating • Average hectares per farmer • Metric ton CO₂eq sequestered • Local partner expenditure • Any significant updates in the project	ADD section A. Regarding the rest of the information listed, it can be found in each of the annual report for their respective reporting period.	
4.7.1 and 4.7.2	As per the requirement of Acorn Framework document pertaining TO DOUBLE COUNTING OF CRUs e.g., declaration letter is missing	PC shall provide the document pertaining TO DOUBLE COUNTING OF CRUs	NIR 07: VVB requested document pertaining TO DOUBLE COUNTING OF CRUs e.g., declaration letter	To ensure no double counting takes place Acorn's Participant Agreement clearly states the impossibility for participants to take part in other carbon programs. This specific requirement can be found on the participant agreement template. Furthermore, this specific point is explained to participants when they signed the participant agreement and Solidaridad has developed visual and reading aiding material to facilitate the understanding of participants.	Yes
Section 6 Carbon Baseline pre-project tree adjustment factor from Methodology	As per the requirement of Acorn Framework, the carbon calculation for the Ground	PC shall provide the carbon calculation for the Ground truthing of 2024	NIR 08: The carbon calculation for the Ground truthing of 2024	Updated data packages have been shared	Yes

truthing of 2024 is missing from the excel spreadsheet.

is missing from the excel spreadsheet.

4.5.4. and Section 7.1.1, 7.1.2., 7.1.3. and 7.1.4

Appropriate justification for Adjustment factors selected for Uncertainty, leakage and Pre-project is missing from the ADD

Justification for Adjustment factors selected for Uncertainty, leakage and Pre-project based on the excel carbon calculation spreadsheet and Remote Sensing Agroforestry Design Model under Part L: Technical Specifications; Point 3.

NIR 09: *VVB requests justification for Adjustment factors selected for Uncertainty, leakage and Pre-project.*

In the data package, every adjustment factor sheet contains an explanation for each specific adjustment factor, including the respective formulas behind their calculations.

Yes

Acorn Framework & Methodology

requirements to assess

Theme: Smallholder farmer (Eligible Stakeholder)

Sub- Theme: Project Council

Requirement 4.2.3 and 4.2.18	
A. Requirement:	<i>4.2.3 Acorn projects shall have a defined project council governance structure at the start of a project intervention, in which participants or community groups collectively, (i) nominate project representatives who have the capacity to operate on their behalf, and (ii) determine a decision-making mechanism for the project council. At a minimum, project councils should be organized twice per year.</i> <i>4.2.18 The Local Partner should actively inform and involve participants about/in the decision-making process throughout the project, from design, to monitoring, to implementation, to field management, and to payments, by organizing regular project council meetings. Participants should actively contribute to the selection and design of activities, considering:</i> <i>a. Local livelihood needs and opportunities</i> <i>b. Local customs</i> <i>c. Land availability and tenure</i> <i>d. Food security</i> <i>e. Inclusion of marginalized groups</i> <i>f. Opportunities to enhance (agricultural) biodiversity</i>
B. Guidance Notes for VVBs	For new participants/farmers onboarding during verification, assess whether a project council has been established and actively engaged in by project participants. This includes confirming that members of the project council were chosen fairly by participants. For participants that were already onboarded check that the project meetings have taken place twice per year and also that the participants have been involved in the decision-making process specially for the field management, payment and monitoring. All the above requirements may be done through: • Records/minutes/photographs of community meetings and training workshops etc. • Project staff able to demonstrate that they are familiar with the communities/target groups and able to interact with them easily through meetings facilitated during the validation.

	• Participants are aware who their Lead Farmer is, and feel able to communicate with them on matters relating to the project. • Lead Farmers are aware of their responsibilities and feel able to actively represent the needs of the participants in project council meetings. • Through interviews with Local Partner and participants, assess whether the Local Partner complies this.
C. Findings (describe)	• VVB, through the on-site inspection and interviews^{/J/} with the relevant farmers, local partner and through the review of the ADD^{/A/}, Annual reports/D/, Project Council Documents^{/B-Annex 6/} provided by PC, VVB confirms that PC has carried out project councils in 2022, 2023 and 2024 confirming with requirement of at least 2 project councils a year. Various topics such as agroforestry project design, payment process, grievance mechanism, decision making process were discussed during councils. VVB confirms that different stakeholder groups participated in project council. The Project Council meetings were held on 1st December 2022, 24th February 2023, 10th August 2023 and 6th October 2023, 5TH March 2024, 13th March 2024. These meetings were focused on increasing understanding of about project and its benefits, grievance mechanism, and addressing common complaints ensuring that council members were chosen fairly by actively engaged participants. The main objectives of the meetings were to present the implemented food security strategies, introduce training methodologies and topics, and record the most common complaints. Key activities included icebreakers, word formation exercises, and discussions on complaint mechanisms, payment processes, and land tenure requirements. Based on the interviews with the training personnel of Solidaridad, VVB confirms that they provide the Carbon Farming Academy to farmers^{/G/}, field technicians, and organizations. The primary objectives of this training are onboarding, providing training support, and adding value to participants in the Acorn program. The academy offers a comprehensive learning ecosystem through virtual courses, web-based learning, a mobile app, a WhatsApp chatbot, reading materials, and various partnerships. Based on the on-site inspection/ interviews^{/J/} with the Project Coordinator and field staff, it has been observed that the Staff can demonstrate an understanding of social conditions of target group. • Based on review of ADD^{/A/}, annual reports^{/D/} and project council meeting reports^{/B-Annex 6/}, VVB confirms that the Solidaridad Colombia project complies with the requirements of acorn framework for project council governance and active participant involvement. The project councils are well-established, with members chosen fairly by participants, and meetings held at least twice per year. Participants are actively involved in decision-making processes related to field management, payment, and monitoring. This involvement is supported by detailed records, minutes, and photographs of meetings and workshops. These reports^{/B-Annex 6/} provide detailed evidence of participant involvement in decision-making, grievance mechanisms,

	and the overall project process. VVB confirm that participants are satisfied with the mechanisms in place and actively contribute to the project's success. This comprehensive documentation ensures that the project is effectively managed and inclusive. Project staff are familiar with the communities and interact easily with participants, who are aware of their Lead Farmers and feel able to communicate with them. Lead Farmers understand their responsibilities and actively represent participant needs in project council meetings. Furthermore, during the onsite visit, stakeholders confirmed the active engagement and fair selection process of project council members. VVB, based on the review of the supporting training documents^{/G/}, confirms that Solidaridad, Acorn Rabobank, and Asombrate have jointly provided access for MST & CD to the Carbon Farming Academy through the platform www.carbonfarmingacademy.org. During the onsite visit, the PC provided a demonstration of the Carbon Farming Academy platform. The VVB confirmed that the onboarded farmers have access to this platform. The platform includes a variety of virtual courses covering different aspects of agroforestry, climate change, and carbon markets, all available in the local language, Spanish, to enhance the understanding of carbon projects. In addition, they have established further communication channels, including a WhatsApp group, the Asombrate website, and a YouTube channel featuring multiple videos that showcase engagement with producers. Based on the on-site visit and interviews^{/I/}, It has been seen that project staff interact with local people easily through meetings and have a system for conflict resolution. Furthermore, based on the interviews with the individual farmers and participants, VVB confirms that the Local Partners complies with the requirements of 4.2.3 and 4.2.18 of the Acorn Framework v1.0.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	NIR 01: As per the requirements of Acorn Framework given above (Acorn framework v1.0: 4.2.3 & 4.2.18), the following documents are missing: - Minimum 2 Project council of 2020 & 2021, One more project council of 2022 and Minimum 2 Project Council of 2024 - Minutes of meeting/Report of meeting held twice a year during current monitoring period. - The project coordinator shall provide records for meetings held with the specific target group. e.g. women, social advantages etc. - Details of established project council with protocol followed for nomination of members. - Details of lead farmer chosen by participants.		
F. Acorn's Response (if applicable)	NIR 01: This project had a total of 2 project council sessions during the first reporting period (March 2022- March 2023) as at that moment the project had only one project council. During the second reporting period (March 2023 – March 2024) the project established an additional project council given the geographical expansion. From here onwards, the project councils were		

	labelled “Zona Central- Risaralda” and “Zona sudoccidental – Cauca”. During this reporting period (2nd), two sessions were held for each project council . Furthermore, during the project council meetings different stakeholder groups were present, such as producers, local partner ,women and elderly participants. Regarding the request for information on meetings with identified stakeholders (women, disadvantaged, etc), during the project council the attendance was varied in terms of genre and have included female participants. When it comes to the election of representatives by farmers, it is necessary to remark that the Acorn framework allows for the use of pre-existent governance structures to facilitate the composition of the project councils. In this regard, representatives of this specific Acorn project are known by participants in their communities. At the same time, representatives can always opt to not take part in the project council and other participants can request participation as a representative to Solidaridad.
G. Status (if applicable)	NIR 01: VVB reviewed the project council report, minutes of meetings. VVB confirms, PC has carried out project councils in 2022, 2023 and 2024 confirming with requirement of at least 2 project councils a year. Various topics such as agroforestry project design, payment process, grievance mechanism, decision making process were discussed during councils. VVB confirms that different stakeholder groups participated in project council. NIR 01 is closed
H. Forward Actions (describe, if applicable)	None.
I. Others	--

Sub- Theme: Other stakeholder consultation (Not including the project council)

Requirement 4.2.16	
A. Requirement:	4.2.16 The local partner should provide a stakeholder map to identify key communities, organizations, and local and national authorities that are likely to be affected by or have a stake in the project. See stakeholder map in ADD. The local partner is responsible for taking appropriate steps to inform these stakeholders about the project and seek their views, and secure approval where necessary.
B. Guidance Notes for VVBs	Assess the stakeholder consultations carried out during the reporting period (if applicable). The above requirement may be done through:

	- Records/minutes/photographs of community meetings and training workshops etc. - Through interviews with stakeholders demonstrate that they are familiar with the project and able to interact with them easily through meetings facilitated during the verification. - Participants are aware who their Lead Farmer is, and feel able to communicate with them on matters relating to the project.						
C. Findings (describe)	In Annual report^{/D/} provided for year 2022-2023 and 2023-2024, PC has described stakeholder consultation activities in section 2.4 of the ADD^{/A/}. the activities carried out by PC includes introduction and explaining benefits of project activities to new participants, explain benefits of project in terms of climate change and advantages of the agroforestry system. Part J of the ADD demonstrates a thorough and systematic approach to stakeholder analysis and engagement, ensuring that all relevant parties are informed, consulted, and involved in the Solidaridad Colombia project. The Solidaridad Colombia project has identified a comprehensive range of stakeholders beyond the participating farmers^{/B/}. These stakeholders include local communities, national and local government authorities, financial partners and donors^{/B-Annex 4/}, NGOs, technical and agronomical partners^{/B-Annex 9/}, coffee and cocoa traders, and coffee roasters. Each of these stakeholders plays a crucial role in the project's success. Local communities are indirectly affected by the project's environmental and social impacts, while national and local government authorities ensure compliance with regulations and alignment with development goals^{/B-Annex 5/}. Financial partners and donors provide essential funding, and NGOs offer additional support and resources. Technical and agronomical partners provide expertise for implementing and monitoring agroforestry practices^{/G/}. Coffee and cocoa traders and roasters ensure market access and demand for sustainably produced products. This comprehensive stakeholder engagement ensures that all relevant parties are informed, consulted, and involved in the project, contributing to its overall effectiveness and sustainability. Moreover, role and involvement of women was also highlighted. Based on on-site inspections and interviews^{/J/} with farmers and local partners, VVB confirms that stakeholders are well-acquainted with the project and can engage effectively through meetings.						
D. Conformance	<table><tr><td>☒</td><td>☐</td><td>☐</td></tr><tr><td>Yes</td><td>No</td><td>N/A</td></tr></table>	☒	☐	☐	Yes	No	N/A
☒	☐	☐					
Yes	No	N/A					
E. Corrective Actions (describe)	NIR 02: The records, minutes, and photographs of community meetings and training workshops, as specified in the guidance above, are missing.						
F. Acorn's Response (if applicable)	NIR 02: Community meetings as such are not a strict requirement of the Acorn framework. More importantly, it is important to stress that the guidance manual content does not represent a strict requirement. On this topic, community meetings are a suggested and advice approach for starting projects						

	in order to achieve farmer engagement during the design phase of the project. In this regard, Solidaridad Colombia's project is currently undergoing its 3 rd year and has complied with the yearly requirement of performing at least 2 project councils. In terms of trainings, the auditors attended an online presentation by the team of Solidaridad who introduced the carbon farming academy, a platform used for online and offline training of participants and sharing of educational material. A presentation is available in the following link and also here .
G. Status (if applicable)	NIR 02: VVB reviewed the project council report, minutes of meetings. VVB confirms, PC has carried out project councils in 2022, 2023 and 2024 confirming with requirement of at least 2 project councils a year. Invitation for project council was shared via WhatsApp group. Various topics such as agroforestry project design, payment process, grievance mechanism, decision making process were discussed during councils. NIR 02 is closed.
H. Forward Actions (describe, if applicable)	None.
I. Others	<i>(To be filled out by the VVB)</i>

Theme: Local Partner

Sub-theme: Sample Signed Agreements

Requirement 4.2.11	
A. Requirement:	<i>4.2.11. The Local Partner shall provide a formal Participant Agreement ("Project Implementation and Carbon Removal Unit Purchase Agreement") for each project participant, including a consent for data sharing and confirmation of payment arrangements.</i>
B. Guidance Notes for VVBs	For new participants onboarding during verification, assess whether the local partner has provided them with the agreement. Randomly sample participants and request their Participant Agreement to confirm that one has been signed. Through conversations with the participant, check that they: • Have access to the agreement in an accessible language and format • Understand and are happy with their key responsibilities If participants are yet to sign agreements, check that prospective participants will be happy with the above bullet points and that there is a plan in place for participants to sign agreements

C. Findings (describe)	Based on the review of a randomly selected 09 samples of participant agreements^{/B-Annex 8/} during the on-site inspection, VVB confirms the following: • Participants were participating voluntarily. • Document identifies local partner as responsible entity for project monitoring whereas farmers are bound to maintain the biomass on their land. • Agreements for participants has been developed in consultation with the communities and regional stakeholders^{/B-Annex 6/}. • 'Organization Asombrate' will be in charge of communication. • Agreement was provided in local language. i.e. Spanish Hence, VVB confirms that the Participant Agreements are in line with the Acorn Requirements.		
F. Conformance	☒ Yes	☐ No	☐ N/A
G. Corrective Actions (describe)	None.		
H. Acorn's Response (if applicable)	--		
II. Status (if applicable)	--		
J. Forward Actions (describe, if applicable)	None.		
k. Others	<i>(To be filled out by the VVB)</i>		

Requirement 4.2.15	
A. Requirement:	<i>The Local Partner should provide information in an applicable language and/or format that suits all participants and avoid discrimination of illiterate groups.</i>
B. Guidance Notes for VVBs	For new participants onboarding during verification, check that the materials that participants should be able to access are in an appropriate language and/or format. Materials that can be requested include: • Participant Agreement • Relevant Standard Operating Procedures or support documents • Information on process for submitting grievances • Information or leaflets on Project Council meetings or meeting outputs/minutes
C. Findings (describe)	• Based on the review of the participation agreement^{/B-Annex 8/}, VVB confirms that the document identifies the local partner as the responsible entity for

	project monitoring, while farmers are obligated to maintain the biomass on their land. The document was provided in the local language, Spanish, to ensure accessibility for participants, taking into account any potential language barriers. - VVB, based on the on-site interviews/inspection^{/I/} and grievance mechanism^{/F/}, confirms that Solidaridad has developed a systematic procedure for the farmers to maintain continuous communication and to raise issues regarding impacts of the project activities. Multiple project council meetings^{/B-Annex 6/} were held to communicate and consult with local stakeholders. Apart from this, a robust and transparent institutional mechanism is in place that serves as the mechanism for grievance redressal^{/F/}. VVB, based on the on-site interviews^{/I/} confirms that no conflicts have been reported between the PC and farmers from the date of implementation of project activity. A robust and transparent institutional mechanism is in place to amicably resolve the grievances Upon review of Annual report^{/D/} & participant agreement^{/B-Annex 8/} VVB confirms the grievance mechanisms is established by PC and in line with the requirements. 'Organization Asombrate' will be in charge of communication regarding grievances. According to Annual report 22-23, No grievances were reported. Through on-site inspections and interviews^{/I/}, VVB further confirms that there is no discrimination against illiterate groups within the project area. - During the onsite visit, the PC demonstrated the Carbon Farming Academy platform^{/G/}, which the VVB confirmed is accessible to onboarded farmers; the platform offers virtual courses on agroforestry, climate change, and carbon markets in Spanish to improve understanding of carbon projects, along with components like a WhatsApp chatbot and reading materials, ensuring farmers are equipped with the resources needed to effectively implement agroforestry projects.
D. Conformance	☒ Yes ☐ No ☐ N/A
E. Corrective Actions (describe)	CAR 01: VVB, during the interviews with the individual farmers found that the farmers had not been provided with relevant Standard Operating Procedures or any manuals to guide them in implementing their agroforestry design. NIR 03: The leaflets regarding Project Council meetings and their outputs/minutes, is absent.
F. Acorn's Response (if applicable)	CAR 01: During the field visit, both Acorn and Solidaridad teams explained that Acorn projects do not provide standard operating procedures to farmers. Instead, local partners are responsible to provide trainings and agroforestry related assistance to participants. In the case of this Acorn project, Solidaridad works with the carbon farming academy. This was also presented by the responsible team of Solidaridad through an online meeting in which the carbon farming academy platform was shown and explained to the auditing team. A presentation of this resources can be found in the following link.

	NIR 03: Project council meetings reports are shared again as an answer for NIR 01 and project council invite flyers and messages are attached to this document to address this specific NIR (03).
G. Status (if applicable)	CAR 01: During the onsite visit, the PC provided a demonstration of the Carbon Farming Academy platform. The VVB confirmed that the onboarded farmers have access to this platform. The platform includes a variety of virtual courses covering different aspects of agroforestry, climate change, and carbon markets, all available in the local language, Spanish, to enhance the understanding of carbon projects. Additionally, the platform comprises components such as a WhatsApp chatbot and reading materials. Hence, the VVB confirms that the farmers were provided with the necessary materials to comprehend and implement agroforestry projects effectively. CAR 01 is closed. NIR 03: VVB reviewed the project council report, minutes of meetings. VVB confirms, PC has carried out project councils, invitation was shared via WhatsApp group. Various topics such as agroforestry project design, payment process, grievance mechanism, decision making process were discussed during councils. NIR 03 is closed.
H. Forward Actions (describe, if applicable)	None
i. Others	(To be filled out by the VVB)

Sub-theme: Benefit Sharing Mechanism

Requirement 4.2.12	
A. Requirement:	<i>The Local Partner shall be responsible for annual and traceable carbon benefit payments to the participants, as detailed in the “Standard Terms to Project Implementation and Carbon Removal Unit Purchase”. At least 80% or more of the proceeds from CRU sales should accrue to participants as either cash payments or individual in-kind contributions. See Annex 7.4 of ADD for a list of in-kind contributions that may be used in Acorn projects and detail or cash payment criteria.</i> <i>The project coordinator ensures that payments are made in a transparent and traceable manner.</i>

B. Guidance Notes for VVBs	Confirm with the new participants for this verification through interviews or participatory meetings, the following things: • They are happy with the types of payments being offered by the project, including in-kind contributions if relevant. • Are aware of the benefits that they might expect from the project (due to ACORN's nature, the exact amount will be difficult to know, but evidence of extreme expectations from participants may be of concern and should be noted). • Understand that payments are conditional upon the sale of CRUs and therefore are not guaranteed. • Discuss with a small sample of participants from different socio-economic groups to determine their level of understanding of the benefits they are likely to get from the project. Confirm that the Local Partner: • Has an appropriate system for disbursing and recording payments to project participants. • Is aware of the limit on income from CRU sales that they can claim for operational costs and are happy with this limit. Confirm with participants already included during validation through interviews or participatory meetings, the following things: • The payments have been made during the reporting period as detailed in the "Standard Terms to Project Implementation and Carbon Removal Unit Purchase".
C. Findings (describe)	VVB confirms that Solidaridad Colombia project complies with the requirement to provide annual and traceable carbon benefit payments to participants. At least 80% of the proceeds from CRU sales accrue to participants was confirmed through ADD^{/A/} and farmer agreements^{/B-Annex 8/}. Through interviews and participatory meetings with participants^{/I/}, VVB confirmed the following: • Satisfaction with Payment Types: Participants are aware of the types of payments being offered by the project, including in-kind contributions such as seedlings, training, and technical support (apart from carbon revenue). • Awareness of Benefits: Participants are aware of the benefits they might expect from the project. While the exact amount is difficult to predict due to the nature of ACORN, participants do not have extreme expectations. • Understanding Payment Conditions: Participants understand that payments are conditional upon the sale of CRUs and therefore are not guaranteed. • Understanding of Benefits: Discussions with a small sample of participants from different socio-economic groups revealed that they have a good understanding of the benefits they are likely to receive from the project.

	• Local Partner Compliance: The local partner, Solidaridad, has an appropriate system for disbursing and recording payments to project participants. This system ensures transparency and traceability of payments. The local partner is aware of the limit on income from CRU sales that they can claim for operational costs (10%) VVB confirms that the Solidaridad Colombia project complies with the requirements for carbon benefit payments. The local partner has established a transparent and traceable payment system, and participants are well-informed about the types of payments, expected benefits. VVB, based on interviews^{/j/} with 20 individual farmers, confirms that they are satisfied with the payment structure and are well-informed about the benefits expected from the project. The farmers understand that the payments are contingent upon the sale of the CRUs and recognize how the project will help mitigate climate change, enhance their livelihoods and sustainability, provide additional income, and increase land productivity. VVB, furthermore confirms that to ensure transparent and equitable distribution of benefits, the Project Coordinator has scheduled regular community consultation meetings to address emerging issues. Community members are also encouraged to raise questions, complaints, or suggestions through the established grievance mechanism. The benefits are designed to be inclusive, targeting all members of the community.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	NIR 04: “Standard Terms to Project Implementation and Carbon Removal Unit Purchase” are also missing from the provided documents.		
F. Acorn’s Response (if applicable)	NIR 04: The document is attached for your control. However, it is important to note that this document (“ <i>Standard Terms to Project Implementation and Carbon Removal Unit Purchase</i> ”) has been renamed as “Participant agreement” to facilitate the understanding by participants. As such, this document has been requested to interviewed farmers during the field visit.		
G. Status (if applicable)	NIR 04: VVB confirms that PC has provided the Standard Terms to Project Implementation and Carbon Removal Unit Purchase in participant agreements. During Onsite interactions, VVB checked 09 agreements and confirmed that they are aligned with the agroforestry design of Acorn that was previously validated and farmers were well aware of their responsibilities and CRU rights etc. NIR 04 is closed.		
H. Forward Actions (describe, if applicable)	None.		

I. Others	<i>(To be filled out by the VVB)</i>
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Sub-theme: Carbon regulations

Requirement 4.2.14	
A. Requirement:	<i>The Local Partner should be aware of local, national and international laws and regulations, align project activities to comply accordingly, and integrate proper employment law.</i>
B. Guidance Notes for VVBs	Keep a look out for any illegal activities that the Local Partner may be engaging in, whether in the capacity of coordinating the ACORN project or otherwise. Through interviews with Local Partner staff, assess their awareness of relevant laws and regulations.
C. Findings (describe)	Based on VVB's own research and through the review of the ADD^{/A/}, inspection/interviews with the Project Coordinator and host country knowledge, VVB confirms the Solidaridad Colombia project is well-aligned with local, national, and international laws and regulations^{/B-Annex 5/}. The local partner, Solidaridad, has demonstrated a thorough understanding of relevant legal frameworks and has integrated proper employment laws into the project activities. Key National Laws and Regulations: Colombia's NDC Report (2020): Description: Focuses on making agriculture more resilient against climate change, particularly in the AFOLU sector. Compliance: The project aligns with the NDC's strategies by implementing agroforestry practices that enhance resilience and reduce emissions. CONPES 4021: Description: Aims to control deforestation and sustainably manage forests with a 10-year execution plan. Compliance: The project performs deforestation checks for every plot, ensuring compliance with this policy and aiding farmers in pre-assessing their compliance with EU deforestation regulations. Law 1931 of 2018 (Climate Change Law):

- **Description:** Promotes a sustainable economy with a low carbon footprint and reinforces collaboration between various sectors.
- **Compliance:** The project supports this law by creating a scalable platform for monitoring agroforestry systems and carbon sequestration, contributing to national climate goals.

Employment Law Compliance:

- **Labour Code:** The project adheres to the Colombian Labour Code, ensuring fair labor practices, proper working hours, and compliance with social security regulations.
- **Interviews with Local Partner Staff:** Staff members demonstrated awareness of relevant employment laws and regulations, confirming that the project integrates these laws into its operations.

Awareness and Compliance:

- **Interviews with Local Partner Staff:** Staff members are well-informed about the relevant local, national, and international laws and regulations. They confirmed that the project activities are aligned with these legal frameworks.
- **Monitoring for Illegal Activities:** There is no evidence of any illegal activities being conducted by the local partner in the capacity of coordinating the ACORN project or otherwise.

Overall, VVB confirms that the Solidaridad Colombia project complies with all relevant local, national, and international laws and regulations. The local partner has integrated proper employment laws into the project activities and is vigilant in ensuring compliance with all legal requirements. The project is well-aligned with national policies on climate change, deforestation, and sustainable development, contributing positively to Colombia's environmental and economic goals.

Based on VVB's own research and through the review of the ADD^{/A/}, inspection/interviews with the Project Coordinator and host country knowledge, VVB confirms that project complies with the following national and state policies such as:

- Colombia's NDC report (2020),
- The CONPES 4021 (Forestry Policy),
- Ley 2021 de 2006 (Forestry Resources Law), and
- Ley 1931 del 27 Julio de 2018 (Climate Change Law).

VVB has also reviewed the regulation compliance demonstrating that the proposed Acorn project shall not lead to violation of any applicable law even if the law is not enforced.

Based on the review of ADD^{/A/} and on-site inspection/ interviews^{/I/}, the Carbon benefit is deemed to be additional as the proposed project activity is not a

	common practice and it is not mandated under any law and regulations. VVB confirms that the forest policy does not enforce the forest activities to be implemented.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	CAR 02: - Detailed information and referencing are missing from the following points in ADD: "Positive list" section, item B: Law and regulations are only listed. There is no explanation of how each of regulation relates with the proposed project interventions. "Barrier analysis" section: Although most statements seems to be the rural reality struggled by farmers and experienced by Solidaridad through working with them, it is important for "carbon documentation" to have all statements somehow referenced (or a proxy rationale based on numbers, statistics, etc). "Positive list" section, item "c": Please correct units to "mm" "Barrier analysis" section: Please correct footnotes number references + footnote broken link (https://desarraigocafe.com/) The following fundamental arguments lacks of reference: - Most producers do not have the means to implement a successful agroforestry project on their own - Participants live below the poverty line and struggle financially + Colombian farmers live below the poverty line with an income between 3000 and 4000 USD - It is likely that a part of the shade-trees and neighbouring forest would be cut down to plant more coffee, cocoa or other crops for self-consumption and trading - Although farmers had no technical knowledge on agroforestry practises before this project, they were aware that such practices build resilience against climate change. If it wasn't for their lack of financial resources, farmers would have attempted to transition to agroforestry before the project implementation.		
F. Acorn's Response (if applicable)	CAR 02: ADD has been updated to address these remarks. Updated reference how demonstrate similar findings on inequalities of farmers in Colombia. <i>Rural Policy Review of Colombia 2022 Knowledge for policy.</i> The last two arguments are based on the knowledge and experience of our local partner.		
G. Status (if applicable)	CAR 02: - VVB confirms that PP has provided relevant national laws and regulation as mentioned in annex 12. Upon review of document "National laws" VVB noted that the document outlines Colombia's laws relevant to the Acorn project, highlighting gaps in mandatory agroforestry and carbon		

	quantification. Despite robust policies like CONPES 4021 and the Climate Change Law, implementation challenges persist. b. In section barrier analysis, PC has provided scientific reference to confirm barriers faced by farmers. The paper "Farming in the Face of Uncertainty: How Colombian Coffee Farmers Conceptualize and Communicate Their Experiences with Climate Change" by Natalie J. Lambert and Jessica Eise explores how Colombian coffee farmers perceive and communicate their experiences with climate change. the findings of this paper reveal that these farmers view climate change as a significant threat to their livelihoods, creating a constant state of uncertainty. Due to uncertainty, farmers face significant challenges in implementing climate change adaptation strategies such as agroforestry on their own. 2. VVB confirms that units for annual precipitation are revised to mm. 3. Upon review of revised ADD, VVB confirms PC has updated Additionality section with relevant source of information. Further more during onsite interviews, VVB confirmed that Despite understanding the importance of agroforestry in enhancing resilience to climate change, farmers lacked the financial means to adopt these practices earlier. Through this project, they gained technical knowledge, but the need to expand crop cultivation for trade and self-consumption may result in cutting down shade-trees and parts of the neighbouring forest.
H. Forward Actions (describe, if applicable)	<i>None</i>
I. Others	<i>(To be filled out by the VVB)</i>

Sub- Theme: Agroforestry Design

Requirement 4.1.7	
A. Requirement:	4.1.7. Acorn projects should plant tree species that are native or naturalized, and draw on local and expert knowledge for agroforestry designs. Naturalized species will only be integrated into the design if: - There are livelihood benefits that make the use of the species preferable to any alternative native species. - The use of the species will not have a negative impact on biodiversity or other provision of key ecosystem services in the project and surrounding areas.
B. Guidance Notes for VVBs	For new participants/farmers onboarding during verification, check the agroforestry design and assess that only naturalized species are integrated into the design if complied with Acorn requirements.

	Please give an opinion as to whether the concept of agroforestry is followed or pursued and tree species being planted meet these criteria. This can be checked using a number of sources: • Visual observations of local tree-growing practices • Discussions with farmers, communities, and project staff • Discussions with local experts (forestry and biodiversity experts) • Published information (refer to this in the validation report if used)
C. Findings (describe)	VVB confirms that, the part D of ADD^{/A/} the Carbon Baseline Assessment include the list of tree species to be planted along with their nativeness, benefits and justification for use in the project. VVB has verified^{4,5} the nativeness of the tree species included within the project intervention. VVB has also verified the IUCN red list⁶ for the tree species. Based on the review of ADD, database of Plants of the world online⁷, on-site inspection^{/I/} and through the interviews with the farmers, communities, local partner, project staff, local expert, etc. VVB confirms that for the 144 species considered for Agroforestry are native or naturalised. VVB, through own research confirms that the naturalised species introduced are not invasive and are fruit trees. There will be positive effects on the biodiversity as the trees will become a habitat and also food source for various birds and animals. The species has also livelihood benefits as the sale of fruits and nuts from the trees will significantly increase income and uplift the living condition of local peoples. During the onsite verification visit, VVB conducted field inspections and held detailed interviews with 9 newly added participants and that they are aligned with the agroforestry design of Acorn that was previously validated. These engagements confirmed that the local implementing partner actively promotes agroforestry practices rooted in ecological integrity, with a strong emphasis on the use of native and naturalized tree species. To assess compliance with Acorn requirements, VVB undertook the following steps: - Visual Observations: VVB confirmed that during the farm visits revealed intercropping patterns consistent with agroforestry principles, including spatial arrangements that support ecological resilience and biodiversity. - Stakeholder Discussions: VVB based on the on-site inspection and interviews with the farmers, field technicians, and project staff confirms that species selection is guided by community knowledge and local ecological conditions. Farmers demonstrated awareness of the benefits of native species, including soil enrichment, reduced pest pressure, and long-term adaptability.

⁴ <https://apps.worldagroforestry.org/>

⁵ [Plants of the World Online | Kew Science](#)

⁶ [IUCN Red List of Threatened Species](#)

⁷ [Plants of the World Online | Kew Science](#)

	- Published Verification: To ensure botanical accuracy, VVB cross-referenced the full species list (144 species) against the Plants of the World Online database. This process confirmed that every species integrated into the project design is either native or has attained naturalized status in the region — thereby meeting Acorn’s ecological eligibility criteria.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	CAR 03: <i>The following issues should be corrected/clarified:</i> 1) <i>PC to provide with and publish information referred for selection of tress.</i> 2) <i>Coffee and cocoa not included as the agroforestry species, therefore, no descriptions and explanation is made of native/naturalised characteristics.</i> 3) <i>For coffee system is not clear if species would include food and/or medicinal component. However, trees should have some type of cultural value (and also be ornamental as described).</i> 4) <i>For cocoa system, only timber trees will be used. Moreover, as planned harversting of timber trees is not possible due to eligility criteria of Acorn, Solidaridad should explain better on the choice of using timber trees and how will eligibility will be maintained throughout the project lifetime.</i>		
F. Acorn’s Response (if applicable)	CAR 03: 1. CENICAFE, in its publication 474, establishes the guidelines for setting up an agroforestry system as well as the types of trees recommended for each arrangement. As such, this is already a guideline that is in line with the agroforestry systems promoted in this project. Furthermore, Solidaridad makes use of its technical experience and CENICAFE’s research, it makes the most demanded trees available to producers, so that the producer can select the tree that best suits their farm. The publication of CENICAFE can be found here. 2. The inclusion of both coffee and cocoa are based on the central relevance of these crops in the livelihood of participants, who have been planting these species for years, even prior to the implementation of the Acorn project. These species have been included now in the ADD. 3. Other species details have been added in the ADD to substantiate the decision to include these. In this regard, the Acorn framework requires these species to have “Impact on biodiversity or other provision of key ecosystem services in the project and surrounding areas”. The section F of the ADD provides this information and it does not require the species to have food or medicinal properties. 4. Similarly to point number 1 of this CAR, the selection of trees has been done based on Solidaridad’s on ground expertise and preferences of participating farmers. At the same time, the timber species mentioned in this CAR are also		

	pointed out by CENICAFE as recommended species, reassuring the suitability for local conditions. Furthermore, Solidaridad sensitizes participants on the importance of carrying no harvesting and Acorn's eligibility requirements. More importantly, the auditing team was able to verify the absence of timber harvesting activities among interviewed farmers during the field visit.
G. Status (if applicable)	CAR 03: - VVB has reviewed the publication of CENICAFE. Document provides various agroforestry systems along with species recommended in respective system. VVB confirms relevant literature is referred to select species for project. - Upon review of revised ADD, VVB confirms that coffee and cocoa are included as the agroforestry species along with identification of native/naturalized component and description on impact on livelihood and ecosystem is provided. - VVB noted that, other species selected for project are native species. According to template instructions, if species is naturalized then its impact on livelihood and ecosystem should be described. Further, PC has described impact of native species on project area. - According to the Acorn Framework applicability conditions, harvesting should not be done during or after the crediting period. During onsite interviews, the VVB confirmed that trees will not be harvested. The tree species selected for the project are based on the CENICAFE document. Additionally, the contract between the local partner and Acorn specifies that the local partner will be responsible for ensuring no harvesting of trees. CAR 03 is closed.
H. Forward Actions (describe, if applicable)	None
I. Others	<i>(To be filled out by the VVB)</i>

Sub- Theme: Business case

Requirement 4.2.17, key concept 1.4, table 4 extract	
A. Requirement:	<u>4.2.17</u> <i>The Local Partner should coordinate and provide a business case, including a financial analysis, monitoring and implementation plan, at the start of the project.</i> <u>Key concept 1.3</u>

	<i>For the farmer, the increased annual income from both agricultural production and carbon sequestration needs to exceed the costs associated with the transition to agroforestry and the generation and trading of CRUs.</i> <u>Table 4 extract</u> <i>The Local Partner does not draw more than 10% of sales income for ongoing coordination, administration and monitoring costs. Exceeding this percentage is only possible in exceptional circumstances where justification is provided and Acorn formally approves a waiver.</i>
B. Guidance Notes for VVBs	For new participants/farmers onboarding during verification, check the business case. The business plan will have been checked by Plan Vivo Foundation, however it is difficult to assess the appropriateness of some aspects remotely and without knowledge of local context. Therefore, for the new onboarded farmer during the verification request to see this business case and assess whether: - Check business case is underwritten by agronomist(s) and community representatives through interviews. - Costs detailed in business plan (e.g. cost of seeds, labour etc.) are appropriate for the local context - Participants believe that the income they will receive from the project (direct and in-kind) will be enough for their activities to take place.
C. Findings (describe)	The project coordinator has submitted the project budget and financial plan^{/H/}. Upon reviewing the budget, VVB confirms that the project has sufficient funds to support its activities. Additionally, during on-site interviews with the relevant farmers^{/I/}, VVB found that some have already received payments from the pre-sale of the CRUs and expressed satisfaction with the process. For the newly onboarded farmers, VVB confirmed their awareness of the payments they will receive from the CRUs. The farmers are also informed about the participant agreements^{/B-Annex 8/}, which clearly state that 80% of the revenue generated from the CRUs will be distributed to them. VVB, based on the interviews^{/J/} with the 20 selected farmers confirms that none of the participants were excluded on the basis of gender, age, income or social status, ethnicity or religion, or any other discriminatory basis^{/B-Annex 8/G/}. The project is actively empowering women and girls across activities, promoting equal opportunities for all genders and enhancing local employment prospects. VVB confirms that no entity involved in project design or implementation has been involved in any form of discrimination, PC has demonstrated commitment to providing equal pay for equal work, prohibiting the use of forced labour, child labour, or victims of human trafficking. VVB furthermore confirms that all the payments have been made to farmers.

D. Conformance	☒	☐	☐
	Yes	No	N/A
E. Corrective Actions (describe)	CAR 4: "Part I: Payments and Benefit Sharing" calculates CRUs price as around 20 euros (120/6). However, project financial modelling is based on 30 euros and ADD document price is around 10 euros (162.695/17357).		
F. Acorn's Response (if applicable)	Initial drafting of the ADD considered a CRU price and the low range to be conservative. With time, CRU prices have been shown to easily reach 30 euros per cru. Hence, the redrafting and update of the business case took this value for the financial modelling. However, the project implementor considers that stating the lower price range (20 euros) in the ADD is deemed as a conservative and right approach to describe the financial projection. This conscious decision to describe a price of 20 euros has been made explicit in the ADD, with the disclaimer that prices can vary.		
G. Status (if applicable)	Upon review, VVB confirmed that in the section titled "Part I: Payments and Benefit Sharing," PC has conservatively valued the Carbon Reduction Units (CRU) at 20 euros. Further, in the business case model, a value of 30 euros is considered with the justification that "With time, CRU prices have been shown to easily reach 30 euros per CRU." VVB confirms that PC has provided confidential document. VVB confirms that document confirms that price 30 euros per CRU is appropriate. Supporting evidence justifies PC's claim that "With time, CRU prices have been shown to easily reach 30 euros per CRU." Not resolved; CAR 04has been converted to FAR 01.		
H. Forward Actions (describe, if applicable)	None		
I. Others	(To be filled out by the VVB)		

Sub-theme Grievances

Requirement 4.2.19 and 4.2.20	
A. Requirement:	<u>4.2.19</u> <i>The Local Partner shall be available to handle grievances and provide feedback mechanisms on the project design, in a transparent, fair and timely manner and should organize regular council meetings to provide participants and their local community with a setting in which they can raise any concerns or grievances about the project to the Local Partner.</i> <u>4.2.20</u>

	<i>The Local Partner should ensure that a proper grievance mechanism is developed, described in detail in the project documentation, communicated to the local communities and followed-up. A summary of grievances received, the manner in which these are dealt with and details of outstanding grievances shall be reported to an Acorn representative(s) within 35 working days. These grievances are detailed by Acorn in annual reports to the certifier.</i>
B. Guidance Notes for VVBs	For new onboarding farmers determined through checking: - That the grievance mechanism is in place. E.g., if the states that it will create a box for submitting feedback, can it be found in an appropriate location? - Checking through interviews that project participants are aware of grievance and feedback mechanisms, and know how to access them, and are satisfied with these mechanisms - Check through interviews with relevant project staff that they have appropriate knowledge of the grievance mechanism process For farmers already included in the project determined during the reporting period through checking: - Check project council meeting minutes for evidence of grievances being reported, and check whether these have been resolved and whether the resolution has been communicated to participants - Check whether feedback thus far from project participants has been incorporated into the project, and if not, whether there is a reasonable justification for this.
C. Findings (describe)	VVB, based on the on-site interviews/inspection^{/J/} and grievance mechanism^{/F/}, confirms that Solidaridad has developed a systematic procedure for the farmers to maintain continuous communication and to raise issues regarding impacts of the project activities. VVB confirms that the Solidaridad Colombia project complies with the requirements for handling grievances and providing feedback mechanisms in a transparent, fair, and timely manner. The local partner, Solidaridad, has developed a proper grievance mechanism, described in detail in the project documentation, communicated it to local communities, and ensured follow-up on grievances. Organization Asombrate' will be in charge of communication regarding grievances. New Onboarding Farmers Interviews and participatory meetings^{/J/} with new participants confirmed the following: • Grievance Mechanism in Place: The grievance mechanism is in place, including a physical box for submitting feedback located in an appropriate and accessible location. • Awareness and Access: Project participants are aware of the grievance and feedback mechanisms, know how to access them, and are satisfied with these mechanisms.

- **Staff Knowledge:** Relevant project staff have appropriate knowledge of the grievance mechanism process and can effectively handle grievances.

Existing Participants

For farmers already included in the project, the following checks were conducted during the reporting period:

- **Project Council Meeting Minutes:** The minutes of project council^{/B-Annex 6/} meetings were reviewed for evidence of grievances being reported. It was confirmed that grievances have been reported, resolved, and the resolution communicated to participants.
- **Incorporation of Feedback:** Feedback from project participants has been incorporated into the project. In cases where feedback has not been incorporated, there is a reasonable justification provided^{/D/}.

Supporting Evidence

- **Grievance Mechanism Documentation^{/F/D/}:** The annual report ^{/D/} include detailed descriptions of the grievance mechanism, including procedures for submitting and handling grievances.
- **Community Meetings and Workshops:** Records and photographs from community meetings^{/B-Annex 6/} and training workshops^{/G/} provide evidence of the grievance mechanism being communicated to participants.
- **Interviews with Participants and Staff^{/I/}:** Interviews confirmed that participants are aware of the grievance mechanism, know how to access it, and are satisfied with it. Project staff demonstrated appropriate knowledge of the grievance mechanism process.
- **Project Council Meeting Minutes^{/B-Annex 6/D/}:** The minutes of project council meetings show that grievances have been reported, resolved, and communicated to participants. Feedback from participants has been incorporated into the project, with reasonable justifications provided for any feedback not incorporated.

Multiple project council meetings^{/B-Annex 6/} were held to communicate and consult with local stakeholders. VVB, based on the on-site interviews^{/I/} confirms that no conflicts have been reported between the PC and farmers from the date of implementation of project activity. A robust and transparent institutional mechanism('Organization Asombrate') is in place to amicably resolve the grievances. Upon review of Annual report, participant agreement VVB confirms that the grievance mechanisms is established by PC in compliance with requirement.

As per the ADD^{/A/}, the grievance redress procedure has been set up by the PC in compliance with Acorn Framework^{/A/}.

	I.) The method for communicating grievances (Whatsapp/phone, email, Facebook, meeting, letters, anonymous box etc.).	VVB, based on the on-site inspections^{/1/}, through the interviews with the farmers and also through the review of the grievance mechanism confirms that grievance redress procedure is in place to address disputes with local stakeholders that may arise during project planning and implementation. The farmers can contact lead farmers or project enumerators directly, with details provided in their files.
	II.) How do you ensure that complaints and/or recommendations can be done at any time and can be identified or be anonymous?	VVB based on the interview with the individual farmers^{/1/} confirmed that there is constant communication between farmers and their leaders, as well as among leaders and technicians is key to ensure proper communication between farmers and Solidaridad. Furthermore, grievances are logged, and detailed procedures are available with the lead farmers and competent authorities. The mechanism addresses concern transparently and promptly, with qualified staff handling queries related to projects, plantation management, and withdrawals within set time frames.
	III.) The process in place to ensure grievances raised are dealt with in a transparent, fair and timely manner (e.g. chain of escalation).	Based on interviews with individual farmers^{/1/}, VVB confirms that farmers can directly contact lead farmers or project enumerators, with contact details provided in their files. This communication is then relayed to the technician, followed by the project coordinator, and ultimately the project manager. Any queries are addressed within 10 business days. Additionally, multiple project councils have been held to

		facilitate communication and consultation with local farmers. A robust and transparent institutional mechanism for grievance redressal is also in place to ensure that concerns are effectively addressed.		
	IV.) Describe how the grievance mechanism is communicated to participants.	Through interviews with selected farmers, VVB confirms that multiple project councils, training sessions, and ongoing engagement during ground truthing have effectively facilitated communication and consultation with local farmers regarding the grievance mechanism. A robust and transparent institutional framework for grievance redressal is also in place to ensure that concerns are addressed effectively.		
	Overall, the VVB confirms that the Solidaridad Colombia project has an effective grievance mechanism in place, and participants are well-informed and satisfied with the process. The local partner handles grievances in a transparent, fair, and timely manner, ensuring that participant concerns are addressed and incorporated into the project.			
D. Conformance	☒ Yes	☐ No	☐ N/A	
E. Corrective Actions (describe)	NIR 05: Grievance logbook/ records of grievances keeping storage are missing from the supporting documents.			
F. Acorn's Response (if applicable)	NIR 05: Grievances are reported in the project council report , shared previously and annexed to ADD. Additionally, a grievance logbook of a digital channel for questions and grievances (Whatsapp) has been attached.			
G. Status (if applicable)	NIR 05: VVB, based on the on-site interviews confirms that no conflicts have been reported between the PC and farmers from the date of implementation of project activity. A robust and transparent institutional mechanism is in place to amicably resolve the grievances. Grievance boxes are installed at locations accessible to stakeholders, excel sheet is also maintained to compile grievances. Upon review of Annual report & participant agreement VVB confirms the grievance mechanisms is established by PC and in line with the requirements. 'Organization Asombrate' will be in charge of communication			

	regarding grievances. According to Annual report 22-23, No grievances were reported. NIR 05 is closed.
H. Forward Actions (describe, if applicable)	None.
I. Others	

Sub-theme Monitoring Plan

Requirements 4.2.21 and 4.2.22		
A. Requirement:		<i>4.2.21 The Local Partner shall be responsible for the secure storage of project information, including project designs, business case details, proof of payments, records of participant events and monitoring results.</i> <i>4.2.22 The Local Partner shall follow the Acorn monitoring plan as outlined in the Methodology and contribute to on-the-ground data collection, validation, and verification activities while coordinating the support of participants and local communities on this monitoring plan.</i>
B. Guidance for VVBs	Notes	Check that Local Partner has stored this information safely, and that records can be produced when asked. • Are there appropriate back-up systems for important information? • Monitoring and reporting systems and capabilities may be determined through: 1. Staff and participating communities able to explain the monitoring system (how each of the indicators in the ADD will be monitored) 2. Records of any monitoring already undertaken e.g. baselines or other information. 3. Visiting plots and watching Local Partner collect data on the ground, and assessing whether this is in keeping with procedures outlined in Acorn Methodology.
C. Findings (describe)		VVB, upon review of data processing manuals^{/G/} confirms that PC ensures the secure storage of project information by using Google Drive for cloud storage, which complies with GDPR regulations. Personal data is anonymized or abbreviated when necessary, and payment records are stored electronically on the Acorn platform. Manual data is scanned and shredded to maintain security. The local partner follows the Acorn monitoring plan, contributing to data collection, validation, and verification activities while coordinating with participants and local communities. Staff and participating communities can explain the monitoring system, and records of monitoring activities, such as

	baselines, are maintained. On-the-ground data collection is conducted in accordance with Acorn Methodology, ensuring accurate and reliable data management. Verification team during the acceptance sampling visited the sampling plots and conducted measurement of the tree count, DBH and height by its own. The result of this measurements reveals that in few of the plots, some discrepancy in height measurement has been observed. Furthermore, VVB reviewed the ground truthing data collection document and confirmed the robustness of the biomass modelling procedures. The methodology effectively integrates on-site measurements with remote sensing data, improving reliability. Tailored data collection for specific ecoregions is validated, requiring at least 50 plots for new areas and 30 for previously assessed regions to ensure representation. Plot selection, with a minimum size of 1 hectare divided into sub-plots, enhances accuracy. The verification process addresses inaccuracies, ensuring data credibility and maintaining high standards. Reassessed values for the initial three plots, provided by PC, were also confirmed as correct by VVB.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	CAR 05: During the on-site inspection, VVB selected sample plots for acceptance sampling and observed that client has collected the ground truth data for 60 selected sample plots during the VVB's visit only. However, during the inspection of the first three plots, VVB noted that the procedures for monitoring tree height were not in compliance with the SOPs outlined in the methodology. The key observations are as follows: a) The trees were not properly marked, making traceability difficult. b) The tree height measurements did not align with the methodology's SOP. c) There is a need for improvement in recording field data using the appropriate monitoring equipment, along with further training and capacity building for MRV personnel. However, VVB confirms that PC employed the ruler method to measure the heights of the trees for the remaining 57 sample plots. VVB determined that the error was isolated and not systemic error. As a result, the client is requested to provide the corrected values for the first three plots using the appropriate approach. Additionally, to enhance the QA/QC of field measurements, PC is requested to cross-check the ground truthing data in the future.		
F. Acorn's Response (if applicable)	CAR 05: Values for the initial 3 plots have been reassessed and updated data provided to the validator for verification purposes. Additionally, attached to this you can find the document containing the Standard operating practice for data collection and quality assurance. In addition, we provide the data collection training material which is used as guidance by the data collectors.		

G. Status (if applicable)	CAR 05: VVB reviewed the document pertaining to ground truthing data collection. The ground truthing procedures for biomass modelling confirm their effectiveness and robustness. The methodology integrates on-site biomass measurements with remote sensing data, enhancing reliability. Tailoring data collection to specific ecoregions is justified, with a clear requirement for a minimum of 50 plots for new areas and 30 for previously assessed regions, ensuring adequate representation. The selection of plots is appropriate, utilizing a minimum size of 1 hectare divided into sub-plots for accuracy. VVB confirms that the verification process addresses potential inaccuracies, enhancing data credibility. Overall, these procedures maintain high standards for accurate biomass modelling. Furthermore, VVB confirms that PC has provided reassessed values for the initial three plots, which were found to be correct. CAR 05 has been closed.
H. Forward Actions (describe, if applicable)	None
I. Others	<i>(To be filled out by the VVB)</i>

Sub-theme: Buffer pool

Requirements 4.9.1, 4.9.3 and 4.9.4	
A. Requirement:	<i>4.9.1 Acorn projects shall supply 15% of generated CRUs to the buffer pool for the duration of the project to cover unforeseen premature loss of carbon stock.</i> <i>4.9.3 Every two to five years, the buffer pool percentages should be assessed on coverage ratio and adjusted accordingly.</i> <i>4.9.4 If premature reversal is not recovered within five years, BCRUs should be provided from the buffer pool.</i>
B. Guidance Notes for VVBs	Check the buffer pool auditing the excel spreadsheet provided by Acorn of CRUs calculations.
C. Findings (describe)	Upon review of VDP_Colombia_Cacao_final030924 & VDP_Colombia_Coffee_final030924, VVB confirms PC has applied 15% buffer pool value to cover unforeseen premature loss of carbon stock.

D. Conformance	☒	☐	☐
	Yes	No	N/A
E. Corrective Actions (describe)	None.		
F. Acorn's Response (if applicable)	--		
G. Status (if applicable)	--		
H. Forward Actions (describe, if applicable)	None.		
I. Others	--		

Monitoring Indicators

Sub-theme Livelihoods Monitoring

Requirements 4.4.6	
A. Requirement:	<i>4.4.6 In addition to the carbon baseline, a project baseline should be provided by local partners on a project level at the start of a project intervention. This project baseline should describe the current socioeconomic conditions and explain how these conditions are most likely to develop over time (positively and/or negatively) as a result of the project intervention.</i>
B. Guidance Notes for VVBs	Check a sample of the surveys that were made to collect the information from the local livelihood indicators for this reporting period.
C. Findings (describe)	Based on a review of the survey sheets ^{/F/} and interviews ^{/J/} with farmers, local partners, and field staff, the VVB confirms that the farmers have significantly benefited from this project ^{/A/J/} . Prior to the project's intervention, during the baseline survey, farmers faced severe challenges due to drought and high temperatures, resulting in substantial losses of coffee and cocoa trees. However, following the project's implementation, the planting of shade trees has helped protect crops from extreme heat. Additionally, farmers have experienced increased productivity of cocoa, coffee, and other fruit trees.

The project baseline provided by Solidaridad includes a comprehensive description of the current socioeconomic conditions and how these conditions are expected to develop over time due to the project intervention.

Socioeconomic Conditions

- **Current Conditions:** Participants live below the poverty line, with an average income between 3000 and 4000 USD per year. Their financial state continues to worsen due to the negative impacts of climate change on farm productivity and income.
- **Expected Developments:**
 - **Food Security/Nutritional Intake:** The project intervention is expected to increase food security due to higher productivity of coffee and cocoa yields and income diversification through carbon credits.
 - **Farmer Financial State:** The intervention will help build resilience against climate change, with shade trees protecting crops from harsh weather. The marketable products from the trees and carbon credits will diversify income streams, acting as a buffer during financial hardships.
 - **Gender Equality:** The project promotes the social inclusion of women and young people through participation and leadership in agroforestry.
 - **Farmer Access to Resources:** Farmers receive agroforestry training, planting resources, and transportation to visit successful agroforestry systems. Carbon payments will allow them to purchase necessary materials for long-term maintenance.
 - **Biodiversity on Farms:** Biodiversity is expected to increase due to the planting of diverse shade and fruit trees among coffee and cocoa crops, providing suitable habitats for local species and pollinators.

Sample of Surveys^{/F/}

- **Number of Participants Surveyed:** 100 (30 female, 70 male)
- **Indicators and Metrics:**
 - **Farmer Income:** Annual farmer revenue (income + CRU revenue – expenses)
 - **Household Nutrition:** Number of food groups consumed in the household in the past 24 hours (Household Dietary Diversity Score - HDDS)
 - **Agricultural Land Use Productivity:** Average yield of main cash crops (kg/ha/year) and total farm yield (kg/ha/year)

	• Women Empowerment: Number of female employees, Project Council members, and participants, along with subjective farmer perception of women's involvement in the project • Youth Inclusion: Number of youth employees, Project Council members, and participants, along with subjective farmer perception of youth involvement in the project Baseline and Current Values • Farmer Financial State: CRU Revenue - Baseline: 0, Current: 0 (participants had not received CRUs before) • Nutritional Variety: Average number of food groups consumed - Baseline: 7, Current: 8 (updated due to the inclusion of cacao producers) • Agricultural Land Use Productivity: Farm output value per hectare per crop type - Baseline: 870 kg/ha/year of coffee, Current: 1078 kg/ha/year of coffee and cacao (updated due to the inclusion of cacao producers) Evidence through shapefiles^{/E/} has been provided to show that the project area has not been negatively altered prior to the project for the purposes of claiming CRUs payments. VVB has also verified the shapefiles^{/E/} and confirm the same. VVB confirms, The project provides livelihood benefit to the community from planting and Agroforestry in the form of Sale of farm product, non-timber products, etc. The project has described the socio-economic baseline and expected socioeconomic impacts in Part E of Acorn ADD. No negative socioeconomic impacts have been identified.						
D. Conformance	<table border="1"> <tr> <td data-bbox="453 1370 759 1429">☒</td> <td data-bbox="759 1370 1078 1429">☐</td> <td data-bbox="1078 1370 1394 1429">☐</td> </tr> <tr> <td data-bbox="453 1429 759 1500">Yes</td> <td data-bbox="759 1429 1078 1500">No</td> <td data-bbox="1078 1429 1394 1500">N/A</td> </tr> </table>	☒	☐	☐	Yes	No	N/A
☒	☐	☐					
Yes	No	N/A					
E. Corrective Actions (describe)	None.						
F. Acorn's Response (if applicable)	--						
G. Status (if applicable)	--						
H. Forward Actions	None.						

(describe, if applicable)	
I. Others	(To be filled out by the VVB)

Sub-theme Ecosystem Monitoring

Requirements 4.4.2 and 4.1.5	
A. Requirement:	4.1.5 Acorn projects should strive to not contribute, or to do their utmost to avoid, environmental or (agricultural) biodiversity harm (e.g. reduction of long-term food security, water pollution, deforestation, soil erosion). All potential negative effects are identified, mitigated and monitored. These negative effects are detailed in annual reports to Acorn and the certifier. 4.4.2 As part of the carbon baseline, project areas should identify species with a high local environmental and social conservation value and describe how these species are likely to be affected by the project intervention, and how these effects are monitored. The conservation value of species can be determined by local Indigenous knowledge and/or by referring to the IUCN red list⁸ or the Forest Stewardship Council⁹.
B. Guidance Notes for VVBs	Check a sample of the surveys that were made to collect the information from the ecosystem monitoring indicators for this reporting period.
C. Findings (describe)	VVB has reviewed the ADD, and it was highlighted that planted species contribute positively towards enhancing ecosystem. Planted trees will provide shade, protection to both coffee and cocoa plantations also improve the quality of soil and watershed. Native tree plantation does not invoke any negative impact. VVB confirms that the part D of the Carbon Baseline Assessment include the list of tree species to be planted along with their nativeness, benefits and justification for use in the project. VVB has verified, the nativeness of the tree species included within the project intervention. VVB has also verified the IUCN red list for the tree species. Based on the review of ADD, surveys, database of Plants of the world online, on-site inspection¹⁰ and through the interviews with the farmers, communities, local partner, project staff, local expert, etc. VVB confirms that the 144 species considered for Agroforestry are native or naturalised. VVB, through own research confirms that the naturalised species introduced are not invasive and are fruit or shade trees which will increase in food security due to the expected increases in productivity/coffee and cocoa yields

⁸ [IUCN, 2021](#)

⁹ [Forest Stewardship Council, n.d.](#)

	and income diversification (carbon credits), that help farmers to afford a variety of nutritious food. There will be positive effects on the biodiversity as the trees will become a habitat and also food source for various birds and animals. Eventually, shade trees protect crops from harsh weather conditions. The marketable products derived from the trees planted and the carbon credit received for sequestration will offer diversification in income streams, act as a buffer for farmers in times of financial hardship. The species has also livelihood benefits as the sale of fruits and nuts for the trees will significantly increase income and uplift the living condition of local peoples. Biodiversity will increase due to the planting of diverse shade and fruit trees among coffee and cocoa crops that provide a suitable habitat for local species and pollinators.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	None		
F. Acorn's Response (if applicable)	--		
G. Status (if applicable)	--		
H. Forward Actions (describe, if applicable)	None.		
I. Others	(To be filled out by the VVB)		

Sub-theme: Reporting-Annual reports

Requirement 5.8.3	
	From the start of a project intervention, the local partner is asked to provide annual reports on the project's progress. At a minimum, the following information should be provided in these annual reports: - Total number of farmers participating* - Number of new farmers participating*

	• <i>Average hectares per farmer*</i> • <i>Number of CRUs generated (metric ton CO₂eq sequestered)*</i> • <i>Number of CRUs sold*</i> • <i>Total payments to participants</i> • <i>Local partner expenditure</i> • <i>Any significant updates in the project</i>		
	Check that the annual report provided by Acorn contains all the above information.		
	VVB reviewed the annual reports^{/D/} provided for year 2022-2023 and 2023-2024. It is to be noted that concept of annual report was introduced later in acorn, hence PC has provided annual reports from 2022 to 2024, which is deemed to be acceptable. In the first reporting period (03/2022 - 03/2023), the project included 6391 Ha, with 3782 new farmers participating. The average plot size per farmer was 1.4 hectares for coffee and 2.07 hectares for cocoa. During the reporting period from 2019 to 2023, participation significantly increased, leading to a total generation of 25,289 CRUs. Although the concept of annual reporting was formally introduced in 2022, the first “annual” report included cumulative data from the project’s inception. Total payments to participants amounted to 265636 euros (80% of CRU sales). Local partner expenditure included monthly costs of \$88,788,580 in 2022 and \$142,762,500 in 2023, totalling \$1,335,332,560. Significant updates included the addition of 6,300 hectares, validation by Aenor with corrective actions addressed, and the implementation of new project councils. In the second reporting period (03/2023 - 03/2024), the project expanded to 17776 coffee and cocoa farmers, with 21,558 new participants. The average plot size remained the same. The CRU generation reported is of 1.827 CRUs totalling to 32861 CRUs generated till march 2024 and the sale of 16.119 CRUs. Total payments to participants were 343730 euros (80% of CRU sales) in direct payments. Local partner expenditure included monthly costs of \$142,762,500 in 2023 and \$159,894,000 in 2024, totalling \$2,512,620,000. Significant updates included the inclusion of cacao producers with a new agroforestry design and business case, and the establishment of two project councils for better representativeness. VVB confirms that Annual reports were in compliance with standard template.		
	☒ Yes	☐ No	☐ N/A

pe)	NIR 06: The annual report of 2022-2024 has not been provided and the following justifications are missing from the annual report 2022-23: • Total number of farmers participating • Average hectares per farmer • Metric ton CO₂eq sequestered • Local partner expenditure • Any significant updates in the project
icable)	The annual report of 2022- 2024 does not exist as such. An annual report for 2022-2023 has been provided and a new annual report from 2023-2024 has been provided along with this document. Please note, the points detailed in the CAR <i>“Total number of farmers participating”</i> and <i>“Average hectares per farmer”</i> are provided in the ADD section A. Regarding the rest of the information listed, it can be found in each of the annual report for their respective reporting period.
	For the Solidaridad Colombia project, PC has provided 2 Annual reports from from March 2022 to March 2024, has made significant strides in agroforestry and carbon sequestration. Initially, 3,800 farmers managing 1.68 hectares each sequestered 7,372 metric tons of CO₂ equivalent, generating 7,372 Carbon Removal Units (CRUs). The project expanded by adding 6,391 hectares and conducting stakeholder consultations. In the second year, it grew to 17,776 farmers managing 2.5 hectares each, sequestering 54,975 metric tons of CO₂ equivalent and generating 54,975 CRUs. Expansions included incorporating cacao producers and new agroforestry designs. Two project councils were established, resolving all 145 grievances. Consultations addressed food security, gender balance, and climate change, with ongoing training in agroforestry practices and climate adaptation. VVB confirms that data provided in annual reports is valid appropriate. NIR 06 is closed.
, if applicable)	None
I. Others	(To be filled out by the VVB)

Sub-theme: Double-counting

Requirement 4.7.1 and 4.7.2	
A. Requirement:	4.7.1 In order to prevent double counting, issuance, use or claim of project emissions reductions, all CRUs shall be registered in a public register with a unique serial number, highlighting when (year), where (country, GPS coordinates) and by whom (local partner) the CRUs were generated.

	4.7.2 An Acorn project shall not be incorporated by any other accounting program (e.g. compliance, voluntary or national GHG program) unless upon Acorn approval and with official agreement that demonstrates that no double counting is taking place.		
B. Guidance Notes for VVBs	Check the possibility of double counting from other accounting programs through discussions with local experts, the Local Partner and other projects (including any national or regional level GHG coordination unit).		
C. Findings (describe)	VVB, upon review of program contract^{/B- Annex 09/} and ADD^{/A/}, confirms that all Carbon Removal Units (CRUs) generated by the project are registered in a public register with unique serial numbers, detailing the year, country, GPS coordinates, and the local partner responsible, ensuring transparency and preventing double counting. The Acorn project is not incorporated into any other accounting program without Acorn's approval, and any such incorporation requires an official agreement to prevent double counting. Discussions with the local partner, Solidaridad Network, confirm that the project is not part of any other GHG accounting program that could lead to double counting. There are no indications of overlap with other projects that could result in double counting of emissions reductions. Additionally, there is no evidence of the project being included in any national or regional GHG program without proper agreements to prevent double counting. These measures and verifications effectively mitigate the possibility of double counting from other accounting programs. Furthermore, VVB checked projects from other registries such as Verra¹⁰, GS¹¹ for programs overlapping project area. VVB confirms that project area does not overlap with any other project registered in other registries. Furthermore, RENARE¹² is Colombia's national platform to register and track greenhouse gas reduction projects. Managed by IDEAM, it supports carbon accounting and monitors national climate goals under the Paris Agreement. While it tracks verified emission reductions, it does not directly issue tradable credits but aids compliance and reporting efforts. Currently RENARE is suspended (in 2022), as Ministry of Environment is developing a new administrative framework, the timeline for its implementation and the reopening. Hence, project is not yet registered in this platform.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	NIR 07: VVB requested document pertaining TO DOUBLE COUNTING OF CRUs e.g., declaration letter		

¹⁰ [Verra Landing page](#)

¹¹ [Gold Standard | GS](#)

¹² [RENARE, the platform to record greenhouse gas reductions in Colombia -](#)

F. Acorn's Response (if applicable)	NIR 07: To ensure no double counting takes place Acorn's Participant Agreement clearly states the impossibility for participants to take part in other carbon programs. This specific requirement can be found on the participant agreement template. Furthermore, this specific point is explained to participants when they signed the participant agreement and Solidaridad has developed visual and reading aiding material to facilitate the understanding of participants.
G. Status (if applicable)	NIR 07: During onsite inspections and review of participant agreements, VVB confirms that PC has included a clause regarding the transfer and sale of CRU rights. Participants must obtain written permission from the local partner if they wish to engage in other carbon or agroforestry programs. This ensures that the carbon credits generated through the ACORN program are not claimed or registered elsewhere, preventing double counting. NIR 07 is closed.
H. Forward Actions (describe, if applicable)	None.
I. Others	<i>(To be filled out by the VVB)</i>

Carbon benefits

Sub-theme: Applicability conditions

Requirement 4.5 and 4 Applicability conditions from the methodology	
A. Requirement:	<i>Framework:</i> 4.5.1 All Acorn CRUs shall be generated based on the applicability conditions addressed in the Methodology. <i>Methodology:</i> 4.The applicability conditions from the methodology are the following one: a) The project intervention meets the agroforestry definition (see Section 3), and any trees planted are native or naturalized species. b) <i>The project area must not have been cleared of native vegetation within 5 years of the start of the project intervention.</i> c) <i>The project area consists of individual plots that are between 0.1 and 10 ha.</i> d) <i>All land within the project area is either cropland or degraded land and not on wetlands in the baseline scenario.</i>

	<i>e) The project interventions must not include activities that increase the total number, weight or number of grazing days for any livestock type, relative to the baseline scenario.</i> <i>f) The project intervention must not include the planned harvesting of planted trees during or after the crediting period.</i> <i>g) Heavy machinery must not be used for site preparation or management.</i> <i>h) The project intervention must not increase the use of synthetic (nitrogen-containing) fertilizers relative to the baseline scenario.</i> <i>i) Ask Local Partner and participants about use of synthetic fertilizers. Also note any sightings of synthetic fertilizer containers in and around project areas.</i>
B. Guidance Notes for VVBs	Check the following issues for the new farmers onboarding the project: -Through interviews with Local Partner and participants, assess whether the Local Partner promotes the use of native species in agroforestry systems. -Assess the evidence to demonstrate that the land was not cleared prior to the project intervention with satellite imagery (5 years prior to the smallholder joining the project). -Prior or during the site visit, the VVB can check that the areas of sampled project sites are less than 10ha via the remote-sensing polygons previously obtained by Acorn. If, when visiting the site, the boundary of the polygon appears to map appropriately onto the boundary of the smallholder's land, then the smallholder's land is likely less than 10 ha. -During site visits and interviews with the smallholders, check with the smallholders whether the activities of the project, or income from the project, have or will likely result in an increase in their total number, weight or number of grazing days for any livestock type.
C. Findings (describe)	a. VVB during the on-site inspection, through the interviews with the farmers^{/J/}, local partners, project staff and through the review of the KML shapefiles and Remote Sensing Analysis^{/E/} confirms that the Local Partner promotes the use of native species in agroforestry systems. VVB has also cross-checked the database of Plants of the world online, it has been found that all the 144 species considered are native or naturalised. VVB, through own research confirms that the naturalised species introduced are not invasive and are fruit trees. There will be positive effects on the biodiversity as the trees will become a habitat and also food source for various birds and animals. The species has also livelihood benefits as the sale of fruits and nuts for the trees will significantly increase income and uplift the living condition of local peoples. b. VVB, based on the review of satellite images for each land parcel Remote Sensing GIS and KML files^{/E/}, survey reports^{/F/} and ADD^{/A/}, confirms that there was no clearing or conversion of land 05 years prior to the project start date. Moreover, VVB also evident the historical LULC maps^{/E/} and confirms that the

	claim of PC that pre-project area scenario was an abandoned degraded and barren land is valid and appropriate. c. During the site visit, VVB also cross-checked that the areas of sampled project sites are less than 10ha via the remote-sensing polygons previously. The boundary of the polygon appears to map appropriately onto the boundary of the smallholder’s land, then the smallholder’s land is likely less than 10 ha. d. When overlaying all the project plots (Coffee and Cocoa) with the Global Surface Water layer^{/E/}, it is evidenced that there is no intersection with wetland or waterbody. e. VVB, based on the onsite inspection^{/J/}, through the interviews with the individual farmers and also through the review of the survey reports confirms that there is no increase in the total number, weight or number of grazing days for any livestock type, relative to the baseline scenario. f. VVB, based on the onsite inspection^{/J/}, through the interviews with the individual farmers and also through the review of remote sensing GIS^{/E/}, confirms that there is no loss of carbon stock due harvesting of planted trees during or after the crediting period that occurred during the 1st periodic verification. g. VVB, based on the onsite inspection^{/J/}, through the interviews with the individual farmers and also through the review of the survey reports^{/F/} confirms that no heavy machinery is used for site preparation or management. Additionally, farmers highlighted the challenges of importing or exporting machinery and materials due to the poor condition of roadways and the steep slopes of the mountains. h. VVB, based on the onsite inspection^{/J/}, through the interviews with the individual farmers and also through the review of the survey reports confirms that no synthetic (nitrogen-based) fertilizers are used in the project area. Farmers exclusively use organic fertilizers, such as decomposed cocoa leaves and organic matter, to enhance soil nutrition. Through participant interviews and site observations^{/J/}, VVB confirms compliance of project with Acorn framework and methodology.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	CAR 07: Based on the review of KMLs and shapefiles provided by PC, VVB confirms that there are some inconsistencies detailed as follows: 1.PC in part L (Applicability conditions) of ADD, shows that the project area was not cleared of native vegetation within 5 years of the start of the project intervention. 2. The total sum of plot area shown in *geojson files related to Cocoa plots is 21,067.90 ha vs 20,924.38ha, calculated from the same file; differing at 143.52ha. Furthermore, in the same way for coffee plots, the total sum reported was 25,730.66ha vs 25,591.93ha, calculated from the coffee plots *geojson file; differing, at 138.73ha. Additionally, a discrepancy between the total Project area		

	reported in ADD and the Annual report was exhibited; ADD shows a total project area of 6,996.74ha vs 6391ha in Annual report vs total area of *geojson files. 3.The wetland assessment is based on the dataset of <i>Global Surface Water</i>¹³ . When overlaying all the project plots (Coffee and Cocoa) with the Global Surface Water layer, it is evidenced that there are some plots that intersect with a pixel of water. This result indicates that there is a plot within water body or possible wetland indeed. 4. There are plots of Coffee with boundary that overlapped with boundary of the neighbor plot; this issue of overlapping has influence in terms of area estimation because there are some common area in all plots that present this condition. CAR 08: According to framework section 5.2, positive list requirement in ADD, VVB found that requirement (c) & (d) are not met, considering the stated requirement, at least one of the requirements should be met.
F. Acorn's Response (if applicable)	CAR 07: 1. According to the Acorn Guidance Manual v1.0 available on the Acorn and Plan Vivo website (also see attached), the remote sensing-based approach for deforestation is only for risk management purposes. A failed polygon can be overruled by the local partner and a justification has to be submitted to Plan Vivo for approval. The procedure for Deforestation is found in the guidance document (page 159). The number of failed polygons is outlined in the ADD part "D". 2. The number of total hectares has for coffee and cacao plots has been updated both in sheet "1. Cru Calculation" in column "Calculated Plot Area" and in sheet "7. Plot Details" in column "Calculated Plot Area". Furthermore, the ADD has been updated to and is now aligned with the Geojson file in terms of total project area. Please note that the total project areas indicates the area of onboarded plots but it doesn't mean all these plots have generated CRUs. GEOJSON file shared represent total size of all farms(plots).Following the logic of the Geometry check, the GeoJson files are updated and additional overlap analysis can be found under: ○ Colombia plots overlap over 10p ONHOLD ○ Colombia plots overlap below 10p ACTIVE ○ Colombia plots NO overlap 5m gps inaccuracy This is a combination of both cacao and coffee and overlapping plots removed. In principle for: ○ Plots with >10% overlap are put 'on hold' until LP provides new geometry for the plot – Cancel x CRUs – 2 plots with CRUs. ○ Plots with <10% overlap remain active

¹³ *Global Surface Water* : is a data set that depict the location and temporal distribution of water surfaces at the global scale over the past 38 years and provides statistics on the extent and change of those water surfaces. The dataset, produced from Landsat imagery (courtesy USGS and NASA), will support applications including water resource management, climate modelling, biodiversity conservation and food security.

	3. 'Based on the additional information we notice that the year when the data layer was created differs from that of the onboarding of the farmer or the start of the project (sometimes with a difference of 10 years). Some examples include plot CO209171 – 350783 in year 2014 indeed there is water unlike year 2024, where this is not the case. Similarly plots CO222303 – 386701 & CO222275 – 386617, where the observation is from year 2002, but the farmers are onboarded in 2024. Other discrepancies we note are related to plots nearby waterbodies (for example rivers CO222476 – 387220), where the coarse resolution of the data layer (250m) can be the source of the error. 4. Acorn has in place a quality check for overlapping polygons and erroneous geometry. Please refer to the "Geometry checks.pdf" file to know the checks develop to onboarded plots. CAR 08: This table has been updated on the ADD. While the human development index for different regions within the project area is above 0.6 HDI, the mean annual precipitation reaches 358mm for the wettest area (Risaralda). The previous value shown in the ADD was reflecting the total annual precipitation, which is different from the mean annual precipitation. In the case of the latter, no region in which the project is implemented has a mean annual value higher than 600mm per year (16698-WB Colombia Country Profile-WEB.pdf)
G. Status (if applicable)	CAR 07: Based on the review of files and responses provided by PD, VVB confirms that: 1-The clarification provided by PD about the request of provide evidence of not clearance of native vegetation within the last 5 years prior the project intervention, was satisfactory and clarify the point raised above (PD has identified number of failed polygons in the ADD section D); furthermore PD has provided cleared evidence about the procedure followed was based in the Acorn framework requirements 7 clearly defined in the procedure for Deforestation is found in the guidance document and reaffirmed in the validation report "validation report.PDF". 2,4- Based on the analysis of the CRU summaries and updated GeoJSON files, VVB finds Project coordinator's justification for keeping plots with <10% overlap active, satisfactory due to gps inaccuracies of the project region. VVB also finds Project coordinator's approach to put plots with >10% overlap on hold until the geometry is updated and reduce CRUs accordingly, satisfactory. 3-Regarding to the wetland assessment requested in the point above, PD has clarified these points based in the review of the mentioned plots and provided an explanation of the condition of the plots at the moment of project intervention date. CAR 07 is closed. CAR 08: Upon review of revised ADD, VVB confirms that project area has mean annual precipitation of less than 600mm. Hence requirement (c) under positive list is fulfilled.

	CAR 08 is closed.
A. Forward Actions (describe, if applicable)	<i>None</i>
B. Others	<i>(To be filled out by the VVB)</i>

Sub-Theme: Carbon Baseline

Section 6 Carbon Baseline pre-project tree adjustment factor from Methodology	
B. Requirement:	<i>Methodology:</i> If the potential change in pre-project tree biomass is less than 5% of the expected increase in tree biomass expected to result from the project intervention, estimated using an appropriate tree or stand growth models, the carbon stock aboveground and belowground biomass of pre-project trees can be set at zero in the baseline scenario. Otherwise, measurements from sample plots must be used to define an appropriate adjustment factor with Equation 1 to Equation 3 and Table 3. of the methodology. The sample plot data used must allow for distinction between pre-project trees and trees planted as part of the intervention. In project regions where pre-project tree biomass varies substantially between plots (e.g. by more than 10%) calculating a separate adjustment factor for each stratum is likely to reduce the number of samples required to obtain an acceptable level of precision. A minimum of 30 randomly selected sample plots must be measured per stratum. Project may further stratify or use y-1 to optimize measurement.
C. Guidance Notes for VVBs	Check the pre-project tree adjustment factor via the adjustment factor calculation spreadsheet provided prior by Acorn. Check the formulas in the excel provided and the re-measurement some plots during the on-site visit. Are the formulas correctly applied in the excel spreadsheet?
D. Findings (describe)	VVB, based on the interviews with the MRV personnels^{/G/}, confirms that PC has conducted 2 event of ground truth data collection, the first from November 2022 to June 2023 for cocoa and from January 2021 to September 2023 for Coffee^{/C/}, and second in the month of September 2024 for both coco and coffee. Ground truth data provides information such as number of tree species, number of trees per species and the trees are grouped based on tree age per species to obtain the average AGB per tree age group. Average AGB along with tree age/species is used to construct the tree biomass growth curve which is in turn used to estimate the expected biomass growth of each tree species in a year. This modelled AGB, along

with the information on year of planting, pre-project biomass is separated from additional biomass. Thus, the percentage of pre project tree biomass for each individual plot of the project location is estimated.

Upon review of verification data package, and the documents provided (Data processing SOP)^{/G/}, VVB confirms that the project meets the methodology requirements for pre-project tree biomass adjustment. If the potential change in pre-project tree biomass is less than 5% of the expected increase in tree biomass resulting from the project intervention, the carbon stock of pre-project trees can be set at zero in the baseline scenario. Otherwise, measurements from sample plots must be used to define an appropriate adjustment factor using Equation 1 to Equation 3 and Table 3 of the methodology. The sample plot data allows for distinction between pre-project trees and trees planted as part of the intervention. In regions where pre-project tree biomass varies substantially between plots (e.g., by more than 10%), a separate adjustment factor for each stratum is calculated to reduce the number of samples required for acceptable precision. A minimum of 30 randomly selected sample plots is measured per stratum, and projects may further stratify or use y-1 to optimize measurement. The pre-project tree adjustment factor is calculated using the adjustment factor calculation spreadsheet provided by Acorn. The formulas in the Data package spreadsheets^{/C/}

(VDP_Colombia_Cacao_final030924_updated_20250312_&20250408.xlsx and VDP_Colombia_Coffee_final030924_updated_20250312&_20250408.xlsx) are correctly applied according to the methodology. The spreadsheets distinguish between pre-project trees and intervention trees, and separate adjustment factors are calculated for each stratum with significant biomass variation. Re-measurements are conducted during on-site visits to verify the accuracy of the data. These assessments confirm that the project complies with the methodology requirements for pre-project tree biomass adjustment.

Verification Approach: Acceptance Sampling -

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, 90% confidence level and 33% distribution response in determining the VVB's sample size. The total permanent sample selected by PC i.e., 25,852 sample plots. Accordingly, VVB team plan to take 60 samples from the designated project region included under the project activity for the reported monitoring period with pro-rata sample size calculated based on sample size taken by the PC (i.e., weightage of sample size for a project area taken by PC) multiplied by the VVB sample size.

Name of the Project Area	Plantati on Area	Client Sample Size	VVB Sampl e Size	Verification through Remote Sensing GIS (90%)	Verification through ground truthing (10%)
Colombia	42,086 hectare	25,852	60	51	09

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 have been established in order to ensure an effective verification planning.

Step 1- Identification of Materiality threshold

Check the relevant box against applicable threshold level	Threshold	Related to
☐	1 %	Projects registering >300,000 tCO ₂ /yr shall achieve a >99% level of accuracy (1% error margin) relative to the auditing body's calculated emission reductions
☒	5 %	Projects registering <300,000 tCO ₂ e/yr shall achieve a >95% level of accuracy (5% error margin) relative to the auditing body's calculated emission reductions

VVB, based on the on-site inspection, have collected data and parameters from the 9 sample plots, including DBH, height, species, as well as the number of trees and cash crops present before the project start date to establish the baseline carbon calculation. VVB also cross-verified the ground-truthing data from 2021, 2022, and 2023, confirming its appropriateness and accuracy.

E. Conformance

Yes ☒ No ☐ N/A ☐

F. Corrective Actions (describe)

NIR 08: The carbon calculation for the Ground truthing of 2024 is missing from the excel spreadsheet.

CAR 09: In the excel spreadsheet, PC has mentioned that AGB for each plot expected for year 2020 is collected or year 2020 based on GT data. However, the earliest date of GT data collection is January 2021 for coffee and November 2022 for cocoa. Please clarify how the AGD modelled for 2020 obtained from GT conducted later.

CAR 10: The following issues should be corrected/clarified:

- On Nutritional Variety and Agricultural Productivity, on topic 2, probably lack of the word cocoa (2nd line).
- Initially, the Gini-Simpson Index was calculated following the standard formula relative abundance of each species. However, it seems that a

	<i>conversion or adjustment was applied afterward to reach the final figure, which was not clearly explained. This additional step raises questions about whether the final value accurately reflects the biodiversity as measured by the index. To verify the validity of the final result, a more detailed explanation of this conversion process is needed, particularly how it aligns with the ecological factors and the original methodology of the Gini-Simpson Index.</i> <i>c. Two list of species >2m and non of <2m. There is probably a mistake.</i>
G. Acorn's Response (if applicable)	NIR 08: Updated data packages have been shared for review. CAR 09: This is described in the document on Model calibration. The model is not calibrated for yearly variability but for biomass range. The goal of model calibration is to cover the full range of biomass variability. Therefore, at any given time when the model is applied, the measured value should be in the calibration range. The model is verified for the year of verification with data collected on that year. If the model meets the accuracy acceptance criteria and is calibrated for the project range, additional calibration from different time periods is not necessary. CAR 10: The word cocoa was included in the ADD as described in the point a. of this CAR. Regarding the Gini-Simpson Index, the calculation was modified following the FAO methodology (Tool for Agroecology Performance Evaluation (TAPE) - Test version). In this, the final result is an average of the three calculated indices (Crops, Livestock and vegetation indexes). The ADD was modified accordingly. In terms of tree species 2m>, the two lists used are correct and both of them aim to display number of trees higher than 2 meters. As such, these reflect the distribution of trees per species for each agroforestry system (coffee and cocoa). This data is derived from the initial ground truthing exercise on plots of belonging to the different crops .
H. Status (if applicable)	NIR 08: VVB confirms that PC has provided Ground truthing data of 2024 along with calculations based on information collected by remote sensing. NIR 08 is closed. CAR 09: VVB has thoroughly verified the carbon calculation sheet and the document outlining the end-to-end data processing, confirming that the latest ground truth data, collected in September and October of 2024, has been accurately incorporated into the model calibration. The PC has demonstrated the detailed process of model calibration, with the calculations based on the most recent data and aligned with the Acorn methodology. VVB affirms that the calculations and data provided by the PC are appropriate, consistent, and meet the required standards for biomass estimation and Carbon Removal Unit issuance. Therefore, the data is verified as accurate and reliable. CAR 08 has been closed. CAR 10: a) Upon review of revised ADD, VVB confirms that PC has made corrections in relevant section.

	b) VVB confirmed that PC has modified the Gini-Simpson Index calculation following the FAO methodology (Tool for Agroecology Performance Evaluation (TAPE) - Test version). PC has corrected the same in the ADD. c) Upon review of revised ADD, VVB confirms that PC has made corrections in relevant section. CAR 10 is closed.
I. Forward Actions (describe, if applicable)	None.
J. Others	<i>(To be filled out by the VVB)</i>

Sub- Theme: Model development

Requirement 4.5.4. and Section 7.1.1,7.1.2., 7.1.3. and 7.1.4 from methodology	
A. Requirement:	<i>Framework:</i> <i>4.5.5. Acorn shall check the accuracy of the satellite measurement on a sample basis every year, and satellite measurements shall be verified every three years by an independent and qualified verification body.</i> <i>Methodology:</i> <i>7.1.1. Data from sample plots are used to calibrate models for estimating tree biomass from satellite imagery. Sample plots used for model calibration must meet the requirements 1-4 of the methodology.</i> <i>7.1.2. Sources of satellite imagery that can be used include, but are not limited to, those given in the Table 4 of the methodology.</i> <i>7.1.3 Machine learning models for estimating tree biomass from satellite imagery must be calibrated using sample plot data for each ecoregion they are applied to. A minimum of 30 sample plots⁷ must be used to calibrate the model for each eco-region, and a further set of at least 20 sample plots that are not used for model calibration must be used to assess model uncertainty. The number of plots used for model calibration and accuracy assessment should be determined based on data availability, variability in the landscape and the desired level of precision.</i> <i>7.1.5 The accuracy criteria is based on the withheld validation dataset. The expected accuracy of the model is 70% (with an uncertainty of 30%), calculated on 90% of the validation set. If multiple remote sensing partners are building models for the same ecoregion, the model with the lowest uncertainty is selected for use.</i>

B. Guidance Notes for VVBs	During field visit(s) collect ground truth data, do the plots meet the above requirements and does it appear that the trees have been appropriately measured? Check the model uncertainty and model calibration calculation spreadsheet provided prior by Acorn. Check the formulas in the excel provided and the re-measurement some plots during the on-site visit. Are the formulas correctly applied in the excel spreadsheet?
C. Findings (describe)	VVB has reviewed the model validation report provided by PC and has collected information. An open source machine learning framework, LightGBM has been used for modelling the biomass. The model uses input data such as satellite images from farmers plot and the obtained biomass value is calibrated using ground truth measurement obtained through stratified random sampling approach to ensure representativeness of biomass distribution across the selected ecoregions. According to Framework, clause 4.5.5. Acorn shall check the accuracy of the satellite measurement on a sample basis every year, and satellite measurements shall be verified every three years by an independent and qualified verification body. VVB confirms that considering these requirements PC has verified measurements^{/C/} for current reporting period/monitoring period. Based on the documents provided VVB confirms that the project meets the methodology requirements for model calibration and uncertainty assessment using satellite imagery. Data from sample plots are used to calibrate models for estimating tree biomass, and these sample plots meet the necessary requirements. Model is calibrated using a minimum of 30 sample plots per ecoregion, with an additional set of at least 20 sample plots used to assess model uncertainty. Ground truth (GT) data collection adhered to Acorn's methodology, utilizing 1-hectare plots with a $\pm 10\%$ size variation and a minimum of 30 plots per eco-region. A total of 308 GT plots were gathered across three eco-regions. The stratified random sampling approach was not applied, while quality assurance measures included outlier detection, error prevention, and verification using high-resolution imagery or Lidar when necessary. Biomass values were estimated through the Chave allometric equation for woody biomass and alternative equations for non-woody biomass. Model calibration used 307 valid GT plots, with an 80% training and 20% validation split. Lidar imagery obtained in 2023 was used for corrections, while Sentinel-2 and Sentinel-1 imagery, along with rainfall and elevation data, informed feature selection. The globally calibrated biomass prediction model achieved an accuracy of $r^2 = 0.75$ and an NRMSE of 16%. Biomass change estimation followed Acorn's methodology and was conducted twice annually, measuring 62 plots in April and 781 plots in September. Adjustment factors included a 0% uncertainty adjustment, a 10% pre-project tree adjustment, and a 0% leakage adjustment. The model uncertainty and calibration calculation spreadsheets provided to VVB, and based on that VVB confirms the formulas are correctly applied according to the methodology.

	During field visit [/] , ground truth data is collected to verify that the plots meet the requirements and that the trees have been appropriately measured. Re-measurements are conducted on some plots to ensure data accuracy. These assessments confirm that the project complies with the methodology requirements for model calibration and uncertainty assessment using satellite imagery.		
D. Conformance	Yes ☒	No ☐	N/A ☐
E. Corrective Actions (describe)	NIR 09: VVB requests justification for Adjustment factors selected for Uncertainty, leakage and Pre-project. CAR 11: The Model validation report provided by PC does not provide sufficient details based on the guidance provided in section 7.1 of Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry, v1.1, 2023. PC is requested to provide further information especially on sample plot for ground truth data collection, remote sensing imagery, model calibration and uncertainty assessment		
F. Acorn's Response (if applicable)	NIR 09: In the data package, every adjustment factor sheet contains an explanation for each specific adjustment factor, including the respective formulas behind their calculations. CAR 11: Further details can be found in RS process description. Documentation provided by project coordinator - Remote sensing process description Solidaridad - Colombia (Cocoa) - Remote sensing process description Solidaridad - Colombia (Coffee)		
G. Status (if applicable)	NIR 09: VVB confirms that Justification related to adjustment factors, their values and formulae are mentioned in excel sheet. Justification was cross-checked with relevant acorn document. Such as Methodology for Quantifying Carbon Benefits from Small-Scale Agroforestry, v1.1 (section 7.3, 8) and Model for calculation of contribution of Pre-project Woody Biomass Modeling for Small-scale Agroforestry (section 5.5). NIR 09 is closed. CAR 11: Upon review of the supporting documents and project-specific details for the (Coffee and Cocoa), including ground truth data, model accuracy, uncertainty assessment and CRU calculation, it is concluded that the data has been verified in accordance with Rabobank's Acorn Methodology and Framework. No deviations or discrepancies were identified. The verification process, conducted by the VVB, confirms that the data provided is accurate and meets the required standards for carbon removal unit issuance. The eligibility assessment for the project included a plot quality geometry check. A deforestation assessment was conducted using Global Forest Watch data, resulting in 450 failed plots. Ground truth (GT) data collection followed Acorn's		

	methodology, requiring 1ha plots with a $\pm 10\%$ size variation, and a minimum of 30 plots per eco-region. A total of 308 GT plots were collected across three eco-regions. The stratified random sampling approach was not implemented, and quality assurance involved outlier detection, error prevention measures, and verification through high-resolution imagery or Lidar if needed. Biomass values were derived using the Chave allometric equation for woody biomass and alternative equations for non-woody biomass. Model building and calibration utilized 307 valid GT plots, split 80% for training and 20% for validation. Lidar imagery was obtained in 2023 for correction purposes. Sentinel-2 and Sentinel-1 imagery, along with rainfall and elevation data, were used for feature selection. The model, a globally calibrated biomass prediction tool, maintained a global accuracy of $r^2 = 0.75$ and NRMSE = 16%. Biomass change estimation followed Acorn's methodology, applied twice annually, measuring 62 plots in April and 781 plots in September. Adjustment factors included uncertainty adjustment (0%), pre-project tree adjustment (10%), and leakage adjustment (0%). CAR 11 is closed.
H. Forward Actions (describe, if applicable)	None.
I. Others	<i>(To be filled out by the VVB)</i>

Sub-Theme: Model application

4.5.2. Requirement, Section 7.2.1 and Section 7.2.2	
A. Requirement:	<i>Framework:</i> 4.5.2 All Acorn CRUs shall incorporate AGB and BGB. In this version of the Framework, soil is excluded for conservativeness. <i>Methodology:</i> 7.2.1 Aboveground biomass is estimated using a machine learning model. The model is applied to satellite imagery acquired at the time of farmer onboarding (or when required). The model makes an estimate of the total biomass within the plot. 7.2.2. If tree biomass is estimated using satellite imagery, change in tree biomass must be calculated using Equation 5. This approach estimates the change in carbon stock in trees as the difference between two successive and independent carbon stock estimates.

	$\Delta TB_{y,s} = (AGB_y - AGB_{y-1}) \cdot (1 + R) \cdot CF \cdot \frac{44}{12} \cdot (1 - AdjU)$ Equation 1 Where: $\Delta TB_{y,s}$ = Change in carbon stock in aboveground and belowground tree biomass in stratum s, in year y (t CO₂eq) after uncertainty discount AGB_y = Aboveground tree biomass per plot in year y (metric tons of dry matter) AGB_{y-1} = Aboveground tree biomass per plot in year $y-1$ (metric tons of dry matter) R = Root-shoot ratio to calculate the belowground biomass factor CF = Carbon fraction of tree biomass $\frac{44}{12}$ = Conversion from carbon to carbon dioxide $AdjU$ = Adjustment factor for uncertainty
B. Guidance Notes for VVBs	At desk review check whether above equation has properly been executed and result in real and measurable results in the excel spreadsheet provided by Acorn. Are the formulas correctly applied in the excel spreadsheet?
C. Findings (describe)	The provided Data package spreadsheets^{/C/} have been reviewed by VVB to check whether Equation 5 has been properly executed and results in real and measurable outcomes. The model estimates the total biomass within the plot. Biomass values were estimated through the Chave allometric equation for woody biomass. The formulas in the spreadsheets are correctly applied according to the methodology. - The spreadsheets include data for estimating aboveground biomass using the machine learning model and calculating the change in tree biomass using Equation 5. - The change in carbon stock is calculated as the difference between two successive and independent carbon stock estimates, resulting in real and measurable outcomes. VVB confirm that the project complies with the methodology requirements for incorporating AGB and BGB in the calculation of CRUs and that the formulas in the provided spreadsheets are correctly applied.

D. Conformance	Yes ☒	No ☐	N/A ☐
E. Corrective Actions (describe)	NIR 08: The carbon calculation for the Ground truthing of 2024 is missing from the excel spreadsheet.		
F. Acorn's Response (if applicable)	NIR 08: Updated data packages have been shared for review.		
G. Status (if applicable)	NIR 08: VVB confirms that PC has provided Ground truthing data of 2024 along with calculations based on information collected by remote sensing. NIR 08 is closed.		
H. Forward Actions (describe, if applicable)	None		
I. Others	<i>(To be filled out by the VVB)</i>		

Sub- Theme: Uncertainty adjustment factor

Requirements 4.5.4. from Framework and 7.3 from the Methodology	
J. Requirement:	<i>Framework:</i> <i>4.5.4 All Acorn CRUs shall be adjusted, if required, for uncertainty in the AGB estimates derived from the carbon model. Acorn aims for conservative estimates that take model error and sampling error into account. Further details can be found in the Methodology.</i> <i>Methodology:</i> <i>7.3 The uncertainty value per project is calculated by dividing the confidence value for individual project by the change in above ground biomass within one measuring period (Equation 7).</i>
K. Guidance Notes for VVBs	Check the uncertainty adjustment factor via the adjustment factor calculation provided prior by Acorn. Can this be justified/confirmed on a project level? Are the formulas correctly applied in the excel spreadsheet?
L. Findings (describe)	Based on the review of tab 4a of the Data package spreadsheets ^[C] and observed that data from 845 and 5466 plots for cocoa and coffee respectively with positive change in plot biomass are selected and the equation 7, 8, and 9 of applied

	methodology has been used for uncertainty analysis for the reporting period 2022-2023. the project meets the methodology requirements for adjusting Carbon Removal Units (CRUs) for uncertainty in the aboveground biomass (AGB) estimates derived from the carbon model. Acorn aims for conservative estimates that take model error and sampling error into account. The uncertainty value per project is calculated by dividing the confidence value for the individual project by the change in aboveground biomass within one measuring period, as specified in Equation 7. The provided spreadsheets^{/C/} have been reviewed to check the uncertainty adjustment factor calculation. The confidence value represents the statistical confidence interval for the biomass estimates, derived from the standard error of the biomass measurements and the desired confidence level (typically 90%). The change in aboveground biomass is calculated as the difference in biomass between two successive and independent measurements. The uncertainty adjustment factor is calculated by dividing the confidence value by the change in aboveground biomass within one measuring period. For the cacao project, the uncertainty adjustment factor is 42%, while for the coffee project, it is 27%. These values are derived from the confidence interval and the change in aboveground biomass within the measuring period. The formulas in the spreadsheets are correctly applied according to the methodology, and the uncertainty adjustment factor can be justified and confirmed on a project level.		
M. Conformance	Yes ☒	No ☐	N/A ☐
N. Corrective Actions (describe)	CAR 09: In the excel spreadsheet, PC has mentioned that AGB for each plot expected for year 2020 is collected or year 2020 based on GT data. However, the earliest date of GT data collection is January 2021 for coffee and November 2022 for cocoa. Please clarify how the AGD modelled for 2020 obtained from GT conducted later.		
O. Acorn's Response (if applicable)	This is described in the document on Model calibration. The model is not calibrated for yearly variability but for biomass range. The goal of model calibration is to cover the full range of biomass variability. Therefore, at any given time when the model is applied, the measured value should be in the calibration range. The model is verified for the year of verification with data collected on that year. If the model meets the accuracy acceptance criteria and is calibrated for the project range, additional calibration from different time periods is not necessary.		
P. Status (if applicable)	VVB has thoroughly verified the carbon calculation sheet and the document outlining the end-to-end data processing, confirming that the latest ground truth data, collected in September and October of 2024, has been accurately incorporated into the model calibration. The PC has demonstrated the detailed process of model calibration, with the calculations based on the most recent data and aligned with the Acorn methodology. VVB affirms that the calculations and data provided by the PC are appropriate, consistent, and meet the required		

	standards for biomass estimation and Carbon Removal Unit issuance. Therefore, the data is verified as accurate and reliable. CAR 09 has been closed.
Q. Forward Actions (describe, if applicable)	<i>None</i>
R. Others	<i>(To be filled out by the VVB)</i>

Sub-theme: Leakage

Requirement 4.6.1, 4.6.2 from Framework and 8 from Methodology.	
A. Requirement:	<i>Framework:</i> 4.6.1 All Acorn projects should identify potential sources of negative leakages and the location(s) where this leakage may occur. 4.6.2 Where leakage is likely to be significant, a specific leakage mitigation and monitoring plan should be established and a conservative adjustment factor should be applied to the CRU calculations according to the Methodology. <i>Methodology:</i> 8. The likelihood of activity shifting leakage (displacement of farmer activity leading to an increase in emissions outside the project area) must be assessed using Equation 9 to determine an appropriate leakage adjustment. To come up with a conservative deduction, the following three parameters are evaluated: i) which activities may be displaced?, ii) where would the activity be displaced to?, and iii) what amount of emissions would be associated with the displacement? Market leakage from changes in production by smallholders is not expected to be significant and is assumed to be zero.
B. Guidance Notes for VVBs	Check the listed sources of leakage and, by comparing against discussions with local experts, the Local Partner and participants, comment on the appropriateness of the: - o Sources of leakage listed and their perceived significance. Is the leakage adjustment factor (AdjL) therefore appropriate for the level of leakage risk? - o Mitigation measures. Have they already started? - o Check the leakage adjustment factor via the adjustment factor information provided prior by Acorn. Can this be justified/confirmed on a project level with what the VVB sees during the field visits?

	For projects where leakage is significant, please double check the calculation in the excel spreadsheet provided by Acorn and against equation 9 of the methodology. Are the formulas correctly applied in the excel spreadsheet?		
C. Findings (describe)	the project meets the methodology requirements for identifying and mitigating potential sources of negative leakages. The likelihood of activity shifting leakage (displacement of farmer activity leading to an increase in emissions outside the project area) is assessed using Equation 9 to determine an appropriate leakage adjustment. The sources of leakage listed in the project documentation include potential displacement of agricultural activities, which could lead to increased emissions outside the project area. Discussions with local experts, the Local Partner, and participants confirm that these sources are significant and need to be addressed. The leakage adjustment factor (AdjL) is therefore appropriate for the level of leakage risk identified. The project has established a specific leakage mitigation and monitoring plan to address significant leakage risks. These measures include monitoring displaced activities and implementing strategies to minimize emissions associated with such displacement. The mitigation measures have already started, as confirmed by discussions with the Local Partner and participants. The provided data package spreadsheets^{/C/} have been reviewed to check the leakage adjustment factor calculation. The formulas in the spreadsheets are correctly applied according to the methodology. The leakage adjustment factor is calculated using Equation 9, which evaluates the potential displacement of activities, the location of displacement, and the associated emissions. For the cacao project, the leakage adjustment factor is 0%, indicating that there is no expected loss in productivity and therefore no significant leakage. For the coffee project, the leakage adjustment factor is also 0%, similarly indicating no significant leakage. During field visits, the VVB observed the implementation of mitigation measures and confirmed the appropriateness of the leakage adjustment factor on a project level. The calculations in the Excel spreadsheets align with the observations made during the field visits.		
D. Conformance	☒ Yes	☐ No	☐ N/A
E. Corrective Actions (describe)	CAR 12: There are significant areas of grassland class within the surrounding areas of the project. No explanation is given if those are natural conserved areas or used for cattle ranching. If cattle ranching is a relevant activity in the region, arguments for this type of activity being shift is not presented.		
F. Acorn's Response (if applicable)	CAR 12: The observed grasslands are not protected areas, but private owned lands. More importantly, despite the grassland type of area observed, it must be pointed out the project participants rarely have cattle on their land. This was also seen during the field visit, in which majority of interviewed farmers indicated to not own any cattle (cows) or those who did, do so for self-consumption of milk and not as a commercial activity. Therefore, no grassing		

	is expected to be shifted from participant's plots to the grassland type of areas (as mentioned in this CAR) due to the project implementation. As an example, the plots in which coffee is produced are located on highly steeped hills (as evidenced during the field visit), making their lands not apt for cattle grazing and reducing the likelihood of participants having cattle. Finally, the leakage adjustment factor of the Acorn methodology takes into consideration the landcover of surrounding areas to determine whether a potential shifting of activities outside of participants areas can lead to a reduction of carbon in other areas. In this regard, grasslands are not considered to be a significant source of carbon pool.
G. Status (if applicable)	CAR 12: Upon review of project coordinators response and onsite observations, VVB confirms that cattle ranching is not practiced in project area. Considering grasslands in surrounding areas are privately owned lands, VVB confirms that these areas are not naturally conserved areas. VVB confirms that there is no activity shifting involved in project. CAR 12 is closed.
H. Forward Actions (describe, if applicable)	None.
I. Others	<i>(To be filled out by the VVB)</i>

Sub-Theme: Quantification of carbon benefits

Requirement 4.5.3 from Framework and Section 9 Quantification of carbon benefits from methodology	
A. Requirement:	<i>Framework:</i> 4.5.3. All Acorn projects should be monitored by satellite monitoring technologies to calculate the available CRUs per plot per year according the Methodology. <i>Methodology:</i> 9. Carbon Removal Units (CRUs) are calculated using equation 11. $CB_y = PR_y \cdot \frac{1}{1+BP} \cdot (1 - AdjB_s) \cdot (1 - AdjL)$ Equation 11 <i>Where:</i> CB_y = Carbon benefit for a plot in year y (t CO₂eq) PR_y = Carbon removal for a plot in year y (t CO₂eq)

	<i>BP</i> = Buffer pool percentage <i>AdjB_s</i> = Adjustment factor for baseline removal for plots in stratum <i>s</i> <i>AdjL</i> = Adjustment factor for leakage
B. Guidance Notes for VVBs	Please double check the calculation in the excel spreadsheet provided by Acorn and against equation 11 of the methodology. Are the formulas correctly applied in the excel spreadsheet?
C. Findings (describe)	VVB has reviewed the annual report for the reporting period and “the provided Data package spreadsheets^{/C/} have been reviewed to check the CRU calculation against Equation 11 of the methodology. Values Taken for CRU Calculation Aboveground Biomass (AGB) and Belowground Biomass (BGB): - The biomass values are estimated using satellite imagery and the Chave allometric equation for woody biomass. Adjustment Factors: Leakage (AdjL): The leakage adjustment factor accounts for potential displacement of activities leading to increased emissions outside the project area. For both the cacao and coffee projects, the leakage adjustment factor is 0%, indicating no significant leakage. Pre-existing Biomass (AdjB): Acorn has implemented an additional step in the process, where the currently estimated biomass from newly planted trees is replaced by a predicted biomass from the anticipated planted trees from the agroforestry design. In such case, the expected biomass at the end of the 30 year crediting period can be predicted using the same approach as the prediction of trees planted before 2019. The two predictions at year 30 are compared, and the % of the biomass of pre existing trees is calculated. For Cocoa, 10% while for the coffee project, it is 25%. Uncertainty (AdjU): The uncertainty adjustment factor accounts for variability and potential errors in biomass estimates. For the cacao project, the uncertainty adjustment factor is 42%, while for the coffee project, it is 27%. Buffer Pool (BP): - A portion of the CRUs is set aside in a buffer pool to account for risks of non-delivery and reversal of carbon benefits.

	The formulas in the spreadsheets are correctly applied according to the methodology. The CRU calculation incorporates the above values and adjustment factors, resulting in accurate and measurable outcomes. These VVB confirm that the project complies with the methodology requirements for calculating CRUs using satellite monitoring technologies and that the formulas in the provided spreadsheets are correctly applied.		
D. Conformance	Yes ☒	No ☐	N/A ☐
E. Corrective Actions (describe)	CAR 13: 1. The CRUS generated for the reported period 03/2022 – 03/2023 is mentioned as 7372, however, the calculation procedure in line with the equation 11 of methodology in which the value has been obtained is not provided in the excel spreadsheet. PC is requested to provide the complete calculation procedure mentioned in the methodology (all relevant equation) and their cross references in the excel spreadsheet. 2. It has been observed that all the values provided in the excel spreadsheet are hardcoded and units are not given appropriately. PC is requested to provide cross references within the spreadsheet on the data calculation and present the values with their units for replicability.		
F. Acorn's Response (if applicable)	1. The CRUS generated for the reported period 03/2022 – 03/2023 is mentioned as 7372, however, the calculation procedure in line with the equation 11 of methodology in which the value has been obtained is not provided in the excel spreadsheet. PC is requested to provide the complete calculation procedure mentioned in the methodology (all relevant equation) and their cross references in the excel spreadsheet. 2. It has been observed that all the values provided in the excel spreadsheet are hardcoded and units are not given appropriately. PC is requested to provide cross references within the spreadsheet on the data calculation and present the values with their units for replicability. 3. PC is requested to provide total CRUs generated for Monitoring period (March 2020 – March 2024), furthermore PC should provide vintage breakup from each year during the monitoring period.		
G. Status (if applicable)	Upon review of PC responses and revised data package, - VVB confirms that PC has explained calculations regarding value of residuals measurement for the following year. - VVB confirms uncertainty value of 42% was used later for ease in calculation. - VVB confirms that value of adjustment factor is revised in both cocoa and coffee calculation sheets tab "pre-project tree II". - Upon review of revised data package, VVB confirms that data package is complete. Tab 5.a, 5.b, 5.c are filled with relevant data.		

	Furthermore, Year wise summary of CRUs generated is also provided and found appropriate.
H. Forward Actions (describe, if applicable)	<i>None</i>
I. Others	<i>NA</i>

The Validator: Ahalee Bhowmik , Team Leader

Signature: *Ahalee Bhowmik*

Date: 1st July, 2025

The Approver: Amit Anand, CEO

Signature: *Amit*

Date: 1st July, 2025

Appendix 1: Competencies certificate of team



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Ahalee Bhowmik

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ 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 Environmental Aspect	☐ Health Expert
☒ Regional Expert for India and Bangladesh		☐ FOEN Approved Technical Expert	☐ FOEN Approved Quality officer

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

06th February 2025

Expiry Date

31st December 2025



Mr. Vikash Kumar Singh
Director - Compliance

Revision History of the document:

Revision Date	Summary of changes
Jan 2025 ¹	Revised as per latest organogram
Feb 2025	Revised to include FOEN requirements

CCIPL_FM 7.9 Certificate of Competency_V8.0_05022025

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



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Kiran KV

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ 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 Environmental Aspect | ☐ Health Expert |
| ☒ Regional Expert for India | | ☒ FOEN Approved Technical Expert | ☐ FOEN Approved Quality officer |

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

06th February 2025

Expiry Date

31st December 2025



Mr. Vikash Kumar Singh
Director - Compliance

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Carbon Check (India) Private Limited

Certificate of Competency

Ms. Adriana Perez Jimenez

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ 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 Environmental Aspect | ☐ Health Expert |
| ☒ Regional Expert for Colombia | | ☐ FOEN Approved Technical Expert | ☐ FOEN Approved Quality officer |

in the following Technical Areas:

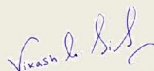
- | | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| ☐ TA 1.1 | ☐ TA 1.2 | ☐ TA 2.1 | ☐ TA 3.1 | ☐ TA 4.1 |
| ☐ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☐ TA 7.1 | ☐ TA 8.1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

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Director - Compliance

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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, A 6.4 AS/ 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 Environmental Aspect | ☐ Health Expert |
| ☒ Regional Expert for India | | ☐ FOEN Approved Technical Expert | ☐ FOEN Approved Quality officer |

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

06th February 2025

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31st December 2025



Mr. Vikash Kumar Singh
Director - Compliance

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