MONITORING REPORT
CO2Bio P2-2

Document prepared by Fundación Cataruben

Date of issue (*Version 1.0 31/04/2025*)

Monitoring Report Template (Versión 3.4)	
Name of project	*CO2Bio P2-2*
BCR Project ID	*BCR-CO-635-14-005*
Registration date of the project activity	*16/06/2023*
Project holder	*Fundación Cataruben*
Contact	***María Fernanda Wilches*** *Gerente General* ***Jose Luis Rodriguez*** *Super Líder Carbono* ***Daniel Eduardo Ospina*** *Líder Proyecto* *co2bio@cataruben.org* *Tel. 3204690315 / 3203108839* *Carrera 20 # 36 - 04 Yopal – Casanare*
Version number of the Project Document applicable to this monitoring report	*Versión 2.3*
Applied methodology(ies)	*AFOLU Sector Methodological Document / BCR0004 Quantification of GHG Emission*

Monitoring Report Template (Versión 3.4)	
	Reduction and Removal - Activities that Avoid Land Use Change in Continental Wetlands. Version 2.0 June 23, 2022. AFOLU Sector Methodological Document BCR0002 Quantification of GHG Emission Reductions from REDD+ Projects. Version 3.1. September 15, 2022.
Project location (Country, Region, City)	*Colombia, región Orinoquía:* *Departamento Arauca: Arauca, Cravo Norte, Puerto Rondón y Tame.* *Departamento Casanare: Hato Corozal, Paz de Ariporo, Orocué, Pore, San Luis de Palenque, Trinidad y Yopal.*
Project starting date	*15/01/2018*
Quantification period of GHG reductions/removals	*15/01/2018 to 14/01/2038*
Monitoring period number	*Second*
Monitoring period	*01/01/2022 - 31/12/2024.*
Amount of emission reductions or removals achieved by the project in this monitoring period	*Total reductions:* ***503.537,0 tCO2e*** *Annual average:* ***167.845,7 tCO2e/year***
Contribution to Sustainable Development Goals	*SDG 6: Water and Sanitation* *SDG 13: Climate Action* *SDG 15: Life of Terrestrial Ecosystems*

Monitoring Report Template (Versión 3.4)	
Special category, related to co-benefits	*Orchid*

Tabla de contenido

1 General description of project

The Project reduces CO2 emissions by developing activities that reduce deforestation of forests, as well as the transformation of natural Wetlands in 120 private properties located in the departments of Arauca and Casanare. To achieve this objective, the project supports actions that comprehensively address the landscape, considering land use change and the implementation of more sustainable practices in forest and wetland ecosystems. The socio-environmental impact resulting from the development of project activities allow the ecosystem managers to receive economic benefits to strengthen local governance, promote sustainable rural development and improve their quality of life in a region marked by an agricultural frontier with industrial crops.

The project's activity start date corresponds to 2018, and its environmental, social and economic impact is aimed at 102,863 total hectares, whose accounting areas are distributed in 10,532.3 hectares of forest and 50,352.8 hectares of wetlands. The project area comprises private rural properties, in a predominantly floodplain landscape.

The Project focuses on demonstrating how project activities contribute to the Sustainable Development Goals, specifically SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action) and SDG 15 (Life of Terrestrial Ecosystems). In addition to demonstrating that actions related to climate change mitigation lead to benefits in addition to the reduction of GHG emissions - Co-benefits in the Orchid category, as a comprehensive and long-term approach to the social and environmental benefits that project activities will bring in biodiversity conservation, community benefits and gender equity.

During the monitoring period 2022-2024 a reduction of 503.537,7 tCo2 eq was achieved.

1.1 Sectoral scope and project type

The project falls under the scope of the BRC Standard by meeting one or more of the conditions set out in Table 1.

Table 1 Scope of the standard.

The scope of the BCR Standard is limited to:	
The following greenhouse gases, included in the Kyoto Protocol: Carbon Dioxide (CO2), Methane (CH4), and Nitrous Oxide (N2O).	**X**

Emission reductions or removals of GHG that exceed any GHG reduction or removal required by law, regulation, or legally binding mandate.	
GHG projects that use a methodology developed or approved by the BioCarbon Registry, applicable to GHG removal activities and REDD+ activities (AFOLU Sector).	**X**
Quantifiable emission reductions and/or removals of GHG, generated by the implementation of GHG removal activities and/or REDD+ activities (AFOLU Sector)	**X**
GHG projects that use a methodology developed or approved by the BioCarbon Registry, applicable to activities in the energy, transportation, and waste sectors.	
Quantifiable GHG emission reductions generated by the implementation of activities in the energy, transportation, and waste sectors.	

Source: BioCarbon Standard, 2024.

The project belongs to the AFOLU sector and focuses on the reduction of greenhouse gas (GHG) emissions through REDD+ strategies and actions focused on the conservation and sustainable management of wetlands.

Table 2 Project Type.

CO2Bio P2-2 Project Characteristics	
Activities in the AFOLU sector, other than REDD+	**X**
REDD+ activities	**X**
Activities in the energy sector	
Activities in the transport sector	
Activities related to waste management and disposal	

Source: BioCarbon Registry, 2023.

1.2 Project start date

The project's start date is established as of January 15, 2018.

1.3 Project quantification period

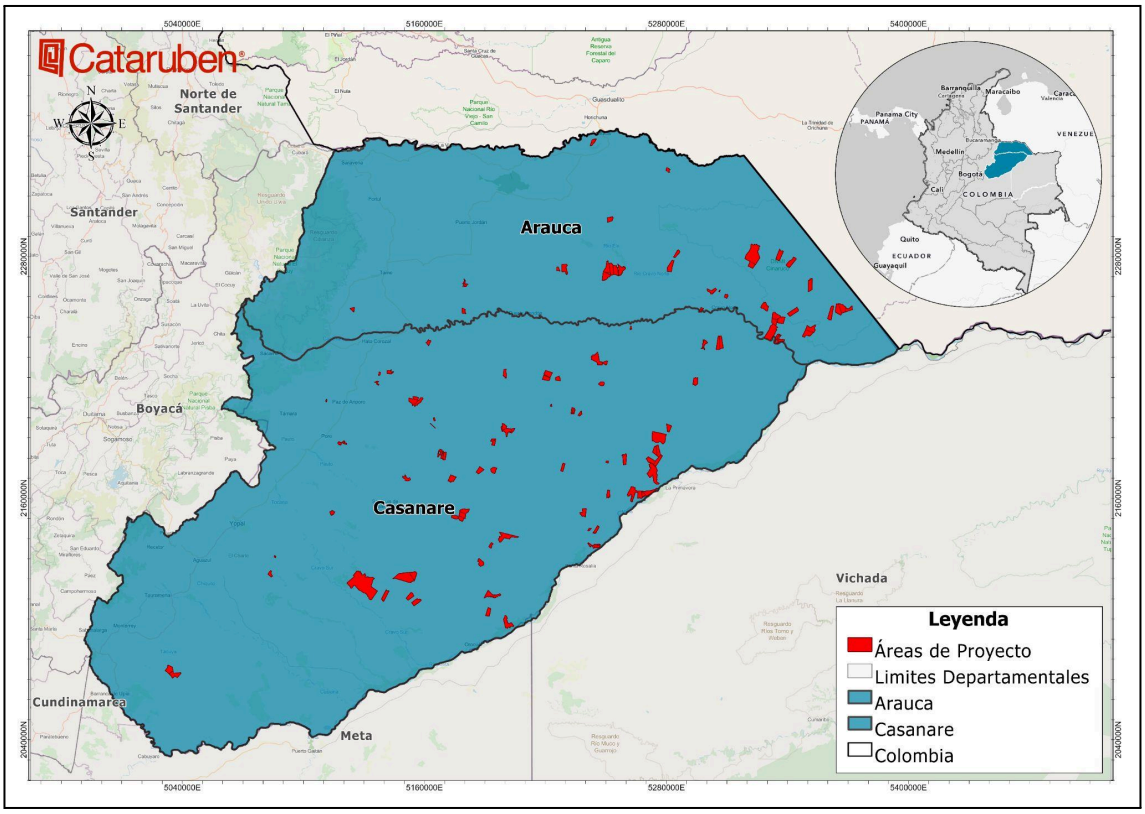
From January 15, 2018 to January 14, 2038. 20 years in total

1.4 Project location and project boundaries.

The project is located in the Orinoco River basin, in the eastern region of Colombia, within the Orinoquía biome. This river system, the third largest in the world, contains 41.0% of the underground water reserves and 48.0% of the continental wetlands of Colombia.[1].

68% of the private properties are in the Casanare department, while the remaining 32% are located in the Arauca department (Figure 1). These neighboring departments share similar environmental characteristics, with a landscape predominantly composed of gallery forests and tropical savannas, characterized by well-defined dry and rainy seasons.

Figure 1 Project location.



Source: Cartográfica (IGAC); **preparation:** Fundación Cataruben, 2025.

[1]Vásquez Cerón, Adriana Bustamante Zamudio, Clarita Buitrago, Andrea Baptiste, Brigitte Echeverri, Juliana. 2020. El gran libro de la Orinoquia colombiana. Ministerio de Ambiente y Desarrollo Sostenible, Bogotá, Colombia.

Table 3 shows a list of the 120 private properties that are part of the Project. The properties are classified by department, municipality, village and name of the property. Also included is a KML/shapefile with the boundaries of the project areas (2.Anexo / 8.Geoespacial / 8.4.Area de Proyecto / 8.4.1. Área de Proyecto CO2BIO P2 - 2.kml and 8.4.2. Area_Proyecto_CO2BIOP2_2.zip contains the shapefile vector file). This information is also found within the geodatabase of each component (2.Anexo / 8.Geoespacial / 8.1. REDD / 8.1.3. Geodatabase REDD / Área Proyecto / Área Proyecto CO2BIO P2-2).

Of the 120 properties included in the project, 25 properties implement only BCR0002 activities, 21 properties only BCR0004 activities, and 74 properties implement both BCR0002 and BCR0004 activities.

- BCR0002. 2.Anexos / 8.Geoespacial / 8.1.REDD / 8.1.3.Geodatabase REDD / Área Proyecto / Área de Proyecto REDD.shp

- BCR0004. 2.Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.3.Geodatabase Humedales / Área Proyecto / Área de Proyecto Humedales.shp

In addition, a glossary of geographic data is attached for each component: 8.1.2. REDD Geographic Data Dictionary and 8.2.2. Wetlands Geographic Data Dictionary.

Table 3 Location of the properties linked to the project

ID	DEPARTAMENT	MUNICiPALITY	PROPERTY	LATITUDE	LONGITUDE
1	CASANARE	HATO COROZAL	MIRAMAR	05° 57' 54.54" N	071° 45' 56.21" W
2	CASANARE	YOPAL	LA MAPOROZA	05° 11' 7.2" N	072° 13' 28.24" W
3	CASANARE	OROCUE	BUENOS AIRES	05° 00' 26.65" N	071° 13' 57.36" W
4	CASANARE	TRINIDAD	EL CAIRO	05° 14' 3.21" N	070° 48' 55.66" W
5	CASANARE	TRINIDAD	LA MACOLLA	05° 13' 35.69" N	070° 47' 56.57" W
6	ARAUCA	PUERTO RONDON	LAS PAMPAS	06° 28' 9.43" N	070° 40' 14.82" W
7	CASANARE	TRINIDAD	FINCA LAS PAMPAS	05° 32' 6.63" N	071° 38' 6.74" W
8	CASANARE	SAN LUIS DE PALENQUE	MATA DE SAMURO	05° 09' 22.54" N	071° 18' 14.56" W
9	CASANARE	OROCUE	LOTE DOS (SAN FELIPE 2)	05° 03' 36.13" N	071° 49' 48.38" W
10	CASANARE	PAZ DE ARIPORO	BABILONIA	05° 53' 9.49" N	071° 59' 36.35" W
11	CASANARE	TRINIDAD	LA ESPERANZA	05° 13' 43.81" N	070° 47' 4.22" W
12	CASANARE	TRINIDAD	VILLA BLANCA	05° 14' 5.38" N	070° 46' 41.33" W
13	CASANARE	PAZ DE ARIPORO	EL MORICHAL DE LOS DESEOS	05° 35' 0.32" N	070° 56' 7.01" W
14	CASANARE	HATO COROZAL	EL PORVENIR	06° 08' 47.2" N	071° 32' 5.24" W

15	ARAUCA	PUERTO RONDÓN	FINCA SANTA BARBARA	06° 28' 25.02" N	070° 57' 14.47" W
16	CASANARE	PAZ DE ARIPORO	BANCO FRESCO	05° 57' 29.06" N	070° 45' 35.66" W
17	CASANARE	PAZ DE ARIPORO	EL CANAL LOTE UNO	06° 00' 20.06" N	071° 11' 34.48" W
18	ARAUCA	ARAUCA	VILLA MARTHA	07° 02' 39.56" N	070° 47' 38.31" W
19	CASANARE	PAZ DE ARIPORO	EL CONTROL	05° 34' 16.11" N	071° 18' 25.01" W
20	ARAUCA	PUERTO RONDON	FINCA ALTAGRACIA	06° 26' 29.49" N	070° 44' 25.78" W
21	CASANARE	OROCUÉ	BUENAVISTA I	04° 56' 2.3" N	071° 16' 12.87" W
22	CASANARE	PAZ DE ARIPORO	EL ALGARROBO	05° 44' 48.79" N	071° 11' 0.63" W
23	ARAUCA	ARAUCA	FINCA LA COSTEÑA	06° 41' 47.9" N	070° 43' 10.07" W
24	ARAUCA	CRAVO NORTE	LAS ESCUDILLAS	06° 32' 27.63" N	070° 25' 13.07" W
25	CASANARE	PAZ DE ARIPORO	LA CUCARACHA	05° 49' 42.46" N	070° 53' 18.14" W
26	CASANARE	HATO COROZAL	SANTO DOMINGO FLORIDEÑO	05° 52' 47.05" N	071° 34' 48.55" W
27	CASANARE	OROCUÉ	CANDELARIA UNO	05° 06' 5.73" N	071° 36' 16.89" W
28	ARAUCA	CRAVO NORTE	LA MAGOLA	06° 28' 58.41" N	070° 26' 58.12" W
29	ARAUCA	CRAVO NORTE	FINCA LA BONANZA	06° 15' 27.99" N	069° 58' 45.7" W
30	ARAUCA	CRAVO NORTE	FINCA LA PONDEROSA	06° 13' 58.33" N	069° 59' 6.81" W
31	CASANARE	PAZ DE ARIPORO	LAGUNITAS	06° 00' 14.71" N	070° 59' 59.59" W
32	CASANARE	PAZ DE ARIPORO	LA CASCABEL	05° 58' 53.41" N	070° 57' 19.39" W
33	CASANARE	PAZ DE ARIPORO	FINCA LA ESPERANZA	05° 45' 32.85" N	070° 27' 38.39" W
34	CASANARE	TRINIDAD	LA GLORIA	05° 18' 14.48" N	070° 49' 3.96" W
35	CASANARE	HATO COROZAL	PUERTO LINDO	06° 12' 27.57" N	070° 37' 41.69" W
36	CASANARE	OROCUE	BUENOS AIRES	05° 00' 20.24" N	071° 37' 12.84" W
37	CASANARE	OROCUE	LAS BRISAS	05° 00' 44.61" N	071° 16' 1.7" W
38	ARAUCA	CRAVO NORTE	FINCA SANTA ANA	06° 16' 8.02" N	069° 43' 57.36" W
39	ARAUCA	CRAVO NORTE	FINCA LOS PARAGUITOS	06° 09' 20.41" N	069° 58' 4.57" W
40	ARAUCA	CRAVO NORTE	FINCA VENDAVAL	06° 08' 54.2" N	069° 57' 22.7" W
41	CASANARE	PAZ DE ARIPORO	LA LIBERTAD	05° 36' 41.58" N	070° 30' 37.61" W
42	CASANARE	TRINIDAD	MIRALINDO	05° 18' 9.42" N	070° 47' 11.63" W
43	CASANARE	PAZ DE ARIPORO	EL DELIRIO	05° 36' 25.47" N	070° 44' 11.58" W
44	ARAUCA	ARAUCA	MOSCU	06° 55' 0.82" N	070° 27' 30.04" W
45	CASANARE	TRINIDAD	CAMPO LINDO	05° 22' 46.44" N	070° 50' 35.19" W
46	ARAUCA	CRAVO NORTE	EL COROZO	06° 17' 31.18" N	069° 40' 51.68" W
47	CASANARE	OROCUE	LOTE 6	04° 53' 5.48" N	071° 11' 7.66" W
48	ARAUCA	CRAVO NORTE	LA CALANDRIA	06° 17' 5.5" N	069° 41' 58.25" W
49	ARAUCA	PUERTO RONDON	FINCA SANTA BARBARA	06° 28' 36.05" N	070° 55' 28.68" W
50	ARAUCA	CRAVO NORTE	FINCA LOS PIONIOS	06° 23' 48.4" N	069° 49' 25.94" W
51	ARAUCA	CRAVO NORTE	FINCA LA PONDEROSA	06° 17' 21.94" N	070° 18' 43.88" W
52	CASANARE	PAZ DE ARIPORO	EL PALMAR	05° 38' 9.15" N	071° 27' 53.09" W
53	ARAUCA	CRAVO NORTE	FINCA SURO VERDE	06° 17' 12.84" N	069° 39' 6.43" W
54	CASANARE	HATO COROZAL	EL BAUL DE LOS	06° 00' 23.43" N	071° 45' 18.51" W

			RECUERDOS		
55	CASANARE	PAZ DE ARIPORO	SAN ESTEBAN	05° 27' 57.46" N	070° 35' 46.42" W
56	CASANARE	PAZ DE ARIPORO	EL TIRRIGAL	05° 33' 23.41" N	070° 31' 52.22" W
57	CASANARE	PAZ DE ARIPORO	VILLA FERNANDA	05° 38' 11.68" N	071° 28' 30.42" W
58	CASANARE	PAZ DE ARIPORO	LA BENDICION	05° 27' 44.4" N	070° 43' 55.12" W
59	ARAUCA	CRAVO NORTE	FINCA SANTA MARTHA	06° 20' 56.72" N	070° 12' 1.41" W
60	CASANARE	HATO COROZAL	FINCA EL TORREÑO DOS	06° 08' 9.58" N	070° 17' 58.42" W
61	ARAUCA	CRAVO NORTE	FINCA EL PONQUE 2	06° 12' 1.13" N	069° 49' 19.21" W
62	ARAUCA	CRAVO NORTE	FINCA EL PONQUE 3	06° 10' 45.36" N	069° 50' 14.55" W
63	ARAUCA	CRAVO NORTE	FINCA EL CONUCO	06° 14' 22.53" N	069° 57' 16.82" W
64	ARAUCA	PUERTO RONDON	FINCA LOS CORAZONES	06° 28' 2.27" N	070° 41' 42.27" W
65	ARAUCA	PUERTO RONDON	FINCA PALMAR	06° 28' 21.74" N	070° 42' 49.93" W
66	ARAUCA	PUERTO RONDON	ALTAGRACIA	06° 28' 34.76" N	070° 43' 55.77" W
67	CASANARE	PAZ DE ARIPORO	LOTE 2 ANA MARIA	05° 45' 59.18" N	071° 11' 50.39" W
68	CASANARE	PAZ DE ARIPORO	SAN JOSÉ	05° 45' 28.43" N	071° 12' 25.73" W
69	CASANARE	PAZ DE ARIPORO	SAN BENITO	05° 38' 38.04" N	071° 29' 29.75" W
70	CASANARE	OROCUE	LOTE LA MOSCA	05° 00' 35.39" N	071° 43' 56.5" W
71	ARAUCA	TAME	FINCA LAS DELICIAS	06° 17' 12.74" N	071° 22' 38.69" W
72	ARAUCA	CRAVO NORTE	EL MORROCOY	06° 09' 35.76" N	069° 58' 33.66" W
73	CASANARE	PAZ DE ARIPORO	EL GARCERO	05° 44' 58.98" N	071° 09' 38.71" W
74	CASANARE	PAZ DE ARIPORO	LA PALMITA	05° 39' 14.57" N	071° 28' 50.73" W
75	CASANARE	SAN LUIS DE PALENQUE	BUENAVISTA	05° 14' 1.05" N	071° 15' 29.91" W
76	CASANARE	PAZ DE ARIPORO	LOS ARRECIFES	05° 34' 19.26" N	071° 14' 42.33" W
77	CASANARE	PAZ DE ARIPORO	EL MILAGRO	05° 32' 3.26" N	071° 25' 55.03" W
78	CASANARE	PAZ DE ARIPORO	EL ESPEJO	05° 59' 2.26" N	071° 00' 32.34" W
79	ARAUCA	CRAVO NORTE	FINCA LA FUENTE DE ORO	06° 22' 20.0" N	070° 15' 51.59" W
80	CASANARE	PAZ DE ARIPORO	LA ESPERANZA	05° 36' 44.76" N	070° 32' 32.04" W
81	ARAUCA	CRAVO NORTE	LOS SIETE DIAMANTES	06° 22' 20.98" N	070° 13' 48.66" W
82	CASANARE	PAZ DE ARIPORO	SAN JUAN 2	05° 50' 22.29" N	070° 53' 34.09" W
83	CASANARE	PAZ DE ARIPORO	FINCA SAN JUAN LOTE	05° 50' 18.64" N	070° 53' 9.78" W
84	CASANARE	HATO COROZAL	LA FLORIDA	05° 52' 56.19" N	071° 36' 19.91" W
85	CASANARE	HATO COROZAL	EL GUAMO	05° 53' 46.43" N	071° 35' 35.88" W
86	CASANARE	OROCUE	LA CANDELARIA	05° 05' 27.76" N	071° 38' 36.54" W
87	CASANARE	PAZ DE ARIPORO	LAS GARZAS	05° 51' 41.47" N	070° 59' 11.04" W
88	CASANARE	TRINIDAD	EL REMACHE 1	05° 16' 21.35" N	071° 11' 32.93" W
89	ARAUCA	CRAVO NORTE	LAS BRISAS	06° 11' 8.29" N	069° 59' 59.77" W
90	ARAUCA	CRAVO NORTE	LA REVANCHA	06° 29' 54.96" N	069° 54' 32.5" W
91	ARAUCA	CRAVO NORTE	EL CIELO	06° 31' 52.75" N	069° 57' 39.28" W
92	ARAUCA	CRAVO NORTE	PANAMA	06° 32' 9.18" N	070° 04' 41.25" W
93	CASANARE	PAZ DE ARIPORO	EL BRILLANTE	05° 37' 9.29" N	070° 39' 31.35" W

94	CASANARE	HATO COROZAL	NO SE SABE	06° 00' 48.5" N	071° 42' 34.01" W
95	ARAUCA	CRAVO NORTE	FINCA CUERNAVACA	06° 18' 3.35" N	070° 01' 39.22" W
96	CASANARE	PAZ DE ARIPORO	EL RINCON	05° 57' 59.89" N	070° 20' 24.29" W
97	CASANARE	PAZ DE ARIPORO	CAMPO HERMOSO	05° 39' 20.81" N	070° 31' 20.93" W
98	CASANARE	PAZ DE ARIPORO	NARANJAL	05° 39' 14.58" N	070° 30' 31.46" W
99	CASANARE	PAZ DE ARIPORO	LA YUBEREÑA	06° 03' 58.92" N	070° 46' 33.53" W
100	CASANARE	TAURAMENA	EL TRANQUERO	04° 39' 18.82" N	072° 40' 22.18" W
101	CASANARE	PAZ DE ARIPORO	LOTE NUMERO UNO LA ESPERANZA	05° 41' 51.18" N	071° 14' 42.49" W
102	ARAUCA	CRAVO NORTE	FINCA VILLA TANIA	06° 16' 34.53" N	069° 54' 2.77" W
103	CASANARE	PAZ DE ARIPORO	LOS ESFUERZOS	05° 42' 56.88" N	070° 30' 20.63" W
104	CASANARE	PAZ DE ARIPORO	LOTE NUMERO TRES EL PARAISO	05° 42' 35.24" N	071° 14' 46.54" W
105	CASANARE	TAURAMENA	HACIENDA EL ROSAL	04° 40' 40.57" N	072° 41' 49.96" W
106	CASANARE	PAZ DE ARIPORO	LA HONDA I	05° 48' 4.28" N	071° 30' 37.31" W
107	CASANARE	PAZ DE ARIPORO	GUARATAL 2	05° 46' 19.94" N	071° 31' 1.38" W
108	CASANARE	SAN LUIS DE PALENQUE	EL GARCERO	05° 22' 54.98" N	071° 58' 6.49" W
109	ARAUCA	TAME	EL SINAI	06° 17' 45.91" N	071° 52' 28.07" W
110	CASANARE	PORE	LOTE 1	05° 42' 0.08" N	071° 55' 2.99" W
111	CASANARE	PORE	LOTE 2	05° 41' 38.61" N	071° 54' 36.92" W
112	CASANARE	PORE	EL CEBU	05° 41' 38.85" N	071° 56' 2.51" W
113	ARAUCA	CRAVO NORTE	FINCA VIDA TRANQUILA	06° 29' 16.58" N	070° 05' 10.13" W
114	CASANARE	YOPAL	LAS BRISAS	05° 06' 27.22" N	072° 14' 43.93" W
115	CASANARE	PAZ DE ARIPORO	CARTAGENA	05° 27' 38.66" N	070° 34' 35.2" W
116	CASANARE	HATO COROZAL	FINCA LA ARENOSA 3	06° 08' 4.83" N	070° 14' 12.97" W
117	CASANARE	TRINIDAD	EL AMPARO	05° 21' 40.66" N	071° 25' 7.14" W
118	ARAUCA	TAME	ALTAMIRA	06° 24' 9.04" N	071° 22' 8.96" W
119	Casanare	Paz De Ariporo	FINCA LA ARENOSA DOS	06° 08' 23.21" N	070° 13' 28.96" W
120	Arauca	Tame	FRANFOL	06° 25' 0.33" N	071° 22' 27.4" W

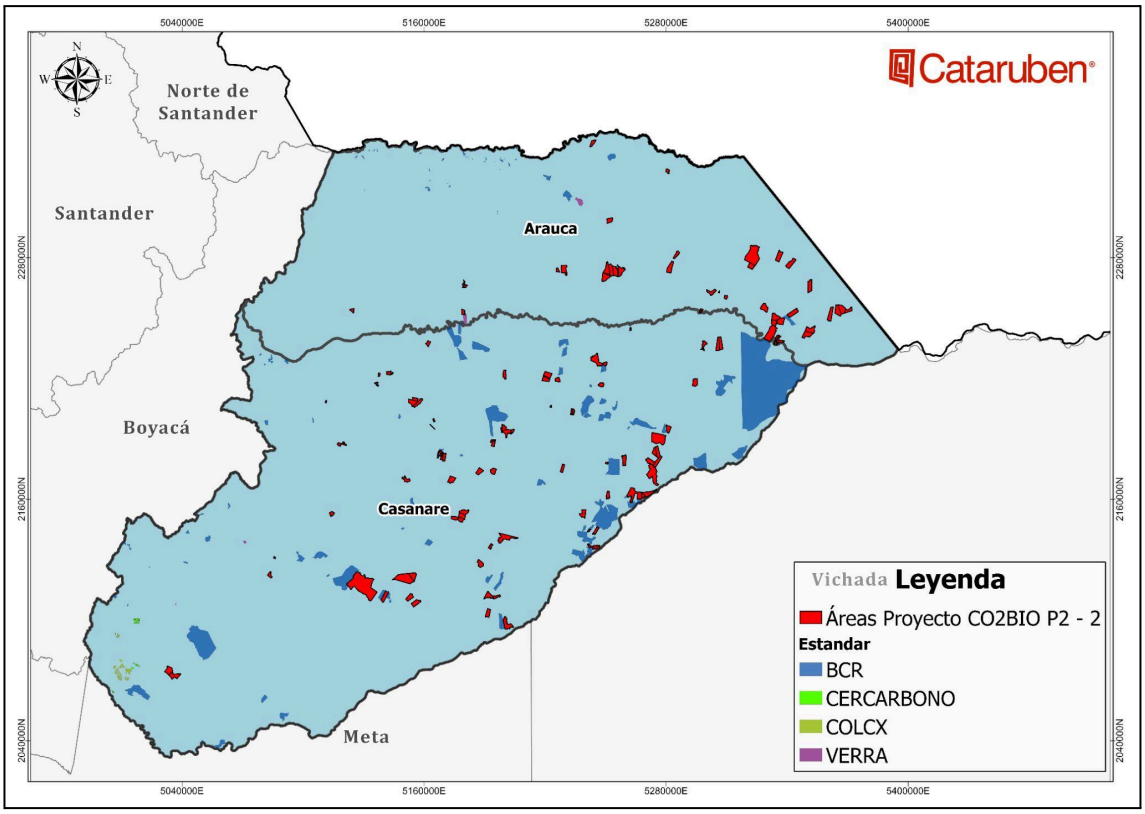
Source: Fundación Cataruben, 2025.

1.4.1 Projects in the region

The spatial information of nine (9) projects in the area of influence of CO2BIO P2-2 was obtained from the official websites of the carbon standards (BCR, COLCX, CERCARBONO, VERRA, GOLD STANDARD). The data from the registration pages were consolidated into a vector file called "Standard Carbon Projects" and stored in the "Carbon Projects - Double Accounting" Feature Dataset of the REDD and Wetlands Geodatabase (2.Anexo / 8.Geoespacial / 8.1.REDD / 8.1.3. Geodatabase REDD / Proyectos Carbono Doble Contabilidad). Subsequently, a spatial intersection was

made between this vector file and the areas of the CO2BIO P2-2 project and it is identified that there are no overlaps with other carbon projects (Figure 2).

Figure 2. Carbon Projects in the region of the CO2BIO P2-2 project.



Preparation: Fundación Cataruben, 2025.

1.5 Summary Description of the Implementation Status of the Project

The table below provides a general summary of the implementation level of each activity during the 2022-2024 monitoring period.

Table 4. Summary description of the state of implementation of the project activities.

ID	Activity Description	Implementation Dates	Overall Progress of the Activity

G.1	Training and skills development for men and women linked to the project in the technical-environmental, social and administrative-financial areas, with the purpose of strengthening their capacities and improving decision-making aligned with the project's objectives.	The activity is ongoing. The operation of this activity began on January 31, 2018, with the construction of the capacity building plan.	G.1.1: **41%** G.1.2: **57%**
G.2	Deployment of the governance strategy in the territory, promoting participatory decision-making for the sustainable management of strategic ecosystems.	The progress status of the activity is ongoing. It begins with the strengthening of governance structures in the territory as of January 31, 2018.	G.2.1: **45**%
G.3	Continuous monitoring of changes in forest area as a proportion of the total area in the project areas.	The activity is ongoing. The start date of the activity is January 31, 2018.	G.3.1: **22,2**%
G.4	Active monitoring of environmental threats, such as fires, in the project area, as well as the identification of possible alerts for timely management	The activity is ongoing. The start date of the activity is January 31, 2018.	G.4.1: **22,2**%
G.5	Promote the adoption of sustainable productive actions and practices at the farm and local levels, with the aim of preserving carbon stocks and protecting biodiversity in strategic ecosystems.	The activity is ongoing. The implementation of the activity begins as of January 31, 2018. Sustainable management practices implemented on the farms are reported for each monitoring period.	G.5.1: **51,26**%
B.1	Implementation of participatory biodiversity monitoring, involving local communities in the observation and evaluation of fauna and flora to strengthen ecosystem conservation.	The activity is ongoing. Participatory monitoring began in 2018.	B.1.1: **37,07%**

B.2	Continuous monitoring of High Conservation Value Areas (HCVAs) to strengthen their preservation and sustainable management in the project territory.	The activity is ongoing. As of 2018, the analysis of the HCVs associated with the biodiversity component is initiated.	B.1.1: **53,0**%
A.1	Design and implementation of a Water Management Program focused on the conservation, efficient use and sustainable management of water resources in the project area.	The activity is ongoing. As of 2021, it begins with the diagnosis of water management.	A.1.1: **20,0**%

Source: Fundación Cataruben, 2025.

The period between 01/01/2022 - 31/12/2024 registered **380.989,0** tCO2e reduced by avoiding deforestation and **122.548,0** tCO2e by avoiding land-use change in wetlands. For a total of **503.537,0** tCO2e reduced.

2 Title, reference and version of the baseline and monitoring methodology(ies) applied to the project

The project was designed with version 3.2 of the BCR standard and the methodologies described below were applied:

- AFOLU Sector Methodological Document BCR0002 Quantification of GHG Emission Reductions from REDD+ Projects. Version 3.1. September 15, 2022.
- AFOLU Sector Methodological Document / BCR0004 Quantification of GHG Emission Reduction and Removal - Activities that Avoid Land Use Change in Continental Wetlands. Version 2.0 June 23, 2022.

The additional tools used in the preparation of this monitoring report are:

- Biodiversity Toolbox for Continental Wetlands. Version 1.0 October 27, 2021.
- Tool for Demonstrating Compliance with REDD+ Safeguards. Version 1.1 January 26, 2023.
- BCR Tool Monitoring, Reporting and Verification (MRV). Version 1.0 February 13, 2023.

- Sustainable Development Goals (SDG) Tool Version 1.0, June 27, 2023.
- BCR Tool Avoiding Double Counting (ADC). Version 2.0, February 07, 2024.
- BCR Tool Permanence Risk Management. Version 1.1 March 19, 2024.
- SDSs Sustainable Development Safeguards Tool. Version 1.1 July 4, 2024.

3 Double Counting and Participation under Other GHG Programs.

The project has not been registered or included in any other Greenhouse Gas (GHG) program. A review of projects registered under different standards, which are being developed in the same region as the project, was carried out. See section 1.4.1.

4 Contribution to Sustainable Development Goals (SGD)

During the 2022-2024 monitoring period, the project carried out a series of strategic actions that contributed to the optimization of the use of water resources and the strengthening of sustainability in production systems through resilient agricultural practices. As a result, it was determined that the activities carried out contribute significantly to the Sustainable Development Goals (SDGs), in particular to **SDG 6**: Clean Water and Sanitation, **SDG 13**: Climate Action and **SDG 15**: Life of Terrestrial Ecosystems.

The impact of these actions was defined based on the use of the BioCarbon Standard "SDG Tool", which allowed the identification of the alignment between the SDG targets and the project activities, as well as documenting their contribution (2. Anexos / 4. ODS / 4.5. Plan y Reporte Monitoreo ODS (CO2Bio P2-2))

Below, it is detailed how each activity carried out during the 2022-2024 monitoring period has contributed to the global SDG targets.

4.1 Progress of SDG 6 Indicator

The implemented activities for the sustainable management of water resources in the properties linked to the Project contribute to the Sustainable Development Goal 6 (SDG 6), which is aimed at guaranteeing the availability and sustainable management of water for all.

A Water Management Program has been developed and executed that articulates strategic actions in support of this global objective (2. Annexes / 2. Project Activities /

A.1 / 2.1.1 Water management program). The program is structured in four stages: diagnosis, design, implementation and monitoring, and is aligned with indicator 6.4.1, related to the efficiency in the use of water resources.

As part of these actions, the characterization of properties and the implementation of Efficient Use and Water Saving Plans (PUEAA) have been carried out, promoting sustainable practices among rural landowners. These initiatives include training in techniques to reduce consumption, optimize resource management and ensure its long-term conservation.

During the 2022-2024 period, these actions have contributed 20% to the progress of the established goals, as documented in the Progress Report of the Water Management Program (2. Annexes / 2. Project Activities / A.1 / 2.1.3. Progress report of the water management program). This comprehensive approach strengthens water management at the local level and contributes significantly to the fulfillment of the SDG 6 objectives, especially in relation to equitable access and efficient use of water resources.

To ensure the traceability and technical reliability of the process, it was defined as a criterion that only those PUEAA whose information was verified through the Property Implementation Plans (PIP) would be considered valid. Based on this criterion, the first formal verification exercise was carried out on a total of 90 characterized properties, of which 65 have validated and sufficient information to formulate technically sound PUEAA.

This exercise allowed the establishment of a robust baseline for the monitoring and periodic updating of the plans, integrating technical, social and environmental criteria, which strengthen the adaptive management of water resources within the framework of the project.

4.1.1 Diagnosis of Indicator 6.4.1

Between 2022 - 2024, 90 properties were diagnosed, consolidating verified information in 65 of them (2. Annexes / 4. SDG / SDG 6 / Goal 6.4 / Diagnosis - indicator 6.4.1).

67 Efficient Water Use and Savings Plans (PUEAA) were formulated, with technical support through the Property Implementation Plans (PIP). Of these, 56 correspond to properties with homes and 9 to agricultural properties. The actions include training, workshops and follow-up, and are aimed at improving water management in the 120 linked properties (2. Annexes / 2. Project Activities / 2.1.2. / 2.1.2.1. Water Use and Savings Plans).

The implementation strategy includes two components adapted to the rural context:

- Estimation of water use, based on storage capacity and recharge frequency.
- Family surveys, to calculate daily consumption per household using traditional containers.

These methodologies allow efficient monitoring of resource use, contributing to compliance with indicator 6.4.1.

Once the design phase is completed, implementation and monitoring will be carried out, including a knowledge transfer process to promote sustainable practices and conserve strategic ecosystems. The contribution to SDG 6 is documented in the SDG Tool (2. Annexes / 4. SDG / Herramienta-ODS).

Table 5 Summary of impact on target 6.4, indicator 6.4.1.

SDG target	SDG indicator	Project Activity	Period 2022-2024
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	6.4.1 Change in water use efficiency over time	A1. Water management program (Diagnosis, Design, Implementation and Monitoring)	**20%** The 20% overall progress was calculated using a weighted average of the progress in each stage of the activity: ● Diagnosis: 7.73% completed (target of 12%) ● Design: 9,42% completed (target of 15%) ● Implementation: 1.9% completed (target of 5,3%) ● Monitoring: 1% completed (target of 20%)

Source : Fundación Cataruben, 2025.

4.2 Progress of SDG Indicator 13

SDG 13 seeks to promote strategies to combat climate change in national policies. The project contributes to this goal by reducing greenhouse gas (GHG) emissions through forest conservation and the mitigation of forest degradation. By monitoring GHG emissions and indicator 13.2.2, which evaluates annual GHG emissions, the project

supports target 13.2, which seeks to integrate climate measures into national strategies.

4.2.1 Contribution to indicator 13.2.2 against the global target.

Between January 1, 2022, and December 31, 2024, GHG emissions were monitored in the project area and its leakage area. The results were compared to the baseline scenario reference values. During this period, a 10.58% reduction was observed compared to the projected annual average in the baseline, which is equivalent to 503,537.0 tCO_2e mitigated. This result represents a 30.34% progress toward the global emission reduction target established for the implementation of the project (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

Table 6. Summary of impact on target 13.2, indicator 13.2.2

SDG target	SDG indicator	Project Activity	Period 2022-2024
13.2 Incorporate climate change measures into national policies, strategies and plans	13.2.2 Emisiones totales de gases de efecto invernadero por año	The monitoring of GHG emissions was carried out for the 2022-2024 period, with which the fulfillment of the objective was evaluated in terms of GHG emission reduction in relation to the baseline scenario.	**30.34**%

Source: Fundación Cataruben, 2025.

4.3 Progress of SDG Indicator 15

4.3.1 Contribution to indicator 15.1.1 against the global target.

The results of monitoring SDG 15.1.1 show that the forest area, as a proportion of the total area, increased by 0.02% compared to 2021. The values of the variables used for the calculation of the indicator are detailed in Table 7. For 2024, 11.62% of the project area is covered by natural forest. (2. Anexos / 4. ODS / 4.3. ODS 15 - Vida de ecosistemas terrestres / 4.3.1.1. ODS 15.1.1. y 2.6.1. G.3.)

The progress of the indicator is calculated based on the guidelines defined in the environmental indicators of the Ministry of the Environment and Sustainable Development and IDEAM corresponding to the indicator. (2. Anexos / 8. Geoespacial / 8.1. REDD / 8.1.7. IDEAM / 8.1.7.1. Galindo G. et al (2023). IDEAM. Hoja metodológica del indicador Proporción de la superficie cubierta por bosque natural Versión 1.3).

The details of the Continuous Monitoring of changes in Forest Area as a proportion of the total area in the project areas are specified in annex (2.6.G3.). The vector information is related in (2. Annex/ 8.Geospatial/ 8.1.REDD/ 8.1.3. Geodatabase REDD/ Activity G3/Forest Areas 2018; Forest Areas 2021; Forest Areas 2024).

Table 7. SDG 15.1.1 Variables.

Variable	2021	2024
Auer* (ha)	83.825,72	83.825,72
Scbn** (ha)	10.989,20	11.002,03
PSBN***	13,11	13,12
***AUER**: Surface area in hectares of the spatial reference unit - Properties with BRC0002 activities. (99 Private Properties) ****SCBN**: Surface area in hectares covered by natural forest in the reference unit, Properties with BCR0002 activities *****PSBN**: Proportion of the surface area covered by natural forest in the reference unit.		

Source: Fundación Cataruben, 2025.

4.3.2 Contribution to indicator 15.1.2 against the global target.

Monitoring reveals that 22.53% of the areas of BCR0002 and BCR0004 activities are located within important zones for biological diversity. This data constitutes evidence for SDG 15.1.2, which measures the proportion of terrestrial and freshwater areas relevant to biodiversity that are covered by protected areas (by type of ecosystem)..

To determine the contribution to the indicator, the Areas of Importance for Biological Diversity (AIDB) and the Key Biodiversity Areas (KBA) were identified. The proportion of the territory within these categories was calculated. The vector information is available in (2. Anexos / 4. ODS / 4.3. ODS 15). Additionally, shapefiles of AICAS, KBA, WPDA and Runap are attached as supporting information.

During the period 2018-2021, the methodological bases for the identification of important areas for biological diversity were defined. In the period 2022-2024, the properties recognized as KBA and other areas of importance are indicated. (Table 8.)

Table 8. SDG 15.2.1. Important Places for Biological Diversity.

Property	Area (ha)	AIDB Name	Status
El Delirio	112,7	Chaviripa-El Rubí	KBA*
Finca Los Corazones	1014,5	Cravo Norte-Ele-Lipa	KBA

Finca Palmar	1012,3	Cravo Norte-Ele-Lipa	KBA
La Gloria	119,8	Reservas de la vereda Altagracia	KBA
Las Pampas	1.011,7	Cravo Norte-Ele-Lipa	KBA
Buenavista I	694,20	Buenasvista	RNSC
El Cielo	1048,90	Cinaruco	DRMI**
El Corozo	1070,78	Cinaruco	DRMI**
El Guamo	338,72	La Florida	RNSC**
El Milagro	843,65	El Milagro	RNSC**
Finca Los Paraguitos	316,30	Los Paraguitos	RNSC**
Finca Los Pionios	1041,05	Cinaruco	DRMI**
Finca Santa Ana	1072,06	Cinaruco	DRMI**
Finca Suro Verde	534,92	Cinaruco	DRMI**
Finca Vida Tranquila	671,51	Cinaruco	DRMI**
Finca Villa Tania	1040,37	Cinaruco	DRMI**
La Calandria	1058,29	Cinaruco	DRMI**
La Florida	912,90	La Florida	RNSC**
La Revancha	1071,82	Cinaruco	DRMI**
Las Brisas	842,84	Las Brisas	RNSC**
Miramar	166,03	Miramar	RNSC**
Panama	4677,33	Cinaruco	DRMI**
Santo Domingo Florideño	674,48	La Florida	RNSC**

***AICAS:** Important Areas for the Conservation of birds.
****WPDA:** World Database on Protected Areas.
Source:https://www.keybiodiversityareas.org/; https://www.protectedplanet.net[2]

Support was provided for managing the declaration of Natural Civil Society Reserves (RNSC) in SINAP, through the National Natural Parks of Colombia (PNN). Attached is the owner's authorization empowering Cataruben to carry out this process. (4.3.2.1. Autorizacion RNSC) (2. Anexo/ 8.Geoespacial/ 8.1.REDD/ 8.1.3. Geodatabase REDD) Table 9.

[2]UNEP-WCMC and IUCN (2025), Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-based Conservation Measures (WD-OECM) [Online], March 2025, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net.

Table 9. Property with accompanying process for RNSC declaration.

Property	Area (ha)	Process Status
Maporalosis	64,70	Generation of Resolution to start the process.
The Trunk of Memories	119,99	Generation of Resolution to start the process.
Moscow	279,76	Generation of Resolution to start the process.
Total	**464,45**	

Source: Fundación Cataruben, 2025.

Table 10, shows the proportion of places important for terrestrial biological diversity that are part of protected areas, for their calculation the equation for the proportion of the covered area was adapted Galindo et al., (2023).

Table 10. SDG variables 15.1.2. proportion of places important for biological diversity

Variable	Period (2021 - 2024)
Except* (ha)	94.718,7
Scbn_zp** (ha)	21.347,15
PSBN_zp***	22,53

***CLOCK**: Surface area in hectares of the reference spatial unit - 120 Private Property
****SCBN_ZP**: Area in hectares that are part of protected areas
*****PSBN_ZP**: Proportion of the surface that is part of protected areas in the reference unit.
Fountain: Own elaboration.

In summary, Table 11 presents an advance for indicators 15.1.1 and 15.2.1 of 30.0% and 35.0% respectively for the current monitoring period. It is important to clarify that the proportion of forest increased by 0.01%, corresponding to approximately 10.53 ha, while the proportion of places important for biological diversity with respect to the project areas was determined at 22.53% (21,347.15 ha).

Table 11. Summary of impact on target 15.1, indicator 15.1.1. and 15.2.1.

SDG target	SDG indicator	Project Activity	Period 2022-2024
15.1: By 2020, ensure the	15.1.1	B2. Monitoring of HCVs	21,0 % • Monitoring of project forest area.

conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and arid lands, in line with obligations under international agreements.	Forest area as a proportion of the total area		● Project HCV monitoring; 57.0 % of the project areas are in high HCV categories.) 28,0 % B2 Monitoreo de los AVC'S Anexos/ 2. Actividades de Proyectos/ 2.3. B2/ 2.3.1. Informe sobre el Monitoreo de Altos Valores de Conservación
	15.1.2 Proportion of important places for terrestrial and freshwater biodiversity that are part of protected areas, broken down by ecosystem type	B1. Bioacoustic Monitoring	22,53% ● Monitoring of project areas that belong to a conservation category. Anexos/ 4ODS/ 4.3. ODS15 Vida ecosistemas terrestres/ 4.3.2. Indicador 15.1.2. Proporción de lugares importantes para la biodiversidad terrestre y de agua dulce que están cubiertos por las áreas protegidas, por tipo de ecosistema-1

Source: Fundación Cataruben, 2025.

The monitoring of High Conservation Values (HCVs) is a project activity. HCVs are a crucial tool for the planning and management of natural areas, as they allow the identification and protection of key elements for the conservation of biodiversity and ecosystem services.

Through geospatial analysis that integrates ecological, environmental, social and economic factors, monitoring of the HCVs in the project area was carried out. This report focused on monitoring HCV1 (Biological Diversity) and the analysis of HCV2 (Ecosystems in good conservation status) and also integrated HCV3 (Rare and/or Threatened Ecosystems), , HCV4 (Ecosystem services), HCV5 (Basic needs of the communities) and HCV6 (Traditional and cultural identity of the communities).

HCV1 used species richness, protected areas, AICA and continental ecosystems to assess areas of high biological diversity, and determined that most of the project area falls into the medium and high categories, which represents 74768,55 ha and 12755,95

ha respectively (2. Anexos / 2. Actividades de proyecto / 2.3. B.2 / 2.3.2.1. Geodatabase AVC 1 2.3.2.1. AVC1_CO2BIOP2_2.gdb/AVC1).

HCV2 verified the state and connectivity of natural land covers through the land cover information from MapBiomas Colombia, finding that most areas of the project (57872.91 ha) have a medium conservation status at the landscape level, while the high conservation areas are concentrated in 13785.0 ha (2. Anexos / 2. Actividades de proyecto / 2.3. B.2 / 2.3.2.1. Geodatabase AVC 1 2.3.2.1. AVC1_CO2BIOP2_2.gdb/AVC2).

HCV3 identified areas with rare and/or threatened ecosystems, taking into account the information from the IUCN red list ecosystem evaluation and the rare ecosystem evaluation by Sulu (2020) and most areas within the study area were classified as vulnerable or transformed (medium and low, respectively) (2. Anexos / 2. Actividades de proyecto / 2.3. B.2 / 2.3.2.1. Geodatabase AVC 1 2.3.2.1. AVC1_CO2BIOP2_2.gdb/AVC3).

HCV4, which shows areas that provide ecosystem services based on Forest non-Forest system developed by IDEAM, vegetation cover based on the information from MapBiomas Colombia and hydrological factors by Sulu (2020), resulted in a mostly high categorization for the project area (12099.68 ha) (2. Anexos / 2. Actividades de proyecto / 2.3. B.2 / 2.3.2.1. Geodatabase AVC 1 2.3.2.1. AVC1_CO2BIOP2_2.gdb/AVC4).

Finally, both HCV5, which identifies areas important for the basic needs of local communities, and HCV6, which identifies areas important for the traditional and cultural identity of local communities, categorized all identified areas as high. All the areas represent 25337.27 ha and 68 zones of high conservation within the project areas. The complete results of these analyses can be found in (2. Anexos / 2. Actividades de proyecto / 2.3. B.2 / 2.3.2.1. Geodatabase AVC 1 2.3.2.1. AVC1_CO2BIOP2_2.gdb/AVC5; AVC6).

5 Compliance with Applicable Legislation

To demonstrate compliance with applicable legislation in GHG mitigation activities, the Cataruben Foundation has implemented a documented procedure based on the identification, updating and continuous verification of legal requirements. This process is managed through the Procedure for Managing Legal and Other Requirements (2. Anexos / GJP-14. Procedimiento de Gestión de Requisitos Legales y Otros / Matriz de Compatibilidad Legal), which allows recording and evaluating the current regulations applicable to each project activity.

Compliance with legal requirements is guaranteed through the quarterly updating of the legal matrix, the verification of the applicability of the requirements with the legal team, the internal communication of the legal requirements to the interested parties and the execution of internal evaluative follow-ups to monitor legal compliance, identify findings and generate corrective action plans to address any non-compliance.

During the 2022-2024 period, the Foundation has applied this procedure rigorously and systematically, ensuring legal compliance in all its GHG mitigation activities and strengthening its commitment to responsible environmental management, operational transparency and legality in the development of sustainable projects.

In addition, this procedure incorporates the analysis of sectoral and cross-cutting regulations, including environmental, social, labor, ethnic-territorial and fiscal legislation, which allows for a comprehensive view of the regulatory framework and ensures the legal compatibility of projects with the different levels of regulation (local, regional, national and international).

The correct application of this procedure contributes not only to legal compliance, but also to the prevention of legal, social and reputational risks, and to the strengthening of trust among stakeholders, including allies, communities, environmental authorities and carbon standard verification entities.

6 Climate change adaptation

Table 12 describes compliance and includes the supporting documentation that verifies how the project's activities lead to climate change adaptation actions.

Table 12. Climate change adaptation.

Criteria	Compliance	Project activity in which the adaptation action is derived	Activity progress in the monitoring period (2022 - 2024)

Considers one or more of the activities proposed in Colombia's National Climate Change Policy.	The project activities have an explicit and direct connection with the objectives, strategies, and instrumental components of the National Climate Change Policy. These actions promote the strengthening of local capacities, the conservation of strategic ecosystems, risk management, sustainable production, water resilience, and participatory monitoring, all of which are fundamental pillars of the policy and of Colombia's national commitments to addressing climate change.	**G3:** Continuous monitoring of changes in forest area as a proportion of the total area in the project areas.	**G3:** 11,10% **Support link:** 2.6. G.3
		G5: Promote the adoption of sustainable productive actions and practices at the farm and local levels, with the aim of preserving carbon stocks and protecting biodiversity in strategic ecosystems.	**G5:** 26,49% **Support link:** 2.8. G.5
		G1: Training and skills development for men and women linked to the project in the technical-environmental, social and administrative-financial areas, with the purpose of strengthening their capacities and improving decision-making aligned with the project's objectives.	**G1.1:** 74 **G1.2:** 10 **Support link:** 2.4. G.1
		A1: Design and implementation of a Water Management Program focused on the conservation, efficient use and sustainable management of water resources in the project area.	**A1:** 5% **Support link:** 2.1 A.1

Improve the conservation conditions of biodiversity and its ecosystem services in the areas of influence, outside the project boundaries (e.g. natural coverage in areas of special environmental interest, biological corridors, water management in watersheds, among others).	The project promotes actions aimed at conserving forest and wetland ecosystems, as well as biodiversity and associated ecosystem services. These efforts include community-based biodiversity monitoring, awareness-raising on the prevention of environmental threats, and the promotion of sustainable production practices. In addition, High Conservation Values (HCVs) are identified and monitored within the project's geographic boundaries, and measures are implemented to improve water resource management on participating properties.	**G3:** Continuous monitoring of changes in forest area as a proportion of the total area in the project areas.	**G3:** 11,10% **Support link:** 2.6. G.3
		G4: Active monitoring of environmental threats, such as fires, in the project area, as well as the identification of possible alerts for timely management	**G4:** 11,10% **Support link:** 2.7. G.4
		G5: Promote the adoption of sustainable productive actions and practices at the farm and local levels, with the aim of preserving carbon stocks and protecting biodiversity in strategic ecosystems.	**G5:** 26,49% **Support link:** 2.8. G.5
		B1: Implementation of participatory biodiversity monitoring, involving local communities in the observation and evaluation of fauna and flora to strengthen ecosystem conservation.	**B1:** 21,0 % **Support link:** 2.2. B.1
		B2: Continuous monitoring of High Conservation Value Areas (HCVAs) to strengthen their preservation and sustainable management in the project territory.	**B2:** 28,0 % **Support link:** 2.3. B.2
		A1: Design and implementation of a Water Management Program focused on the conservation, efficient use and sustainable management of water resources in the project area.	**A1:** 5% **Support link:** 2.1 A.1

Implements activities that contribute to sustainable low-carbon productive landscapes.	The project's activities promote the implementation of conservation and sustainable production practices, supported by a capacity-building strategy aimed at participants. This strategy seeks to empower communities in the governance of their territories and the sustainable management of natural resources.	**G1:** Training and skills development for men and women linked to the project in the technical-environmental, social and administrative-financial areas, with the purpose of strengthening their capacities and improving decision-making aligned with the project's objectives.	**G1.1:** 74 **G1.2:** 10 **Support link:** 2.4. G.1
		G2: Deployment of the governance strategy in the territory, promoting participatory decision-making for the sustainable management of strategic ecosystems.	**G2:** **Support link:** 2.5. G.2
		G5: Promote the adoption of sustainable productive actions and practices at the farm and local levels, with the aim of preserving carbon stocks and protecting biodiversity in strategic ecosystems.	**G5:** 26,49% **Support link:** 2.8. G.5
		B1: Implementation of participatory biodiversity monitoring, involving local communities in the observation and evaluation of fauna and flora to strengthen ecosystem conservation.	**B1:** 21,0 % **Support link:** 2.2. B.1
		A1: Design and implementation of a Water Management Program focused on the conservation, efficient use and sustainable management of water resources in the project area.	**A1:** 5% **Support link:** 2.1 A.1

Design and implement adaptation strategies based on an ecosystem approach.	The project integrates actions that strengthen the resilience of ecosystems and local communities to climate change through strategies focused on conservation and sustainable production. These actions contribute to nature-based adaptation, recognizing the interdependence between ecosystem health and human well-being.	**G1:** Training and skills development for men and women linked to the project in the technical-environmental, social and administrative-financial areas, with the purpose of strengthening their capacities and improving decision-making aligned with the project's objectives.	**G1.1:** 74 **G1.2:** 10 **Support link:** 2.4. G.1
		G5: Promote the adoption of sustainable productive actions and practices at the farm and local levels, with the aim of preserving carbon stocks and protecting biodiversity in strategic ecosystems.	**G5:** 26,49% **Support link:** 2.8. G.5
		A1: Design and implementation of a Water Management Program focused on the conservation, efficient use and sustainable management of water resources in the project area.	**A1:** 5% **Support link:** 2.1 A.1

Strengthens the local capacities of institutions and/or communities to make informed decisions to anticipate negative effects derived from climate change (recognition of vulnerability conditions).	The project includes the development of a training plan aimed at transferring knowledge to the local community across environmental, social, and economic components. This initiative, along with the implementation of the governance strategy, provides key tools for informed decision-making regarding environmental and productive governance at the farm and local levels. It enables communities to anticipate the negative effects of climate change by recognizing conditions of vulnerability.	**G1:** Training and skills development for men and women linked to the project in the technical-environmental, social and administrative-financial areas, with the purpose of strengthening their capacities and improving decision-making aligned with the project's objectives.	**G1.1:** 74 **G1.2:** 10 **Support link:** 2.4. G.1
		G2: Deployment of the governance strategy in the territory, promoting participatory decision-making for the sustainable management of strategic ecosystems.	**G2:** **Support link:** 2.5. G.2

Source: Fundación Cataruben, 2025.

7 Carbon ownership and rights

During the current monitoring period, the project has monitored land tenure to ensure respect for the property rights of the linked properties.

The project is implemented exclusively on private properties, whose tenure was previously verified through legal review of updated documentation. Given the legal vacuum that exists in Colombian law regarding carbon ownership, an analysis of the regulatory framework applicable to private property has been carried out, in order to

support real rights over the benefits derived from the project. In this context, carbon rights continue to be directly linked to land use and enjoyment rights, in accordance with the contracts previously signed between the project holder and the owners. Since the project falls under the AFOLU sector, carbon rights are intrinsically linked to land tenure rights. Each conservation contract was signed exclusively with legally recognized owners. During the 2022-2024 monitoring period, no tenure conflicts or claims by third parties have been identified on the properties linked to the project.

It should be noted that the project does not link territories belonging to indigenous peoples or ethnic communities, therefore, no agreements have been signed with traditional authorities. All current agreements have been signed by natural or legal persons legally accredited as owners of the lands intervened.

Currently, the project continues with 120 linked properties, of which 108 are owned, 10 are possessed and 3 are held (tenedores de tierras). As part of the monitoring for the 2022-2024 period, the documents accrediting the tenure of each property were updated and reviewed. (2. Anexos / 1. Propiedad del Carbono / 1.1. Certificados de Tradición y Libertad).

Table 13. Linked Properties Land tenure Status

NO.	Property	Landowner	Status of Tenure
1	Cartagena	Jairo Fernandez Berroteran / Omaira Maria Fernandez Berroteran	Posesión
2	Campo Hermoso	Merci Lopez Acevedo	Posesión
3	El Cielo	Gloria Ines Cedeño Garcia	Posesión
4	La Esperanza	Pedro Antonio Acosta	Posesión
5	La Revancha	Wilson Javier Dinas Vivas	Posesión
6	Los Esfuerzos	Rafael Antonio Riveros Cardozo	Posesión
7	Lote 6	Fabio Andrés Pulido Rivera / María Camila Pulido Rivera	Posesión
8	Naranjal	Luis Alberto Lopez Pregonero	Posesión
9	San Esteban	Jairo Fernandez Berroteran / Omaira Maria Fernandez Berroteran	Posesión
10	Villa Blanca	Yolman Alfredo Acosta Gaitan	Posesión
11	Altagracia	Masmela Tirso Gustavo	Propiedad
12	Altamira	Am Constructores S.A.	Propiedad
13	Babilonia	Didimo Emilio Cristancho Tarache/ Ofelia Del Pilar Latriglia Avila	Propiedad
14	Banco Fresco	Jose Dario Hernandez Hurtado / Mabel Cristiano Rincon	Propiedad

15	Buenavista	Andrea Hernández Betancourt	Propiedad
16	Buenavista I	Carlos Arturo Zambrano Fuentes	Propiedad
17	Buenos Aires	Gilmar Ignacio Madrid Angel	Propiedad
18	Buenos Aires	Edilberto Cruz Rodriguez	Propiedad
19	Campo Lindo	Cirilo Hernandez / Damaris Conde	Propiedad
20	Candelaria Uno	Andres Reyes Diaz	Propiedad
21	El Amparo	Martha Dignory Rojas Holguin	Propiedad
22	El Algarrobo	Vicente Cortes Guarin Y Mireya Nuñez De Cortes	Propiedad
23	El Baul De Los Recuerdos	Edilia Cristina Camargo Gil	Propiedad
24	El Brillante	Jairo Manuel Parales Miller	Propiedad
25	El Cairo	James García / Yoryi García / Herlendis García / Lisnelia García	Propiedad
26	El Canal Lote Uno	Vilma Vargas	Propiedad
27	El Cebú	Wilson Orlando Valderrama Aguilar	Propiedad
28	El Control	Yenny Marlene Gutierrez Oropeza	Propiedad
29	El Corozo	Manuel Guzmán Puerta Guerra	Propiedad
30	El Delirio	Javier Orlando Parales /Julian Edaurdo Baron	Propiedad
31	El Espejo	Oscar Zambrano Silva / Ana Abril Tunarosa	Propiedad
32	El Garcero	Vicente Cortes Guarin	Propiedad
33	El Garcero	Rafael Antonio Riveros Cardozo	Tenencia
34	El Guamo	Luis Angel Madrid Berroteran	Propiedad
35	El Milagro	Homero Antonio Garcia Agudelo	Propiedad
36	El Morichal De Los Deseos	Jose Ramon Gonzalez Lizcano / Argerima Varon Montealegre	Propiedad
37	El Morrocoy	Nicolas Antonio Ojeda Y Rosa Florez	Propiedad
38	El Palmar	Paco Benavides Ruíz Y Carmen Cecilia Benítez García	Propiedad
39	El Porvenir	Ronis Lisandro Delgado Fernandez	Propiedad
40	El Remache 1	Dora Maria Pan De Betancourt	Tenencia
41	El Rincón	Las Colineras Inversiones Sa	Propiedad
42	El Sinaí	Alejo Alfredo Aponte Arias	Propiedad
43	El Tirrigal	Eduardo Fernandez Delgado	Propiedad
44	El Tranquero	Julian Ricardo Ramirez Hernandez	Propiedad
45	Finca Altagracia	Edgar Mendoza Sierra	Propiedad
46	Finca Cuernavaca	Oscar Eduardo Santana Santana	Propiedad
47	Finca El Conuco	José Nicolas Maurno Cisneros	Propiedad

48	Finca El Ponque 2	Cesar Facundo Torres Serrano	Propiedad
49	Finca El Ponque 3	Diego Alejandro Torres Garavito	Propiedad
50	Finca El Torreño Dos	Robert Julio Torres Godoy / Rosa Victoria Cisneros De Fernandez	Propiedad
51	Finca La Arenosa 3	Licet Yadira Torres Ospina	Propiedad
52	Finca La Arenosa Dos	Maria Consuelo Ospina De Torres / Licet Yadira Torres Ospina	Propiedad
53	Finca La Bonanza	Oscar Sadid Santana Maurno	Propiedad
54	Finca La Costeña	Luis Ernesto Rodriguez Quenza	Propiedad
55	Finca La Esperanza	Gloria Eugenia Cardenas / Luis Efren Cardenas / Aldemar Parra / Judy Perez	Propiedad
56	Finca La Fuente De Oro	Alvaro Sigifredo Vega	Propiedad
57	Finca La Ponderosa	Richards Jose Santana Magurno	Propiedad
58	Finca La Ponderosa	Jose Luis Garrido Sanchez / Ana Francisca Tineo Infante	Propiedad
59	Finca Las Delicias	Yudys Janeth Reuto Reuto	Propiedad
60	Finca Las Pampas	Pedro Vidal Arenas Angel	Propiedad
61	Finca Los Corazones	Yolima Sierra Parra	Propiedad
62	Finca Los Paraguitos	Elguer Ernesto Ojeda / Carmen Yasmina Vasquez	Propiedad
63	Finca Los Pionios	Fenibal Andres Zuluaga Quintero	Propiedad
64	Finca Palmar	Mendoza Bohorquez Bolivar	Propiedad
65	Finca San Juan Lote	Vianey Pastrana Chaparro	Propiedad
66	Finca Santa Ana	Nelsa Romero	Propiedad
67	Finca Santa Barbara	Cilia Graciela Osorio	Propiedad
68	Finca Santa Barbara	Olga Cecilia Puerta Osorio	Propiedad
69	Finca Santa Martha	Carmen Beatriz Bolivar Villazana	Propiedad
70	Finca Suro Verde	Rosa Ediomilina Alvarado De Ibica	Propiedad
71	Finca Vendaval	Oscar Julian Murcia Hidalgo	Propiedad
72	Finca Vida Tranquila	Ciro Antonio Sanchez Vega	Propiedad
73	Finca Villa Tania	Tania Leidy Garces Gaitan	Propiedad
74	Franfol	Tania Leidy Garces Gaitan	Propiedad
75	Guaratal 2	Rafael Antonio Riveros Cardozo	Propiedad
76	Hacienda El Rosal	Yamile Hernandez Vargas	Propiedad
77	La Bendición	Carlos Hernan Barragan	Propiedad
78	La Calandria	Ana Alfonsa Guerra Viuda De Puerta	Propiedad
79	La Candelaria	Andres Reyes Diaz	Propiedad
80	La Cascabel	Diana Alexandra Braydi Eslava	Propiedad
81	La Cucaracha	Vianey Pastrana Chaparro	Propiedad
82	La Esperanza	Pedro Vidal Arenas Angel	Propiedad

83	La Florida	Gilma Del Carmen Madrid Berroteran Y Luis Angel Madrid Berroteran	Propiedad
84	La Gloria	Gloria Esther Parada	Propiedad
85	La Honda I	Rafael Antonio Riveros Cardozo	Propiedad
86	La Libertad	Blanca Xiomara Bustamante	Propiedad
87	La Macolla	Mary Sol Parada Vargas, José Uber Garcia Farfan	Propiedad
88	La Magola	Efidelia Madrid- Sergio Antonio Hidalgo	Propiedad
89	La Maporoza	Claudia Tatiana Rincon Perez / Maria Del Pilar Rincón Perez	Propiedad
90	La Palmita	Willinton Benavides Ruiz Y Magda Johana Romero Aguirre	Propiedad
91	La Yubereña	Rosalba Cristancho Tarache	Propiedad
92	Lagunitas	Raquel Zambrano Silva	Propiedad
93	Las Brisas	Ana Brigida Angel Arenas	Propiedad
94	Las Brisas	Libia Margarita Maurno Cisnero	Propiedad
95	Las Brisas	Jorge Eduardo Garcia Torres	Propiedad
96	Las Escudillas	Miguel Angel Diaz Sanchez	Propiedad
97	Las Garzas	Lyda Maria Ochoa Tumay	Propiedad
98	Las Pampas	Shirley Johanna Mendoza	Propiedad
99	Los Arrecifes	Bethsy Miladis Gutierrez Oropeza / Ciro Alfonso Silva	Propiedad
100	Los Siete Diamantes	Diego Alejandro Torres Garavito	Propiedad
101	Lote 1	Wilson Orlando Valderrama Aguilar	Propiedad
102	Lote 2	Wilson Orlando Valderrama Aguilar	Propiedad
103	Lote 2 Ana Maria	Dagoberto Bravo Uribe	Propiedad
104	Lote Dos (San Felipe 2)	Maria Lucila Reyes	Tenencia
105	Lote La Mosca	Luz Marina Granados	Propiedad
106	Lote Número Tres El Paraíso	Eduardo Antonio Martinez Parales	Propiedad
107	Lote Número Uno La Esperanza	Eduardo Martinez Sarmiento	Propiedad
108	Mata De Samuro	Carlos Alberto Farfan	Propiedad
109	Miralindo	Salazar Garcia Devier / Perez Cibo Carmen Elisa	Propiedad
110	Miramar	Wilmer Javier Mujica Colmenares	Propiedad
111	Moscu	Trino Isnardo Torres Muñoz	Propiedad
112	No Se Sabe	Benito Barrera Wilches / Armira Rincon Mujica	Propiedad
113	Panamá	Eucaris Quintero Lopez, Jose Zuluaga, Fenibal Zuluaga, Zuleina Zuluaga	Propiedad
114	Puerto Lindo	Luisa Maria Herrera Vivas	Propiedad
115	San Benito	Marcio Salomon Benavides Ruiz	Propiedad

116	San José	Dagoberto Bravo Uribe	Propiedad
117	San Juan 2	Vianey Pastrana Chaparro	Propiedad
118	Santo Domingo Florideño	Luis Angel Madrid Berroteran	Propiedad
119	Villa Fernanda	Elkin Benavides Ruiz	Propiedad
120	Villa Martha	German Anzola / Jorge Anzola / Luis Fernando Anzola / Angel Lizcano / Juan Lizcano / Martha Anzola / Oscar Anzola	Propiedad

Fuente: Fundación Cataruben, 2025.

A change of ownership was identified in one property. The new owners were contacted and, after being informed about the project, expressed their interest in remaining involved. Therefore, a contract assignment document was signed, ensuring the continuity of activities on the property. (2. Anexos / 1. Propiedad del Carbono / 1.2. Cesiones de Contrato).

Table 14. Properties that changed ownership.

NO.	NOMBRE DEL PREDIO	TITULAR DE DOMINIO ANTERIOR	TITULAR DE DOMINIO ACTUAL	FECHA DE CAMBIO DE TITULAR
2	Las Garzas	Lyda Maria Ochoa Tumay	Sandy Yulieth Prada Ochoa	13/06/2024

Source: Fundación Cataruben, 2025.

Within the due diligence process of the ecosystem managers, three high-risk cases were identified for the project. Additionally, in one case, communication with the manager was not achieved, despite attempts. Therefore, the contracts linking these properties to the project are in the formal process of termination. Consequently, this monitoring period does not present mitigation results for these areas.

Table 15. Properties in the process of being withdrawn from the project.

NO.	NOMBRE DEL PREDIO	GESTOR DEL ECOSISTEMA
1	El Cairo	Jesus Mejia Ruiz
2	El Zaman	Jesus Mejia Ruiz
3	La Libertad	Jesus Mejia Ruiz
4	El Renacer	Edilberto Cruz Rodriguez

Source: Fundación Cataruben, 2025.

It was verified that there have been no further modifications in the ownership of the land that could affect property rights, carbon rights, or project benefits.

8 Environmental Aspects

According to the guidelines established in Annex A (Questionnaire) of the *Sustainable Development Safeguards* tool, version 1.1 of July 4, 2024, a comprehensive evaluation of the environmental impacts associated with the implementation of activities during the period 2022-2024 was carried out.

This evaluation considered not only aspects related to the efficiency of land and water resource use, but also the protection of biodiversity, the conservation of ecosystems, and the project's contribution to climate change mitigation. Based on the aforementioned questionnaire, an analysis matrix was designed in which the identified environmental impacts are recorded and documented.

The results indicate that no negative impacts on natural resources, biodiversity, or climate change were identified (2. Anexo / 6. Aspectos ambientales y Socieconómicos / Anexo A: Cuestionario de evaluación de la herramienta Salvaguardas de Desarrollo Sostenible - CO2BioP2-2). This absence of negative impacts is attributed to the project's design, which prioritizes ecosystem and biodiversity conservation. The activities are based on sustainable practices and are complemented by training aimed at managers to strengthen environmental awareness. In addition, all actions are oriented towards environmental protection and the reduction of greenhouse gas (GHG) emissions, reflecting an environmentally responsible approach..

9 Socioeconomic Aspects

High-category negative impacts were not identified. The project has mitigated social risks through a design based on sustainability, community participation, training with a gender focus, and policies that guarantee individual and collective rights. Furthermore, a continuous evaluation is projected for the next monitoring period (2. Anexo / 6. Aspectos ambientales y SocieconómicosAnexo A: Cuestionario de evaluación de la herramienta Salvaguardas de Desarrollo Sostenible - CO2BioP2-2)

10 Stakeholders' Consultations

During the implementation of the CO2Bio P2-2 project, ensuring continuous and effective communication with local stakeholders has been crucial, involving the establishment of a comprehensive engagement mechanism. This process has

combined periodic meetings, newsletters, events, workshops, the use of digital platforms, active participation in conservation spaces, and the execution of a solid governance strategy. These actions have allowed for the establishment of an open and ongoing dialogue with ecosystem managers, local communities, NGOs, and government entities, promoting their active participation in the decisions and activities of the project.

Regarding the documentation of received comments, a formal mechanism has been established to properly record and respond to all observations and suggestions from stakeholders. This mechanism relies on digital platforms and a system for tracking inquiries and complaints (PQRS), ensuring that each comment received is documented and that a clear and timely response is provided. Comments have been reviewed by the project team, and if necessary adjustments have been identified, they have been incorporated into the project's actions. In this way, it has been ensured that the responses are transparent and accessible to all stakeholders.

This collaborative approach has strengthened strategic alliances, enhanced environmental education, and facilitated continuous feedback, significantly contributing to the achievement of our conservation and climate change mitigation goals. Below, we highlight some of the main collaborations:

- Biodiversity, Carbon, and Water Forum: Since 2020, the Cataruben Foundation has organized this event annually in commemoration of Earth Day. It has become a key space to share progress, present new proposals, and report back to the community. The forum brings together experts in biodiversity, climate change, and water resources, promoting the exchange of experiences and the strengthening of an active collaboration network (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.2. Salvaguarda B / 3.2.4. B5 - Fortalecimiento de capacidades / G1. Fortalecimiento de capacidades / 2.8 Fortalecimiento de capacidades / 2.4. G.1 / 2.4.1. Informes capacitaciones / 3.11. III & 3.12 IV Foro de biodiversidad + Carbono & Agua 2023).
- Participation in the SIRAPO: During the 2022–2023 period, the project holder participated as a member of the steering committee of the Regional System of Protected Areas of the Orinoquia (SIRAP-Orinoquia), actively contributing to the planning and management processes of protected areas in the region. This participation allowed for the coordination of actions with local stakeholders to strengthen conservation and the sustainable use of the territory. In this context, it was confirmed that the project was shared in these spaces, and to date, no formal observations or requests for feedback have been recorded from the stakeholders. (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.4. Salvaguarda

D / 3.4.1. D10. Participación / 3.4.1.2 Mecanismos de participación / Acta comité directivo SIRAPO).

- Effective communication strategy: We have kept ecosystem managers and other stakeholders informed through digital platforms and communication tools, continuously sharing achievements, progress, and participation opportunities (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.2. Salvaguarda B / 3.2.1. B2 - Transparencia y acceso a la información).
- PQRS mechanism: Document the PQRS mechanism and include those received up to 2024, as well as the responses provided to close these PQRS (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.2. Salvaguarda B / 3.2.1. B2 - Transparencia y acceso a la información / 2.2 Sistema de PQRS).
- CO2Bio Governance Table: A participatory governance strategy was consolidated through the establishment of a Governance Table that integrates ecosystem managers (carbon owners), LATAM Airlines as a strategic partner, and the Cataruben Foundation as the project holder. This body guides and drives the project's actions, strengthening capacities, promoting access to information, and coordinating efforts to maximize social, environmental, and climate benefits (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.2. Salvaguarda B / 3.2.3. B4 - Reconocimiento de las estructuras de gobernanza forestal / 2.7 Estrategia de Gobernanza).

11 REDD+ Safeguards

For the periodic and adequate monitoring of safeguards, a tool was designed to evaluate and track their compliance. This tool, adapted to the specific characteristics of the project, incorporates predefined indicators and goals. It also considers the necessary requirements to demonstrate compliance with the BCR standard, as well as the elements established in the national interpretation of safeguards (2. Annexes / 3. Safeguard Compliance / 3.8. Plan y Reporte Monitoreo SALVAGUARDAS (CO2Bio P2-2)).

Compliance with the safeguards is closely linked to various components of the project, such as compliance with national regulations, project activities, co-benefits generated, permanence, leakage management, carbon ownership and rights, stakeholder consultation, among others. Consequently, the evidence supporting compliance with these aspects also contributes to demonstrating compliance with the safeguards.

The following details the mechanisms through which compliance with each REDD+ safeguard is guaranteed during the 2022-2024 period.

11.1 Safeguard A

"The complementarity or compatibility of the measures with the objectives of national forest programs and international conventions and agreements on the matter."

11.1.1 A1 Correspondence with National Legislation

An exhaustive analysis was carried out to ensure that the project activities comply with international agreements and national legislation on forest conservation, biodiversity, and climate change. This analysis was documented in the Legal Compatibility Matrix (see Annexes / Safeguard Compliance / Safeguard A / A1 - Correspondence with National Legislation / Legal Compatibility Reports / Matriz de Compatibilidad Legal).

The attached matrix demonstrates the alignment of the activities implemented between 2022 - 2024 with current regulations. Its conformity with international agreements such as the Convention on Biological Diversity, the Paris Agreement, the United Nations Framework Convention on Climate Change, and the Ramsar Convention is highlighted. Likewise, its coherence with national policies such as the National Policy for the Integral Management of Biodiversity and its Ecosystem Services and the National Climate Change Policy, among other strategic frameworks of the country, is evident.

For the second verification, the matrix was updated and adjusted according to the analysis of the 2022–2024 period, including the recent progress of the project and relevant regulatory or programmatic changes. The attached report details this update, providing traceability and evidence of the progressive fulfillment of the environmental, climate, and social sustainability commitments of the CO2Bio P2-2 project.

The analysis confirms that the project's actions comply with the objectives and goals of these regulatory frameworks, ensuring their coherence with Colombia's environmental commitments. Consequently, the effective contribution of the project to the conservation and sustainable management of natural resources is evident.

Table 16. Approach and compliance with safeguard A.

SAFEGUARD THEMATIC NATIONAL INTERPRETATION: INSTITUTIONAL		
Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	**Element of National Interpretation Requirement**	**Evidence of Compliance**

On compatibility: Demonstrate that the project activities are in accordance with these policies and that they are not contrary to them.	A1 Correspondence with national legislation: REDD+ policies, actions and measures must be fully aligned with the international agreements signed by Colombia, as well as with national legislation and public policies on forest conservation, biodiversity and climate change. It is essential to consider the current regulatory framework, since ignorance of it does not exempt from compliance with its provisions.	A Legal Compatibility Matrix was prepared, in which each of the activities implemented within the framework of the CO2Bio P2-2 project were related and aligned with current regulations, both nationally and internationally.(2. Annexes / 3. Compliance with Safeguards / 3.1 Safeguard A / 3.1.1. A1 - Correspondence with national legislation)

Source: Fundación Cataruben, 2025.

Table 17. Percentage of progress in compliance with Safeguard A, with respect to the Monitoring Plan.

SAFEGUARD				
National Element	**Item**	**Indicator Name(s)**	**(%) Advance 2022-2024**	**(%) Global Goal Compliance**
A1. Correspondence with national legislation	1.1	Legal Compatibility Reports	**7.5**%	**68**%

Source: Fundación Cataruben, 2025.

11.2 Safeguard B

"The 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 updated regularly. Be transparent and flexible to allow for improvements over time. Build on existing systems, if any."

11.2.1 Transparency and access to information

- ***Communication Channels***

2022 - 2024, the CO2Bio P2-2 project's Communication Plan matrix was finalized. This strategic tool organizes the various means and channels of dissemination used for effective, transparent, and timely communication. The matrix covers elements such as radio spots, emails, socialization days, community events, and the distribution of digital

documents. This has ensured that ecosystem managers and other project stakeholders have constant access to information.

Within the framework of this strategy, the Regional Beneficiary Service Center (CARBO) was strengthened, a fundamental instrument for the application of the project's territorial approach in the Orinoquia region. This center has a multidisciplinary team of professionals who actively manage communication and relationship-building with beneficiaries, both in person and remotely. Their work consists of answering queries, providing technical support, and ensuring a constant flow of information throughout the project cycle (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.2. Salvaguarda B / 3.2.1. B2 - Transparencia y acceso a la información / 2.1 Canales de Comunicación).

To this end, several communication channels adapted to the regional context were implemented to maintain continuous contact and facilitate the dissemination of information and the resolution of beneficiaries' concerns. These channels included WhatsApp, telephone line, and email, allowing information to be provided on activities, technical and administrative requirements, as well as receiving, following up on, and resolving requests, doubts, and concerns.

- ***PQRS System***

As part of strengthening the communication process with beneficiaries and other project stakeholders, the use of the Petitions, Complaints, Claims, and Suggestions (PQRS) System was actively promoted. This mechanism has made it possible to manage and respond efficiently to concerns, requests, and observations received.

During the 2022-2024 period, the following PQRS were registered and addressed:

- In 2023: 3 petitions and 4 complaints were managed.
- In 2024: 3 petitions, 1 complaint, and 1 claim were managed.

All PQRS were addressed in a timely manner and are currently closed, demonstrating the effectiveness of the response and follow-up process (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.2. Salvaguarda B / 3.2.1. B2 - Transparencia y acceso a la información / 2.2 Sistema de PQRS).

- ***RENARE Registry***

To guarantee transparency, traceability, and regulatory compliance in the development

of the CO2Bio P2-2 Project, it has been registered in the National Registry of Greenhouse Gas Emission Reductions (RENARE), the official platform of the Ministry of Environment and Sustainable Development responsible for accounting for and verifying GHG emission reductions in Colombia (2. Annexes / 3. Safeguard Compliance / 3.2. Safeguard B / 3.2.1. B2 - Transparency and access to information / 2.3 RENARE Registry).

This registration represents a fundamental step for the project's national legitimacy and validation, and reinforces its alignment with the country's climate commitments. Currently, the transition from the formulation phase to the implementation phase is being managed, which implies the formalization of commitments and the strengthening of the project's operational monitoring. However, the platform is not yet fully operational, which has hindered progress in the process.

11.2.2 Accountability

Within the framework of the CO2Bio P2-2 project implementation, newsletters were prepared and disseminated to clearly and promptly communicate the project's progress, activities, results, and achievements to the Ecosystem Managers. These newsletters were sent by email and through the project's WhatsApp group, which facilitated quick and direct access to information. During 2022, two newsletters were projected and delivered; in 2023, six were issued, and in 2024, a general newsletter was prepared (2. Annexes / 3. Safeguards Compliance / 3.2. Safeguard B / 3.2.2. B3 - Accountability / 2.4 Informes de Gestión).

Additionally, spaces for knowledge transfer and participatory forums were enabled during in-person and virtual meetings, where the project's main progress was socialized and the exchange of experiences among participants was promoted.

To further strengthen transparency and ownership of the results by the ecosystem managers, Carbon Certificate Issuance Reports were prepared and delivered. These documents detail the number of certificates generated by each property linked to the project during the last verification. This allowed each manager to clearly know the number of certificates attributable to their property (2. Annexes / 3. Safeguards Compliance / 3.2. Safeguard B / 3.2.2. B3 - Accountability / 2.4.1 Estados de Cuenta).).

Likewise, Account Statements were delivered, which present in detail the economic benefits obtained from the commercialization of carbon certificates, as well as the movements and inventories of verified certificates for each property (2. Annexes / 3. Safeguards Compliance / 3.2. Safeguard B / 3.2.2. B3 - Accountability / 2.4.2 2.4.2 Reportes de Emisión de Certificados de Carbono).

These information mechanisms were reinforced through capacity-building spaces and various community activities, where the results achieved were socialized and the operation of the CO2Bio P2-2 project was explained in detail. These actions contributed to strengthening collective knowledge, promoting more informed, active, and committed participation by the actors involved, as well as a progressive appropriation of the project in the territories.

11.2.3 Recognition of forest governance structures

Forest governance is based on the capacity of local communities to make decisions about the management and sustainable use of their natural capital. Strengthening these local governance structures is fundamental to guarantee the long-term sustainability of the territories and the implemented projects. In this context, and as part of the execution of activity “G2” of the CO2Bio P2-2 project, a Governance Strategy was designed that establishes a legal and institutional framework, aligning the project's operation with the Foundation's internal policies and the current regulatory framework.

This strategy seeks to promote efficiency, equity, and transparency through the implementation of participatory mechanisms, accountability, and access to information. Its central objective is to consolidate a governance model that provides tools, capacities, and conditions so that the actors involved —particularly local communities and property owners— can make informed, responsible decisions aligned with the principles of sustainable development (2. Annexes / 3. Safeguard Compliance / 3.2. Safeguard B / 3.2.3. B4 - Recognition of forest governance structures / 2.5 Estrategia de Gobernanza).

During the years 2022 - 2024, the Cataruben Foundation actively participated in the Regional System of Protected Areas of the Orinoquia (SIRAP Orinoquia – SIRAPO) as a member of the steering committee. Its role within this body was key to strengthening inter-institutional articulation and contributing to the planning, management, and monitoring of protected areas in the region. Through this participation, Cataruben contributed its technical and territorial experience in environmental planning processes, conservation of strategic ecosystems, and promotion of the sustainable use of natural resources. This collaboration also allowed coordinating actions with environmental authorities, civil society organizations, and local communities, consolidating a shared governance approach and strengthening the institutional fabric around the protection of the Orinoquia's natural heritage (2. Annexes / 3. Safeguard Compliance / 3.2. Safeguard B / 3.2.3. B4 - Recognition of forest governance structures / 2.5.3. SIRAP).

On the other hand, the Cataruben Foundation joined the Board of Directors of the Colombian Association of Carbon Actors (ASOCARBONO), from where it played a strategic role in the consolidation and strengthening of the carbon market in Colombia.

In this space, it established key alliances with actors from the public, private, and international cooperation sectors, aimed at promoting good practices, quality standards, and regulatory frameworks that strengthen the transparency, traceability, and environmental integrity of carbon projects.

This collaboration has been fundamental to advance in the implementation of public policies, technical guidelines, and innovative projects that contribute significantly to the reduction of greenhouse gas emissions, while promoting ecosystem conservation, rural development, and climate change mitigation in the country (2. Annexes / 3. Safeguard Compliance / 3.2. Safeguard B / 3.2.3. B4 - Recognition of forest governance structures / 2.5.4 ASOCARBONO).

11.2.4 Capacity building

Within the framework of the execution of the project's "G1" activity, aimed at strengthening the capacities and skills of men and women linked to the initiative, various training actions were implemented targeting key actors in the territory. As part of this strategy, 10 training sessions were developed, with the participation of a total of 74 ecosystem managers.

The contents covered essential topics such as the measurement and monitoring of carbon in forests and wetlands, sustainable forest management, strategies to prevent forest fires, and the role of wetlands in biodiversity conservation. Social and financial dimensions were also addressed, including safeguards and tax commitments associated with carbon projects. Additionally, the Ecolíderes program was launched, whose objective is to strengthen community leadership in the management of conservation mechanisms.

In a complementary way, articulation spaces were promoted with allied organizations such as LATAM Airlines, USAID, Casa Luker and Ecopetrol, within the framework of the III and IV Biodiversity, Carbon and Water Forum, events that brought together a total of 628 people, including ecosystem managers, environmental and social organizations, and members of civil society (2. Annexes / 3. Compliance with Safeguards / 3.2. Safeguard B / 3.2.4. B5 - Capacity building /2.6 Fortalecimiento de capacidades).

These scenarios have been key to fostering the exchange of knowledge, consolidating collective learning, and recognizing the role of local governance. Thanks to active participation, it has been possible to integrate the technical expertise of the Cataruben Foundation with the territorial knowledge of the Ecosystem Managers and the community in general, facilitating more relevant and sustainable decision-making

processes. This approach has contributed to the strengthening of local capacities and the promotion of conservation led from the territories.

Table 18. Approach and compliance with safeguard B

SAFEGUARD B THEMATIC NATIONAL INTERPRETATION: INSTITUTIONAL		
Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	**Element of National Interpretation Requirement**	**Evidence of Compliance**
Implement tools that guarantee the effective, transparent and efficient dissemination of information associated with Project activities. To do this, you must keep a record of the means used for disclosure.	B2. Transparency and Access to Information: Ttransparent, accessible and clear. Disseminate through workshops, documents and the internet, adapting to needs.	Within the framework of the implementation of the project activities (ID G1 and G2), communication and information dissemination channels were strengthened, including the use of the Requests, Complaints, Claims and Suggestions (PQRS) system, as well as holding meetings with allied organizations. Additionally, the project was registered in the National Emissions Reduction Registry (RENARE), complying with the established regulatory requirements (2. Annexes / 3. Compliance with Safeguards / 3.2. Safeguard B / 3.2.1. B2 - Transparencia y acceso a la information)
	B3. Accountability: Be accountable for management and results.	Within the framework of the implementation of the project activities (ID G1 and G2), management reports, carbon certificate emissions reports and the respective account statements were issued, in order to guarantee traceability, transparency and monitoring of the progress of the project. (2. Annexes / 3. Compliance with Safeguards / 3.2. Safeguard B / 3.2.2. B3 - Rendición de cuentas)
	B4. Recognition of Forest Governance Structures: Recognize and strengthen those who decide on forests so that they participate in decision-making.	Within the framework of the implementation of the project activities (ID G2), a territorial governance strategy was designed aimed at strengthening the processes of participation, decision-making and sustainable management of natural resources in the area of influence of the project. (2. Annexes / 3. Compliance with Safeguards / 3.2. Safeguard B / 3.2.3. B4 - Reconocimiento de las estructuras de Gobernanza Forestal)

	B5. Capacity Building: Strengthen the capacities of actors in technical, legal and administrative areas to improve decision making.	Within the framework of the implementation of the project activities (ID G1), 10 spaces for knowledge exchange, 2 forums and a program to strengthen environmental leadership were created (2. Annexes / 3. Compliance with Safeguards / 3.2. Safeguard B / 3.2.4. B5 - Fortalecimiento de capacidades)

Source: Fundación Cataruben, 2025.

Based on the previous table, the progress of compliance with Safeguard B and its indicators in relation to the average of the global goal is presented below.

Table 19. Percentage of progress in compliance with Safeguard B, with respect to the Monitoring Plan.

SAFEGUARD B				
National Element	**Item**	**Indicator Name(s)**	**(%) Advance 2022-2024**	**(%) Global Goal Compliance**
B2. Transparency and Access to information	2.1	Implementation of the ideal communication channels to deliver and share project information.	**20%**	**41**%
	2.2	PQRS system for addressing and responding to comments, questions, suggestions or complaints	**10%**	
	2.3	Project records in RENARE	**5%**	
B3. Accountability	2.4	Project management reports	**10%**	
B4. Recognition of Governance Structures	2.5	Territorial governance strategy	**5%**	
B5. Training Strengthening	2.6	Socializations, workshops, knowledge exchange, capacity building and other scenarios that contribute to building a participatory dynamic.	**15%**	

Source: Fundación Cataruben, 2025.

11.3 Safeguard C

"Respect for the knowledge and rights of indigenous peoples and members of local communities, taking into account relevant international obligations and national circumstances and legislation, and taking into account the United Nations General Assembly on the rights of indigenous peoples."

11.3.1 C6 Free prior and informed consent (FPIC)

The consent of the communities linked to CO2Bio P2-2 was managed through various spaces dedicated to strengthening capacities, such as training, exchanges and forums. These meetings were previously communicated, detailing the scope of each activity. The participation of the Ecosystem Managers was free and voluntary in all cases (2. Annexes / 3. Safeguard Compliance / 3.3. Safeguard C / 3.3.1. C6 Mesas de trabajo realizadas con las comunidades).

A key step in this process was the updating of the Property Implementation Plans, through which the Ecosystem Managers formally reaffirmed their consent to continue with the conservation activities of natural ecosystems. These plans not only consolidated their commitment to conservation planning, but also clearly defined how these activities will be carried out on their properties throughout the entire project.

11.3.2 C7 Respect for traditional knowledge

In compliance with this requirement, detailed information on the ethnic communities legally recognized or in the process of legalization in the departments of Arauca, Casanare, Meta and Vichada was requested from the National Land Agency (ANT). Based on this information, a precise inventory was prepared that made it possible to identify and avoid possible overlaps between the properties linked to CO2Bio P2-2 and the ethnic territories. This inventory incorporates maps that facilitate a clear and exact visualization of the location of these communities. (2. Annexes / 3. Compliance with Safeguards / 3.3. Safeguard C / 3.3.2. C7 - Respect for traditional knowledge / Comunidades).

Cataruben strictly complies with national regulations on private property, guaranteeing that the project activities do not generate negative effects on the social fabric, traditional knowledge or local forms of use and relationship with the territory. This responsibility is reflected in the implementation of legal and social verification mechanisms that ensure the legitimacy of the property relationship and respect for the rights of third parties.

Additionally, in order to avoid overlaps with collective territories, the corresponding management of the Request for Origin and Opportunity for Prior Consultation was carried out before the Ministry of the Interior. As a result, in 2022 the Directorate of the National Prior Consultation Authority issued Resolution No. ST-0003, through which it was determined the non-originand prior consultation with Indigenous, Black, Afro-Colombian, Raizales, Palenqueras and Roma communities, for the area and scope defined in CO2Bio P2-2.

During the period 2022–2024, there were no territorial expansions of the project or modifications in the intervention area that imply the impact of legally recognized ethnic communities or those in the process of constitution. This geographical stability, added to the previous verification procedures, guarantees that the project fully respects collective rights and applicable national legislation (2. Annexes / 3. Safeguard Compliance / 3.3. Safeguard C/ 3.3.2. C7 Respect for traditional knowledge / Resolución No. ST-0003).

11.3.3 C8 Profit distribution

During the 2022–2024 monitoring period, the commercialization of the carbon certificates issued and released in the previous CO2Bio P2-2 verification has generated concrete economic benefits, which have been distributed equitably among the Ecosystem Managers. The distribution strategy was based on the inventory management approach ABC, applied to carbon projects, which prioritizes the allocation of benefits starting with the properties that generated the smallest number of certificates. This approach seeks to avoid excessive fragmentation of amounts, ensuring that all managers receive significant payments for their participation, while optimizing the administrative efficiency of the benefits transfer process.

In coherence with this management model, it was prepared and presented the Management Report, which documents in detail:

- The number of carbon certificates issued and marketed during the period 2022–2024.
- The economic benefits derived from these transactions.
- The criteria, mechanisms and results of the distribution of benefits between the linked properties.

This report seeks to provide transparency, traceability and verifiable evidence of compliance with the principles of equity and efficiency defined by the project, and is available for review by third parties, verification organizations and strategic allies (2. Annexes / 3. Compliance with Safeguards / 3.3. Safeguard C/ 3.3.3. C8. Distribution of Benefits / 3.3.2.1 Distribution of Economic Benefits / Informe de gestión).

Likewise, as part of the commitment to transparency and traceability of the project, it includes the Inventory of Delivery of Economic Benefits corresponding to the first verification of CO2Bio P2-2. This document details in a structured manner the payments made to each of the ecosystem managers, specifying the amounts for each

of the properties (2. Annexes / 3. Compliance with Safeguards / 3.3. Safeguard C/ 3.3.3. C8. Distribution of Benefits / 3.3.2.1 Distribution of Economic Benefits / Informe entrega de beneficios económicos CO2BIO P2-2).

11.3.4 C9 Territorial rights

During the verification period, full respect for collective property rights over land has been guaranteed. In support of this commitment, Resolution No. ST-0003 of 2022 is presented, issued by the Directorate of the National Prior Consultation Authority of the Ministry of the Interior, which concluded that prior consultation is not appropriate for Indigenous, Black, Afro-Colombian, Raizales, Palenqueras and Rom communities in the project execution areas, located in the departments of Arauca and Casanare.

This resolution confirms that, within the project intervention area, there are no collective territories or ethnic communities legally constituted or in the process of recognition that require prior consultation processes, in accordance with the provisions of Colombian regulations. This provides legal certainty about the compatibility of the project with collective rights and avoids possible territorial conflicts, thus guaranteeing its responsible implementation and in accordance with the current legal framework (2. Annexes / 3. Compliance with Safeguards / 3.3. Safeguard C/ 3.3.3. C8. Distribution of Benefits / 3.3.4. C9. Territorial Rights / 3.3.3.3 Legal analysis of land tenure / 1.1 Certificados de Tradición y Libertad).

Regarding individual property, it was verified that the linked Ecosystem Managers maintain legitimate ownership of their lands, according to the exhaustive review of the updated legal documentation (deeds, certificates of freedom and tradition, and other legal supports). This property verification process guarantees that the rights of third parties—including neighboring communities or communities with territorial expectations—are not violated. Furthermore, this validation ensures that the economic benefits derived from the commercialization of carbon certificates are distributed equitably and in accordance with carbon ownership, respecting the direct relationship between property ownership and the right to receive benefits.

A detailed analysis of this component is found in section 7 of this document, entitled “Carbon Ownership”, which sets out the technical, legal and administrative criteria used to confirm the legality of land tenure and carbon ownership by project participants.

Table 20. Approach and compliance with safeguard C.

SAFEGUARD C THEMATIC NATIONAL INTERPRETATION: SOCIAL AND CULTURAL

Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	Element of National Interpretation Requirement	Evidence of Compliance
Recognize and respect the rights of the communities present in the territory, establishing working groups and other mechanisms that link them to the project from its pre-feasibility and structuring phase. Furthermore, it must integrate traditional ancestral knowledge and propose new forms of sustainable use of the territory.	C6. Free, Prior and Informed Consent (FPIC): Apply national provisions on prior consultation and free, prior and informed consent (FPIC), in accordance with current legislation, applicable jurisprudence and Ministry of the Interior guidelines.	Within the framework of the implementation of the project activities (ID G1 and G5), 10 training spaces and 2 forums. In addition, the Property Implementation Plan documents were updated. (2. Annexes / 3. Safeguard Compliance / 3.3. Safeguard C / 3.3.1. C6).
	C7. Respect for Traditional Knowledge: Respect and promote traditional knowledge, as well as the worldviews and forms of relationship with the territory of ethnic peoples and communities.	Within the framework of the implementation of the project, an inventory of the communities present was prepared and the resolution that determined the non-applicability of prior consultation for ethnic communities was managed.(2. Annexes / 3. Compliance with Safeguards / 3.3. Safeguard C / 3.3.2. C7).
	C8. Benefit Distribution: Guarantee the effective participation and equitable distribution of the benefits generated by the project.	Within the framework of the implementation of the project activities, they have been distributed $3.919.855.535,92 COP of economic benefits (2. Annexes / 3. Safeguard Compliance / 3.3. Safeguard C/ 3.3.3. C8).
	C9. Territorial Rights: Respect and safeguard the territorial rights, both collective and individual, of ethnic communities and local populations.	Within the framework of the implementation of the project activities, the resolution was managed that establishes the non-applicability of prior consultation for ethnic communities. In addition, a legal analysis was carried out on the ownership of the 120 linked properties (2. Annexes / 3. Compliance with Safeguards / 3.3. Safeguard C/ 3.3.3. C8. Distribution of Benefits / 3.3.4. C9).

Source: Fundación Cataruben, 2025.

Based on the previous table, the progress of compliance with Safeguard C and its indicators in relation to the average of each global goal is presented below.

Table 21. Percentage of progress in compliance with Safeguard C, with respect to the Monitoring Plan.

SAFEGUARD C				
National Element	**Item**	**Indicator Name(s)**	**(%) Advance 2021-2024**	**(%) Global Goal Compliance**
C6. Free, Prior and Informed Consent (CLIPI)	3.1	Work tables held with the communities.	**10%**	**22%**
C7. Respect for Traditional Knowledge		Analysis of developed community mappings		
C8. Profit Distribution	3.2	Monitor and ensure the proper distribution of economic benefits	**10%**	
C9. Territorial Rights	3.3	Legal analysis on land ownership	**10%**	

Source: Fundación Cataruben, 2025.

11.4 Salvaguarda D

"The full and effective participation of stakeholders, in particular indigenous peoples and local communities."

11.4.1 D10 Participation

During the monitoring period, multiple mechanisms were implemented to ensure the active, informed, and meaningful participation of ecosystem managers and other stakeholders in the project's development. These included in-person and virtual meetings, such as the III and IV Biodiversity, Carbon, and Water Forum, as well as technical training and knowledge exchange sessions. These scenarios not only fostered open dialogue and feedback among key actors but also strengthened the technical capacities of ecosystem managers by providing them with tools for a deeper understanding of the project and for their effective participation in decision-making related to conservation and territorial management (2. Annexes / 3. Safeguard Compliance / 3.4. Safeguard D / 3.4.1. D10. Participation / 3.4.1.2 Mecanismos de participación).

During the 2022–2024 monitoring period, access to information and interaction with project content were actively promoted through multiple communication channels, both digital and direct. The outreach strategy was strengthened through continuous dissemination on public social media platforms such as Facebook, Instagram, and YouTube, which broadened the project's communicative reach, facilitated free and open access to relevant information, and encouraged spontaneous participation from interested actors, local communities, and the general public. This digital strategy is

complemented by direct service channels such as telephone lines, WhatsApp, and email, ensuring fluid and accessible communication. Additionally, a Petitions, Complaints, Claims, and Suggestions (PQRS) system was enabled, through which ecosystem managers and other stakeholders could express their concerns, receive timely responses, and exercise their right to participate in project management. Together, these mechanisms strengthen transparency, accountability, and effective engagement with diverse audiences (2. Annexes / 3. Safeguard Compliance / 3.4. Safeguard D / 3.4.1. D10. Participation / 3.4.1.1 Medios de comunicación).

In summary, these mechanisms ensured the full and effective inclusion of all actors involved in the project, guaranteeing equitable and active participation. This participation was key to the project's success during the 2022–2024 monitoring period by facilitating informed, legitimate, and coherent decision-making processes aligned with the realities of the territory.

Table 22. Approach and compliance with safeguard D.

SAFEGUARD D THEMATIC NATIONAL INTERPRETATION: SOCIAL AND CULTURAL		
Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	**Element of National Interpretation Requirement**	**Evidence of Compliance**
.Demonstrate that information has been shared clearly and effectively with the communities and that they had the opportunity to participate.	D10. Participation: Guarantee respect for the right to full, informed and effective participation of all actors involved, as a fundamental condition to strengthen project governance and ensure legitimate, inclusive and coherent decision-making processes within the framework of REDD+ initiatives.	Within the framework of the implementation of project activities associated with items G1, G2, G5, B1 and A1, a comprehensive communication and participation strategy was deployed, using multiple channels for disseminating information to ensure transparency and timely access to project content. This strategy included holding two regional forums, three technical training sessions, five knowledge exchange events with communities, and activating the Petitions, Complaints, Claims and Suggestions (PQRS) system as a tool for dialogue and feedback with interested parties. These actions helped to strengthen the social appropriation of the project, guarantee effective participation, and consolidate inclusive governance processes during the 2022–2024 monitoring period (2.

		Annexes / 3. Safeguard Compliance / 3.4. Safeguard D / 3.4.1. D10).

Source: Fundación Cataruben, 2025.

Based on the previous table, the progress in compliance with Safeguard D and its indicators in relation to the average of the global goal is presented below.

Table 23. Percentage of progress in compliance with Safeguard D, with respect to the Monitoring Plan.

SAFEGUARD D				
National Element	**Item**	**Indicator Name(s)**	**(%) Advance 2022-2024**	**(%) Global Goal Compliance**
D10. Stake	4.1	Media for the transparent, clear, complete, inclusive and effective dissemination of information.	**37%**	**31%**
	4.2	Real and effective participation mechanisms from the feasibility and structuring phase of the project.	**25%**	

Source: Fundación Cataruben, 2025.

11.5 Safeguard E

“The compatibility of the measures with the conservation of natural forests and biological diversity, [...] that serve, instead, to encourage the protection and conservation of these forests and the services derived from their ecosystems and to enhance other social and environmental benefits.”

The articulated work between various actors is configured as the most efficient mechanism to implement conservation and restoration activities of strategic ecosystems within the framework of the CO2Bio P2-2 project. This comprehensive approach protects native biodiversity, aligning with national and local conservation objectives, and considering the particularities of each territory.

The strategy includes a comprehensive methodology to identify vulnerable species, addressing factors such as hunting and deforestation. The lines of action include socio-environmental impact assessments, habitat protection, and promotion of the sustainable use of natural resources. The project proposes a collaborative work model that involves the local community and strategic allies, seeking to generate ecosystem well-being that simultaneously benefits the environment and the communities. Training

spaces are essential to expand conservation perspectives and promote responsible administration of natural resources.

The main commitment is to guarantee compliance with environmental regulations, maintaining a local reading with direct participation of ecosystem managers in monitoring processes, ensuring transparent and consistent implementation with regulatory requirements.

- ***Conservación de bosques y su biodiversidad***

All actions contemplated in the project are aimed at preventing degradation and deforestation in REDD+ areas, as well as preventing the conversion of wetlands into exotic pasture crops, extensive livestock farming, or other practices incompatible with the conservation of ecosystems and their biodiversity. Such interventions would not only compromise the regeneration and sustainable use of ecosystem services, but would also affect the social and environmental benefits they provide.

Within the framework of safeguard E activities, a comprehensive report on conservation values for the study area was developed, encompassing a multidimensional analysis that includes ecological, environmental, social, and economic variables, providing a comprehensive view of the territory..

Between 2022 - 2024, 740 heat points were recorded, mainly between December and April (dry season). Through satellite tools such as Google Earth Engine and the NBR index, early detection and efficient spatial analysis of these thermal anomalies were achieved. Properties with recurring heat were identified, prioritizing them for fire management. None of the monitored anomalies constituted a fire with the potential to affect the eligible areas of the project. (2. Annexes / 3. Safeguard Compliance / 3.5. Safeguard E / 3.5.1. E11. Conservation of Forests and their Biodiversity / 3.5.1.1. Alertas de puntos de calor identificados en el área del proyecto).

The environmental diagnosis of invasive species monitoring reported the presence of 36 introduced plant species, among which Elaeis guineensis and Gynerium sagittatum stand out. Additionally, 20 introduced animal species were identified, mainly fish and birds, including Caquetaia kraussii and Oreochromis niloticus (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.5. Salvaguarda E / 3.5.1. E11. Conservación de Bosques y su Biodiversidad / 3.5.1.2. Monitoreo de especies vulnerables e invasoras.)

The project conducted effective monitoring of the 6 High Conservation Values (HCVs) in Arauca and Casanare, which include biodiversity, ecosystems, ecosystem services, cultural values, and livelihoods (2. Anexos / 3. Cumplimiento de Salvaguardas / 3.5. Salvaguarda E / 3.5.1.3. Reporte de Altos Valores para la Conservación (AVC´s)).

- ***Provision of environmental goods and services***

Cataruben, together with the local community and strategic partners, promotes conservation through daily, coordinated, and collaborative actions. This method seeks the common well-being and encourages the continuous optimization of productive practices and resource management. It is important to note that Cataruben complies with national environmental regulations. Corporinoquia's certifications confirm that Cataruben has not committed environmental infractions, nor has it been investigated for such reasons, either directly or indirectly. (2. Annexes / 3. Safeguard Compliance / 3.5. Safeguard E / 3.5.2. E12. Provision of Environmental Goods and Services / 3.5.2.2. Consultas realizadas a Autoridades Nacionales)

Cataruben implemented a participatory strategy that involved key actors in the conservation of forests and biodiversity in the project areas. This strategy was carried out through training cycles that addressed topics such as the importance of biodiversity, effective actions for its conservation, participatory bioacoustic monitoring, and relevant areas for biological diversity. The objective of these trainings was to raise awareness among participants for informed decision-making when implementing activities on their properties. The evidence and photographic records of these activities are available in the folder (2. Annexes / 3. Safeguard Compliance / 3.5. Safeguard E / 3.5.2. E12. Provision of Environmental Goods and Services / 3.5.2.1. Capacitaciones a la comunidad).

Table 24. Abordaje de la salvaguarda E en el marco del proyecto.

SALVAGUARDA E TEMÁTICA INTERPRETACIÓN NACIONAL: AMBIENTALES Y TERRITORIALES		
Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	**Element of National Interpretation Requirement**	**Evidence of Compliance**
Conserve, protect, restore and sustainably use ecosystems. In addition, they must comply with environmental regulations and demonstrate that no activities have been	E11. Conservation of Forests and their Biodiversity	Report of 3.5.1.3.1. Informe sobre el Monitoreo de Altos Valores de Conservación and 3.5.1.2.1. Especies vulnerable e invasoras de Co2Bio P2-2

carried out that involve the conversion of natural forests.		Evidence from spatial analysis to avoid forest conversion in the project areas. Developed in Annex 2.6.1. G.3. Monitoreo continuo de cambios en la superficie forestal como proporción de la superficie total en las áreas de proyecto Monitoring of heat points identified in the Annex ar 3.5.1.1.Alertas de puntos de calor identificados en el área del proyecto
	E12. Provision of Goods and Environmental Services	During the period 2022 - 2024, the training and technical assistance component of the CO2BIO P2-2 project managed to strengthen environmental management capabilities through 10 training sessions. Directly impacting 74 people, where 42.0% were women and 58.0% men. 2 Annex/ 2. Project activities/ 2.4. G1/ 2.4.1. Informe Capacitaciones.
		Consultation made to Corporinoquia, which has jurisdiction in the project area, the certificate indicates that Cataruben does not have environmental sanctions or investigations.3.5.2.2.1. Certificación Corporinoquia

Source: Fundación Cataruben, 2025.

Below is the percentage of compliance with Safeguard E and its indicators, with respect to the global goal.

Table 25. Progress in compliance with Safeguard E with respect to the global goal of the Safeguards Monitoring Plan.

SAFEGUARD AND				
National Element	**Item**	**Indicator Name(s)**	**(%) Advance 2022-2024**	**(%) Global Goal Compliance**
E11. Stake	5.1	High Conservation Values Report (AVC's)	**18,0 %**	**39 %**
	5.2	Forest non-conversion	**18,0 %**	
E12. Provision of Goods and	5.3	Application of training to the community to support improving biodiversity conservation conditions.	**10,0 %**	

Environmental Services	5.4	Consultations made to the competent National Authority that demonstrate that the project has not incurred any environmental violation and that it is not the subject of environmental investigations.	**18,0 %**	

Source: Fundación Cataruben, 2025.

11.6 Safeguard F

"The adoption of measures to address reversal risks."

11.6.1 F13 Environmental and territorial planning

To guarantee the sustainability of the CO2Bio P2-2 project, Cataruben reviewed the Territorial Planning Plans and socialized the project with local authorities, ensuring its alignment with regional planning and development. Public and private entities participated in the project forums, with the aim of socializing the conservation strategy and strengthening its alignment with environmental regulations (2. Annexes / 3. Compliance with Safeguards / 3.6. Safeguard F / 3.6.1. F13. Environmental and Territorial Planning / 2.4.1. Informes capacitaciones).

A matrix was developed to evaluate the reversal risks of the CO2Bio P2-2 project in Arauca and Casanare, including monitoring indicators and mitigation actions, in compliance with the BioCarbon Standard standards and the REDD+ BCR0002 methodology, version 3.1. (2. Annexes / 3. Compliance with Safeguards / 3.6. Safeguard F / 3.6.1. F13. Environmental and Territorial Planning / 3.6.1.1. Analysis of reversal risks carried out within the framework of the project / Análisis y Gestión de Riesgos).

Within the framework of the CO2Bio P2-2 project, commitments are formalized through linkage contracts that include a "Risk of Reversal" clause, aligned with the criteria of the "Empowering Sustainability, Redefining Standards" standard of BioCarbon Standard, in order to ensure the permanence and continuous surveillance of the conserved areas (2. Annexes / 3. Compliance with Safeguards / 3.6. Safeguard F / 3.6.1. F13. Environmental and Territorial Planning Contrato de Vinculación a Co2bio P2-2).

11.6.2 F14 Sector planning

To advance the implementation of CO2Bio Project 2, Cataruben developed a characterization of the social, cultural and environmental context of the territory, allowing conservation activities to be adapted based on local knowledge. Additionally,

departmental and municipal territorial planning was analyzed to ensure coherence with the planning instruments. As a result, a legal compatibility matrix was consolidated that demonstrates compliance with the regulatory criteria regarding conservation and biodiversity at the local, regional, national and international level (2. Annexes / 3. Compliance with Safeguards / 3.6. Safeguard F / 3.6.2. F14. Sectoral Planning / 6.2 Actions so that the project is maintained over time /Matriz de Compatibilidad Legal).

Table 26. Approach and compliance with safeguard F.

SAFEGUARD F THEMATIC NATIONAL INTERPRETATION: ENVIRONMENTAL AND TERRITORIAL		
Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	**Element of National Interpretation Requirement**	**Compliance**
Take measures to reduce reversal risks.	F13. Environmental and Territorial Planning: Promote the consolidation of territorial and environmental planning instruments established in current legislation, incorporating a focus on conservation and sustainable management of forests.	In the development of the G1 activity of the project, the III and IV Biodiversity, Carbon and Water Forum were held, the Risk Analysis and Management Matrix was presented, and contractual clauses were defined aimed at guaranteeing the permanence and sustainability of the project (2. Annexes / 3. Compliance with Safeguards / 3.6. Safeguard F / 3.6.1. F13).
	F14. Sectoral Planning: Design and implement REDD+ actions based on environmental and territorial planning instruments, as well as the current regulatory framework related to the conservation of forests and their biodiversity.	Within the framework of the implementation of the project, the legal compatibility matrix was prepared. (2. Annexes / 3. Compliance with Safeguards / 3.6. Safeguard F / 3.6.2. F12).

Source: Fundación Cataruben, 2025.

Based on the previous table, the progress in compliance with Safeguard F and its indicators in relation to the average of the global goal is presented below.

Table 27. Percentage of progress in compliance with Safeguard F, with respect to the Monitoring Plan.

SAFEGUARD F

National Element	Item	Indicator Name(s)	(%) Advance 2022-2024	(%) Global Goal Compliance
F13. Environmental and Territorial Planning	6.1	Analysis of reversal risks carried out within the framework of the project	**10%**	**49%**
F14. Sector Planning	6.2	Actions so that the project is maintained over time	**7.5%**	

Source: Fundación Cataruben, 2025.

11.7 Safeguard G

"The adoption of measures to reduce the displacement of emissions."

- ***Forest control and surveillance to avoid the displacement of emissions***

To he period 2022 - 2024 constant monitoring of the leak belt was carried out, besides community efforts were made to declaration of strategic sites for projection of biodiversity (2. Annexes / 3. Compliance with Safeguards / 3.7. Safeguard G / 3.7.1. G15. Forest Control and Surveillance to avoid the Displacement of emissions / 3.7.1.1 Analisis de identifcacion de fugas y sus causas).

Table 28**.** Approach and compliance with safeguard G.

SAFEGUARD G THEMATIC NATIONAL INTERPRETATION: ENVIRONMENTAL AND TERRITORIAL		
Requirement "BCR tool to demonstrate compliance with REDD+ Safeguards"	**Element of National Interpretation Requirement**	**Compliance**
Identify and control leaks, minimize their impact and implement response protocols.	G15. Forest Control and Surveillance to Avoid the Displacement of Emissions: Incorporate measures to reduce the displacement of emissions in its design and guarantee timely monitoring and control when the displacement of emissions occurs.	Within the framework of the implementation of the project activity, an evaluation of possible socioeconomic activities that could trigger a risk of flight was carried out (2. Annexes / 3. Compliance with Safeguards / 3.7. Safeguard G / 3.7.1. G15).

Source: Fundación Cataruben, 2025.

Based on the previous table, the progress in compliance with Safeguard G and its indicators in relation to the average of the global goal is presented below.

Table 29. Percentage of progress in compliance with SafeguardG, with respect to the Monitoring Plan.

SAFEGUARD G				
National Element	**Item**	**Indicator Name(s)**	**(%) Advance 2021-2024**	**(%) Global Goal Compliance**
G15. Forest Control and Surveillance to Avoid the Displacement of Emissions:	7.1	Analysis to identify leaks and their causes	**13%**	**33%**

Source: Fundación Cataruben, 2025.

12 Special categories, related to co-benefits

Within the framework of the CO2Bio P2-2 project, additional benefits are recognized beyond the reduction and removal of GHG emissions, which are managed under the Orchid category of the BioCarbon standard. This category allows the project's contributions to be made visible and valued in three key dimensions: biodiversity conservation, benefits for local communities and promotion of gender equality. To ensure adequate monitoring of these co-benefits, a specific Monitoring Plan was designed and updated, which was restructured during the current verification period to align with the criteria of version 3.4 of the BioCarbon Standard "Empowering Sustainability, Redefining Standards" (June 28, 2024). This tool allows you to systematically evaluate compliance with the defined indicators, ensuring the traceability, effectiveness and coherence of the actions implemented in the territory. (2. Attachments / 5. Co-benefits/ 5.1. Plan de Monitoreo de Cobeneficios CO2Bio Project 2 -2(2022-2024)).

12.1 Conservation of the biodiversity

"Understand the co-benefit to develop "effective actions and measures to stop the loss of biological diversity, helping ecosystems continue to provide essential services."

During the period 2022-2024, forest monitoring was carried out on the properties linked to the CO2Bio P2-2 project, under the BCR0002 methodology. The results show a positive variation in forest cover, with an increase of 0.01%, equivalent to 10.53 hectares, compared to the reference period. This result reflects the effectiveness of the conservation measures implemented, contributing to the permanence of carbon and the resilience of the ecosystem. In operational terms, the logistical deployment required for this activity involved sending autonomous recording devices (AudioMoth) to 38 properties previously selected through a representative sample design, managing to

establish 34 active acoustic monitoring stations. Table 3 summarizes this effort and shows the territorial coverage of the monitoring. Additionally, in the Table 30 The approach to the co-benefits associated with the conservation of biodiversity, social contributions and gender equity is presented, in line with the Orchid category of the BioCarbon standard, demonstrating compliance with the established sustainability criteria.

Table 30. Progress in compliance with indicators of the “Biodiversity Conservation” component with respect to the global goal of the biodiversity monitoring plan. co-benefits.

Co-profit	*Item*	*Indicator*	*Progress (%) Period 2022-2024*
Develop effective actions and measures to stop the loss of biological diversity, helping ecosystems continue to provide essential services.	G.3	Proportion of forest in the project	11,10%
	B1.	Percentage of Co2Bio initiative properties with progress in the implemented monitoring stages.	21,00%
	B2.	Report on indicators of Areas of Conservation Value (AVC), for the different components AVC1 Species Richness, AVC2 Landscape, AVC3 Important Ecosystems and AVC4 Ecosystem Services.	28,00 %

Source: Fundación Cataruben, 2025.

12.2 Benefits about communities

“Identifies and strengthens mechanisms of social and community participation, at the local and regional level.”

During the period 2022–2024, within the framework of the CO2Bio P2-2 project, a capacity-building plan was implemented aimed at ecosystem managers, with the aim of promoting the conservation of wetlands and continental forests, as well as the adoption of sustainable practices in their territories. These actions contributed significantly to the process of appropriation of the project by the linked communities, strengthening local governance and ensuring the sustainability of the implemented measures.

The training and technical assistance component of the project made it possible to consolidate capacities in environmental and productive management through a structured training plan. Although it was initially estimated to hold three training sessions every two years, this goal was exceeded by executing 10 virtual sessions, complemented by two forums and the Ecolíderes program. These spaces addressed

key technical, social, productive and financial issues, which comprehensively strengthened the project participants.

"The activities framed in the GHG project produce an average net increase in the income of local producers."

Additionally, within the framework of the first verification of the project, 496,421 Verified Catch Certificates (CCV) were issued for commercialization, of which 445,793 were sold, generating income for a total value of $7,417,559,174.66 COP. Of these resources, $3,919,855,535.92 COP have been distributed to the beneficiaries, while $3,497,703,638.74 COP are pending delivery. To date, 50,628 CCVs are available, which represents an additional opportunity to mobilize resources and continue strengthening the financial sustainability of the project. This financial traceability makes it possible to demonstrate a transparent process in the distribution of the economic benefits generated by the implementation of CO2Bio P2-2.

Table 31. Progress in compliance with indicators of the "Community Benefits" component with respect to the global goal of the co-benefits monitoring plan.

Co-profit	*Item*	*Indicator*	*Advance Period 2022-2024*
Identifies and strengthens mechanisms of social and community participation, at the local and regional level	G.1	Training, workshops, forums, socializations and meetings that encourage the participation of Ecosystem Managers	10 virtual trainings 2 forums held 1 program - Ecoleaders
The activities framed in the GHG project produce an average net increase in the income of local producers	G.3	Increase in the economic income of Ecosystem Managers	$3.919.855.535,92 COP

Source: Fundación Cataruben, 2025.

12.3 Equity of gender

"Ensures the full and effective participation of women and equal leadership opportunities at all levels of decision-making within the project."

Within the framework of the CO2Bio P2-2 project, gender equity has been actively promoted as a transversal axis in community strengthening and environmental governance actions. A total of 59 women owners have assumed leadership roles in the process, highlighting their participation in the 10 virtual trainings organized by the

Cataruben Foundation, which directly impacted 74 people, with a balanced gender representation: 31 women and 39 men. To facilitate female participation, especially rural women, the session schedules were adjusted to their daily dynamics, ensuring accessible spaces free of conflicts with other responsibilities. In the project's governance strategy, women represent 60% of the representatives, including Yarisma Emeris Tocaría Sierra, who serves as president of the Governance Board. As a symbol of the commitment to gender equality, the official reports of the Cataruben Foundation have highlighted the image of "Pachamama" on their covers, recognizing the fundamental role of women in the generation, protection and care of life.

Table 32. Progress in compliance with indicators of the “Community Benefits” component with respect to the global goal of the co-benefits monitoring plan.

Co-profit	*Item*	*Indicator*	*Advance Period 2022-2024*
Ensures the full and effective participation of women and equal leadership opportunities at all levels of decision-making in the project area	G.1	Women in leadership positions within CO2Bio P2-2, who exercise sustainable management of their properties and resources, allowing them to assume important roles and increase their participation in decision-making	59 Women owners in leadership roles

Source: Fundación Cataruben, 2025.

13 Implementation of the project.

13.1 Implementation status of the project

The **CO2Bio P2-2** project, initiated in 2018, focuses on the conservation of carbon stocks in the wetlands of the Colombian Orinoquia by preventing deforestation and land-use change. To achieve this purpose, key activities integrating technical, social, and environmental aspects have been developed. Since its inception, the project has fostered the capacity building of participants, both men and women, through training programs in technical-environmental, social, and administrative-financial areas. These training processes seek to improve informed decision-making to contribute to the project's results, thereby promoting greater local ownership and the sustainability of the implemented actions.

In the field of governance, an inclusive territorial strategy has been established that promotes collaboration among local agents, communities, and allied entities in the planning and implementation of conservation initiatives. This governance structure has

been fundamental in ensuring joint and effective management of ecosystems.

The project's environmental monitoring includes constant monitoring of forest cover and threats such as forest fires, through early warnings for timely response. In addition, participatory monitoring of biodiversity and High Conservation Value Areas (HCVAs) has been strengthened as a tool for the protection of key species and habitats.

The implementation of conservation actions and sustainable production practices at the farm and territorial levels has been promoted. This is proposed as a strategy to preserve carbon stocks, maintain biodiversity, and expand income sources for communities. These initiatives are complemented by integrated water management, which favors the conservation of water sources and the balance of ecosystems.

The implementation status of these activities and their respective indicators are presented below.

13.1.1 Progress of project activities

Table 33. Activity implementation status G.1

Activity ID	G.1: Training and development of skills for men and women linked to the project in the technical-environmental, social and administrative-financial fields, with the purpose of strengthening their capacities and improving decision-making aligned with the project objectives.					
Applied methodology	BCR0002 BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**
G-1.1	People impacted with strengthening in the three components (technical-environmental, social and administrative-financial)	Result	600	No. of people	Biannual	Cataruben Foundation

G-1.2	Training carried out in the three components (technical-environmental, social and administrative-financial)	Result	30	No. of training	Biannual	Cataruben Foundation

Activity progress				
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**	**Documents to support information**	**Observations**
G-1.1	**74**	**41%**	G.1 - Informe y soportes de fortalecimiento de capacidades	Compliance of 82% was achieved during the monitoring period. In this context, diversifying intervention modalities (combining virtual, in-person and asynchronous spaces) would allow expanding coverage and optimizing the impact of capacity-building strategies.
G-1.2	10	57%		Successful breakthrough

Source: Fundación Cataruben, 2025.

Table 34. Activity implementation status G.2

Activity ID	G.2: Deployment of the governance strategy in the territory, promoting participatory decision-making for the sustainable management of strategic ecosystems.
Applied methodology	BCR0002 BCR0004

Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**
G-2.1	Governance table preview	Impact	100	Percentage	Biannual	Cataruben Foundation

Activity progress				
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**	**Documents to support information**	**Observations**
G-2.1	20%	45%	G.2 - Informe de Avance Estrategia de Gobernanza	Successful breakthrough

Source: Fundación Cataruben, 2025.

Table 35. Activity implementation status G.3

Activity ID	G.3: Continuous monitoring of changes in forest area as a proportion of the total area in the project areas.					
Applied methodology	BCR0002 BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**
G-3.1	Proportion of forest in the project	Result	9	Report	Biannual	Cataruben Foundation
Activity progress						
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**	**Documents to support information**	**Observations**		
G-3.1	11,10%	22,20%	G.3 - Superficie forestal como proporción de la superficie total - CO2BIO P2-2	Successful breakthrough		

Source: Fundación Cataruben, 2025.

Table 36. Activity implementation status G.4

Activity ID	G.4: Active monitoring of environmental threats, such as fires, in the project area, as well as the identification of possible alerts for timely management.

Applied methodology	BCR0002 BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**
G-4.1	Monitoring thermal anomalies/plant cover fires	Impact	9	Report	Biannual	Cataruben Foundation
Activity progress						
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**		**Documents to support information**	**Observations**	
G-4.1	11,10%	22,20%		G.4 - Monitoreo Puntos de calor REDD+ CO2BIO P2-2	Successful breakthrough	

Source: Fundación Cataruben, 2025.

Table 37. Activity implementation status G.5

Activity ID	G.5: Promote the adoption of sustainable productive actions and practices at the property and local level, with the aim of preserving carbon reserves and protecting biodiversity in strategic ecosystems.					
Applied methodology	BCR0002 BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**

G-5.1	Properties that implement sustainable productive practices (PPS), ecosystem conservation actions and strategies	Impact	100	Percentage	Annual	Cataruben Foundation

Activity progress				
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**	**Documents to support information**	**Observations**
G-5.1	26,49%	51,26%	G.5 - Implementación actividades de conservación y PPS	Successful breakthrough

Source: Fundación Cataruben, 2025.

Table 38. Activity implementation status B.1

Activity ID	B.1: Participatory biodiversity monitoring					
Applied methodology	BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**

B.1	Percentage of properties of the Co2Bio initiative with progress in the implemented monitoring stages (1. Baseline, ii. biodiversity monitoring and iii. closing socialization of the results).	Result	100 %	Percentage	Biannual	Cataruben Foundation
Activity progress						
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**		**Documents to support information**	**Observations**	
B.1	21,0 %	37,67 %		B.1 - Informe Monitoreo participativo acústico de la biodiversidad	Successful breakthrough	

Source: Fundación Cataruben, 2025.

Table 39. Activity implementation status B.2

Activity ID	B.2: AVC monitoring					
Applied methodology	BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for monitoring**

B.2	Report on indicators of Areas of Conservation Value (AVC), for the different components AVC1 Species Richness, AVC2 Landscape, AVC3 Important Ecosystems and AVC 4 Ecosystem Services.	Result	100 %	Percentage	Biannual	Cataruben Foundation

Activity progress				
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**	**Documents to support information**	**Observations**
B.2	28,0 %	53,0 %	B.2 - Informe sobre el Monitoreo de Altos Valores de Conservación	Successful breakthrough

Source: Fundación Cataruben, 2025.

Table 40. Activity A.1 Implementation Status

Activity ID	Water Management Program					
Applied methodology	BCR0002 BCR0004					
Indicators to report the progress of the activity						
Indicator ID	**Indicator Name**	**Type**	**Meta global**	**Unit of measure**	**Monitoring frequency**	**Responsible for measurement**

A.1	Percentage of properties of the CO2BIO initiative with diagnosis, design, implementation and monitoring of water management	Result	100	Percentage	Annual	Cataruben Foundation

Activity progress				
Indicator ID	**Indicator result (2022-2023)**	**General Compliance**	**Documents to support information**	**Observations**
A.1	5%	20%	A1 - Programa de gestión hídrica	Successful breakthrough

Source: Fundación Cataruben, 2025.

13.1.2 Leakage and Non Permanence Risk

Possible leakages arising from the implementation of project activities are managed through monitoring of the leakage belt and calculation of the increase in emissions in this area. Additionally, management is carried out with the landowners within the framework of forest control and surveillance. In this sense, the project's leakage monitoring identified a progressive loss of 334 hectares of forest cover in the area of influence (250 meters) between 2010 and 2024, probably due to agricultural expansion and hydrological dynamics, not to project activities. 174 thermal anomalies were recorded (2022-2024) unrelated to forest loss. Participatory monitoring (surveys) revealed that 37% noticed changes in vegetation outside their properties, with fire control and conservation agreements being the most mentioned strategies. It is concluded that the risk of GHG leakage is managed effectively with a comprehensive system and local participation. (section 11.6 Safeguard F, section 16.3 Leakages.)

On the other hand, the implementation of the project activities continues. Three properties were removed from the project, so their mitigation results are not included to avoid overestimations.

13.1.3 Uncertainty management

Under the BCR STANDARD, the handling of uncertainty is determined by the accuracy of the maps, which must exceed 90.0%. This must be carried out using field observations or high-resolution imagery analysis (10 m, Sentinel).

For the areas where BCR0002 activities are implemented, uncertainty management corresponds to an accuracy of 96.0% in the generation of the natural forest cover map, indicating a high degree of reliability in the model or classification to distinguish forest and non-forest at the pixel scale. References: 8.1.4.2. AcATaMa CO2BIO P2-2 Results (PDF format), 8.2.1.7. AcATaMa Instruction Manual.pdf, and complemented by the case study (8.1.4.3. Validation of the BNB Model 2024 using field data – AcATaMa).

The natural forest cover map (2024) was created for monitoring eligible and leakage areas using a supervised classification in Google Earth Engine, following the Galindo et al. (2014) protocol. LANDSAT 8 OLI images from June 1 to December 31, 2024, were used, filtered by:

- Cloud cover < 20% (prioritizing clear skies over project sites),
- Geometric error < 10 m,
- OLI Image Quality = 9.

After radiometric normalization, a cloud-free median temporal composite was generated. The classification used 2,829 samples (70% training, 30% validation) distributed among the classes Forest, Water, Savanna, and Crops. Predictor variables included the blue, green, red, nir, swir1, swir2 bands, and indices NDVI, MSAVI, EVI, NDWI, SVVI, brightness, greenest, and wetness. The Random Forest algorithm (seed 0, 50 trees) achieved an overall accuracy with a Kappa coefficient ≈ 0.96, qualifying the classification as highly reliable for the reference year.

The forest–non-forest raster was validated and refined in ArcGIS Pro 3.4.1 using a Sentinel-2 composite (Nov.–Dec. 2024). Only the Forest category was adjusted to minimize commission errors:

- Non-forest: absence of tree cover.
- Forest: pixels with > 50% tree cover.

The resulting product, "Refined Supervised Classification Forest 2024," is the final layer used for monitoring eligible forest and leakage areas in 2024.

Uncertainty for the 2024 forest–non-forest map was estimated in QGIS 3.36.1 using the AcATaMa v24.12c plugin, recommended by the Monitoring and Carbon System. An independent set of 225 validation points (53% forest and 47% non-forest) was used, digitized over higher-resolution Sentinel-2 imagery than Landsat 8 and stored in the REDD P2-2 geodatabase. The analysis yielded an overall accuracy close to 96%, confirming the high thematic reliability of the product to distinguish forest and non-forest at the pixel level.

Meanwhile, the accuracy of the 2024 land cover map was determined (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.3.Geodatabase Humedales / Interpretación CLC / Corine Land Cover 2024.shp), where BCR0004 activities are carried out, the Corine Land Cover methodology at a 1:25,000 scale was used. (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.1.3. FC-GOG-23. Instructivo Interpretación de CLC - Escala 1-25.000), Developed using computer-assisted visual interpretation (PIAO Method), based on Sentinel-2 satellite imagery (8.2.3.Geodatabase Humedales / Interpretación CLC / Corine Land Cover 2024.shp, en el atributo “insumos” se detalla la nomenclatura de la imagen sentinel utilizada), The selection of images, composites, and spectral indices used for the interpretation is described in the (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.6.3. Caracterización de Insumos Cartográficos para generación de Corine Land Cover -CO2BIO P2-I2 V2).

The result of the uncertainty measured through the accuracy of the 2024 land cover map was determined to be 94.0%, indicating a high level of reliability in the classification information. It was defined using the confusion/validation matrix method. (Anexo 8.2.1.4. Anaya, J.A., Rodríguez-Buriticá, S., Londoño, M.C. 2023.). La clasificación de la matriz empleó 164 puntos de muestreo aleatorio (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.3. Geodatabase Humedales / Validación_MatrizConfusion / Puntos_validación) 20.0% (34) correspond to land cover types verified through field observation (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.5.1. Observaciones In Situ Humedales; 8.2.5.2. Registro fotografico Humedales / Set Validacion Coberturas); The remaining 80.0% was verified using inputs from the Sentinel-2 satellite (10 m/pixel spatial resolution) and the AI-assisted spatial refinement tool (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.5.3. S2DR3T_infer_20240430.ipynb).

The evaluation of the thematic accuracy of the validation point dataset was performed by comparing it against a higher-quality reference source (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.4.1 Información Geográfica) raster format. In this procedure, it

was verified whether the validation points actually correspond to the coverages classified through photointerpretation. The result is represented through (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.4.4. Matriz de validacion CLC 2024). The analysis is described in 8.2.4.2. Validation of the Classification Model using field data in wetlands, and the procedure applied in general is outlined in the (Anexos / 8.Geoespacial / 8.2.Humedales / 8.2.1.2. FC-GOG-24. Matriz de Confusion).

En el caso de los factores de emisión, se utilizaron los mismos valores inicialmente validados y aplicados en las verificaciones anteriores, en los cuales se estimó una incertidumbre inferior al 10% (PDD Versión 2.3).

13.2 Changes after the GHG project registration

13.2.1 Temporary deviations

No temporary changes were made to the registered monitoring plan, applied methodologies, or other BCR regulatory documents during this monitoring period.

13.2.2 Permanent Changes

13.2.2.1 Corrections

There have been no corrections to the project information or parameters that were set in the project record.

13.2.2.2 Permanent changes to the monitoring plan, BCR program methodologies in use, or other regulatory documents related to BCR program methodologies.

There have been no permanent changes to the registered monitoring plan or permanent deviations from the applied methodologies or other BCR regulatory documents..

13.2.2.3 Changes to GHG project design

- Project Area Update: This adjustment corresponds to the removal or incorporation of one or more sites within the multi-site GHG project, in accordance with subsection (f) of section 14.5.2.3 of the Standard Operating Procedures (SOP), version 1.3. This modification is due to the withdrawal of properties, which required an update of the project areas.

Below are the details of each deviation.

Table 41. Summary of Changes Applied in 2022- 2024 Monitoring Period.

Component	Description of deviations
Carbon Ownership	During this monitoring period 2022-2024, the withdrawal of 4 properties was formalized, resulting in a modification of the project's total area. As a result, these properties have been excluded from conservation activities and will no longer contribute to the emission reduction benefits contemplated in the project. In section 7. Carbon ownership and rights, a table is included defining the properties withdrawn as of 01/01/2022.
Quantification of GHG Emission Reductions	The reduction of areas impacts the quantification of emissions from 01/01/2022. Therefore, the baseline emissions projection was updated (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones). Within the emissions calculation annex of the monitoring report, The withdrawn areas were subtracted from the projection to avoid any overestimation, which resulted in a slight variation in the emissions projection. During the current monitoring period, only the mitigation results of the farms still participating in the project were considered.

14 Grouped Projects

Not applicable, the project is not grouped, meaning it does not include areas subsequent to validation.

15 Monitoring System

15.1 Description of the monitoring plan

In sections 15.2 and 16 of this Monitoring Report, a systematic documentation of the technical procedures and data employed to establish the baseline or reference scenario is presented, following the methodological guidelines approved by the relevant standard. Additionally, the methods used to quantify greenhouse gas (GHG)

emissions attributable to both the project and the potential leakages identified during the monitoring period are detailed. The execution of these procedures was carried out under criteria of transparency, consistency, and traceability, ensuring the integrity of the reported results..

15.2 Data and parameters to quantify the reduction of emissions

La cuantificación de las emisiones correspondientes al escenario de línea base, al proyecto y a las posibles fugas requiere, como paso fundamental, la identificación y definición precisa de los datos de actividad y los factores de emisión pertinentes. En esta sección se presentan de forma detallada los parámetros utilizados para la estimación de las emisiones netas de gases de efecto invernadero (GEI), conforme a los criterios establecidos en la metodología aprobada por el estándar aplicado.

15.2.1 Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors

Table 42. Total biomass in forests.

Data/Parameter	***Total biomass in forests***
data unit	*t/ha*
Description	*Plant biomass contained in forest ecosystems (Orinoco Biome). It is estimated from the sum of aboveground biomass (BA) and belowground biomass (BS).*
Source of data	*Ministry of Environment and Sustainable Development - IDEAM (2019)*
Values	***327,22***
Indicate what the data is used for (Baseline/Project/Leakage Emission Calculations)	- *Carbon emission factor in total biomass.* - *Calculation of baseline deforestation emissions.* - *Calculation of emissions from deforestation in the scenario with the project.* - *Calculation of emissions from deforestation in leakage areas.*
Justification for the choice of data or description of the measurement methods and procedures applied.	*The value is taken from the evaluated proposal of the national reference emission level (NREF), so it represents a conservative value, according to the national context for the estimation of GHG emissions.*
Additional comments	*N/A*

Table 43. *Soil organic carbon in forests*

Data/Parameter	***Soil organic carbon in forests***
data unit	*tC/ha*
Description	*Cumulative soil carbon content in forest ecosystems*
Source of data	*Ministry of Environment and Sustainable Development - IDEAM (2019)*
Values	***64.51***
Indicate what the data is used for (Baseline/Project/Leakage Emission Calculations)	- *Soil carbon emission factor (COS)* - *Calculation of baseline deforestation emissions.* - *Calculation of emissions from deforestation in the scenario with the project.* - *Calculation of emissions from deforestation in leakage areas.*
Justification for the choice of data or description of the measurement methods and procedures applied.	*The value is taken from the evaluated proposal of the national reference emission level (NREF), so it represents a conservative value, according to the national context for the estimation of GHG emissions.*
Additional comments	*N/A*

Table 44. *Total biomass in wetlands*

Data/Parameter	***Total biomass in wetlands***
data unit	*t/ha*
Description	*Plant biomass contained in wetland ecosystems. It is estimated from the sum of aboveground biomass (BA) and belowground biomass (BS).*
Source of data	*Own data*
Values	*Herbaceous stratum* ***= 0,56*** *Dispersed stratum* ***= 75,803***
Indicate what the data is used for (Baseline/Project/Leakage Emission Calculations)	- *Definition of the carbon emission factor in total biomass for herbaceous and sparse strata in wetlands.* - *Calculation of emissions in baseline forest ecosystems.* - *Calculation of emissions in forest ecosystems in project areas.* - *Calculation of emissions in forest ecosystems in leakage areas.*
Justification for the choice of data or	*Sampling was conducted according to nationally validated*

description of the measurement methods and procedures applied.	*methodologies and was carried out in eligible project areas.*
Additional comments	

Table 45. *Soil organic carbon in wetlands*

Data/Parameter	***Soil organic carbon in wetlands***
data unit	*t/ha*
Description	*Carbon content of soils in wetland coverages*
Source of data	*Own data*
Values	***Estrato Herbáceo = 110,854*** ***Estrato Disperso = 114,508***
Indicate what the data is used for (Baseline/Project/Leakage Emission Calculations)	- *Definition of the soil carbon emission factor for herbaceous and sparse strata in wetlands.* - *Calculation of emissions in baseline forest ecosystems.* - *Calculation of emissions in forest ecosystems in project areas.* - *Calculation of emissions in forest ecosystems in leakage areas.*
Justification for the choice of data or description of the measurement methods and procedures applied.	*Sampling was conducted according to nationally validated methodologies and was carried out in eligible project areas.*
Additional comments	

15.2.2 Data and parameters monitored

Table 46. Forest and non-forest cover maps - Monitoring forest with changes after registration. BCR0002

Data/Parameter	*Monitoring of project areas Verification 1, with changes after registration: (Ruta archivo vectorial: 8. Geoespacial / 8.1. REDD / 8.1.3. Geodatabase REDD / Area Proyecto Verficacion 2 CPR / Bosque_Monitoreo_AP_2018_2021_Verif1_CPR.shp). It is also*

	described in the vector pathway. (Anexos/ 9. Cambios Posteriores a Registro / 9.1. Geodatabase / 9.1.1. REDD / Area_de_Proyecto_Verificacion1_CPR / Bosque_Monitoreo_AP_2018_2021_Verif1_CPR) *Areas within the geographic boundaries of the project that fall under the forest category.* *Note: CPR – Changes Post Registration.*
data unit	*ha*
Description	*The parameter represents the amount of eligible forest for monitoring from 2018 to 2021, i.e., forest available as of December 31, 2021.* *The result is located in Annex / 7. Emissions Monitoring / 7.1. Emissions Monitoring / Tab 3. Monitoring / Cell H44 "AREED+proy1 (ha)".* *The input used to determine the forest area in 2021 corresponds to the map of natural forest cover (reliable, nationally sourced data), generated by the Forest and Carbon Monitoring System (SMByC) of IDEAM—Colombia's official scientific tool for the continuous and frequent monitoring of forest cover and deforestation.* *These maps are developed based on satellite image interpretation, assigning each pixel or observation unit the category of Forest, Non-Forest, or No Information. Primarily, LANDSAT images (TM, ETM+, and OLI sensors) captured between January 1 and December 31 of the period are used. The methodology used by IDEAM to build the forest cover map is described in section 8.2.1.5. Galindo et al., IDEAM 2014. PDI Protocol for Quantifying Deforestation in Colombia v2_1.*
Measured / Calculated / Pre-determined	*Calculated*
Data source	*Forest and Carbon Monitoring System – SMBYC – IDEAM*
Monitored parameter value(s)	*AREED+proy1 (ha):* ***10.301,2 ha*** *Bosque_Monitoreo_AP_2018_2021_Verif1_CPR.shp* *Leak K8: 5163,0 ha*

	Bosque_Monitoreo_AF_2018_2021_Verif1_CPR.shp
Indicate what the data are used for (Baseline/Project/Leakage emissions calculations)	- *Calculation of emissions in forest ecosystems within project areas.* - *Calculation of emissions in forest ecosystems within leakage areas.*
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	*ArcGISV3.1 y QGIS V3.28* *2021: **0,96 (96,0 %)** Thematic Accuracy* *The thematic accuracy is achieved through AcATaMa.*
Measurement/Reading/Recording Frequency	*Annual*
Calculation method (if applicable)	*8.1.1.1. GOG-01 Guía para verificación de áreas viables 8.2.1.5. Galindo et al. IDEAM 2014. Protocolo de PDI para la cuantificacion de la deforestacion en colombia v2_1*
Procedures for Quality Control Applied	*8.1.1.4. GOG-01 Guía para verificación de áreas viables* *8.1.1.3. GOG-26. Instructivo AcATaMa*

Table 47. **Forest and Non-Forest Coverage Maps for the year 2024**

Data/Parameter	*Monitoring of Project Areas Verification 2, Changes Subsequent to Registration: (Ruta archivo vectorial: 8. Geoespacial / 8.1. REDD / 8.1.3. Geodatabase REDD / Area Proyecto Verficacion 2 CPR / Bosque_Monitoreo_AP_2022_2024_Verif2. shp).* *Areas within the project's geographical boundaries corresponding to the forest category.* *Note: CPR: Changes subsequent to registration.*
data unit	*ha*
Description	*Monitoring of the parameter requires the generation of the map for the surface covered by natural forest for the year 2024 (Applies to*

	monitoring of eligible areas and leakage areas verified in the CPR 2018-2021 (verification 1). (8. Geospatial / 8.1. REDD / 8.1.3. REDD Geodatabase / Area Project Verification 2 CPR / Modelo_Bosque_2024_AP_Verif2.shp) and leakage 8.1.3. REDD Geodatabase / Area Project Verification 2 CPR / Modelo_Bosque_2024_AF_Verif2.shp). *After validating the coverage maps of leakage and project areas, an intersection was performed to identify the forested zones from verification 1 that persisted as forest in verification 2. These areas are recorded in: 7.1. Emissions Monitoring / 3. Monitoring / Cell I 44 "AREED+proy2 (ha)" and correspond to the shapefile file Bosque_Monitoreo_AP_2022_2024_Verif2.* *The map for the surface covered by natural forest for the year 2024 (Applied to monitoring of eligible areas and leakage areas) was created through supervised classification and interpretation of satellite images, identifying and assigning to each pixel or observation unit the class of Forest, Water, Savannah, or Crops. This procedure was carried out using the Google Earth Engine geospatial processing platform, following the procedure established by Galindo et al. 2014. LANDSAT 8 images (OLI Sensor) taken between June 1 and December 31, 2024, were used. This timing was employed because the forest had to be identified in the last semester of the reference year, and to generate cloud-free composites. The classification used a set of 2829 coverage samples (70% Training, 30% Validation) (REDD p2-2.gdb / Supervised classification training set / Training Set; Validation Set). Predictor variables were used, including ([bands: 'blue', 'green', 'red', 'nir', 'swir1', 'swir2', Spectral indices: 'NDVI', 'MSAVI', 'EVI', 'NDWI', 'SVVI', 'brightness', 'greenest', 'wetness']); through the Random Forest algorithm (Seed=0, Number of trees: 50). The Kappa index was above 96.0%.* *The result is the raster called "Supervised Classification 2024" (REDD p2-2.gdb / Supervised classification GEE 2024 /). This raster underwent image interpretation analysis for verification of the project areas using ArcGIS v3.4.1 software. A composite of Sentinel 2 images for the period of November - December 2024 was used. The change rules were applied only to the forest category to refine the product and avoid Commission/omission errors as follows:* • *Absence of forest: No forest.*

	• *Forest Pixel: Pixels with over 50.0% coverage were considered as forest.* *Finally, the result of the procedure is a file that monitors the eligible forest and leakage areas for the year 2024, called Refinement Supervised Classification Forest 2024 (Annexes / 8. Geospatial / 8.1. REDD / 8.1.3. REDD Geodatabase / REDD p2-2.gdb / Refinement Supervised Classification Forest 2024).* *Uncertainty evaluation is carried out through thematic accuracy, and this process used Qgis v3.36.1 software with the AcATaMa v24.12c plugin (recommended by the monitoring and carbon system to perform the procedure). A set of 225 validation points (53.0% forest and 47.0% non-forest) was used as input to the plugin. The accuracy result is 96.0%, indicating a high degree of reliability of the model or classification to differentiate forest and non-forest at the pixel scale. The results in .csv format are available in: 8.1.4.2. AcATaMa Results CO2BIO P2-2; 8.1.4.2. AcATaMa Results CO2BIO P2-2 PDF format.* *The document describing the details of the creation of the surface covered by natural forest map for 2024 is detailed in 8.1.6.2. Supervised classification report natural forest cover 2024.*
Measured/Calculated/ Predetermined:	*Calculated*
Data Source	*Forest and Carbon Monitoring System, LANDSAT 8 images (OLI Sensor) taken between June 1st and December 31st, 2024. Supervised classification.*
Monitored parameter value(s)	*AREED+proy2 (ha):* ***10.197.3*** *Bosque_Monitoreo_AP_2022_2024_Verif2.shp* *Leak L8: 5157,0 ha* *Bosque_Monitoreo_AF_2022_2024_Verif2_CPR.shp*
Indicate the purpose of the data (Baseline/Project/Leakage emission calculations)	- *Forest Monitoring 2024* - *Calculation of emissions in forest ecosystems in project areas.* - *Calculation of emissions in forest ecosystems in leakage areas.*
Monitoring Equipment (Type,	*ArcGISV3.4.3. y QGIS V3.34.5* *Plataforma Google Earth Engine*

Precision Class, Serial Number, Calibration Frequency, Last Calibration Date, Validity)	*2024:* ***0,96 (96,0 %) Thematic Accuracy*** *The thematic accuracy is achieved through AcATaMa.*
Frequency of Measurement/Reading/Recording	*Annual*
Calculation Method (if applicable)	*8.1.6.2. Informe clasificación supervisada cubierta de bosque natural 2024.*
Quality Control Procedures Applied	*8.1.1.4. GOG-01 Guía para verificación de áreas viables* *8.1.1.3. GOG-26. Instructivo AcATaMa*

Table 48. Project area and leakage monitoring, BCR0004 component.

Data/Parameter	*Monitoring of project areas verification 1, with changes after registration: Humedal. (Ruta archivo vectorial: 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Area Proyecto Verficacion 2 CPR / Humedales_Monitoreo_AP_2018_2021_Verif1_CPR)- It is also described in the vector pathway. (Anexos/ 9. Cambios Posteriores a Registro / 9.1. Geodatabase / 9.1.2. Humedal/ Area_de_Proyecto_Verificacion1_CPR / Humedales_Monitoreo_AP_2018_2021_Verif1_CPR).* *Regarding leakage, it corresponds to (Ruta archivo vectorial: 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Area fugas Verficacion 1 CPR / Humedales_Monitoreo_AF_2018_2021_Verif1.shp)* *Note. CPR: Changes after registration*
data unit	*ha*
Description	*Areas within the geographic boundaries of the project that correspond to the wetland category according to national definitions.* *The parameter represents the number of wetlands for verification 1, period 2018 - 2021, including changes after registration. The result is recorded in Anexo/ 7. Monitoreo de emisiones/ 7.1. Monitor de emisiones / Pestaña "3. Monitoreo"/ Cell A1 (ha) H57:58. and for*

	Cell leaks A1 (ha): M57:M58. *The input used for monitoring wetland cover for the year 2021 corresponds to the land cover map using the Corine Land Cover methodology. It uses images from the Landsat 8 satellite, OLI sensor, collected between June 1 and December 31, 2021. The resulting uncertainty measured through the accuracy of the 2021 land cover map was determined to be 98.0%, which indicates high reliability in the classification information.*
Measured / Calculated / Pre-determined	*Calculated*
Data source	*Remote sensors such as Sentinel, and high-resolution sensors such as Planet Images and Worldview-2, along with 1:100,000 scale Corine Land Cover layers, will be used.*
Monitored parameter value(s)	*Land cover 2021.* *Project Area (Cell H57:H58):* *Herbaceous: 47425.5 ha* *Sparse: 411.9 ha* *Leakage Area (Cell H57:M58):* *Herbaceous: 36115.0 ha* *Sparse: 610.0 ha*
Indicate what the data are used for (Baseline/Project/Leakage emissions calculations)	*Estimate of land-use change in eligible wetland and leakage areas.*
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	*ArcGISV3.1 and QGIS V3.28** *2021 Map: 0.98 (98.0%) Thematic Accuracy** *The thematic accuracy is achieved through a confusion matrix.*
Measurement/Reading/Recording Frequency	*Annual*

Calculation method (if applicable)	*8.2.1.1. FC-GOG-29. Instructivo interpretacion de Corine Land Cover Escala 1:100.000* *8.2.1.5. Procedimiento General Carbono - Procedimientos monitoreo áreas humedales*
Procedures for Quality Control Applied	*8.2.4.2. Validación del Modelo de Clasificación a partir de datos de campo en humedales* *8.2.1.2. FC-GOG-24. Matriz de Confusion* *8.2.4.4. Matriz de validacion CLC 2024*

Table 49. Monitoring project areas verification 2 period 2022 - 2024 BCR0004

Datos/Parámetro	*Monitoring of project areas Verification 2, changes after registration: (Ruta archivo vectorial: 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Area Proyecto Verficacion 2 CPR / Humedales_Monitoreo_AP_2022_2024_Verif2_CPR)- It is also described in the vector pathway. (Anexos/ 9. Cambios Posteriores a Registro / 9.1. Geodatabase / 9.1.2. Humedal/ Area_de_Proyecto_Verificacion1_CPR / Humedales_Monitoreo_AP_2022_2024_Verif2_CPR)* *After validating the leakage and project area coverage maps, an intersection was performed to identify the wetland areas from verification 1 that persisted as wetlands in verification 2. These areas are recorded in: 7.1. Monitoreo de Emisiones / 3. Monitoreo / Celda I 56" y corresponden al archivo Humedales_Monitoreo_AP_2022_2024_Verif2_CPR.* *While for leakages, the corresponding file is (Ruta archivo vectorial: 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Area Fugas Verficacion 2 CPR / Humedales_Monitoreo_AF_2022_2024_Verif2).* *Note. CPR: Changes after registration*
unidad de datos	*ha*
Descripción	*Áreas en los límites geográficos del proyecto que correspondan a la categoría de humedales de acuerdo con las definiciones nacionales.* *Areas within the project's geographical limits that correspond to the wetland category according to national definitions. For the interpretation of land cover under the Corine Land Cover methodology, images from the Sentinel sensor were used, collected from June 1 to December 31, 2024. The method used was*

	computer-assisted interpretation or PIAO method. The vector file containing the classification is called Corine Land Cover 2024. (Ruta archivo vectorial: 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Interpetacion CLC / Corine Land Cover 2024). Consequently, the type of Sentinel 2A image used is contained in the input attribute.), the choice of images, compositions and spectral indices used for the interpretation are described in the annex.8.2.6.3. Caracterización de Insumos Cartográficos para generación de Corine Land Cover -CO2BIO P2-I2 V2. *The outcome of the uncertainty measured through the precision of the 2024 land cover map was determined to be 94.0%, indicating high reliability in the classification information. It was defined using the confusion/validation matrix method (Annex 8.2.1.4. Anaya, J.A., Rodríguez-Buriticá, S., Londoño, M.C. 2023.). The matrix classification employed 164 random sampling points. (Anexos / 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Validación_MatrizConfusion / Puntos_validación) 20.0% (34) correspond to coverages verified in the field through field observation (8.2.5.1. Observaciones In Situ Humedales; 8.2.5.2. Registro fotografico Humedales, informacion geografica 8. Geoespacial / 8.2. Humedales / 8.2.3. Geodatabase Humedales / Validación_MatrizConfusion / Set Validacion Coberturas). the remaining 80.0% was verified through inputs from the Sentinel 2 satellite (10 m/pixel spatial resolution) and the artificial intelligence-assisted spatial refinement tool.* *8.2.5.3. S2DR3T_infer_20240430.ipynb.*
Medido/Calculado/Predeterminado:	*Calculated*
Fuente de datos	*Sentinel 2 (10 m/pixel spatial resolution) and the artificial intelligence-assisted spatial refinement tool* *8.2.5.3. S2DR3T_infer_20240430.ipynb.*
Valor(es) del parámetro monitoreado	*Land cover 2024.* *Project Area (Cell I57:I58):* *Herbaceous: 47409.9 ha* *Scattered: 411.9 ha* *Leakage Area (Cell N57:N58):* *Herbaceous: 35979.0 ha* *Scattered: 610.0 ha*
Indique para qué se utilizan los datos	*Estimate of land use change in eligible wetland areas*

(Línea base/Proyecto/Cálculos de emisiones de fugas)	
Equipo de monitoreo (tipo, clase de precisión, número de serie, frecuencia de calibración, fecha de la última calibración, validez)	*ArcGISV3.4.3 and QGIS V3.34.5* *2024 Map: 0.94 (94.0%) Thematic Accuracy* *The thematic accuracy is achieved through a confusion matrix.*
Frecuencia de medición/lectura/grabación	*Annual*
Método de cálculo (si corresponde)	*8.2.1.3. FC-GOG-23. Instructivo Interpretación de Corine Land Cover-Escala 1-25.000* *8.2.6.3. Caracterización de Insumos Cartográficos para generación de Corine Land Cover -CO2BIO P2-I2 V2* *8.2.1.5. Procedimiento General Carbono - Procedimientos monitoreo áreas humedales*
Procedimientos de control de calidad aplicados	*8.2.4.2. Validación del Modelo de Clasificación a partir de datos de campo en humedales* *8.2.1.2. FC-GOG-24. Matriz de Confusion* *8.2.4.4. Matriz de validacion CLC 2024*

16 Quantification of GHG emission reduction / removals

16.1 Baseline emissions

The quantification of reference emissions was performed according to the guidelines of the BCR0002 (Version *3.1. September 15, 2022*) and BCR004 (*Version 2.0 23 June 2022*) methodology. In this sense, a general description of the formulas and values used are described below.

16.1.1 Baseline emissions from forest deforestation

The calculation of the activity data was based on the historical change in forest area recorded in the reference region, applying the following equation:

$$CSB_{year} = \left(\frac{1}{t_2 - t_1}\right) x \left(A_1 - A_2\right)$$

Where:

CSB_{year}	Annual change in the area covered by forest in the reference region; ha
t_1	Year of beginning of reference period; year
t_2	Year end of reporting period; year
A_1	Area of forest in the reference region, at the initial time; ha
A_2	Area of forest in the reference region at the final point in time; ha

According to the historical trend of deforestation in the reference region, the change in forest area in the eligible area of the project was projected. For the period of analysis, there was an adjustment in the eligible area, so the projection of $CSB_{proyecto,\,año}$ was adjusted according to the new conditions.

With respect to the emission factors, the BCR0002 methodology establishes that the validated values can be applied in the estimation of monitored emissions. Therefore, the same values were used for this monitoring period.

In this sense, the following equation was applied to quantify emissions from deforestation in the reference scenario:

$$EA_{lb} = DA_{lb}\, x\, CT_{eq}$$

Where:

EA_{lb}	Annual emission in the baseline scenario; tCO /ha$_2$
DA_{lb}	Annual historical deforestation in the baseline scenario; ha
CT_{eq}	Total carbon dioxide equivalent; tCO /ha$_{2e}$

On the other hand, for the estimation of the annual change in forest areas in the reference scenario, a deforestation rate of **2.03%** was estimated based on the historical average recorded for the area. Likewise, an adjustment for national conditions was

made to the BSC, according to the values estimated in the most recent version of the NREF. [3]

Table 50 shows the projected changes in the without-project scenario and the calculation of baseline GHG emissions due to forest deforestation.

Table 50. Reference emissions from forest deforestation during the monitoring period.

Year	Adjustment for national circumstances *(%CN)*	CSCNIb + *%CNN (ha)*	CTeq *(tCO2e/ha)*	GHG emissions in the baseline scenario *(tCO2e/year)*
2022	53,55%	317,57	575,74	**182.732**
2023	25,90%	259,58		**182.839**
2024	29,90%	266,99		**149.449**

Source: Fundación Cataruben, 2025.

The step-by-step calculations can be reviewed in (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

16.1.2 Baseline emissions from changes in land use in wetlands

The calculation of emissions due to changes in the natural cover of the wetland and emissions in the project area during the monitoring period was performed using the equation:

$$CSCN_P = \left(\frac{1}{t_2 - t_1}\right) x \left(A_1 - A_2\right)$$

Where:

$CSCN_P$ Change in the area with natural vegetation cover in the project area; ha/yr.

t_1 Year of beginning of monitoring period

t_2 Year final of monitoring period

[3] For the year 2022, the values reported in the NREF 2028 - 2022 were used and for the year 2023, the new proposed NREF 2023 - 2027 was used.

A_1 Area in natural vegetation cover in the project area at the beginning of the monitoring period; ha

A_2 Area in natural vegetation cover in the project area at the end of the monitoring period; ha.

y,

$$EA_P = CSCN_P \, x \left(CBF_{eq} + cos_{eq} \right)$$

Where:

EA_P Annual emission in project area; tCO /ha/year$_{2e}$

$CSCN_P$ Change in the area with natural vegetation cover in the area of the project; ha/year

CBF_{eq} Carbon dioxide equivalent contained in total biomass; tCO /ha$_{2e}$

COS_{eq} Carbon dioxide equivalent contained in soils; tCO /ha$_{2e}$

For the monitoring period (2022-2024), changes in land use registered **4869,1** ha for the Herbaceous stratum and **127,1** ha for the Dispersed stratum. This corresponds to a total of **122.878,77 tCO2e/year** emitted by wetland transformation Table 51.

Table 51. Baseline emissions from land use change in Wetlands, in the period 2022-2024.

Stratum	Year	CSCNp *(ha)*	CTeq *(tCO2e/ha)*	Baseline annual emission *(tCO2e/año)*
Herbaceous	2022	1630,4	21,28	34.693,67
Dispersed		42,7	151,63	6.481,52
Herbaceous	2023	1623,0	21,28	34.537,44
Dispersed		42,4	151,63	6.421,73
Herbaceous	2024	1615,7	21,28	34.381,91
Dispersed		42,0	151,63	6.362,49

Source: Fundación Cataruben, 2025.

The step-by-step calculations can be reviewed in (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

16.2 Project emissions/removals

The estimation of project emissions during the monitoring period was carried out in accordance with the guidelines for emissions monitoring established in BCR 0002 (section 14.5) and BCR 0004 (section 16.5) methodologies.

Thus, only activity data was monitored. The emission factors applied correspond to those initially validated and used for the baseline calculations.

16.2.1 Emissions from forest deforestation

The estimation of deforestation in the project area involved the analysis of the change from forest to non-forest area during the monitoring period. Subsequently, the change value was related to the emission factor to calculate the GHG emissions in the project area. The following equations were applied to perform the analyses:

$$CSB_{proj,year} = \left(\frac{1}{t_2 - t_1}\right) x \left(A_{REDD+proj,1} - A_{REDD+proj,2}\right)$$

Where:

$CSB_{proj,year}$	Annual change in the area covered by forest in the project area; ha
t_2	Year end of monitoring period; year
t_1	Year of beginning of monitoring period; year
$A_{REDD+proj,1}$	Area of forest in the project area at the beginning of the monitoring period; ha
$A_{REDD+proj,2}$	Area under forest, in the project area at the end of the monitoring period; ha

y,

$$EA_{REDD+proj,year} = DEF_{REDD+proj,year} x TCO_{2eq}$$

$EA_{REDD+proj,year}$ Annual emission in the project area; tCO2/ha

$DEF_{REDD+proj,year}$ Annual deforestation in the project area; ha

TCO_{2eq} Total carbon dioxide equivalent; tCO2e/ha

For the 2022 - 2024 period, an average annual forest cover loss of **34,63** ha/year was recorded in the project areas. This corresponds to **19.939,66** tCO2e per year. This behavior is mainly due to natural causes that compromise forest cover, such as flood return periods during monitoring Table 52.

Table 52. Project emissions from deforestation, for the period 2022 - 2023.

Year	CSBproy,*year* *(ha/year)*	CTeq *(tCO2e/ha)*	Project GHG Emissions *(tCO2e)*
2022	34,63	575,74	**19.939,66**
2023	34.63		**19.939,66**
2024	34.63		**19.939,66**

Source: Fundación Cataruben, 2025.

The step-by-step calculations can be reviewed in (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

16.2.2 Emissions from land use change in wetlands

The calculation of emissions due to changes in the natural cover of the wetland and emissions in the project area during the monitoring period was performed using the equation:

$$CSCN_P = \left(\frac{1}{t_2 - t_1}\right) x \left(A_1 - A_2\right)$$

Where:

$CSCN_P$ Change in the area with natural vegetation cover in the project area; ha/yr.

t_1 Year of beginning of monitoring period

t_2 Year final of monitoring period

A_1 Area in natural vegetation cover in the project area at the beginning of the monitoring period; ha

A_2 Area in natural vegetation cover in the project area at the end of the monitoring period; ha.

y,

$$EA_P = CSCN_P \, x \left(CBF_{eq} + cos_{eq} \right)$$

Where:

EA_P Annual emission in project area; tCO /ha/year$_{2e}$

$CSCN_P$ Change in the area with natural vegetation cover in the area of the project; ha/year

CBF_{eq} Carbon dioxide equivalent contained in total biomass; tCO /ha$_{2e}$

COS_{eq} Carbon dioxide equivalent contained in soils; tCO /ha$_{2e}$

For the monitoring period (2022-2023), changes in land use registered **5.2** ha for the herbaceous stratum. This corresponds to **110,65** tCO2e/year emitted in the herbaceous stratum (Table 53).

Table 53. Emission monitoring of the project in wetland areas, in the period

Stratum	Year	CSCNp *(ha)*	CTeq *(tCO2e/ha)*	Project GHG emissions (tCO2e/year)
Herbaceous	2022	5,2	21,28	**110,65**
Dispersed		0,0	151,63	**0,00**
Herbaceous	2023	5,2	21,28	**110,65**
Dispersed		0,0	151,63	**0,00**
Herbaceous	2024	5,2	21,28	**110,65**
Dispersed		0,0	151,63	**0,00**

Source: Fundación Cataruben, 2025.

The step-by-step calculations can be reviewed in (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

16.3 Leakages

For BCR0002 a leakage belt is defined with a buffer of 250 meters from the edge of the property; this belt has an area of **27.005** hectares, within which all forest areas are quantified for the temporal limits of the baseline and the monitoring period.

While for BCR0004, a leakage belt is delimited with a buffer of 600 meters from the edge of the property, this belt has an area of **63.916** hectares, within which are quantified all natural vegetation covers that according to the methodology item 10.3 meet the eligibility criteria, for the temporal limits of the baseline and the monitoring period.

16.3.1 Emissions from deforestation of forests in the leak area

The calculation of emissions from forest deforestation in the leakage area was made taking into account the following equations:

$$CSB_{f,year} = (\frac{1}{t_2 - t_1})\ x\ (A_{f,1} - A_{f,2})$$

Where:

$CSB_{f,year}$	Annual change in area covered by forest in the leakage area; ha/year
t_1	Year of beginning of monitoring period; year
t_2	Year end of monitoring period; year
$A_{f,1}$	Area in forest , in the leakage area at the beginning of the monitoring period; ha
$A_{f,2}$	Area in forest , in the leakage area at the end of the monitoring period; ha

and,

$$EA_{f,year} = (DEF_{f,year}\ x\ TCO_{2eq}) - EA_{lb,f,year}$$

Where:

$EA_{f,year}$ Annual emissions in the leakage area; tCO /ha$_2$

$DEF_{f,year}$ Annual deforestation in the leakage area; ha

TCO_{2eq} Total carbon dioxide equivalent; tCO /ha$_{2e}$

$EA_{lb,f,year}$ Annual emission from deforestation in the leakage area in baseline scenario; tCO$_{2e}$

Thus, for the period 2022 - 2024 in the leakage area, an average annual forest deforestation of **51,67** ha was recorded, representing 29.746,35 tCO2e emitted annually. However, when comparing this record with the baseline emissions scenario, it does not represent a significant increase in GHG emissions as a result of the implementation of the project's REDD+ activities (Table 54).

Table 54. Monitoring of emissions from forest deforestation in the leakage area for the period 2022-2024.

Year	CSB *f,year* *(ha/year)*	CTeq *(tCO2e/ha)*	GHG emissions in the leakage area *(tCO2e)*	GHG emissions in the leakage area in baseline *(tCO2e)*	GHG emissions attributable to leakage due to project activities *(tCO2e)*
2022	51,67	575,74	29.746,35	14.681,27	15.065
2023	51,67		29.746,35	14.681,27	15.065
2024	51,67		29.746,35	14.681,27	15.065

Source: Fundación Cataruben, 2025.

The step-by-step calculations can be reviewed in (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

16.3.2 Emissions from wetland transformation in the leakage area

The quantification of GHG emissions that occurred in the wetland leakage area, due to the implementation of project activities during the monitoring period, were calculated by applying the following equations:

$$CSCN_f = \left(\frac{1}{t_2 - t_1}\right) x \left(A_{f,1} - A_{f,2}\right)$$

Where:

$CSCN_f$	Change in the area with natural vegetation cover in the leakage area; ha/yr.
t_1	Year of beginning of monitoring period
t_2	Year final of monitoring period
$A_{f,1}$	Superficiency in natural vegetative cover in the leakage area at the beginning of the monitoring period; ha
$A_{f,2}$	Surface area in natural vegetation cover in the leakage area at the end of the monitoring period; ha

y,

$$EA_f = \left[CSCN_f \, x \left(CBF_{eq} + cos_{eq}\right)\right] - EA_{f,lb}$$

Where:

EA_f	Annual emission in leakage area; tCO /ha/year$_{2e}$
$CSCN_f$	Change in the area with natural vegetation cover in the leakage area; ha/yr.
CBF_{eq}	Carbon dioxide equivalent contained in total biomass; tCO /ha$_{2e}$
COS_{eq}	Carbon dioxide equivalent contained in soils; tCO /ha$_{2e}$
$EA_{f,lb}$	Annual emission in leakage area in the baseline scenario; tCO$_{2e}$

As a result, for the monitoring period, changes in wetland land use were recorded, only in the herbaceous stratum (Table 55) with 45 ha transformed annually; however, when compared to the baseline values, they do not represent an increase in GHG emissions in the leakage area, at the time of applying the equation, the values recorded as negative were taken as zero (0) in the final calculations, therefore, the annual emissions for the period 2022-2024 are considered zero (0).

Table 55. Monitoring of emissions from wetland transformation in the leakage area for the period 2022-2024.

Stratum	Year	CSCNf *(ha/year)*	GHG emissions in the leakage area *(tCO2e)*	GHG emissions in the leakage area in baseline *(tCO2e)*	GHG emissions attributable to leakage due to project activities *(tCO2e)*

Herbaceous	2022	45	21,28	22.808,19	-21.843,51
Dispersed	2022	0	151,63	3.024,23	-3.024,23
Herbaceous	2023	45	21,28	21.939,11	-20.974,44
Dispersed	2023	0	151,63	2.788,18	-2.788,18
Herbaceous	2024	45	21,28	21.103,16	-20.138,48
Dispersed	2024	0	151,63	2.570,55	-2.570,55

Source: Fundación Cataruben, 2025.

The step-by-step calculations can be reviewed in (2. Anexos / 7. Monitoreo de emisiones / 7.1. Monitoreo de Emisiones).

16.4 Net GHG emission reductions/removals

The quantification of emissions reduced by avoided deforestation and degradation during the monitoring period is the result of the relationship between emissions in the baseline scenario, emissions during the project and emissions due to leakage, applying the following equation:

$$RE = (t_2 - t_1) x (EA_{lb,year} - EA_{proj,year} - EA_{f,year})$$

Where:

RE	Net reduction of GHG emissions; tCO2e
t_2	Year end of monitoring period; year
t_1	Year of beginning of monitoring period; year
$EA_{lb,year}$	Annual emission in the baseline scenario; tCO2e
$EA_{proj,year}$	Annual emission in the project area for the period monitored; tCO2e
$EA_{f,year}$	Annual emission in the leakage area for the monitored period; tCO2e

During the monitoring period, greenhouse gas (GHG) emissions associated with deforestation were identified in the leakage area, with an annual emission of **15,065 tCO_2e** recorded.

Thus, during the third monitoring period of the project, a reduction of **503.537,0** tCO2e was recorded (Table 56), of which 75.66% is attributed to avoided deforestation and the remaining 24.33% to avoid transformation in wetlands.

Table 56. GHG emissions reduction report for the period 2022 - 2024.

Verification	Year	GHG emissions in the baseline scenario *(tCO2e)*	Project GHG Emissions *(tCO2e)*	GHG emissions attributable to leakage *(tCO2e)*	Net GHG reduction *(tCO2e)*
second	01/01/2022 31/12/2022	224.014	20050,31	15.065	188.898
	01/01/2023 31/12/2023	190.408	20050,31	15.065	155.292
	01/01/2024 31/12/2024	194.460	20050,31	15.065	159.345
	Total	608.882	60150,93	45.195	**503.535**
	annual average	202.961	20050,31	15.065	167.845

Source: Fundación Cataruben, 2025.

16.5 Comparison of actual emission reductions with estimates in the project document

The actual net emission reductions recorded during the 2022–2024 monitoring period showed differences compared to the ex-ante estimate, with a variation of approximately 10.58%, which is higher than initially projected. (Table 57).

These differences are mainly due to a decrease in degradation and land-use conversion events in both the leakage area and the project area, which were lower than those projected in the baseline scenario. As a result, GHG emissions in the project scenario were reduced, directly impacting the total emission reductions achieved by the project.

Table 57. Comparison of Estimated and Reported GHG Emission Reductions During the Monitoring Period (2022–2023).

Year	Estimated net GHG reduction *(tCO2e)*	Observed net GHG reduction *(tCO2e)*	Difference
2022	181.644	188.899	3,99%
2023	118.354	155.293	31,21%
2024	155.357	159.345	2,57%
Total	455.355	503.537	10,58%

Fuente: Fundación Cataruben, 2024

16.6 Remarks on difference from estimated value in the registered project document

During the 2022–2024 monitoring period, the CO2Bio P2-2 project reported a net reduction of 503,535 tCO_2e, with an annual average of 167,845 tCO_2e. Project and leakage emissions remained constant (20,050.31 and 15,065 tCO_2e respectively), reflecting stability in the implemented activities and methodological consistency.

No evidence of deforestation displacement was found, which supports the environmental integrity of the project. It is concluded that the project meets the technical criteria for carbon accounting and maintains the required traceability and verifiability. Improved documentation of natural forest loss drivers is recommended for future verifications.

NOTA: Este Informe de Seguimiento (IM) se completará siguiendo las instrucciones incluidas. Sin embargo, es importante resaltar que estas instrucciones son complementarias a las NORMA BCR, y la Metodología aplicada por el titular del proyecto, en la que se puede encontrar más información de cada apartado.