

**MONITORING REPORT**

**CULTIVO2 PROJECT 1**

**MONITORING PERIOD**

**AR (June 9, 2017 - Decembre 31, 2021)**

**REDD+ (September 29, 2017- Decembre 31. 2021)**

<b>Monitoring Report Template (MR) (Versión 2.1)</b>	
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<b>Project participants</b>	Casa Luker S.A.S. Partners of the Americas (POA) 69 Private property owners
<b>Version</b>	2.1
<b>Date</b>	27/12/2022
<b>Project type</b>	AFOLU (REDD+ y AR)
<b>Grouped project</b>	SI
<b>Applied Methodology</b>	<p>For the Removal area, reference will be made to the Methodological Document AFOLU Sector / BCR0001 Quantification of GHG Emission Reductions, GHG Removal Activities from BIOCARBON REGISTRY. Version 3.0.</p> <p>For the Forest area, reference will be made to the Methodological Document AFOLU Sector / BCR0002 Quantification of GHG Emission Reductions for REDD+ Projects from BIOCARBON REGISTRY. Version 3.1.</p>

<b>Monitoring Report Template (MR) (Versión 1.0)</b>	
<b>Project location</b>	Colombia - Andina Region y Orinoquia Region  7 departments: Arauca, Caldas, Casanare, Córdoba, Meta y Vichada.
<b>Starting date</b>	09/06/2017
<b>Quantification Period of emissions reductions</b>	Actividades AR: 09/06/2017 - 31/12/2021 Actividades REDD+: 29/09/2017 - 31/12/2021
<b>Estimated total and average annual GHG emission reduction amount</b>	Net Removals (AR Activities) - Total amount: 24.940 tCO <sub>2</sub> e - Estimated annual average: 4.988 tCO <sub>2</sub> e  Emission Reductions (REDD+ Activities)  - Total amount: 22.165 tCO <sub>2</sub> e - Estimated annual average: 4.433 tCO <sub>2</sub> e
<b>Sustainable Development Goals</b>	SDG 6: Clean Water and Sanitation SDG 13: Climate Action SDG 15: Life on Land

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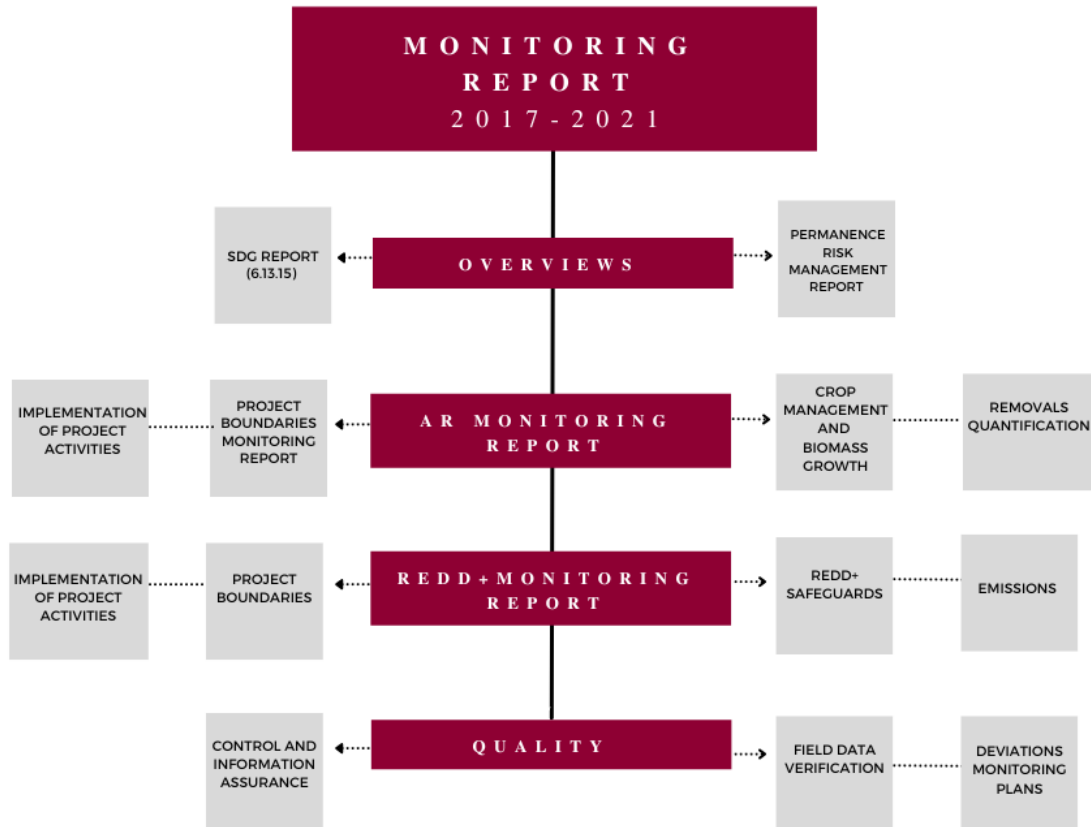
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## Summary

In this document, the Monitoring Report (MR) is divided into four main sections. The first section addresses generalities related to the fulfillment of the sustainable development goals and provides a report on the risk of permanence for both removal activities and REDD+. The second section focuses on the Removal Activities component, detailing the project boundaries, execution of activities, crop management, biomass growth, and the monitoring of removals. The third section centers on the REDD+ component, offering information on the monitoring of project boundaries, the execution of activities, safeguard compliance, and emission monitoring. The fourth and final section discusses the control and quality procedures applied to the project, encompassing information management, data registration, and deviations from the monitoring plan. All these aspects are illustrated in the figure below.

**Figure 1.** General structure of the Monitoring Report.





**Source:** Fundación Cataruben, 2023

# SECTION 1. OVERVIEWS

## 1. GENERAL MONITORING REPORTS

### 1.1. Sustainable Development Goals Monitoring Report (2017-2021)

Given the provisions set out in the BCR (BioCarbon Registry) standard version 3.0, and the "No Net Harm" tool, which emphasizes the importance of evaluating the project's contribution to the SDGs (Sustainable Development Goals), we present the following [reporte de monitoreo de ODS](#). It highlights significant progress made during the 2017 - 2021 period. Throughout this period, the project's contribution to the SDG targets was tracked via the execution of various activities, the gathering of evidence, and the integration of respective annexes.

Regarding the sixth goal: [Agua y saneamiento](#), the project diagnosed the use and management of water resources on properties affiliated with the Cultivo2 initiative. This diagnosis led to the creation of water resource management sheets and the projection of training sessions aimed at enhancing household water purification processes. The procedure for evaluating this target was based on the progress of the property diagnostics.

For the thirteenth goal, [Acción por el clima](#), the initiative is committed to reducing GHG emissions through the project's activities. To this end, a reference value was identified, representing the average estimated annual emissions in a scenario without the proposed project. GHG emissions were subsequently monitored throughout 2021.

In relation to the fifteenth goal, [Vida de ecosistemas terrestres](#), focusing on the conservation of woodlands and forest cover, analysis showed no notable changes in the designated areas (refer to the Woodland Cover annex) and their immediate environs. The project also pinpointed areas of high importance for biological diversity, especially those habitats that contain species under some degree of threat. Such habitats often include forests. As part of this effort, landowners received training on sustainable forest management. Additionally, financial resources, mobilized through the sale of carbon certificates for conservation purposes, are documented and accompanied by support materials showcasing management strategies for voluntary market sales. This documentation encompasses market studies and established sales agreements.

Subsequently, we delve deeper into the achievements associated with sustainable development goals 6, 13, and 15, outlining results derived from the use of the SDG TOOL.

#### *1.1.1. SDG 6: Clean Water and Sanitation.*

Clean Water and Sanitation (SDG 6) aims, among its objectives, to significantly increase the efficient use of water resources across all sectors and to ensure the sustainability of freshwater extraction and supply in order to address water scarcity and substantially reduce the number of people suffering from water shortages.

For this purpose, the characterization of the properties enables the identification of the water supply sources and the disposal methods for wastewater and domestic-use water. This aids in

determining the main needs of the population. The water-saving and efficient use plan aims to raise awareness among individuals about the importance of sustainable and conscientious water resource management, while promoting practices that save water and use it efficiently. Additionally, it's essential to highlight that adopting these actions is crucial to ensuring equitable access to clean water and sanitation. Such efforts will have a direct future impact on people's quality of life, contributing significantly to sustainable development goals.

### 1.1.1.1 Increase in Water Use Efficiency Over time

SDG 6 aims to achieve the indicator designed to improve water use efficiency over time on properties affiliated with CultivO2. This indicator falls under Goal 6.4 and is identified as Indicator 6.4.1. For this specific indicator, the same considerations regarding the monitoring report and the tool's initial application hold true. As a result, a baseline or reference value for the previous year (2017) was set at zero (0), indicating the lack of activities focused on enhancing water use efficiency and conservation.

For the report detailing activities contributing to Sustainable Development Goal 6, three (3) primary activities are undertaken: (i) diagnosing the current state of water resource use and management, with an annexed report, (ii) the water-saving and efficient use program for the project area, also accompanied by an annexed report detailing the activity's development, and (iii) training sessions dedicated to the socialization and dissemination of water management sheets. These activities will be elaborated upon in the subsequent sections:

**Image 1.** Filling out Indicator 6.4.1 of SDG 6 in the SDG TOOL from the BioCarbon Registry for the period 2017-2021, as part of the CultivO2 initiative.

Indicador	Unidad	Meta	Valor de referencia	Año1		Año2		Año3		Año4		Año5	
				Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia
6.4.1 Cambio en la eficiencia del uso del agua con el tiempo	%	Aumentar	0	4%	Aumentar	4%	IGUAL	4%	IGUAL	4%	IGUAL	4%	IGUAL
				<b>Resultado o Promedio</b>		<b>Tendencia (promedio vs referencia)</b>		<b>Cumple (respecto al promedio)</b>					
				0,04		Aumentar		Si					

**Source:** Fundación Cataruben, 2023

**Activity 1:** Concerning the diagnosis of water resource use and management that arose from the socio-environmental characterization, the following conclusions were drawn for 42 properties:

**Household water sources:** Most (23) of the properties source from deep groundwater wells; (8) are supplied by surface waters from properties with nearby rivers or streams; (5) have access to potable water from a rural aqueduct; (2) collect water sources and springs present in the properties, (1) collects rainwater for partial supply; (1) uses bottled water for household consumption, and (2) mentioned other water sources.

**Number of available bathrooms on the properties:** 85.5% of the properties have at least one bathroom for the family; 5.7% have 2 bathrooms; 3% have 3 bathrooms, and another 3% have more than 3 bathrooms.

**Protection of water sources:** In the majority of cases, water sources are protected. For the 30% that do not protect their sources, measures will be initiated throughout the project timeline to enhance water quality.

**Wastewater discharge:** Wastewater discharge on properties varies; (33) discharge into septic tanks; (2) into the sewerage system; (1) discharge onto open fields; (1) discharge into a cesspit, and 5 use other methods.

**Activity 2:** Regarding the water-saving and efficient use plan for the properties, environmental management sheets have been considered for water resource protection and access. Thus far, 5 environmental management sheets have been generated in the plan, described as follows:

1. Sheet on potable water management in properties sourcing from groundwater, surface water, and springs to manage water quality for human consumption.
2. Sheet on water use on properties.
3. Sheet on protecting water sources on properties.
4. Sheet on maintenance and cleaning of sanitary management areas.
5. Sheet on sanitary management of generated domestic wastewater.

Up to now, 42 PUEAAs (Plan de Uso Eficiente y Ahorro de Agua - According to its acronym in Spanish) have been developed out of the 69 properties, equivalent to 15.21% achievement of the objective. Below is the formula used to determine the overall progress percentage.

% Achievement = ((# of formulated PUEAAs \* 0.25 + # of implemented PUEAAs \* 0.5 + # of PUEAAs being monitored \* 0.25) / Total number of properties) \* 100.

**% Achievement = ((42 \* 0.25 + 0 \* 0.5 + 0 \* 0.25) / 69 properties) \* 100 = 15.21%**

**Activity 3:** Regarding the implementation of activities through training sessions, infographics, and measures per property, it is necessary to complete the diagnosis for all the properties. This will allow us to prioritize those properties that require urgent attention due to the impacts they are causing on the water resource. The implementation of improvement activities proposed in the water-saving and efficient use plan sheets will commence with these properties.

As for monitoring the PUEAA implementation, this will be carried out taking into account the indicators from the management sheets of the water-saving and efficient use plans. These sheets measure the progress of the implementation of the environmental management activities.

Finally, concerning the indicator (6.4.1) Change in Water Use Efficiency Over Time, it was determined that the progress of the indicator for the period 2017-2021 is 15.21%. This

corresponds to the diagnosis and design phase of the water-saving and efficient use plan (diagnosis phase).

➤ *Progress of the indicator in relation to the global goal:*

During the 2017-2021 period, 15.21% of the projected global goal was achieved in the diagnostic phase.

**Table 1.** Achievement progress of indicator 6.4.1 of SDG 6 (Water and Sanitation) relative to the global target of the SDG monitoring plan (CultivO2 Project).

SDG	Goal	Target - Indicator(s)	Approach and/or Compliance	Progress (%) Period 2017-2021 with respect to the global target.
6	6.4	6.4.1 Increasing the change in water use efficiency over time	The diagnosis and design of water saving and efficient water use plans for the 69 properties belonging to the CultivO2 initiative was carried out. Progress of 15.21% has been made with respect to the overall goal.	15.21%

**Source:** Fundación Cataruben, 2023.

### 1.1.2. SDG 13: Climate Action

SDG 13 aims at the integration of climate change measures into national policies, strategies, and planning. This is in line with one of the goals set out in the Climate Action objective. Moreover, using the SDG TOOL applied to the CultivO2 initiative, it was determined that this SDG targets the achievement of the total greenhouse gas emissions reduction indicator per year (SDG 13 > Goal 13.2 > Indicator 13.2.2). Based on this premise and considering that the monitoring report of the CultivO2 initiative pertains to the period 2017-2021, the annual results for the mentioned period are presented below.

#### 1.1.2.1 Reduce Total Annual Greenhouse Gas Emissions.

The Sustainable Development Goal addressed by SDG 13 focuses on achieving the specific indicator of reducing total annual greenhouse gas emissions. This indicator falls under Goal 13.2 and is identified as Indicator 13.2.2.

**Image 2.** Filling out of the Indicator 13.2.2 from SDG 13 in the BioCarbon Registry's SDG TOOL for the 2017-2021 period within the framework of the CultivO2 initiative.

Indicador	Unidad	Meta	Valor de referencia	Año1		Año2		Año3		Año4		Año5	
				Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia
13.2.2 Emisiones totales de gases de efecto invernadero por año	Ton CO <sub>2</sub> e	Reducir	5548	230,86	Reducir	230,86	IGUAL	230,86	IGUAL	230,86	IGUAL	230,86	IGUAL

Resultado o Promedio	Tendencia (promedio vs referencia)	Cumple (respecto al promedio)
230,86	Reducir	Si

**Source:** Fundación Cataruben, 2023

To fulfill the GHG emission reduction indicator, emissions monitoring for the project was carried out for the period 2017-2021, recording an annual average of 230.86 tCO<sub>2</sub>e. This represents a 95.8% reduction in emissions compared to the annual reference value, thereby achieving the proposed target. In this context, a reduction of 22,165 tCO<sub>2</sub>e was achieved due to the conservation of natural forests, as well as the removal of 24,940 tCO<sub>2</sub>e resulting from the establishment of cocoa and cashew crops in the project areas.

➤ *Progress of the indicator in relation to the global goal:*

Consequently, even though GHG emissions were recorded during the monitoring period, the figures remained below the reference value, indicating a reduction of 31% compared to the global goal for the period 2017-2021.

**Table 2.** Progress in achieving indicator 13.2.2 of SDG 13 (Climate Action) in relation to the global goal of the SDG monitoring plan (CultivoO<sub>2</sub> Project).

SDG	Goal	Target - Indicator(s)	Approach and/or Compliance	Progress (%) Period 2017-2021 with respect to the global target.
<b>13</b>	13.2	13.2.2 Reducing total greenhouse gas emissions per year	A reduction of 22,165 tCO <sub>2</sub> e was achieved due to the conservation of natural forest, as well as the removal of 24,940 tCO <sub>2</sub> e due to the establishment of Cacao and Cashew crops in the project areas.	31%

**Source:** Fundación Cataruben, 2023.

### 1.1.3. SDG 15: Life on Land

The CultivO2 initiative considers the applicability of SDG 15 (Life on Land). This goal is centered on increasing the proportion of crucial sites for both terrestrial and freshwater biodiversity that are designated as protected areas, categorized by ecosystem type. To achieve this, within the TOOL ODS, the objective 15.1 is specifically targeted: "By 2020, ensure the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands, in line with obligations under international agreements." This Objective includes two indicators: 15.1.1 "Forest area as a proportion of the total land area" and 15.1.2 "Proportion of important sites for terrestrial and freshwater biodiversity that are part of protected areas, broken down by ecosystem type."

#### 1.1.3.1 Increase forest area as a proportion of the total land area

Sustainable Development Goal 15 encompasses among its purposes the increase of forested area as a proportion of the total land area. This indicator is found within Objective 15.1 and is identified as Indicator 15.1.1.

**Imagen 3.** Filling out of indicator 15.1.1 of SDG 15 using the TOOL ODS from BioCarbon Registry for the period 2017-2021 within the framework of the CultivO2 initiative.

Indicador	Unidad	Meta	Valor de referencia	Año1		Año2		Año3		Año4		Año5	
				Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia		
15.1.1 Superficie forestal como proporción de la superficie total	%	Aumentar	9,71	9,69	Reducir	9,74	Aumentar	9,73	Reducir	9,71	Reducir	9,71	IGUAL

Resultado Promedio	Tendencia (promedio vs referencia)	Cumple (respecto al promedio)
9,716	Aumentar	Si

**Source:** Fundación Cataruben, 2023

#### ➤ Progress of the indicator in relation to the global goal:

Finally, regarding the indicator (15.1.1) "Increase forest area as a proportion of the total land area", it was determined that the progress of the indicator is 9.71% between forest coverage and the total project area (land area). The goal, upon project completion, is to reach 10.5% of the total land area in forested region. This progress is attributed to the increase in regenerated forest coverage due to the implementation of activities inherent to the CultivO2 project. This initiative, executed over the past five (5) years, promotes both the conservation and net gains in forest area. Based on the results obtained during the monitoring period (2021) of the CultivO2 project, data showed an increase in the forest proportion of 0.02 compared to the initial forest coverage of the project in 2017. For information regarding the procedure, please refer to the technical document titled: [15.1.1. SUPERFICIE FORESTAL COMO PROPORCIÓN DE LA SUPERFICIE TOTAL\\_CULTIVO2](#)

**Table 3.** Progress in achieving indicator 15.1.1 of SDG 15 (Life on Land) in relation to the global goal of the SDG monitoring plan (CultivO2 Project).

SD G	Goal	Target - Indicator(s)	Approach and/or Compliance	Progress (%) Period 2017-2021 with respect to the global target.
15	15.1	15.1.1 Increase forest area as a proportion of total forest area	<p>The calculation and reporting followed the guidelines defined in the environmental indicators of the Ministry of the Environment and Sustainable Development and IDEAM for the indicator "Proportion of the area covered by natural forest".</p> $PSBN_{jt} = \left( \frac{SCBN_{jt}}{AUER_{jt}} \right) * 100$ <p>This indicator quantifies the proportion of the PSBN (area covered by natural forest). For the calculation and reporting, the guidelines defined in the environmental indicators of the Ministry of Environment and Sustainable Development and IDEAM corresponding to the indicator were followed. SCBN: Area in ha covered by natural forest in the unit of analysis. AUER: Area in ha of the reference spatial unit.</p>	<p>92% Result 2021 = 9,71 Target 10,5</p>

**Source:** Fundación Cataruben, 2023

### 1.1.3.2. Increase the Proportion of Important Sites for Terrestrial Biodiversity

Debates surrounding biodiversity conservation have centered on a fundamental question: Where should conservation actions be implemented to achieve efficient results? To address this, we identified key areas in which to invest the resources generated by this initiative, aiming for tangible conservation outcomes. This analysis primarily considered the presence on the lands of species listed under various threat categories: LC (Least Concern), VU (Vulnerable), EN (Endangered), and CR (Critically Endangered).

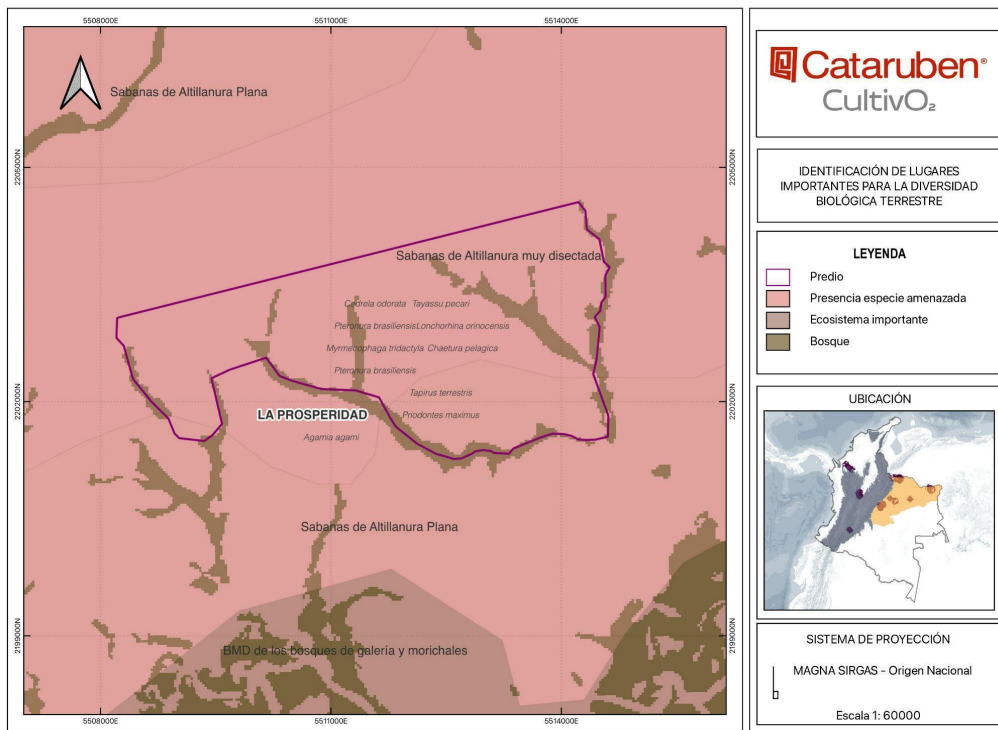
To fulfill this objective, we gathered secondary information from various reports and research studies by institutes, associations, and authors, providing a reliable and updated bibliographical foundation for prioritizing biodiversity conservation areas. These sources include globally significant areas for the conservation of terrestrial biodiversity, carbon, and water; the IUCN (International Union for Conservation of Nature) Red List for both ecosystems and threatened



species; and the National Water Assessment from the Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM). As a result of this analysis, we were able to obtain zoning maps for each land parcel, indicating areas where conservation actions should be emphasized.

The maps for all land parcels are available in the folder labeled [REPORTE ODS 15.1.2](#). These maps underscore areas that demand heightened attention due to their pivotal landscapes supporting the existence of threatened species. For example, the LA PROSPERIDAD property (Image 4) encompasses forests and savannas that may host threatened species such as *Prionates maximus*, *Lonchorhina orinocensis*, *Tapirus terrestris*, *Cedrella odorata*, *Myrmecophaga tridactyla*, *Tayassu pecari*, *Agamia agami*, *Pteronura brasiliensis*, and *Chaetura pelagica*.

**Image 4.** Identification of Important Sites for Terrestrial Biodiversity.



**Source:** Fundación Cataruben, 2023.

Among the most significant conclusions, we found that out of the total number of properties within the project area, 50 are located within the top 10% of areas prioritized globally for biodiversity conservation (Jung et al. 2021). This implies that any conservation action undertaken on these properties will have a positive impact on the protection of ecosystems vital to humanity. If this information is conveyed in this manner to the landowners, it can raise awareness among the population about the significance of natural ecosystem remnants, such as forests, in conserving threatened species.

**Image 5.** Completion of indicator 15.1.2 of SDG 15 using the TOOL ODS from BioCarbon Registry for the period 2017-2021 as part of the CultivO2 initiative.

Indicador	Unidad	Meta	Valor de referencia	Año1		Año2		Año3		Año4		Año5	
				Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia	Resultado	Tendencia
15.1.2 Proporción de lugares importantes para la diversidad biológica terrestre y del agua dulce que forman parte de zonas protegidas, desglosada por tipo de ecosistema	%	Aumentar	0	5%	Aumentar	5%	IGUAL	5%	IGUAL	5%	IGUAL	5%	IGUAL

Resultado o Promedio	Tendencia (promedio vs referencia)	Cumple (respecto al promedio)
0,05	Aumentar	Si

**Fuente:** Fundación Cataruben, 2023

The eligible forest area within the properties of the initiative was analyzed in the document titled "Áreas para señalización CultivO2 " found in the [Áreas de señalización](#) folder. From this analysis, out of all the properties, 37 have eligible forest areas. Among these, 17 properties encompass more than 10 hectares of eligible forest, while the remaining 20 properties have less than 10 hectares. Given their substantial size, it is recommended to conduct signage activities on the 17 properties with forest areas exceeding 10 hectares. Such areas can host significant fauna and flora species vital for conservation and can be considered crucial for biodiversity. For properties with areas less than 10 hectares, the landowner can manage without the need for signage.

➤ *Progress of the indicator in relation to the global goal:*

Lastly, regarding the indicator (15.1.2) "Proportion of important sites for terrestrial and freshwater biodiversity that are included in protected areas, broken down by ecosystem type", it was determined that the progress of the indicator is at 25%. This progress corresponds to the identification of areas significant for biodiversity conservation.

**Table 4.** Progress in achieving indicator 15.1.2 of SDG 15 (Life on Land) in relation to the global goal of the SDG monitoring plan (CultivO2 Project).

SDG	Goal	Target - Indicator(s)	Addressed and/or Compliance	Progress (%) Period 2017-2021 with respect to the global target.

<p style="text-align: center;"><b>1 5</b></p>	<p style="text-align: center;">15.1</p>	<p style="text-align: center;">15.1.2 Increase the proportion of important sites for terrestrial biodiversity.</p>	<p>The process of identifying areas of importance for biodiversity conservation in the properties belonging to the CultivO2 initiative was carried out. A 25% progress has been made with respect to the global goal.</p>	<p style="text-align: center;">25%</p>
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**Fuente:** Fundación Cataruben, 2023

## 1.2. Permanence Monitoring Report

The monitoring of this item encompasses the permanence risk report for the two components of the CultivO2 initiative: Removal Activities and REDD+. Within the framework of the CultivO2 project, 9 indicators were established to assess environmental, financial, and social risks. Among these indicators, the following aspects can be identified for the validated areas. For a more detailed overview, refer to the tab labeled V1.0 [Riesgo de Permanencia CultivO2.xlsx](#).

For Risk Type **1, Environmental**, the following risks are identified:

**Fire:** The project area is classified as having a **High-risk** level, given the presence of vegetative material in the zone, which can facilitate its propagation. During the estimated monitoring period, there were no reports of fires that might have affected the areas associated with the project. Monitoring was conducted through the System for Monitoring Hotspots Detected by Satellite on the Colombian Hotspot Monitoring Platform - IDEAM. As protection measures for the ecosystems, firebreaks and the establishment of fire barriers are implemented to mitigate the risk.

**Flood:** This is classified as a **Low-risk** level. Presently, the flood risk scenario is influenced by factors such as climate variability and change, and the unregulated management of rivers catering to various water usages, including agricultural and livestock purposes. During the monitoring period, there were no reported floods in the areas affiliated with the project. As protective measures, it is avoided to place production systems near water sources and to maintain control of the maximum flood levels. Monitoring was carried out using Google Earth Engine with flood mapping through radar images.

**Wind:** This is categorized as **Low-risk** level. Intense wind can severely impact plants, leading to fruit loss, foliar damage, or in extreme cases, uprooting. During the monitoring period, no properties located in wind-vulnerable zones were identified. Monitoring was facilitated using the platform: <https://giovanni.gsfc.nasa.gov/giovanni/>. Here, data on wind speeds were sourced, especially since the regions proximate to the project lack hydrometeorological stations equipped with anemometers to gauge wind velocities and directions.

For Risk Type **2, Financial**, the following risks are identified:

**Profitability:** it is classified as **Medium Risk** Level Fundacion Cataruben financially models the project under a preliminary projection, that is, before the start-up of the project during its period of validity, which builds different financial indicators such as cash flow, income statement and financial evaluation indexes such as ( TIR, VPN), achieving to evidence the financial status of the project allowing to know the economic viability of the initiative and the actions to establish to avoid the risk of profitability. The measures to protect the project's profitability are to reduce costs and expenses without affecting the project's operations, and to increase the amount of transactions through the sale of carbon certificates.

**Market:** It is categorized as **medium risk** for the project, taking into account that the main economic benefit of the project that allows the conservation of the ecosystems of this initiative is derived from the commercialization of the carbon certificates, therefore, the income of the same is financially modeled through a projected pricing, there is a market study that allows determining in the financial model a sales price for the carbon certificate and the amount of sales expected annually as well as the variation of the same, exercise that is carried out together with the support of the working group of relationship. The objective is to strengthen long-term commercial alliances and sales negotiations at stable exchange rates.

**Supply:** It is categorized as **Low risk**. To this end, the human talent area, Relationship and units such as Governance and economic benefits promote activities such as the generation of soft skills, assertive communication and customer service strategies for property managers, as well as the implementation of parameters for the selection and evaluation of owners for enrolled and the formulation of a premium marketing strategy.

**Country Risk:** This risk is categorized as **Medium risk**. Any climate change mitigation initiative has macroeconomic risks due to the current globalized market. Therefore, the project owner has an economic benefits committee and a relationship team that analyzes both the macroeconomic conditions of the country where the project operates and the location of the sales market. There, decisions are made that directly affect the risk of financial permanence of the project. Additionally, the project is financially modeled taking into account macroeconomic variables such as the TRM, inflation and UVT, in order to foresee disruptive actions in important variables and mitigate significant effects on the initiative.

For Risk Type **3, Social**, the following risks are identified:

**Land tenure dispute:** is established as Low risk. Considering that the project integrates (2) natural components, of the 71 properties enrolled in the project there are 38 properties with eligible areas for forest ecosystem, title studies were conducted to ensure ownership and carbon rights, as well as encumbrances, precautionary measures, limitations to the domain or situations that may affect.

**Low stakeholder participation:** Categorized as Low risk. During the monitoring period zero conflicts were reported, taking into account the participation of stakeholders through the knowledge meeting and the implementation of the PQRS mechanism, which is evident in the impact of project activities.

The classification of the project's risk levels is classified into 3 levels: low, medium and high, where priority must be given according to the classification in order to mitigate the effects. When calculating the risk, if we have chosen to make a quantitative analysis, we will calculate by multiplying the probability and impact factors:  $RISK = PROBABILITY \times IMPACT$ .

## **SECTION 2. AR COMPONENT**

## 2. AR Monitoring Report (2017-2021)

The following is the reporting structure for Removal Activities, which is emphasized in five (5) in order to demonstrate net GHG removals during the crediting period of the initiative. [Reporte monitoreo AR.xlsx](#)

### 2.1. Project Boundaries Monitoring report

#### 2.1.1. Project Area

No new properties were added to the project during the monitoring period, so the project areas remained stable.

#### 2.1.2. Eligible Areas

Eligible areas were updated taking into account those areas that remained stable during the monitoring period. The following image shows the hectares planted in different years. The years 2017-2018 and 2019 are quantified, totaling 1378.45 hectares in total. On the other hand, quantification has not been done for the years 2020 and 2021; however, a total of 321.73 hectares were planted during those periods.

**Table 5.** Viability Year Crop

Planting year	INSTANCE 1		
	Eligible (ha)	Percentage	Quantified areas
2017	1.120,32	65.89%	YES
2018	242,46	14.26 %	YES
2019	15,67	0,92 %	YES
2020	85,09	5.00 %	NO
2021	236,64	13,92 %	NO
<b>Total</b>	<b>1700.18</b>	<b>100%</b>	-

**Source:** Fundación Cataruben, 2023.

## **2.2. Monitoring report of Implementation of Project Activities.**

The results obtained from the implementation of the project activities are presented below. In the AR monitoring report link, for each activity, the compliance schedule and its respective supports are listed ( See [Reporte monitoreo AR.xlsx](#)):

### *2.2.1. Establishment of crops and restoration zones.*

For the period 2017 - 2021, 1700.18 AR eligible ha are reported, verified with satellite images, both for Cashew and Cacao, achieving 68% of the total goal of 2,500 ha.

### *2.2.2. Training and accompaniment processes through training cycles to strengthen silvicultural practices.*

The schedule reports the accumulated number of training cycles carried out each month. In total, twelve (12) training sessions are reported, which make up six (6) training cycles. This is 30% of the total goal proposed for this activity.

### *2.2.3. Characterization and implementation of silvicultural practices*

The support of 61 properties of the AR component is reported. The reported activities include the activity execution form, crop characterization, integrated management of Cacao PFS, monitoring of crop management, and social, economic, environmental, and productive characterization. Consequently, the total progress of this activity is 25%.

### *2.2.4. Monitoring of disturbance events*

The generation of alerts of changes caused by disturbances was carried out through the monitoring of wind speed, hot spots and floods; in the evidence provided, no alterations were observed in the areas enrolled in the project. [Reporte eventos de perturbación](#).

The hot spot and wind speed reports are presented with their respective supports for the monitoring period, complying with 25% of the total progress of the project for the development of this activity.

## **2.3. Monitoring report of Crop Management and Biomass Growth**

### *2.3.1. Cashew crops*

Aboveground biomass monitoring for Cacao and Cashew crops was carried out by means of temporary plots following the guidelines of the methodological document BCR0001 and the



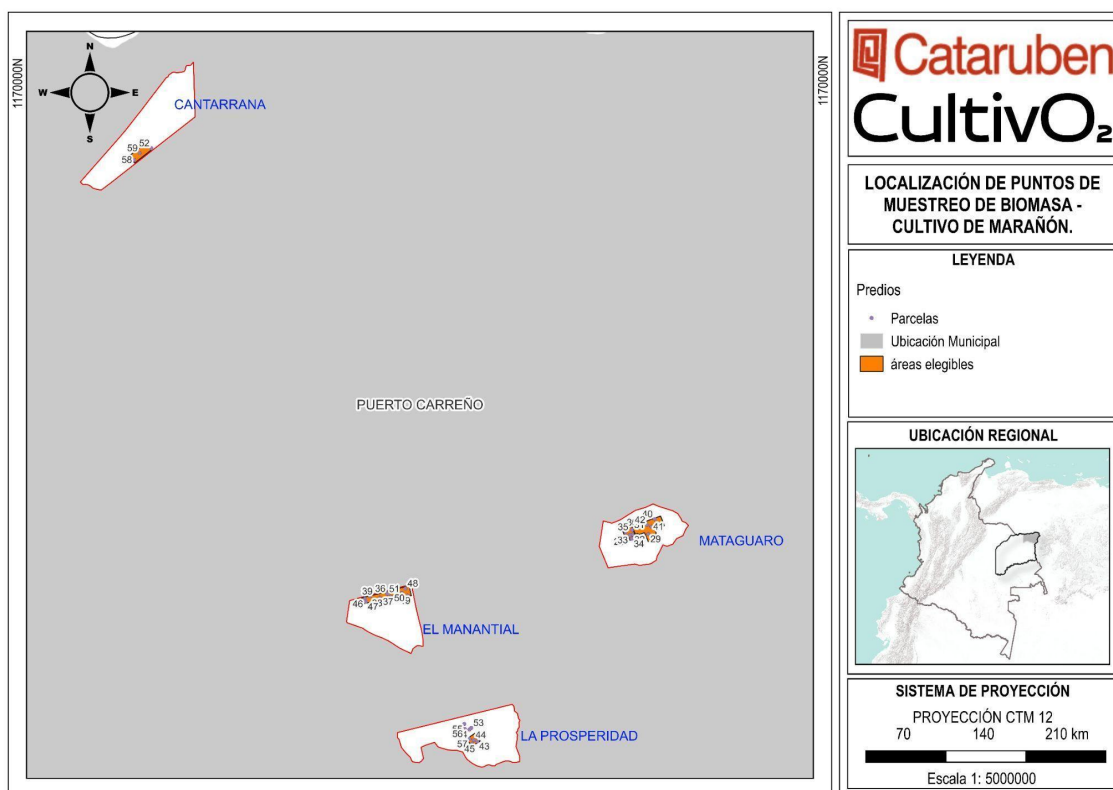
procedure of [FC- GOP-18FC-GOP-18 Metodología Levantamiento de Parcelas en Cultivos y Plantaciones Forestales](#).

### 2.3.1.1. Definition and location of sampling points

The selection of the number and location of sampling points is done according to [FC-GPP-23. Procedimiento diseño de inventario para monitoreo de crecimiento de biomasa](#), taking into account the variation of biomass content in reference data and the area of each stratum defined for each crop. Thus, for the Cacao crop, 31 sampling points were defined for the 2017, 2018 and 2019 strata while for Cashew 26 sampling points were established for lots with planting years 2017 and 2018.

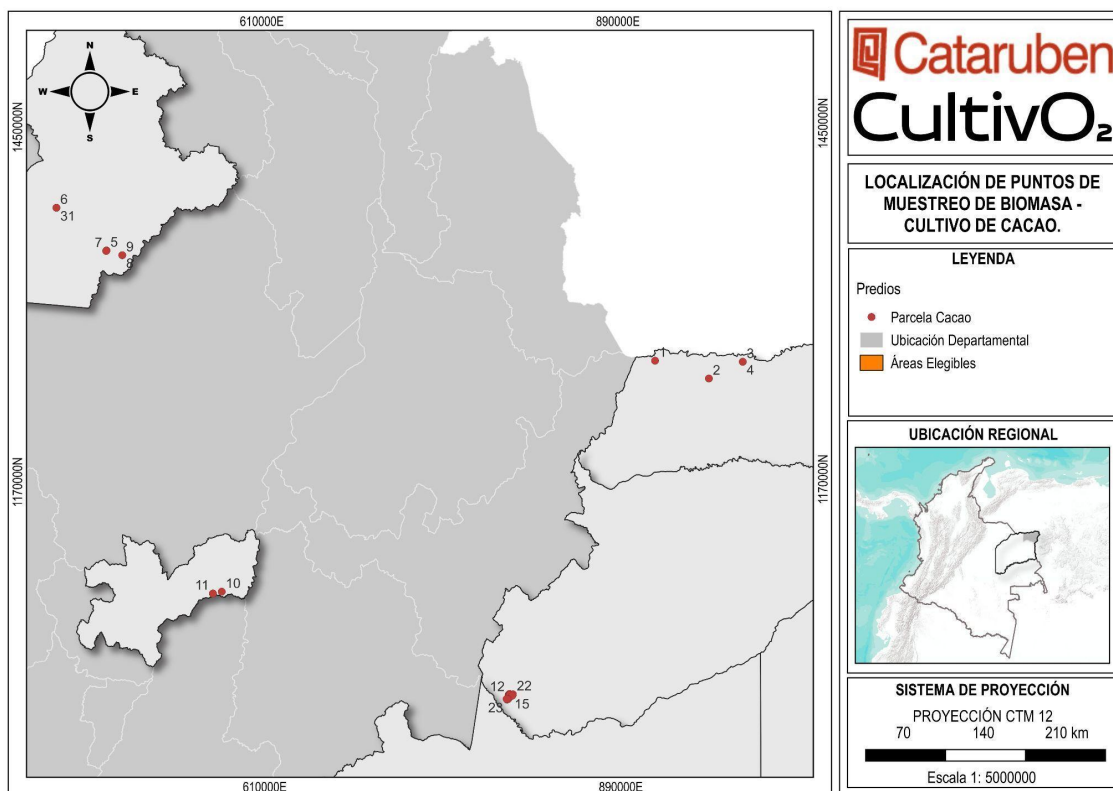
Once the number of sampling points for each stratum was defined, they were randomly placed in eligible areas of the project for each type of crop. The sampling points for the Cacao crop were established in the departments of Córdoba, Caldas, Casanare and Arauca, while for Cashew they were distributed in the department of Vichada.

**Image 6.** Location of biomass sampling points for Cashew crops



**Source:** Fundación Cataruben, 2023.

**Image 7.** Location of biomass sampling points for Cacao crops



Source: Fundación Cataruben, 2023.

**Table 6.** Location of sampling points for Aboveground biomass.

ID	Predio	ID	Año	Latitud	Longitud
1	Villa Esneda	Villa Esneda	2018	6° 58' 51,885" N	71° 49' 13,125" W
2	El Retiro	El Retiro	2017	6° 51' 11,777" N	71° 26' 16,099" W
3	La Tigra	La Tigra	2017	6° 58' 16,729" N	71° 11' 48,179" W
4	La Azucena	La Azucena	2017	6° 58' 16,729" N	71° 11' 48,179" W
5	Veracruz	Veracruz	2017	7° 45' 30,542" N	75° 43' 28,594" W
6	La Bendición	La Bendición	2017	8° 3' 34,893" N	76° 4' 59,487" W

7	El bajo	El bajo	2017	7° 45' 19,116" N	75° 43' 37,603" W
8	No hay como dios	No hay como dios	2017	7° 43' 32,549" N	75° 36' 44,297" W
9	Finca San Miguel	Finca San Miguel	2017	7° 43' 32,549" N	75° 36' 44,297" W
10	El Topacio	El Topacio	2018	5° 20' 6,299" N	74° 53' 42,729" W
11	Santa Ana	Santa Ana	2018	5° 19' 19,497" N	74° 57' 27,729" W
12	Casa Luker Lote 008	Casa Luker Lote 008	2017	4° 36' 12,656" N	72° 51' 43,198" W
13	Casa Luker Lote 009	Casa Luker Lote 009	2017	4° 36' 12,356" N	72° 51' 43,542" W
14	Casa Luker Lote 007	Casa Luker Lote 007	2017	4° 36' 28,477" N	72° 51' 30,674" W
15	Casa Luker Lote 016	Casa Luker Lote 016	2017	4° 35' 52,441" N	72° 50' 52,441" W
16	Casa Luker Lote 015	Casa Luker Lote 015	2017	4° 36' 8,921" N	72° 50' 57,495" W
17	Casa Luker Lote 012	Casa Luker Lote 012	2017	4° 36' 35,728" N	72° 51' 21,665" W
18	Casa Luker Lote 019	Casa Luker Lote 019	2017	4° 35' 42,993" N	72° 50' 37,280" W
19	Casa Luker Lote 018	Casa Luker Lote 018	2017	4° 36' 18,369" N	72° 50' 33,325" W
20	Casa Luker Lote 001	Casa Luker Lote 001	2017	4° 35' 54,564" N	72° 50' 8,880" W
21	Casa Luker Lote 024	Casa Luker Lote 024	2017	4° 36' 11,777" N	72° 49' 59,487" W
22	Casa Luker Lote 023	Casa Luker Lote 023	2017	4° 36' 28,477" N	72° 49' 53,774" W
23	Casa Luker Lote 003	Casa Luker Lote 003	2018	4° 34' 14,808" N	72° 52' 24,960" W
24	Casa Luker Lote 004	Casa Luker Lote 004	2018	4° 34' 24,240" N	72° 51' 59,328" W
25	Casa Luker Lote 005	Casa Luker Lote 005	2018	4° 34' 36,855" N	72° 52' 10,884" W
26	Casa Luker Lote 002	Casa Luker Lote 002	2018	4° 34' 28,272" N	72° 52' 34,248" W
27	Casa Luker Lote 006	Casa Luker Lote 006	2018	4° 34' 49,160" N	72° 51' 42,100" W
28	Casa Luker Lote 011	Casa Luker Lote 011	2018	4° 35' 55,957" N	72° 51' 33,091" W
29	Casa Luker Lote 010	Casa Luker Lote 010	2018	4° 36' 5,405" N	72° 51' 35,728" W
30	Casa Luker Lote 014	Casa Luker Lote 014	2018	4° 36' 15,513" N	72° 51' 6,943" W
31	Piedras lindas	Piedras lindas	2019	8° 3' 34,893" N	76° 4' 59,487" W
32	MATAGUARO	Mataguaro P10 (2017)	2017	5° 54' 54,799" N	68° 17' 51,378" W
33	MATAGUARO	Mataguaro P5 (2018)	2018	5° 54' 50,728" N	68° 18' 3,283" W
34	MATAGUARO	Mataguaro P2 (2018)	2018	5° 54' 42,937" N	68° 18' 2,891" W
35	MATAGUARO	Mataguaro P1 (2018)	2018	5° 54' 42,109" N	68° 18' 7,175" W

36	MATAGUARO	Mataguaro (2018) P6	2018	5° 54' 35,683" N	68° 18' 3,906" W
37	MATAGUARO	Mataguaro (2018) P3	2018	5° 54' 47,135" N	68° 18' 14,342" W
38	MANANTIAL	El Manantial (2017) P2	2017	5° 53' 5,557" N	68° 24' 59,404" W
39	MANANTIAL	El Manantial (2017) P9	2017	5° 53' 0,762" N	68° 24' 53,986" W
40	MANANTIAL	El Manantial (2017) P7	2017	5° 52' 58,584" N	68° 25' 12,443" W
41	MANANTIAL	El Manantial (2017) P6	2017	5° 53' 1,309" N	68° 25' 29,208" W
42	MATAGUARO	Mataguaro (2017) P8	2017	5° 55' 8,882" N	68° 17' 24,788" W
43	MATAGUARO	Mataguaro (2017) P20	2027	5° 54' 56,052" N	68° 17' 30,570" W
44	MATAGUARO	Mataguaro (2017) P7	2017	5° 54' 58,946" N	68° 17' 37,586" W
45	PROSPERIDAD	Prosperidad (2017) P7	2017	5° 48' 53,028" N	68° 22' 29,222" W
46	PROSPERIDAD	Prosperidad (2017) P6	2017	5° 48' 55,246" N	68° 22' 35,137" W
47	PROSPERIDAD	Prosperidad (2017) P5	2017	5° 48' 48,830" N	68° 22' 37,589" W
48	MANANTIAL	El Manantial (2017) P10	2017	5° 52' 57,108" N	68° 25' 37,621" W
49	MANANTIAL	El Manantial (2017) P4	2017	5° 52' 52,378" N	68° 25' 36,199" W
50	MANANTIAL	El Manantial (2017) P1	2017	5° 53' 14,096" N	68° 24' 28,588" W
51	MANANTIAL	El Manantial (2017) P5	2017	5° 53' 2,170" N	68° 24' 25,042" W
52	MANANTIAL	El Manantial (2017) P8	2017	5° 53' 6,659" N	68° 24' 34,733" W
53	MANANTIAL	El Manantial (2017) P3	2017	5° 53' 5,050" N	68° 24' 43,369" W
54	CANTARANA	Cantarrana (2017) P1	2017	6° 5' 47,350" N	68° 31' 33,758" W
55	PROSPERIDAD	Prosperidad (2017) P4	2017	5° 48' 57,280" N	68° 22' 42,172" W
56	CANTARANA	Cantarrana (2017) P2	2017	6° 5' 28,057" N	68° 32' 3,502" W
57	CANTARANA	Cantarrana (2017) P3	2017	6° 5' 39,358" N	68° 31' 53,983" W

Fuente: Fundación Cataruben, 2023.

### 2.3.1.2. Field measurements

The survey of monitoring plots consisted of circular plots of 17.84 m<sup>2</sup>, corresponding to an area of 999.86 m<sup>2</sup>, where dasometric variables were recorded for all individuals found within the plot boundaries.

Each sampling unit began with the location of the central point, which was previously georeferenced. After this, reference points were selected to help locate the central point of the plot in the future, each reference point was demarcated with aluminum plates where the code of each plot was recorded; in addition, the azimuth and the horizontal distance from the central point were recorded.

Then, for each individual found within the radius of the plot, location data (azimuth and horizontal distance from the center point), trunk diameter (d30), trunk height, total height and crown cover were recorded. Additionally, the phytosanitary status of the individual and relevant observations on any type of damage it may present were recorded (Image 8).

**Image 8** Registration and measurement of individuals: “Cashew crops” a) measurement of trunk diameter; b) measurement of trunk height; c) total height; d) crown measurement. / “Cacao crops” e) measurement of trunk height; f) measurement of trunk diameter; g) total height.



**Source:** Fundación Cataruben, 2023.

### 2.3.1.3. Data analysis

The total biomass content was estimated based on the results obtained in the field. For this purpose, an exploratory data analysis was conducted to verify the relevance of the collected information and to identify and address missing or atypical data that might lead to underestimations or overestimations of the biomass content.

Aboveground biomass in Cacao was calculated using the equation of Andrade et. al (2008). For Cashew, an allometric model adapted to the study area was constructed based on data from field measurements where dasometric variables of trees of different ages were recorded.

Finally, Belowground biomass was estimated for the two species, applying the equation of Cairns et al. 1997.

### 2.3.1.4. Management of uncertainty

The estimation of the uncertainty of the emission factors will use formula 15 of the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities <sup>1</sup>:

$$\mu_{\Delta C} = \frac{t_{VAL} \times \sqrt{\sum_{i=1}^M W_i^2 \times \frac{S_i^2}{n_i}}}{b_{TREE}}$$

Donde:

- $\mu_{\Delta C}$       Uncertainty in  $\Delta C_{TREE}$
- $t_{VAL}$       Two-sided Student's t-value for a confidence level of 90 per cent and degrees of freedom equal to n-M, where n is total number of sample plots within the tree estimation strata, and M is the total number of tree biomass estimation strata.
- $S_i^2$       Variance of mean change in tree biomass per hectare in stratum i;  $(t d. m. ha^{-1})^2$
- $W_i$       Ratio of the area of stratum i to the sum of areas of biomass estimation strata (i.e.,  $W_i = A_i / A$ )
- $n_i$       Number of sample plots in stratum i, in which tree biomass was measured
- $b_{TREE}$       Mean change in carbon stock per hectare in tree biomass in stratum i;  $t d. m. ha^{-1}$

Thus, the uncertainty calculation yielded biomass values of 10.89% for Cacao and 13.73% for Cashew (Table 7). In this sense, under the guidelines of the BCR 0001 methodology, section 14.2, a discount of 25% was applied for uncertainty management on the biomass mean (Table 8).

**Table 7.** Calculation of uncertainty value.

Species	Uncertainty	bTREE	tVAL	Estrata	Wi	S2	n
Cacao	10.89%	10.663	1.704	2017	0,96	9,54	19

<http://www.unfccc.int/09%20methodologies/10/663%201.704%202017/09%20tools/ar-am-tool-14-v4.2.pdf>

				2018	0,03	7,74	10
				2019	0,01	0,60	2
Marañón	13,73%	3,009	1,711	2017	0,93	1,42	21
				2018	0,07	0,01	5

Fuente: Fundación Cataruben, 2023.

**Table 8.** Accumulated biomass in Cacao and Cashew crops during the monitoring period.

Strata ID	Area	t1	t2	Aboveground biomass (t/ha)	Belowground biomass (t/ha)	Total Biomass removals (tCO <sub>2</sub> e/ha)
C_2017	745,98	2017	2021	10,08	2,87	22,31
C_2018	214,37	2018		5,15	1,54	11,53
C_2019	15,67	2019		1,88	0,61	4,28
M_2017	374,34	2017	2023	2,88	0,90	6,52
M_2018	28,09	2018		0,70	0,24	1,62

**Source:** Fundación Cataruben, 2023.

The step-by-step calculations can be reviewed in the annex [Datos de campo biomasa cacao](#) and [Datos de campo biomasa Marañón](#).

## 2.4. Monitoring report of Quantification of Net Removals

The estimation of current removals due to project activities considers the changes in carbon stocks in the areas of crop establishment. For the first monitoring, the estimation of removals from the project was based on the biomass contents recorded in the project strata and default data accepted by the BCRO001 methodology. Thus, the removal estimates for each deposit are presented in the following tables.

**Table 9.** GHG removals in total biomass, for the monitoring period.

Strata ID	Area	t1	t2	Above ground biomass (t/ha)	Below ground Biomass (t/ha)	Total Biomass removals (tCO <sub>2</sub> e/ha)	Total Biomass removals (tCO <sub>2</sub> e)
C_2017	745,98	2017	2021	10,08	2,87	22,31	16.645,71
C_2018	214,37	2018		5,15	1,54	11,53	2.471,65
C_2019	15,67	2019		1,88	0,61	4,28	67,14
M_2017	374,34	2017	2023	2,88	0,90	6,52	2.441,08
M_2018	28,09	2018		0,70	0,24	1,62	45,54



**Source:** Fundación Cataruben, 2023.

**Table 10.** GHG removals in litter and Deadwood, for the monitoring period.

Strata ID	Area	t1	t2	Aboveground biomass (t/ha)	DF MM (%)	DF HOJ (%)	Deadwood removals (tCO <sub>2</sub> e/ha)	Litter Removal (tCO <sub>2</sub> e/ha)	Total removals (tCO <sub>2</sub> e)
C_2017A	718,46	2017	2021	10,08	2,00%	4,00%	0,35	0,55	642,61
C_2017B	21,55	2017		10,08	6,00%	1,00%	1,04	0,14	25,41
C_2017C	5,97	2017		10,08	1,00%	1,00%	0,17	0,14	1,85
C_2018A	213,65	2018		5,15	2,00%	4,00%	0,18	0,28	97,63
C_2018B	0,72	2018		5,15	6,00%	1,00%	0,53	0,07	0,43
C_2019A	8,71	2019		1,88	2,00%	4,00%	0,06	0,10	1,45
C_2019B	6,96	2019		1,88	6,00%	1,00%	0,19	0,03	1,53
M_2017A	374,34	2017	2023	2,88	2,00%	4,00%	0,10	0,16	95,78
M_2018A	28,09	2018		0,70	2,00%	4,00%	0,02	0,04	1,74
									<b>868</b>

**Source:** Fundación Cataruben, 2023.

**Table 11.** GHG removals in Soil Organic Carbon, for the monitoring period.

<i>Strata ID</i>	<i>Area</i>	<i>t1</i>	<i>t2</i>	<i>Monitoring period (years)</i>	<i>dSOC (tC/ha)</i>	<i>SOC Removals (tCO2e)</i>
C_2017A	15,49	2017	2021	5	0,18	13,63
C_2017B	634,94	2017		5	0,80	2539,76
C_2017C	55,93	2017		5	0,10	27,27
C_2017D	1,94	2017		5	0,07	0,68
C_2017E	30,83	2017		5	0,07	10,17
C_2017F	6,85	2017		5	0,09	3,08
C_2018A	183,18	2018		3	0,80	439,63
C_2018B	26,49	2018		4	0,10	10,33
C_2018C	3,77	2018		4	0,07	1,00
C_2018D	0,93	2018		4	0,09	0,33
C_2019A	2,81	2019		3	0,18	1,48
C_2019B	12,04	2019		3	0,10	3,52
C_2019C	0,82	2019		3	0,07	0,16
M_2017A	234,34	2017		2023	7	0,176
M_2017B	140,00	2017	7		0,126	123,48
M_2018A	28,09	2018	6		0,126	21,24
						<b>3.484</b>

**Source:** Fundación Cataruben, 2023.

Similarly, in relation to the management of uncertainty due to the origin of the data or models, established in the BCRO001 methodology, section 14, a discount factor of 5% was applied due to the use of the Belowground biomass factor (R:S).

In summary, the total removals recorded by the project due to the implementation of Cacao and Cashew crops for the period 2017-2021 and 2017-2023, respectively, corresponds to 24,940 tCO<sub>2</sub>e. The step-by-step calculations can be reviewed in the Annex. 2.2 Monitoring Plans > 2.2.2 AR Removals > 2.2.1.2 Emissions > [1. Cuantificación de remociones - Cultivo2 V6](#) > 4. Summary\_Monitoring\_2021.

**Table 12.** Total removals for the 2017-2021 period.

Estrata	Area (ha)	t1	t2	GHG Removals in Total Biomass (tCO <sub>2</sub> e)	GHG Removals in Litter and Deadwood (tCO <sub>2</sub> e)	GHG removals in SOC (tCO <sub>2</sub> e)	Total project removals (tCO <sub>2</sub> e)	Total project removals with discount factor adjustment (tCO <sub>2</sub> e)
C_2017	745,98	2017	2021	16.645,71	669,88	2.594,60	19.910,00	19.078,00
C_2018	214,37	2018		2.471,65	98,07	451,29	3.021,00	2.897,00
C_2019	15,67	2019		67,14	2,98	5,17	75,00	72,00
M_2017	374,34	2017	2023	2.441,08	95,78	412,19	2.949,00	2.827,00
M_2018	28,09	2018		45,54	1,74	21,24	69,00	66,00
<b>Total</b>							<b>26.024</b>	<b>24.940</b>

**Source:** Fundación Cataruben, 2023.

## **SECTION 3. REDD+ COMPONENT**

### 3. REDD+ Monitoring Report (2017-2021)

The monitoring structure for the REDD+ component is listed below, presenting the results regarding the implementation of activities for the period 2017-2021.

#### 3.1. Project Boundaries Monitoring report

##### 3.1.1. Project Area

During the monitoring period, no new properties were included in the project, so the project areas remained stable.

##### 3.1.2. Eligible Area

Eligible areas were updated taking into account those that remained stable during the monitoring period, it is necessary to mention that no areas were included after validation.

**Table 13.** Andina Region - REDD+ Eligibility

ELIGIBILITY	INSTANCE 1	
	AREA (ha)	MONITORING
Eligible	44,84	44,84
Not Eligible	104,33	104,33
Total	149,17	149,17

**Source:** Fundación Cataruben, 2023

**Table 14.** Orinoquia Region- REDD+ Eligibility

ELIGIBILITY	INSTANCE 1	
	AREA (ha)	MONITORING
Eligible	1.366,88	1.361,0
Not Eligible	14.127,79	14.133,67
Total	15.494,67	15.494,67

**Source:** Fundación Cataruben, 2023

The reduction of 5.88 hectares in the monitoring of the project for the Orinoquia region is due to situations influenced mainly by illegal logging and strong windstorms, in the case of illegal logging, which is a random event in the project area.

### 3.2. REDD+ Activities Implementation Report

The results obtained from the implementation of REDD+ activities are presented below. In the REDD+ activities monitoring report link, for each activity, the implementation schedule and its respective supports are listed (see [Reporte Monitoreo Actividades REDD+ .xlsx](#)):

#### 3.2.1. *Implement prevention and mitigation measures to reduce deforestation of natural forests:*

- A. *Implement training and support processes through training to strengthen land planning, biodiversity conservation and sustainable forest management.*

The chronogram reports the cumulative number of training cycles carried out in each month for the monitoring period 2017 - 2021. A total of thirteen (13) trainings are reported, which make up five (5) training cycles. Presenting as progress in compliance in the execution of the activity 25%.

- B. *Identify and adopt the principles of forest governance for sustainable forest management.*

From the first phase, 31 Properties with viable land characterization in the REDD+ component are reported, showing progress in the execution of activities of 20.95%.

- C. *Monitoring of terrestrial hot spots.*

A report of the permanent monitoring of hot spots is presented with their respective supports for the period 2016 - 2021. Compliance with 25% of the execution of the activity is presented.

- D. *Generate alerts of changes due to deforestation, and/or transformation of ecosystems in the project area*

Reports of permanent monitoring of changes in cover due to deforestation, and/or transformation of ecosystems by department are presented.

#### 3.2.2. *Implement fauna and flora monitoring and conservation measures:*

- E. *Monitor threatened ecosystems.*

There is a report on the permanent monitoring of threatened ecosystems by department, showing 20% progress in the implementation of the activity.

- F. *Conduct participatory monitoring of threatened species.*

An analysis of the permanent monitoring of endangered species within the project area is provided, including maps for tracking these species and audiovisual aids for participatory species monitoring. The implementation of this activity has achieved 20% progress

### 3.3. REDD+ Safeguards Monitoring Report

This report demonstrates the compatibility of project activities with forestry programs and international agreements. It also compiles various communication methods established to ensure transparency and the efficacy of governance structures. Additionally, it emphasizes respect for the ethnic communities in the territory, the absence of environmental infractions, the adoption of strategies to address reversal risk management, and the tracking of measures aimed at minimizing the displacement of emissions.

#### 3.3.1 Safeguards 1

**The actions complement or are consistent with the objectives of national forest programs and relevant international conventions and agreements.** This Safeguards document outlines the compatibility and consistency of the actions implemented under the Cultivo2 project with the international agreements Colombia has signed, providing a detailed description of the macro activities. It also identifies and verifies the various international agreements and/or conventions that Colombia has entered into, as well as the national forest policies, programs, and plans that are currently in effect. This verification ensures that the Safeguards align with both national forestry objectives and international agreements. Finally, the document provides a list detailing the compatibility of each of the project's actions with the identified agreements, conventions, policies, plans, and programs.

**Table 15.** Approach and/or compliance with Safeguard 1 under the Cultivo2 project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
1.1	<b>Compatibility analysis:</b> Documentary analysis listing all actions implemented under the project and relating each action to national forest policies and programs as appropriate.	Regulatory	A report was prepared showing the analysis of the compatibility of project activities with (i) international agreements and (ii) national policies, strategies, plans and programs. The analysis is contained in the document entitled " <u>SALVAGUARDA 1 - CULTIVO2</u> ". Additionally, the <u>carpeta digital con toda la documentación normativa</u> supporting the analysis is attached.

**Source:** Fundación Cataruben, 2023.

#### 3.3.1.1. Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 1 and its indicators with respect to the overall goal is shown below.



**Table 16.** Safeguards 1 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021	Compliance (%) Global Target
<b>1</b>	1.1	# of compatibility reports performed	33%	<b>33%</b>

Source: Fundación Cataruben, 2023.

### 3.3.2 Safeguards 2

**Transparency and effectiveness of national forest governance structures, taking into account national legislation and sovereignty. Provide transparent and consistent information that is accessible to all stakeholders and regularly updated. Be transparent and flexible to allow for improvements over time. Build on existing systems, if any:** The approach should be both transparent and adaptive, accommodating improvements as time goes on. Existing systems should be leveraged where available. In line with Law 1712 of 2014—which establishes transparency and the right of access to national public information—and the BRC Standard set by Fundación Cataruben, mechanisms are in place to guarantee that the project’s information is clear, accurate, comprehensive, and freely accessible to both beneficiaries and stakeholders. In this regard, Safeguard 2 connects the information access mechanisms with a differential approach to the national forest governance tools provided from Fundación Cataruben for the CULTIVO2 project. It’s worth noting that the CULTIVO2 initiative is registered in the National Registry for the Reduction of Greenhouse Gas Emissions (RENARE) under the category “Proyectos y programas de desarrollo bajo en carbono-PDBC”. The project’s initial feasibility phase is presently posted on the website, and the organization awaits the Ministry of the Environment to conclude its application maintenance procedure. Following this, they will proceed to produce the project’s informational report, once the relevant feasibility has been verified.

**Table 17.** Approach and/or compliance with Safeguard 2 under the Cultivo<sub>2</sub> project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
2.1	<b>Forest governance analysis:</b> Analysis that identifies the forest governance structures in the territory and demonstrates compliance with national, regional and local regulations. Special emphasis should be given to the differential approach in the management of information when applicable.	Informative	A report was prepared showing how to ensure recognition of the initiative’s forest governance structures. This report is available in the document entitled “ <u>SALVAGUARDA 2 - CULTIVO2</u> ”. Additionally, a <u>carpeta digital con evidencias de cumplimiento</u> required by the Safeguards is

	<p><b>Demonstrate evidence of compliance with Safeguards 2</b> (radio, brochures, posters, illustrative documents, guides, emails, virtual and/or face-to-face socialization, video calls, registration in RENARE, among others).</p>	<p>attached, such as: radio, brochures, billboards, illustrative documents, guides, e-mails, virtual and/or face-to-face socialization, video calls, among others. In addition, the Cultivo2 project is currently registered in the National Greenhouse Gas Emissions Reduction Registry (RENARE) and supporting <u>evidencia</u> is attached.</p>
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**Source:** Fundación Cataruben, 2023.

### 3.3.2.1 Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 2 and its indicators with respect to the overall goal is shown below.

**Table 18.** Safeguards 2 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021	Compliance (%) Global Target
<b>2</b>	2.1	# of management reports made	25%	<b>25%</b>

**Source:** Fundación Cataruben, 2023.

### 3.3.3. Safeguards 3

**Respect for the knowledge and rights of indigenous peoples and members of local communities, by considering international obligations, national circumstances and relevant laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples.”:** The CULTIVO2 initiative demonstrates its adherence to this safeguard by examining the following four elements: (i) A territorial overview that broadly delineates the initiative’s area, comprising preserved forest ecosystems and productive forest agroecosystems (Cacao and Cashew), (ii) The identification of participants, which includes an inventory and mapping of their territories, paired with a rights-respect strategy, (iii) The detailed plan of work tables and activities to be carried out, and (iv) The agreements made with the participants, incorporating proposals for sustainable territory usage and proper contract management.

**Table 19.** Approach and/or compliance with Safeguard 3 under the Cultivo<sub>2</sub> project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
3.1	<p><b>Mapping of communities in the territory and prior consultation:</b> The Project owner must recognize and respect the rights of the communities present in the territory. This must be complied with under the minimum applicable standard of law and international declarations on the rights of indigenous peoples.</p>	Investigative	<p>A report was prepared showing the recognition of the territory and inventory of the communities present in it, as well as the identification of the strategy to respect their rights according to their qualities and quantities. The analysis is contained in the document entitled "<u>SALVAGUARDA 3 - CULTIVO2</u>". Additionally, the digital folder "<b>Consulta Previa</b>" is attached with all the documentation related to this process before the competent national authority (Ministry of the Interior).</p>
3.2	<p><b>Working groups:</b> The Project owner must implement working groups with the communities and other mechanisms that allow their enrollment in the Project from the prefeasibility and structuring phase, in relation to the enrollment of traditional ancestral knowledge in the Project.</p>	Participatory	<p>A report was made showing the implementation of working groups with the Project's communities. The analysis is contained in the document called "<u>SALVAGUARDA 3 - CULTIVO2</u>".</p>
3.3	<p><b>Conservation agreements:</b> The Project holder may propose new forms of sustainable use of the territory. In addition, it may limit certain activities carried out by the communities, as long as they accept it through an agreement signed by their representatives.</p>	Legal	<p>A report was made showing how Fundacion Cataruben subscribes conservation agreements with the ecosystem managers (community members). The analysis is contained in the document called "<u>SALVAGUARDA 3 - CULTIVO2</u>". Additionally, the <u>carpeta digital con copia íntegra de los contratos celebrados</u> in the framework of the Cultivo<sub>2</sub> project is attached.</p>

**Source:** Fundación Cataruben, 2023.

### 3.3.3.1 Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 3 and

its indicators with respect to the overall goal is shown below.

**Table 20.** Safeguards 3 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021 with respect to the global target.	Compliance (%) Global Target
<b>3</b>	3.1	# of socio-environmental characterizations performed	50%	<b>54%</b>
	3.2	# of community mapping reports	33%	
	3.3	# of geographic analyses carried out	33%	
	3.4	# of contracts executed	100%	

Source: Fundación Cataruben, 2023

### 3.3.4 Safeguards 4

**The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities:** In this Safeguards we analyze the mechanisms provided by Fundación Cataruben and implemented by the Cultivo<sub>2</sub> project to ensure full and effective participation of its stakeholders. These activities implemented are framed within a strategy that seeks to guarantee access to information and due participation in the process, which is based on five stages: (i) Consultation with stakeholders, (ii) Socialization of the project, (iii) Enrollment of landowners, (iv) Implementation of conservation and monitoring actions, as well as (v) Delivery of economic benefits.

**Table 21.** Approach and/or compliance with Safeguard 4 under the Cultivo<sub>2</sub> project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
4.1	<b>Mechanisms for socialization and dissemination of information:</b> The project owner must demonstrate with evidence that it has disclosed, socialized and shared the	Informative	The following reports were prepared: (i) a report showing the implementation of communication and dissemination mechanisms to ensure full and effective

	<p>information with the communities in a transparent, clear, complete, inclusive and effective manner through the corresponding means.</p>		<p>participation of stakeholders, and (ii) a report showing how the comments made by the communities were addressed and how they were dealt with. These analyses are contained in the document called "SALVAGUARDA 4 - CULTIVO2". Additionally, the <u>carpeta digital</u> is attached with records, audio and/or video recordings, PQR'S, documents, and other relevant supports, which provide evidence of the aforementioned approach.</p>
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Source: Fundación Cataruben, 2023.

### 3.3.4.1 Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 4 and its indicators with respect to the overall goal is shown below.

**Table 22.** Safeguards 4 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021 with respect to the global target.	Compliance (%) Global Target
4	4.1	# of reports on divulgation and/or socialization of the project information carried out	25%	<b>25%</b>

Source: Fundación Cataruben, 2023

### 3.3.5 Safeguards 5

**Compatibility of the project with natural forest and biodiversity conservation measures under the voluntary carbon market standard:** This document establishes that the forest conservation measures, set for the CULTIVO2 project and executed by the landowners since 2018, align with the conservation of natural forests and biodiversity. Additionally, it showcases that through the implementation of CULTIVO2 conservation actions, not only is the protection and preservation of these forests and the services from their ecosystems encouraged, but other social and environmental benefits are also amplified.

**Table 23.** Approach and/or compliance with Safeguard 5 under the Cultivo<sub>2</sub> project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
5.1	Project owners must work in coordination with the communities to conserve, protect, recover and sustainably use the ecosystems.	Environmental	A report was prepared showing the implementation of training cycles aimed at project beneficiaries to encourage the conservation of ecosystems and their biodiversity. The analysis is contained in the document entitled " <u>SALVAGUARDA 5 - CULTIVO2</u> ". Additionally, the " <u>carpeta digital</u> " is attached with the supports that back up the approach.
5.2	The activities implemented in the Project must comply with applicable environmental regulations on the use and exploitation of natural resources.	Regulatory	A report was prepared showing compliance with applicable environmental regulations on the use and exploitation of natural resources. The analysis is included in the document entitled " <u>SALVAGUARDA 5 - CULTIVO2</u> ".
5.3	The Project owner must demonstrate that the Project has not incurred in activities that involve the conversion of natural forests to other types of land use.	Environmental	A report was prepared showing that there were no activities involving the conversion of natural forests to other types of land use. The analysis is contained in the document called " <u>SALVAGUARDA 5 - CULTIVO2</u> ".

**Source:** Fundación Cataruben, 2023.

### 3.3.5.1 Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 5 and its indicators with respect to the overall goal is shown below.

**Table 24.** Safeguards 5 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021 with respect to the global target.	Compliance (%) Global Target
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<b>5</b>	5.1	# of reports of conservation activities implemented	33%	<b>40%</b>
	5.2	# of CAR's certificates specifying that the project has not incurred in environmental infractions.	55%	
	5.3	# of reports of satellite analysis of changes in land use.	33%	

Source: Fundación Cataruben, 2023

### 3.3.6 Safeguards 6

**Action to address the risk of reversals:** This Safeguards document outlines the mechanisms that Fundación Cataruben has implemented within the CULTIVO2 project to address reversal risk management, in line with the standard for the voluntary carbon market (BIOCARBON REGISTRY). Additionally, it details the tools that demonstrate compliance with the safeguards, considering their mandatory applicability for the implementation, validation, and verification of the CULTIVO2 project.

**Table 25.** Approach and/or compliance with Safeguard 6 under the Cultivo2 project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
6.1	The Project owner shall take measures to reduce the reversal risk management.	Legal	A report was prepared showing: (i) an analysis of the beneficiaries' permanence risk during the project's accreditation period, as well as (ii) an analysis of the reversal risk management the project faces or may face in the future, as well as how to mitigate them. The analysis is contained in the document called " <u>SALVAGUARDA 6 - CULTIVO2</u> ". Additionally, the " <u>carpeta digital</u> " is attached with the supports that back up the approach.

Source: Fundación Cataruben, 2023

#### 3.3.6.1 Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 6 and its indicators with respect to the overall goal is shown below.

**Table 26.** Safeguards 6 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021 with respect to the global target.	Compliance (%) Global Target
<b>6</b>	6.1	# of reports on reversal risk management follow-ups	33%	<b>67%</b>
	6.2	# of contracts executed evidencing the items related to reversal risk management.	100%	

Source: Fundación Cataruben, 2023.

### 3.3.7 Safeguards 7

**Action to reduce the displacement of emissions:** The objective of this environmental safeguard is to ensure the climate effectiveness of the initiative. Mitigation activities executed within the project might result in consequences outside the project area, manifesting as a displacement of greenhouse gas emissions. Therefore, it's crucial to evaluate and mitigate these emission leakages and to ensure their climate impacts are controlled. These leakages are identified, evaluated, and managed according to the prevailing REDD+ and AR methodologies and BioCarbon Registry standard. These methodologies demand a temporal and spatial context and take into account the actors and socio-economic factors causing them, as well as strategies for subtracting them from project accounting or mitigating them through on-site activities.

**Table 27.** Approach and/or compliance with Safeguard 1 under the Cultivo<sub>2</sub> project.

Item	Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards".	Component	Approach and/or compliance
7.1	The Project owner must identify leakage and its causes and design strategies to: (i) ensure the monitoring and control of leaks, and (ii) minimize them.	Environmental	The following reports were prepared: (i) a report showing the identification of leaks and their causes, monitoring methods and actions to minimize them, as well as (ii) a report on the implementation of the protocol to respond to leaks occurring within the framework of the project. These analyses are contained in the document called " <u>SALVAGUARDA 7 - CULTIVO2</u> ".
7.2	The Project owner must implement response protocols to identify leakage and how to control it.	Environmental	



			Additionally, the “ <u>carpeta con evidencia del tratamiento de fugas</u> ” is attached as support for compliance with the aforementioned activity.
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Source: Fundación Cataruben, 2023.

### 3.3.7.1 Progress of the Safeguard indicator(s) against the global target

Based on the results report provided above, the percentage of compliance with Safeguard 7 and its indicators with respect to the overall goal is shown below.

**Table 28.** Safeguards 1 compliance progress with respect to the overall goal of the Safeguards monitoring plan (Cultivo<sub>2</sub> project).

Safeguards	Item	Indicator(s)	Progress (%) Period 2017-2021 with respect to the global target.	Compliance (%) Global Target
<b>7</b>	7.1	# de reportes con identificación de fugas y sus causas	100%	<b>67%</b>
	7.2	# de protocolos de respuesta implementados para minimizar las fugas	33%	

Source: Fundación Cataruben, 2023

The [Reporte de monitoreo de las salvaguardas REDD+](#) for the CULTIVO2 project is listed below with a brief description of the collection of information obtained, as well as the links that correspond to the verification of compliance.

## 3.4. Project Emissions Monitoring Report

According to the BCR002 methodology guidelines, Table 28 summarizes the results obtained in the monitoring of emissions from avoided deforestation in the 2017-2021 analysis period, with a total of **22,165 tCO<sub>2</sub>e** of reduced emissions.

**Table 29.** Project emissions monitoring for REDD+ component

RE <sub>DEF,REDD+proy</sub> (tCO <sub>2</sub> e)	T1	T2	EA <sub>DEF,lb,año</sub>	EA <sub>DEF,REDD+proy,año</sub>	EA <sub>DEF,f</sub>
<b>1.225</b>	2.016	2.017	5.129,64	230,86	- ,00
<b>5.164</b>	2.017	2.018	5.394,75	230,86	- ,00

<b>5.092</b>	2.018	2.019	5.323,25	230,86	- ,00
<b>5.272</b>	2.019	2.020	5.503,17	230,86	- ,00
<b>5.412</b>	2.020	2.021	5.642,38	230,86	- ,00
<b>22.165</b>	<b>Total tCO2e in monitoring 1</b>				

**Source:** Fundación Cataruben, 2023.

The step-by-step procedure can be reviewed in Annex 2.3. REDD+ > 2.3.5. Emissions > [GOF-053.Cálculo de emisiones REDD + Cultivo2 v5.xlsx](#) > Sheet 4. Monitoreo\_2021

## **SECTION 4. QUALITY CONTROL**

## 4. Control and Information Assurance

During the monitoring period for the Cultivo2 project, quality control and assurance procedures were recorded within the organization's Integrated Management System, as well as the implementation of guides, manuals, formats and procedures necessary to comply with the requirements established in ISO 9001/2015, ISO 14001/2015, ISO 45001/2018 and regulations of Fundacion Cataruben's own Integrated Management System, as well as the methodologies applicable to the project; BCR0001 Quantification of GHG Emission Reduction, Removal Activities, and the BCR0002 Quantification of GHG Emission Reduction REDD+ Projects, which are listed below:

**Table 30.** SGI Documents

<b>SGI Code</b>	<b>Document Name</b>
FC-GOP-02	Procedimiento para el ingreso de beneficiarios al proyecto
FC-GOP-03	Procedimiento General para las Salidas de Campo
FC-GOP-04	Procedimiento Análisis de Flora y Fauna
FC-GOP-05	Procedimiento de Cámaras Trampa
FC-GOP-06	Procedimiento de Clasificación de Información Forestal de Parcelas
FC-GOP-07	Procedimiento para el Monitoreo de los Límites del Proyecto
FC-GOP-08	Procedimiento de Monitoreo de Actividades REDD+
FC-GOP-09	Procedimiento para Capacitación Técnica
FC-GOP-11	Procedimiento de Aseguramiento y Control de Calidad
FC-GOP-12	Procedimiento de análisis multitemporal de incendios
FC-GOP-13	Procedimiento en Sistemas de información Geográfica
FC-GOP-14	Procedimiento de cuantificación de Reducción de Emisiones y/o Remoción de GEI en Proyectos
FC-GOP-18	Procedimiento Metodología Levantamiento de Parcelas en Cultivos y Plantaciones Forestales
FC-GOP-21	Procedimiento para Determinar la Degradación y Fragmentación en Proyectos REDD+

FC-GOP-23	Procedimiento diseño de inventario para el monitoreo de crecimiento de biomasa (AR)
FC-GEF-01	Formato de registro proveedor.
FC-GOF-02 5	Biomasa aérea de cultivos
FC-GMF-02	Check list pre durante y post salida de campo
FC-GPF-17	Formato de recepción de documentos
FC-GAF-08	Formato de registro de asistencia
FC-GEF-01	Formato de acta de reunión.
FC-GOP-20	Procedimiento de lineamientos de calidad en las bases de datos
FC-GAF-10	Formato de registro de control de información documentada
FC-GAF-67	Formato de autorización salida de campo
FC-GAF-65	Formato análisis de trabajo seguro
FC-GEF-32	Tabla de valores económicos.
FC-GOG-01	Guía Verificación de áreas viables
FC-GOG-02	Guía Delimitación de área de referencia
FC-GOG-0 3	Guía Delimitación de áreas de fuga
FC-GOG-0 4	Guía Reconocimiento del predio
FC-GOG-0 5	Guía Levantamiento de parcelas
FC-GOG-0 6	Guía Reconocimiento de linderos
FC-GOG-0 8	Guía Monitoreo de parcelas
FC-GOG-13	Guía Procesamiento de imágenes satelitales
FC-GOG-14	Guía formato de muestreo de vegetación con cuadrante
FC-GOG-17	Guía de diligenciamiento de formato Caracterización Predial Social, Ambiental, Económica
FC-GOG-19	Guía para la cuantificación de la deforestación histórica anual

FC-GOG-20	Guía para Medición y Monitoreo de Parcelas de SAFC
FC-GOG-23	Instructivo modelo de bosque en el motor de google earth engine
FC-GOG-24	Instructivo Interpretación de CLC- Escala 25000
FC-GOG-25	Instructivo Interpretación de CLC Escala 1:15.000
FC-GOG-26	Instructivo AcATaMa
FC-GOF-04	Formato Mecanismo de participación plena y efectiva de los interesados en la iniciativa de mitigación de Gases de Efecto Invernadero GEI
FC-GOF-08	Formato Identificación de Coberturas Naturales
FC-GOF-10	Formato Informe de Monitoreo de Parcelas
FC-GOF-16	Formato Puntos de Referencia Parcelas de Monitoreo
FC-GOF-20	Formato Bitácora de Campo
FC-GOF-22	Anexo Técnico Proyecto Cultivo2
FC-GOF-23	Listado de Asistencia Proyecto Cultivo2
FC-GOG-02	Guía del gestor predial
FC-GOF-18.	Acta de Confidencialidad de la Información
FC-GOF-19	Acta de Veracidad de la Información
FC-GOF-29	Formato Simulador Beneficios Económicos
FC-GOF-33	Formato de Registro de Fauna
FC-GOF-35	Formato de Registro de Flora
FC-GOF-37	Formato Gestión de Predios
FC-GOF-38	Formato Caracterización Predial
FC-GOF-43	Formato Registro vegetación por Muestreo con Parcela
FC-GOF-49	Manejo integrado SAF's Cacao
FC-GOF-53	Formato Cálculo emisiones REDD+
FC-GOF-60	Formato Informe de Pago de Vinculación a la Iniciativa de Mitigación de Cambio Climático
Registro	Acuerdo de Confidencialidad Proyecto Cultivo2
Registro	Contrato de Vinculación Cultivo2

FC-GAM-01	Manual del SGI
FC-GAM-03	Manual de Seguridad de la Información
FC-GAM-04	Manual de Archivo
FC-GAP-09	Procedimiento Gestión de PQRS
FC-GAP-10	Control Información Documentada

**Source:** Fundación Cataruben, 2023.

## 4.1. Field Data Verification

In compliance with the AFOLU Sector Methodological Document / BCR0002 Quantification of GHG Emissions Reduction REDD+ Projects, Version 3.1 of September 15, 2022 and the document BCR0001 Quantification of GHG Emissions Reduction Removal Activities. Version 3.0. April 13, 2022, applicable through the ODK Collect application, related to numeral 16.5.1 verification of field data, of the same, between 10% and 20% of the records of the information collected from the plots established for sampling were reviewed, in order to prevent errors from occurring during the consolidation of the information for analysis.

For this purpose, remeasurements were made to the Cashew crop plots, which were randomly selected and cover 15.3% of the plots established in the initial sampling ([Ver anexo Cálculo de mediciones parcelas de monitoreo](#))

When comparing the information from the plots that were initially measured with the information from the measurements taken, a deviation of less than 5% of the information was obtained, which indicates that the requirements of the methodology BCR0001 GHG Removal Activities, in its version 3.0 of April 13, 2022, are met. For the Cacao crop, the data verification analysis is not reported because secondary data were used to calculate emissions for this stratum.

## 4.2. Desviaciones Planes de Monitoreo

The deviations identified in the monitoring report are derived from the monitoring plans established for project activities, socio-environmental effects, project duration, changes in biodiversity and REDD+ related activities. Regarding the adjustments made to the indicators, targets and monitoring frequency, the following table lists the deviations.

**Table 31.** Deviations in the Monitoring Plan

Document	Version	Document nature
PDD & RM	1.0	The Integrated Document encompasses both PDD and

		RM First version
PDD & RM	2.0	Updated version Adjustment to start date of AR and REDD+ activities. Adjustment in monitoring plans. Adjustment of monitoring reports Reduction of the boundaries of the reference region. Exclusion of project co-benefits. Removals generated by Cacao crops are quantified using secondary data
PDD	3.0	Exclusion of properties overlapping with the Distrito Regional Serranía de los Yariguies. Exclusion of properties overlapping with indigenous communities. A separate document is generated for the information related to the Monitoring Report. Update the DoP scheme according to the information published by BCR. Adjustment of total properties enrolled in the initiative. Generation of individual baselines for A/R and REDD+ components. Update maps document Inclusion of Cashew allometric model information.
RM	1.0	Monitoring Report. First version

Source: Fundación Cataruben, 2023.