

CABILDO MAYOR INDÍGENA DE VIGÍA DEL FUERTE REDD+ PROJECT

Document prepared by Fondo Acción

Name of the project	CABILDO MAYOR INDÍGENA DE VIGÍA DEL FUERTE REDD+ PROJECT
Project holder	Indigenous Resguardos Río Jarapetó, Ríos Jengadó – Apartadó, El Salado and Guaguandó, which are part of the Cabildo Mayor Indígena de Vigía del Fuerte
Account holder	<i>The account holder in the Global CarbonTrace registry</i>
Legal representative	<i>Legal Representative of the account holder in the Global CarbonTrace registry</i>
Project holder's contact information	<p>Roberto Valencia Evao Governor of the Cabildo Mayor Indígena of Vigía del Fuerte Cell: 312 819 66 83 Carrera 1 # 10-12 Barrio Los Manguitos</p> <p>Gustavo Dumasa Bugama Email: bugama1984@hotmail.com Governor of the Resguardo Río Jarapetó Cell: 312 243 36 72</p> <p>Jaime Bailarín Oqui Email: jaimeoqui33@gmail.com</p>

	<p>Governor of the Resguardo Ríos Jengadó – Apartadó Cell: 312 238 14 11</p> <p>Laureano Evao Cerezo Governor of Resguardo El Salado Cell: 322 362 34 47</p> <p>Vidal Mecheche Mecheche Email: vidalmecheche@gmail.com Governor of the Resguardo Guaguandó Cell: 323 468 79 06 Carrera 4 # 10-59, Barrio Palmira</p>
Other project participants	<p>Fondo para la Acción Ambiental y la Niñez – Fondo Acción Nativa Forest S.A.S.</p>
Version	1.0
Date	17/12/2024
Project type	Reducing emissions from deforestation and forest degradation (REDD+)
Grouped project	No
Applied Methodology (ies)	<p>BioCarbon Registry Methodological Document of the AFOLU Sector Quantifying GHG Emission Reductions REDD+ Projects</p>

	<p>BCR0002</p> <p>Version 4.0</p> <p>May 27, 2024</p> <p><i>(Cuantificación de la Reducción de Emisiones de GEI Proyectos REDD+ / BCR0002)</i></p>
Project location (City, Region, Country)	<p>Country: Colombia</p> <p>State: Antioquia</p> <p>Municipality: Vigía del Fuerte</p>
Starting date	(16/11/2021)
Quantification period of GHG emissions reduction	(16/11/2021 to 16/11/2061)
Estimated total and average annual GHG emission reduction/removals amount	<p><i>Deforestation:</i></p> <p>98,953 tCO₂e/year</p> <p>3,958,102 tCO₂e (total 40 years)</p>
Sustainable Development Goals	SDG1, SDG 2, SDG 4, SDG 5, SDG 8, SDG 13, SDG 15.
Special category, related to co-benefits	Orchid

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1 Project type and eligibility

1.1 Scope in the BCR Standard

The scope of the BCR Standard is limited to:	
The following greenhouse gases, included in the Kyoto Protocol: Carbon Dioxide (CO ₂), Methane (CH ₄) and Nitrous Oxide (N ₂ O).	x
GHG projects using a methodology developed or approved by BioCarbon, applicable to GHG removal activities and REDD+ activities (AFOLU Sector).	x
Quantifiable GHG emission reductions and/or removals generated through implementation of GHG removal activities and/or REDD+ activities (AFOLU Sector).	x
GHG projects using a methodology developed or approved by BioCarbon, applicable to activities in the energy, transportation and waste sectors.	
Quantifiable GHG emission reductions generated through implementation of activities in the energy, transportation and waste sectors.	

This project has its focus on the Agriculture, Forestry and Other Land Use (AFOLU) sector under the category of Reducing Emissions from Deforestation and Degradation (REDD+) project. This is a project that aims to mitigate the effects caused by climate change through the reduction of CO₂ emissions from deforestation and forest degradation. The reduction of CO₂ emissions is achieved through the implementation of activities that increase forest governance, offer sustainable forest management, promote sustainable productive practices and that together improve the well-being of the communities of the indigenous Resguardos Río Jarapetó, Ríos Jengadó – Apartadó, El Salado and Guaguandó.

1.2 Project type

Activities in the AFOLU sector, other than REDD+	
REDD+ Activities	x
Activities in the energy sector	
Activities in the transportation sector	
Activities related to Handling and disposing of waste	

1.3 Project scale

N/A

2 General description of the project

The Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project is located in the municipality of Vigía del Fuerte, department of Antioquia and is led by the indigenous communities of the Río Jengadó - Apartadó, Río Jarapetó, El Salado and Guaguandó, belonging to the Cabildo Mayor Indígena de Vigía del Fuerte. The Resguardos that make up the Cabildo Mayor have a total area of 42,935 hectares¹. The project area (eligible area with natural forest) has a total area of 41,554 ha determined in the year 2021 and will be monitored until the year 2061. The project aims to contribute to mitigating the effects caused by climate change by reducing 3,461,383.41 tCO₂e from deforestation and forest degradation processes during 40 years corresponding to the quantification period, and which are equivalent to the average emission reduction of 86,534.59 tCO₂e/year.

The project has the technical support of the Fondo para la Acción Ambiental y la Niñez – Fondo Acción, and Nativa Forest S.A.S. The participation of the communities reflects a commitment to sustainability, aligning with the Pacific Forest Reserve Zone established

¹ Source: shapefile from Agencia Nacional de Tierras (ANT) 17th de october/2023.

by Ley 2 of 1959, thus contributing to environmental and cultural conservation in the region. In addition, Ley 21 of 1991 in Colombia supports this commitment by approving ILO Convention No. 169 on indigenous peoples, emphasizing articles 15 and 16, which recognize the right of indigenous peoples to determine the use of their territories and promote consultation and cooperation in decisions that directly affect them.

The project is in line with the principles previously set out and addresses as a priority the problem of selective timber extraction for commercial purposes, an activity that has historically represented an important source of income for the communities of the Resguardos. The members of the communities of the Resguardos, with the aim of complementing or constituting their income, carry out the harvesting of wood for commercial purposes, although nowadays it is increasingly common to reach agreements with external parties so that they can carry out the harvest, and thus receive a lower income, such as commission, which does not imply the generation of costs. This activity, along with subsistence agriculture (near settlements), mining and forestry schemes, which are also implemented with the approval of the communities of the Resguardos, are the main drivers of deforestation and degradation in the project area. Therefore, the main objective of the project is to reduce the pressure on natural forests through:

- Strengthening of local governance (improvement of internal regulations, territorial planning, delimitation of reserve areas, protection of the territory, among others).
- Strengthening the technical and administrative capacities of communities
- Promotion of sustainable productive practices that generate income similar to those obtained by the NON-sustainable use of forests and that ultimately improve the living conditions of communities
- Actions to restore degraded areas.

In accordance with the special categories, related to the co-benefits indicated by the BCR0002 methodology, the REDD+ Vigía del fuerte project has selected the Orchid category with the aim of proposing different actions that allow the implementation of conservation and sustainable management strategies of forests; these actions will promote the protection of biodiversity, the generation of social and economic benefits for local communities, and gender equality, thus contributing directly to the Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 5 (Gender Equality), SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth).

This project focuses on the AFOLU (Agriculture, Forestry and Other Land Use) sector, specifically in the REDD+ (Reducing Emissions from Deforestation and Forest

Degradation in Developing Countries) category. Its main objective is to mitigate the effects of climate change by reducing CO₂ emissions associated with deforestation and forest degradation, while promoting activities aimed at improving the well-being of local communities.

Finally, the early participation of the communities has generated awareness and preparation, culminating in the approval of the project through the Assembly space, evidencing the long-term commitment of the communities to the reduction of emissions and environmental preservation.

2.1 GHG project name

Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project

2.2 Objectives

The objectives of the project are: (i) to mitigate climate change by reducing deforestation and forest degradation, as well as the natural recovery of already degraded forest lands; (ii) contribute to the conservation of the biodiversity that inhabits the ecosystems of the project areas, and (iii) promote the sustainable development of local communities. A more detailed description of each objective is presented below.

Climate

The climate objectives of the project are to mitigate climate change through measures aimed at counteracting the drivers of deforestation and forest degradation in the project area. Reducing illegal logging, reducing the conversion of forests to other land uses, and restoring already degraded forests is expected to reduce emissions and improve forest carbon stocks over time.

Community

The sacred sites, reserve areas, rivers, forests and animals that inhabit them, in addition to the language, customs and traditions, are elements of great importance for the communities of the Resguardos. The project aims to develop communities in harmony with the above elements, preserving natural resources and biodiversity. This is achieved by:

- (i) the strengthening of local governance through the knowledge and protection of their territory, as well as the improvement of land-use planning;
- (ii) support for the development of livelihood and income-generating alternatives through training and technical assistance in agricultural activities
- (iii) the enhancement of local technical and administrative capacities, through training activities that intentionally include women from the communities.

Biodiversity

To contribute to the conservation of biodiversity through the conservation of the natural forest, as well as the High Conservation Values, present in the territory of the indigenous Resguardos of Vigía del Fuerte. Similarly, through the long-term restoration of degraded areas, it is intended to recover the original structural, compositional and functional attributes of the forests; that guarantee ecosystem connectivity within the project area.

2.3 Project activities

2.3.1 Methodology

The REDD+ activities that aim to reduce deforestation and forest degradation in the territory of the indigenous Resguardos of Río Jarapetó, Ríos Jengadó – Apartadó, El Salado and Guaguandó, were identified using the event or causal model methodology, in which, together with the communities (see Annex A), carried out on May 23 and 24, 2024, First, the direct cause related to human activities that causes the problem, in this case deforestation and degradation, and the agent or engine that is causing it, is determined. Subsequently, the indirect and underlying causes are identified, which reinforce the direct causes and group social, economic, cultural, and political variables that influence the agents or drivers and help explain why deforestation and degradation phenomena occur.

As previously analyzed in the description of the causes and agents responsible for deforestation and degradation, these have an economic and cultural origin, and are executed by external and internal (local) agents. Communities resort to the use of the forest to meet their economic needs, since implementing sustainable crops is complicated due to factors such as lack of resources, long distances to markets, limitations of soil for productive purposes and insufficient technical capacities to address these restrictions. The absence of adequate territorial governance also leads to unsustainable use of the forest.

Subsequently, once the agents and the direct and indirect and underlying causes of deforestation and degradation have been identified, the actions or activities that should

be implemented to reduce these causes are proposed. Through workshop 03 held on May 23 and 24, 2024), the participants of the seven (7) communities of the four (4) indigenous Resguardos, expressed the alternatives that must be made in order to reduce deforestation and degradation, and consequently improve their living conditions through the use of the solution tree theory (see Annex A).

2.3.2 Project activities

This is how different actions are identified that are grouped into four thematic components:

- Sustainable production systems: which include productive income-generating activities and those that promote food security. The priority is to start with families whose main economic activity is the use of commercial wood.
- Territorial governance: construction and implementation of governance instruments such as the Life Plan, Land Use Plan, internal regulations, among others. Also the implementation of strategies that allow monitoring actions on forests and the biodiversity they host.
- Capacity building: includes strengthening in governance, technical in sustainable forest and agricultural use, as well as managerial and administrative use.
- Restoration/reforestation: enrichment of degraded areas and areas destined for the extraction of wood for domestic activities (firewood and construction) through restoration processes.

The actions or activities determined are in accordance with the objectives of the project

- (i) mitigating climate change by reducing deforestation and forest degradation, as well as the natural recovery of already degraded forest lands;
- (ii) contribute to the conservation of the biodiversity that inhabits the ecosystems of the project areas, and
- (iii) promote the sustainable development of local communities.

This participatory process, carried out between the communities, local actors, and the technical teams of Nativa Forest and Fondo Acción, has made it possible to characterize the communities in social and economic terms. Through workshops, meetings and other activities, the causes and agents of deforestation and degradation, the main agricultural activities, food security needs and possible income alternatives were identified, assessing their technical and financial viability according to climatic and soil conditions, as well as their traditional practices (See Annexes B, C, D, E).

Workshops were held with representatives of the indigenous communities of the Resguardos, with the aim of:

- i) identify production models that promote food security
- ii) identify productive income-generating alternatives
- iii) identify and analyse the drivers of deforestation and degradation,
- iv) identify the agents that cause deforestation and degradation,
- v) identify solutions and strategies to reduce deforestation and degradation through the REDD+ project.
- vi) identify the possible risks of the identified solutions and what would be the measures to mitigate their impact

Sustainable production systems are established in areas without forest cover, near settlements, in regulated areas and according to the ancestral traditions of the communities (shifting cultivation). The selection of beneficiaries in each period will be carried out through local assemblies. With respect to the areas subject to ecological restoration, enrichment with timber species for domestic activities (firewood, construction), priority will be given to areas previously degraded by mining activities, forest harvesting and areas adjacent to settlements that allow the achievement of the wood-burning garden objective.

In conclusion, all the project's interventions are aimed at reducing deforestation and forest degradation, conserving natural forests and the biodiversity associated with them, as well as improving the living conditions of communities. Decisions related to implementation and the selection of beneficiaries (families or individuals) are discussed and approved in legitimate spaces of community participation, such as assemblies.

2.3.3 Description of REDD+ activities

The following tables describe each of the project activities, implementation schedule, monitoring indicators, among other information. This information can be seen in Appendix F.

ID Activity	A-1
REDD+ Activity	Design and prioritization of business plans for the implementation of productive income-generating alternatives.

Component of the REDD+ strategy	Sustainable production systems				
Relationship of the activity to the direct or underlying cause	<p>Direct cause: Low implementation of profitable production models and food security.</p> <p>Underlying cause: Poor soil fertility and low capacity in agricultural techniques.</p> <p>Few economic alternatives</p> <p>Lack of technical support from institutions.</p>				
Objective	Develop business plans and prioritize the best income-generating alternative(s) for the indigenous communities of the Cabildo Mayor Indígena de Vigía del Fuerte, taking into account the prior identification of the following products: pineapple, murrapo, vanilla, turmeric, forest seeds and sustainable forest management.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Project Activities and Technical Committees Workshop				
Responsibility and role of the actors involved in the implementation	<p>Communities: gathering information and supporting prioritization.</p> <p>REDD+ Project Coordinator: Contracting of consultancy, supervision and accompaniment.</p> <p>Productive Coordinator: Accompany the design and prioritization.</p> <p>Fondo Acción: Design of a Business Plan and support for prioritization.</p> <p>Consulting: Design and prioritization of business plans.</p>				
Deployment timeline	Year 2025				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager

# of business plans designed and prioritized	A-1.1	Product	At least 5 business plans are designed in a participatory manner.	Engineered Business Plans	Local Executing Organization/ Operator Productive Coordinator - REDD+ Local Unit
# of people participating in workshops for the construction of Business Plans and prioritization of alternative(s)	A-1.2	Result	Equitable participation of the peoples of the territory in the spaces and processes of prioritization of alternatives and construction of business plans.	Number of people	Local Executing Organization/ Operator Productive Coordinator - REDD+ Local Unit
# of women participating in workshops for the construction of Business Plans and prioritization of alternative(s)	A-1.3	Result	Participation of local women in the spaces and processes of prioritization of alternatives and construction of business plans.	Number of women	Local Executing Organization/ Operator Productive Coordinator - REDD+ Local Unit

ID Activity	A-2
REDD+ Activity	Implementation of designed and prioritized business plans (productive alternatives)
Component of the REDD+ strategy	Sustainable production systems

Relationship of the activity to the direct or underlying cause	<p>Direct cause: Low implementation of profitable production models and food security.</p> <p>Underlying cause: Poor soil fertility and low capacity in agricultural techniques.</p> <p>Few economic alternatives</p> <p>Lack of technical support from institutions.</p>				
Objective	Implement productive income-generating alternatives for the communities according to the results of the business plans designed.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Project Activities and Technical Committees Workshop				
Responsibility and role of the agents involved in the application	<p>Communities:</p> <p>Implementation REDD+ Project Coordinator: Procurement, Supervision and Follow-up</p> <p>Productive Coordinator: Supervision and Accompaniment</p> <p>Fondo Acción: Accompanying Support</p>				
Deployment timeline	<p>Year 2 (2025): 20 families</p> <p>Year 3 (2026): 40 families</p>				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Business plans implemented	A-2.1	Result	At least 5 business plans are implemented	Number of business plans implemented	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit

# Hectares implemented and/or improved from the prioritized business plans (productive alternatives).	A-2.2	Result	Improvement of production areas under a sustainable production system	Number of hectares	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of families benefiting from business plans (productive alternatives) implemented	A-2.3	Result	Families in the territory that implement productive activities (business plans) under a sustainable production system.	Number of families	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of people participating in capacity-building activities in productive alternatives	A-2.4	Result	Equitable participation of the local population in capacity-building activities related to productive activities.	Number of people	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of women participating in capacity-building activities related to productive activities	A-2.5	Result	Equitable participation of the local population in capacity-building activities related to productive activities.	Number of women	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# Net profit of implemented business plans	A-2.6	Result	Business plans that offer better economic income to communities under a sustainable production system.	Income in Colombian pesos	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit

ID Activity	A-3				
REDD+ Activity	Design and implementation of food safety alternatives				
Component of the REDD+ strategy	Sustainable production systems				
Relationship of the activity to the direct or underlying cause	Direct cause: Low soil productivity, traditional production systems, lack of land-use planning tools and basic needs. Underlying cause: Environmental conditions and low organizational capacity.				
Objective	Design family units for the establishment of food security models in the indigenous communities of the Cabildo Mayor Indígena de Vigía del Fuerte.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Project Activities and Technical Committees Workshop				
Responsibility and role of the agents involved in the application	Communities: Implementation REDD+ Project Coordinator: Procurement, Supervision and Follow-up Productive Coordinator: Supervision and Accompaniment Fondo Acción: Accompanying Support				
Deployment timeline	From Year 1 (2024)				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager

# of food safety models designed and implemented	A-3.1	Result	At least 3 food safety models designed in a participatory manner and implemented	Number of food safety models	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of people participating in workshops (decision-making spaces) for identification and prioritization, agreement on food security models.	A-3.2	Result	Equitable participation of the peoples of the territory in the spaces and processes of prioritization of food security models. At least 70 people in the year	Number of people	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of women participating in workshops (decision-making spaces) for the identification and prioritization of food security models and agreement on food security models	A-3.3	Result	Women's participation in the spaces and processes of prioritization of food security models. At least 25 women in the year	Number of women	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of families with food security model implemented	A-3.4	Result	Food security models are implemented in the territory that contribute to sustainable production systems in family units.	Number of families	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit

			At least 30 families with food security models per year.		
# of hectares with food security model implemented	A-3.5	Result	Food security models are implemented in the territory that contribute to sustainable production systems in family units. At least 22.5 hectares with food security models per year.	Number of hectares	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit

ID Activity	A-4
REDD+ Activity	Implementation, monitoring and continuous improvement of productive income-generating alternatives.
Component of the REDD+ strategy	Sustainable production systems
Relationship of the activity to the direct or underlying cause	Direct cause: Low implementation of profitable production models and food security. Underlying cause: Poor soil fertility and low capacity in agricultural techniques. Few economic alternatives Lack of technical support from institutions.
Objective	Carry out supervision, training and monitoring of the productive income-generating alternatives implemented by the communities. This activity will focus on developing, maintaining, and improving productive alternatives that generate sustainable income for the community. It also includes a systematic monitoring process to evaluate the performance and ensure the economic and environmental viability of these initiatives.

Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Project Activities and Technical Committees Workshop				
Responsibility and role of the agents involved in the application	<p>Communities: Implementation of the REDD+ Project Coordinator: Procurement, supervision and accompaniment</p> <p>Productive coordinator: Supervision and accompaniment</p> <p>Agricultural technician: training, follow-up</p> <p>Institutions: SENA, Corpourabá, municipality of Umata</p> <p>Fondo Acción: support and accompaniment</p>				
Deployment timeline	From Year 1 (2024)				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# of people who receive technical assistance in productive activities (business plans)	A-4.1	Result	Provide technical assistance to at least 20 beneficiaries of the prioritized business plans for 2025 and 40 individuals for 2026.	Number of people	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# of women who receive technical assistance in productive activities (business plans)	A-4.2	Result	Provide technical assistance to at least 5 women beneficiaries of the prioritized business plans for 2025 and 8 people for 2026.	Number of women	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit

# Technical assistance provided to the implemented productive activities (business plans)	A-4.3	Result	Carry out technical assistance visits to the implemented business plans, at least 1 visit every 2 months in each community (42/year)	Technical Support Number	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# Families that improve their economic income from the business plans implemented	A-4.4	Result	Families that improve their economic income based on the business plans implemented, at least 30 families (2024) 80 families (2025) 100 families (2026)	Number of families	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit
# Women who improve their economic income through implemented business plans (productive activities)	A-4.5	Result	Women who improve their economic income based on the business plans implemented, at least 10 women (2024) 16 women (2025) 20 women (2026)	Number of women	Local Executing Organization/Operator Productive Coordinator - REDD+ Local Unit

ID Activity	A-5
REDD+ Activity	Maintenance or improvement and monitoring of implemented or improved food safety support alternatives.
Component of the REDD+ strategy	Sustainable production systems

Relationship of the activity to the direct or underlying cause	<p>Direct cause: Low implementation of profitable production models and food security.</p> <p>Underlying cause: Poor soil fertility and low capacity in agricultural techniques.</p> <p>Few economic alternatives</p> <p>Lack of technical support from institutions.</p>					
Objective	<p>Design family units for the establishment of models to support food security in the indigenous communities of the Cabildo Mayor Indígena de Vigía del Fuerte.</p>					
Compliance with life plans or ethnic development plans	<p>N/A</p>					
Consultation mechanism to define REDD+ activity	<p>Project Activities and Technical Committees Workshop</p>					
Responsibility and role of the agents involved in the application	<p>Communities: Implementation of the REDD+ Project Coordinator: Procurement, supervision and accompaniment</p> <p>Productive coordinator: Supervision and accompaniment</p> <p>Agricultural technician: training, follow-up</p> <p>Institutions: SENA, Corpourabá, municipality of Umata</p> <p>Fondo Acción: support and accompaniment</p>					
Deployment timeline	<p>From Year 1 (2024)</p>					
Indicators to report on progress						
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager	

# of people who participate in technical advice on implemented or improved food security support alternatives.	A-5.1	Result	Provide technical assistance in food security support alternatives, at least: 20 people (2025) 40 people (2026)	Number of people	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians
# of women participating in technical advisory services for productive alternative(s)	A-5.2	Result	Provide technical assistance to women on alternatives to support food security, at least: 4 women (2025) 8 women (2026)	Number of women	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians
# of technical assistance for food security support alternatives implemented or improved.	A-5.3	Result	Provide technical assistance in alternatives to support food security, at least 1 visit every 2 months in each community (42/year).	Technical Support Number	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians
# of families that improve food security through the implementation of food security support alternatives.	A-5.4	Result	Families that improve food security through the implementation of food security support alternatives, at least: 30 families (2024) 80 families (2025) 100 families (2026)	Number of families	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians

# of women who improve food security through the implementation of food security support alternatives.	A-5.5	Result	Women Improve food security through the implementation of food security support alternatives, at least: 10 women (2024) 16 women (2025) 20 women (2026)	Number of women	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians
# of hectares implemented or improved in support of household security	A-5.6	Result	hectares implemented or improved to support family security, at least: 15 ha (2025) 30 ha (2026)	Number of hectares	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians
# of livestock initiatives implemented or enhanced in support of household security	A-5.7	Result	Implementation of livestock initiatives to support food security, at least: 2 (2024) 5 in each subsequent year.	Number of livestock initiatives	Executing Organization/Local Operator Production Coordinator - Local REDD+ Unit, Production Technicians

ID Activity	A-7
REDD+ Activity	Construction or adaptation of the Environmental Management Plan
Component of the REDD+ strategy	Territorial governance

Relationship of the activity to the direct or underlying cause	The development or adaptation of the Environmental Management Plan directly addresses the lack of definition in land uses, creating clarity and improving awareness and control over the territory's natural resources. At the underlying level, this activity combats the absence or insufficiency of a management plan, providing a comprehensive structure for the sustainable management of the territory.					
Objective	Build and/or adjust the Environmental Management Plan for each of the INDIGENOUS reserves in order to identify and plan the uses of land and natural resources in the project area. Define the areas within the territory that will be used for conservation, production, settlements, among others, as well as the exploitation (extraction, use and management) of natural resources and ecosystem services.					
Compliance with life plans or ethnic development plans	N/A					
Consultation mechanism to define REDD+ activity	Workshop, activities, projects and technical committees Approval at the general assembly					
Responsibility and role of the agents involved in the application	Cabildo Mayor, REDD+ Coordinator: Design, socialization, implementation supervision. Governance, carbon and biodiversity technical teams: implementation and monitoring. Local communities: Implementation of the Fondo Acción: technical support and accompaniment					
Deployment timeline	From 2025 to 2065					
Indicators to report on progress						
Name	ID Indicador	Guy	Goal	Unit of Measure	Measurement Manager	

# Environmental management plans built or adjusted	A-7.1	Product	Design and prioritize environmental management plans in a participatory manner.	Number of management plans	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# Governance instruments for territorial management built or adjusted	A-7.2	Product	Instruments developed to strengthen the governance of territorial management	Number of governance tools	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of people who participate in participatory forums for the construction or adjustment of governance instruments (tools)	A-7.3	Result	Equitable participation of community members in the development of governance instruments for territorial management.	Number of people	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of women who participate in participatory forums for the construction or adjustment of governance instruments.	A-7.4	Result	Participation of community women in the development of governance instruments for territorial management.	Number of women	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# Spaces for community participation for the construction or adjustment of governance instruments	A-7.5	Result	Spaces generated for decision-making and development of instruments to optimize the management of projects and territories.	Number of participation spaces	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

ID Activity	A-8
REDD+ Activity	Update of internal regulations considering the Sustainable Management Plan
Component of the REDD+ strategy	Territorial governance
Relationship of the activity to the direct or underlying cause	By including specific regulations and sanctions to regulate deforestation and degradation, the lack of regulation within the Resguardos is directly addressed. In addition, through the development of instruments and tools for its implementation, defining clear processes and promoting community participation, the lack of tools and mechanisms necessary for effective territorial governance is addressed.
Objective	To regulate access to and use of the territory's natural resources.
Compliance with life plans or ethnic development plans	N/A
Consultation mechanism to define REDD+ activity	Workshop, activities, projects and technical committees Approval of the internal regulations at the general meeting
Responsibility and role of the agents involved in the application	Cabildo Mayor and REDD+ Coordinator: Design the update process and accompany the socialization and implementation. Governance Coordinator: Supervision and technical support. Local communities: Implementation Native Forest: Support for implementation Fondo Acción: Support and technical accompaniment
Deployment timeline	2025 to 2027 (from the second year)

Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Number of internal regulations created or adjusted	A-8.1	Product	Create spaces for community participation in the development and/or updating of internal regulations.	Number of Internal Regulations	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# Governance instruments for territorial management built or adjusted	A-7.2	Product	Instruments developed to strengthen the governance of territorial management	Number of governance tools	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of people who participate in participatory forums for the construction or adjustment of governance instruments (tools)	A-7.3	Result	Equitable participation of community members in the development of governance instruments for territorial management.	Number of people	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of women who participate in participatory forums for the construction or adjustment of governance instruments.	A-7.4	Result	Participation of community women in the development of governance instruments for territorial management.	Number of women	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

ID Activity	A-9
REDD+ Activity	Demarcation of forests and areas important for biodiversity conservation
Component of the REDD+ strategy	Territorial governance
Relationship of the activity to the direct or underlying cause	By clearly identifying the areas and resources available for use through physical demarcation and mapping, the lack of knowledge about which areas can be used and which are protected is eliminated. This will promote the appropriate and sustainable use of natural resources. On the other hand, by establishing clear and visible boundaries for conservation areas, the activity provides a solid basis for the protection of these areas, preventing the invasion and misuse of natural resources. It also improves territorial governance by facilitating the application of internal regulations, and encourages community participation in the sustainable management of the territory.
Objective	Demarcate key areas for the conservation, maintenance and enhancement of carbon stocks, as well as for the protection of biodiversity.
Compliance with life plans or ethnic development plans	N/A
Consultation mechanism to define REDD+ activity	Workshop, activities, projects and technical committees Approval at the general assembly
Responsibility and role of the agents involved in the application	Cabildo Mayor, REDD+ Coordinator: Design, socialization, implementation supervision. Governance, carbon and biodiversity technical teams: implementation and monitoring. Local communities: Implementation of the Fondo Acción: technical support and accompaniment
Deployment timeline	2025 to 2029 (From the second year)

Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Number of hectares of forest and key biodiversity conservation areas demarcated for biodiversity conservation	A-9.1	Result	Develop spaces for community participation for the zoning and demarcation of forest areas and areas important for biodiversity conservation.	Hectares	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
# of people involved in consultation and decision-making processes for the demarcation and conservation of forests and biodiversity areas	A-9.2	Result	Equitable participation of local people in the demarcation of forests and biodiversity conservation areas.	Number of people	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
# of women participating in consultation and decision-making processes for the demarcation and conservation of forests and biodiversity areas	A-9.3	Result	Participation of local women in the demarcation of forests and biodiversity conservation areas.	Number of women	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit

ID Activity	A-10
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REDD+ Activity	Conservation and non-logging agreements				
Component of the REDD+ strategy	Territorial governance				
Relationship of the activity to the direct or underlying cause	By defining land uses within the project area, conservation agreements remove ambiguity regarding resource use, facilitating sustainable management and monitoring. Similarly, these agreements integrate traditional knowledge and technical judgment, and address the lack of a coherent sustainable management plan, which provides a basis for long-term land management.				
Objective	Establish and implement conservation agreements and ensure compliance with the environmental management plan.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Workshop, activities, projects and technical committees Approval at the general assembly				
Responsibility and role of the agents involved in the application	Cabildo Mayor, REDD+ Coordinator: Design, socialization, implementation supervision. Governance, carbon and biodiversity technical teams: implementation and monitoring. Local communities: Implementation of the Fondo Acción: technical support and accompaniment				
Deployment timeline	From 2025 to 2065				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager

# of Conservation and Non-Logging Agreements Signed	A-10.1	Product	Establish conservation agreements that integrate traditional knowledge and technical criteria for the sustainable management and conservation of the territory.	Number of agreements signed	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
# of hectares under conservation agreement	A-10.2	Result	Hectares associated with conservation areas identified by each of the beneficiaries of the project.	Number of hectares	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
# Number of people participating in training sessions and workshops on conservation and sustainable land management.	A-10.3	Result	Promote equitable participation of community members in training opportunities on conservation and sustainable land management.	Number of people	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
# Number of women participating in training sessions and workshops on conservation and sustainable	A-10.4	Result	Promote the participation of women in the community in training sessions on conservation and sustainable	Number of women	Local implementer/operator Governance Coordinator-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit

land management			land management.		
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ID Activity	A-11
REDD+ Activity	Form local REDD+ teams to protect and care for the territory and monitor compliance with the management plan and conservation agreements.
Component of the REDD+ strategy	Territorial governance
Relationship of the activity to the direct or underlying cause	Through the formation of teams of forest rangers, it is ensured that the use of natural resources is carried out in an orderly and sustainable manner, avoiding deforestation and generating collective benefits for the community. In addition, by providing the necessary tools and training, and by strengthening the organizational structure and community participation, a territorial governance framework is created, addressing the lack of implementation tools and instruments.
Objective	Promote forest protection through community-based monitoring of forests and their boundaries.
Compliance with life plans or ethnic development plans	N/A
Consultation mechanism to define REDD+ activity	Workshop on the definition of project activities and technical committees Approval in general assembly

Responsibility and role of the agents involved in the application	Cabildo Mayor, REDD+ Coordinator: Design, socialization, implementation supervision. Governance, carbon and biodiversity technical teams: implementation and monitoring. Local communities: Implementation of the Fondo Acción: technical support and accompaniment				
Deployment timeline	From 2025 to 2065				
Indicators to report on progress					
Name	ID Indicador	Guy	Goal	Unit of Measure	Measurement Manager
# Number of people hired to protect and care for the territory and monitor compliance with the management plan and conservation agreements.	A-11.1	Result	Involve the local population in monitoring activities for the protection of the territory's natural resources.	Number of people	Local implementer/operator Local REDD+ Coordinator Governance Coordinator-REDD+ Local Unit MRV Coordinator-REDD+ Local Unit Promoters- REDD+ Local Unit
# Number of women hired to protect and care for the territory and to monitor compliance with the management plan and conservation agreements.	A-11.2	Result	Involve local women in monitoring activities for the protection of the territory's natural resources.	Number of women	Local implementer/operator Local REDD+ Coordinator Governance Coordinator-REDD+ Local Unit MRV Coordinator-REDD+ Local Unit Promoters- REDD+ Local Unit

# Number of people who participate and accompany the activities for the protection and care of the territory.	A-11.3	Result	Equitable participation of the local population in REDD+ activities focused on the protection and care of the territory.	Number of people	Local implementer/operator Local REDD+ Coordinator Governance Coordinator-REDD+ Local Unit MRV Coordinator-REDD+ Local Unit Promoters- REDD+ Local Unit
# of visits for community monitoring, protection and care of the terrenary	A-11.4	Result	At least 1 monthly tour to exercise control and care of the land and community monitoring activities.	Number of routes	Local implementer/operator Local REDD+ Coordinator Governance Coordinator-REDD+ Local Unit MRV Coordinator-REDD+ Local Unit Promoters- REDD+ Local Unit

ID Activity	A-12
REDD+ Activity	Capacity building on REDD+ issues
Component of the REDD+ strategy	Territorial governance

Relationship of the activity to the direct or underlying cause	By developing technical and management skills in local communities, their capacity to manage the territory and the REDD+ project is enhanced, ensuring effective and sustainable management of natural resources, and by providing continuous training, access to resources and tools, gaps in training and resources are addressed, empowering communities to manage their projects and territory autonomously and sustainably.				
Objective	Strengthen the technical capacities of the community, project teams and community governance for project management				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Workshop on defining project activities and technical committees				
Responsibility and role of the agents involved in the application	Cabildo Mayor, REDD+ Coordinator: Design, socialization, implementation supervision. Governance, carbon and biodiversity technical teams: implementation and monitoring. Fondo Acción: technical support and accompaniment				
Deployment timeline	From 2025 to 2064				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager

# of people with strengthened capacities for the management and conservation of the territory	A-12.1	Result	Strengthen the capacities of community members to manage the administrative, legal, operational, monitoring and governance aspects of the REDD+ project.	Number of people trained	Local Implementer/Operator Organization Local REDD+ Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit Promoters- Local REDD+ Unit
# Number of women with strengthened capacities for land management and conservation	A-12.2	Result	Strengthen the capacities of women in the community to manage the administrative, legal, operational, monitoring and governance aspects of the REDD+ project.	Number of women trained	Local Implementer/Operator Organization Local REDD+ Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit Promoters- Local REDD+ Unit

ID Activity	A-13
REDD+ Activity	Design and implementation of governance instruments for better and effective territorial management.
Component of the REDD+ strategy	Territorial governance

Relationship of the activity to the direct or underlying cause	By regulating and controlling forestry activities and ensuring an equitable distribution of the benefits derived from their sustainable use, the activity ensures that the use of forest resources and productive activities are developed in an orderly manner and generate benefits for communities. Likewise, developing and applying clear governance and transparency instruments makes it possible to solve the lack of tools and instruments necessary for transparent and effective management of the territory, focusing on the prevention of deforestation				
Objective	Establish participatory and transparent community governance for project management, ensuring accountability, fair distribution of benefits, and adequate attention to requests, complaints, and grievances from communities and other stakeholders.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Workshop on the definition of project activities Technical committees Approval at the general assembly				
Responsibility and role of the agents involved in the application	Cabildo Mayor: Supervision of Implementation Technical teams on governance, carbon and biodiversity: design, implementation and monitoring. Native Forest: support in design, implementation and monitoring. Fondo Acción: technical support and accompaniment				
Deployment timeline	From 2024 to 2064				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Governance instruments for	A-7.2	Product	Instruments developed to	Number of	Local Executing Organization/Oper

territorial management built or adjusted			strengthen the governance of territorial management	governance tools	ator Governance Coordinator-REDD+ Local Unit
# of people who participate in participatory forums for the construction or adjustment of governance instruments (tools)	A-7.3	Result	Equitable participation of community members in the development of governance instruments for territorial management.	Number of people	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of women who participate in participatory forums for the construction or adjustment of governance instruments.	A-7.4	Result	Participation of community women in the development of governance instruments for territorial management.	Number of women	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of requests, complaints, and claims received	A-13.1	Product	Establish an effective mechanism for petitions, complaints, and claims that receives requests submitted by the community.	Number of applications received	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of requests for petitions, complaints, and claims resolved	A-13.2	Product	Establish an effective mechanism for petitions, complaints, and claims that responds to	Number of requests resolved	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

			requests made by the community.		
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ID Activity	A-14
REDD+ Activity	Spaces for community engagement with local authorities and neighbors to build and discuss issues related to the REDD+ project.
Component of the REDD+ strategy	Territorial governance
Relationship of the activity to the direct or underlying cause	Improving coordination and communication with institutions and neighbors through workshops and meetings ensures a more effective and aligned implementation of the REDD+ project, reducing the lack of coordination between institutions. By involving state institutions and facilitating the expression of needs and concerns, greater government commitment and support is promoted, strengthening the governance and sustainability of the REDD+ project.
Objective	Coordinate inter-agency activities to strengthen community capacity to protect the forest.
Compliance with life plans or ethnic development plans	N/A
Consultation mechanism to define REDD+ activity	Coordinate inter-agency activities to strengthen community capacity to protect the forest.
Responsibility and role of the agents involved in the application	Cabildo Mayor and REDD+ Governance Team: Design, implementation and monitoring. Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment
Deployment timeline	From 2025 to 2030

Indicators to report on progress					
Name	Identification indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Spaces for community participation with local authorities, neighbors and other actors to build and discuss issues related to the REDD+ project.	A-14.1	Result	Establish effective and sustainable spaces for community participation that promote dialogue, relationships and the construction of agreements with neighbors and local authorities, addressing REDD+ issues in an inclusive and collaborative manner.	Number of participation spaces	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# Number of people who actively participate in spaces for dialogue and collaboration with local authorities, neighbors and other actors	A-14.2	Result	Promote the equitable participation of the people of the territory in effective and sustainable spaces that foster dialogue, strengthen relationships and build agreements with neighbors and local authorities, ensuring an	Number of people	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

			inclusive and collaborative approach to address issues related to REDD+.		
# Number of women actively engaged in dialogue and collaboration with local authorities, neighbours and other stakeholders	A-14.3	Result	Promote the participation of local women in effective and sustainable spaces that foster dialogue, strengthen relationships, and build agreements with neighbors and local authorities, ensuring an inclusive and collaborative approach to addressing REDD+ issues.	Number of women	Local Executing Organization/Operator Governance Coordinator- REDD+ Local Unit

ID Activity	A-15
REDD+ Activity	Update the Life Plan taking into account REDD+ activities and community priorities.
Component of the REDD+ strategy	Territorial governance
Relationship of the activity to the direct or underlying cause	Updating the Life Plan with REDD+ activities and community priorities not only addresses the community's unmet basic needs, but also counteracts the lack of government support by strengthening local capacities and promoting community autonomy in the sustainable management of natural resources and territory.

Objective	Prioritize community needs that cause deforestation and that the REDD+ project can address.				
Compliance with life plans or ethnic development plans	The life plan should be updated to ensure that it reflects current conditions and community interests in the context of the REDD+ project. This update is crucial because it allows the priority needs of the communities proposing the project to be accurately identified. It also provides an updated roadmap that will facilitate the effective integration of conservation, sustainable development and governance strategies. The updated life plan will also strengthen community participation and engagement in the management of the REDD+ project.				
Consultation mechanism to define REDD+ activity	Workshop on defining REDD activities Technical committees Approval and socialization in general assembly.				
Responsibility and role of the agents involved in the application	Cabildo Mayor: Design, financing, implementation and monitoring. Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment				
Deployment timeline	From 2025 to 2028				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Governance instruments for territorial management built or adjusted	A-7.2	Product	Instruments developed to strengthen the governance of territorial management	Number of governance tools	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of people who participate in participatory forums for the construction or adjustment of	A-7.3	Result	Equitable participation of community members in the development of governance	Number of people	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

governance instruments (tools)			instruments for territorial management.		
# of women who participate in participatory forums for the construction or adjustment of governance instruments.	A-7.4	Result	Participation of community women in the development of governance instruments for territorial management.	Number of women	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# Spaces for community participation for the construction or adjustment of governance instruments	A-7.5	Result	Spaces generated for decision-making and development of instruments to optimize the management of projects and territories.	Number of participation spaces	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

ID Activity	A-16
REDD+ Activity	Build gender guidelines as a route for action and impact on project activities.
Component of the REDD+ strategy	Gender
Relationship of the activity to the direct or underlying cause	The construction of gender guidelines for the development of the project's activities directly addresses the low participation of women in decision-making spaces and counteracts the gender stereotypes and cultural practices that perpetuate this situation. By establishing clear guidelines and promoting capacity building

	around gender equity, a more inclusive and equitable environment is created that benefits the entire community.				
Objective	Promote the full and effective participation of women and ensure equal opportunities for leadership at all levels of decision-making within the project.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Workshop to define the activities of the REDD+ project Technical committees Approval at the general assembly				
Responsibility and role of the agents involved in the application	Cabildo Mayor: Design, financing, implementation and monitoring. Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment				
Deployment timeline	From 2025 to 2030				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Governance instruments for territorial management built or adjusted	A-7.2	Product	Instruments developed to strengthen the governance of territorial management	Number of governance tools	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# of people who participate in participatory forums for the construction or adjustment of	A-7.3	Result	Equitable participation of community members in the development of	Number of people	Local Executing Organization/Operator Governance

governance instruments (tools)			governance instruments for territorial management.		Coordinator-REDD+ Local Unit
# of women who participate in participatory forums for the construction or adjustment of governance instruments.	A-7.4	Result	Participation of community women in the development of governance instruments for territorial management.	Number of women	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit
# Spaces for community participation for the construction or adjustment of governance instruments	A-7.5	Result	Spaces generated for decision-making and development of instruments to optimize the management of projects and territories.	Number of participation spaces	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

ID Activity	A-17
REDD+ Activity	REDD+ Capacity Building and Leadership Training for Women
Component of the REDD+ strategy	Gender
Relationship of the activity to the direct or underlying cause	The implementation of leadership training workshops, REDD+ and technical trainings for women directly addresses the lack of technical and leadership skills among women, and counteracts the gender stereotypes and cultural practices that perpetuate this situation. By providing women with the necessary skills and challenging restrictive cultural norms, it fosters greater

	participation and empowerment of women in the REDD+ project and in the wider community.				
Objective	Strengthening women's technical capacities				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Workshop to define the activities of the REDD+ project Technical Committees				
Responsibility and role of the agents involved in the application	Cabildo Mayor and REDD+ Governance Team: Design, Implementation and Monitoring. Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment				
Deployment timeline	From 2025 to 2030				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Number of women with strengthened capacities in REDD+ and community leadership.	A-17.1	Result	Strengthen the capacities of women in the community to effectively lead and manage the administrative, legal, operational and governance aspects related to the REDD+ project.	Number of women	Local Executing Organization/Operator Governance Coordinator- REDD+ Local Unit

ID Activity	A-18
REDD+ Activity	Women involved, participating and accompanying initiatives for the protection and care of the territory within the framework of REDD+.
Component of the REDD+ strategy	Gender
Relationship of the activity to the direct or underlying cause	Hiring women as forest guardians addresses the high economic dependence on logging by providing sustainable alternative income and promotes women's economic autonomy, while contributing to the protection and conservation of forests. Ensure the active participation of all women in the territory in the processes of construction and implementation of REDD+, encouraging their involvement, contribution and accompaniment in activities aimed at the protection and sustainable care of the territory, strengthen gender equity, take advantage of traditional knowledge and promote a more inclusive and effective management of natural resources, contributing to the well-being of communities and environmental sustainability within the REDD+ Framework.
Objective	Involve women in the strategic activities of the REDD+ project.
Compliance with life plans or ethnic development plans	N/A
Consultation mechanism to define REDD+ activity	Workshop to define the activities of the REDD+ project Technical committees Approval at the general assembly
Responsibility and role of the agents involved in the application	Cabildo Mayor: Supervision of Implementation Governance , carbon technical teams and carbon management. Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment.

Deployment timeline	From 2025 to 2030				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
#Women linked, participatory, and accompanying activities for the protection and care of the REDD+ territory.	A-18.1	Result	Guarantee the active participation of all women in the territory in the processes of construction and implementation of REDD+, encouraging their involvement, contribution and accompaniment in activities aimed at the protection and sustainable care of the territory.	Number of women	Local Executing Organization/Operator Governance Coordinator-REDD+ Local Unit

ID Activity	A-19
REDD+ Activity	Identify and prioritize community needs to optimize social investments.
Component of the REDD+ strategy	Social investment
Relationship of the activity to the direct or underlying cause	Identifying social investment needs and planning to address them at the project level strengthens community ownership and engagement. This planning defines clear expectations, improves well-being, and reduces pressure on natural resources by mitigating the risk of resorting to deforestation-related activities. It also ensures an equitable distribution of benefits, promoting better living conditions for communities.

Objective	Improve community well-being and reduce pressure on natural resources through equitable social investments.
Compliance with life plans or ethnic development plans	This prioritization will be in line with what the communities consider in their worldview of the land and life plan, these strategies are aimed at improving the well-being of the communities.
Consultation mechanism to define REDD+ activity	Workshop on the definition of social investment Technical committees Approval at the general assembly
Responsibility and role of the agents involved in the application	Cabildo Mayor: Supervision of the Implementation of the technical teams of governance, carbon and carbon management. Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment
Deployment timeline	From 2025 to 2064

Indicators to report on progress

Name	Identification indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Number of people participating in meetings or workshops on decision-making for social investment.	A-19.1	Result	Implement participatory processes to identify and prioritize social investment.	Number of people	Local Executing Organization/ Operator Governance Coordinator - Local REDD+ Unit Local REDD+ Coordinator
# Number of women participating in meetings or workshops on	A-19.2	Result	Implement participatory processes with the active participation of local women to	Number of women	Local Executing Organization/ Operator Governance Coordinator -

decision-making for social investment.			identify and prioritize social investment.		Local REDD+ Unit Local REDD+ Coordinator
# Identified social investment needs	A-19.3	Result	Determine the priority social investment needs for the project	# Social investments	Local Executing Organization/ Operator Governance Coordinator - Local REDD+ Unit Local REDD+ Coordinator
# Families benefited from social investments	A-19.4	Result	To benefit the families/households of the territory with the Social Investments of the REDD+ Projects, thus promoting sustainable development and improving the quality of life of local communities.	# Families benefited	Local Executing Organization/ Operator Governance Coordinator - Local REDD+ Unit Local REDD+ Coordinator
# Women beneficiaries of social investments	A-19.5	Result	Benefiting the women of the territory with the Social Investments of REDD+ Projects, thus promoting sustainable development and improving the quality of life of local communities.	Number of women	Local Executing Organization/ Operator Governance Coordinator - Local REDD+ Unit Local REDD+ Coordinator

ID Activity	A-20				
REDD+ Activity	Monitoring changes in forest to non-forest cover in the project area and in the leakage zones to determine deforestation and degradation.				
Component of the REDD+ strategy	Carbon				
Relationship of the activity to the direct or underlying cause	Forest tracking and monitoring provides crucial data to assess the impact of REDD+ activities on forest conservation. This information informs strategic decision-making to mitigate deforestation and allows for effective verification of the results obtained during the implementation of the project, thus ensuring the adaptation and continuous improvement of the implemented interventions.				
Objective	Establish monitoring of the condition of the forest in indigenous reserves and in the escape zone, using remote monitoring technologies and community participation, to ensure the protection of the ecosystem and promote sustainability in the project area.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	N/A				
Responsibility and role of the agents involved in the application	Cabildo Mayor: Supervision of Implementation of Carbon Technical Teams MRV Technical Team Executing Agent: Technical Support and Accompaniment				
Deployment timeline	From 2024 to 2064				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager

Deforested area at time t within the project area; ha	A-20.1	Impact	Monitoring changes in forest to non-forest cover in the project area to determine deforestation.	Hectares	Cabildo Mayor: Supervision of Implementation of Carbon Technical Teams MRV Technical Team Executing Agent: Technical Support and Accompaniment
Area degraded in time t within the project area; ha	A-20.2	Impact	Monitoring of forest to non-forest cover changes in the project area to determine degradation	Hectares	Cabildo Mayor: Supervision of Implementation of Carbon Technical Teams MRV Technical Team Executing Agent: Technical Support and Accompaniment
Deforested area at time t within the escape area; ha	A-20.3	Impact	Monitoring changes in forest to non-forest cover in the vanishing belt to determine deforestation.	Hectares	Cabildo Mayor: Supervision of Implementation of Carbon Technical Teams MRV Technical Team Executing Agent: Technical Support and Accompaniment

Area degraded at time t within the leakage area; Has	A-20.4	Impact	Monitoring changes in forest to non-forest cover on the leakage belt to determine degradation	Hectares	Cabildo Mayor: Supervision of Implementation of Carbon Technical Teams MRV Technical Team Executing Agent: Technical Support and Accompaniment
# Tons of CO ₂ not emitted (avoided)	A-20.5	Impact	Reduction of CO ₂ emissions	t CO _{2e}	Cabildo Mayor: Supervision of Implementation of Carbon Technical Teams MRV Technical Team Executing Agent: Technical Support and Accompaniment

ID Activity	A-21
REDD+ Activity	Design and implementation of strategies for the protection and restoration of ecosystems
Component of the REDD+ strategy	Biodiversity
Relationship of the activity to the direct or underlying cause	By addressing both the direct (timber extraction) and underlying (local governance) causes, this activity will ensure a sustainable and long-term solution, combining ecological restoration with institutional strengthening and improving sustainable livelihoods for local communities.
Objective	Develop and implement comprehensive strategies for the conservation and recovery of degraded ecosystems, promoting

	community participation and the sustainable use of natural resources.				
Compliance with life plans or ethnic development plans	N/A				
Consultation mechanism to define REDD+ activity	Participatory workshops to involve the local community in the design of strategies. Free, Prior and Informed Consent Assembly Approval				
Responsibility and role of the agents involved in the application	Cabildo Mayor: Supervision of the Implementation of the technical teams of governance, carbon and carbon management. Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment				
Deployment timeline	2024				
Indicators to report on progress					
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager
# Strategies for the protection and restoration of ecosystems	A-21.1	Product	Develop a detailed plan that includes specific actions for ecosystem protection and restoration.	Document	Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment
# Number of hectares under restoration with native species, sustainable techniques and regular monitoring.	A-21.2	Result	# Number of hectares under restoration with native species, sustainable techniques and	Hectares	Operator: support in design, implementation and monitoring. Executing Agent: technical support and accompaniment

			regular monitoring.		
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ID Activity	A-22
REDD+ Activity	Promote biodiversity monitoring as a strategy for the conservation of the territory, which allows the state of the ecosystem to be evaluated, to improve or conserve High Conservation Values, to identify threats and to design specific management actions.
Component of the REDD+ strategy	Biodiversity
Relationship of the activity to the direct or underlying cause	Biodiversity monitoring as a conservation strategy directly addresses the loss of species habitats caused by deforestation and degradation. These factors affect the structure of the ecosystem, generate fragmentation of the same and the degradation of the structural attributes of the forest, altering the ecosystem and the capacity of the territory to maintain natural levels of biodiversity. As an underlying cause, it faces the limited community participation in environmental management and the lack of tools to analyze threats and ecosystem changes. This activity promotes the co-responsibility of communities in the conservation of the territory, promoting evidence-based planning and the use of ancestral knowledge to guarantee the sustainability of ecosystems, strengthen their adaptive capacity and ensure the well-being of present and future generations.

Objective	Improve biodiversity conservation and strengthen community management through continuous monitoring in permanent plots, evaluating the progress of forest area restoration, and monitoring the richness and abundance of native species.					
Compliance with life plans or ethnic development plans	This prioritization will be in line with what is considered by the communities in their worldview of territory and life plan, these strategies are aimed at the conservation of the natural resources of their territory.					
Consultation mechanism to define REDD+ activity	Spaces for the exchange of ancestral knowledge on biodiversity conservation Technical committees					
Responsibility and role of the agents involved in the application	Local communities: Implementation, monitoring Local REDD+ technical teams: biodiversity and MRV Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment					
Deployment timeline	2024 to 2064					
Indicators to report on progress						
Name	ID Indicator	Guy	Goal	Unit of Measure	Measurement Manager	

# Hectares of intact forest area	A-22.1	Result	Improve the structure and composition of degraded forest areas after the implementation of restoration and conservation measures	Hectares	Cabildo Mayor: Supervision of implementation Technical teams on carbon, geomatics and biodiversity Operator: support in the design, execution and monitoring. Executing agent: technical support and accompaniment.
# of bird species, mammals and plants of high conservation value	A-22.2	Result	Strengthen the conservation of ecosystems by identifying species of high conservation value and biological communities, using	Number of Species	Local communities: Implementation, monitoring Local REDD+ technical teams: biodiversity, governance and MRV Operator: support in design,

			<p>monitoring techniques and ancestral local knowledge.</p>		<p>implementation and monitoring. Executing agent: technical support and accompaniment.</p>
<p># of native seed plant species identified and georeferenced for restoration processes</p>	<p>A-22.3</p>	<p>Result</p>	<p>Identify seed sources and the selection of individuals that contribute most to effective restoration processes.</p>	<p>Number of Species</p>	<p>Local communities: Implementation, monitoringLocal REDD+ technical teams: biodiversity, governance and MRVOperator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.</p>

# Plant species identified with potential uses	A-22.4	Result	Identify and register plant species with potential uses, classifying them into specific categories (medicinal, food, handicraft, construction and cultural/traditional) to promote their conservation and sustainable use.	Number of Species	Local communities: Implementation, monitoringLocal REDD+ technical teams: biodiversity, governance and MRVOperator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.
# Areas of use identified with plants with potential uses	A-22.5	Result	Identify and register sectors of the territory where plant species with potential uses are identified according to defined categories (medicinal, food,	Number of sectors	Local communities: Implementation, monitoringLocal REDD+ technical teams: biodiversity, governance and MRVOperator: support in design,

			handicrafts, construction and cultural/traditional) to promote conservation and sustainable management actions based on local and ancestral knowledge.		implementation and monitoring. Executing agent: technical support and accompaniment.
# of invasive species identified in the project area	A-22.6	Result	Conserve native biodiversity in the project area through the identification of invasive species and community monitoring.	Number of invasive species	Local communities: Implementation, monitoringLocal REDD+ technical teams: biodiversity and MRVOperator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.

2.4 Project location

The project is located in the Chocó Biogeographic region, within the hydrographic subzones of the Murrí River and Atrato Directs between the Bebaramá and Murrí rivers; specifically in the municipality of Vigía del Fuerte in the department of Antioquia. The project area has an area of 42,935 hectares (ha) and includes the jurisdiction of the Embera Dobida indigenous Resguardos of El Salado (42%), Guaguandó (33%), Río Jengadó - Apartado (12%) and Río Jarapetó (13%). The project is bordered to the west by the indigenous Resguardos of Murripantanos and Andabu, which are located in the municipality of Urrao. To the north, east and south, they border the Cabildo Mayor of the Middle Atrato Acia (Cocomacia) (Figure 1).

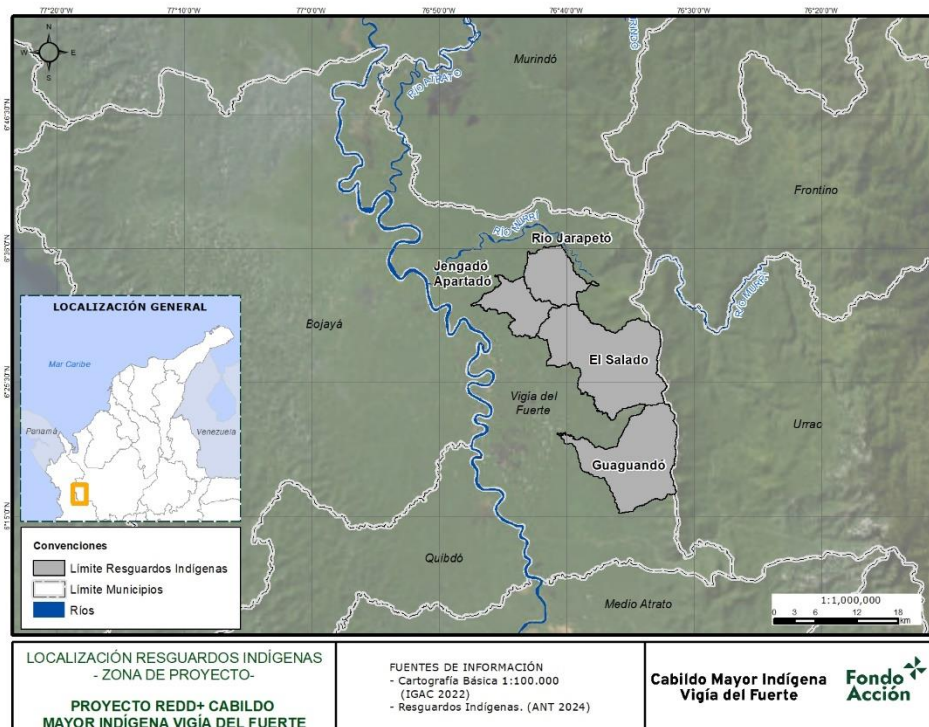


Figure 1. Location map of the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project

2.5 Additional information about the GHG Project

2.5.1 Biophysical characteristics

2.5.1.1 Slopes

The project area ranges from 20 meters (m) to 1,561 m altitude. There is a difference in the average altitude values between the different sectors, where the following have been recorded: 94 m in Ríos Jengadó - Apartadó, 146 m in Río Jarapetó, in El Salado 162 m, and in Guaguandó 370 meters. The highest altitude area (1,561 m) is located in the area of Guaguandó in the foothills of the Western Cordillera, between the limits of the municipalities of Vigía del Fuerte and Urrao (*Figure 2*). In relation to the slope, it was detected that the average is 8 degrees in the project area, and in common in all sectors there are areas with zero degrees of inclination. The steepest slopes are in the mountainous region east of Guaguandó, where inclines of up to 68 degrees are found (*Figure 3*).

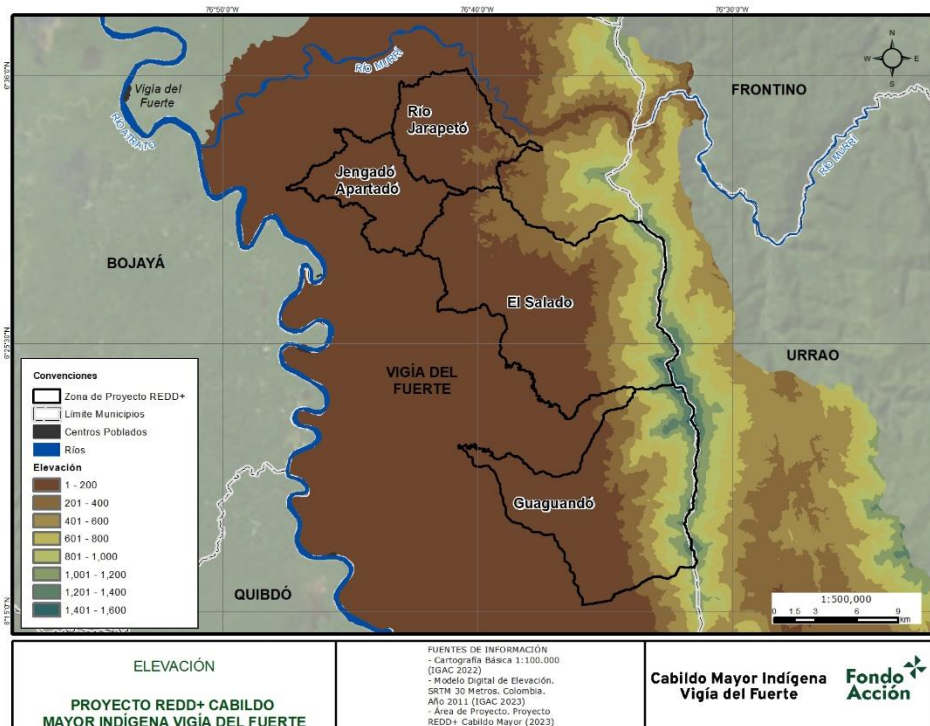


Figure 2. Digital Elevation Model and Project Area (From Digital Elevation Model. SRTM 30 Meters – Colombia. IGAC 2011. Downloaded in 2023)

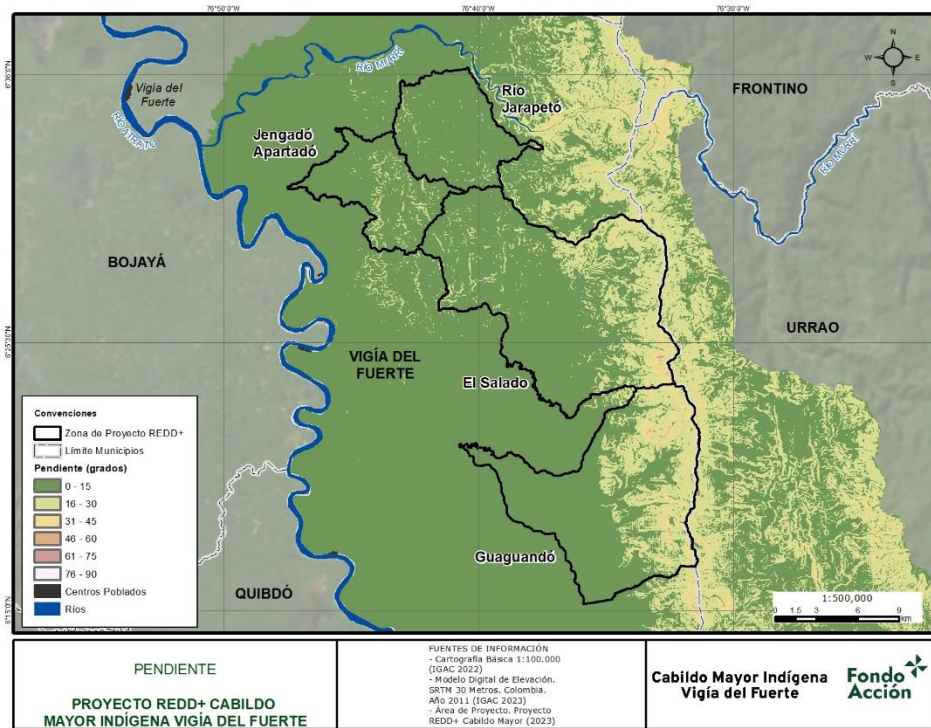


Figure 3. Slopes and project area (Developed from the Digital Elevation Model. SRTM 30 Meters – Colombia. IGAC 2011. Downloaded in 2023)

2.5.1.2 Climate and vital areas

According to the Caldas – Lang classification, the predominant climate in the project area is the warm super humid, which is characterized by temperatures greater than 24°C and an average annual rainfall greater than 1,600 m.m. (Ideam 2014a, Ideam et al. 2017). From the precipitation, humidity and altitude data, it can be established that the project area is located in the category of very humid tropical forest of the classification of the Holdridge life zones (Figure 4; Leemans 1992).

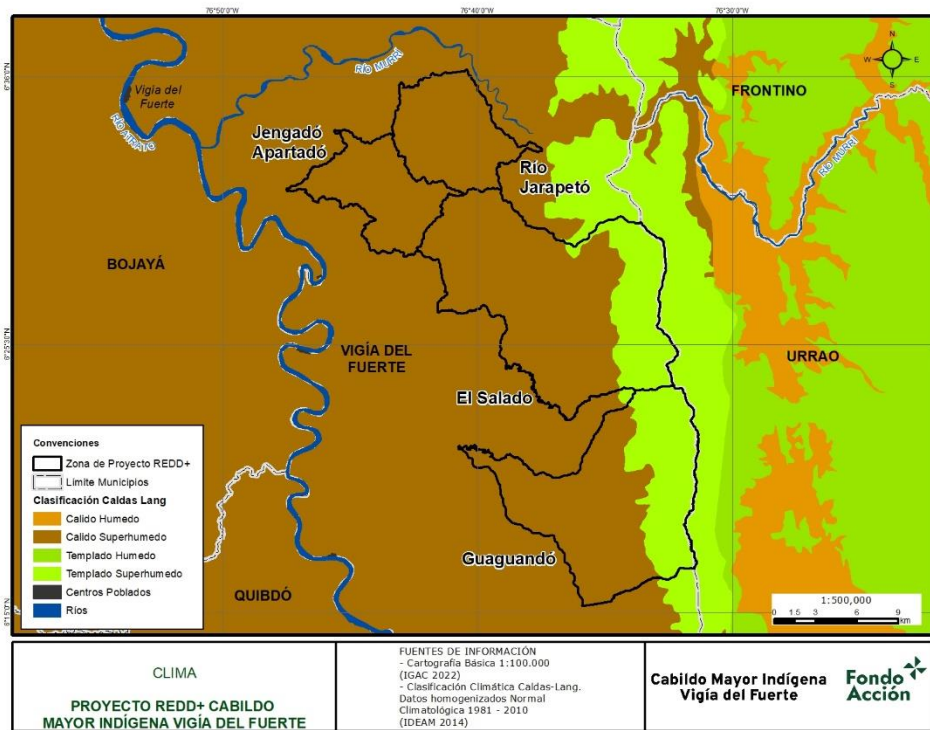


Figure 4. Caldas-Lang climate classification and project area (IGAC 2014. Downloaded in 2023)

2.5.1.3 Precipitation and temperature

According to Ideam (2014b), a large part of the project area is in the category of 5,000 to 7,000 (mm) of Average Annual Average Multiannual Total Precipitation (1981-2010). Only a proportion of the territory east of Guaguandó and Paracucundó is between 4,000 and 5,000 mm/year. Likewise, data from Ideam (2014b) allow us to recognize that the area is between 26 and 28 degrees Celsius (Figure 5).

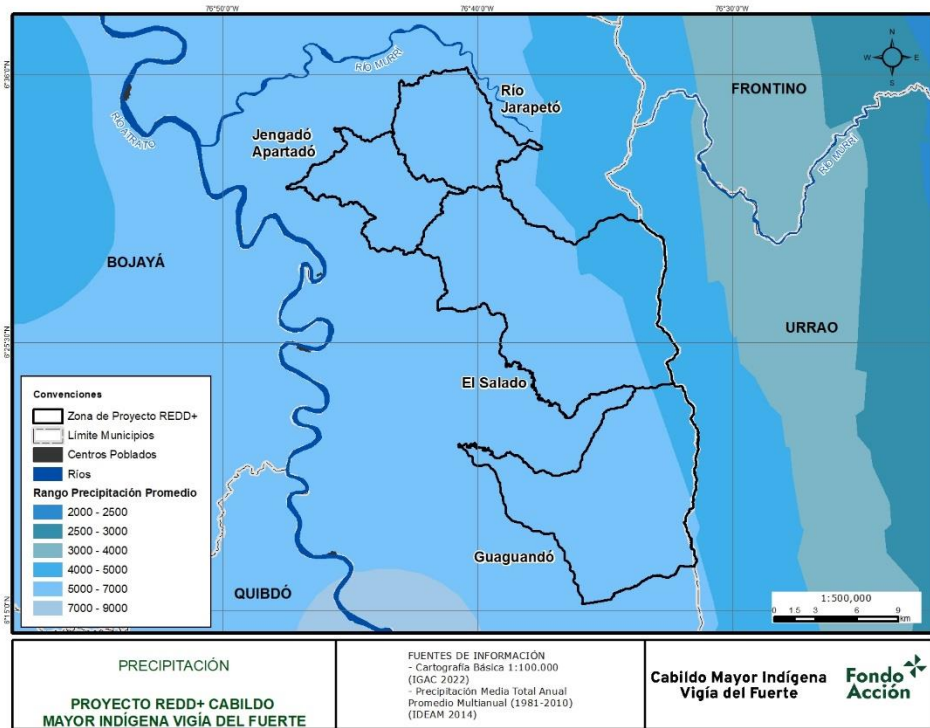


Figure 5. Average Total Annual Average Multiannual Precipitation (1981-2010) and project area (IGAC 2017a. Downloaded in 2023)

2.5.1.4 Hydrology

The project area is located in the Caribbean hydrographic area, in the Atrato-Darién area, and is immersed in the Atrato Directo hydrographic subzones between the Bebaramá and Murrí rivers (87%) and the Murrí River in 13% (Ideam 2013) (Figure 6).

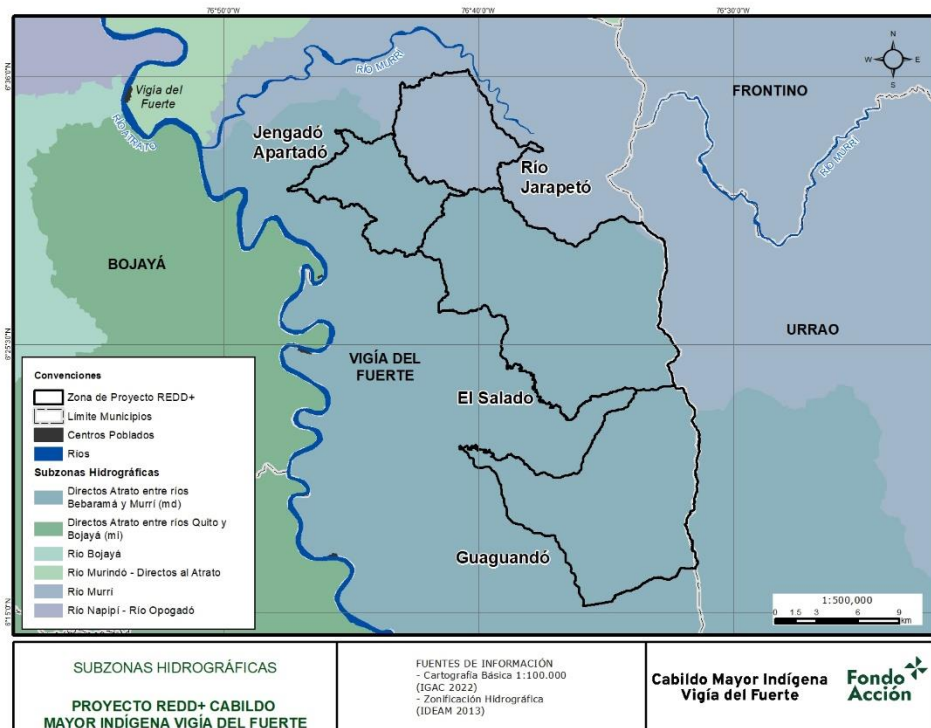


Figure 6. Hydrographic Subzones and Project Area (Ideam 2013)

2.5.1.5 Geology

The area is immersed in a geological sector of ages such as the Paleocene-Eocene, Pliocene, Quaternary and Bartonian-Priabonian. The material is part of the Santa Cecilia-La Equis Complex and Quibdó Formation, and are mainly from the chronostratigraphic units E1E2-VCm (39%, Basalts; breccias; agglomerates and tuffs intercalated with cherts; siltstones; calcareous mudstones, and limestones), Q-al (17%, Alluvial and floodplain deposits), e6e7-VCm (16%, Intercalations of calcareous and siliceous mudstones; calcareous sandstones; tuffs; agglomerates; cherts, and basalts) and N2-Sc (15%, Conglomerates, and conglomeratic lithic arenites interspersed with claystones, siltstones and peat). Finally, there are faults that run longitudinally through the west of the project area, among which is the Quebrada Santa Bárbara fault (Figure 7).

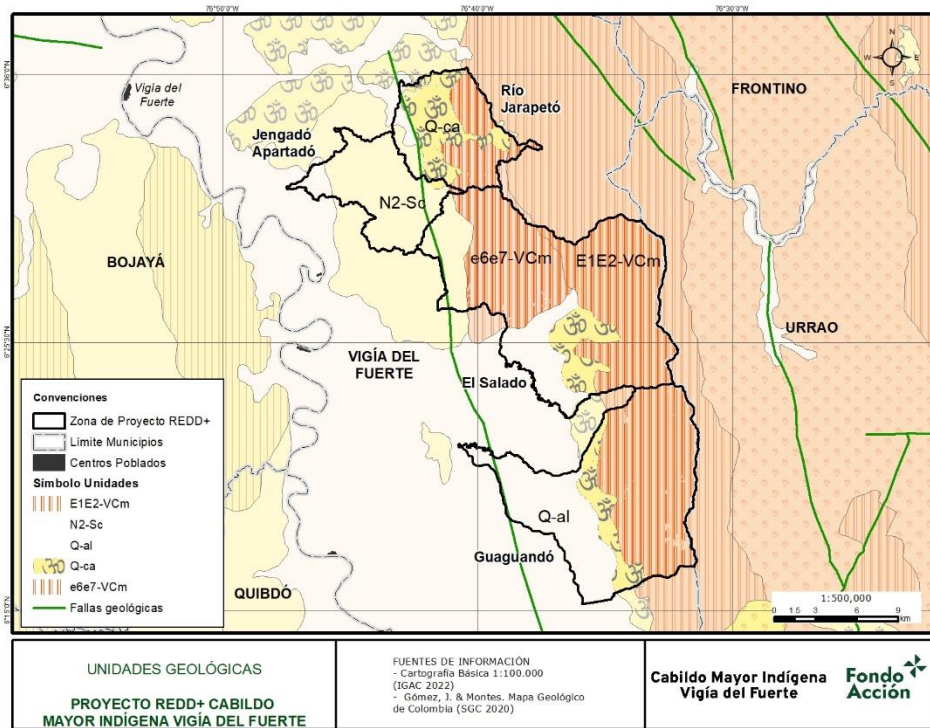


Figure 7. Geology and project area

2.5.1.6 Soils

The land in the project area corresponds to eight units, among which the Zungo Association (31%, ZU), Juradó Association (27%, JU) and Abibe Association (25%) (Figure 8).

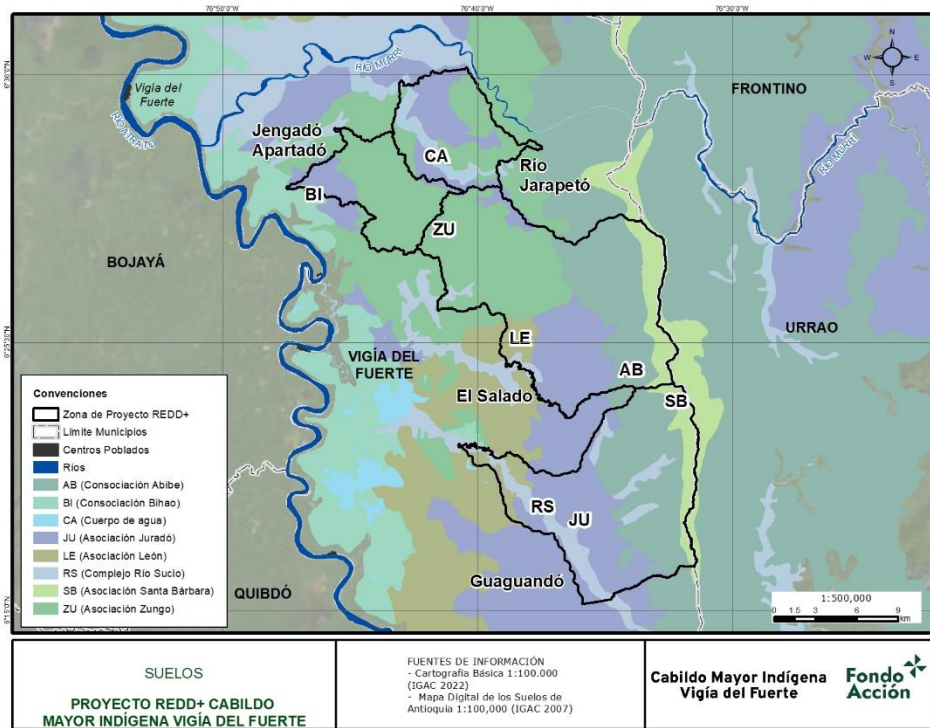


Figure 8. Soils and project area (IGAC 2007)

2.5.1.7 Landscape

The mountain landscape (32%) to the east of the project area predominates, followed by Lomeríos (31%) in the central sector of the Resguardos El Salado, Ríos Jengadó - Apartadó and partially in Río Jarapetó. There are sectors of Piedmont to the southeast (27%), and adjacent to the main rivers alluvial valley (7%) and plain fluvial lacustrine and alluvial plain (3%) (Figure 9).

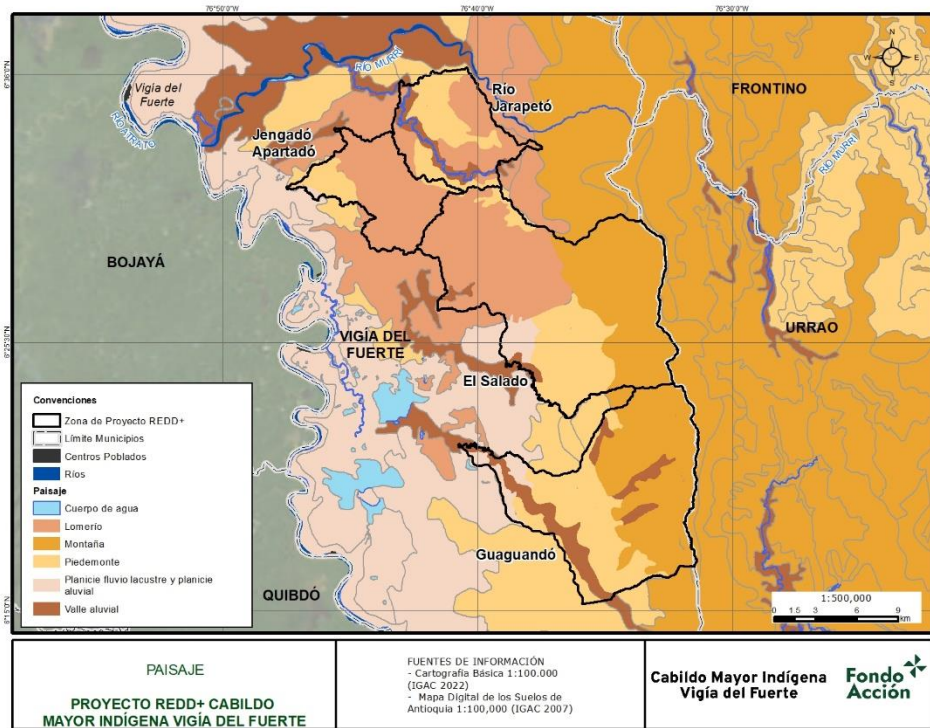


Figure 9. Landscape and project area (IGAC 2007)

2.5.1.8 Ecosystems

According to Ideam et al. (2017), there are 12 different types of ecosystems in the project area, among which the Humid Basal Forest (71%), the Humid Sub-Andean Forest (14%), and the Basal Floodable Forest (8%) stand out for their extension. Among the transformed ecosystems, there are various types of agroecosystems that reach 1% of the total extension (Figure 10).

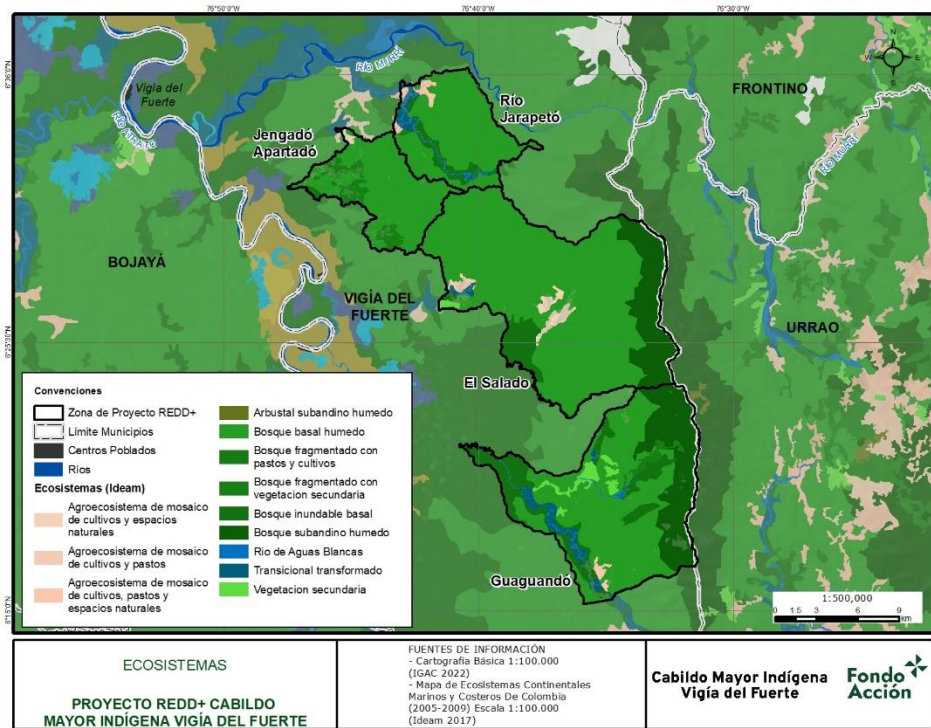


Figure 10. Ecosystems and project area (IDEAM et al. 2017)

2.5.1.9 Ground Cover

Based on the interpretation of national coverage (Ideam, 2021), it can be determined that 95% of the project area has dense forests, and a smaller percentage of fragmented forests (3%), and mosaics of transformed areas (1%) (Figure 11).

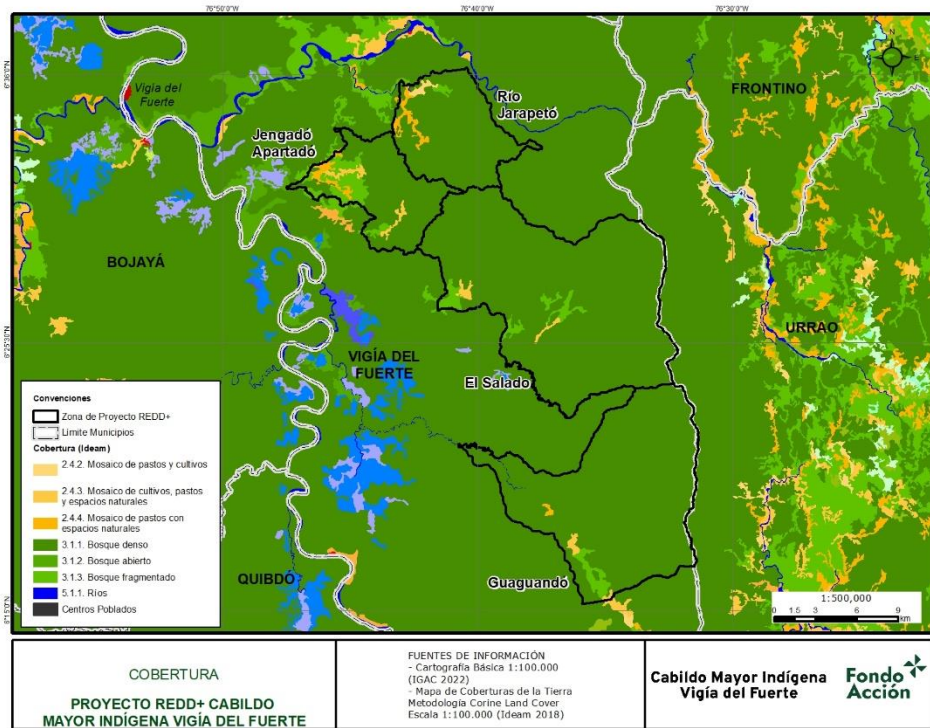


Figure 11. Coverage and project area (IDEAM 2021)

2.5.1.10 Protected areas

According to Article 2.2.2.1.1.2 of Decreto 1076 of 2015, a Protected Area is an area that has been geographically defined and that has been designated, regulated and managed in order to achieve specific conservation objectives. The same regulation establishes that the categories of protected areas of the National System of Protected Areas (SINAP) include: Public Protected Areas and Private Protected Areas. In the project area there is no area characterized as a Protected Area (Figure 12).

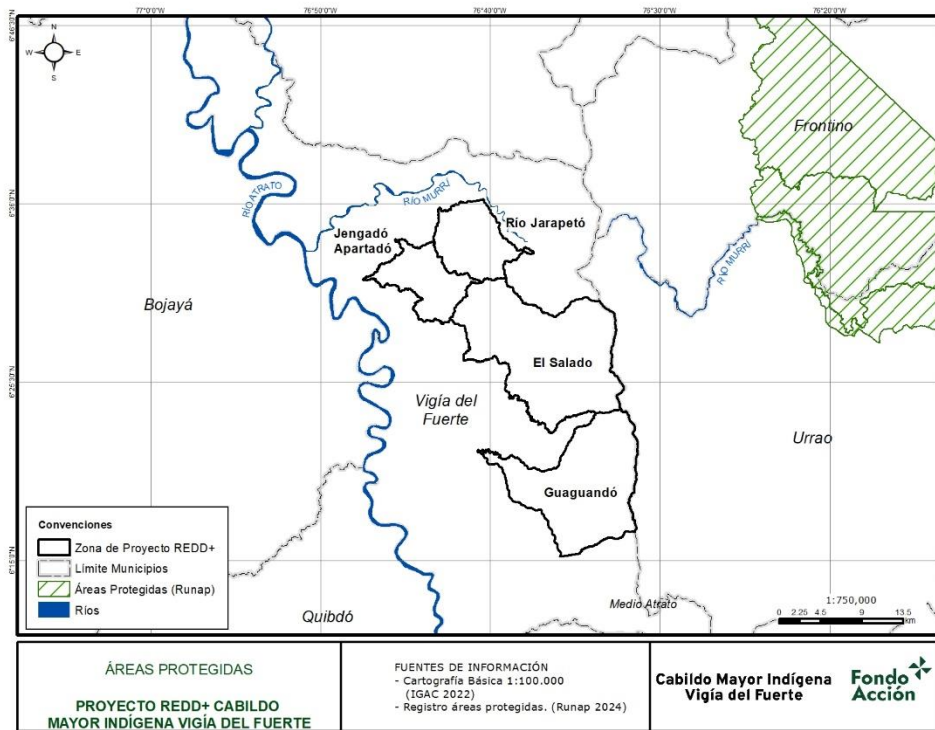


Figure 12. Protected Areas (RUNAP) and project area (NNP 2023)

2.5.2 Biological Characteristics and High Conservation Values

The Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project is located in the center-west of the department of Antioquia, in the subregion of the Atrato Medio Antioquia, immersed in the natural region of the Colombian Pacific, and is located in the ecoregion of Chocó Biogeographic. This ecoregion has a high biological value because it has been the evolutionary scenario of the exchange of flora and fauna between North and South America, which makes it an area of endemism, with considerable diversity and richness of species, and for which it is considered a biodiversity hotspot worldwide.

The indigenous territories of the project area are in the middle of this region in important areas at the ecosystem level because they are located between the alluvial plains of the Atrato River to the foothills of the Western Cordillera, about which little is known, but due to their physical characteristics and variety of habitats they are considered to present a high biodiversity.

The REDD+ project area faces law enforcement complexities, which has facilitated the continued exploitation of natural resources in the region. After the intense forest extractions by national and international companies such as the Dago Group, Maderas de Urabá and Pizano S.A., there has been the loss of key populations for the protection of wetlands and ecological connectivity. This panorama has influenced the local population and dismantled communities, modifying the dynamics of land use in this strategic area for conservation and intercontinental ecological connectivity, in the face of the growing advance of regional deforestation. To this extent, the forests of the project are relevant for conservation because they can be considered biological corridors between the Biogeographic Chocó and the Andean region, and with the reduction of their degradation and deforestation, different ecosystem services would be maintained.

On the other hand, the gaps in knowledge about the composition of the flora and fauna of the region are associated with the historical complexities of public order and the armed conflict, in addition to the lack of institutional presence of the State. This in turn led to the overexploitation of natural resources at the regional level, which was taken advantage of by national and international logging companies that caused the loss of valuable populations important for the protection of wetlands and ecological connectivity.

In order to establish the biodiversity baseline at the regional level, secondary information from compilations for the different biological groups for the Biogeographic Chocó was consulted. In addition, in order to delimit the species present in the project area, biological records of plants and animals were consulted for the municipality of Vigía del Fuerte, as well as the adjacent municipalities that maintain similar environmental conditions (Bojayá, Medio Atrato and Murindó). In this way, the biological records were obtained that allowed the baseline of the project area and the adjacent area to be established (see Annex G).

The search for the biological records of flora and fauna was carried out in the Global Biodiversity Information Facility (GBIF 2024) service, and after downloading, purification processes were applied by attributes related to the locality. The search criteria applied were as follows:

Continent: South America

Country or Area: Colombia

Administrative areas (gadm.org): (COL.2.71_2, COL.2.120_2, COL.13.8_2)

Has coordinate: True

Has geospatial issue: False

Occurrence status: Present

2.5.2.1 High Conservation Values

In the *Table 1*, the high conservation values (HCVs) for the project area are identified and described according to the Generic Guide for the Identification of High Conservation Values (Brown *et al.* 2013) (Annex H)

Table 1. High Conservation Values Identified in the project area

HCV 1. Species diversity
<p>Common Name: Jaguar</p> <p>Species: <i>Panthera onca</i> (Linnaeus, 1758)</p> <p>Threat category: according to the IUCN it is NT (Near Threatened) and in Colombia VU (Vulnerable) under Resolution 1912 of 2017.</p>
<p>Common Name: Cougar or Mountain Lion</p> <p>Species: <i>Puma concolor</i> (Linnaeus, 1771)</p> <p>Threat category: Listed as Least Concern (LC) according to the IUCN Red List</p>
<p>Common Name: Tigrillo</p> <p>Species: <i>Leopardus pardalis</i> (Linnaeus, 1758)</p> <p>Threat category: On the IUCN Red List, it is listed as least concern (LC).</p>
<p>Common Name: Spectacled Bear</p> <p>Species: <i>Tremarctos ornatus</i></p> <p>Threat category: it is listed as Vulnerable Threatened (VU) in the national list and classified in the category of Vulnerable to Extinction (IUCN 2012) and has been included since 1977 in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) where trade in the species or its parts outside the country is prohibited.</p>

Common Name: Armadillo

Species: *Dasyus novemcinctus* Linnaeus, 1758

Threat Category: Categorized as Least Concern (LC) by IUCN

Common name: zaino

Species: *Tayassu pecari* (Link, 1795)

Threat category: IUCN and nationally considered a Vulnerable species (VU).

Common name: guagua

Species: *Cuniculus paca* (Linnaeus, 1766)

Threat category: Due to its wide range, IUCN considers it a species of least concern (LC).

Common Name: White-headed Tamarin Monkey

Species: *Cebus capucinus* (Linnaeus, 1758)

Threat category: IUCN considers it a Vulnerable species (VU).

Common Name: Monkey

Species: *Alouatta palliata* (Gray, 1849)

Threat category: IUCN and the national list considers it a Vulnerable species (VU).

Common Name: Yellow Macaw

Species: *Ara ararauna*

Threat Category: Categorized as Least Concern (LC) by the IUCN. Due to its illegal trade, it is part of the list of Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Common Name: Otter

Species: *Lontra longicaudis* (Olfers, 1818)

Threat category: IUCN categorizes it as Near Threatened (NT) and the national list considers it a Vulnerable species (VU).

HCV 2. Ecosystems and mosaics at the landscape scale

The Biogeographic Chocó Ecoregion and its ecological connectivity at the ecosystem level with other ecoregions that guarantee a natural corridor of biodiversity of continental importance

The Atrato River and its complex of wetlands of strategic importance for biodiversity and the subsistence of the communities, consecrated through the T-622 ruling that declares the river as a subject of law and dictates special provisions for its protection.

HCV 6. Cultural values

Río Jarapetó

- El Salto Sacred Site: To pass through there you had to do a ritual in case they didn't do it, they were afraid and had to turn back.
- Conservation area of the mainland forests of the upper part of the Río Jarapetó basin
- Jumpedé Sacred Site: Here when people passed by they had to do it in silence because if they didn't they couldn't pass through the spirits I wouldn't let them
- Jaide Sacred Site: Here in this place people are very cold and scared, because you can feel the footsteps of a large animal
- Streams: Honda 1, Honda 2, Honda 3, Privaradó, Oro, Seco, Honda, Chona, Chamí, Boga, Canalete, Pequeño, Llano Grande, Arenosa, El Limón, Chontaduro, Lina 1 and Lina 2.

Jengadó Rivers

- Sacred Church Site: It consists of a forest in the shape of a church with a tunnel, no one could pass through it because it was very scary, and now because of the songs of the spirits through the Jaibaná they can pass
- Conservation Areas
- Borja Sacred Site: Within this ravine there is a sacred site that when they go hunting they see the image of a cow
- Paracucundó and Atrato Rivers
- Dos Bocas Sacred Site: There was a giant caiman buffalo there that frightened people
- Quebradas: Iglesia, Pital, Animal, Mico, Pichi, Tapara Coco, Brasilia, Jadicoda, Dos Bocas, Guaralito, Calderón and Platanilla Sitio Sagrado Fiera: A water animal similar to vampires lives there
- Sacred Cemetery Site: Many years ago many children were buried there, they make a lot of noise and if a person goes alone they are frightened and have to return

Apartadó

- Sacred Cemetery Site: Many years ago many children were buried there and they make a lot of noise and you can't walk alone because it is very scary.
- Reserve Areas for the Conservation of the Old Egg Sacred Site
- Apartadó and Atrato Rivers Sacred Site Ciénaga
- Quebradas: Guaralito, Borja, Calderón, Platanillas, Iglesia, Pichi, Animal, Mico, Jadicoda, Pital and Dos Bocas
- Sacred Animal Site: There are the footprints of a large animal and people shudder with fear when they are going to pass by. Sacred Sites: Mono Negro, Tunai

El Salado

- Sacred Caiman Site: In this place you had to jump off the boat to pass, because if not, sank as they passed through it
- El Salado Conservation Area

Paracucundó

- Salto Sacred Site: There is always an image that is not clearly visible and is very scary
- Forest Reserve Area

- Sacred Site Evil Spirit: Whenever you reach that site people think to keep moving forward
- Rivers: Mojaudó, Paracucundó and Doperaudó
- Sacred Sites: Jaide, Palizada, Korekatocada, Crocodile, Ñarangué, Snake, Documandé, Guangamó, Evil Spirit, Snake
- Streams: Ñaranque, Cuarta Piedra, Cerro Tambadó, El Salto, Donauzabú, Benito, Pital, Jumpedó, Platinado and Babiadó
- Cerro de Tambadó
- Sacred Church Site: This site looked like a church and was very scary, over time the jaibanás did a ritual and now it is passed quietly
- Rivers: Salado, Tumundó, Jorgán and Paracucundó
- Sacred Sites Chirogá, Yerregedó
- Streams: Tres Piedras, Llorona, Caimán, Travesía, Canalete, Chirogá, Peñita, Sabalero, Arenosa, Chorro, Caracol, Lamosa, Sabaletero

Guaguandó

- Sacred Sites: Cemetery, El Salto, Ciénaga
- Forest Reserve Areas
- Atrato, Guaguandó and Chikarabia Rivers and Quebradas: La Negrita, Santa Mónica, Perucho, Murciélago and Tronador

3 Quantification of GHG emissions reduction

3.1 Quantification methodology

The methodology used for the design of the project corresponds to the AFOLU Sector Methodological Document entitled "Quantification of the Reduction of GHG Emissions REDD+ Projects" BCR0002 in its version 4.0, published on May 27, 2024 by BioCarbon Cert (Cuantificación de la Reducción de Emisiones de GEI Proyectos REDD+ BCR0002).

3.1.1 Applicability conditions of the methodology

The conditions for the applicability of the BCR0002 methodology are presented in the *Table 2*.

Table 2. Conditions of applicability of the methodology and its compliance

Condition of applicability	Compliance
<p>The areas in the geographical boundaries of the project correspond to the forest category (according to the national definitions of forest for the Clean Development Mechanism) at the start of the project activities and ten years before the start date of the project</p>	<p>Meets. According to the analysis carried out with remote sensors, it can be assured that the project area corresponds to native forest and that it is located in the territory, even more than ten years before the date of start of project activities.</p>
<p>The causes of deforestation identified may include, but are not limited to: expansion of the agricultural frontier, mining, timber extraction, and infrastructure expansion</p>	<p>Meets. It is identified that the extraction of wood, both for the communities' own consumption and for its commercialization and mining from mining sites, are causes of deforestation in the project area.</p>
<p>The causes of forest degradation identified may include, but are not limited to: selective logging, firewood extraction, forest fires, forest grazing and expansion of the agricultural frontier and illicit crops</p>	<p>Meets. In the project area, selective timber extraction is identified as a cause of forest degradation.</p>
<p>Reduction of deforestation or degradation is not expected to occur in the absence of the project.</p>	<p>Meets. The causes of deforestation and degradation have been presented historically, and in the case of selective timber extraction, it is part of the sources of income for communities due to their difficult living conditions. For this reason, in the absence of the project, the communities do not have financial options that allow them to implement other productive income-generating alternatives.</p>
<p>It is possible that, in areas at the project boundaries, carbon stocks in soil organic matter, leaf litter and dead wood will decrease, or remain stable.</p>	<p>Meets. In deforested and degraded areas, carbon stocks in soil organic matter, leaf litter and dead wood decrease.</p>
<p>The quantification of GHGs other than CO₂ must be included in the quantification of emissions caused by forest fires (if applicable) during the monitoring period.</p>	<p>Meets. In the event of forest fires, GHG emissions other than CO₂ will be quantified.</p>

3.1.2 *Methodology deviations (if applicable)*

There are no deviations from the methodology.

3.2 **Project boundaries, sources and GHGs**

3.2.1 *Spatial limits of the project*

The municipality of Vigía del Fuerte is located in the Middle Atrato area in the subregion of Urabá, in the northwest of the department of Antioquia. It was constituted in 1983 by ordinance 06 of 1983 of the Departmental Assembly of Antioquia after its separation from the municipalities of Murindó and Urrao. Its municipal area covers 1,801 km² and is bordered to the north by Murindó (Antioquia), Carmen del Darién and Bojayá (Chocó), to the east by the municipalities of Frontino and Urrao (Antioquia), to the south by Medio Atrato and Quibdó (Chocó) and to the west by Quibdó and Bojayá (Chocó) (Alcaldía Vigía del Fuerte, 2020).

The eligible areas of the project have an area of 41,554 ha that correspond to stable forest for a period of 13 years (2008 – 2021) prior to the start date of the project and that is within the limits of the indigenous Resguardos of Río Jengadó - Apartadó, Río Jarapetó, El Salado and Guaguandó, belonging to the Cabildo Mayor Indígena de Vigía del Fuerte (*Table 3* and *Figure 13*).

- The Resguardo El Salado was legally constituted by INCORA Resolution No. 022 of March 26, 1990. In the first instance, this Resguardo had an area of 6,250 hectares, however, with INCORA resolution No. 025 of July 22, 2002, it was decided to expand the Resguardo in the sector of the community of Paracucundó by 9,894 - 2,833 hectares, to complete an approximate area of 16,144 - 2,833 hectares.
- The Resguardo Río Jarapetó was established by INCORA resolution No. 016 of 1984 with an area of 5,583 hectares.
- The Resguardo Ríos Jengadó-Apartadó was established by INCORA resolution No. 15 of 1992 with an area of 4,546 hectares.
- The Resguardo of Guaguandó of 13,260 hectares was established by INCORA resolution No. 46 of 1989.

Table 3. Project limits

Resguardo	Longitude	Latitude
El Salado	76° 36' 50.259" W	6° 27' 21.544" N
Ríos Jarapetó	76° 40' 59,920" W	6° 33' 45.308" N
Ríos Jengado - Apartadó	76° 43' 49,780" W	6° 31' 27,659" N
Guaguando	76° 34' 35.516" W	6° 19' 31.432" N

The cartographic source used was provided by email on October 17, 2023 by the National Land Agency, the institution in charge of the formalization and collective titling of ethnic communities, and which replaced INCORA. A discrepancy is observed between the area titled in the INCORA resolutions and the area calculated according to the geographical layer. This is due to sources used and periodic updates made by the ANT.

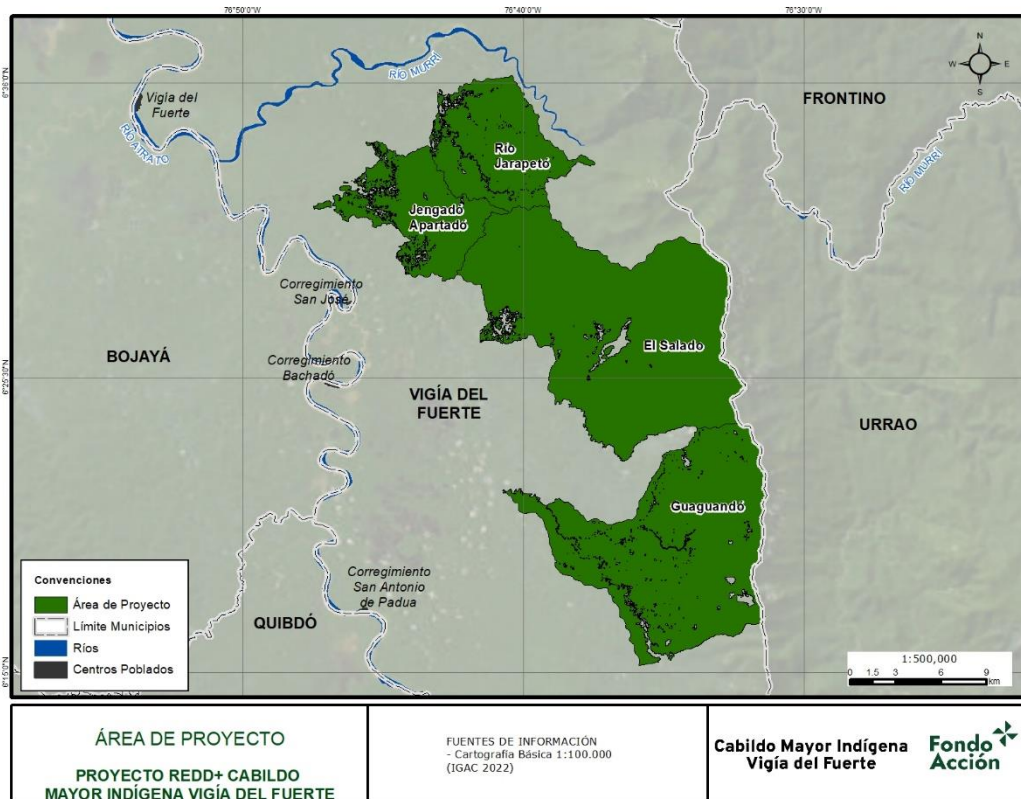


Figure 13. Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project area

3.2.1.1 Reference region for baseline estimation

The Reference Region is defined by the geographical boundaries in which historical patterns of deforestation and degradation are analyzed in the baseline scenario, and projected to obtain values of change in the project area. To determine the reference area, the guidance for REDD+ of the v4.0 Methodology (Biocarbon Registry, 2024) was followed. First, the forest covers adjacent to the Resguardos (project area) were identified, considering the definition of forests adopted for Colombia. For this information, information from Forest-Non-Forest layers of Ideam was used, as well as satellite images of recent dates freely available.

Different sources of geographic information were combined to reflect the baseline scenario of the project and allow the boundaries of the Reference Area to be defined. First, the hydrographic subzones adjacent to the project were identified, in order to conserve related biophysical characteristics. The four sub-zones contemplated on this occasion are Murri River, Atrato Directs between Bebaramá and Murri rivers, Bebaramá River and other Atrato Directs, and Murindó River - Atrato Directs. Variables such as precipitation, climate, slopes, access roads, drainage density, land cover, soil types were evaluated in order to analyze the similarity between the Reference Area and the Project Area.

In accordance with the above, it is identified that the Reference Area has an extension of **329,438 ha** and represents the project area in the absence of REDD+ activities. Compliance with the guidelines of Methodology BCR0002 (May 27, 2024) regarding the delimitation of the Reference Area is detailed below (see Table 4).

Table 4. Delimitation of the Reference Area

Condition	Description	Justification
a.	The reference region must include the project area	The project area is located within the reference region. See Figure 14
b.	The reference region must be larger than the project area. The size of the reference area should be commensurate with	The Reference Area delimited for the project is 8 times larger than the Project Area. The identified agents have access to all Reference Areas, therefore, the criterion is met

	<p>the mobility of the deforestation agents who may have access to the project area. The reference area must be limited up to 10 times the project area</p>	
c.	<p>The geographical boundaries of the reference region that do not overlap with the project area and the project area should be at least 80% similar in terms of physical variables.</p>	<p>The similarity between the reference region and the project area was evaluated for the following variables: precipitation, temperature, vegetation strata, soils, slope, access roads. The similarity between the two boundaries is described in Annex J.</p>
d.	<p>Socio-economic and land-use conditions, as well as applicable legislation and policies related to land use, should be similar to those of the project area and should be consistent with the reference region</p>	<p>As described in the similarity analysis, dense forest coverage predominates in the reference region and in the project area, which means a dependence on the use of the forest as a means of livelihood for the settled communities. In both areas there is the presence of transformed covers, such as Mosaic of pastures with natural spaces, Mosaic of crops, pastures and natural spaces, and Mosaic of pastures and crops.</p> <p>In the project area and the reference region there are different indigenous Resguardos and collective territories (ANT 2023a, 2023b²). The project area is composed of the indigenous Resguardos of Guaguando (42.9%), El Salado (13.1%), Río Jarapeto (32.8%) and Jengado Apartadó (11.2%); while in the reference region there are seven (7) indigenous Resguardos in 44.3% of its area, among which are Río Chajera, Río Bebara,</p>

² Agencia Nacional de Tierras. 2023a. Consejos comunitarios (shapefile). Portal de datos abiertos de la ANT. October/2023: <https://data-agenciadetierras.opendata.arcgis.com/>

		<p>Andabu, La Cristalina (Chocó), Río Bebarama, Murrivantanos, and Amparrado Alto Medio (<i>Table 5 and Figure 15</i>).</p> <p>In addition, in the reference region is the collective territory Mayor del Medio Atrato Acia that occupies 47% of the area and that has been regulated in Ley 70 of 1993, and in Decrees 1745 of 1995 compiled in 1066 of 2015.</p> <p>All the areas of Resguardos and communities with which the boundaries of the project were built are territories with collective titles, which recognize the ownership and tenure of the territories to the ethnic communities and the provisions for the management of the collective area.</p>
e.	Differences between forms of land tenure or legal status between the project area and the reference region should not affect the causes and agents of deforestation and degradation or trends in deforestation and degradation	As could be seen in the previous point, there is similarity in terms of land tenure between the Reference Area and the Project Area, which does not affect the causes of deforestation and degradation present, nor the trends of these in the territory over time. As will be detailed later in the causes of deforestation and degradation, the same ethnic communities neighboring the project area are the ones who, in a permitted manner, develop the use of the forests within the project area
f.	Agents and determinants of deforestation/degradation, identified in the reference region, can access the project area	Meets. The identified agents and determinants of deforestation/degradation can access the project area since the same pressures that affect the reference region exist in the project area. As noted above, the predominant land cover in both areas is dense forests, which suffer from deforestation and degradation processes. On the other hand, it was identified that in both areas mobility by river predominates, which guarantees access to potential areas for commercial timber extraction, this means of transport allows the extraction of wood and transport to the collection and marketing points

g.	The project area is of interest to the agents identified in subparagraph (d) above	Meets. The project area is of interest to the identified agents, due to the presence of natural resources. As has been demonstrated, the project area shares similarity with the Reference Area with respect to forest cover, which contains timber species for commercial use whose accelerated extraction has caused scarcity, which forces agents to enter areas that are little intervened. The project area has the aforementioned conditions, since, due to its extension and topography, it has areas that have not yet been intervened, added to the density of water tributaries, which allow access to agents and the extraction of valuable wood. Mobility is not considered a limitation for the exploitation of valuable wood, since traces of extraction by roads, machinery and mules have been identified in the project areas.
h.	The reference region should not include areas of special management or areas contained within the geographical boundaries of other GHG projects	The reference region and project area are regulated by the internal rules and governance systems of the indigenous Resguardos and collective territories. It does not overlap with areas belonging to other GHG initiatives. View Figure XXX
i.	The reference region should exclude areas of restricted access to the drivers and drivers of deforestation and degradation	As described above, there is similarity between the Reference Area and the Project Area in terms of physical variables such as slopes, road density, drainage, among others, which do not limit the access of deforestation and degradation agents between both areas. On the other hand, there are no restricted zones for deforestation agents such as national parks, military bases, conservation areas or restricted lands in the reference region. Areas of planned deforestation are excluded. In this case, the areas of current mining titles were included because they are part of the relevant agents in the processes of transformation of the territory.

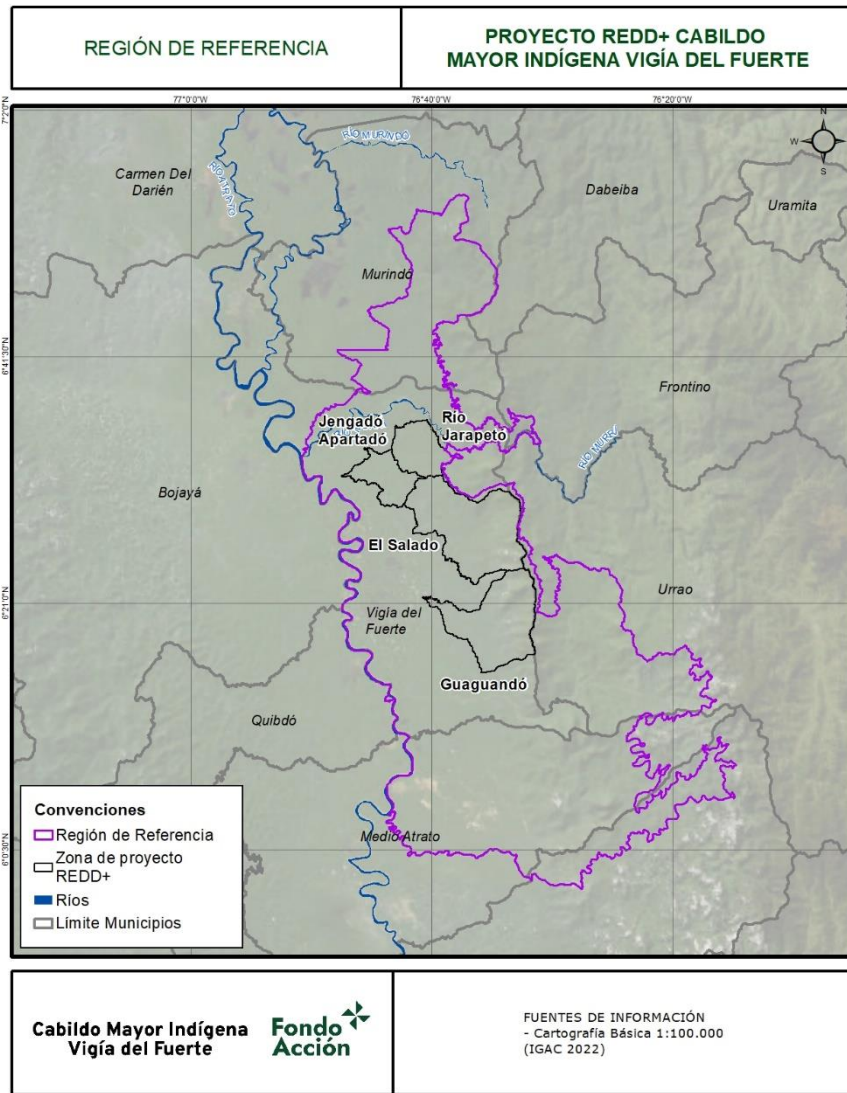


Figure 14. Delimitation of the Reference Area

Table 5. Land tenure in the Reference Area and Project Area

Region	Name of Resguardo	Creation Resolution	Area Resolution (ha)	Area (ha)	Percentage
Reference Area	Amparrado Alto Medio	Resolution 0042 01/11/1994	17835	77.8	0.03%
	Andabu	Resolution 0027 31/05/1999	16661,385	19749.6	7.3%
	La Cristalina (Chocó)	Resolution 014 29/06/2000	12536,78	8296.9	3.1%
	Murindo (Murindo River)	Resolution 14 18/02/1987	18270	33.0	0.01%
	Swamp Murrinos	Resolution 19 24/05/1996	30788	6857.8	2.5%
	Bebara River	Resolution 038 30/11/1998	27119	35573.4	13.2%
	Bebarama River	Resolution 0066 16/08/1988	8875	8146.6	3.02%
	Chajerado River	Resolution 0103 18/12/1989	19730	41095.6	15.22%
Project Area	El Salado	Resolution 022 26/03/1990	6250	17807.6	13.1%
	Guaguando	Resolution 46 26/06/1989	13260	13595.9	42.9%
	Secluded Jengado	Resolution 0015 23/06/1992	4546	4650.8	11.2%

Jarapeto River	Resolution 28/02/1984	0016	5583,75	5412.4	32.8%
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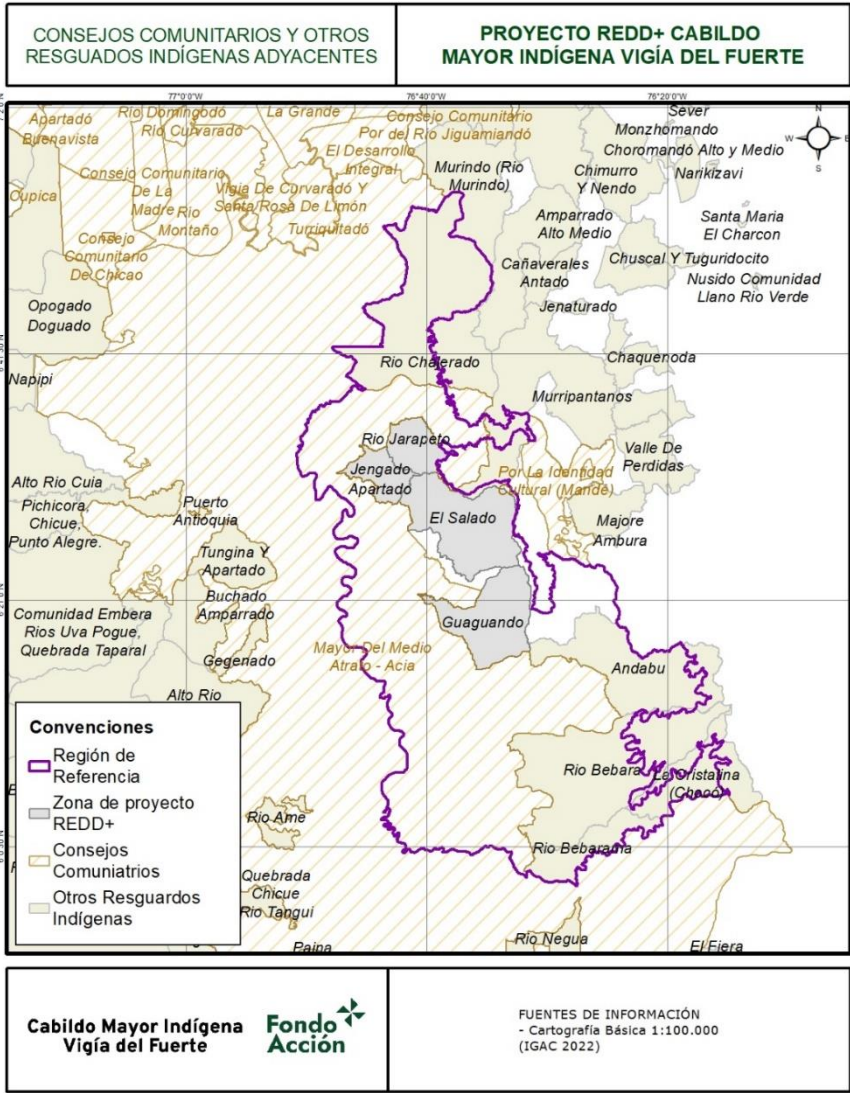


Figure 15. Distribution of collective territories in the Reference Area and Project Area

3.2.1.2 Leakage area

According to the definitions of the standard, the area of leakage corresponds to the areas of forest to which deforestation/degradation activities may be shifted, as a result of the implementation of the project and are beyond the control of the project owner. The leakage area was constructed from a multi-criteria analysis, mainly taking into account the displacement of agents due to the implementation of the project activities and taking into account the following criteria (*Table 6*):

Table 6. Conditions of applicability for the leakage area and their compliance

Condition of applicability	Compliance
All forest areas that are within the range of mobility of the actors identified in section 11 (below) should be included.	Meets. The forest areas corresponding to the leakage area are within the range of mobility of the agents identified in the View section Figure 16
The leakage area is spatially distinct from the project area, i.e., they do not overlap	Meets. The leakage area does not overlap with the project area. See Figure 17.
The leakage area excludes areas of restricted access to the agents of deforestation and degradation	Meets. Areas of restricted access to drivers and drivers of deforestation and degradation, such as protected areas or forest concessions or other areas of leakage, do not overlap with the area of leakage.
In the event that the leakage area overlaps with other areas of GHG	Not applicable. The leakage area does not overlap with GHG projects.

projects; It should be analyzed how the project's activities affect the agents of deforestation and the measures for their management.

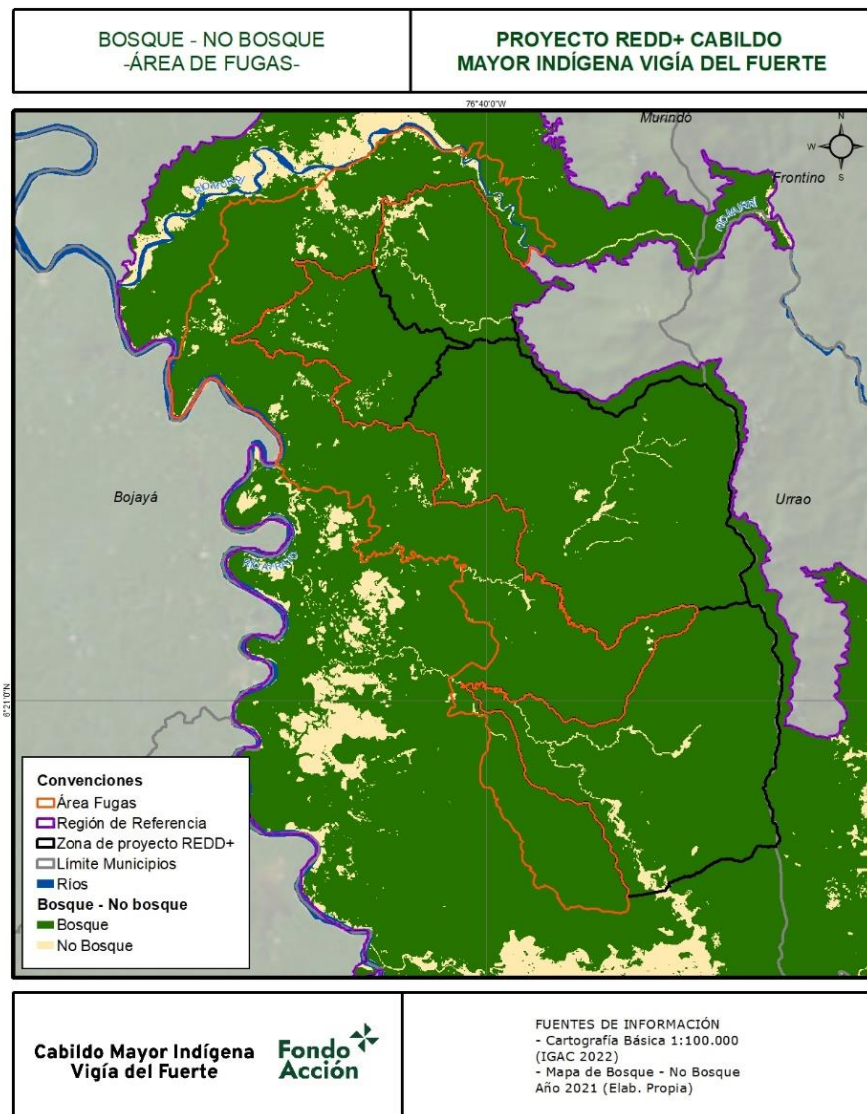


Figure 16. Forest Map / No Forest for the Leakage Area

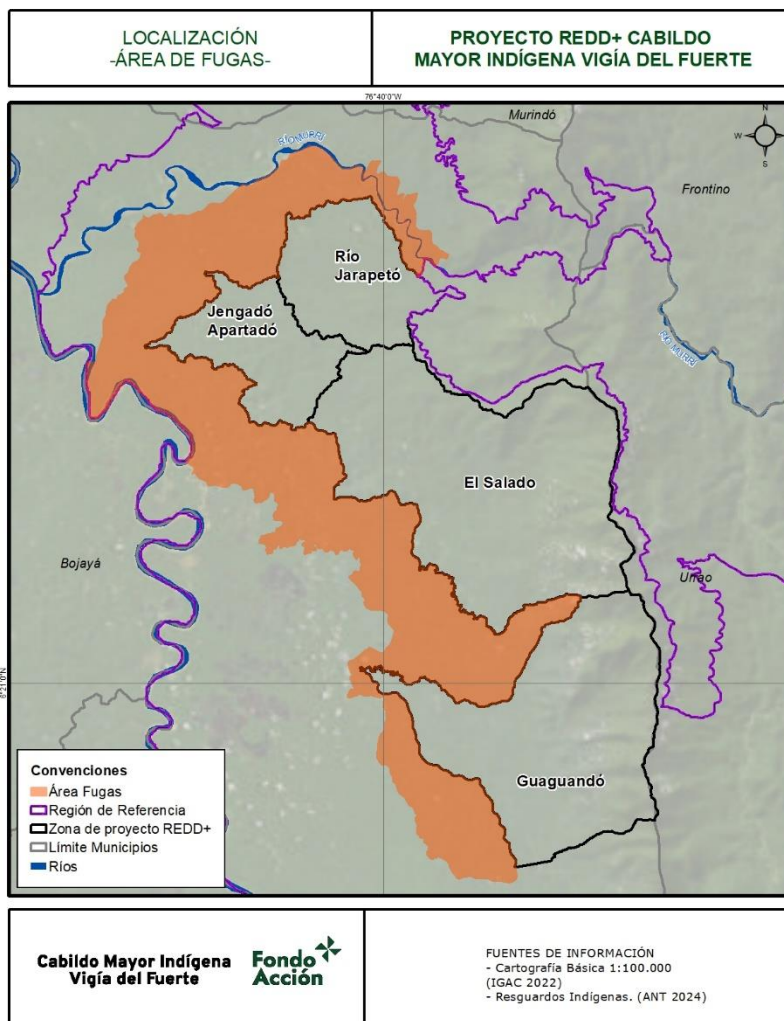


Figure 17. Leakage area boundary location map

The description and detail of the conditions established in the methodology for the delimitation of the leakage area are described in Annex K.

3.2.2 Carbon reservoirs and GHG sources

The carbon pools included in the project are presented in the *Table 7*.

Table 7. Selection of carbon reservoirs

Carbon deposit	Includes (Yes/No/Optional)	Justification
Aboveground biomass Tree vegetation	Yes	Main carbon reservoir that is affected by the activities carried out in the project.
Aboveground biomass Non-tree vegetation	No	This is not considered since the implementation of short-term and annual, non-permanent, agricultural productive activities is expected.
Underground biomass	Yes	It is a representative carbon stock derived from the implementation of project activities
Dead wood	No	It is not conservatively included as it is not expected to increase in the post-deforestation scenario and decrease in the baseline scenario.
Soil organic carbon	Yes	This deposit is included considering that the carbon content is expected to change in the scenario with project.

The emission sources and GHGs associated with the project activities are presented in the *Table 8*.

Table 8. Emission Sources and GHG

Source of Emission	Good game	Includes (Yes/No/Optional)	Justification
Woody biomass combustion	CO ₂	No	No project activities involving biomass burning are generated, and they are not quantified as changes in carbon stocks.
	CH ₄	No	In the event that wildfires occur during the monitoring period of activities, methane emissions will be estimated and included in the emissions for the corresponding period.
	N ₂ O	No	In the event that forest fires occur during the monitoring period of the activities, nitrogen dioxide emissions will be estimated and included in the emissions for the corresponding period.

3.2.3 *Time limits and analysis periods*

The project began in 2021 with enrichment activities with native forest species in highly degraded areas of the Resguardo Guaguandó and Río Jarapetó. These actions, carried out in collaboration with the indigenous communities and their authorities, included three silvicultural maintenance in the Resguardo Guaguandó and Río Jarapetó, improving the

conditions for the development of numerous trees. In addition, support for the Río Jarapetó indigenous Resguardo was expanded to include a third maintenance in the areas intervened with mining activities.

The forest restoration process generated positive impacts from the economic and social point of view of the communities, because local jobs were generated, the income of the participants was improved, community participation was encouraged and technical capacities in forest management were also strengthened. In the case of the Resguardo Guaguandó, management activities were implemented for 16,000 individuals of native forest species of ecological and economic value, including cleaning, fertilization and replanting, estimated at 10% in most seedling establishment projects, a widely accepted concept in these forest mass restoration processes.

Due to the excellent result achieved in the implementation of the project for the restoration of degraded forest areas in the indigenous territories of the municipality of Vigía del Fuerte, more support was provided to the indigenous communities with an extension of activities and contract time. This allowed the implementation of restoration processes in areas degraded by mining (adjacent to the river) and migratory agriculture in the Río Jarapetó indigenous Resguardo. In addition, the second maintenance of the trees planted in the Guaguandó indigenous Resguardo was carried out, where a model of restoration of productive forests was proposed.

3.2.3.1 *Project start date*

The start date of the project is **November 16, 2021**.

The project begins with the socialization of the Plan for the Restoration of Degraded Areas through the enrichment with native species of ecological and economic interest in the indigenous territories of Vigía del Fuerte, carried out in the municipality of Vigía del Fuerte and in which the Fondo Acción participated as the developer of the project, the organization Nativa Forest S.A.S. as technical support and implementation of activities. and leaders of the Indigenous Council of Vigía del Fuerte, as representatives of the indigenous communities of Vigía del Fuerte (See Annex I).

The activities proposed to demonstrate the reduction of emissions from deforestation and degradation begin with restoration work in the Guaguandó and Río Jarapetó Resguardos, which aim to recover intervened areas, manage forests and conserve them, and therefore contribute to the reduction of GHG emissions.

This date complies with what is requested by the BCR standard in section 11.4 Start date, since it is within the 5 years prior to validation, which is expected to be in 2025.

3.2.3.2 Quantification period of GHG emission reductions/removals

The accreditation period of the project is set at 40 years with the intention of renewing it for a maximum of 60 years, complying with the requirements of the BCR Standard. The **start date of the project is November 16, 2021 and ends on November 16, 2061 (40 years)**. This accreditation period aligns with monitoring and evaluation requirements for climate change adaptation and resilience capacity, biodiversity, and community well-being. Throughout the 40-year accreditation period, project proponents will monitor and evaluate impacts on these aspects, ensuring compliance with program requirements. In addition, the commitment to potentially renew the accreditation period for up to 60 years demonstrates a long-term commitment to sustainability and continuous monitoring beyond the initial period.

3.2.3.3 Monitoring periods

The first monitoring period corresponds to November 16, 2021 to December 31, 2023. Subsequently, monitoring reports are expected to be carried out every 2 years.

3.3 Identification and description of the baseline or reference scenario

Next, the identification, description and analysis of the causes and factors that contribute to deforestation is presented, with the aim of designing concrete measures and actions aimed at reducing deforestation and degradation in the project area.

3.3.1 Causes and drivers of deforestation/degradation

The identification, description and analysis of the causes (drivers) and agents of deforestation and degradation in the project area are necessary to design the measures and actions to avoid deforestation and degradation, which correspond to the activities of the REDD+ project); as well as to delimit the reference area. The latter must ensure, among other variables, that the causes and agents of deforestation and degradation are the same as those found in the project area. The process of identification, characterization and analysis of causes and agents of deforestation and degradation in the project area followed the process described in the Methodological Document AFOLU Sector - Quantification of GHG Emission Reductions REDD+ Projects - BCR0002, version 4.0 of May 2024, which contemplates the suggestions of the UN-REDD Programme.

Next, the identification, description and analysis of the causes and agents of deforestation and degradation is detailed, from which the actions aimed at reducing or mitigating these processes in the project area are developed. This procedure was possible through the development of different workshops in the territory and in the urban area of Vigía del Fuerte, with the participation of interest groups from the communities of the Resguardos. This was complemented by the consultation of documentation at the regional and national levels.

3.3.1.1 *Spatial and temporal dimension*

The spatial analysis of deforestation and degradation was carried out through the changes that occurred in land cover in the reference region and in the specific project area during the period between 2008 and 2021. For the analysis of deforestation and degradation, land cover and land use maps were used for different years between the study period, as well as interviews with people from the communities that validated the product of the spatial analyses carried out. Finally, forest cover losses were detected in the period 2008 – 2021 (Figure 18).

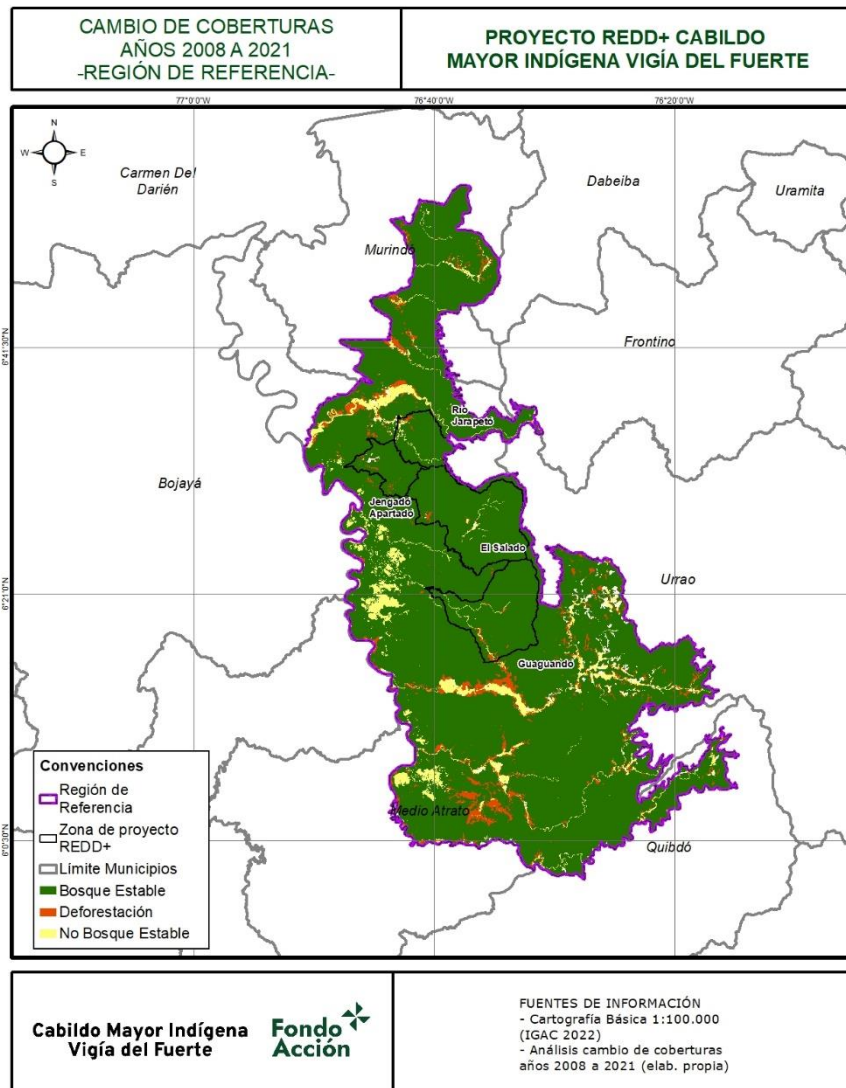


Figure 18. Forest loss between 2008 and 2021 in the Reference Area

3.3.1.2 Context

The information presented in this context section is based on various sources cited throughout the text, as well as on the socioeconomic characterization document of the indigenous communities of Vigía del Fuerte prepared by Nativa Forest in 2024 (Annex B).

3.3.1.2.1 Territorial context

The municipality of Vigía del Fuerte is located in the Middle Atrato area in the subregion of Urabá, in the northwest of the department of Antioquia. In the municipal capital, Vigía del Fuerte is made up of six (6) neighborhoods; and in rural areas by 29 villages, eight (8) townships and four indigenous Resguardos with seven communities in total. 71% of the municipality's extension is under the jurisdiction of the Cabildo Mayor of the Integral Peasant Association of Atrato (COCOMACIA), which in 1997 obtained some 722,510 hectares from the Colombian Institute of Agrarian Reform (INCORA). 22 local community councils of afrocollombian communities belong to it (Vigía del Fuerte Mayor's Office, 2020).

20% of the municipal area is under the jurisdiction of the four (4) indigenous Resguardos of the Embera-Dóbida ethnic group (Río Jarapetó, Ríos Jengadó - Apartadó, El Salado and Guaguandó), which make up this project and are attached to the Vigía del Fuerte Indigenous Council (as evidenced in the *Figure 1*).

- **Resguardo El Salado:** It is located in the central part of the municipality of Vigía del Fuerte in the township of Buchadó. To the northwest it borders the Resguardos Río Jarapetó and Ríos Jengadó - Apartadó. It is made up of two communities: Salado and Paracucundó.
- **Resguardo Ríos Jarapetó:** located between the banks of the Atrato River and the Murri River in the central part of the municipality of Vigía del Fuerte. There are heights above sea level ranging from 40 to 500 m, of dry lands, subjected only to flooding processes of the Jarapetó River. Specifically, it is located in the upper part of the Jarapetó River. To the west it borders with the Resguardo of Jengadó - Apartadó and to the south with the Resguardo El Salado.

On the other hand, the proximity of the Murri River on its northeast side together with the characteristics of the predominant relief, makes the territory more accessible to foreign actors through this river, having great historical influence on the Afro community of La Loma Murri, which for years has directed the exploitation of the timber resource through relations of friendship and compadrazgo, and abuse of trust to constantly invade the territory of Río Jarapetó in search of wood. The landscape of Río Jarapetó is dominated by extended valleys and gentle hills that do not exceed 500 meters in height.

Only the community of Jarapetó is part of this Resguardo.

- **Resguardo Ríos Jengadó-Apartadó:** This Resguardo is located in the central part of the municipality of Vigía del Fuerte between the Jengadó and Partadó rivers. It is bordered to the east by the Resguardo Río Jarapetó and to the south by the Resguardo El Salado. It is made up of three communities: Jengadó, Partadó and Partadó Loma.
- **Resguardo Guaguandó:** This Resguardo is located in the village of Vegaez, on the banks of the Guaguandó River (a tributary of the Atrato River), between the Carápita channel and its headwaters on the left bank and the Murciélago and Chibagadó creek on the right side. In this Resguardo there is only the community of Guaguandó.

The municipality of Vigía del Fuerte, together with Murindó, is one of the municipalities where there are the greatest contrasts in terms of security, stability and absolute poverty, they are part of an isolated territory whose remoteness and forms of access, limit its development, as well as the activities of State control, which characterizes the historical abandonment of this region. This municipality, nestled in the heart of the Atrato, is surrounded by lush tropical jungle vegetation that boasts high levels of biodiversity, where the lack of knowledge of the area and the area specifically predominates, which connects the Atrato River with the Western Cordillera, and which coincides with the area of the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project.

3.3.1.2.2 Sociocultural context

According to the surveys carried out in the four (4) Resguardos (See Appendix L), a total of 1046 persons and 207 families were identified, distributed as presented in the *Table 9*. These surveys were the main input for The objective of the study was to characterize the indigenous population and to understand the social, economic and organizational conditions of the communities, as well as to identify the main challenges related to the use of land and natural resources. The instrument consisted of 19 questions, both open and closed, grouped into six thematic components: sociodemographic, socio-family, socioeconomic, organizational, land use and challenges (Annex B)

Table 9. Number of inhabitants and families in the four Resguardos

Community	Number of families
Guaguandó	31
Jarapetó	52
Jengadó	44
Paracucundó	15
Partadó	20
Salty	45
Total	207

Women account for 53.1 per cent of the population, while men make up 46.9 per cent. Although there are more women than men, the numerical difference between the two groups is not significant, suggesting a relatively balanced gender distribution.

Worldview

The center of Embera thought "is the idea of a great, primordial original unity" of which the most important elements of indigenous life are part: the water with the fish, the tree (the jungle), the tiger and jaibanismo (Vasco, 1985). According to the myth of the *Jenéné* tree, the *Karagabi* god is located in a world above humans where the souls of the dead and primordial beings also dwell; in the middle he created the Embera and gave them access to the resources of water, fire and food. He also created the world below humans, a place where *jai* (a spirit that can cure or cause disease) dwell.

The Embera tradition is characterized by its dual conception of thought that is divided into two levels: the everyday and the essential. The level of the essential can only be accessed by the *jaibaná* (the one with the spirits). The *jaibaná* is a man of knowledge whose faculty is to "see", taking into account that, according to the worldview, knowledge "is not produced, it exists and is reached through a direct relationship, that of seeing" (Vasco,

1985). The *jaibaná* has the ability to see through dreams; he can see illness and healing; establish connections with the other two worlds and dialogue with the *jai*, from whom he receives ritual guidance in healings, baptisms, choice of name and passage to adult life. In this sense, the *jaibaná* plays a preponderant role in healing and, therefore, in the conception of health of the Embera people.

Tongue

In Vigía del Fuerte, indigenous communities speak the Embera language, which is part of the Chocó linguistic family. This language encompasses several groups with a shared history and worldview, which has resulted in the existence of four different dialects. In the specific case of the Embera of Vigía del Fuerte, the predominant dialect is "topida" (in Spanish, *embera dobida*; to, 'river'; *topida*, gentility of place, 'people of the river').

Social organization

The basis of the Embera social organization establishes the family (man, woman, sons and daughters) as the basic social unit of cultural production and reproduction. The nuclear family or the extended family can live in the same house. On the other hand, kinship (union of several families) is the work unit to prepare land, sow, graze, obtain raw materials, cut and transport wood, etc. The families live in a type of house called "tambo", built in a stilt shape, on stilts, with a conical roof and without internal divisions.

With regard to the division of labour, women in Embera society are involved in agricultural activities such as clearing, seed preparation, cleaning, harvesting, product processing and food preparation. In addition to these tasks, women take care of the house, raising children, body painting, and the design and elaboration of handicrafts such as baskets, making typical dresses, and accessories with beads. For their part, men also participate in the aforementioned agricultural work, make canoes and other elements in wood, perform commercial work and also participate in the positions of the *cabildo* (Territorial Monitoring System- ONIC, 2022).

Community governance structure

In the field of governance of indigenous territories, three fundamental institutions are identified:

1. **Jaibanás, wise men and doctors.** Since ancient times and long before the institutionalization of the Resguardos, the responsibility for governance and other aspects related to the indigenous territory has fallen to the most experienced people within the communities, whether men or women, who in the context of the Embera peoples of the Atrato, are commonly called *Jaibanás* or wise men. However, the figure of the *Jaibaná* has experienced a gradual decline in its prominence, ceding space to the Resguardos as a new form of power, governance and social control.

2. **Local councils.** The figure of the Resguardos emerged in 1890 through Ley 89, establishing their responsibility in territorial governance, which includes forest management and social control. The typical composition of a local council of a Resguardo is made up as follows:

- First governor
- Second governor
- Secretary
- Fiscal
- Treasurer
- Senior Guard
- Junior Guards (5)

The governing body at the local level is composed of a total of 11 people, normally elected for a term of three (3) years, with the possibility of being re-elected for an additional term, either in whole or in part of it.

This structure may be modified at any time, in whole or in part, by decision of the community assembly. The local cabildo operates with internal regulations that cover various aspects of community life, such as social control, logging, hunting, fishing, protection of sacred sites, administration of housing and other community property, as well as matters related to education and health, among others, in accordance with the needs and decisions of the community.

3. **Cabildo Mayor.** The local councils are grouped together and form a second-level organizational structure for each municipality. This body mainly performs administrative and management functions that complement the role of the local councils that comprise it.

The Cabildo Mayor is usually made up of six (6) people, elected by the local councils.

- Governor
- Second Major
- Secretary-general
- Treasurer
- Fiscal
- Major Guard

The board of the Cabildo Mayor was designed to have its headquarters in the municipal capital, but due to the lack of resources for its maintenance, this responsibility falls solely on the Governor Mayor. Its main function is to act as a representative of the local councils in delegated matters, as well as to manage and administer the resources destined to meet the needs of the indigenous population in the communities attached to the Cabildo Mayor.

Access to public services (drinking water, basic sanitation, electricity, solid waste management)

The lack of access to drinking water and basic sanitation is a significant problem that not only affects the population in the municipal capital but also that in rural areas. In indigenous communities, this situation is aggravated by difficulties in accessing the Resguardo areas. With regard to sanitation, biological risks associated with the presence of vectors and inadequate management of strategic environments and ecosystems are major concerns. In addition, the non-responsible ownership of pets contributes to the spread of diseases.

This problem is evidenced by the fact that none of the 207 families surveyed have access to drinking water and basic sanitation services, which suggests a lack of basic infrastructure and clear problems of access to public services.

With respect to electricity supply, most families, specifically 106 out of 207, depend on solar panels. This high number of families who resort to solar energy shows that the connection to the traditional electricity grid does not exist in the Resguardos.

In terms of waste management, the lack of adequate infrastructure, financial resources and technical knowledge hinder the effective management of solid waste. This has led to the accumulation of waste in areas near settlements, posing an additional risk to health and the environment. Only 40 families out of the 207 surveyed have access to this service.

Finally, it was identified that 61 families out of the 207 do not have access to any of the aforementioned services. This further underscores the situation of lack of access to basic services in these areas, which undoubtedly has significant implications for the quality of life and well-being of the indigenous population.

Health, education and housing

One of the main social challenges faced by communities in the Resguardos is the lack of access to quality basic services such as health, education, and decent housing. The inadequacy of community infrastructure in the buffer zones contributes to the vulnerability of communities, especially with regard to health and education.

The absence of health centers and the lack of trained medical personnel hinder access to quality health services, resulting in high rates of preventable diseases and infant mortality. There is a worrying incidence of diarrhoeal diseases, nutritional deficiencies and acute respiratory diseases. These health problems are especially serious among children. In addition, a high number of cases of malaria and dengue fever are registered, which are attributable to the presence of mosquitoes and the lack of adequate care.

On the other hand, the figure of traditional doctors or *jai* has been losing relevance due to the process of acculturation experienced by the population, which increasingly adopts the dominant cultural patterns. In fact, in the surveys of characterization of the families, none of them said they used traditional medicine. This situation is aggravated by the absence of coherent programmes that promote and value the practices of traditional medicine and the indigenous system of governance.

With regard to education, the lack of adequate infrastructure within the Resguardos, the shortage of trained teaching staff and the distance to the municipal capital limit the educational opportunities of indigenous children and young people, an issue that perpetuates the cycle of poverty and social marginalization in these communities. These deficiencies are reflected in the data on the characterization of families by educational level of household members. For example, the presence of a significant number of people with no formal education (245) and incomplete primary education (325) suggests limitations in access to and quality of basic education. Added to this is the poor condition of the few existing schools, which lack adequate sanitary facilities, blackboards in optimal conditions and adequate furniture.

In relation to housing, the current houses, built in wood with zinc roofs, present a serious problem of contamination by particulate matter derived from the burning of wood for

cooking. In addition, they lack adequate sanitation facilities and systems for rainwater harvesting and storage, creating a chaotic environment and increasing health risks for families and communities at large.

3.3.1.2.3 Economic context

The economy of the municipality is based on timber extraction and traditional activities such as agriculture, fishing and mining. However, the distance of indigenous communities from the main marketing centers and the lack of land routes limits the sale of products, so the form of production has focused on supplying the needs of the local population (Mayor's Office of Vigía del Fuerte, 2020).

Communities in the Resguardos face difficulties in accessing paid employment due to the lack of economic opportunities in the region and the difficulties and costs of mobility. The local economy is dominated by activities such as agriculture, fishing, and timber for sale, reflecting the dependence on natural resources for the livelihood of families in the communities. However, these activities do not always provide sufficient income to ensure an adequate quality of life due to economic constraints and barriers to accessing gainful employment. In addition, pressure on resources due to activities such as timber extraction threatens their availability and quality, further affecting the household economy and food security of communities.

In addition, when analyzing the data on the characterization of families according to their income, a precarious economic situation in the community is evident. Most of the families surveyed have incomes of less than COP \$500,000, and many do not exceed COP \$2,000,000. This indicates that a large percentage of the population lives in conditions of economic vulnerability.

Resguardo Río Jarapetó

In the Resguardo Río Jarapetó, the most populated community (representing 25% of the municipality's indigenous population), agriculture and the exploitation of timber for commercial sale are predominant activities. Crops include bananas and corn for local consumption, as well as high-quality avocado and pineapple for both consumption and sale, the latter being a product that generates significant surpluses. On the other hand, fishing has decreased a lot due to the dry seasons, while hunting has ceased completely. Pig breeding has been limited by the concentration of the population in the farmhouse, where having loose animals generates conflicts between families. Lemon production,

demanded in the municipal capital, is an additional source of income for the community, with an insufficient supply, which leads to a dependence on lemons from the municipality of Dabeiba at 70%.

Resguardo Ríos Jengadó - Apartadó

In Jengadó, agricultural production is mainly focused on bananas for self-consumption, as the conditions of the river make it difficult to market them. However, small surpluses are also obtained from this product and bananas, as they are sold in the municipal capital and in the community of San José, where they are also exchanged for fish. In addition, fishing is more abundant than in other areas due to the presence of a swampy area in the lower part of the river, where the indigenous people usually fish. For its part, hunting has been reduced due to the scarcity of animals. In Jengadó the murrapo is also found in natural conditions, from which the palm heart and acai are extracted. Likewise, the extraction of wood for commercial sale is carried out

In the communities of Partadó and Partadó Loma, lemon is also produced and native corn is grown for mazamorra and chicha; Rice is planted for domestic consumption only. Although there are soils suitable for the cultivation of murrapo within the resguardo, most of the areas where the already established crop is located are not part of the indigenous territory. As for the timber activity, the extraction of wood for commercial sale is carried out to a lesser extent than in Jengadó.

Resguardo El Salado

In both communities (El Salado and Paracucundó), the production of bananas in all its varieties stands out, mainly for self-consumption, and murrapo is also grown. Rice production is low in both.

The community of Paracucundó stands out for its pineapple production, which is sold in the municipal capital. White cane is also grown for local consumption; The community has a sugar mill and a thresher that are not currently in use.

In the community of El Salado, pineapple production is lower compared to Paracucundó, but the conditions of the terrain could favor its cultivation, especially in the hilly areas, while in the lower areas murrapo could be used. Cane is also produced, although the possibility of producing honey and sugar would be conditional on the availability of a sugar mill, since currently only chicha is made.

As for fishing and hunting, they are scarce activities in both communities, although fishing is a little more abundant in El Salado due to the proximity of the swamp. On the other hand, the pressure on hunting is lower in Paracucundó, which has a wide variety of fauna due to the type of terrain: a hilly area and a low flood zone where it is possible to get animals such as deer and guagua. In addition, being a smaller community there is less pressure.

With respect to the extraction of wood for commercial sale, although it is still present, it is a limited activity in both communities,

Resguardo Guaguandó

The community faces challenges in banana production, affected by soil moisture and the presence of the screwworm. Drainage and seed management for self-consumption needs to be improved, especially in varieties such as primitivo and popocho. Despite being prominent consumers of bananas, the community is unable to produce what is necessary for local consumption, which forces them to buy it in the municipal capital, from indigenous people in Bojayá. This community depends on external products such as rice, oil, salt and fish, especially in times of drought. As the largest timber producers in the region, they purchase all these products from surplus timber that is harvested and sold commercially.

On the other hand, the local fauna is fully exploited, although it is under considerable pressure. Species such as macaws, tatabros and guaguas are common in the area, and the Carapita swamp provides an important source of fishing and hunting.

3.3.1.2.4 Historical context

The settlement of indigenous communities in the Resguardos of the municipality of Vigía del Fuerte has been characterized by a series of migrations and historical events. A significant part of the indigenous population residing in the Resguardos of the municipality of Vigía del Fuerte originates in Bojayá, in the department of Chocó, while another comes from the headwaters of the Atrato River, also in the department of Chocó. This settlement process has taken place at three different times throughout history. At first, at the end of the nineteenth century, indigenous groups migrated from Baudó and Tadó along the Alto San Juan, from Bojayá through the department of Chocó, and from Lloró along the Atrato River. The second period is between the 1940s and 1980s, driven by

the colonization of Antioquia and the displacement caused by political conflicts. Finally, between 1980 and 2021, the settlement process was mainly influenced by natural factors and acts of violence related to the armed conflict.

Resguardo Río Jarapetó

- The community of Jarapetó began with 4 families who arrived in 1965 to the place where the community is located today, but there were already two eyavid families of Mr. Crescencio Cazama and Mr. Belisario Bailarín del Río Verde, from Tierralta, Córdoba. Later other settlers arrived, who called the second troop, led by Severiano Dumaza, the Laura sisters and the German parents also arrived in 1975. Both migrations came from Lloró, Wenchirado, and the Capá River of the Andagueda River region.
- In 1983 the organizational process began with the accompaniment of OREWA (Embera-Waunan Regional Organization of Chocó), the Missionaries of Sisters Laura, Secretary of Development of Antioquia, with the support of personnel from Cristianía and the Social Pastoral of Chocó.
- In 1983 the organization of the community began through the organizational process, the first Cabildo was constituted, in that year Vigía del Fuerte belonged to the municipality of Urrao.
- 1984 the title deed was obtained
- 1984 there was organizational support from OREWA
- In 1985 the OIA came to support the organizational work with the Directorate of Indigenous Affairs.
- 1988 Wood became a family business, lumber was sold in droves. The Cabildo gave permission to families to cut 80 blocks
- 1990 Agreed on how timber permits are administered
- 1995 It was agreed that permission should be requested to cut wood for domestic uses with measures to control the cutting of the population and the sale of animals. If it was not complied with, sanctions such as the clamp were applied
- Between 2015-2019, mining was practiced in the territory
- From 2017 to date (2024), wood has been extracted in agreements with Afro and Paisa people

Resguardo Ríos Jengadó - Apartadó

Jengadó

- In 1971, the first indigenous settlers arrived from Frontino (Eyabidas). At that time, Jesús Pernia and Crispín Majoré were already living in the territory. Due to displeasure among the community, a group had to leave.
- 1990 Use of Abarco with paisas and cumbaza
- 1992 The Indigenous Resguardo was established
- 2001 was formulated with the support of the Espavé Foundation, the Territorial Planning Plan of the Resguardo

Partadó

- In 1992 the cabildo of Partadó was constituted. The first indigenous who arrived was Pompilio Degaizamo, he died and his daughter Arbila Degaizamo remained, then came Jardín and Florentino de Quia. They gave Florentino Chamí to Arbilia to marry. Then came Juvenal Billi, Claudina, Chócolo, then Fidelito Majore de Bebará (bought land), Francisco de Guaguandó.
- In 2005 the sale of wood began: abarco, guino, chanú, caidita, algarrobo, pantano

Resguardo El Salado

- The first settlers of the Salado River arrived in 1959 from the San Juan River in Chocó (Tarena Community). At first they were located in the mouths of the Salado and from there they went to the place they occupy today. From 1959 to the present there has been no occupation of the river by other populations, it is said that before there was an Indigenous population on the Paracucundó River but there is no information. Remains of ancient utensils have been found in both rivers.
- In the lower part (outside of what is the Resguardo) there has been an ancient presence of the Afro population of Buchadó and the Boba, which is maintained intermittently according to the fishing and agricultural cycles. Since the date of arrival at the river, there have been no massive displacements of the population to other places or to the community.
- The population is made up of Eyávidas and Dóvidas and thus the language that is in the process of being lost. Only Caragabí, Ancore and Zeze were believed to be their own gods.

- With respect to the organizational process, the community recognizes that there are no authorities of their own, the figure of the caciques was abruptly replaced by the Resguardos, while the caciques recognized themselves by knowledge and commitment to the population.
- In 1982 OREWA appeared and in 1984 the OIA.
- The first cabildo was created in 1988 and in 1990 the community was founded, bringing the population together in a single place in 1988.
- In 1982 the Resguardo El Salado was created and in 2003 the expansion of Paracucundó.
- The governance of natural resources and the resolution of internal conflicts falls to the local council through the internal regulations that were not written, they were written for the first time between 2015 and 2018 and it is a general regulation of social control that includes everything.
- When the local council was created, it began to relate to the Indigenous Organization of Antioquia OIA and OREWA, Hermanas Lauritas, later with the Cabildo Mayor of Bojayá CAMAYBO and then with the Cabildo Mayor Indígena de Vigía del Fuerte CAMIVIF.

Paracucundó Indigenous Cabildo

- The first settlers of the Paracucundó River arrived between 1948 and 1950 from the San Juan River in Chocó (Tarena Community). Initially they were located in the Salado River and from there they went to the Paracucundó. From 1950 to the present there has been no occupation of the river by other populations, only in the lower part (outside of what is the Resguardo) there has been an ancient presence of the Afro population, which is maintained temporarily according to the fishing and agricultural seasons. Since the arrival of the river to date, there have been no massive displacements of the population to other places or to the community.
- Regarding the organizational process, the community feels that there are no longer its own authorities, the figure of the Caciques was abandoned and replaced by Resguardos.
- In 1982 OREWA appeared and in 1984 the OIA.

- The first cabildo was created between 1985 and 1986 and the community was founded, bringing the population together in 1988.
- In 1982 the Resguardo El Salado was created and in 2003 the expansion of Paracucundó.

The first group of young people was created in 2003. The governance of natural resources and the resolution of internal conflicts falls to the local council through the internal regulations that were not written, they were written for the first time between 2015 and 2018 and it is a general regulation of social control that includes everything.

Resguardo Guaguandó

- The first settlers of the Guaguandó River arrived in 1956 from the Baudó. Initially they were located on the Arquía River and from there they passed to the Guaguandó River and settled at the mouth of the Chibugadó, a tributary of the Guaguandó. From 1956 to the present there has been no occupation of the river by other populations, only in the lower part (swampy zone) there has been the presence of the Afro population, which remains in an itinerant way according to the fishing cycles.
- In 2009, a family arrived in the upper basin from Frontino Antioquia, but they settled outside the Resguardo, where they remain to this day.
- The first cabildo was elected between 1983 and 1984 and the Resguardo was created in 1989.
- The governance of natural resources and the resolution of internal conflicts falls to the local council through the internal regulations that were not written, they were written for the first time between 2015 and 2018 and it is a general regulation of social control that includes everything.

3.3.1.3 Key actors, interests and motivations

The main agents and causes of deforestation and degradation identified in the project area are similar to those present in the reference area. And the above is a criterion required by the methodology for the delimitation of the reference area. These agents and causes of deforestation and degradation were identified through the workshops held in the seven (7) communities of the Río Jarapetó, Ríos Jengadó-Apartadó, El Salado and Guaguandó Resguardos (Annex M.), workshop for the definition of REDD+ activities held in Vigía del Fuerte on May 23 and 24, 2024 with representatives of the indigenous communities of Río Jarapetó, Jengadó – Partadó – Partado Loma, El Salado, Paracucundó and Guaguandó Rivers (Annex A) and with the consultation of national information such as the

Characterization of the main causes and agents of deforestation at the national level (González J. *et al.*, 2018).

The main drivers of deforestation and degradation identified for the project area are detailed in the *Table 10*.

Table 10. Agents of deforestation and degradation in the project area

DRIVERS OF DEFORESTATION /DEGRADATION	LOCALIZATION	DYNAMIC
Intermediary buyers of wood	Settled in cities such as Medellín and Turbo (Antioquia), Cartagena (Bolívar) and Quibdó (Chocó)	It is a group of mestizo and Afro-buying people of wood, with a wide network of contacts at the regional and national level of the tropical wood production chain. Due to their links, they have a great capacity to mobilize wood from different parts of the Atrato River, and they have their own coastal boats or they associate with owners of the boats transporting goods and inputs (grains, vegetables, beers, food, wood, etc.) to ensure the transport of the material. Turbo, Cartagena and Barranquilla are large recipients of wood from the Atrato River
Afro and mestizo wood buyers	Located in the municipal urban centers and large townships (Buchadó, San Antonio de Padua, San José de la Calle in the Atrato)	This is a group of local buyers and intermediaries, generally from communities, especially Afro-descendants, who have engaged in the timber trade and act as a liaison for the "patrones" or wholesale buyers of timber throughout the river, who live outside the project area. At the same time, they acquire the connotation of "patrons" in the eyes of the indigenous people, since they receive and pay for their wood

External miners	This activity occurred only between 2015 and 2019 near the Resguardo Río Jarapetó	This activity was presented in the years 2015 to 2019 in the Resguardo Río Jarapetó through the Agreement with the Cabildo. The miner came from the municipality of Caucasia and the activity was suspended at the request of the community due to the great environmental damage caused. This agent of deforestation is not currently reported.
Indigenous councils and community	Authorities and staff of the local communities in each town hall	<p>Under mutual internal agreement, they allow the interaction of local authorities with foreign cutters, they establish cutting agreements by commission for each block cut. The cutting of valuable species is currently disproportionately focused on the extraction of chanú (<i>Humiriastrum procerum</i> (Small) Cuatrec.), which is replacing the abarco (<i>Cariniana piriformis</i> Miers) in the national market, in the face of its inexorable extermination. These agreements have been made possible by the high costs of harvesting activities in the forest, so it is delegated to other groups and only a commission is charged. Agreements with foreigners are also the reason for the armed conflict in the area, since in the case of the Resguardo Guaguandó, it was decided to sign agreements to be able to extract the harvested wood, since the indigenous people were identified as actors in the conflict and therefore did not facilitate the commercialization of wood.</p> <p>In the same way, the community harvests wood and makes direct agreements with both intermediary buyers and the so-called "bosses". In most cases, the negotiation is</p>

		<p>achieved with the supply of gasoline, chainsaws, and food by the buyer, which causes the income of families to be very low. The geographical location of the indigenous Resguardos (distance from urban centers) and the difficulties of access, mean that the economy of the Resguardos and neighboring community councils is wood.</p>
Foreign cutters	<p>Personnel from Afro communities, from Quibdó, Lloró, Community Council of La Loma Murri and La Playa Murri, Río Murri who join forces to cut wood in foreign territories. This group is made up of Afros and mestizos.</p>	<p>Under agreements with the councils, they cut chanú wherever it is, invest capital, have equipment, transport and mules to carry out their activity, which is carried out without any control or supervision of damages or costs. It is settled with the councils according to their own accounts. To do this, they use key characters in the communities to maintain control in operations. This agent has been operating in the project area since 2015.</p>
Families	<p>Families that make up the local Resguardos</p>	<p>Through their traditional production practices (agricultural subsystem) they develop the model of shifting agriculture, which implies a system of planting, felling and rotting of timber and plant residues (Taungya), which is abandoned when the fertility conditions of the soil do not allow a minimum contribution to the food security of the family. at which time it is abandoned for the jungle to cover again, and another site is resorted to that has years of rest or the forest is reopened, which implies the felling of trees in another place.</p> <p>Families also demand a considerable amount of wood for cooking traditional foods and beverages such as chicha. For</p>

		<p>them, fine wood cutting waste is collected, hardwood species are cut without commercial use.</p> <p>The communities cut down hardwood and softwood trees for domestic uses and meet the needs of families for the construction of houses, boats, huts, oars and other small ones.</p> <p>Finally, although illicit crop activity is not currently carried out, it has been practiced, as a trial, in the Resguardo Río Jarapetó. The practice was abandoned, due to high production costs and low purchase value, which makes it not a profitable activity.</p>
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Each of the Resguardos has different conditions that facilitate or condition the use of wood. In the Resguardo Río Jarapetó, a particularity stands out: its topography and proximity to the Murri River favor extraction, and on the banks of this river there are several Afro communities, such as La Playa Murri and La Loma Murri, historically known for their extractive activity. In particular, the community of La Loma Murri has been linked to the exploitation of the forests in this basin and in the Resguardo, either through illegal invasions or agreements with the indigenous community. This Resguardo has had recurrent conflicts over the use of forest resources with the Afro communities of the Murri River, as well as with those of the Atrato River, specifically Arenal and San Miguel. Through these agreements, the indigenous people have transferred to the Afro communities the costs associated with timber extraction, which implies control over the forest and assumes the damage to the ecology and biodiversity of the indigenous forests. Currently, a group of these communities is making a cut of chanú (*Humiriastrum procerum* (Small) Cuatrec.), a species of high interest in the market.

On the other hand, the communities of the Resguardo Ríos Jengadó-Apartadó, which include three local councils (Jengadó, Partadó and Partadó Loma), face the greatest physical limitations for logging, due to the fluctuating water levels in their rivers, which are the only access routes. This restricts the possibility of transporting wood in blocks (squares) continuously, limiting activity to winter periods. In this Resguardo, logging does

not depend on agreements with external cutters and is exclusively in charge of local families, who assume responsibility for extraction.

The Resguardos of the El Salado and Guaguandó, on the other hand, have rivers with relatively constant water levels during the year, especially Guaguandó, which has the highest flow. The agroecological characteristics of the soils and the high rainfall near the Western Cordillera generate a high dependence on timber extraction to sustain local economies and meet growing needs. In the Resguardo El Salado and the Guaguandó, there are currently agreements with groups of afrocolombian communities for the selective and intensive cutting of chanú, because this species is in demand in the market, since the abarco (*Cariniana piriformis* Miers), another high-value species, has been overexploited and is depleted in the region.

The *Table 11* details the agents that operate in each community (local council), according to the local circumstances that facilitate extraction in each of these sites.

Table 11. Agents of deforestation and degradation in each community

COMMUNITY	ACTIVITY/CAUSE	AGENTS	WOOD BY USE
JARAPETÓ	Timber harvesting for commercial purposes	Foreign cutters	Chanú, abarco, choibá and oil. Now only chanú
	Mineral extraction	External miners	It does not exist today
	Extraction of wood for local consumption - Firewood	Families	Pichindé, cedar, caidita, choibá, guásimo, guamo, palo perico, taparo, churima, chicle, carbón, carbonero, abarco, clavellino
	Subsistence agriculture (shifting cultivation)	Families	Those that have no immediate uses and little economic value are cut down
	Extraction of wood for domestic use	Families	Ñangare, chanú, aceite, tometo, curibano, trúntago, cork, caidita, portalete, guino, platanillo, caimito, medlar, bitter, dust,

	(construction, boats, huts, etc.)		granadillo, caraño, bijo, tometo, caimitón, olleto, sangregallo, jigua negra, chachajo, carrá, mora, pantano, incibe, jigua amarilla, aceite, cedro macho
JENGADÓ	Timber harvesting for commercial purposes	Indigenous councils and community	Abarco, guino, pantano, choibá, there is no chanú here
	Extraction of wood for local consumption - Firewood	Families	Sangregado, guásimo, carbón, chicle, carrá, tachuelo, bambudo, guava, guama, guino, mangle, taparo, abarco, choibá, quematabro, burrelito
	Subsistence agriculture (shifting cultivation)	Families	Those that have no immediate uses and little economic value are cut down
	Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Nispero, trúntago, olleto, caidita, guino, caimitón tachuelo, carrá, abarco, cork, sangregallo, pantano, núanamo
PARTADÓ LOMA	Timber harvesting for commercial purposes	Indigenous councils and community	Abarco, but it is already very exhausted, choibá, virola, sande, algarrobo, caidita, guino, nuanamo, rubber
	Extraction of wood for local consumption - Firewood	Families	Taparo, charcoal, guamo, guásimo, pichindé, chirateté, chuculero and hardwood that are in the mountains
	Subsistence agriculture (shifting cultivation)	Families	Those that have no immediate uses and little economic value are cut down

	Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Incibe, abarco, chanú, caidita, caraño, olleto, medlar, tachuelo, guamo rosario, tometo, caimito de monte, incibe
PARTADÓ	Timber harvesting for commercial purposes	Indigenous councils and community	Choibá, núnamo, bambudo de loma, sweet pepper, bitter, capitancillo, carob, curibano, black guayabillo, guino, caidita, hobo, higuerón, trúntago, olleto, cork
	Extraction of wood for local consumption - Firewood	Families	Guásimo, guayabillo, guasco, taparo, sabaleta, churima rejo, guamo
	Subsistence agriculture (shifting cultivation)	Families	Those that have no immediate uses and little economic value are cut down
	Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Black guayabillo, sweet pepper, cork, bambudo de loma, caidita, guino, trúntago
EL SALADO	Timber harvesting for commercial purposes	Foreign cutters	Abarco, chanú, guino, pantano, guayabillo negro, choibá, nuánamo, sande, cedar.
	Subsistence agriculture (shifting cultivation)	Farmers	Those that have no immediate uses and little economic value are cut down
	Extraction of wood for local	Families	Pichindé, guásimo, guamo, churimo, taparo, remains of choibá, cedar and hardwoods

	consumption - Firewood		
	Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Guino, swamp, black guayabillo, curibano banana, chanú, flor de mayo, mora, genené, ají, guino, sande, caidita, bitter
PARACUCUNDÓ	Timber harvesting for commercial purposes	Indigenous councils and community	Abarco, chanú, guino, pantano, guayabillo negro, choibá, núanamo, sande, cedar, carob tree
	Subsistence agriculture (shifting cultivation)	Farmers	Those that have no immediate uses and little economic value are cut down
	Extraction of wood for local consumption - Firewood	Families	Pichindé, guásimo, guamo, churimo, taparo, guayabillo amarillo
	Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Guino, swamp, black guayabillo, plantain, curibano, chanú, flor de mayo, guino, sande, caidita, genené, ají, sande, caidita
GUAGUANDÓ	Timber harvesting for commercial purposes	Foreign cutters Indigenous councils and community	Abarco, chanú, guino, pantano, guayabillo negro, choibá, nuánamo, sande, cedar, carob tree
	Subsistence agriculture (shifting cultivation)	Farmers	Those that have no immediate uses and little economic value are cut down

	Extraction of wood for local consumption - Firewood	Families	Pichindé, guásimo, guamo, churimo, taparo, remains of choibá, cedar and hardwoods
	Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Guino, pantano, guayabillo negro, plantain, curibano, chanú, flor de mayo, mora, olleto, arroz con coco, manguito, genené, ají, guino, sande, caidita

As for the mechanisms of control and access to forest resources in each community, there are certain restrictions regarding the intensity of exploitation in the reserves. However, in Resguardos such as Río Jarapetó, El Salado and Guaguandó, where agreements have been established with foreign cutters from Afro communities, these limitations are not so strict. In the rest of the communities, a control is carried out on the amount of wood that each family can market to avoid overexploitation; however, families can sell wood to intermediaries and external buyers, mainly in Vigía del Fuerte and in its township Buchadó, as well as in San José de la Calle, in Bojayá (Chocó).

These practices highlight the ineffectiveness of domestic regulations, as they allow individual interests to prevail over the general welfare. The existence of agreements that put at risk the sustainability of certain species and the ecological function of forests reflects the lack of control, monitoring and restoration activities of exploited areas.

In order to complement the analysis of agents of deforestation and degradation, in the *Table 12*, the scale, activity, and interests and motivations of each of them within the project area are shown.

Table 12. Agents of deforestation and degradation, activities and identification of interests

AGENTS	SCALE	ACTIVITY	INTEREST
Intermediary buyers of wood	Direct and indirect	Timber harvesting for commercial purposes	Economic
Afro and mestizo wood buyers	Direct and indirect	Timber harvesting for commercial purposes	Economic
External miners	Direct and indirect	Mineral extraction (does not exist at present)	Economic
Indigenous councils and community	Direct and indirect	Timber harvesting for commercial purposes	Economic
Foreign cutters	Direct	Timber harvesting for commercial purposes	Economic
Families	Direct	Subsistence agriculture	Self-consumption Economic
	Direct	Extraction of wood for local consumption - Firewood	Self-consumption
	Direct	Extraction of wood for domestic use (construction, boats, huts, etc.)	Self-consumption

	Direct	Illicit crops (does not currently exist)	Economic
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3.3.1.4 Economic activities and their importance

Like the agents, the causes of deforestation and forest degradation in the project area are similar to those present in the reference area. These causes or activities were identified through the workshops held in the seven (7) communities of the Río Jarapetó, Ríos Jengadó-Apartadó, El Salado and Guaguandó (Annex M), a workshop for the definition of REDD+ activities held in Vigía del Fuerte on May 23 and 24, 2024 with representatives of the indigenous communities of Río Jarapetó, Jengadó – Partadó – Partado Loma, El Salado, Paracucundó and Guaguandó (Annex A) and with the consultation of national information such as the Characterization of the main causes and agents of deforestation at the national level (IDEAM and Ministry of Environment and Sustainable Development, 2018).

Then, in the *Table 13* The activities that cause deforestation and degradation in the project area are detailed, as well as the evaluation of their economic and sociocultural importance.

Table 13. Activities that cause deforestation and degradation in the project area

ACTIVITY	ECONOMIC IMPORTANCE	SOCIO-CULTURAL IMPORTANCE	CHARACTERISTICS
Mineral extraction	Casualty	Casualty	As mentioned above, this activity occurred between 2015 and 2019 in the Resguardo Río Jarapetó, through an Agreement between the Cabildo and a miner from the municipality of Caucasia, Antioquia.
Timber harvesting for	Loud	Loud	It is driven by the tropical timber market and demand from cities in the interior and on the Atlantic

commercial purposes			<p>coast, through historical buyers in the area, who have dealings with river transporters to ensure the movement of the timber extracted, and who partner with local intermediaries to control the extraction from there.</p> <p>Communities rely heavily on trade in timber for commercial use</p>
Subsistence (migratory) agriculture	Casualty	Loud	<p>The traditional production models of indigenous communities (agricultural, livestock, forestry, hunting and fishing subsystems) respond to hydrobiological cycles, the physical and chemical characteristics of the soils, and the topography of the land. Agriculture receives its name as migratory because it develops in time and space, taking advantage of small portions of land (family plots) for an estimated time that depends on fertility and the response of the crops to natural limitations and potentialities, to then be abandoned and a new family productive enclave opens up in other areas. On the family plot, useful trees are left, but those that have no use value for the family are felled, others are used for firewood</p>
Extraction of wood for local consumption - Firewood	Casualty	Loud	<p>Communities cook their food with firewood, which requires a considerable amount of firewood for cooking traditional foods and drinks such as chicha. To do this,</p>

			<p>hardwood trees, most of them unknown to commerce, residues from cutting fine commercial wood (cedar, abarco, choibá) and fall into forests or agricultural plots are felled. The way in which firewood accumulates in the lower parts of the houses shows a high consumption of wood in the communities</p>
<p>Extraction of wood for domestic use (construction, boats, huts, etc.)</p>	Casualty	Loud	<p>The cutting of trees for domestic uses is due to the needs of families for the construction of houses and domestic utensils such as boats, huts, rows and other minor ones, this cause is more static over time. Likewise, to meet the needs of the community in terms of the construction of schools, community houses, warehouses, etc. For these uses, as for firewood, the greatest variety of species used according to their characteristics is presented</p>
<p>Illicit crops</p>	Casualty	Casualty	<p>Only in the Resguardo Río Jarapetó has it been practiced as a trial, but due to the difficulties faced by illicit crops, where production costs have exceeded sales costs, this activity is no longer profitable for the communities, which has discouraged this activity in the indigenous area. In the area, crops close to the communities are recorded in territories of afrocolombian communities</p>

3.3.1.5 Direct and indirect impact

Each activity or cause, as well as each agent of deforestation and degradation, has a direct and differential impact on forests. In this case, a qualitative analysis of the impact was carried out through participatory workshops held in the seven communities of the Resguardo Río Jarapetó, Ríos Jengadó-Apartadó, El Salado and Guaguandó (Annex M) and the workshop for the definition of REDD+ activities held in Vigía del Fuerte on May 23 and 24, 2024 with representatives of the indigenous communities of Río Jarapetó. Jengadó – Partadó – Partado Loma, El Salado, Paracucundó and Guaguandó (Annex A)

The determination of the impact of each activity/cause of deforestation and degradation is shown in the *Table 14*.

Table 14. Direct and indirect impacts of activities that cause deforestation and degradation in the project area

ACTIVITY	AGENT	TYPE OF IMPACT	IMPACT
Mineral extraction	External miners	Indirect	High. The development of this activity in the Resguardo Río Jarapetó had a strong impact on the environment and the communities, for this reason the contract with the agent was suspended. It is believed that the impact could have been 1 km long around the Jarapetó River.
Timber harvesting for commercial purposes	Intermediary buyers of wood	Indirect	Middle. Logging is not carried out permanently but when there are needs in the families of the communities.
Timber harvesting for commercial purposes	Afro and mestizo wood buyers	Indirect	Middle. Logging is not carried out permanently but when there are needs in the families of the communities.

Timber harvesting for commercial purposes	Indigenous councils and community	Direct	Middle. Logging is not carried out permanently but when there are needs in the families of the communities.
Timber harvesting for commercial purposes	Foreign cutters	Direct	High. Logging is carried out by agreement with the communities and generally lasts one (1) year. The frequency of activities is medium-high
Subsistence (migratory) agriculture	Families	Direct	Low. The establishment of plots per family is less than 1 hectare (max 0.75 ha) and they have been used for about 2 to 3 years.
Extraction of wood for local consumption - Firewood	Families	Direct	Low. While the activity is constantly practiced for cooking food and preparing beverages, it is generally not the cutting of hardwood species that is used, but fast-growing species.
Extraction of wood for domestic use (construction, boats, huts, etc.)	Families	Direct	Low. This activity is not practiced permanently, only when there is a need for the construction of houses, community huts, etc.
Illicit crops	Families	Direct	Middle. It requires the clearing of the forest to establish the crop. It was a pilot carried out by the community of the

			Resguardo Río Jarapetó, it did not consider a large extension.
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3.3.1.6 Relationships and synergies

The analysis of deforestation and degradation in the project area was carried out in conjunction with the communities of the local councils of Río Jarapetó, Ríos Jengadó – Partadó – Partado Loma, El Salado, Paracucundó and Guaguandó. Surveys were carried out and information was obtained regarding the causes that motivate deforestation and degradation processes, who carries out these activities, the location, species used, among others (Annex N). These causes or activities were contrasted with the products obtained through the multitemporal analysis of vegetation cover changes for the reference area carried out in the period 2008 – 2021.

Historically, the transition from forest cover occurs to pastures, crops, bare soils, mining areas and secondary vegetation, the latter of which can be related to degraded areas or areas in recovery due to abandonment of use. The foregoing is articulated with the causes or activities identified in conjunction with the indigenous communities, which correspond to the extraction of wood for commercial purposes, mineral extraction, subsistence agriculture, extraction of wood for local consumption – firewood and extraction of wood for domestic use. In this way, it is possible to validate that the land uses following the deforestation and degradation processes in the reference area and project area are the product of the aforementioned causes or activities. In the *Table 15*, the changes that occurred in land cover between 2008 and 2021 in the project area are related.

Table 15. Land cover change matrix in the period 2008 – 2021 in the reference area

Coverage 2008	2021 Coverage	Area (ha)
Forests	Forests	298.050,2
Forests	Pastures and crops	9.456,7
Forests	Bare Ground	572,2

Forests	Mining Zone	1.646,0
Forests	Bodies of water	7,0
Pastures and crops	Forests	2.984,6
Pastures and crops	Pastures and crops	4.859,4
Pastures and crops	Bare Ground	226,4
Pastures and crops	Mining Areas	4,7
Pastures and crops	Bodies of water	1,7
Bare Ground	Forests	109,3
Bare Ground	Pastures and crops	92,1
Bare Ground	Bare Ground	9,9
Bare Ground	Mining Areas	6,7
Mining Areas	Forest	10,1
Mining Areas	Pastures and crops	0,6
Mining Areas	Mining Areas	58,3
Bodies of water	Forests	539,4
Bodies of water	Pastures and crops	317,7
Bodies of water	Bare Ground	73,7

Bodies of water	Mining Areas	13,7
Bodies of water	Bodies of water	10.397,4

Finally, as mentioned above, the causes or activities that cause deforestation and degradation are implicitly related to obtaining monetary resources to meet needs (food, children's education, obtaining items, etc.), as well as for the normal development of their activities such as subsistence agriculture, cooking food and preparing beverages. the construction of houses, boats, huts, utensils, among others.

3.3.1.7 Chain of deforestation and degradation events

According to section 10.7 of the AFOLU Sector Methodological Document - Quantifying GHG Emission Reductions REDD+ Projects - BCR0002, version 4.0 of May 2024, the chain of events seeks to identify the relationships between main groups of agents and causes, to try to explain the sequence of events that usually leads to deforestation and forest degradation. For each activity that causes deforestation and degradation, a chain of at least 3 links must be identified:

- Identify each of the activities that generate forest loss or degradation. If possible, these should be grouped according to the most common direct causes of deforestation or degradation;
- Identify the agents associated with the actions and direct causes of deforestation or degradation established;
- Identify the underlying causes that promote or facilitate the decisions of agents to carry out the actions resulting in the loss or degradation of forests.

The process of constructing the chains of events starts from the prior identification of the activities/causes of deforestation and degradation, as well as the agents that cause them. The activities/causes that cause deforestation and forest degradation are the response to the socioeconomic conditions of the communities, the productive activities that are practiced in the region, the supply of forest cover, among other variables. It is then those direct and underlying variables or causes that we want to identify and relate. For this process, the document Characterization of the main causes and agents of deforestation at the national level (González J. *et al.*, 2018), as well as the development of workshops in each of the communities of the Resguardos, in which the agents and drivers of deforestation were identified for each Resguardo and subsequently, the workshop for the

definition of REDD+ activities held in Vigía del Fuerte on May 23 and 24, 2024 with representatives of the indigenous communities of Río Jarapetó, Jengadó – Partadó – Partado Loma, El Salado, Paracucundó and Guaguandó (Annex M). In the latter, the direct and underlying causes for each activity/cause that generates deforestation and degradation in the project area were identified, which were materialized in a sequence diagram, to finally identify which are the possible solutions or REDD+ activities that allow reducing emissions by both processes.

Then, in the *Table 16* The activities that cause deforestation and forest degradation in the project area are shown, as well as the direct causes, agents and underlying causes.

Table 16. Chain of deforestation and degradation events

Underlying Cause 2	Underlying Cause 1	Agents	Direct cause	Activity
Lack of access to quality essential services (education, health, housing). Shortage of job opportunities Dependence on the subsistence economy Few different economic alternatives due to barriers to production (infrastructure), low investment and low technical capabilities Not very fertile soils	The communities have unsatisfied basic needs, low incomes, low possibility of employment, and the land use capacity of the Resguardos is low. Similarly, there is little credibility in community governance. Armed conflict	Intermediary buyers of wood Afro and mestizo wood buyers Indigenous councils and community Foreign cutters External miners	Low socioeconomic and cultural conditions	Timber harvesting for commercial purposes Mineral extraction

<p>Low skills in agricultural techniques</p> <p>Lack of trust in community leaders and decisions</p> <p>Absence of the state</p>				
<p>High profitability to investors</p>	<p>There is a growing local, national and international market for timber and minerals, there are investors interested in the business and there is labour available</p>		<p>Source of income for communities</p>	
<p>Lack of incentives for sustainable practices and lack of training in sustainable forest management techniques</p> <p>Illegality of mining</p> <p>Absence of the state</p>	<p>Presence of unsustainable use of the forest and absence of local technical capacities.</p> <p>Mining that is not sustainable and responsible</p> <p>Armed conflict</p>		<p>Overexploitation of wood and minerals</p>	
<p>Lack of internal control</p>	<p>There is no community regulation that regulates it, there</p>		<p>Lack of Community control and</p>	

<p>Lack of environmental education</p> <p>Absence of management and leadership skills</p> <p>Absence of its own justice and governance mechanisms</p>	<p>is also a lack of awareness of impacts on the environment, absence of natural resource management plans and poor community management</p>		<p>enforcement of regulations</p>	
<p>Not very fertile soils and low capacities in agricultural techniques.</p> <p>Few different economic alternatives</p> <p>Lack of technical support from institutions</p>	<p>There is low land use capacity, as well as low income. There is a lack of programs to improve food security and agricultural productivity in Resguardos. There is also a lack of training in agricultural models, technical skills and management and leadership</p>		<p>Low implementation of profitable production models and food safety</p>	
	<p>There is no state presence</p>		<p>Boundary difficulties/disputes with neighboring communities</p>	
	<p>Due to environmental conditions and</p>	<p>Families</p>	<p>Low soil productivity</p>	<p>Subsistence (migratory) agriculture</p>

	low organizational capacity.		Traditional production systems	
			Absence of land use planning instruments	
			Basic needs	
Lack of infrastructure, low technical capacities and finally, low interest from local and national authorities	<p>High costs to establish renewable sources. There is no awareness about the health effects of smoke.</p> <p>No cost and available. Lack of environmental education.</p> <p>Firewood extraction is not regulated</p> <p>Dependence on the subsistence economy</p>	Families	There are no other forms of energy	Extraction of wood for local consumption - firewood
			Overexploitation	
			Cultural roots	
			Low income	
Lack of internal control Dependence on the subsistence economy	<p>There is a lack of technical capacities, infrastructure and a lack of awareness about the inefficient use of wood.</p> <p>Communities have low incomes</p>	Families	Inefficient use of wood	Extraction of wood for domestic use (construction, boats, huts, etc.)
			Low socioeconomic and cultural conditions	
			Cultural roots	

	to purchase utensils and canisters in other materials.			
	Wood supply (forest)			

3.3.2 Baseline Scenario

To demonstrate the additionality of the project according to the BCR Standard, we use the Baseline and Additionality Tool v1.3³, provided by the BioCarbon Standard. First, we establish the baseline scenario, which involves establishing the baseline of project activities, assuming that project activities are not implemented, resulting in the absence of sustainable land management practices and continued forest loss.

After identifying the possible alternatives for land use, it is essential to carry out the barrier analysis according to the methodology. This is because, in order to demonstrate the additionality of the project, it is necessary to complete at least one of these two stages.

3.3.2.1 Step 0. Demonstration of whether the project proposal is a first-of-its-kind activity

N/A

3.3.2.2 Step 1. Identification of alternative scenarios

3.3.2.2.1 Sub step 1a. Definition of alternative scenarios to the proposed project activity

Scenario 1: Continuity of land use preconditions

Indigenous Resguardos are the collective property of the indigenous communities in favor of which they are constituted and, in accordance with Articles 63 and 329 of the Political Constitution, are inalienable, imprescriptible and unseizable. According to the Constitution, the Resguardos are a special legal and socio-political institution, made up of one or more indigenous communities, which, with a collective property title that enjoys

³ https://biocarbonstandard.com/wp-content/uploads/BCR_additionality.pdf

the guarantees of private property, own their territory and are governed for the management of it and its internal life by an autonomous organization protected by the indigenous jurisdiction and its own regulatory system.

According to Decreto 2164 of 1995, in Article 2.14.7.5.2. **Management and Administration**, it is established that the areas constituted as an indigenous Resguardos will be managed and administered by the respective councils or traditional authorities of the communities, in accordance with their uses and customs. Considering the above and that the indigenous communities carry out productive activities for self-sufficiency and subsistence, the first scenario of land use is identified, within the realistic and credible alternative scenarios that may arise in the absence of the AFOLU project, it is the scenario in which the previous conditions and activities of land use would be maintained. without the implementation of the project. The conditions identified as pre-project, which promote patterns of unplanned deforestation in the area under the jurisdiction of the cabildo mayor are: Subsistence agriculture, selective logging and mining, according to the report of Ethnoeconomic Studies of the indigenous Resguardos of Antioquia (Gobernación de Antioquia, 2018). In the forests under the jurisdiction of the Cabildo Mayor Indígena de Vigía del Fuerte, the pressures on the forests that affect land use, derived from agricultural activities and timber extraction were identified on the ground by Nativa Forest, within the framework of agreement 231 of 2023 entered into with the technical ally Fondo Acción (Annex B).

The impact on forests of these activities can be reflected in the increase in areas with agricultural activities between two periods prior to the start date of the project *Table 17* **Error! No se encuentra el origen de la referencia..**

Table 17. Areas of Coverage and Land Use for the Study Area

Legend	2008 Ha	2014 Ha
Bodies of Water	504,02	494,35
No information	0,00	0,00
Forests	42166,89	41622,58
Pastures and Crops	250,77	779,01
Bare Ground	12,87	38,61
Mining areas	0,00	0,00
TOTAL	42934,55	42934,55

As seen in the *Table 17*, the forests suffered a loss of 1.3% in the project area (indigenous Resguardos of the Cabildo Mayor Indígena de Vigía del Fuerte), going from covering 42166.89 ha in 2008 to 41622.58 in 2014. This contrasts with the increase in pasture and crop areas, which increased from 0.6% to 1.8% of the area of the project area.

As has been mentioned, the activity of timber extraction for commercial purposes and agricultural activities are those that exert the greatest pressure on forest areas and their importance as a productive activity is described below:

Wood Extraction

In the middle of Atrato there is a subsistence economy, its inhabitants are dedicated to different tasks during the year, such as fishing, hunting, crops and timber extraction, which can guarantee their survival throughout the year, because they do not depend on a single activity. As mentioned above, one of the land uses related to forest loss is timber extraction.

According to the Colombia Forestry Program (2005), in the 2000s the most important economic activity in the middle Atrato region was timber extraction, which absorbs 11.4% of the economically active population, but only generates a very low economic and social impact in a region with forest cover of more than 90%. This activity plays an important role in the economy of the area, however, the lack of road infrastructure and poor commercial infrastructure mean that there is no chain with the subsequent transformation of these products. For this reason, there is no added value in the region, nor is it linked to industrial or service processes, and the area is simply a supplier of natural raw materials, a generator of wealth to other areas of the country and even abroad, and an importer of most consumer goods (Jimeno et al, 1995; Lozano and Montoya, 1992).

The municipality of Vigía del fuerte has been subject to the presence of different armed groups during different periods, which affects the control of activities in the region, which involve a change in land use and transformation of forests, such as illicit crops, illegal mining and timber extraction.

According to (Rincón, R. *et al.* 2022), in the mid-northern basin of the Atrato River, which covers the municipalities of Bojayá, Vigía del Fuerte and Murindó and where the project initiative is located, timber extraction as an economic activity has not only been carried out by the community, but different armed groups have controlled timber exploitation. More research is still needed on how the systems of exploitation and commercialization of illegal timber worked specifically; however, it has been reported that both the AGC and the FARC offered tools and chainsaws to the communities under the "indebtedness"

system to promote exploitation, in addition to the fact that the FARC continuously demanded taxation for any type of forest exploitation that the communities carried out. Added to this was the presence of third parties outside the territory who illegally exploited important portions of the northern middle basin, probably paying tribute to the armed actors or in alliance with them, given the fact that the FARC regulated all types of extraction in the subregion. It is difficult, however, to accurately measure the environmental impacts that this system of regulation and exploitation of wood generated. First, IDEAM's monitoring periods are very long and do not allow for a comparison of the rates of deforestation with those of the armed conflict. On the other hand, the figures are general, so they do not distinguish possible causes of deforestation. This prevents them from being associated with a specific economy. However, there are a couple of things that can be appreciated:

In the mid-northern basin, deforestation was not a major problem in the 1990s (with only 269 hectares deforested in the entire decade) nor was it in the period 2000-2005 (407 hectares); however, there does seem to have been an increase in the period 2005-2010 with 1,328 hectares deforested, almost double the period 1990-2005. This occurred just after the highest peak of violence experienced in the area in 2002, when there was already stable control by the FARC and the absence of armed disputes. This may have been due to timber exploitation, which was largely controlled by this armed actor.

Within the Resguardos that are part of the Cabildo Mayor, it was identified that for seven decades the main basal lowlands with the presence of roundwood species were exploited to the extreme by both national and foreign companies, which resulted in the depletion of populations of valuable species at an ecological, biological and economic level within the wetland ecosystems. such as the cativales, formations of *Prioria copaifera* Griseb., which extensively developed lush forests in the low-lying basal flood zones, protecting the wide wetlands of the Atrato region, these were razed by clear-cutting. During the 70s, the search for fine hardwoods from the low and mountain forests began, through the selective logging of species, among which the abarco (*Cariniana piriformis* Miers) became important for the market, exploitation that to date continues with a notable decrease in the stocks of this resource. and it has been followed by choibá (*Dipteryx oleifera* Benth.), balsam (*Miroxym balsamum*), among the most important at an economic level, and is currently concentrating on chanú or chanó (*Humiriastrum procerum* (Small) Cuatrec.) under an irrational extractive model, which only leads to the depletion of the genetic base of these populations.

In this way, forest exploitation in indigenous territories depends on several factors, among which those that are biophysical stand out: the shape of the land, the possibility of availability of water in rivers and streams as main streams on a constant or non-constant

basis, in addition to the social factors that allow for the establishment of negotiation mechanisms with the communities or authorities of the council.

Subsistence agriculture:

The most representative crops are those that withstand the climatic regime and nutritional limitations of the soil, such as: plantains and bananas, rice, cassava, corn and fruit trees. Bananas and rice continue to be the main consumer products in the Atrato environment, including in the indigenous communities of Vigía del Fuerte. Among the fruit trees, borojó, pineapple, Creole avocado and sour guava have stood out, which are experiencing a growing subregional demand thanks to current food trends and generate small surpluses that have not yet met local demand.

At the municipal level, producing one hectare of bananas in the municipality of Vigía del Fuerte can cost between 350,000 and 450,000, depending on the labor requirement due to the state of the soil and floods, taking into account that fertilizers or inputs from technified agriculture are not used. The commercialization is carried out within the municipality in local stores and among the community itself. (Programa de las Naciones Unidas para el Desarrollo (PNUD), 2013)⁴

Within the four Resguardos (Guaguandó, El Salado, Ríos Jengadó – Apartadó and Río Jarapetó), plantain, banana and primitive are grown, some of the communities manage to satisfy the community demand and the surpluses are marketed with the neighboring Afro-descendant communities and in the municipal capital (*Table 18*).

Table 18. Banana production statistics in the municipality of Vigía del Fuerte and in the subregion (United Nations Development Programme (UNDP), 2013)

Item	Fort Watcher				Subregion	
	Production Area	Total Area	Production Volume Tons	Average Yield Ton/ha	Production Volume Tons	Average yield ton/ha

⁴ https://issuu.com/pnudcol/docs/perfil_productivo_vig_a_del_fuerte

Banana Monoculture	1007,0	1439,0	4028,0	4,0	240949,5	10,3
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Rice is grown in the municipality of Vigía del Fuerte thanks to the water wealth and the characteristics of the soil in the municipality make the cultivation of traditional rice a productive potential, considering it as a basic product of consumption by the indigenous communities. In the Resguardo El Salado, rice is grown very little because it requires threshing for consumption and this service is not available in any of the communities. In other communities, rice was no longer cultivated, due to the work required for its implementation (Annex D).

There is no large commercialization of rice at the municipal level, because the production is for self-consumption. If there are surpluses of production, they are marketed in the municipal capital and the sale prices only cover the costs of production and do not give a sufficient profit margin for the generation of additional income. In the Table 19 (Programa de las Naciones Unidas para el Desarrollo (PNUD), 2013) Table 19. Rainfed rice production statistics in the municipality of Vigía del Fuerte and in the subregion (United Nations Development Programme (UNDP), 2013)

, the statistics for rainfed rice in the municipality of Vigía del Fuerte and the subregion are shown.

Table 19. Rainfed rice production statistics in the municipality of Vigía del Fuerte and in the subregion (United Nations Development Programme (UNDP), 2013)

Item	Fort Watcher				Subregion		Participation in the Production of the Sub-region
	Planted Area	Harvested Area	Production Volume Tons	Average yield ton/ha	Production Volume Tons	Average yield kg/ha	
Manual dry rice	2300,0	2100,0	7500,0	3,6	33.004,2	2,1	13%

Maize is grown in all communities, which, like bananas and rice, are fundamental products in the diet of the communities.

In the Resguardo Guaguandó, corn is grown from which two harvests a year are obtained, it is planted between February - March, May and June and harvested between May and June and September and October small yellow corn is produced for self-consumption. In the communities of El Salado and Paracucundó, corn is little grown and is basically used

to prepare chicha during the holiday season. In the communities of Jengadó and Jarapetó, only corn is grown for self-consumption. In Jarapetó, different varieties of small yellow, black and red corn are produced, which are produced through shifting agriculture, facing the barrier of the availability of flat soils in which to rotate the productive units (Annex D).

The production of fruit crops has production potential in the municipality, however, they do not have a sufficient production volume for commercialization that allows generating income. Although there is not enough information on these crops, the agricultural yearbook of Antioquia⁵ presents the yields and crop areas for products such as borojón, lemon and pineapple, among others.

In the community of Paracucundó, pineapple and sugar cane are grown and the surpluses are marketed in the municipal capital. In the *Table 20*, statistics are shown for some fruit crops in the municipality of Vigía del Fuerte and the subregion.

Table 20. Fruit production statistics in the municipality of Vigía del Fuerte and in the subregion (United Nations Development Programme (UNDP), 2013)

Item	Fort Watcher				Subregion	
	Production Area	Total Area	Production Volume Tons	Average yield ton/ha	Production Volume Tons	Average yield ton/ha
Borojón	88,0	98,0	176,0	2,0	176,0	2,0
Lemon Bird	10,0	30,0	35,0	3,5	369,8	6,4
Sugar Cane	83,0	105,0	166,0	2,0	241,0	2,5
Pineapple	20,0	45,0	360,0	18,0	21560,0	78,4

Agricultural activities are those that are mainly associated with deforestation, the widespread practice of migratory grave agriculture, which leads to the periodic

⁵ <https://antioquia.gov.co/images/PDF2/Agricultura/2022/Anuario%20Estadistico%20Agropecuario%20a%C3%B1o%202021.pdf>

establishment of new cultivation areas at the expense of the vegetation present in each area.

Scenario 2: Project activities within the established area are developed without a project

Similar conservation activities

In this scenario, the project is developed by the communities without the support of the income from carbon credits as a result of an agreement of wills between all the communities of the Cabildo Mayor Indígena de Vigía del Fuerte. The loss of natural areas, the expansion of areas for agriculture and timber extraction are regulated and the pressures and drivers of forest loss and transformation, which favor unplanned deforestation in the area, are stopped.

The area of the collective territory of the Cabildo Mayor Indígena de Vigía del Fuerte, where the project will be developed, is 42,935 ha and covers 41,549 hectares of terra firma forest, which are managed by the communities through the Cabildo Mayor, as a legal entity that coordinates the seven (7) local councils. The communities belong to the Emberá Dóvida people, who have in particular that their way of life revolves around rivers. For the execution of their sovereignty and governance, the communities draw up regulations for social control and administration of their territory.

In this scenario, it is assumed that the communities carry out effective organizational strengthening activities and implement local governance activities, in addition to community control and surveillance in the territory under their jurisdiction, accompanied by the environmental authority CORPOURABÁ, which allows the implementation of strategies that facilitate the conservation of forest cover, hand in hand with new economic alternatives such as forest restoration, sustainable agricultural activities, ecotourism and artisanal fishing, in a free market that does not include timber extraction. As a result, the expansion of the agricultural boundary is halted and the colonization of forest areas is prevented. In addition, the uses and customs of the communities are favored by the strategies implemented by the communities themselves, which in turn allow them to secure income and resources without the need to cut down more forests.

Within the territorial management and planning activities of the Cabildo Mayor Indígena de Vigía del Fuerte, the community must formulate territorial management instruments such as life plans. A life plan is constituted as ***a planning instrument*** that is built from a participatory process of self-diagnosis and the exercise of project development. It is an instrument of politics and government; and as such, a social agreement that must emerge from consensus.

The Emberá classify their sacred territories into three groups: forbidden, enchanted, and communal (*Table 21*).

Table 21. Classification of sacred territories by the Emberá peoples

Types of Places	Definition	Topographic or social location
Prohibited	Reserve areas in which hunting, fishing, gathering, planting, clearing, sawing of wood cannot be carried out, since they are considered places inhabited by the creators.	Cemeteries, rivers, mountains, lakes, lagoons, streams, places of origin, mangroves
Delighted	They are spaces recognized by the indigenous culture as areas in which one cannot enter without the due permission of spiritual beings through rituals of cleansing, purification and harmonization.	Lakes, lagoons, mountains, streams, forests
Communal	Areas of territory designated by a community, town, or social group to develop productive and conservation activities, rituals of renewal, healing, or commemorative festivities	Dairy farms, fishing and hunting sites, fruit gathering

In the headwaters and high mountains that usually correspond to sacred sites, they are called Katumá debema, places that serve as refuge and reproduction of wildlife and regulation of waters and flows. The Embera consider that the spirits and chiefs of the animals live there and if you enter those places the person can get sick and get jai. In the areas of hills and mountains, the uses given are especially for hunting, and extraction of forest products (timber and non-timber), called Oidebema. In the most remote areas of the Embera territory where this type of ancestral land use planning still persists, there are

important water sources. This ordinance not only regulates the economic, social and cultural life of the Embera, but also becomes a strategy for the conservation of water and biodiversity that not only benefits the Embera communities but also the territory as a whole. In addition, sacred sites are an environmental reserve, acting as a dispensation of biodiversity, medicinal plants, provide environmental balance and regulate the main sources of water that supply not only the indigenous communities themselves, but all the urban areas that surround them (Organización Indígena de Antioquia, 2011).

Within each community, permitted land uses have been defined to guarantee the sustainability of resources by managing the territory without considering the project initiative. In the scenario where conservation activities similar to project activities are developed by the communities, in the absence of a project, the members of the community, historically, have carried out the commitment of conservation, hand in hand with the authority conferred on the Cabildo Mayor, to carry out oversight work of the territory, where the members who belong to the community and Afro communities make agreements for the extraction of wood within the areas where it is located. allowed. Depending on the community, the uses of wood harvested from the project area may be for commercial sale, fuelwood for household consumption, construction of houses or boats, and subsistence farming.

As part of the oversight work carried out by the community, timber extraction is monitored and, depending on the community, regulations are established for social control over the consumption of timber within the Resguardos.

In the face of the mechanisms of control and access to forest resources in each of the communities, in some way there are some restrictions regarding the intensity of exploitation in the Resguardos, with the exception of the Resguardos and councils where agreements or deals are presented with foreign cutters from Afro communities, such as Jarapetó, El Salado and Guaguandó, in the rest of the communities there is a control of the wood marketed by the families so that they do not exceed the per capita quantities per family, however, the families can carry out transactions (trade) with intermediaries and external buyers, generally located in Vigía del Fuerte cabecera, and in its corregimiento of Buchadó and San José de la Calle de Bojayá (Chocó) (Annex C).

On the basis of the identified land uses and the categories of community planning, if they were precisely defined spatially, through a collective planning instrument in which the members of the community commit themselves to a sustainable use of resources and to oversight and compliance with the agreements defined in the life plan of each Resguardo, It would be expected that natural areas will be conserved, the expansion of areas for agriculture and timber extraction will be regulated, and that the pressures and drivers of

biodiversity loss and transformation, due to the expansion of urban areas that favor unplanned deforestation in the area, will be reduced. This regulation and sustainable use of resources can only be carried out through commitments and agreements on the part of each of the members of the community and the Cabildo Mayor, with strong governance that supports corrective actions and surveillance within the community, in this way this scenario is possible.

These processes manage to be maintained for decades through planned activities and adaptive management of contingencies within and outside the communities, from the implementation and reformulation of avoided deforestation strategies and the management and use of financial and logistical resources so that these strategies are maintained. Finally, these strategies manage to restore the ecological and social function of the forests in the area of the Cabildo Mayor Indígena de Vigía del Fuerte, the rivers, wetland areas and their associated cultural values, through the effective recovery of areas affected by the impacts of change.

Scenario 3: Presence of activities similar to those proposed by the project in at least a part of the BCR AFOLU project area, as a result of compliance with legal requirements or by extrapolation of similar activities observed in the geographical area and socioeconomic and ecological conditions related to the proposals, which have occurred in a period not exceeding ten years prior to the start date of the project

According to the development plan of the municipality of Vigía del Fuerte, it mentions the following instruments and strategies for environmental management (*Table 22*).

Table 22. Instruments and strategies for environmental management in the municipality of Vigía del Fuerte

Instrument/Strategy/Plan	Township Area (if applicable)
Environmental determinants	1,780 km ²
Atrato Wetlands	113,566.76 ha
Ley 2nd Forest Reserve (Zone A)	15,676.17 ha
Climate and Peace Plan	
Atrato Wetlands Plan	

The Autonomous Regional Corporation of Urabá (CORPOURABA), as responsible for administering the environment and renewable natural resources within the area of its jurisdiction and promoting their sustainable development, in accordance with the legal provisions and policies of the Ministerio de Medio Ambiente y Desarrollo Sostenible (Ministry of the Environment), has defined the environmental⁶ determinants for your jurisdiction, in which the project area is located. These environmental determinants are binding and mandatory to be incorporated into municipal land use plans. According to resolution No. 300-03-30-99-1185-2019 of CORPOURABA, the jurisdiction of the corporation organizes the territory according to several subregions. The subregion where the project is located is the Atrato subregion, for which a series of environmental potentialities and constraints are defined, described in the resolution, among which are:

- The Middle Atrato wetlands, defined as part of the Atrato River complex, which includes, among others, the Atrato River Delta, its floodplains, along with forest wetlands.
- The Pacific forest reserve areas, of Ley 2 of 1959, are also included, in accordance with the classification established in resolution 1926 of 2013, which establishes the general and specific guidelines of use and management for the reserve areas that correspond to classification A, B and C.

Atrato Wetlands

According to the Atrato Wetlands Management Plan, the wetlands are divided into 9 complexes. The project area is located within the area of influence of the wetland complex of the eastern alluvial plain of the middle Atrato (Murri - Arquía), in the municipality of Vigía del Fuerte. In 2005, the Management Plan for the Middle and Lower Atrato Wetlands was formulated, identifying nine (9) swampy complexes in the department of Chocó and in the municipalities of Vigía del Fuerte, Turbo and Murindó, in the department of Antioquia, making a diagnosis of the flora and fauna of the wetlands, zoning and

⁶ The environmental determinants are norms of higher hierarchy in environmental matters for the preparation, adoption and adjustments of the Territorial Planning Plans – POT, Territorial Planning Schemes – EOT and Basic Territorial Planning Plans – PBOT, which cannot be unknown by the municipalities.

preparation of the management plan. the prioritization of projects with the communities settled in the area of the complexes so that they allow the sustainable use of wetlands.

Strategic ecosystems guarantee the supply of environmental goods and services essential for the country's sustainable human development. These ecosystems are characterized by maintaining basic ecological balances and processes such as the regulation of climates, water, performing the function of purifiers of air, water and soil; the conservation of biodiversity.

Considering that wetland areas are part of the environmental determinants established by CORPOURABA, as part of the main ecological structure they must be integrated as a unit in the category of conservation and protection, as they are part, among others, of strategic areas and ecosystems. Therefore, these areas must be subject to regulations aimed at preventing and controlling the environmental impacts generated by their exploitation or use. In the environmental management of these areas, sustainable development must be ensured, for which actions aimed at preventing, controlling, cushioning, repairing or compensating for unfavorable environmental impacts are required.

As seen in the *Figure 19*, a part of the project overlaps with a portion of the wetlands of the Atrato Medio complex, which is constituted as a conservation and sustainable use strategy. On the one hand, the conservation strategy focuses on guaranteeing the representativeness of conservation objects so that the ecosystem services of the communities can be ensured.

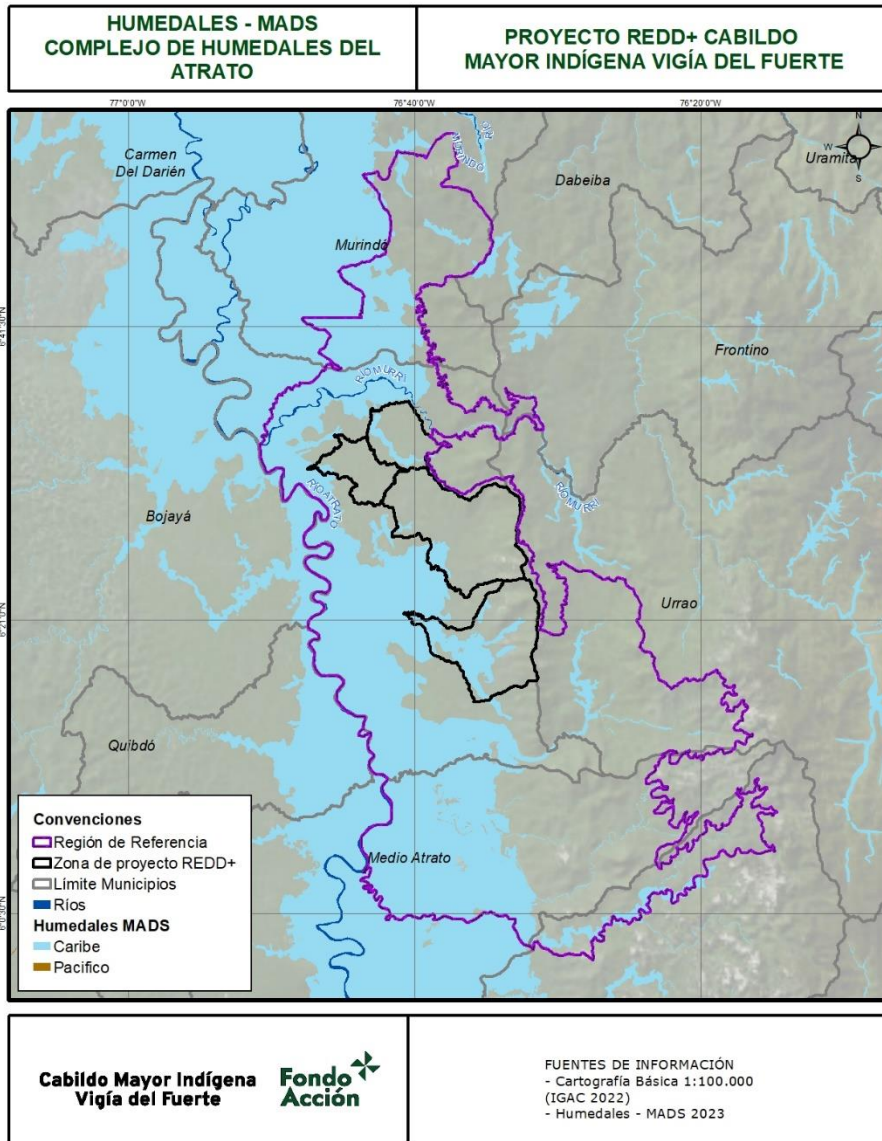


Figure 19. Atrato wetland complex

Second Law Forest Reserve (Ley Segunda)

The second law forest reserve zones were created with the purpose of developing the forest economy and protecting soils, waters and wildlife. Ley 2 of 1959 establishes, among other provisions, "Protected Forest Zones" and "Forests of General Interest". Seven large forest reserve areas were established, according to the boundaries defined for each national forest, including the Pacific Forest Reserve Zone, of which the project initiative is a part.

According to the Ministry of the Environment (Ministry of Environment and Sustainable Development (MADS), 2024, this Law promotes for the territory included within each of the seven forest reserves, three types of legal figures, which have been subject to a regulatory evolution, which can be framed as follows:

- Protected Forest Zones: according to the definition contained in Decreto 2278 of 1953, aimed at the protection of roundabouts, soils, protected forest areas, forest reserve areas, water resources, POMCH or POMCAS, among others
- Forests of National Interest: defined in Decreto 2278 of 1953 as areas containing species of high commercial value that are economically desirable to conserve
- National Natural Parks: understood in Ley 2 of 1959, as a strategy for the conservation of flora and fauna

The Forest Reserves established in Ley 2 of 1959 are not protected areas but in situ conservation strategies as established by Decreto 2372 of 2010, collected by Decreto 1076 of 2015 in Article 2.2.2.1.3.1., in which it indicates that the categories of protection and management of renewable natural resources, including those regulated by Ley 2 of 1959, they shall remain in full force and shall continue to be governed for all purposes by the rules that regulate them, not being considered as protected areas but as in situ conservation strategies contributing to the protection, planning and management of renewable natural resources and to the fulfillment of the general conservation objectives of the country.

On the other hand, Ley 2 of 1959 established that the areas delimited by it may be subject to occupation of vacant lands, emphasizing the encouragement of the proper management of the areas aimed at the conservation of water, soils and forests. In this way, areas of the National System of Protected Areas and collective territories, such as Resguardos, overlap with forest reserves of Ley 2 of 1959. Taking into account the above, in the forest reserves of Ley 2 of 1959, it is necessary to carry out the respective processes to declare in accordance with the regulations, the areas to be protected and preserved, and those that are destined for the sustainable

management of the forest. This without losing sight of the fact that there is a peasant and ethnic population, with diverse socioeconomic processes.

The Ministry of the Environment has classified the forest reserve areas, according to environmental conditions and characteristics, into four Zones:

Type A zone: Areas that guarantee the maintenance of the basic ecological processes necessary to ensure the supply of ecosystem services and the support of biological diversity.

Type B Zone: Areas that are characterized by having favorable coverage for sustainable management of forest resources through an integrated forest management approach and the integrated management of biodiversity and ecosystem services.

Type C zone: Areas that, due to their biophysical characteristics, offer conditions for the development of productive agroforestry, silvopastoral and other activities compatible with the objectives of the Forest Reserve, which must incorporate the forest component, and which do not imply the reduction of the areas of natural forest present in their different successional stages.

Other areas: Called **Areas with a prior planning decision**. The zoning and management of forest reserves of Ley 2 of 1959 does not apply to areas belonging to the National System of Protected Areas and Collective Territories present. The zoning does not generate changes in land use or modifications in the very nature of the Forest Reserve, nor does it modify the functions and competencies assigned to the environmental authorities located in these areas.

As can be seen in the *Figure 20*, there is an overlap of the Resguardos of the Jengadó-Apartadó, Río Jarapetó and Guaguandó, in areas with a previous planning decision and the Río El Salado overlaps with type A zones.

In accordance with the provisions of Resolution 1926 of 2013, which adopts the zoning and management of the Pacific Forest Reserve, established by the Ministry of Environment and Sustainable Development (MADS), Article 5 establishes the policies, guidelines and regulations in force for territorial planning in each area.

It is important to clarify that the Resolution does not apply to the areas corresponding to the collective territories, however, these zones must be considered for the purposes of territorial planning.

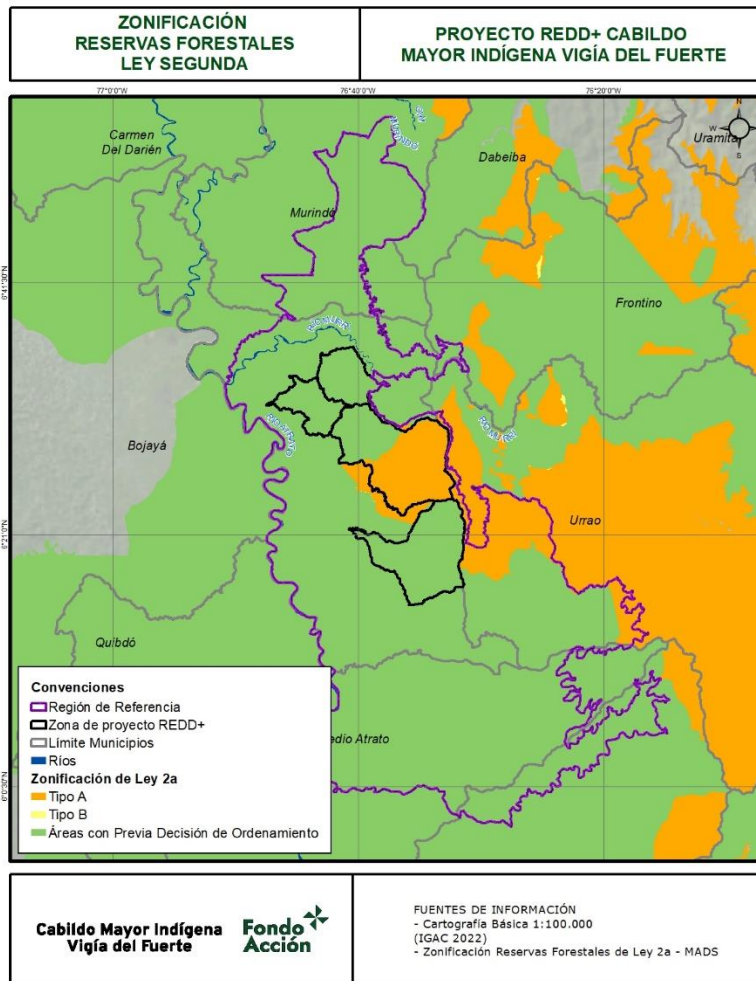


Figure 20. Zoning of Forest Reserves of the Second Ley of 1959

On the other hand, there are policies and regulations to conserve forest areas and reduce GHG emissions, as part of the policies to reduce greenhouse gas emissions and the commitments assumed at the country level, the National Climate Change Policy (PNCC)⁷ and strategies to stop deforestation in the Colombian Pacific are applied. making use of the Comprehensive Strategy for Deforestation Control and Forest Management

⁷ <https://www.minambiente.gov.co/wp-content/uploads/2022/01/9.-Politica-Nacional-de-Cambio-Climatico.pdf>

(EICDGB)⁸ and the Colombian Strategy for Low Carbon Development (ECDBC)⁹ as key instruments.

3.3.2.3 Sub step 1b. Consistency of credible land-use scenarios with mandatory applicable laws and regulations

All the scenarios listed could occur under current and historical conditions that influence the dynamics of transformation of local and regional (forest) cover.

The **Scenario 1** it has been historically present in the collective territory before the start of the project, as described in the report on the socioeconomic characterization of the indigenous communities of Vigía del Fuerte (Annex B) and the Embera Safeguard Plan (Organización Indígena de Antioquia, 2011).

The characterization describes the settlement model of each community and how historically the communities are located near rivers and establish subsistence agricultural activities and use of the forest for the construction of houses, fuel for cooking and timber commercialization. These practices have been maintained over the years and in addition to the characterization, the Embera Safeguard plan mentions that:

The Embera, who have been hunters and gatherers in their traditional territories, have now changed their practices in many places due to the difficulties of mobility and enjoyment of the territory, as an effect of the war and the actions of the armed actors in their territories.

The Embera have traditionally and ancestrally been a nomadic people, but given the new forms of occupation of the territory, where they live nucleated and with clearly established boundaries (collective titles), this diversity of activities and sustainable practices has been affected by the depletion of many resources, mainly by the constant intervention and fragmentation of the primary forests of their territories. reflected in commercial timber exploitation, mining activity, agriculture and the presence of illicit crops. This situation has had a negative impact on the traditional ways of life of this indigenous group, modifying many of their daily activities, their eating habits and their ancestral knowledge, a situation

⁸ <https://www.minambiente.gov.co/wp-content/uploads/2021/10/Estrategia-Integral-de-control-a-la-Deforestacion-y-Gestion-de-los-Bosques.pdf>

⁹ <https://www.minambiente.gov.co/cambio-climatico-y-gestion-del-riesgo/estrategia-colombiana-de-desarrollo-bajo-en-carbono-ecdbc/>

that poses great changes and adaptive challenges for the future of this indigenous group.

This confirms that these land uses were present in the area prior to the project and are likely to continue in the absence of the project.

Scenario 2, which describes project activities within the established area that are carried out without a project, similar conservation activities, carried out by the community through the Cabildo Mayor Indígena de Vigía del Fuerte, cannot be fully developed since the protection zones are not yet clearly defined and the capacity of the Cabildo Mayor is very limited to carry out oversight work over the forests.

As mentioned before, the Embera territory is conceived from the cosmogony that still survives in the Embera Resguardos and ancestral territories. However, the territories of the communities have undergone multiple changes, due to the territorial context in which they are immersed, therefore, their thinking and relationship with it have also been transformed.

According to the Embera Safeguarding Plan (Organización Indígena de Antioquia, 2011), the territories of these communities have a form of organization where the headwaters and high mountains that usually correspond to sacred sites are called Katumá debema, which serve as a refuge and reproduction of wildlife and regulation of waters and flows. The Embera consider that the spirits and chiefs of the animals live there, and if you enter these places the person can get sick and catch jai (spirits).

In the areas of hills and mountains, the uses given are especially for hunting, and extraction of forest products (timber and non-timber), called Oidebema. In the most remote areas of the Embera territory, where this type of ancestral land use planning still persists, there are important water sources. This ordinance not only regulates the economic, social and cultural life of the Embera, but also becomes a strategy for the conservation of water and biodiversity that not only benefits the Embera communities but also the territory as a whole.

To destroy or alter the sacred sites of indigenous peoples is to condemn them to disappearance, it is to condemn them to extermination. In the sacred sites, the indigenous people relate to their spirits, from there the ailments of the body and soul are cured, but also what has to do with the territory and natural resources. In addition, sacred sites are an environmental reserve, acting as a pantry of biodiversity, medicinal plants, provide environmental balance and regulate the main sources of water that supply not only the indigenous communities themselves, but all the urban areas that surround them.

As explained in the previous paragraphs, there are ancestral areas destined for conservation, within the territories of the Resguardos that are part of the Cabildo Mayor Indígena de Vigía del Fuerte, however, since there is no clear delimitation of these areas and due to the socioeconomic dynamics of the region, the conservation of the forests is not easily carried out by the communities.

Scenario 3, this scenario could occur under current conditions, which influence the dynamics of transformation of local and regional forest cover. Like scenarios 1 and 2, the extraction of wood in the area of the Cabildo Mayor Indígena de Vigía del Fuerte is allowed, both for domestic and commercial use. The difficulty in controlling and monitoring forests and the growth of legal and illegal economic activities, which exert pressure on resources, derive from the absence of sustainable economic alternatives adequate to the needs of the Cabildo Mayor and the region's Resguardos, added to the lack of infrastructure and the weakening of community governance institutions.

The Environmental Authority has mechanisms such as the manual for natural forest forest harvesting in the territories of ethnic communities in the Middle Atrato Region¹⁰, which establishes the requirements for permits or authorizations for persistent forest harvesting within the territories of indigenous and Afro communities. However, these mechanisms are not entirely effective, considering the informality of timber extraction through agreements between indigenous communities and Afro-descendant communities, as described in the document of agents and motors, carried out in the territory (Annex C).

Although the Autonomous Environmental Corporation of Urabá has carried out forest restoration in the municipalities of Murindó and Vigía del fuerte, as described in the Corporation's management report for 2018, where forest restoration is mentioned in accordance with the provisions of the Atrato Wetlands Management Plan, these areas are dispersed in different areas of the municipality and management is subject to the financial disposition of the corporation and other allies.

On the other hand, the Integrated Management Plan highlights the importance of the formation of joint participatory spaces for decision-making, such as workshops to strengthen environmental governance, since these spaces allow reflection on the use of

¹⁰ <https://corpouraba.gov.co/wp-content/uploads/M-AA-01-MAN-USUA-APROV-FOR-REG-ATRA-3.pdf>

resources and also facilitate the management of resources by the Colombian state to guarantee territorial planning processes. and especially to share responsibility for the conservation of such important ecosystems.

According to the information presented, taking into account the informality in terms of community timber extraction and the institutional capacity of the entities in charge of environmental management in the project area, scenario 1 of agriculture and timber extraction Sub-Step 1a is maintained.

3.3.2.4 Sub step 1c. Baseline scenario selection.

Due to the lack of adequate governance and the lack of resources converting land for agriculture, along with timber extraction processes for consumption, construction and eventual marketing within the project area, the most plausible baseline scenario is the continuation of previous and current land-use scenarios. These scenarios have been recurrent in the project area and reference area in recent decades, as evidenced by studies, and are unlikely to cease without effective intervention. Therefore, forest land is expected to be converted to non-forest land in the reference case.

3.4 Additionality

3.4.1 Barrier Analysis

3.4.1.1 Substep 2a: Identify the barriers that would prevent the implementation of the project

Investment barriers:

The implementation of productive activities of alternative livelihoods in local communities has historically been dependent on grants from international cooperation or the national government. These activities have not had access to debt financing, with the exception of projects carried out under the REDD+ mechanism. This is because community territories, according to legal requirements, cannot be used as collateral for loans, and communities lack other relevant assets that can serve as collateral. As a result, access to credit is virtually non-existent in both domestic and international markets.

The REDD+ mechanism offers an innovative solution, allowing carbon streams to be used as collateral and thus facilitating access to the funds necessary for the implementation of the project's activities. However, the implementation of a REDD+ project requires considerable investment, which is not available through loans or national resources, because this type of socio-environmental initiatives are not attractive, from a traditional financial point of view. The REDD+ mechanism is presented as a viable option to obtain the necessary resources, through the commercialization of carbon certificates, to finance the required investments.

Despite the positive economic potential of production alternatives in the region, local communities face serious constraints due to lack of access to credit mechanisms and external investors willing to support the development of these initiatives. The establishment of productive systems requires significant investments and the lack of financing options has been a historical barrier to the development of the region.

Therefore, its implementation depends exclusively on external financial assistance. The process of formulating, validating, and verifying a REDD+ project involves significant costs that could not be covered without the revenues from the commercialization of Certificates for Reducing Emissions from Deforestation and Degradation (CCV).

Social barriers:

The indigenous communities of the Cabildo Mayor Indígena de Vigía del Fuerte face various social barriers that can hinder the implementation of their REDD+ project, one of the most important being the economic dependence on the extraction of natural resources such as wood. This activity is critical to local livelihoods, but it is in direct conflict with the conservation objectives of the project. In turn, the lack of sustainable economic alternatives and the scarcity of paid employment limit opportunities for income diversification, making it difficult to transition to new sources of income. In addition, limitations in infrastructure and connectivity, such as distance from marketing centers

and lack of access roads, hinder access to markets for local products. The economic vulnerability of families, reflected in low incomes, can generate resistance to change, especially if REDD+ activities do not offer significant compensation.

At the cultural level, the language barrier can be important, since not all members of the community, especially women, speak Spanish, which represents a significant communication obstacle, making it difficult for all community members to integrate into the project activities. Likewise, differences in gender roles and the limited participation of women in decision-making processes can affect implementation and expected results, as women, especially older women, may be excluded from key discussions.

On the other hand, it is also worth mentioning the limited experience in the implementation of large-scale and long-term projects. The communities have not had a history in the management of initiatives of this magnitude, which can generate insecurity in the execution and management of the processes. Lack of training and experience in project management can delay project progress and complicate timely decision-making, due to the need to acquire new knowledge and skills to adapt to project requirements and deadlines.

Institutional Barriers:

There are risks related to changes in government policy on the adoption of a legal framework, taking into account the developments of the National REDD+ Strategy, resolution 1448 and other ongoing discussions, on the REDD mechanism and the carbon market. The main institutional barrier is the lack of compliance with logging prohibitions, the regulation of informal permits and other illegal economic activities near the project area such as illegal mining, this is due to the low capacity of national and jurisdictional institutions to enforce the rules (e.g. the Ministry of Environment MADS, Corpourabá and the national police, among others).

Deficiencies in terms of adequate knowledge of biodiversity and natural resources, particularly with respect to the strategic ecosystems and special biological resources that the region has, limit the availability of technologies, production processes and products that are more environmentally friendly, as well as do not allow the adequate implementation of policies and preventive and corrective actions to solve problems. In this scenario, there are deficiencies in institutional databases, including limitations at the GIS level and lack of a regional environmental information system, the information available is disjointed, lacks systematization and is not updated frequently. The available

data are deficient in terms of their scientific-technical validation in practice and thus experiences contribute little to the development of new knowledge. There is a low level of training and expertise among human resources and the management of information within the entities is not very suitable. The dissemination and popularization of this lack appropriate means of communication so that it can be accepted, understood and used reasonably by the interested parties.

In 2018, in the management report of the corporation (See Chapter 1 Management Report), under the Environmental Planning and Biodiversity Management program, the implementation of the Atrato Wetlands Management Plan is mentioned, where agreements for the restoration of forests and degraded areas are mentioned. However, this project does not refer to indigenous territories that overlap wetland areas and their areas of influence.

The Lower Atrato Forest Rehabilitation Project is mentioned, which is related to the implementation of the Atrato Wetlands Management Plan, therefore, the territories of the indigenous communities are not considered.

For 2022, in the management report of the Autonomous Corporation, within its annual goals, it developed workshops in order to strengthen environmental governance in collective territories, however, these were only aimed at afrocolombian communities, because like the 2018 management report, these activities are aimed at complying with the T-22 sentence of the Atrato River (See Annual Goal, p. 54).

The corporation describes in the 2022 report the signing of 118 agreements with communities for the conservation of forests (See Annual Goal, page 58), these agreements do not contemplate the participation of the communities of the Cabildo Mayor Indígena de Vigía del Fuerte, since they only relate collective agreements with families and individual conservation agreements.

There are other conservation initiatives described in the report, such as the Unión Natural Project, which supports the forest management plan of the Cocomacia Community Council (adjacent to the project initiative), which was built in a participatory manner with the strategic actors of sustainable forest management, involving institutional, community and private allies (See annual goal, p. 65), however, the neighboring indigenous communities were not summoned to this community council.

The Corporation's reports reflect the limitations for the development of conservation strategies and strengthening of forest governance within the Cabildo Mayor Resguardos, supported by the Corporation, beyond the management of forest harvesting procedures.

3.4.1.2 Substep 2b: Show that the identified barriers would not prevent the implementation of at least one of the identified land use alternatives (except the project activity)

The analysis of barriers identified in substep 2a is presented, with respect to the land use scenarios presented in substep 1a.

Table 23. Analysis of identified barriers

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Land Use Scenarios	Investment barrier	Social barrier	Institutional Barrier	Analysis and implementation of the scenario
1	Yes	Yes	Yes	<p>Investment barriers favor scenario 1, taking into account that there are obstacles to the implementation of conservation activities, governance and economic alternatives that allow communities to have alternative livelihoods. On the contrary, historical land use practices are maintained, which favors unplanned deforestation for subsistence purposes and prevents adequate governance and effective control of forest areas within the communities that are part of the Cabildo Mayor.</p> <p>Social barriers favor scenario 1, taking into account that land uses would continue without the implementation of the project, due to the fact that they are traditional practices carried out by the community, and the lack of employment opportunities or alternative means of subsistence as a means of subsistence.</p> <p>Finally, institutional barriers only favor scenario 1, considering the complex institutional articulation between the Cabildo Mayor and government institutions and the low technical capacity of the communities and the personnel designated for the entire jurisdiction in charge of the Environmental Authority.</p>
2	No	No	No	Investment barriers do not favor scenario 2, The implementation of

			<p>alternative conservation activities to land uses, conservation activities, restoration, zoning of land use, oversight and other mechanisms of control of the territory, require resources that the community does not have. The development of these activities faces serious limitations, due to the lack of access to credit mechanisms and external investors, willing to support the development of these initiatives.</p> <p>Institutional barriers make scenario 2 difficult, considering the complex institutional articulation between the Cabildo Mayor and government institutions and the low technical capacity of community members. It is important to mention that the Cabildo Mayor does not have a zoning of the territory, which can be integrated into the management and planning of the jurisdiction of the environmental corporation, which allows the organization of the territory of the indigenous communities to be articulated to local and national regulations. Therefore, the disarticulation between the community and the environmental authority makes the development of this scenario unlikely and the ancestral practices of use and exploitation of natural resources are maintained, favoring unplanned deforestation for subsistence purposes.</p> <p>Social barriers do not favor scenario 2. Although the communities have conceived figures of territorial planning, according to their cosmogonic and ancestral vision, these</p>
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				<p>are not explicitly defined or materialized for these territories, which limits the governance of resources. This affects the traditional forms and practices of resource use, as a traditional means of subsistence, in addition to the relationship with neighboring communities with which they make an agreement for the extraction of wood from the territory.</p>
3	No	No	No	<p>Investment barriers do not favor this scenario. According to the analysis of the scenario, some conservation figures are identified, such as the wetlands of the Atrato River and the forest reserve. However, according to the reports of the Corporation, there are limitations for the development of conservation strategies within the Resguardos. Some of the activities for the management of the Atrato wetland areas are financed through government and cooperation programs, which is not a guarantee of constant resources for the implementation of conservation activities, such as those established in the Atrato wetland management plan. These conditions favor the occupation and historical use of the land, since the development of agriculture and livestock are under the regulation of the community itself and since there are no financial alternatives for conservation, the community will continue to make use of the resources for its subsistence.</p> <p>Institutional barriers make this scenario difficult considering the complex institutional articulation between national, regional and local</p>

				<p>entities. Taking into account that the conservation figures, present in the Cabildo Mayor, are distributed throughout the surface and the management can be in charge of different entities.</p> <p>Completing Social Barriers</p>
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3.5 Uncertainty management

According to the BCR standard, the management of uncertainty is determined by the accuracy of the maps used to estimate the values of the activity data and the application of discounts in the emission factors. For activity data, the accuracy should be greater than 90%. Accuracy assessment should be done using field observations or high-resolution imagery

To assess the accuracy of the maps used to estimate the values of the activity data, the guidelines set out in section 2.7.3 for quantification of uncertainties were followed, from the *Sourcebook of methods and procedures for monitoring and reporting anthropogenic greenhouse gas emissions and removals associated with deforestation, gains and losses of carbon stocks in forests remaining forests, and forestation*¹¹, suggested by the BCR0002.

Within the framework of the accuracy evaluation, a simple random sampling was carried out with a total of 581 sampling points within the reference region, which were evaluated on high-resolution images (Planet and Sentinel 2), to obtain the ratio between errors by commission / omission and in this way establish the accuracy of the maps. with the total accuracy being 5.6%. The value of the accuracy obtained complies with the 10% accepted by the BCR Standard, as indicated in the *Methodological Document for REDD+*

The emission factors related to carbon content per reservoir were based on the reference level of forest emissions from deforestation in Colombia, established by the Ministry of Environment and IDEAM in 2024. According to this document, **the uncertainty is 15.85%**

¹¹ http://www.gofcgold.wur.nl/redd/sourcebook/GOFC-GOLD_Sourcebook.pdf

for aboveground biomass, 14.22% for groundwater biomass and 8.1% for 26.71% soil organic carbon.

3.5.1 *Uncertainty assessment*

According to the IPCC, in order to assess uncertainty, it is necessary to estimate the uncertainty of both emission rates per unit area and activity data, which include land areas undergoing changes in use and management. The mitigation results, related to the reduction of greenhouse gas (GHG) emissions by avoiding deforestation and/or degradation, are obtained by summing the products of the emission factors and the activity data. If there are different uncertainty values for the emission factor, these can be combined to provide accurate estimates, using the addition or multiplication rules proposed by the IPCC for uncorrelated uncertainties.

3.5.1.1 *Rule A*

When uncertain quantities are combined by addition, the standard deviation of the sum is the square root of the sum of the squares of the standard deviations, valid for uncorrelated variables. This allows us to derive a simple equation for uncertainty, expressed in percentage terms.

$$U_{total} = \frac{\sqrt{(U_1 * x_1)^2 + (U_2 * x_2)^2 + \dots + (U_n * x_n)^2}}{x_1 + x_2 + \dots x_n}$$

$$U_{total} = \frac{\sqrt{(15.85\% * 391.30)^2 + (14.22\% * 79.31)^2 + (26.71\% * 152.14)^2}}{391.30 + 79.31 + 152.14}$$

$$U_{total} = 12.04\%$$

Where

- U_{total} = Percentage uncertainty in the sum of the quantities (half of the 95% confidence interval divided by the total (i.e., the mean) and expressed as a percentage).
- U_n = Percentage uncertainties associated with uncertain reservoir amounts (aboveground biomass, groundwater biomass and soil organic carbon, respectively; tCOe ha).
- x_n = Uncertain amounts of reservoirs (aboveground biomass, groundwater biomass and soil organic carbon, respectively; tCOe ha).

3.5.1.2 Rule B

When uncertain quantities are combined by multiplication, the same rule applies, but standard deviations must be expressed as fractions of the mean values. This rule is approximate for all random variables. A simple equation can be derived for output uncertainty, expressed in percentage terms.

$$U_{total} = \sqrt{(U_1)^2 + (U_2)^2 + \dots + (U_n)^2}$$

$$U_{total} = \sqrt{(12.04\%)^2 + (4.70\%)^2}$$

$$U_{total} = 12.09\%$$

Where

- U_{total} = Percentage uncertainty in the sum of the quantities (half of the 95% confidence interval divided by the total (i.e., the mean) and expressed as a percentage).
- U_n = Percentage uncertainties associated with uncertain reservoir amounts (aboveground biomass, groundwater biomass and soil organic carbon, respectively; tCOe ha).

The combined uncertainty of 12.09% in the reduction estimates is above the 10% threshold, which is mainly due to the values reported in the Proposed Reference Level of Forest Emissions from Deforestation in Colombia (NREF). This document sets out specific uncertainties for activity data and emission factors, which, when combined, generate a higher level of uncertainty.

3.6 Leakage and non-permanence

In the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ project, the risk of leakage refers to the possible displacement of deforestation and degradation activities outside the project area to nearby forest areas. This risk arises as a result of the restrictions imposed within the project area and is managed through a multi-criteria analysis that evaluates various factors that increase the risk of deforestation in the surrounding areas. These factors are used to define the leakage belt, which encompasses the areas most likely to absorb displaced deforestation activities.

To delimit the area of leakage, the source of deforestation activities, such as subsistence agriculture, timber extraction and artisanal mining, is first identified. Then, the mobility of deforestation agents is characterized by a set of variables, such as proximity to population centers, access roads, and water bodies. These variables determine which forest areas are most accessible and therefore most vulnerable to deforestation. In addition, geographical factors such as altitude and slope are considered, as areas of lower altitude and with lower slopes tend to be easier to deforest. In addition to this, a multi-criteria evaluation model was used, which assigns a weight to each variable based on its relevance, which allows calculating a map of predisposition to deforestation. This map reflects the areas most susceptible to carbon leakage and makes it easier to delineate the leakage area.

The BCR0002 methodology establishes specific criteria to delimit the area of leaks. First, the area must include all forest areas within the range of mobility of deforestation agents. In addition, the leakage area cannot overlap with the project area, to avoid confusion in forest management. Areas with restricted access, such as forest reserves and protected areas, are also excluded. Finally, it must be ensured that there is no overlap with other greenhouse gas (GHG) reduction initiatives, to avoid double-counting carbon reductions.

The selection of data and parameters is justified by their direct relationship with the local conditions of the Vigía del Fuerte area. Factors such as proximity to population centers, transport routes and rivers are essential to quantify the risk of deforestation, since they facilitate access to forests. Likewise, the characteristics of the terrain and the proximity to agricultural areas are used to identify the areas most susceptible to deforestation. The weights assigned to each variable vary according to their impact on the project area, with some variables, such as proximity to roads, receiving greater relevance if they are key risk factors.

To manage the risk of leakage, the project implements measures such as constant monitoring of the leakage area, collaboration with local communities to offer sustainable alternatives, and adjustments to project boundaries if necessary. These strategies minimize the impact of leakage and ensure that the carbon reductions achieved by the project are effective and sustainable in the long term. In addition to this, as a precautionary measure against potential rollback risks associated with the project, 20% of the VCC is set aside, as detailed in section 7.1 on rollback risk.

Below are the identified non-permanence risks, along with the level of risk, mitigation measures, monitoring indicators, and the process for reporting if any of these situations arise (See *Table 24*).

Table 24. Risks of non-permanence

Risk	Risk level	Mitigation measures	Monitoring indicators	Frequency of monitoring
Displacement of deforestation towards areas of leakage	High	<ul style="list-style-type: none"> - Implementation of a leakage area to identify and limit deforestation-prone zones outside the project area. - Monitoring and agreements with local communities. 	Changes in forest cover in the demarcated leakage area.	Annual
Proximity to infrastructures (roads, drains, centres)	Low	<ul style="list-style-type: none"> - Control of access to forest areas near infrastructures. - Monitoring the use of roads and drains in the region to prevent illegal activities. 	Detected cases of unauthorized access; reduction in the use of roads or drains for illicit activities.	It is reported in the case that it is identified
Insufficient restrictions in protected areas	Low	<ul style="list-style-type: none"> - Agreements and delimitation of protected areas and forest reserves within the project area. - Strengthening of regulations and agreements with local authorities to ensure compliance with restrictions in protected areas and forest reserves. 	Intrusions detected,	It is reported in the case that it is identified

Overlap with other carbon initiatives	Low	Detailed evaluation of other initiatives in the area to avoid double counting.	Whether or not there is overlap with other carbon initiatives.	It is reported in the case that it is identified
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3.7 Mitigation results

3.7.1 *Eligible areas within GHG project boundaries (AFOLU sector projects)*

The eligible areas, according to the BCR0002 methodology, are defined as those that meet the condition of presence of forest, on the reference dates established by the standard, within the geographical limits of the project, corresponding to natural forests (according to the national definition of forests defined for Colombia), at the beginning of the project and at least 10 years before. The definition of forest adopted by Colombia corresponds to: "Land occupied mainly by trees that may contain shrubs, palms, guaduas, herbs and lianas, in which tree cover predominates with a minimum canopy density of 30%, a minimum canopy height (in situ) of 5 meters at the time of identification, and a minimum area of 1.0 ha. Tree cover from commercial forest plantations, palm crops, and trees planted for agricultural production are excluded."

For the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project, it was defined as the historical reference period between 2008 and 2021, this interval meets the condition established by the methodology to evaluate eligibility of at least 10 years before the start date.

To identify the eligible areas, Forest/Non-Forest maps were constructed in order to establish the forest areas that have been maintained throughout the analyzed time interval (2008-2021), following a series of procedures described below.

Imaging

The Forest/Non-Forest maps were made from a selection of images for an area that encompasses all project boundaries, for three dates within the time interval of the baseline

period. The dates analyzed are: 2021¹², 2014 and 2008. For each of the selected analysis dates, the information contained in several satellite images was collected and processed.

Preprocessing

- **Image correction**

These are the processes that tend to eliminate any anomaly detected in the image, either in its location or in the Digital Pixels Levels (ND). These operations arrange the data as close as possible to an ideal acquisition, both in the position of the pixels (geometric correction¹³) and in the pixel values (radiometric correction¹⁴)

- **Vegetation Indices**

In support of the information from the already rectified images, the standardized vegetation index NDVI was calculated¹⁵, in order to improve the discrimination of forest areas.

Classification

Once the above corrections have been made, cloud masks are made to each of the scenes and a supervised classification is carried out discriminating the following classes of coverage and use:

- Forests
- Pasture and crop mosaics
- Flood zones
- Rivers and bodies of water

¹² The selection of the dates responds to the analyzes required for at least two time periods, in this case 2008 – 2014 and 2014 – 2021, taking into account the start date of the project and the availability of satellite information.

¹³ The correction of geometric errors, such as those caused by satellites deviating from the primary focus plane. Images are typically compared to ground control points on exact basemaps and resampled so that exact locations and appropriate pixel values can be calculated.

¹⁴ Procedures that correct or calibrate imperfections in data values due to specific distortions produced by atmospheric effects (such as haze) or instrumentation errors (such as splitting) in data captured by remote sensing.

¹⁵ Normalized Difference Vegetation Index

- Arenales
- Way
- Urban areas

The BCR0002 methodology suggests that an automated classification process be carried out to make the production of cartography more efficient. Considering the above and in order to map the classes of land cover and land use in the selected images, classification methods supervised by means of a set of training data, are used for each of the classes to be identified. Training data are areas of which the class to which they belong is known a priori and which serve to generate a characteristic spectral signature of each of the classes, determined for mapping.

The classification method used was the SVM (Support Vector Machine),¹⁶ proposed by Burges (1998).

Cartographic production involves the following stages:

- Calculate image statistics
- Select Training Areas
- Image Classification
- Filtering

Processing

¹⁶ <https://doi.org/10.1023/A:1009715923555>

As a result of the classification, for each of the dates analyzed, LULC land cover and land use maps are obtained¹⁷, which are visually evaluated and edited, in order to guarantee the consistency of the maps obtained.

From the results of land cover and land use, these were generalized to obtain the forest and non-forest maps, which are the main input for the estimation of emissions for the reference area and the project area.

Land cover and land use results were widespread¹⁸ to obtain the forest and non-forest maps, which are the main input for the emission estimation for the reference area, the project area and the leakage area (Table 25, Table 26 and Table 27). (Figure 21, Figure 22 and Figure 23).

Table 25. Forest/non-forest areas in the Reference Area

		Reference Region		
COD	Category	2008 ha	2014 ha	2021 ha
1	Forest	272609,28	267912,04	264659,88
2	No Forest	19549,48	24246,72	27498,88
	TOTAL	292158,76	292158,76	292158,76

Table 26. Forest/non-forest areas in the project area

		Project Zone		
COD	Category	2008 ha	2014 ha	2021 ha
1	Forest	42170,69	41625,58	41753,88
2	No Forest	763,86	1308,97	1180,67
	TOTAL	42934,55	42934,55	42934,55

¹⁷ Land Use and Land Cover.

¹⁸ Process that groups land covers into Forest and Non-Forest categories. agrupa las coberturas de la tierra en categorías de Bosque y No Bosque.

Table 27. Forest/non-forest areas in the leakage area

		Leakage Area		
COD	Category	2008 ha	2014 ha	2021 ha
1	Forest	25743,12	25514,47	25399,14
2	No Forest	925,68	1154,33	1269,66
	TOTAL	26668,80	26668,80	26668,80

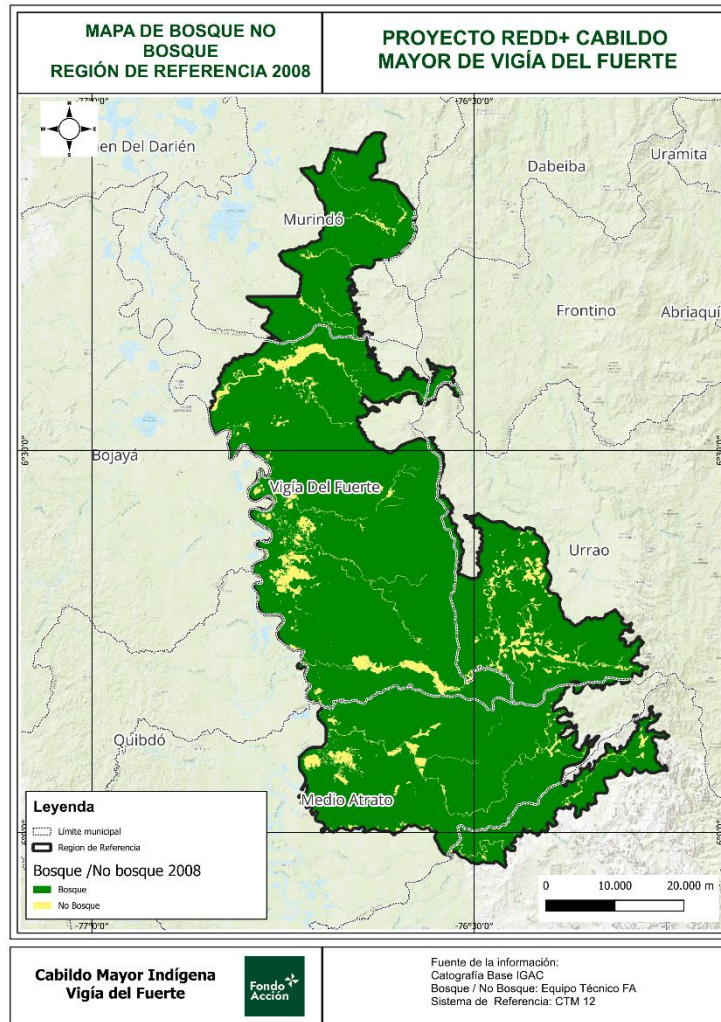


Figure 21. Map of forest not forest Reference Area 2008

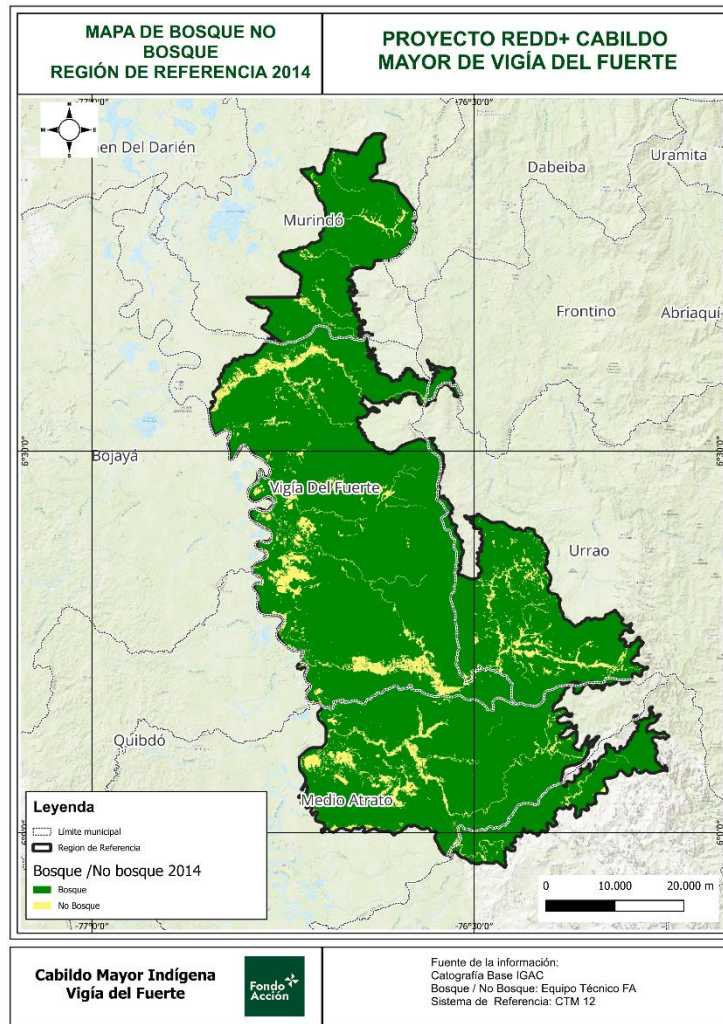


Figure 22. Forest Map Non-Forest Reference Area 2014

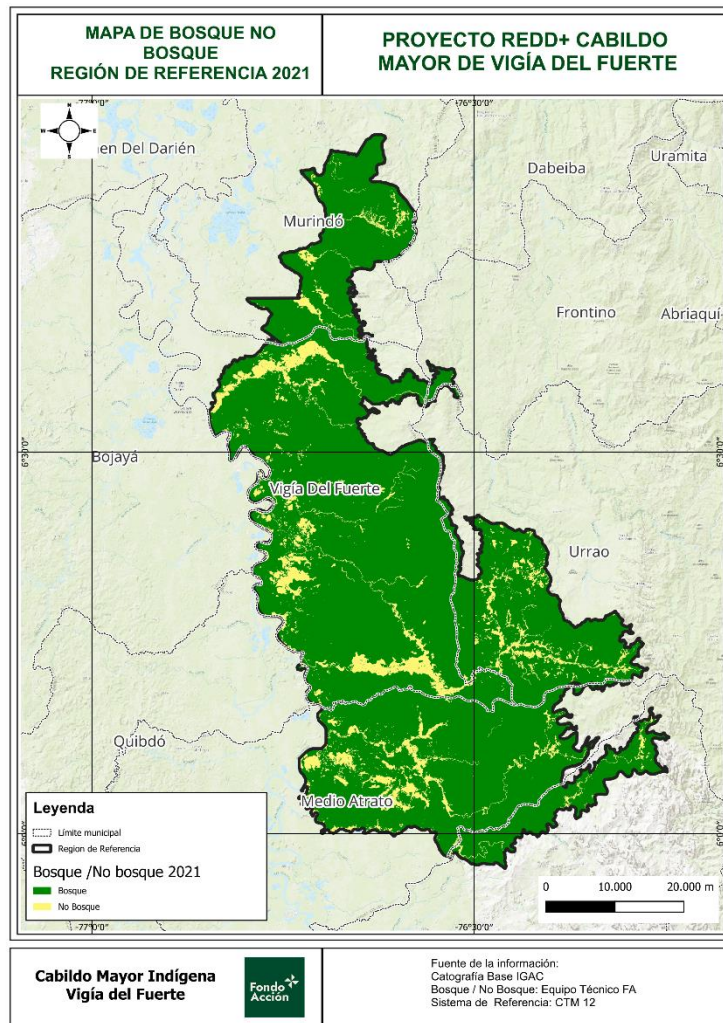


Figure 23. Forest Map Non-Forest Reference Area 2021

3.7.1.1 Eligible Areas

Eligible areas are defined by establishing the forests that have remained unchanged during the baseline time interval, from 2008 to 2021, for the project boundaries. The areas eligible for the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project, were obtained from the superposition of the forest/non-forest maps for the dates of 2008 and 2014, in this way

the forest areas that were maintained during this period were identified, thus identifying the project area (Figure 24) and the leakage area (Figure 25).

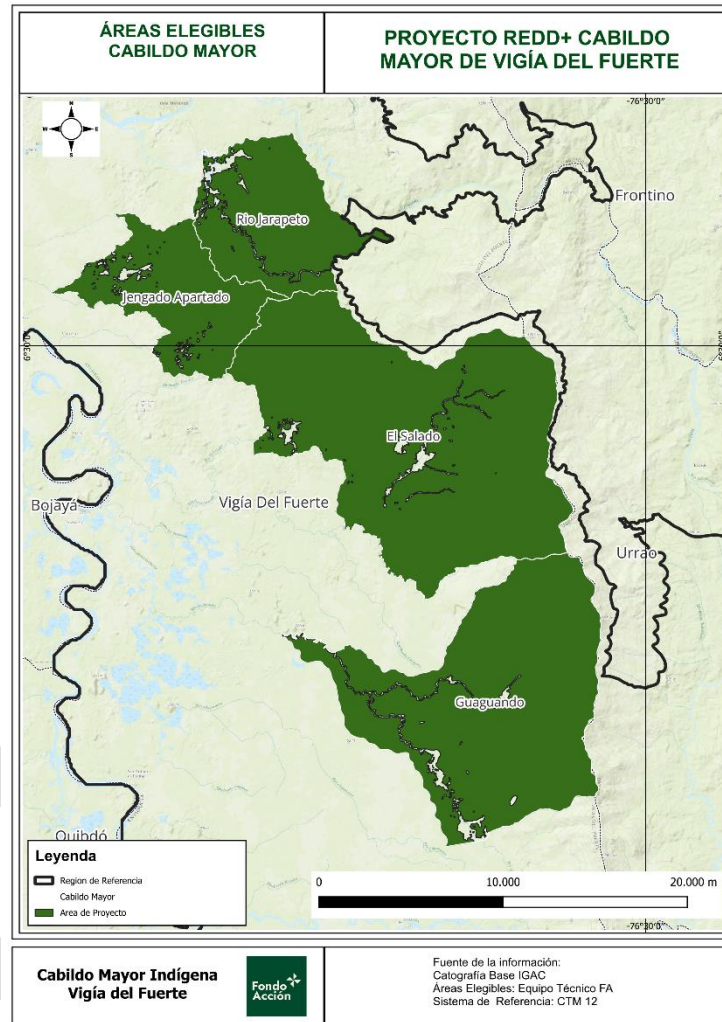


Figure 24. Eligible areas Cabildo Mayor Indígena de Vigía del Fuerte

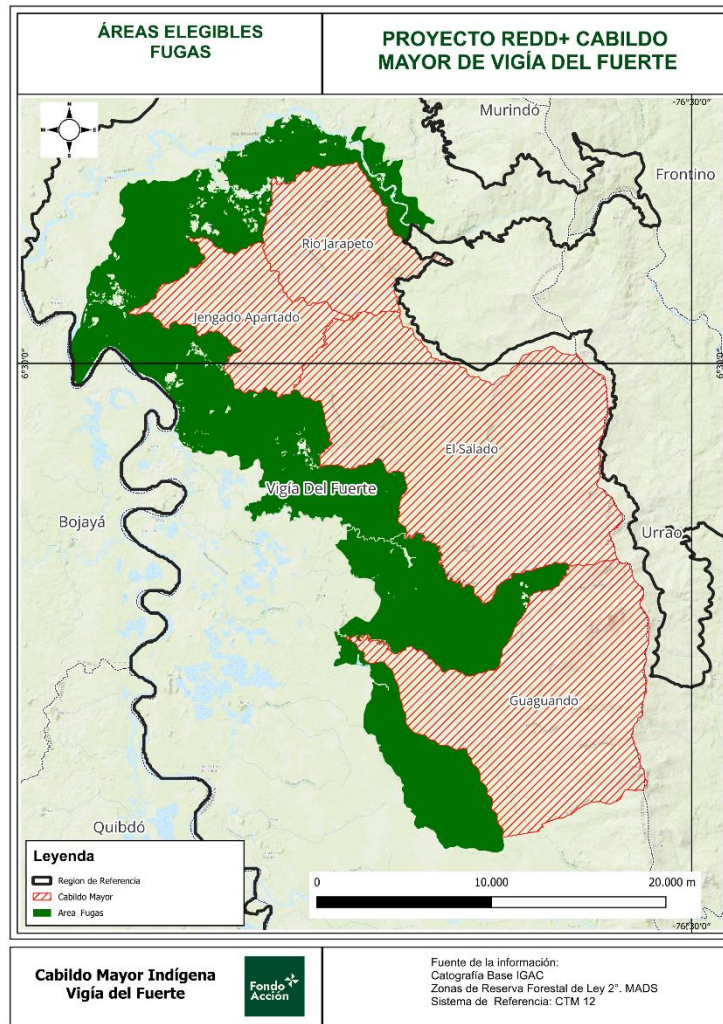


Figure 25. Eligible area within the leak area

3.7.2 Stratification (Projects in the AFOLU sector)

The distribution of carbon pools is uniform, aligning with the type of tropical humid forest (bh-T), according to the characteristics of the project area described (Table 28):

Table 28. Stratification of the project area

Category	Strata	Description
Altitude and Slopes	Low altitude and moderate slope (20 m - 370 m)	Medium altitude, average gradient of 8 degrees. Example: Ríos Jengadó - Apartadó (94 m), Río Jarapetó (146 m).
	High altitude and steep slope (370 m - 1,561 m)	Higher altitude areas with slopes of up to 68 degrees. Example: Guaguandó (up to 1,561 m).
Climate and Life Zones	Very humid tropical forest	Temperatures >24°C, annual rainfall >1,600 mm. Predominant area in the project area.
Precipitation	High rainfall (5,000 - 7,000 mm/year)	Much of the project area.
	Moderate rainfall (4,000 - 5,000 mm/year)	Only a proportion of the territory, east of Guaguandó and Paracucundó.
Hydrology	Caribbean Hydrographic Area - Atrato-Darien	Hydrographic subzones of Directo Atrato (87%) and Río

3.7.3 GHG baseline emissions.

3.7.3.1 Activity data

3.7.3.1.1 Estimating historical rate of deforestation

To calculate the forest loss rate, an analysis was conducted comparing the extent of forested and non-forested areas at two specific points in time, in this case, from 2008 to 2014 and from 2014 to 2021. Only areas that were covered by forest in the first period and had been cleared by the second were considered, thereby ensuring that the change occurred during the study period (gross deforestation). This approach enabled the calculation of the amount of forest deforested during this period.

3.7.3.1.2 Historical annual deforestation in the reference region

The following equation estimates annual historical deforestation in the reference region:

$$FSC_{R,yr} = \left(\frac{1}{t_2 - t_1} \right) * (A_{R1} - A_{R2})$$

$$FSC_{R,yr} = \left(\left(\frac{1}{2014 - 2008} \right) * (272,609.28 - 267,912.04) \right) + \left(\left(\frac{1}{2021 - 2014} \right) * (267,912.04 - 264,659.88) \right)$$

$$FSC_{R,yr} = 1,247.47 \text{ ha}$$

Where,

- $FSC_{R,yr}$ = Annual change in the surface covered by forest in the reference region (ha).
- t_2 = Final year of the reference period (yr).
- t_1 = Initial year of the reference period (yr).
- A_{R1} = Forest surface in the reference region in the initial moment (ha).
- A_{R2} = Forest surface in the reference region in the final moment (ha).

The estimation of the annual historical deforestation in the project area is estimated by applying the equation:

$$FSC_{A,yr} = \left(\frac{FSC_{R,yr}}{A_{R1}} \right) * (A_{At})$$
$$FSC_{A,yr} = \left(\frac{1,247.47}{272,609.28} \right) * (41,753.88)$$
$$FSC_{A,yr} = 191.07 \text{ ha}$$

Where,

- $FSC_{A,yr}$ = Annual change in the surface covered by forest in the project area (ha).
- $FSC_{R,yr}$ = Annual change in the surface covered by forest in the reference region (ha).
- A_{R1} = Forest surface in the reference region in the initial moment (ha).
- A_{At} = Forest Surface in the project area, in the t moment, in this case, 2021 (ha).

The forest surface change () corresponds to the historical rate of the project area deforestation and is the value used to represent the expected forest loss in the baseline scenario. FSC_A

Note: The equation presented in the methodology included a multiplication by 100, which was omitted to avoid overestimating deforestation in the project area. $FSC_{A,yr}$

3.7.3.2 Emission factors

3.7.3.2.1 Factor emission of biomass total carbon

According to the methodology, the total biomass (TB) is calculated by adding the aboveground biomass (AB) and the belowground biomass (BB). The carbon content of the total biomass (CCB) is determined by multiplying the TB by the carbon fraction of dry matter (CF). The equivalent carbon dioxide content in the total biomass (CCBeq) is obtained by multiplying the CCB by a constant that represents the molecular ratio

between carbon (C) and carbon dioxide (CO₂). The values used to calculate the total biomass were taken from the NREF 2024¹⁹. The calculation of CCBeq was performed using the following equation:

$$CCB_{eq} = TB * CF * 44/12$$

$$CCB_{eq} = (226.86 + 45.98) * 0.47 * 44/12$$

$$CCB_{eq} = 470.19 \text{ tCO}_2\text{e ha}$$

Where,

- CCB_{eq} = Carbon dioxide equivalent content in the total biomass (tCO₂e ha).
- TB = Total biomass (t ha).
- CF = Carbon fraction (0.47).
- $44/12$ = The molecular ratio constant between carbon (C) and carbon dioxide (CO₂).

3.7.3.2.2 Soil organic carbon emission factor

To estimating emissions from deforestation of the soil, a gross emission is assumed where the soil organic carbon (SOC) is emitted in equal proportions for 20 years once the deforestation event occurs. According to the following equation, the annual rate of carbon emissions in 20 years (SOC_{20years}) was calculated by dividing the SOC of each natural region by 20:

$$SOC_{eq} = SOC/20 * 44/12$$

$$SOC_{eq} = 41.45/20 * 44/12$$

$$SOC_{eq} = 7.60 \text{ tCO}_2\text{e ha}$$

Where,

- SOC_{eq} = Carbon dioxide equivalent in organic soils (tCO₂e ha).

19 [https://redd.unfccc.int/media/colombia_submission_nref_2023 - 2027 vf.pdf](https://redd.unfccc.int/media/colombia_submission_nref_2023_-_2027_vf.pdf)

- SOC = Soil organic carbon content (tC ha).

3.7.3.2.3 Total carbon emission factor

The total carbon emission factor includes the carbon dioxide equivalent emission per hectare deforested, including the biomass and organic soil carbon, according to the following equation:

$$TC_{eq} = CCB_{eq} + SOC_{eq}$$

$$TC_{eq} = 470.19 + 7.60$$

$$TC_{eq} = 477.79 \text{ tCO}_2\text{e ha}$$

Where,

- TC_{eq} = Total carbon dioxide equivalent (tCO₂e ha).
- CCB_{eq} = Carbon dioxide equivalent contained in total biomass (tCO₂e ha).
- SOC_{eq} = Carbon dioxide equivalent contained in organic soils (tCO₂e ha).

3.7.3.3 GHG emissions in the analysis period

The annual emission due to deforestation in the baseline scenario, for the reference region, is estimated with the following equation:

$$AE_{R,bl,yr} = FSC_{R,yr} * TC_{eq}$$

$$AE_{R,bl,yr} = 1,247.47 * 477.79$$

$$AE_{R,bl,yr} = 596,032.64 \text{ tCO}_2\text{e ha}$$

Where,

- $AE_{R,bl,yr}$ = Annual emission in the baseline scenario, in the reference region (tCO₂ ha).
- $FSC_{R,yr}$ = Historical annual deforestation in the baseline scenario, in the reference region (ha).
- TC_{eq} = Total carbon dioxide equivalent (tCO₂e ha).

The annual emissions from deforestation in the baseline scenario of the project area are estimated using the following equation:

$$AE_{bl,A,yr} = FSC_{A,yr} * TC_{eq}$$

$$AE_{bl,A,yr} = 191.07 * 477.79$$

$$AE_{bl,A,yr} = 91,290.65 \text{ tCO}_2e \text{ ha}$$

Where,

- $AE_{bl,A,yr}$ = Annual emission in the baseline scenario, in the project area (tCO₂ ha).
- $FSC_{A,yr}$ = Historical annual deforestation in the baseline scenario, in the project area (ha).
- TC_{eq} = Total carbon dioxide equivalent (tCO₂e ha).

The annual emission due to deforestation in the baseline scenario, for the leakage area is estimated as follows:

$$AE_{bl lk,yr} = FSC_{lk,año} * TC_{eq}$$

$$AE_{bl lk,yr} = 54.58 * 477.79$$

$$AE_{bl lk,yr} = 26,080.21 \text{ tCO}_2e \text{ ha}$$

Where,

- $AE_{bl lk,yr}$ = Baseline annual emission in the leakage area (tCO₂ ha).
- $FSC_{lk,año}$ = Baseline annual historical deforestation in leakage area (ha).
- TC_{eq} = Total carbon dioxide equivalent (tCO₂e ha).

3.7.4 GHG project emissions

Fully describe the procedures for ex-ante quantification of GHG project emissions attributable to project activities. Include relevant data, parameters, and equations, clearly articulate and substantiate the rationale behind all methodological choices. Also explain and justify the assumptions used. Provide information on uncertainty management.

Keep in mind the guidelines outlined in section 3.7.3.

3.7.4.1 Activity data

3.7.4.1.1 Projected annual deforestation in the REDD+ project scenario

The projected annual deforestation in the REDD+ Project is estimated with the equation:

$$FSC_{REDD+project,yr} = FSC_{A,yr} * (1 - \%DD)$$

$$FSC_{REDD+project,yr} = 191.07 * (1 - 100\%)$$

$$FSC_{REDD+project,yr} = 0 \text{ ha}$$

Where,

- $FSC_{REDD+project,yr}$ = Annual change in the surface covered by forest in the project scenario (ha).
- $FSC_{A,yr}$ = Annual change in the surface covered by forest in the baseline scenario (ha).
- $\%DD$ = Projected decrease in deforestation due to the implementation of REDD+ activities.

The projection of zero deforestation within the framework of this REDD+ project is based on the expected effectiveness of each implemented activity. These activities are specifically designed to counteract the key drivers of deforestation in the project area. By promoting sustainable land-use practices, restoring degraded areas, and creating economic alternatives for local communities, the project encourages a sustained reduction in deforestation. Additionally, the project includes a continuous monitoring system that enables adjustments to actions based on progress, ensuring their long-term impact. With this adaptive and targeted structure, a gradual reduction in deforestation is projected, ultimately leading to its elimination.

3.7.4.2 GHG emissions in the analysis period

3.7.4.2.1 Emissions in the project scenario

The annual emissions from deforestation in the project area, are calculated as follows:

$$AE_{REDD+project,yr} = FSC_{REDD+project,yr} * TC_{eq}$$

$$AE_{REDD+project,yr} = 0 * 477.79$$

$$AE_{REDD+project,yr} = 0 \text{ tCO}_2\text{e ha}$$

Where,

- $AE_{REDD+project,yr}$ = Annual emission in the project scenario, in the project area (tCO₂ ha).
- $FSC_{REDD+project,yr}$ = Annual change in forest cover in the project area, in the project scenario (ha).

- TC_{eq} = Total carbon dioxide equivalent (tCO₂e ha).

3.7.4.2.2 Emission reduction due to avoided deforestation

The emission reduction due to avoided deforestation is estimated with the following equation:

$$ER_{DEF,REDD+project} = (t_2 - t_1) * (AE_{bl,A,yr} - AE_{REDD+project,yr} + (AE_{bl,lk,yr} - AE_{lk,project,yr}))$$

$$ER_{DEF,REDD+project} = 3,958,102 \text{ tCO}_2e$$

Where,

- $ER_{DEF,REDD+project}$ = Emission reduction due to avoided deforestation (tCO₂e).
- t_2 = Final year of the reference period (yr).
- t_1 = Initial year of the reference period (yr).
- $AE_{bl,A,yr}$ = Annual emission by deforestation in the baseline scenario (tCO₂ ha).
- $AE_{REDD+project,yr}$ = Annual emission by deforestation in the project scenario (tCO₂ ha).
- $AE_{bl,lk,yr}$ = Annual emission by deforestation in the leakage area, in the baseline (tCO₂ ha).
- $AE_{lk,project,yr}$ = Annual emission by deforestation in the leakage area, in the project scenario (tCO₂ ha).

Note: The equation was adjusted by adding the emissions in the leakage area, as these are negative, in order to avoid overestimation. $ER_{DEF,REDD+project}$

3.7.5 GHG leakages.

3.7.5.1 Activity data

3.7.5.1.1 Annual historical deforestation in the leakage area

The annual historical deforestation in the leakage area is estimated with the equation:

$$FSC_{lk,yr} = \left(\frac{1}{t_2 - t_1} \right) * (A_{1,lk} - A_{2,lk})$$

$$FSC_{lk,yr} = \left(\left(\frac{1}{2014 - 2008} \right) * (25,743.12 - 25,514.47) \right) + \left(\left(\frac{1}{2021 - 2014} \right) * (25,514.47 - 25,399.14) \right)$$

$$FSC_{lk,yr} = 54.58 \text{ ha}$$

Where,

- $FSC_{lk,yr}$ = Annual change in the surface covered by forest in the leakage area (ha).
- t_2 = Final year of the reference period (yr).
- t_1 = Initial year of the reference period (yr).
- $A_{1,lk}$ = Forest surface in the leakage area in the initial moment (ha).
- $A_{2,lk}$ = Forest surface in the leakage area in the final moment (ha).

3.7.5.1.2 Projected annual deforestation in the leakage area in the project scenario

The projected annual deforestation in the leakage area in the REDD+ project scenario is estimated with the equation:

$$FSC_{REDD+project,f,yr} = FSC_{lk,yr} * (1 + \%E_{lk})$$

$$FSC_{REDD+project,f,yr} = 54.58 * (1 + 10\%)$$

$$FSC_{REDD+project,f,yr} = 60.04 \text{ ha}$$

Where,

- $FSC_{REDD+project,f,yr}$ = Annual change in the surface covered by forest in leakage area in the project scenario (ha).
- $FSC_{lk,yr}$ = Annual change in the surface covered by forest in leakage area in the baseline scenario (ha).
- $\%E_{lk}$ = Percentage of emissions increase in the leakage area due to the implementation of REDD+ activities. The use of a default value of 10% is allowed in the methodology.

3.7.5.2 GHG emissions in the analysis period

The annual emission due to deforestation in the baseline scenario, for the leakage area is estimated as follows:

$$AE_{bl\ lk,yr} = FSC_{lk,año} * TC_{eq}$$

$$AE_{bl\ lk,yr} = 54.58 * 477.79$$

$$AE_{bl\ lk,yr} = 26,080.21\ tCO_2e\ ha$$

Where,

- $AE_{bl\ lk,yr}$ = Baseline annual emission in the leakage area (tCO2 ha).
- $FSC_{lk,año}$ = Baseline annual historical deforestation in leakage area (ha).
- TC_{eq} = Total carbon dioxide equivalent (tCO2e ha).

3.7.5.2.1 Emissions in the project scenario

The annual emissions caused by deforestation in the leakage area are calculated according to the following equation:

$$AE_{lk,project,yr} = FSC_{lk,project,yr} * TC_{eq}$$

$$AE_{lk,project,yr} = 60.04 * 477.79$$

$$AE_{lk,project,yr} = 28,688.23\ tCO_2e\ ha$$

Where,

- $AE_{lk,project,yr}$ = Annual emission in the project scenario, in the leakage area (tCO2 ha).
- $FSC_{lk,project,yr}$ = Annual change in forest cover in the leakage area, in the project scenario (ha).
- TC_{eq} = Total carbon dioxide equivalent (tCO2e ha).

The projection of deforestation reduction due to the implementation of REDD+ activities indicates that an 80% reduction is expected during the first 5 years, reaching 90% after year 5. For the baseline establishment, an adjustment for national circumstances is incorporated by applying the national deforestation projection from the start of activities up to year 6; thereafter, an average based on the last 6 years is used. According to the projections under the BCR002 methodology, the baseline quantifies a significant reduction in greenhouse gas (GHG) emissions over the 40-year period (2021–2061). As detailed in Table 29, the measures implemented under the project are expected to achieve a total estimated reduction of 3,958,102 tCO2e from deforestation. This baseline analysis includes measures aimed at protecting the environment, strengthening territorial governance, culturally conserving the territory, implementing sustainable development

actions, and ensuring territorial monitoring and control to improve the quality of life of the communities involved.

Table 29. GHG emissions and reductions from project implementation

Year	GHG emission baseline scenario (tCO _{2e})	GHG emission in the project scenario (tCO _{2e})	GHG emissions attributable to leakages in baseline scenario (tCO _{2e})	GHG emissions attributable to leakages in project scenario (tCO _{2e})	Estimated GHG Reduction/Removals (tCO _{2e})
2,022	140,177	28,035	26,080	27,384	110,837
2,023	114,935	22,987	26,080	27,384	90,644
2,024	118,587	23,717	26,080	27,384	93,565
2,025	121,964	24,393	26,080	27,384	96,267
2,026	125,068	25,014	26,080	27,384	98,751
2,027	127,898	25,580	26,080	26,341	102,058
2,028	124,771	24,954	26,080	26,341	99,556
2,029	122,204	24,441	26,080	26,341	97,502
2,030	123,415	24,683	26,080	26,341	98,472
2,031	124,220	24,844	26,080	26,341	99,115
2,032	124,596	24,919	26,080	26,341	99,416
2,033	124,518	24,904	26,080	26,341	99,353
2,034	123,954	24,791	26,080	26,341	98,903
2,035	123,818	24,764	26,080	26,341	98,794
2,036	124,087	24,817	26,080	26,341	99,009
2,037	124,199	24,840	26,080	26,341	99,098
2,038	124,195	24,839	26,080	26,341	99,095
2,039	124,128	24,826	26,080	26,341	99,042
2,040	124,064	24,813	26,080	26,341	98,990
2,041	124,082	24,816	26,080	26,341	99,005
2,042	124,126	24,825	26,080	26,341	99,040
2,043	124,132	24,826	26,080	26,341	99,045
2,044	124,121	24,824	26,080	26,341	99,036
2,045	124,109	24,822	26,080	26,341	99,026
2,046	124,106	24,821	26,080	26,341	99,024
2,047	124,113	24,823	26,080	26,341	99,029

2,048	124,118	24,824	26,080	26,341	99,033
2,049	124,116	24,823	26,080	26,341	99,032
2,050	124,114	24,823	26,080	26,341	99,030
2,051	124,113	24,823	26,080	26,341	99,029
2,052	124,113	24,823	26,080	26,341	99,030
2,053	124,114	24,823	26,080	26,341	99,031
2,054	124,115	24,823	26,080	26,341	99,031
2,055	124,114	24,823	26,080	26,341	99,031
2,056	124,114	24,823	26,080	26,341	99,030
2,057	124,114	24,823	26,080	26,341	99,030
2,058	124,114	24,823	26,080	26,341	99,030
2,059	124,114	24,823	26,080	26,341	99,030
2,060	124,114	24,823	26,080	26,341	99,030
2,061	124,114	24,823	26,080	26,341	99,030
Total	4,967,188	993,438	1,043,208	1,058,856	3,958,102

4 Compliance with Laws, Statutes and Other Regulatory Frameworks

Project proponents agree to comply with all applicable laws, statutes, proprietary rights, and other regulatory frameworks. The extensive stakeholder consultation and training process will ensure that compliance is achieved. In the same way, it is intended to carry out a periodic review of new national and international environmental regulations that may apply to the project and its activities, as well as those that modify the existing one. Listed below are the laws and sections of laws that are applicable to the project and the project area and that are recognized by the national and regional government that relate to land management, land rights, and the security of members of indigenous Resguardos.

National REDD+ and climate change regulations:

The Colombian Low Carbon Development Strategy (ECDBC) was created from the 2010-2014 NDP Basis Document and the 2011 Conpes Document 3700, being conceived as a long-term planning initiative that would allow the country to identify the GHG mitigation potential, as well as the measures and projects that must be carried out by the productive sectors to reduce their contribution to global warming. without affecting the long-term

growth of the Colombian economy. Its objective is to facilitate the planning, implementation and management of capacities in the different ministries of the country, for the fulfillment of the short, medium and long-term national climate goals aimed at achieving carbon neutrality and climate resilience, within the framework of sustainable development, defined in the National Development Plans (NDPs), the Nationally Determined Contributions (NDCs), and the Long-Term Climate Strategy (E2050), among other national and sectoral instruments.

Regarding the carbon tax, in Colombia there is Ley 1819 of 2016, which introduced the figure of the carbon tax as a measure to encourage the reduction of greenhouse gas emissions. This tax is levied on carbon emissions from the burning of fossil fuels and other industrial activities. Subsequently, Decreto 926 of 2017 regulates the procedure to make effective the non-causation of the national carbon tax, as well as the procedure to certify being carbon neutral in accordance with the provisions of paragraph 3 of article 221 of Ley 1819 of 2016.

In Colombia, Resolution 1447 of 2018, Regulates the system of Monitoring, Reporting and Verification of mitigation actions at the national level, in relation to the Accounting System for the Reduction and Removal of Greenhouse Gas Emissions, and the National Registry for the Reduction of Greenhouse Gas Emissions (RENARE), which includes the National Registry of Programs and Projects of actions for the Reduction of Emissions due to deforestation and forest degradation in Colombia (REDD+). It establishes that REDD+ programs are Greenhouse Gas (GHG) mitigation initiatives, which cover an area on a national or subnational scale and can encompass several biomes or extensions of natural forest. They are in charge of a public entity of the national order and their head is the Ministry of Environment and Sustainable Development, individually or in association with other government entities. Recently, Resolution 418 of 2024 resolves that RENARE will be administered by the Ministry of Environment and Sustainable Development under the coordination of the Directorate of Climate Change and Risk Management.

Defines the manager's responsibilities and requirements for the registration of GHG mitigation initiatives.

The National REDD+ Strategy defines the objectives, goals and actions for the implementation of REDD+ in Colombia, including forest conservation, sustainable management of natural resources and development of alternative activities for local communities.

Colombia's Ley 1931 of 2018 (National Climate Change Policy), establishes guidelines for the management of climate change, seeking to guide public and private decisions at the

national, departmental and municipal levels. It focuses on adaptation and mitigation actions to reduce vulnerability to climate change and foster a sustainable, low-carbon economy. Key principles include self-management, coordination, co-responsibility and gradualness. The law defines terms, establishes economic instruments and addresses concepts such as mitigation, adaptation, resilience and vulnerability. It also creates the National Climate Change System (SISCLIMA) and other instruments, assigning responsibilities to government entities. It focuses on planning, management and information related to climate change, incorporating these aspects into sectoral and territorial plans.

However, Ley 2294 of 2023, "by which the national development plan 2022-2026 "Colombia world power of life" is issued, modifies Ley 1931 of 2018, stating in Section III of the bill that it focuses on inclusive governance and development financing as an enabling mechanism for a productive economy. Some of the proposed modifications include:

- Article 262: Modification of the destination of the resources generated by the National Program of Tradable Emissions Quotas (PNCTE), directing them to the Fund for Sustainability and Climate Resilience (FONSUREC) and its application as established in Ley 1819 of 2016, as well as for the administration of the PNCTE and the Mandatory Emissions Reporting (ROE).
- Article 263: Establishment of the National Fund for the Development of Infrastructure (FONDES), with the capacity to participate in or finance programs and projects related to seed capital, reindustrialization, energy transition, and other support and investment schemes in sectors that are strategic to the national economy.
- Article 264: Modification of the concept of Carbon Capture, Utilization and Storage Technology (CCUS), specifying processes to reduce emissions and store CO₂, with general guidelines to be established by the Ministry of Mines and Energy.
- Article 265: Addition of a paragraph on the free allocation of disbursements made to entities at the territorial level within the framework of territorial strategies for financial protection against disaster risk.
- Article 266: Financing of the budget of the Mining and Energy Planning Unit (UPME) with contributions provided by Ecopetrol, the National Mining Agency, ISA, the Ministry of Mines and Energy, and the National Hydrocarbons Agency.

These modifications seek to promote sustainable development, climate resilience and strategic infrastructure, in addition to establishing financial mechanisms to support these goals

Ley 2169 of December 22, 2021, aims to establish the minimum goals and measures to achieve carbon neutrality, climate resilience and low-carbon development in the country in the short, medium and long term, within the framework of the international commitments assumed by the Republic of Colombia on the matter. The mitigation goals are as follows: a 51% reduction in greenhouse gas emissions compared to the 2030 reference scenario, achieving carbon neutrality by 2050, reducing deforestation to zero by 2030, and reducing black carbon emissions by 40%.

Forest policy:

The Forest Policy in Colombia has undergone several updates, being implemented for the first time in 1959 and later revised in 1974 and 1996. The version adopted in 1996, through document 2,834 of the National Council for Economic and Social Planning (Consejo Nacional de Planificación Económica y Social), has as its main objective to achieve sustainability in the use of forests, consolidating their incorporation into the national economy and improving the standard of living of the population.

The guiding principles of this policy include the recognition of forests as strategic resources, essential for biological diversity, and establish the vital responsibility of the State, with the support of civil society, in their knowledge and management. It also stresses that sustainable forest development is a joint effort between the State, the local community and the private sector, and that the sustainable exploitation of forest resources is essential for forest conservation, requiring an enabling environment for investment.

Specific forest policy objectives include reducing deforestation through cross-sectoral policy coordination, promoting reforestation and rehabilitation, efficiently implementing administrative processes for the sustainable use of forests, and addressing the cultural, social, and economic problems that contribute to deforestation.

In 1998, the Strategic Plan for Restoring and Establishing the Forest (Green Plan) was approved, which seeks to integrate agroforestry, conservation, and ecological restoration into the environmental management of the territory. This plan aims to recover degraded ecosystems, promote protective reforestation in areas that generate basic environmental services, control reforestation and implement agroforestry, with the overall goal of reforesting or restoring 1 million hectares of land.

Within the legal framework, Decreto 3570 of 2011 assigns specific functions to the Ministry of the Environment and its dependencies, highlighting the responsibility of the Directorate of Forest, Biodiversity and Ecosystem Services in the development and coordination of the implementation of the National Forestry Development Plan.

International treaties and legislation:

Colombia has adopted various international legislations as part of its commitment to environmental protection and sustainable development. These include:

- Convention for the Protection of the World Cultural and Natural Heritage (Paris, 1972): This convention aims to preserve sites of cultural or natural importance, recognizing them as world heritage.
- Convention on International Trade in Endangered Species: Wild Fauna and Flora (Washington D.C., 1973): Focused on regulating trade in endangered species to prevent their extinction.
- Convention on Biological Diversity (Rio de Janeiro, 1992): Seeks to conserve biological diversity, promote the sustainable use of biological resources and ensure the fair and equitable sharing of the benefits derived from such diversity.
- Paris Agreement (ratified by Colombia on July 12, 2018): This agreement, initiated in 2015, has as its main objective to limit the increase in global temperature by reducing greenhouse gas emissions. Colombia, by ratifying the agreement, commits to strengthen its efforts to regulate its emissions, thus contributing to mitigating climate change worldwide. Colombia's compliance with the agreement began on August 11, 2018.

Other relevant laws:

Colombian legislation related to the environment and natural resources has undergone significant changes over time. In this context, Ley 99 of 1993 played a crucial role in expanding the institutional framework for environmental protection and natural resource management. This law marked an important change by placing the Ministry of Environment and Sustainable Development at the center of environmental policy-making at the national level.

In addition, Ley 99 of 1993 established various environmental authorities, such as the Regional Authorities, the Sustainable Development Authorities, the Greater Urban District and the Special Districts of the Caribbean. These entities were created with the purpose of evaluating, approving, controlling and issuing environmental licenses, thus contributing to a more efficient and decentralized management of environmental issues.

Subsequently, Ley 1333 of 2009 modified important aspects of environmental legislation by establishing a regime of sanctions. This law empowered the competent environmental authorities to impose sanctions or preventive measures in cases of alleged violations of environmental legal provisions. This measure reflects Colombia's commitment to the effective application of regulations to guarantee the protection of the environment and sustainability in the use of natural resources.

Judgment T-622 of 2016 recognizes the Atrato River and its basin as entities with rights. A plan is established to decontaminate the watershed, combat illegal mining, and restore traditional forms of subsistence. Toxicological and epidemiological studies are ordered. The process includes follow-up and compliance with recommendations, ensuring resources to address the environmental and humanitarian crisis declared in Chocó.

Legislation for indigenous communities:

Ley 89 of 1890. "By which the manner in which savages who are reduced to civilized life are to be governed is determined." This law is the most important because it regulates the organization of Resguardos, Resguardos, indigenous protectors, sales, and the division of the lands of the Resguardos.

Colombia's Ley 21 of 1991 is legislation that approves Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries, adopted by the 76th session of the ILO General Conference in Geneva in 1989. The main objective of this law is to recognize and protect the rights of indigenous and tribal peoples in the context of Colombian legislation. Its adoption reflects the country's commitment to the principles set out in the international convention,

which addresses issues related to cultural identity, participation in decision-making, sustainable development and protection of indigenous peoples' territories. Ley 21 of 1991 marks an important milestone in the recognition of the rights of indigenous peoples in Colombia.

Ley 715 of 2001. "By which organic rules are issued in matters of resources and competences in accordance with articles 151, 288, 356 and 357 (Legislative Act 01 of 2001) of the Political Constitution and other provisions are issued to organize the provision of education and health services, among others." The relevance of this regulation is because it determines the obligation of DANE to certify the population data of the indigenous Resguardos for the purposes of participation in the General System of Participations. Article 82. Indigenous Resguardos. As long as the indigenous territorial entities are not constituted, the beneficiaries of the General System of Participations will be the indigenous Resguardos legally constituted and reported by the Ministry of the Interior to the National Department of Statistics (DANE) and the National Planning Department in the year immediately prior to the validity for which the resources are programmed.

Decreto 2164 of 1995. "By which Chapter XIV of Ley 160 of 1994 is partially regulated in relation to the provision and titling of lands to indigenous communities for the constitution, restructuring, expansion and sanitation of the Indigenous Resguardos in the national territory."

Decreto 1809 of 1993. "On fiscal rules relating to indigenous territories. " Art. 1. It confers on the Resguardos the status of municipalities, for the purposes of the transfers of PICN resources. In the areas identified within the Basic Plan for Territorial Planning as indigenous concertation, where infrastructure works of interest to the Municipality and/or under development of the SEZs are planned, the decision on land use will be excluded from the process of consultation with the Indigenous Authorities and will be under the competence of the corresponding Municipal Council for Territorial Planning."

Decreto 1088 of 1993. "It regulates the creation of indigenous associations and councils. It lays down rules relating to the functioning of indigenous territories, protection of their territories, and association of indigenous communities, based on their participation and economic, social and cultural strengthening."

Decreto 1386 of 1994. "It partially modifies Decreto 1809 of 1993. On the autonomy of the receipts for the allocation of the resources of the transfers."

Decreto 1397 of 1996. "National Commission on Indigenous Territories Creating the National Commission on Indigenous Territories and the Permanent Table for Consultation with Indigenous Peoples and Organizations and issuing other provisions."

Tutela Actions Favorable to Indigenous Communities.

Tutela action filed by the Indigenous Council of Pirá Paraná and another, against the Corporation for the Sustainable Management of Forests and others. Reference: File T-9.312.858, through which the plaintiffs seek that the constitutional judge order: (i) to protect the fundamental rights to cultural integrity, self-determination, self-government and territory.

Tutela action filed by the Buenos Aires indigenous community of Sincelejo, Sucre, against the Ministry of the Interior. Reference: File T-8.203.921, in which the protection of the fundamental rights to social, cultural and economic integrity, democratic participation, self-determination and due process, requested by the Buenos Aires indigenous community of Sincelejo, Sucre, is granted. Against the Directorate of Indigenous, Roma and Minority Affairs of the Ministry of the Interior.

Tutela action filed by Ángel Tadache Moreno and other signatories of the Yajotja indigenous community, against the National Land Agency-ANT and others, File: T-8.113.378, by means of which they protect the rights to cultural identity, autonomy and self-determination, ancestral and collective territory, due administrative process and ethnic subsistence. In the same way, the National Land Agency is ordered to adopt the necessary measures and to carry out the necessary actions to respond to the requests made by the community for a measure of protection of ancestral territory, in application of the principles of efficiency, speed and economy and without unjustified delay.

Sentences

Judgment T-445/22 - by which the Constitutional Court protects in favor of the Members of the Yajotja community of the Waüipijiwi people, who claim the protection of their fundamental rights to territory, to collective property, to the constitution of Resguardos, to self-determination and autonomy, to the exercise of self-government, to the vital minimum, to administrative due process, to the right to petition, to truth, justice and comprehensive reparation, to life, to health, to water, to food security and sovereignty, to education and to decent housing. They allege that the violation of their rights is a consequence, among others, of the refusal of the defendants to recognize them as an autonomous community, different from that of El Meroy in the Caño Mochuelo Cabildo, from which they decided to move in 2017.

Judgment C-088 of 2001. The Constitutional Court recognizes and protects ethnic and cultural diversity, justifying the issuance of special provisions aimed at indigenous communities. These rules, insofar as they imply a distinction, must be based on sufficient reasons to explain the difference in treatment.

5 Carbon ownership and rights

5.1 Project holder

Individual or organization	Cabildo Mayor Indígena de Vigía del Fuerte
Contact person	Roberto Valencia Evao
Job position	Governor
Address	Carrera 1 # 10-12 Barrio Los Manguitos
Phone number	310 4030395
Email	robertomayor1973@gmail.com

Individual or organization	Resguardo Río Jarapetó
Contact person	Gustavo Dumasa Bugama
Job position	Governor Cabildo
Address	Carrera 1 # 10-12 Barrio Los Manguitos
Phone number	3122433672
Email	

Individual or organization	Resguardo Ríos Jengadó - Apartadó
Contact person	Jaime Bailarín Oqui
Job position	Governor Cabildo
Address	Carrera 1 # 10-12 Barrio Los Manguitos
Phone number	3205213596
Email	Jaimeoqui33@gmail.com

Individual or organization	Resguardo El Salado
Contact person	Laureano Evaó Cerezo
Job position	Governor Cabildo
Address	Carrera 1 # 10-12 Barrio Los Manguitos
Phone number	3223623447
Email	

Individual or organization	Resguardo Guaguandó
Contact person	Vidal Mecheche Mecheche
Job position	Governor Cabildo
Address	Carrera 4 # 10-59, Barrio Palmira
Phone number	323 468 79 06
Email	

5.2 Other project participants

Project Developers

Individual or organization	Fondo para la Acción Ambiental y la Niñez – FONDO ACCIÓN
Contact person	Natalia ArangoVélez
Job position	Executive Director
Address	Cra. 7 N° 32-33 Piso 27, Bogotá D.C.
Phone number	(+57) 6012853862 ext. 102
Email	narango@fondoaccion.org
Individual or organization	Nativa Forest S.A.S.
Contact person	Benjamín Castaño Murillo
Job position	Legal Representative
Address	Calle 29 # 73-44, Belén Granada, Medellín.
Phone number	+57 321 8474387
Email	nativaforest2015@gmail.com

5.3 Agreements related to carbon rights

The first discussions about the possibility of implementing a REDD+ and restoration of degraded areas project began between Nativa Forest and indigenous leaders from several of the seven communities, who repeatedly sought advice and support for the management of these and other projects. Within Nativa Forest, the task of seeking allies to address the constant demands of these indigenous communities was taken on through their leaders. Thus, contact was established with the Fondo Acción, initiating the process of forest protection. The first action consisted of a meeting between Nativa partners and a representative of the Fund, during which the REDD+ project was discussed and it was

agreed that Nativa would be responsible for presenting the idea to leaders and authorities as the first step at the local level.

With the approval of the authorities, a socialization tour was planned that would include all the communities, organized by Nativa Forest and the Cabildo Mayor. During these visits, all the communities expressed their interest in the project through a letter signed by the Cabildo Mayor in May 2021 (Annex O).

On November 16, 2021, a socialization meeting was held between the Fondo Acción, members of the four Resguardos and the Indigenous Council of Vigía del Fuerte. At this meeting, the project "Plan for the restoration of degraded areas through enrichment with native species of ecological and economic interest in the indigenous territories of Vigía del Fuerte" (Annex W) was presented in a preliminary manner.

On March 20, 2022, the progress of the project in the community of Guaguandó was presented (Annex AB). During this meeting, suitable planting points were chosen in the selected areas.

An ecological and productive restoration approach was implemented, seeking to generate tradable goods for the community of Guaguandó Bajo, which depends on hunting and timber extraction. This community was chosen to rehabilitate areas deforested for commercial purposes for more than 40 years, integrating them sustainably into local use and providing economic opportunities to the inhabitants while protecting other areas of the forest.

After the first evaluation in the field, on June 29, 2022, a meeting was held between a representative of Fondo Acción and the community of Guaguandó Bajo at its community headquarters. Issues of restoration, forest rehabilitation and the application of trends such as the REDD+ mechanism were discussed. Finally, it was agreed with the community to carry out the maintenance, fertilization and reseeded phase from July 4 to 10, 2022, with technical support and plant material (Annex AC).

The first phase of the contract culminated leaving the community satisfied and with expectations for the REDD+ project. The joint work benefited 33 families directly, contributing resources to the local economy.

After the work in Guaguandó, a restoration intervention was chosen in the Resguardo Jarapeté, focused on rehabilitation to protect lands affected by illegal mining and shifting

agriculture. The community of Jarapetó came to understand the importance of restoration and priority areas were identified: 70% degradation by mining and 30% by shifting cultivation. In September 2022, a meeting was held to explain the process with the collaboration of Minera de Cobre Colombia through the Fondo Acción and Nativa Forest. A meeting was held to develop the zoning exercise taking into account those areas within the Resguardo that were affected by illegal mining and poor land use practices (Annex P).

The restoration days involved various people, including the indigenous community, Afro communities and residents of the municipal seat of Vigía del Fuerte. This generated economic opportunities for several families through participation in activities such as the nursery and the transport of materials, also benefiting local commerce.

Subsequently, on November 18, 2022, the exclusivity and structuring agreement of the REDD+ project was signed between the Fondo Acción and the local councils of El Salado, Guaguandó, Río Jengadó - Apartadó and Río Jarapetó (Annex Q).

The process of free, prior and informed consent was carried out on March 3, 2023 in the municipal seat of Vigía del Fuerte, through a meeting in which this instance was approved to formally begin the construction of the REDD+ project in the indigenous territories of the municipality of Vigía del Fuerte (Annex R). During this space, the representative of the Fondo Acción explained in detail the restoration activities that had been carried out since 2022 in the communities of Guaguandó and Jarapetó and their main results. Likewise, the objectives of the project were explained again, the attendees expressed their concerns and, finally, the agreement between the parties was signed.

On April 18 and 19, 2024, a meeting was held in the city of Quibdó between the directors of the Fondo Acción, the coordination of the project and representatives of the seven communities, with the aim of presenting to the latter the revolving fund model of the Fondo Acción, through which the communities proposing the project will reintegrate the resources invested in the REDD+ CAIVIF project. through the signing of Mutual Agreement No. 083 of 2024, which has the following purpose; " The mutual agreement without interest on the part of the Fondo Acción to the community for the specific purpose of carrying out the formulation, validation, implementation, monitoring and the first verification and mission of carbon certificates of the project, (Annex S).

In this space, the representatives of the communities carried out an analysis of the document, the activities and the development of the project. Subsequently, they proceeded to ratify the signature freely and consciously, ensuring respect for the right of autonomy and participation of the parties involved.

The Benefit-Sharing Mechanism (MDB) defines who the beneficiaries will be, the types of benefits that will be granted, and establishes the instructions and instances for decision-making within the REDD+ project. In addition, it includes distribution channels, methodologies for monitoring and evaluation of investments, and accountability, all of which are essential elements for transparent and participatory management.

The purpose of the MDB is to organize and guide the use of REDD+ project revenues, cover operational costs and distribute benefits among participants, to motivate their active participation in deforestation reduction activities and achievement of project objectives. Annex T contains the general structure of the benefit-sharing mechanism.

5.4 Land tenure (Projects in the AFOLU sector)

In accordance with the Political Constitution of 1991, which recognizes and protects the rights of indigenous peoples to land and territorial autonomy, and Convention 169 of the International Labor Organization (ILO), which establishes standards to protect the rights of indigenous peoples, including territorial rights, the communities that inhabit these Resguardos have the right to the administration and rights of use of the natural resources present in these Resguardos territories. These rights are legally embodied in the resolutions granted by which the indigenous Resguardos of the municipality of Vigía del Fuerte were constituted.

- **Resguardo El Salado:** it was legally constituted by resolution No. 022 of March 26, 1990. In the first instance, this Resguardo had an area of 6,250 hectares. However, with resolution No. 025 of July 22, 2002, it was decided to expand the Resguardo in the sector of the community of Paracucundó by 9,894 - 2,833 hectares, to complete an approximate extension of 16,144 - 2,833 hectares (Annex to the Tenure Resolution).
- **Resguardo Río Jarapetó:** established by resolution 016 of 1984 with an area of 5,583 hectares. (Annex to Resolution Tenure)
- **Ríos Jengadó-Apartadó:** established by Resolution No. 15 of 1992 with an area of 4,546 hectares. (Annex to Resolution of Tenure).
- **Resguardo Guaguandó:** established by Resolution No. 46 of 1989 with an area of 13,260 hectares (Annex to Tenure Resolution).

6 Climate change adaptation

In accordance with the BCR Standard Version 3.4 of June 2024, the climate change adaptation actions considered by the project are detailed below, which are articulated with different existing climate management instruments at the national and regional level.

- a. It considers some of the strategic lines proposed in the National Climate Change Policies and/or addresses aspects framed in the regulations of the country where the project is implemented.

The project complies with two of the strategic lines proposed in Colombia's National Climate Change Policy (Ministry of Environment and Sustainable Development, 2017), such as:

- ***Low-carbon and climate-resilient rural development:*** The project focuses on forest conservation and the implementation of sustainable forest management practices. This includes promoting agroforestry and sustainable farming techniques that reduce GHG emissions and increase the resilience of communities to climate change.

In addition to this, the project works on the development of economic alternatives for people who depend on forests, such as the use of non-timber forest products and the promotion of sustainable agriculture.

- ***Management and conservation of ecosystems and ecosystem services for low-carbon and climate-resilient development:*** The main objective of the project is to reduce deforestation and forest degradation, which directly contributes to the conservation of ecosystems and the protection of the ecosystem services they provide, such as climate regulation, biodiversity protection and water supply.

In addition to conservation, the project includes restoration activities for degraded areas, which improves the capacity of ecosystems to sequester carbon and increase their resilience to the impacts of climate change.

In addition to this, the project complies with the following strategic lines of the National Plan for Adaptation to Climate Change PNACC (Ministry of Environment and Sustainable Development, 2016):

- **Strategy 1.B.** Education, training, communication and public awareness on climate change: The project engages local communities in training and awareness-

raising processes on climate change and conservation practices, promoting understanding of its impact and the importance of forests.

- **Strategy 1.C.** Strengthening institutional capacities for adaptation to climate change: The project strengthens the capacities of local communities and institutions in the sustainable management of natural resources, fostering greater resilience to climate change.
- **Strategy 2.B.** Development of resilient investment projects The project includes investments in sustainable practices and forest conservation, which contributes to climate resilience and local economic development without compromising natural resources.
- **Strategy 3.A.** Managing the impacts of climate change on biodiversity and the supply of ecosystem services: The goal of reducing deforestation and forest degradation directly supports the conservation of biodiversity and the protection of ecosystem services, such as water regulation and carbon sequestration.
- **Strategy 3.B.** Agricultural production and food security adapted to climate change: The project promotes sustainable agroforestry and agricultural practices, improving food security and reducing dependence on high-impact practices, such as deforestation for extensive agriculture.

On the other hand, the project addresses three strategic lines of adaptation and mitigation proposed in the Comprehensive Climate Change Plan of Antioquia (PICCA), adopted by Ordinance No.49 of 2019 by the department of Antioquia:

- **Resilient agricultural development:** This project has an emphasis on forest conservation and the implementation of sustainable agricultural practices, to promote productive income-generating alternatives that do not depend on deforestation, such as the cultivation of pineapple, murrapo, vanilla, turmeric, and forest seeds. These activities not only diversify sources of income, but also foster the resilience of farming communities to climate change. In addition to this, these practices improve soil health, increase biodiversity and contribute to adaptation to climate change.
- **Ecosystems and their services:** By reducing deforestation and forest degradation, the project protects biodiversity, improves air quality, regulates the climate, and prevents soil erosion.
- **Regional competitiveness and promotion of new economies:** The project promotes new economies by developing sustainable productive alternatives that generate income without causing deforestation. By encouraging activities such as agroforestry and the production of non-timber products, local economic development

is promoted in a sustainable manner. This increases regional competitiveness by creating new market opportunities and diversifying the local economy, reducing reliance on unsustainable practices. In addition, by improving the technical and organizational capacities of the community, the economic base is strengthened and inclusive economic growth is promoted.

In addition, the project addresses the following strategic axes of Corpourabá's Climate and Peace Plan 2040 (Martínez, *et al.* 2016):

- **Agriculture, Livestock and Food Security:** By promoting productive income-generating alternatives such as the cultivation of pineapple, murrapo, vanilla, turmeric and forest seeds, an agriculture that does not depend on deforestation is encouraged. In addition, the agroforestry practices integrated into the project improve soil health, increase biodiversity, and contribute to food security and the resilience of communities to climate change, making it possible to secure and maintain their livelihoods without compromising the integrity of forests. On the other hand, the project aims to establish productive units that promote food security, where families grow the basic products for their food (bananas, cassava, pineapple, corn, rice, among others).
- **Ecosystems and Biodiversity:** By reducing deforestation and forest degradation, this project protects biodiversity, improves air quality, regulates the climate, and prevents soil erosion. In addition, they can include the creation of biological corridors and the restoration of degraded areas, thus strengthening connectivity and the health of ecosystems over a wider area.
- **Water management:** Forests play a crucial role in regulating the hydrological cycle, filtering water and reducing runoff and erosion. By maintaining forest cover, the project can enable water sources to be sustainable and local communities to have access to clean and abundant water.
- **Resilient environments:** Resilience is increased by conserving ecosystems that provide critical services such as climate regulation, protection against natural disasters, and the provision of natural resources. By empowering communities with knowledge and tools for the sustainable management of natural resources, the project enhances the capacity of these communities to adapt to and withstand the impacts of climate change.
- **New inclusive economies:** By encouraging activities such as agroforestry and the production of non-timber products, the project promotes local economic development

in a sustainable manner. This increases regional competitiveness by creating new market opportunities and diversifying the local economy, reducing reliance on unsustainable practices. In addition, by improving technical and organizational capacities, the economic base is strengthened and inclusive economic growth is promoted.

- b. It improves the conditions for the conservation of biodiversity and its ecosystem services, in the areas of influence, outside the limits of the project (e.g. natural cover in areas of special environmental interest, biological corridors, water management in watersheds, among others).

This project by improving conservation conditions in the project area, the surrounding areas will also benefit from the sustainable practices implemented, creating a wider area of conservation and effective forest management, contributing to a more robust and resilient environment, increasing the stability and effectiveness of long-term conservation efforts.

In addition to this, the areas of influence outside the limits of the project can act as essential biological corridors, connecting different fragments of habitats and allowing the movement of species, allowing the genetic diversity and health of flora and fauna populations to be maintained, which contributes significantly to the recovery and maintenance of regional biodiversity.

In the same way, the extension of conservation practices to areas outside the project area creates synergies and co-benefits that go beyond climate change mitigation, such as improving air and water quality, maintaining soil fertility and reducing the vulnerability of local communities to climate impacts.

- c. Implement activities that contribute to sustainable, low-carbon productive landscapes.

Some activities mentioned in section 2.3. contribute to sustainable, low-carbon productive landscapes, such as:

- The design and prioritization of business plans for productive alternatives such as pineapple, murrapo, vanilla, turmeric, and forest seeds promote economic diversification and the implementation of sustainable agricultural practices. These activities generate income without the need to overexploit the forest, contributing to sustainable and low-carbon productive landscapes.

- The design and implementation of food security alternatives improves the resilience of local communities and reduces pressure on forests. By ensuring sustainable food sources, the need to expand agricultural land at the expense of forest cover is lessened.
- The implementation of productive income-generating alternatives promotes sustainable economic activities that are compatible with the conservation of natural resources. This includes agroforestry and the production of non-timber products, helping to keep landscapes productive and reducing carbon emissions.
- The maintenance, improvement and monitoring of the implemented production alternatives ensures the long-term sustainability of these activities. By monitoring and adjusting practices as needed, their efficiency is maximized and negative environmental impacts are minimized.
- The consolidation of ranger families strengthens the protection and care of the territory, involving communities in forest conservation. This approach empowers local families, promoting a sense of shared responsibility towards environmental conservation.
- Conservation agreements with timber and non-timber families ensure formal commitments to the protection and sustainable management of forest resources. These agreements provide economic and social incentives, encouraging families to adopt conservation practices.
- The adjustment and consolidation of the Life Plan and the Environmental Management Plan ensures that community activities are aligned with sustainable development objectives. This encourages integrated and participatory planning, improving the management of natural resources.
- Improving technical capacities for productive and food security alternatives strengthens communities' abilities to implement sustainable practices. This contributes to the efficiency and sustainability of activities, supporting low-carbon productive landscapes.
- The strengthening of councils in territorial planning and the promotion of spaces for dialogue between communities reinforce local governance and land use planning. This is crucial for the sustainable management and conservation of forests.
- Strengthening technical capacities in sustainable forest harvesting trains communities in practices that minimize environmental impact. This encourages responsible and sustainable use of forest resources.
- Strengthening land tenure status and forest governance improves legal certainty and facilitates the resolution of land disputes. This is essential for the effective and sustainable implementation of conservation practices.

- Monitoring biodiversity and forest cover losses allows the effectiveness of conservation strategies to be assessed. This helps to adjust practices and respond quickly to environmental threats.
 - The ranger crew ensures effective protection of the forests, preventing fires and other threats. This contributes to the conservation of biodiversity and ecosystem services.
 - Identifying and prioritizing communities' needs in social investment ensures that development initiatives are relevant and effective. This supports the holistic development of communities, complementing conservation objectives with social and economic benefits.
- d. It proposes areas with restoration processes in areas of special environmental importance.

This project began in the midst of restoration processes that were being carried out in degraded areas of the project area. In addition to this, the activities include continuing with the restoration and reforestation of degraded areas determined by the community. Restoration contributes to preserving critical habitats and promotes the recovery of threatened species, thereby strengthening the overall health of the ecosystem.

In addition to this, the restoration of degraded areas increases the carbon sequestration capacity of soil and plant biomass. This is crucial for climate change mitigation, as restored forests act as carbon sinks, helping to reduce atmospheric concentrations of greenhouse gases. By restoring these areas, the ability of ecosystems to adapt and recover from natural disturbances is enhanced, thereby protecting communities that depend on these resources.

In the same way, the restoration of areas of special environmental importance contributes to the fulfillment of several SDGs, including SDG 15 (Life on Land), by promoting the sustainable management of forests and the fight against desertification, and SDG 13 (Climate Action), by helping to combat climate change.

Restoring areas of environmental importance can also lead to significant socio-economic benefits for local communities, such as job creation and improved food security through sustainable natural resource management.

- e. It designs and executes adaptation strategies based on an ecosystem approach.

REDD+ projects protect forests and their biodiversity, preserving essential services such as water cycle regulation, air purification, and pollination. These services are crucial for the resilience of local communities to climate change.

Integrating agroforestry practices into this project improves soil productivity and reduces pressure on forests, increasing biodiversity and helping to regulate the microclimate, mitigating the effects of climate change and improving agricultural resilience.

Restoring degraded areas increases carbon sequestration capacity and improves ecological functions. This includes reforestation and the indirect creation of biological corridors, strengthening the climate resilience of the affected areas.

This project involves local communities in the design and implementation of conservation strategies for their territories. In addition, they offer training to improve forest and agricultural management practices, increasing community resilience to climate change.

- f. It strengthens the local capacities of institutions and/or communities to make informed decisions that allow them to anticipate negative effects derived from climate change (recognition of conditions of vulnerability); as well as taking advantage of opportunities derived from the planned or evidenced changes.

The project aims to strengthen capacities to make informed decisions and adapt to the effects of climate change. Therefore, through workshops and trainings, communities improve their understanding of how climate change affects their environment, allowing them to identify areas of risk and plan adaptation strategies.

Education and training are provided to local communities on topics such as forest management, agroforestry, and sustainable agricultural practices. These activities equip the community with the necessary tools to manage natural resources in a sustainable and resilient way.

In addition to this, capacities are also strengthened through technical training and improved forest governance, which, together with the active participation of communities in decision-making, ensures that the strategies and knowledge adopted are culturally appropriate and sustainable, empowering communities and providing a greater voice in the management of their resources.

7 Risk management

The identification and assessment of risks were carried out based on the BCR Tool "BCR project holder take actions to ensure the Project benefits are maintained over time," version 1.1, dated March 19, 2024, for the environmental, financial, and social dimensions (See Annex AD). Table 30, presents the assessment of the identified risks, considering their probability and impact.

Table 30. Criteria for risk assessment

Risk rating	level	Associated risk level for reversal of removed emissions	Low	Medium	High
Impact level	1 to 10		The risk generates low impacts if it occurs and aligns with the project's resilience capacity for mitigating the impact. It causes minimal consequences to carbon reserves if it occurs.	Consequences are moderate for carbon reserves, are easily managed, and mitigated in the medium term.	Associated with the degree of impact on forest cover and, consequently, the reversal of accumulated carbon. The highest impacts result in partial or total loss of forest cover, with slow and costly recovery, causing catastrophic ecosystem damage.
Probability	1 to 3		There is a null or remote probability of the risk occurring. Its	There is a 50/50 chance of occurrence; it may or may not occur	High probability of occurrence or certainty that this risk will occur at

		low occurrence is supported by specific regional conditions (floods, landslides, etc.).	during project implementation. Probability is reduced by implementing actions that mitigate risk (training, proper forest management, financial capacity, and funding management, etc.).	some point during the project's lifetime. Many of these risks are uncontrollable, such as natural fires, floods, landslides, or changes in political conditions in long-term projects.
% of accumulated carbon		When it affects less than 5% of the project's accumulated carbon.	When it affects between 5-10% of the project's accumulated carbon.	When it affects more than 10% of the project's accumulated carbon.

The probability of facing environmental risks was estimated using official information from IDEAM, UNGRD, and the Colombian Geological Service, along with deforestation analyses and observations generated during the workshops. For financial risks, detailed information on the project's cash flow, market trends, and previous experience in implementing similar projects was analyzed. The probability of facing social risks was evaluated by considering the history and current situation of indigenous communities, based on observations during the workshops and documented interactions in the records. The impact was calculated considering how the materialization of a risk could affect the project's execution in relation to carbon reserves and the sustainability of the expected results. Table 31 shows the identified risks for the project and their classification.

Table 31. Risk analysis

No.	Risk type	Risk	Indicator	Impact	Probability	Risk level (%)	Risk classification	Observations
1	ENVIRONMENTAL	Fire	Number of reported fire events	2	1	2	Low	Low risk due to low impact and low probability, as the ecosystem is very humid.
			Number of hectares affected by fires	2	1	2	Low	Low risk due to low impact and low probability, as the ecosystem is very humid.
Infrastructure		Number of hectares affected by mining	10	2	20	High	The impact rating indicates a significant effect on the environment and communities. The probability is low, but due to the high magnitude of the impact, effective mitigation measures are needed to avoid severe consequences.	
Flood		Affected areas (ha)	4	2	8	Medium	Medium risk with a moderate-low probability and moderate impact on affected areas, as the forest becomes flood-prone due to seasonality.	
4		Landslides	Affected areas (ha)	2	1	2	Low	Low risk as the impact is low and

								the probability is low due to geological and geomorphological conditions.
5		Pests and Diseases	Affected areas (ha)	4	1	4	Low	Given that the risk of pests and diseases is low due to a combination of moderate impact and low probability, a preventive monitoring approach is recommended. Despite the low probability, it is important not to neglect this risk to avoid increasing its potential impact.
6	FINANCIAL	Market	Change in carbon certificate price and demand for carbon certificates	8	1	8	Medium	Medium risk with low probability, but significant impact on project revenue. The carbon market should be closely monitored, and income diversification strategies should be implemented to reduce dependence on carbon certificates.
7		Credit	Number of pending payments	6	1	6	Medium	Medium risk with low probability, as payments from

								communities are planned; this level is assigned due to payments tied to future verifications that must occur to continue the project.
8		Liquidity	Cash flow	8	2	16	High	High risk due to the constant need for financing. It is essential to maintain strong financial management and diversify income sources to ensure operational continuity.
9		Operational	Lack of internal controls in operation	8	2	16	High	Identified as a high-risk, as internal controls within communities must be strengthened to have better control over financial operations.
10		Legal	Non-compliance with sales agreements	5	1	5	Medium	Medium risk, as non-compliance with sales contracts impacts the revenue entering the community and could delay processes related to the project.
11		Change	Exchange rate variation	4	1	4	Low	Low risk, as exchange rate is

								an external factor beyond the project's control, but since carbon certificate sales are priced internationally, it affects project revenue. Additionally, some project costs need to be paid in U.S. dollars.
12		Inflation	Increase in project-related costs	4	1	4	Low	Low risk, as inflation is an external factor beyond the community's control, but it directly affects the increase in project-related costs.
13		Operational	Mismanagement of resources	9	2	18	High	High risk, as mismanagement of project resources can cause conflicts within communities, and could prevent the project from being sustained.
14		Country risk	Regulatory changes, armed conflict	4	2	8	Medium	Medium risk due to moderate impact on the stability and operation of the project. Strategies must be adapted to respond to political and legal

								changes and maintain operational security.
15	SOCIAL	Conflict with local communities	Participation in decision-making	6	1	6	Medium	The medium impact and probability rating reflect a situation where the risk of conflict is significant if no preventive action is taken. Lack of participation in decision-making can generate feelings of exclusion and distrust, increasing the possibility of disruptions and opposition.
16		Economic dependence	Percentage of total income derived from carbon credit marketing	7	1	7	Medium	Significant dependence on revenue from carbon credit marketing makes the project vulnerable to fluctuations in the carbon market, which could affect economic stability. Dependence on a single income source increases vulnerability to changes in global markets and national

								regulatory policies, impacting the project's stability and local community.
17		Cultural change	Adoption of new practices	4	1	4	Low	The adoption of new cultural practices poses a low risk of occurrence and impact, indicating that it is less likely to significantly affect operations.
18		Land tenure	Issues with land tenure and leakage	2	2	4	Low	Land tenure issues present a low risk due to moderate impact and moderate probability. Despite the low risk, it is important to address this to ensure project stability and continuity. Effective land tenure management helps prevent potential conflicts and ensures the project progresses without significant interruptions.
19		Technical capacity	Lack of technical	5	2	10	Medium	Medium risk with moderate

			support for forestry, carbon, and administrative aspects					probability, but moderate impact on operational efficiency. Qualified and trained human resources must be ensured to maximize forest and carbon management in the project.
20		Project duration	Participation in the 40-year lifespan of the project and its renewals.	6	2	12	High	High risk due to the need for long-term commitment. Continuous support from key stakeholders must be maintained, and timely renewals of commitments are essential for the long-term sustainability of the project.

In Table 32, the mitigation measures defined to address the risks identified and classified as Medium and High are presented:

Table 32. Mitigation actions

No	Risk type	Risk	Indicator	Mitigation actions
.				1. Implement ecological restoration programs in affected areas. 2. Establish a continuous monitoring

2	ENVIRONMENTAL	Infrastructure	Number of hectares affected by mining	system to detect illegal mining activities (carried out by rangers). 3. Train communities in sustainable practices and environmental conservation. 4. Promote alternative sustainable economic activities.
3		Flooding	Affected areas (ha)	1. Restore and maintain natural ecosystems that act as buffers against flooding.
6	FINANCIAL	Market	Carbon certificate price change and demand for carbon certificates	1. Diversify the project's income sources beyond carbon certificates, e.g., sustainable forest products, non-timber forest products, eco-tourism, etc. 2. Establish long-term contracts with carbon buyers to mitigate market volatility. 3. Closely monitor market prices and adjust marketing strategies accordingly.
7		Credit	Number of pending payments	1. Identify associated contracts. 2. Project payment projections for community contracts. 3. Identify primary needs of the project.
8		Liquidity	Cash flow	1. Establish emergency financial reserves. 2. Form strategic partnerships with financial organizations and donors to ensure stable income streams. 3. Perform regular financial analysis to adjust budgets and activities as needed.
9		Operational	Lack of internal controls in the operation	1. Establish internal control tools in the community's daily operations. 2. Conduct verification sessions by the community. 3. Conduct periodic financial audits.
10		Legal	Breach of sales agreements	1. Project verifications plan. 2. Sign contracts once verifications are complete. 3. Set schedules for certificate delivery.

13		Operational	Mismanagement of resources	1. Create process and procedure manuals. 2. Implement processes and procedures. 3. Conduct financial evaluations or audits.
14		Country risk	Regulatory changes, armed conflict	1. Stay informed and quickly adapt to regulatory changes and conflict situations by continuously monitoring the political and social environment.
15	SOCIAL	Conflict with local communities	Participation in decision-making	1. Involve community leaders in the design and implementation of the project. 2. Offer education and training on project benefits. 3. Adjust or build and apply governance instruments. 4. Create mechanisms and channels for ongoing and effective communication so that local communities can express their concerns and receive regular feedback on the project. 5. Establish agreements outlining how communities will benefit from the project and ensure that these agreements are transparent and fair. 6. Ensure that all groups identified in the stakeholder mapping (women, youth, knowledge holders, etc.) have the opportunity to participate and be heard in decisions related to the project. 7. Design activities aligned with cultural practices and local priorities. 8. Establish mechanisms for conflict resolution or disagreements that may arise during project implementation. 9. Identify and periodically monitor risks that may affect local

				community and stakeholder participation during project implementation. 10. Ensure that communities understand and are aware of the project's benefit distribution scheme and that benefits are realized in the short, medium, and long term.
16		Economic dependence	Percentage of total income derived from carbon credit marketing	1. Diversify income sources. 2. Create a contingency fund to manage market volatility. 3. Implement long-term investment strategies in less volatile sectors. 4. Foster alliances and collaborations to stabilize income.
19		Technical capacity	Lack of technical support for forestry, carbon, and administrative needs	1. Continuously train and strengthen the existing technical team through training and professional development programs. 2. Establish partnerships with academic institutions and specialized organizations to access additional technical knowledge and skills as needed. 3. Maintain up-to-date equipment and technologies to improve operational efficiency and precision in forestry and carbon operations. 4. Develop a technical replacement or succession plan to identify and prepare potential replacements within the technical team, ensuring continuity and stability in the project's technical capacity.
20		Project duration	Participation in the 40-year project lifespan and its renewals	1. Establish long-term commitments with all key stakeholders and ensure renewable agreements to support the project's continuity. 2. Develop an adaptive management plan that

				allows for adjustments to the project's strategies and activities over time. 3. Develop a contingency plan to address potential interruptions in support or funding, ensuring alternatives for the project's continuation in case of unforeseen events.
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7.1 Reversal Risk

The community of the Cabildo Mayor Indígena de Vigía del Fuerte is committed to implementing the REDD+ project and intends to maintain the necessary actions to ensure the protection of their territory and culture. However, to mitigate the risks of project reversal and meet the requirements of the BCR tool "*BCR project holder takes actions to ensure the Project benefits are maintained over time*", version 1.1 of March 19, 2024, a 20% deduction from the total quantified GHG reductions is applied for each verification period (this deduction is automatically performed by the registration platform) since this project belongs to the AFOLU sector. This measure ensures that CCVs are available to compensate for any emissions that might arise in the event of risk materialization.

Of the 20% deduction from the total GHG reductions, 10% is allocated to a specific reserve account for this project. The remaining 10% from the deduction generated during the verification process is placed in a General Reserve Account of the BCR. At the end of the quantification period, when the final verification process is completed, any remaining reserve funds in the project-specific reserve will be transferred to the General Reserve Account of the BCR. In this account, the CCVs are maintained to address any potential future reversals. CCVs placed in the project reserve account may be released and made available on the market in a subsequent verification, provided the project remains under the BCR Standard and active in the BioCarbon Registry.

7.1.1 Loss Event Report

If an event occurs that results in the loss or reduction of the CCVs issued and registered on the registry platform, the project holder must notify and submit a report to BioCarbon within no more than one year from the date of the event. Once BioCarbon receives the report and verifies the accuracy and timeliness of the information, it will, if applicable, withdraw the corresponding amount from the Reserve Account in the registry system and issue a withdrawal statement, which will be sent to the project holder.

8 Sustainable development safeguards (SDSs)

For the development of this section, the BCR tool "Sustainable Development Safeguards – SDSs Tool, Version 1.1, July 2024", **See Annex AE, was used**. This tool comes from the previous version "No Net Harm – Environmental and Social Safeguards (NNH)" and has the following purposes:

- (a) Effectively determine the environmental and socio-economic risks and possible negative impacts arising from the activities of the Project/initiative. Compliance with these safeguarding requirements will help prevent and/or mitigate risks arising from any intervention during GHG mitigation or biodiversity conservation activities;
- (b) Provide the framework for project/initiative holders to analyse the potential negative effects on biodiversity and ecosystems, as well as the significant adverse socio-economic impacts of their activities;
- (c) Specify the requirements that the Project/Initiative holder must identify, assess, and address to demonstrate compliance with the safeguards of the Sustainable Development Frameworks, described in this tool;

Provide the criteria that the Conformity Assessment Body (CB) or the Certification Body (CB) must apply to assess whether the analyses described in points (b) and (c) are adequate to meet the requirements of this tool and, consequently, of the BCR Standard and the Biodiversity Standard (BBS).

This project promotes the achievement of the Sustainable Development Goals (SDGs) by promoting sustainable alternative activities for the social and economic development of local communities. In addition, it strengthens the environmental management of the territory, promoting actions for monitoring and conservation of natural resources and promoting adaptation and mitigation actions in the face of climate change. The project's

contributions to the Sustainable Development Goals can be found in detail in the SDG tool of the BCR 0002 methodology (**Annex U**).

The tool made it possible to identify and assess the possible risks and potential negative impacts related to the project's activities on the environment, biodiversity and ecosystems, as well as on the socio-economic context of the communities, governance and compliance with laws and regulations. Similarly, mitigation and/or prevention strategies to avoid, minimize or compensate for these risks are described. In this specific case, no potential risks or negative impacts of the activities on the aforementioned components were identified; however, due to the requirement of the tool, the absence of risks is justified.

9 Stakeholder engagement and consultation

9.1 Summary of comments received

This section addresses the stakeholder identification and consultation process carried out to ensure that the proposing communities of the project are heard and considered in the development of the project. The identification of stakeholders for the development of this project began prior to the restoration activities and is completed with the participatory mapping exercise of actors and stakeholders during the design of the REDD+ project.

The consultation process with the communities involved was carried out in a participatory manner, using examples in accordance with the communities and their territorial context. Information meetings were held in the Resguardos and workshops to present and discuss everything related to the REDD+ project and restoration activities. During the workshops, different strategies have been implemented such as presentations on basic REDD+ topics, social mapping exercises, timeline exercises and participatory exercises for the identification of actors and the identification of project activities. It is worth mentioning that all these spaces had a translator from the community, this in order to achieve the understanding of the attendees. Likewise, a process of prior, free and informed consent was carried out with the participating communities.

9.1.1 First approaches and restoration activities

The first conversations arose between Nativa Forest and indigenous leaders from the four Resguardos who, on several occasions, sought advice and support for project management. Thus, contact was established with the Fondo Acción, initiating the process. The first action consisted of an informative meeting between Nativa partners and a representative of the Fondo Acción, during which the REDD+ project was discussed and it was agreed

that Nativa would be responsible for presenting the idea to indigenous leaders and authorities as the first step at the local level.

In the Table 33 The spaces developed in the first approaches with the communities are summarized.

Table 33. Spaces First approaches with the communities

Date	Themes approach	# people in participation spaces	Support
	Briefing between the partners of Nativa and Fondo Acción, during which the REDD+ project was discussed and it was agreed that Nativa would be responsible for presenting the idea to indigenous leaders and authorities as the first step at the local level		(Annex O).
	Socialization tour of the REDD+ project and restoration plan to communities and Nativa Forest work proposal with the approval of the authorities.		Annex I.
	Selection of communities to initiate Phase 1_Actividades of restoration Restoration plan for degraded areas through enrichment with native species of ecological and economic interest: Guaguandó and Jarapetó		Annex V
16/11/2022	Socialization of the Plan for the Restoration of Degraded Areas through Enrichment with Native Species of Ecological and Economic Interest in the Indigenous		Annex W.

	Territories of Vigía del Fuerte" for the Indigenous Resguardo of Guaguandó		
12/09/2022	Socialization of the restoration plan for degraded areas through enrichment with native species of ecological and economic interest in the Resguardo Río Jarapetó	44	Annex P
06/10/2022	Meeting with the Resguardo Río Jarapetó to agree on activities and working conditions for the preparation and planting of forest species.		
18/11/2022	Signing of an exclusivity and structuring agreement for the REDD+ project between Fondo Acción and the local councils of El Salado, Guaguandó, Jengadó and Río Jarapetó.		Annex Q
03/03/2023	Free and informed consent to formally start construction of the REDD+ project in the indigenous territories of the municipality of Vigía del Fuerte	32	Annex Y

9.1.2 Stakeholder Identification Workshop

Organized by Nativa Forest in the municipal seat of Vigía del Fuerte on April 7, 2024. 22 male and 4 female leaders representing the seven (7) communities attached to the four (4) Resguardos participated, for more information see **Annex Z**.

Table 34. Stakeholder Identification Summary

Stakeholder	Description	Relevance within the project
Ancestral knowers	Cultural and spiritual guides of the communities. There are currently 9 crabs in total. They can provide support in the decision-making of the REDD+ project.	Decision makers Project design
Women	Women from the community who carry out activities of agriculture, crafts, dance, face and body painting. Group that needs to be informed and motivated about REDD+ activities.	Beneficiaries
Farmers	Men and women dedicated to the cultivation of food for subsistence.	Decision makers Project design Beneficiaries
Students	Children and young people who attend schools. Group that needs to be informed and motivated about REDD+ activities. Some young people also cut wood. Group that needs to be informed and motivated about REDD+ activities.	Beneficiaries
Teachers	Embera educators graduated from the Embera Indigenous Educational Institution. There are currently 17 teachers in the communities. They can get involved in educational tasks and dissemination of the REDD+ project to children and adolescents.	Alliance for the dissemination of the project in educational institutions

Cutters	<p>People from the community dedicated to cutting and selling wood. These people do not pay taxes to the community and the profits are individual. The development of its activity has become unprofitable due to the scarcity of commercially valuable species and high production costs.</p> <p>A group that needs to be informed and motivated about REDD+ activities and could participate in the role of ranger.</p>	<p>Beneficiaries</p> <p>Project design</p>
Indigenous Guard	<p>Traditional authorities dedicated to the control and surveillance of the territory. There are currently 47 guards in total.</p>	<p>Decision-making</p> <p>Beneficiaries</p>
Cabildo Mayor	<p>The Chief Governor represents the communities, makes decisions and makes commitments in relation to the REDD+ project.</p>	<p>Decision makers</p> <p>Project design</p> <p>Beneficiaries</p>
Local councils	<p>Local leaders in charge of the administration of the territories. Provide support in the decisions of the REDD+ project and make commitments in relation to the design and implementation of REDD+ activities</p>	<p>Decision makers</p> <p>Project design</p> <p>Beneficiaries</p>
Communities	<p>Group of people who live in the communities. Through the assembly, they represent the highest decision-making body on issues related to the REDD+ project.</p>	<p>Decision makers</p> <p>Project design</p> <p>Beneficiaries</p>
Indigenous people from the communities	<p>People from the communities that reside in the municipal seat of Vigía del Fuerte and who could eventually return to the</p>	<p>Project Design</p> <p>Beneficiaries</p>

that live in the municipal capital	Resguardos. They hope to participate in and be beneficiaries of REDD+ activities	
Indigenous Organization of Antioquia (OIA)	Regional social organization that represents the interests and rights of the indigenous communities of the department of Antioquia. It can accompany the process of implementing REDD+ activities and be an ally in strengthening capacities and advising leaders.	Political representation, advice to leaders and promotion of REDD+ projects led by indigenous communities Capacity building
National Indigenous Organization of Colombia (ONIC)	Organization that represents the rights of indigenous peoples at the national level. It works to promote public policies that benefit indigenous communities in the defense of their ancestral territories against threats such as the exploitation of natural resources and armed conflict. It could be an ally in strengthening capacities and advising leaders.	Political representation, advice to leaders and promotion of REDD+ projects led by indigenous communities Capacity building
COCOMACIA	Ethnic-territorial organization of afrocolombian communities in Chocó and Antioquia. It is made up of 124 community councils of afro communities. Neighbors adjacent to indigenous communities of Vigía del Fuerte. They are also currently developing REDD+ initiatives, so that conservation initiatives can be scaled up in the region.	Forest Conservation Partnerships
Corpourabá	Entity in charge of the environmental management, protection, conservation and sustainable use of natural resources and the environment in the Urabá region. Ally in the visibility of the project and in the	Regional Environmental Regulations

	control, surveillance and monitoring of the forest.	
Codechocó	Entity in charge of environmental management, protection, conservation and sustainable use of natural resources and the environment in the department of Chocó, adjacent to the indigenous communities of Vigía del Fuerte. Ally in the control and surveillance of the output of wood.	Regional Environmental Regulations
Mayor's Office of Vigía del Fuerte	Municipal authority. It could be an ally in resource management and replicate the improvement of communities' livelihoods resulting from the implementation of REDD+ activities	Support for the dissemination of projects with a positive impact on forest conservation and sustainable development
Government of Antioquia	Departmental authority. It could be an ally in resource management and replicate the improvement of communities' livelihoods resulting from the implementation of REDD+ activities	Support for the dissemination of projects with a positive impact on forest conservation and sustainable development
Ministry of the Interior	It defines the framework of public policies to guarantee the participation and rights of ethnic peoples in the country.	Regulation for the participation and protection of ethnic peoples
Ministry of Agriculture and Rural	Entity in charge of formulating, coordinating and executing policies, plans, programs and projects related to the	Alliance for the management of productive projects

Development (MADR)	development of the country's agricultural and rural sector.	
Ministry of Environment and Sustainable Development (MADS)	It defines the public policy framework for the implementation of REDD+ initiatives in Colombia.	Regulation of REDD+ initiatives
Territorial Renewal Agency (ART)	Entity in charge of <u>leading</u> and <u>coordinating</u> the processes of <u>renewal</u> , <u>development</u> and <u>transformation</u> of the areas affected by the <u>armed conflict</u> in the country. It can be an <u>ally</u> in the management of resources for productive activities.	Alliance for the management and co-financing of productive projects
House of the Woman Watcher of the Fort	Dependence on the departmental administration. Accompaniment to the strengthening and empowerment of organizations, associations and groups of women. It can be an ally in strengthening the capacities of women in the communities.	Women's Capacity Building Alliance
Religious leaders of Lookout of the Fort	Parishes and religious organizations (Catholic and Christian) of Vigía del Fuerte dedicated to the defense of human rights and capacity building. They provide permanent support to communities and can serve as allies in capacity building.	Capacity Building Partnership

Coagrovigía	Association of farmers of Vigía del Fuerte. They can be allies in leveraging productive activities.	Alliances in the development of productive initiatives
National Learning Service (SENA)	An entity of the Ministry of Labor, whose objective is to train people to create job skills. It can be an ally to strengthen the capacities of communities in different REDD+ activities.	Alliance for the development of technical capacities for communities
Nativa Forest	Company dedicated to the implementation of social development initiatives of communities based on the sustainable management of natural resources. Partners in the design and implementation of the project.	Partnership for the implementation of project activities
Planet	Subregional business initiative dedicated to promoting the sustainable use of non-timber resources of the forest, emphasizing the murrapo or Naidí palm, for the production of canned palm hearts and frozen pulp.	Business Partners
University of Antioquia	Higher education and research institution. Specifically, the bachelor's degree in Mother Earth pedagogies seeks to train professionals in the field of education with a deep understanding of the interconnection between humans and the Earth, as well as the ways in which education can contribute to the preservation and care of the environment. It can be an ally in strengthening capacities for the communities benefiting from the project.	Capacity Building Partnership

<p>Wood</p>	<p>Among the loggers, groups of cutters who operate within the Resguardos stand out, although they are not indigenous. These groups, usually intermediaries or employees of intermediaries, have the consent of the communities to carry out the cutting and extraction of certain species of wood. To do this, they negotiate with the indigenous authorities the amount of wood to be extracted, paying a specific value per unit.</p> <p>These cutters usually invest in the adaptation of roads (entables) for the extraction of wood by mules and, in general, do not employ local labor. However, they compensate the community for the amount of blocks mined, paying according to specific measures. It is important to note that the resources collected are destined exclusively to the collective benefit of the community, unlike the indigenous cutters, who are owners of what they produce and sell individually.</p> <p>Its work could be affected by the implementation of the REDD+ project.</p>	
<p>Pacific Environmental Research Institute</p>	<p>Institute that is dedicated to scientific research, environmental conservation and sustainable development in the Colombian Pacific region. In Vigía, the IIAP has not carried out any research, however, it is competing to be the operator of the resources of the Atrato River sentence, which could lead to possible alliances with the REDD+ project.</p>	<p>Contribution of specialized knowledge and technical capabilities</p>

<p>French Development Agency (AFD)</p>	<p>Cooperation agency whose main objective is to finance and support projects that contribute to economic, social and environmental development in developing countries. They are currently carrying out a forest harvesting project on the border of San Miguel and Jarapetó and in Arenal, Antioquia and San José de la Calle, Chocó, in COCOMACIA territory. They could be allies for the management of forest exploitation projects and/or productive activities.</p>	<p>Alliance for the management of forest harvesting projects and/or productive activities</p>
<p>World Wide Fund for Nature (WWF)</p>	<p>International non-governmental organization working for the conservation and protection of the environment and the promotion of sustainable practices in agriculture, fisheries and forestry. So far, no projects have been carried out in collaboration with the Cabildo, however, it is in the territory working together with COCOMACIA to act as the resource operator of the Atrato River ruling, which could lead to alliances with the REDD+ project.</p>	<p>Alliance for the management of productive projects</p>

9.1.3 *Field days to survey the social baseline*

During the field days, a total of 207 surveys were applied, achieving 100% coverage of the families present in the communities (Annex L). This survey served as an input for the characterization of the indigenous population. The instrument consisted of 19 questions, both open and closed, organized into six thematic components aligned with the research objectives: sociodemographic, socio-family, socioeconomic, organizational, land use and challenges. The analysis of the information collected was enriched with the data obtained during the elaboration of the social cartography, the identification of key actors for the

project, the construction of the baseline and the identification of drivers and agents of deforestation.

The fieldwork and subsequent analysis identified four key areas of intervention:

1. Housing
2. Drinking water supply and health care
3. Food safety
4. Effective participation of women

Based on the social baseline and the analysis of the information, the project seeks to articulate efforts with other cooperation actors and institutions, establishing strategic alliances to obtain financial, technical and operational support to achieve the project's objectives. The objective is to collaborate closely with the indigenous Resguardos to strengthen the socioeconomic conditions of the communities, promoting sustainable and responsible management of the forest.

9.1.4 Expert consultation meeting

This meeting was held on April 4, 2024 with the experts of Nativa Forest and a preliminary identification of actors in the territory was made (**See Annex Z**).

As a result of the aforementioned moments, a list of interested parties was obtained, which were classified as actors and interested parties (**See Annex AA**). The actors are members of the communities, the local councils and the Cabildo Mayor, who through the informative meetings have full knowledge about the rights of the project and play a fundamental role in the development of the REDD+ project. On the other hand, stakeholders include those actors who are indirectly related, with specific interests and expectations according to the nature of their functions and competencies. These external stakeholders are represented by neighboring communities and government entities (national, regional or local), associations, international cooperation, academia, companies and non-governmental organizations with whom alliances could eventually be generated or specific actions of the project could be articulated. This last point is discussed in depth in the following sections: "Consultation with neighbours" and "Consultation with institutions".

This process was carried out on March 3, 2023 in the municipal seat of Vigía del Fuerte. At this meeting, the act of prior, free and informed consent was approved to formally begin the construction of the REDD+ project in the indigenous territories of the municipality of Vigía del Fuerte (**Annex Y**).

During this space, the representative of the Fondo Acción explained in detail to the governor of the Cabildo Mayor Indígena de Vigía del Fuerte, the four (4) representatives of the indigenous Resguardos, and the 28 participants belonging to the different Resguardos, the restoration activities carried out since 2022 in the communities of Guaguandó and Jarapetó and their main results. Likewise, the objectives of the project were explained again and the attendees expressed their concerns.

Below, all the informative workshops held in the municipal seat of Vigía del Fuerte and in each of the communities are summarized, as well as the topics addressed and descriptions of participants (Table 35); In this way, the full and effective participation of the communities in decisions that may affect their rights, lands, territories, resources and livelihoods was guaranteed. All the material presented in the workshops was shared via email with both Nativa Forest and the governor of the Cabildo Mayor. Likewise, printed copies of the presentations were made, which were delivered to the governors of the local councils (**Annex AF**).

Table 35. Summary of workshops developed

Workshop and date	Topics addressed	Number of participants
<p>Workshop 1. November 28 and 29, 2023</p> <p>Municipal seat of Vigía del Fuerte, Antioquia</p>	<p>Basic aspects and fundamental concepts of REDD+ projects and resolution of doubts about the operation of the projects. Specifically, the following topics were addressed: Climate, climate change, carbon, role of forests.</p> <p>Presentation of agreement no. 492 of 2022 and progress to date</p>	<p>17 men</p> <p>3 women</p>
<p>Workshop 2. April 5, 6 and 7, 2024</p>	<ul style="list-style-type: none"> • Basic aspects and fundamental concepts of REDD+ projects and resolution of doubts about the operation of the projects. 	<p>11 men</p> <p>4 women</p>

<p>Municipal seat of Vigía del Fuerte, Antioquia</p>	<ul style="list-style-type: none"> • Presentation of the standard • Validation and verification process • Social and environmental safeguards • Stakeholder and stakeholder identification exercise <p>Annex AG</p>	
<p>Workshop 3. May 23 & 24, 2024</p> <p>Municipal seat of Vigía del Fuerte, Antioquia</p>	<ul style="list-style-type: none"> • Basic aspects and fundamental concepts of REDD+ projects and resolution of doubts about the operation of the projects. • Land use scenario without projects. • Drivers and drivers of deforestation • Validation of causal chains • Definition of mitigation activities/actions <p>Annex A</p>	<p>29 men</p> <p>6 women</p>

<p>Workshop 4.</p> <p>September 10-15, 2024 in each of the seven communities</p>	<ul style="list-style-type: none"> • Foundations of a REDD+ project • General information about the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project • Progress of the project • Activity plan • Communication channels • Information on document access and project summary • Submission of open call for REDD+ jobs • Space for doubts and consultations with the community <p>Annex AH</p>	<p>Guaguandó: 19 men 24 women</p> <p>El Salado: 20 men 30 women</p> <p>Partadó Loma: 6 men 3 women</p> <p>Paracucundó: 12 men 12 women</p> <p>Partadó: 12 men 13 women</p> <p>Jengadó: 19 men 17 women</p> <p>Jarapetó: 26 men 29 women</p>
<p>Workshop 5.</p> <p>October 30, 2024</p> <p>Municipal seat of Vigía del Fuerte, Antioquia</p>	<ul style="list-style-type: none"> • Review of the basics of a REDD+ project • Theoretical basis of a benefit-sharing mechanism of a REDD+ project (beneficiaries and types of benefits, • Practical exercise in benefit-sharing and definition of a route for the validation of the project's Benefit-sharing Mechanism. <p>Annex AI.</p>	<p>30 Men</p> <p>1 Woman</p>

Inside the Resguardos, the Nativa Forest technical team carried out the following information collection workshops (**Appendix M**) (Table 36).

Table 36. Information collection workshops

Resguardo/ Community	Date	Activity or topic addressed	Number of participants
El Salado	17/11/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	18 men 15 women
	13- 15/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases • Social mapping • Timeline 	21 men 18 women
Paracucundó	21/11/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	15 men 20 women
	21- 23/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases • Social mapping • Timeline 	10 men 7 women
Jarapetó	25/11/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	18 men 6 women
	13- 14/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases • Social mapping 	18 men 22 women

		<ul style="list-style-type: none"> • Timeline 	
Partadó Loma	29/11/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	5 men 9 women
	18/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases 	4 men 4 women
Partadó	01/12/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	8 men 4 women
	19/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases • Social mapping • Timeline 	11 men 20 women
Jengadó	04/12/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	21 men 24 women
	15-17/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases • Social mapping • Timeline 	13 men 15 women

Guaguandó	11/12/2023	<ul style="list-style-type: none"> • Social mapping • Construction of the agricultural calendar • Survey completion 	10 men 13 women
	25-27/04/2024	<ul style="list-style-type: none"> • Socialization of REDD+ bases • Social mapping • Timeline 	11 men 8 women

9.2 Consideration of comments received

The project has engaged in discussions with the Cabildo Mayor of the Integral Peasant Association of Atrato (COCOMACIA) as a neighbouring organisation, and with its implementing partner TerraGlobal Capital, with the aim of presenting the objectives and scope of the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project (**AP Appendix**) see Table 37. This process of information and consultation reflects the commitment to involve neighboring communities in decisions related to their territory and resources, promoting a respectful and constructive dialogue that promotes the conservation of forests, biodiversity and the improvement of the quality of life of the communities.

Table 37. Consultation with neighbors

Institution/organization	Date of call and consultation	Remarks
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<p>Cabildo Mayor of the Integral Peasant Association of the Atrato - COCOMACIA</p>	<p>Letter of presentation and consultation sent on October 8, 2024 and resent on November 14, 2024.</p>	<p>An official letter was filed requesting a space for the socialization and consultation of the project.</p> <p>Virtual meeting on November 21, 2024 with TerraGlobal Capital and members of the REDD+ COCOMACIA project.</p>
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9.3 Consultation with institutions and organizations

From the spaces mentioned in the first part of this chapter, a series of institutions and organizations with a relevant presence and impact in the project area were identified, and with whom, eventually, alliances could be generated or specific actions articulated. Of the entities identified, the following institutions have been consulted, **See Annex AL** and Table 38:

Table 38. Consultation with institutions and organizations

Institution/organization	Date of call and consultation	Remarks
<p>Corpouabá Regional Atrato Medio</p>	<p>Call sent on September 6, 2014. Meeting for presentation and consultation: September 16, 2024</p>	<p>Face-to-face meeting with the Regional Coordinator Atrato Medio for presentation and consultation of the project.</p>

<p>Corpourabá General Management</p>	<p>Official letter of presentation and consultation filed on September 16, 2024.</p>	<p>An official letter was filed requesting a space for the socialization and consultation of the project.</p>
<p>Mayor's Office of Vigía del Fuerte</p>	<p>Official letter of presentation and consultation filed on September 16, 2024.</p>	<p>An official letter was filed requesting a space for the socialization and consultation of the project.</p>
<p>Government of Antioquia Directorate of Natural Resources Secretariat of Environment and Sustainability</p>	<p>Presentation and consultation letter filed on October 8, 2024.</p> <p>Presentation and consultation letter filed on October 8, 2024.</p>	<p>Virtual presentation meeting on October 16, 2024 at 09:00 am with the participation of two (2) officials from the Ministry of Environment and Sustainability of the Government of Antioquia.</p>
<p>Indigenous Organization of Antioquia (OIA)</p>	<p>Filing and consultation letter sent on October 10, 2024</p>	<p>Face-to-face meeting on 18 October 2024 at the IOA headquarters in Medellín. The OIA Counselor and the Administrative Coordinator participated.</p>

9.4 Summary of comments received

As mentioned in the previous section, as part of the consultation process, a number of participatory workshops were held with the active participation of leaders and members of the community at large. These spaces allowed us to collect doubts, comments, and key suggestions for the construction and improvement of the project. The focus of these workshops was inclusive and open, ensuring that all voices were heard and taken into account. A complete list of the comments and questions received is presented in Annex AJ, including the name of the person who filed them, as well as the date and event in which the comment was made, for greater transparency and traceability.

9.5 Considerations on comments received

In the previous section, all the doubts and comments raised by the communities and institutions consulted were addressed and resolved in a timely manner by the project's technical team. In Annex AK, there is a detailed table that relates each question or comment received with the corresponding response provided. In addition, the following means of contact have been provided for any questions, complaints, claims, suggestions or additional queries that may arise:



- The email of the project coordinator from Fondo Acción
pbenitez@fondoaccion.org;
- The e-mail address of the Fondo Acción for the reception of petitions, complaints and claims: pqr@fondoaccion.org
- The contact number and email of the Governor of the Cabildo:
robertomayor1973@gmail.com

These channels are available to ensure smooth and transparent communication with all stakeholders.



10 Sustainable Development Goals (SDGs)


The contribution of the activities designed for the project to the achievement of the SDGs is summarized below. Detailed information can be found in **Appendix AM**.

Table 39. Summary of the project's contributions to the Sustainable Development Goals

ODS	Associate d SDG targets	Project activity	Expected contribution
	SDG 1. No Poverty: Ending poverty in all its forms everywhere	A1. Design and prioritization of business plans for the implementation of productive income-generating alternatives.	Capacity building for product marketing and sustainable revenue management seeks to improve the economic situation of communities, thereby reducing poverty.
		A2. Implementation of designed and prioritized business plans	
		A.19 Identify and prioritize the needs of communities to optimize social investments.	
	SDG 2. Zero Hunger: Ending hunger, achieving food security and improved nutrition, and promoting	A1. Design and prioritization of business plans for the implementation of productive income-generating alternatives.	The implementation of sustainable agricultural practices contributes to increasing food production, ensuring food
		A2. Implementation of designed and prioritized business plans	

	sustainable agriculture		A3. Design and implementation of food safety alternatives.	security and fighting hunger.
	SDG 4. Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	4,1 4,5	A12. Capacity building on REDD+ issues A17. Capacity Building in REDD+ and Women's Leadership	Project management and sustainability training promotes learning and skills development, improving access to quality education.
	SDG 5. Gender Equality: Achieving Gender Equality and Empowering All Women and Girls	5,5	A16. Build gender guidelines as a route for action and advocacy in project activities A17. Capacity Building in REDD+ and Women's Leadership A18. Hire women in local REDD+ teams for the protection, care of the territory and monitoring compliance with the management plan and conservation agreements	It encourages women's participation in leadership and conservation, increasing their economic autonomy through forest monitoring activities and sustainable income generation.
	SDG 8. Decent work and economic growth: Promote sustained, inclusive and	8,3	A1. Design and prioritization of business plans for the implementation of productive income-generating alternatives.	Promoting product and diversification and

	<p>sustainable economic growth, full and productive employment and work.</p>	<p>8,4 8,5</p>	<p>A2. Implementation of designed and prioritized business plans</p> <p>A4. Implementation, monitoring and continuous improvement of productive income-generating alternatives.</p> <p>A18. Hire women in local REDD+ teams for the protection, care of the territory and monitoring compliance with the management plan and conservation agreements.</p>	<p>capacity building in marketing and finance generates opportunities for employment and sustainable economic growth.</p>
	<p>SDG 13. Climate Action: Take urgent action to combat climate change and its effects</p>	<p>13,1 13,2 13,3</p>	<p>A.9 Demarcation of forests and areas important for biodiversity conservation</p> <p>A.10 Conservation and non-logging agreements</p> <p>A.11 Form local REDD+ teams for the protection, care of the territory and follow-up on compliance with the management plan and conservation agreements</p> <p>A.15 Update the Life Plan taking into account REDD+ activities and community priorities</p>	<p>Risk identification, environmental conservation awareness, and practices to reduce the ecological footprint are essential to mitigate the impact of climate change.</p>

			A17. Capacity Building in REDD+ and Women's Leadership	
			A19. Identify and prioritize the needs of communities to optimize social investments.	
			A20. Monitoring of changes in forest to non-forest cover in project area and in leakage zones, to determine deforestation and degradation.	
	<p>Life on Land: Protecting, restoring and promoting the sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, halting and reversing land degradation and halting biodiversity loss</p>		A4. Implementation, monitoring and continuous improvement of productive income-generating alternatives	<p>The creation of natural resource management strategies and community monitoring practices ensure the conservation and sustainability of ecosystems.</p>
		15,1	A7. Construction or adjustment of the Environmental Management Plan	
		15,2	A8. Update of internal regulations considering the Sustainable Management Plan	
		15,3		
		15,5		
		15,7	A9. Demarcation of forests and areas important for biodiversity conservation	
15,9	A10. Conservation and non-logging agreements			

		<p>A11. Form local REDD+ teams for the protection, care of the territory and follow-up on compliance with the management plan and conservation agreements</p>	
		<p>A13. Design and implementation of governance instruments for better and effective management of the territory.</p>	
		<p>A19. Identify and prioritize the needs of communities to optimize social investments.</p>	
		<p>A20. Monitoring of changes in forest to non-forest cover in project area and in leakage zones, to determine deforestation and degradation.</p>	
		<p>A21. Design and Implementation of Strategies for the Protection and Restoration of Ecosystems</p>	
		<p>A22. Promote biodiversity monitoring as a strategy for the conservation of the territory, which allows the state of the ecosystem to be evaluated, to improve or conserve</p>	High

			Conservation Values, to identify threats and to design specific management actions.	
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11 REDD+ Safeguards (For REDD+ projects)

To prevent REDD+ projects like this from generating negative impacts, it is essential to implement measures that ensure their social and environmental sustainability. These measures include mechanisms for consultation, participation, and free, prior, and informed consent of local communities, as well as monitoring and evaluation systems to ensure compliance with the commitments made.

By adopting the Biocarbon Registry Tool, the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project has been able to effectively integrate Cancun safeguards and Colombian regulations. This comprehensive approach ensures that the project not only contributes to the reduction of emissions, but also promotes the well-being of local communities and the conservation of ecosystems. Then in the Table 40, a summary of the exercise carried out with the Biocarbon Registry tool is presented, for more details of the information, see **Annex AN**.

Table 40. Compliance with REDD+ safeguards

Guy	Cancun Safeguards	National safeguards	Description	Compliance Requirement	Compliance
Institutional	1. Consistent with national forest programmes and international agreements	to. Correspondence with national legislation	<p>The National REDD+ Strategy (EICDGB) and the programs and projects are developed within the framework of the National Forestry Development Plan, the international conventions and agreements signed by Colombia in the areas of: Forests, Biodiversity and Climate Change, as well as the national policies corresponding to these agreements.</p> <p>All proposed REDD+ Policies, Actions and Measures must be in accordance with:</p> <ul style="list-style-type: none"> • International agreements signed by Colombia • National legislation (the Constitution, laws and decrees...) • National policies, programmes and projects. 	<p><u>On complementarity:</u></p> <p>Demonstrate that national forest programs have been taken into account for the structuring and implementation of the Project and that the activities of the Project complement them.</p> <p><u>About Compatibility:</u></p> <p>Demonstrate that the Project's activities conform to these policies and do not oppose them.</p>	<p>Meets. The activities implemented in the development of this project will be fully aligned with the aims and objectives established in the forestry policy, both nationally and internationally, respecting the guidelines of Complementarity and Compatibility. These guidelines ensure that the actions undertaken not only respect the commitments made in terms of ecosystem protection, but also actively contribute to the promotion of sustainable practices that favor the resilience of natural and social systems to the adverse effects of climate change.</p> <p>As evidence of compliance with the principles of complementarity and compatibility of the project, an analysis document is presented that links various national and international policies, with a main focus on forest management (Annex</p>

				<p>Excel relationship of complementarity and compatibility).</p> <p>The preparation of this analysis requires continuous updating to incorporate new policies related to these issues, thus guaranteeing their validity and alignment with the most recent regulatory frameworks</p>
2. Transparency and effectiveness of forest governance structures	a. Transparency and access to information	Interested parties have transparent, accessible and timely information related to REDD+ actions on the platforms or media that are determined.	<p><u>Dissemination channels:</u></p> <p>Radio</p> <p>Video Calls</p> <p>Brochures, billboards, illustrative documents, guides, among others.</p> <p>Face-to-face workshops</p>	<p>Meets. To ensure the transparency, accessibility and timeliness of information related to the REDD+ project, several key initiatives will be implemented.</p> <p>Participatory workshops will be held with the seven communities, which will include translation to ensure everyone's understanding. These workshops will address essential project topics, and the corresponding documentation will be archived in physical and digital formats, available for review.</p>

			<p>Emails, websites.</p> <p>Through organizations, associations, or interest groups, such as community action boards.</p>	<p>In addition, communication pieces will be designed and distributed in each of the communities about the objectives and the cycle and cycle of the project. Climate change materials, such as infographics and videos, will also be developed.</p>
	b. Accountability	<p>Institutions and actors report on their REDD+ management to stakeholders, institutions and the general public, including information on the implementation and respect of safeguards.</p>		<p>As part of the project formulation, a meeting will be held between the directors of the Fondo Acción, the project coordination and representatives of the seven communities to present the revolving fund model, which will allow the communities to reintegrate the resources invested in the REDD+ project. As part of this agreement, a mutual agreement will be signed in which the Fondo Acción will commit to deliver quarterly reports on the investments made in the formulation, validation, implementation, monitoring, verification and issuance of carbon certificates for the project. After the first verification, a final list of</p>

				<p>accounts will be made that will be socialized with the community.</p> <p>Likewise, a benefit-sharing mechanism will be established, validated with the communities through a participatory workshop space, guaranteeing inclusive and transparent decisions that respect social and environmental safeguards. This mechanism will be crucial for accountability and ensure an equitable allocation of the benefits generated by the project, respecting community priorities.</p> <p>During implementation, community representatives and the project team are expected to submit reports and documents for proper accountability. This information will be shared in community assemblies using appropriate materials, ensuring understanding and monitoring of the development of the project.</p>
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				Finally, to improve communication and receive continuous feedback, the project will have a mechanism for petitions, complaints and claims (PQR).
	c. Recognition of forest governance structures	<p>REDD+ actions are developed in accordance with the existing forest governance structures provided for by the regulations and/or establishing the necessary ones among the actors involved in the process.</p> <p>In some cases where various actors are involved, the establishment of new arrangements or articulation mechanisms for decision-making may be required. These can be forestry tables, monitoring committees or enable spaces for dialogue</p>		<p>The communities have a community governance structure already defined, which responds to their ethnic particularities. This was described in section 3.3.1.2.2. With the implementation of governance activities, it is expected to strengthen forest governance through the adjustment/construction and implementation of instruments such as internal regulations, environmental management plan and life plan. These will be in accordance with the municipal and regional plans, and come precisely from the traditional ways of inhabiting the territory by the communities proposing the project.</p> <p>The project also contemplates within</p>

		within the framework of community action boards.		<p>its territorial governance component, the creation of articulation mechanisms for decision-making, when necessary, to ensure the inclusive participation of other stakeholders. This includes the creation of spaces for dialogue with neighbors and institutions. These mechanisms will allow for participatory and transparent management of forest resources, respecting and strengthening existing governance structures.</p> <p>The entire process of building or adjusting governance instruments, as well as agreements and decisions regarding territorial governance will be documented and shared with stakeholders to maintain transparency and foster accountability within the project.</p>
	d. Capacity building	The strengthening of the technical, legal and administrative governance capacities of the actors directly		During the restoration activities, communities will be trained in the planting, marking and management of forest species, strengthening practical

			<p>involved is guaranteed, so that the parties can make documented, analyzed and informed decisions.</p>	<p>skills, forest enrichment techniques and continuous care strategies.</p> <p>In the information and consultation workshops, training will be provided on REDD+ bases, covering topics such as climate change, the role of forests, the project cycle, validation and verification process, and social and environmental safeguards. These workshops will allow attendees to better understand the impacts of climate change and the REDD+ mechanism.</p> <p>In the implementation phase, capacities will be strengthened in territorial governance, sustainable production systems, monitoring, reporting and verification, and administration and management.</p>
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Social and cultural	<p>3. Respect for traditional knowledge and rights of communities</p>	<p>to. Free, prior and informed consent</p>	<p>When a measure or action directly affects or may directly affect one or more ethnic groups, the national provisions on consultation and free, prior and informed consent established in legislation and jurisprudence must be applied, as well as by the guidelines given by the Ministry of the Interior as the competent entity in this area with the accompaniment of the control bodies.</p>	<p>The Project Owner shall recognize and respect the rights of the communities present in the territory under the applicable minimum standard of law and international declarations on the rights of indigenous peoples.</p>	<p>Deliver. This process was carried out on March 3, 2023 in the municipal capital of Vigía del Fuerte, through a meeting in which the act of prior, free and informed consent was approved to formally start the construction of the REDD+ project in the indigenous territories of the municipality of Vigía del Fuerte (Annex R). During this space, the representative of the Fondo Acción explained in detail to the governor of the Cabildo Mayor Indígena de Vigía del Fuerte, the four representatives of the indigenous Resguardos, and the 28 participants belonging to the different Resguardos, the restoration activities carried out since 2022 in the communities of Guaguandó and Jarapetó and their main results.</p> <p>Likewise, the objectives of the REDD+ project were explained again and the attendees expressed their concerns, which were resolved.</p> <p>On the other hand, the project complies with the provisions of the regulations in force regarding</p>
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			<p>consultation and relations with indigenous communities. The project has initiated procedures to guarantee the collective right to Prior Consultation. A right of petition was submitted to the Ministry of the Interior in November 2023, reiterated in January 2024, but without a response. (attachment filing Right of Petition and reiteration).</p> <p>Two meetings were held with the Directorate of the National Authority for Prior Consultation (DANCP) to learn about the consultation procedures. Following its recommendations, a request was submitted to determine the admissibility of the Prior Consultation, which must be answered by the Ministry. (annex filing beginning prior consultation) If deemed appropriate, the itinerary will be indicated, which will include coordination, pre-consultation, consultation and follow-up in agreement</p> <p>On the other hand, the analysis of the agents and causes of deforestation and</p>
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				<p>degradation and the construction of the causal chains that will lead to the definition of REDD+ activities will respond to the prioritization of interventions that community members will have to validate in a participatory workshop to identify activities. In the same way, the activities of the project and the benefit-sharing mechanism will be approved within the framework of a community assembly, which will be the highest decision-making body.</p> <p>In this sense, all decisions and actions by the project have been and will continue to be discussed and validated with members of the seven communities, respecting their own decision-making structures and their uses and customs.</p>
	b. Respect for traditional knowledge	They are recognized, respected and promoted, in accordance with the provisions of national legislation and compliance with international conventions; traditional knowledge systems	The Project Holder will organize working sessions with the communities, and other mechanisms that facilitate their	The project will ensure respect for the traditional knowledge of the participating indigenous communities. In its formulation and implementation, the worldview, culture, knowledge and capacities of

		<p>and the territorial visions of ethnic and local peoples and communities.</p>	<p>involvement in the Project, from the pre-feasibility and structuring phase, in terms of the inclusion of ancestral and traditional knowledge in the Project.</p>	<p>the communities will be considered.</p> <p>During the implementation phase of REDD+ activities, the project will ensure respect and protection of sacred sites identified by communities. Restoration activities will integrate ancestral practices of land and forest management, seeking harmonization between technical capacity building and traditional knowledge</p> <p>It also contemplates the signing of specific conservation and non-logging agreements, instruments that show the project's commitment to the preservation of places of cultural and spiritual importance to the communities.</p> <p>On the other hand, governance instruments will be adjusted or built, ensuring that the project's actions are</p>
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				<p>aligned with the traditions and ways of life of the communities.</p> <p>Finally, both in the meetings and in the participatory workshops that are planned, the topics will be addressed in a culturally appropriate language and context, using examples related to the particularities of the territory. This will allow for effective participation and incorporation of the communities' views into the decision-making processes about the project.</p>
	c. Profit sharing	<p>The fair and equitable sharing and sharing of the benefits generated by deforestation reduction policies, measures and actions for ethnic and local peoples and communities, and of all those benefits derived from traditional knowledge, innovations and practices for the conservation and sustainable use of forests, is guaranteed. their diversity and Ecosystem Services.</p>	<p>The project owner can suggest new ways for sustainable use of the territory. In addition, it may limit some of the activities carried out by the communities, as long as they accept it in an agreement signed by their representatives.</p>	<p>To ensure an equitable distribution of the benefits derived from the REDD+ project, a workshop will be held in which the distribution mechanism will be discussed and agreed upon with the communities involved. During the workshop, the different distribution criteria will be presented and explained, considering the levels of risk and the possible benefits for each party. Communities will actively participate in the discussion and contribute their perspectives to ensure</p>

				<p>that the agreements fairly reflect their commitments and responsibilities.</p> <p>The outcome of the workshop will be a consolidated benefit-sharing scheme accepted by all parties involved. This consultation and consensus process will ensure that distribution is carried out in an equitable and transparent manner, respecting the interests and input of each community.</p>
	d. Territorial rights	<p>The Project recognizes, respects and guarantees the territorial and fundamental rights of indigenous, ethnic and local communities within its jurisdiction. This initiative facilitates access to the most emblematic decisions as a mechanism for inclusion, participation and citizen integration, highlighting the importance and contributions of the ethnic population to the development of society. It also ensures the observance of fundamental rights, such as self-</p>		<p>Within the framework of the activities, objectives and goals of the Project, an inventory of indigenous communities is contemplated, in order to identify a strategy and deforestation control measures that guarantee sustainable livelihoods for the communities, based on their own systems of traditional and ancestral knowledge, such as internal regulations, life plans, statutes and other ancestral regulations. This makes it possible to maintain and strengthen their own cultures, ways of life and institutions, as well as their right to participate effectively in the decisions that affect them, also creating priority</p>

		determination, autonomy, self-government, the right to land, territory and resources, the right to identity and physical and cultural integrity, as well as the right to self-development, prior consultation and free, prior and informed consent, among others.		obligations for the State and individuals in general, who have the responsibility of applying and guaranteeing the normative compendiums ratified by Colombia and the United Nations in relation to the Rights of Indigenous Peoples.
4. Full and effective participation	Participation	The right to full and effective participation of all actors involved is respected to ensure governance and adequate decision-making on REDD+.	<p>The project owner must show evidence that demonstrates that the community was given the opportunity to participate in a real and effective way from the feasibility and structuring phase of the project.</p> <p>The project owner must show evidence that demonstrates that the information has been disseminated,</p>	<p>Meets. The project has had a broad, continuous and active participation of the proposing communities from the process of consent and consultation. The regulations in force have been respected and the governance structure of the communities has been considered at each stage of the project.</p> <p>To ensure effective participation during formulation and implementation, information and consultation sessions will be held tailored to the context of the communities of Vigía del Fuerte. These activities will include workshops with communities, informative meetings with authorities</p>

				disseminated and shared with the communities in a transparent, clear, complete, inclusive and effective manner, using the appropriate means.	and neighboring communities, and distribution of explanatory materials designed to facilitate understanding of the most relevant issues within the project. In addition, evidence of doubts and feedback provided by communities and other stakeholders will be collected during workshops and meetings. Each contribution will be recorded and responded to, and a record of the responses to such observations will be kept.
Environmental and territorial	5. Conservation and benefits	Conservation of forests and their biodiversity	REDD+ initiatives support forest conservation and the implementation of measures established for this purpose.	Project owners will work in coordination with communities to conserve, protect, restore and sustainably use ecosystems	Meets. The project uses geographic visualization tools (GIS), together with the BCR methodology to calculate to monitor the forest, which leads to the monitoring of the reduction of greenhouse gases derived from conservation and restoration activities. In addition, photographic evidence and attendance lists have been collected, which reinforces community collaboration and
		Provision of environmental goods and services	REDD+ initiatives support the provision and enjoyment of ecosystem services.	The activities carried out within the framework of the Project must comply with the applicable environmental	

		<p>It is important to support the continued provision of and access to ecosystem services by the communities that depend on them.</p>	<p>regulations regarding the use and exploitation of natural resources.</p> <p>The project owner must demonstrate that the project has not engaged in activities aimed at converting natural forests to other types of land use.</p>	<p>commitment to forest preservation through restoration activities and meetings around the REDD+ project, demonstrating that there has been no conversion to other land uses and that restoration objectives have been achieved. reduction of emissions and appropriation of the territory.</p>
6. Prevent reversal risks	Environmental and territorial planning	<p>REDD+ initiatives support the consolidation of territorial and environmental planning instruments provided for in legislation, under a focus on conservation and sustainable management of the forest.</p>	<p>The project owner take measures to reduce the risks of Reversals.</p>	<p>Meets. In the design and implementation of the project, the territorial and environmental planning instruments of the indigenous community have been integrated, together with the applicable programs and plans. As part of the strengthening of forest governance, the creation and adjustment of the Environmental Management Plan (A7) is contemplated, which incorporates the management practices defined by the members of the Reserve. This plan also coordinates key actions such as the updating of internal regulations for</p>

			<p>sustainable management (A8), the demarcation of biodiversity conservation areas (A9), and the implementation of conservation and no-logging agreements (A10). In addition, the design and implementation of territorial governance instruments (A13) and the creation of spaces for community participation with local authorities and neighbors to address issues related to the REDD+ project (A14) are foreseen.</p> <p>The management strategy also includes capacity building on REDD+ issues (A12) and the incorporation of gender guidelines to ensure participation and advocacy in project activities (A16), in addition to the hiring of women in the ranger team (A18).</p>
	Sectoral planning	Sectoral REDD+ actions are proposed based on environmental and territorial planning instruments, as well as legislation related to the	Meets. At the departmental level, the project supports actions to reduce deforestation and is aligned with the strategic lines of development in Antioquia in socio-environmental

		conservation of forests and their biodiversity.	<p>productivity, conservation of biodiversity and ecosystem services, territorial planning, and climate change management for low-carbon and resilient development. This responds to the strategies of Colombia's National Climate Change Policy (Ministry of Environment and Sustainable Development, 2017), focusing on sustainable rural development and the conservation of ecosystems and their services.</p> <p>The project also integrates the strategies of the National Plan for Adaptation to Climate Change (PNACC), promoting education and awareness about climate change, strengthening institutional capacities, and encouraging investments in sustainable practices. Among the activities are the strengthening of REDD+ and the development of economic alternatives for communities, such as non-timber forest products and agroforestry,</p>
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				<p>which contribute to food security and reduce deforestation.</p> <p>Likewise, the project is articulated with the Comprehensive Climate Change Plan of Antioquia (PICCA), strengthening resilient agriculture, the protection of ecosystems, and the creation of sustainable economies. Activities such as pineapple, murrapo, vanilla, turmeric, and forest seed cultivation boost agricultural resilience and regional competitiveness. With biological corridors and restoration of degraded areas, the connectivity and health of ecosystems are improved.</p> <p>Likewise, the project is aligned with Corpourabá's Climate and Peace Plan 2040, covering strategic sectors such as sustainable agriculture, ecosystem conservation, water management and community resilience, promoting inclusive and sustainable economic development through the</p>
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				diversification of activities and training in conservation and sustainable use.
Avoiding emissions displacement	Forest control and surveillance to prevent displacement of emissions	REDD+ initiatives incorporate measures to reduce emissions displacement into their design and ensure timely monitoring and control when emissions displacement occurs.	<p>The project owner will identify leaks and their causes, and design strategies to:</p> <ul style="list-style-type: none"> (i) to ensure their monitoring and control; and (ii) minimize them. <p>The project owner will implement response protocols to identify leaks and how to control them</p>	<p>Meets. One of the objectives of the project is to contribute to the monitoring and conservation of forests and biodiversity in the territory through control and surveillance actions. The community has been actively involved in structuring the project and defining REDD+ activities (A10, A11) to halt deforestation. A leakage area has been delimited that recognizes the dynamics of mobilization of deforestation agents, establishing monitoring schemes to ensure the permanence of the project and forest cover (A9, A20 and <u>A22</u>).</p> <p>The project identifies the causes and risks of leakage through the demarcation of important areas for conservation and a risk analysis. The monitoring of the escape area is established, and if the forest present is less than that of the baseline, no discounts will be applied for losses;</p>

					<p>these will be carried out only if the monitored area is greater than the baseline.</p> <p>In addition, capacities are being developed to improve forest monitoring and surveillance, complemented by social control exercised by community members (A12, A13, A14).</p>
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12 Special categories, related to co-benefits (optional)

In accordance with the special categories, related to the co-benefits indicated by the BCR0002 methodology, the REDD+ Vigía del fuerte project has selected the Orchid category with the aim of proposing different actions that allow the implementation of conservation and sustainable management strategies of forests; these actions will promote the protection of biodiversity, the generation of social and economic benefits for local communities, and gender equality, thus contributing directly to the Sustainable Development Goals (SDGs). In the Table 41, the proposed activities and indicators that respond to the special category orchid are summarized.

Table 41. Activities and indicators that respond to the special category orchid

Biodiversity conservation	ORCHID CATEGORY	ASSOCIATED ACTIVITY	ASSOCIATED INDICATOR
(a) develops effective actions and measures to halt the loss of biological diversity, encouraging ecosystems to continue providing essential services;	X	A-9. Demarcation of forests and areas important for the conservation of biodiversity	A-9.1# of hectares of forest and important areas, demarcated for biodiversity conservation. A-9.2 # of people in participation spaces for the demarcation of forests and biodiversity conservation areas. A-9.3 # of women in spaces of participation for the demarcation of forests and biodiversity conservation areas.
	X	A-10. Conservation and non-logging agreements	A-10.1# of signed conservation and non-logging agreements A-10.2# of hectares under conservation agreement A-10.3# of people participating in conservation and sustainable management training sessions/workshops A-10.4# of women participating in conservation and sustainable management training sessions/workshops
	X	A-22 Promote biodiversity monitoring as a strategy for the conservation of the territory, which allows the state of the ecosystem to be evaluated, to improve or conserve High Conservation Values, to identify threats and to design specific management actions	A-22.1 # Hectares of intact forest area A-22.2 # of species of birds, mammals and plants of high conservation value A-22.3 # of species of native seed plants for restoration processes. A-22.4 # plant species identified with potential uses A-22.5 # harvesting sectors identified with plants with potential uses

(e) demonstrates that, due to project activities, no invasive species have been introduced;	X	A-22 Promote biodiversity monitoring as a strategy for the conservation of the territory, which allows the state of the ecosystem to be evaluated, to improve or conserve High Conservation Values, to identify threats and to design specific management actions	# of invasive species identified in the project area
Benefits on communities	ORCHID CATEGORY	ASSOCIATED ACTIVITY	ASSOCIATED INDICATOR
(a) identifies and strengthens mechanisms for social and community participation, at the local and regional levels;	X	A-11. Form local REDD+ teams for the protection, care of the territory and follow-up on compliance with the management plan and conservation agreements	A-11.1 # People hired for community monitoring, care and protection of the territory A-11.2 # of women hired for community monitoring, care and protection of the territory A-11.3 # of people participating in activities of protection and care of the territory A-11.4 # of community monitoring, care and protection of the territory tours
		A-12. Capacity building on REDD+ issues	A-12.1 # People with strengthened capacities A-12.2 # of women with strengthened capacities A-12.3 # of capacity-building trainings or workshops
		A-13. Design and implementation of governance instruments for better and effective management of the territory.	A-7.2 # governance instruments for territorial management built or adjusted A-7.3 # of people who participate in spaces of participation for the construction or adjustment of governance instruments A-7.4 # of women who participate in spaces of participation for the construction or adjustment of governance instruments A-13.1 #peticiones, complaints and claims received A-13.2 #peticiones, complaints and claims resolved

		<p>A-14. Spaces for community engagement with local authorities and neighbors to build and discuss issues related to the REDD+ project</p>	<p>A-14.1# Community engagement spaces with local authorities, neighbors, and other stakeholders to build and discuss issues related to the REDD+ project A-14.2# of people in engagement spaces with local authorities, neighbors, and other stakeholders A-14.3# of Women in engagement spaces with local authorities, neighbors, and other stakeholders</p>
		<p>A-19. Identify and prioritize the needs of communities to optimize social investments.</p>	<p>A-19.1# of people participating in meetings or workshops on decision-making for social investment. A-19.2# of Women participating in meetings or workshops on decision-making for social investment. A-19.3 # Identified social investment needs A-19.4 # Families benefiting from social investments A-19.5 # Women benefiting from social investments</p>
<p>(d) the project generates short- and long-term benefits to small-scale productive projects with community members in the project area;</p>	<p>X</p>	<p>A-3. Design and implementation of food safety alternatives</p>	<p>A-3.1 # of food security models designed and implemented A-3.2 # of people who participate in workshops (decision-making spaces) for identification and prioritization, agreement on food security models A-3.3 # of women who participate in workshops (decision-making spaces) for identification and prioritization, agreement on food security models. A-3.4 # of families with food security model implemented A-3.5 # of hectares with food security model implemented</p>

(g) The activities, framed in the project, produce an average net increase in the income of local, low-income producers.	X	A-4. Implementation, monitoring and continuous improvement of productive income-generating alternatives	A-2.1 # of Business Plans Implemented A-2.2 # of Hectares Implemented and/or Improved of the Business Plans (Productive Alternatives) Prioritized. A-2.3 # of families benefiting from business plans (productive alternatives) implemented A-2.4 # of people who participate in capacity-building activities in productive alternatives: workshops, agri-food classrooms, exchange of experiences, etc. A-2.5 # of Women who participate in capacity-building activities in productive alternatives: workshops, agri-food classrooms, exchange of experiences, etc. A-2.6 Net income from the business plans implemented.
Gender equity	ORCHID CATEGORY	ASSOCIATED ACTIVITY	ASSOCIATED INDICATOR
The project owner demonstrates that he considers determinants in the normative framework related to gender in his country	X	A-18. Hire women in local REDD+ teams for the protection, care of the territory and monitoring compliance with the management plan and conservation agreements	A-11.2 # of women hired for community monitoring, care and protection of the territory A-18.1 # Women linked to REDD+ activities
It ensures the full and effective participation of women and equal opportunities for	X	A-17. Capacity Building in REDD+ and Women's Leadership	A-17.1# of women with strengthened capacities in REDD+ and leadership

<p>leadership at all levels of decision-making within the project scope.</p>		<p>A-16. Build gender guidelines as a route for action and advocacy in project activities</p>	<p>A-7.4 # of Women who participate in participation spaces for the construction or adjustment of governance instruments</p> <p>A-19.2 # of Women who participate in meetings or workshops on decision-making for social investment.</p> <p>A-19.5 # Women benefited from social investments</p>
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13 Grouped projects (if applicable)

Not applicable

14 Other GHG program

Not applicable

15 Double counting avoidance

For this section, the BCR tool "Avoiding Double Counting (ADC)", version 2.0, of February 7, 2024, was used. In the first instance, to avoid the generation of overlapping projects that are intended to be developed in the same area of the project, the main platforms for the registration of GHG initiatives and RENARE were verified to eliminate the possibility of double counting at the national level. In this review, we did not find any overlap with the present project.

In addition to this, the Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project, has the National Registry for the Reduction of GHG Emissions (RENARE) under ID 4402, avoiding the generation of overlaps that are not compatible with future programs or projects. By registering the project in RENARE, a clear delimitation of its implementation was established, which avoids conflicts and confusion in the accounting of greenhouse gas (GHG) emission reductions in compliance with the provisions of Article 45 of Resolution 1447 of 2018. This action promotes the transparency and integrity of the results obtained by the project, avoiding inconsistencies at the national level.

The Cabildo Mayor Indígena de Vigía del Fuerte REDD+ Project has not been registered on any platform other than the Global Carbon Trace by BioCarbon Standard ²⁰, which ensures that credits sold as offsets in voluntary markets cannot be offered again and thus avoid double counting. In the same way, to ensure robust and transparent accounting, and to avoid overestimation of project-related benefits, the following criteria were evaluated (Table 42).

²⁰ <https://globalcarbontrace.io/>

Table 42. Double accounting evaluation criteria

Criterion	Happens?	Justification
A ton of CO₂e is counted more than once to demonstrate compliance with the same GHG mitigation goal.	No	To ensure integrity and accuracy, each tonne of CO ₂ e is only counted once towards meeting a specific GHG mitigation target.
One ton of CO₂e is counted to demonstrate compliance with more than one GHG mitigation goal	No	To avoid double counting and ensure transparency, each tonne of CO ₂ e is allocated to a single mitigation target.
A ton of CO₂e is used more than once to obtain remuneration, benefits, or incentives.	No	Double allocation of benefits for the same ton of CO ₂ e is prohibited to maintain fairness and accuracy in the distribution of incentives.
One ton of CO₂e is verified, certified, or accredited assigning more than one serial to a single mitigation result	No	The allocation of multiple serials to a single tonne of CO ₂ e is avoided to ensure that each emission reduction is unique and traceable, preventing duplication of credits.

All this will be complemented by a secure data storage system, strict access controls, and data integrity verification mechanisms, promoting a culture of transparency and responsibility in the handling of information. This activity is essential to maintain confidence in the results of the project and ensure its effective contribution to the reduction of carbon emissions at a global level.

16 Monitoring plan

16.1 Description of the monitoring plan

Design and explain a monitoring plan that, as required by the BCR STANDARD and the applied methodology, contains the following:

- (a) Project boundary monitoring*
- (b) Monitoring of the execution of project activities*
- (c) Monitoring of the quantification of project emission reduction/removals*
- (d) Quality control and quality assurance procedures*
- (e) Verification of field data*
- (f) Review of information processing*
- (g) Data recording and archiving system*

Similarly, present in detail the appropriate information to monitor project activities and mitigation results:

- (a) the data and information needed to estimate GHG emission removals or reductions during the project quantification period;*
- (b) data and additional information to establish the baseline or reference scenario;*
- (c) specification of any potential emissions that would occur outside the project boundary as a result of GHG project activities (leakage);*
- (d) information related to the environmental impact assessment of the GHG project activities;*
- (e) established procedures for the management of GHG emission reductions or removals and associated quality control for monitoring activities;*
- (f) description of established procedures for periodic calculation of GHG emission reductions or removals and leakage;*
- (g) the assignment of roles and responsibilities for monitoring and reporting of variables relevant to the calculation of GHG emission reductions or removals;*
- (h) procedures for assessing the project's contribution to the Sustainable Development Goals (SDGs);*
- (i) criteria and indicators related to the project's contribution to sustainable development goals, applicable to the project activities proposed by the project holder;*

(j) The participation of the communities, as project participants, in the project design and implementation;

(k) Detailed information necessary for monitoring project activities, assessing mitigation and preventive results, and conducting quality control of measurements and quantification related to the Sustainable Development Safeguards (SDSs) tool assessment;

(l) Procedures associated with the monitoring of co-benefits of the special category, as applicable;

(m) Criteria and indicators defined to demonstrate the additional benefits and measurement of co-benefits and the specific category, as applicable

The monitoring plan for the project's activities, including the fulfilment of the Sustainable Development Goals (SDGs), is presented below:

Activity ID	A-1
ID Indicator	A-1.1
Indicator Name	# of business plans designed and prioritized
Guy	Product
Goal	At least 5 business plans are designed in a participatory way
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Engineered Business Plans
Monitoring methodology	For the measurement and reporting of this indicator, the number of business plans designed and prioritized is counted. Business plans are understood as alternative productive activities prioritized by the community.
Frequency of monitoring	Annual

Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	Business plan document. Reports and minutes of decision-making spaces (meetings, workshops, assemblies, etc.)
Remarks	Available documentation must be used

Activity ID	A-1
ID Indicator	A-1.2
Indicator Name	# of people who participate in workshops for the construction of Business Plans and prioritization of alternative(s)
Guy	Result
Goal	Equitable participation of the people of the territory, in the spaces and processes of prioritization of alternatives and construction of business plans
SDGs to be met	SDG 1, SDG 2, SDG 8
Unit of Measure	Number of people
Monitoring methodology	<ol style="list-style-type: none"> 1. For the measurement and reporting of this indicator, the number of people participating in the meetings, workshops or surveys carried out is quantified. 2. The data must be disaggregated by sex (Men and Women). 3. Information must be recorded in databases.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit

Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Lists of attendance at workshops and meetings 2. Minutes of decision-making spaces (meetings, workshops, assemblies, etc.) 3. Surveys applied 4. Photo and/or video record
Remarks	Available documentation must be used

Activity ID	A-1
ID Indicator	A-1.3
Indicator Name	# of Women who participate in workshops for the construction of Business Plans and prioritization of alternative(s)
Guy	Result
Goal	Participation of women in the territory, in the spaces and processes of prioritization of alternatives and construction of business plans
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Number of Women
Monitoring methodology	<ol style="list-style-type: none"> 1. For the measurement and reporting of this indicator, the number of women participating in the meetings, workshops or surveys carried out is quantified. 2. Information must be recorded in databases.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	

Information support document	<ol style="list-style-type: none"> 1. Lists of attendance at workshops and meetings 2. Minutes of decision-making spaces (meetings, workshops, assemblies, etc.) 3. Surveys applied 4. Photo and/or video record
Remarks	Available documentation must be used

Activity ID	A-2
ID Indicator	A-2.1
Indicator Name	# Business plans implemented
Guy	Result
Goal	At least 5 business plans are implemented
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Number of business plans implemented (productive alternatives)
Monitoring methodology	For the measurement and reporting of this indicator, the number of business plans (productive alternatives) implemented is counted. The implementation is reflected in the actions carried out that contribute to the fulfillment of business plans.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Record of implementation of business plans. 2. Technical reports on productive activities

Remarks	Available documentation must be used
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Activity ID	A-2
ID Indicator	A-2.2
Indicator Name	# Hectares implemented and/or improved from the prioritized business plans (productive alternatives).
Guy	Result
Goal	Improved production areas under a sustainable production system
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Number of hectares
Monitoring methodology	1. For the reporting of this indicator, the area or surface that will be allocated for the implementation or improvement of business plans (productive alternatives) is defined. 2. The hectare data will be obtained through the available sources of information: GIS information, satellite images or in situ information through characterization of beneficiaries, surveys, etc.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Support of reported hectares: GIS information, analysis of satellite images, maps, characterization of beneficiaries 2. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-2
ID Indicator	A-2.3
Indicator Name	# of families benefiting from business plans (productive alternatives) implemented
Guy	Result
Goal	Families in the territory implementing productive activities (business plans) under a sustainable production system.
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Number of families
Monitoring methodology	For the reporting of this indicator, a record of the families benefited from productive activities must be obtained. The data must be disaggregated by business plans (productive activities) and by community. The data will be supported by a matrix of selection criteria and a database or registry of beneficiary families.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Attendance lists/records of implemented models 2. Database of beneficiary families 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-2
ID Indicator	A-2.4
Indicator Name	# of people participating in capacity-building activities related to productive activities
Guy	Result
Goal	Equitable participation of people from the territory in capacity-building spaces related to productive activities
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Number of people
Monitoring methodology	<ol style="list-style-type: none"> 1. For the measurement and reporting of this indicator, the number of people who participate in training is quantified; these include: workshops, exchange of experiences, diplomas, ECAS, short courses, etc. 2. The data must be disaggregated by sex (Men and Women). 3. Information must be recorded in databases. 4. The information must be disaggregated by productive activity.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Training attendance lists. 2. Training database 3. Training reports 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-2
ID Indicator	A-2.5
Indicator Name	# of Women participating in capacity-building activities related to productive activities
Guy	Result
Goal	Participation of women in the territory in spaces for strengthening capacities in productive alternatives.
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Number of Women
Monitoring methodology	1. For the measurement and reporting of this indicator, the number of women who participate in training is quantified; these include: workshops, exchange of experiences, diplomas, ECAS, short courses, 2. Information must be recorded in databases. 3. The information must be disaggregated by productive activity.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Training attendance lists. 2. Training database 3. Training reports 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for orchid category: Community.

Activity ID	A-2
ID Indicator	A-2.6
Indicator Name	Net income from the business plans implemented.
Guy	Result
Goal	Business plans that offer better economic income to communities under a sustainable production system.
SDGs to be met	SDG 1, SDG2, SDG 8
Unit of Measure	Income in Colombian pesos
Monitoring methodology	<ol style="list-style-type: none"> 1. For the measurement and reporting of this indicator, the production obtained per unit or production system is used. 2. The quantity of product produced from the established business plans and the net income of the products sold are recorded. 3. Baseline (starting point of current income) and final line (point of arrival with the income generated as a result of the implemented activities) must be compared
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Sales Forms/Invoices 2. Production and sales tracking record
Remarks	<p>The available documentation must be used.</p> <p>Indicator for Orchid Category: Community</p>

Activity ID	A-3
ID Indicator	A-3.1
Indicator Name	# of food safety models designed and implemented

Guy	Result
Goal	At least 3 food safety models designed in a participatory way and implemented
SDGs to be met	SDG 3
Unit of Measure	Number of food safety models
Monitoring methodology	For the measurement and reporting of this indicator, the number of food safety models designed and implemented must be counted.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Document of the food safety models designed. 2. Report on the implementation of food safety models. 3. Reports and minutes of decision-making spaces in the design phase (meetings, workshops, assemblies, etc.)
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-3
ID Indicator	A-3.2
Indicator Name	# of people who participate in workshops (decision-making spaces) for the identification and prioritization, agreement of food security models.
Guy	Result

Goal	Equitable participation of the people of the territory, in the spaces and processes of prioritization of food security models. At least 70 people in the year
SDGs to be met	SDG 3
Unit of Measure	Number of people
Monitoring methodology	1. For the measurement and reporting of this indicator, the number of people participating in the meetings, workshops or surveys carried out is quantified. 2. The data must be disaggregated by sex (Men and Women). 3. Information must be recorded in databases.
Frequency of monitoring	Semiannual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Lists of attendance at workshops and meetings 2. Minutes of decision-making spaces (meetings, workshops, assemblies, etc.) 3. Surveys applied 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-3
ID Indicator	A-3.3
Indicator Name	# of Women who participate in workshops (decision-making spaces) for the identification and prioritization, agreement of food security models.
Guy	Result

Goal	Women's participation in the spaces and processes of prioritization of food security models. At least 25 women in the year
SDGs to be met	SDG 3
Unit of Measure	Number of women
Monitoring methodology	1. For the measurement and reporting of this indicator, the number of women participating in the meetings, workshops or surveys carried out is quantified. 2. Information must be recorded in databases.
Frequency of monitoring	Semiannual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Lists of attendance at workshops and meetings 2. Minutes of decision-making spaces (meetings, workshops, assemblies, etc.) 3. Surveys applied 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-3
ID Indicator	A.3.4
Indicator Name	# of families with a food security model implemented
Guy	Result
Goal	Food security models are implemented in the territory that contribute to sustainable production systems in family units. At least 30 families with food security models per year.

SDGs to be met	SDG 3
Unit of Measure	Number of families
Monitoring methodology	<ol style="list-style-type: none"> 1. For the measurement and reporting of this indicator, the number of families that have food security models implemented is quantified 2. Information must be recorded in databases. 3. For the data, the beneficiary will be quantified as 1 family.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists/records of implemented models 2. Database of beneficiary families 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-3
ID Indicator	A-3.5
Indicator Name	# of hectares with food security model implemented
Guy	Result
Goal	Food security models are implemented in the territory that contribute to sustainable production systems in family units. At least 22.5 hectares with food security models per year.
SDGs to be met	SDG 3
Unit of Measure	Number of hectares
Monitoring methodology	<ol style="list-style-type: none"> 1. For the measurement and reporting of this indicator, the number of families that have food security models implemented is quantified 2. Information must be recorded in databases.

Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Attendance lists/records of implemented models 2. Database of beneficiary families 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-4
ID Indicator	A-4.1
Indicator Name	# of people receiving technical assistance in productive activities
Guy	Result
Goal	Provide technical assistance to at least 20 beneficiaries of the prioritized business plans for 2025 and 40 individuals for 2026.
SDGs to be met	SDG 8, SDG 15
Unit of Measure	Number of people
Monitoring methodology	For the measurement and reporting of this indicator, the number of people receiving technical assistance must be counted.
Frequency of monitoring	Semiannual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit

Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Technical assistance lists. 2. Technical assistance database 3. Minutes or reports of technical assistance 4. Photo and/or video record
Remarks	Available documentation must be used

Activity ID	A-4
ID Indicator	A-4.2
Indicator Name	# of women receiving technical assistance in productive activities
Guy	Result
Goal	Provide technical assistance to at least 5 women beneficiaries of the prioritized business plans for 2025 and 8 individuals for 2026.
SDGs to be met	SDG 8, SDG 15
Unit of Measure	Number of women receiving technical assistance
Monitoring methodology	For the measurement and reporting of this indicator, the number of people receiving technical assistance must be counted.
Frequency of monitoring	Semiannual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	

Information support document	<ol style="list-style-type: none"> 1. Technical assistance lists. 2. Technical assistance database 3. Minutes or reports of technical assistance 4. Photo and/or video record
Remarks	Available documentation must be used

Activity ID	A-4
ID Indicator	A-4.3
Indicator Name	# Technical assistance provided to the productive activities implemented (business plans)
Guy	Result
Goal	Carry out technical assistance visits to the business plans implemented, at least 1 visit every 2 months in each community (42/year).
SDGs to be met	SDG 8, SDG 15
Unit of Measure	Number of technical assistance
Monitoring methodology	For the measurement and reporting of this indicator, the number of technical assistance carried out must be counted. The information must be disaggregated into a productive line or business plan.
Frequency of monitoring	Semiannual
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Technical assistance lists. 2. Technical assistance database 3. Minutes or reports of technical assistance 4. Photo and/or video record
Remarks	Available documentation must be used

Activity ID	A-4
ID Indicator	A-4.4
Indicator Name	# Families that improve their economic income from implemented business plans
Guy	Result
Goal	Families that improve their economic income based on the business plans implemented, at least 30 families (2024) 80 families (2025) 100 families (2026)
SDGs to be met	SDG 8, SDG 15
Unit of Measure	Number of families
Monitoring methodology	For the measurement and reporting of this indicator, there must be baseline information or revenue reference information so that the data is comparable over time with the income resulting from the business plans implemented.
Frequency of monitoring	Annual
Responsible for measurement	
Indicator result in the reporting period	Local implementer/operator Productive coordinator-local REDD+ unit
Information support document	Baseline Surveys or Increase Tracking Forms Family Characterization
Remarks	Available documentation must be used

Activity ID	A-7
ID Indicator	A-7.1
Indicator Name	# Environmental management plans built or adjusted

Guy	Product
Goal	Design and prioritize environmental management plans in a participatory way
SDGs to be met	SDG 15
Unit of Measure	Number of management plans
Monitoring methodology	For the measurement and reporting of this indicator, plans designed or adjusted in a participatory manner are accounted for and recorded.
Frequency of monitoring	Annual
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	Document of environmental management plans Reports and minutes of decision-making spaces (meetings, workshops, assemblies, etc.)
Remarks	Available documentation must be used

Activity ID	A-7
ID Indicator	A-7.2
Indicator Name	# Governance instruments for territorial management built or adjusted
Guy	Product
Goal	Instruments developed to strengthen governance in territorial management

SDGs to be met	SDG 15
Unit of Measure	Number of governance instruments
Monitoring methodology	For the measurement and reporting of this indicator, the number of governance instruments generated must be counted. The instruments of governance of the territory include, among others: internal regulations, management plans, life plans, mechanisms for sharing benefits, etc
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	1. Technical assistance lists. 2. Technical assistance database 3. Minutes or reports of technical assistance 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-7
ID Indicator	A-7.3
Indicator Name	# of people who participate in spaces of participation for the construction or adjustment of governance instruments
Guy	Result
Goal	Equitable participation of people from the community in the development of governance instruments for territorial management.

SDGs to be met	SDG 15
Unit of Measure	Number of people
Monitoring methodology	For the measurement and reporting of this indicator, the number of people in participation spaces must be counted. The instruments of governance of the territory include, among others: internal regulations, management plans, life plans, mechanisms for sharing benefits, etc
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-7
ID Indicator	A-7.4
Indicator Name	# of Women who participate in spaces of participation for the construction or adjustment of governance instruments
Guy	Result
Goal	Participation of women in the community in the development of governance instruments for territorial management.
SDGs to be met	SDG 15
Unit of Measure	Number of Women

Monitoring methodology	For the measurement and reporting of this indicator, the number of people in participation spaces must be counted. The instruments of governance of the territory include, among others: internal regulations, management plans, life plans, mechanisms for sharing benefits, etc
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-7
ID Indicator	A-7.5
Indicator Name	# Spaces for community participation for the construction or adjustment of governance instruments
Guy	Result
Goal	Spaces generated for decision-making and development of instruments that optimize the management of the project and the territory.
SDGs to be met	SDG 15
Unit of Measure	Number of participation spaces
Monitoring methodology	For the measurement and reporting of this indicator, a number of spaces for community participation are counted, including: assemblies, government sessions, meetings, etc
Frequency of monitoring	Quarterly
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit

Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes and reports of meetings 4. Photo and/or video record
Remarks	Available documentation must be used

Activity ID	A-8
ID Indicator	A-8.1
Indicator Name	# Number of internal regulations created or adjusted
Guy	Product
Goal	Create spaces for community participation for the development and/or updating of internal regulations
SDGs to be met	SDG 15
Unit of Measure	Number of Internal Regulations
Monitoring methodology	For the measurement and reporting of this indicator, the internal regulations built and/or adjusted in a participatory manner are accounted for and recorded.
Frequency of monitoring	Annual
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	Document of the internal regulations built or adjusted. Reports and minutes of decision-making spaces (meetings, workshops, assemblies, etc.)
Remarks	Available documentation must be used

Activity ID	A-9
ID Indicator	A-9.1
Indicator Name	# Number of hectares of forest and key areas demarcated for biodiversity conservation
Guy	Result
Goal	Develop spaces for community participation for the zoning and demarcation of forest areas and areas important for biodiversity conservation.
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Hectares
Monitoring methodology	For the measurement and reporting of this indicator, forest areas and areas of importance for biodiversity conservation are defined in a participatory manner. Subsequently, GIS tools and on-site information are used to estimate the area defined by the community.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Support of reported hectares: GIS information, analysis of satellite images, maps, etc. 2. Photo and/or video record
Remarks	The available documentation must be used. Indicator for orchid category: Biodiversity

Activity ID	A-9
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ID Indicator	A-9.2
Indicator Name	# of people participating in consultation and decision-making processes for the demarcation and conservation of forests and biodiversity areas
Guy	Result
Goal	Equitable participation of people from the territory for the demarcation of forests and biodiversity conservation areas.
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of people
Monitoring methodology	For the measurement and reporting of this indicator, the number of people in participation spaces must be counted. The data must be disaggregated by sex (Men and Women). This demarcation includes the development of spaces such as zoning workshops, meetings, assemblies, etc.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for orchid category: Biodiversity

Activity ID	A-9
ID Indicator	A-9.3
Indicator Name	# of Women participating in consultation and decision-making processes for the demarcation and conservation of forests and biodiversity areas
Guy	Result

Goal	Participation of women from the territory for the demarcation of forests and biodiversity conservation areas.
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of women
Monitoring methodology	For the measurement and reporting of this indicator, the number of women in participation spaces must be counted. This demarcation includes the development of spaces such as zoning workshops, meetings, assemblies, etc.
Frequency of monitoring	Quarterly
Responsible for measurement	Local Coordinator Governance-Local REDD+ Unit implementer/operator MRV Coordinator-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for orchid category: Biodiversity

Activity ID	A-10
ID Indicator	A-10.1
Indicator Name	# of Conservation and Non-Logging Agreements Signed
Guy	Product
Goal	Establish conservation agreements that integrate traditional knowledge and technical criteria for the sustainable management and conservation of the territory.
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of agreements signed

Monitoring methodology	For the measurement and reporting of this indicator, the agreements signed by the communities belonging to the territory are counted.
Frequency of monitoring	Annual
Responsible for measurement	Local Coordinator Governance-Local MRV Coordinator-Local implementer/operator REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Signed agreements 2. Photo and/or video record
Remarks	The available documentation must be used. Indicator for orchid category: Biodiversity

Activity ID	A-10
ID Indicator	A-10.2
Indicator Name	# of hectares under conservation agreement
Guy	Result
Goal	Hectares associated with conservation areas identified by each of the project beneficiaries
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Hectares
Monitoring methodology	For the measurement and reporting of this indicator, forest areas and areas of importance for biodiversity conservation are defined in a participatory manner. Subsequently, GIS tools and on-site information are used to estimate the area defined by the community.
Frequency of monitoring	Annual

Responsible for measurement	Local Coordinator Governance-Local MRV Coordinator-Local implementer/operator REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Support of information provided by the communities: minutes 2. Support of reported hectares: GIS information, analysis of satellite images, maps, etc 2. Photo and/or video record
Remarks	The available documentation must be used. Indicator for orchid category: Biodiversity

Activity ID	A-10
ID Indicator	A-10.3
Indicator Name	# Number of people participating in training sessions and workshops on conservation and sustainable management of the territory.
Guy	Result
Goal	Promote the equitable participation of people from the community in training spaces on conservation and sustainable management of the territory.
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of people
Monitoring methodology	For the measurement and reporting of this indicator, the number of people in participation spaces must be counted. The data must be disaggregated by sex (Men and Women).
Frequency of monitoring	Quarterly
Responsible for measurement	Local Coordinator Governance-Local MRV Coordinator-Local implementer/operator REDD+ Unit
Indicator result in the reporting period	

Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	<p>The available documentation must be used.</p> <p>Indicator for orchid category: Biodiversity</p>

Activity ID	A-10
ID Indicator	A-10.4
Indicator Name	# Number of women participating in training sessions and workshops on conservation and sustainable management of the territory
Guy	Result
Goal	Encourage the participation of women from the community in training spaces on conservation and sustainable management of the territory.
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of women
Monitoring methodology	For the measurement and reporting of this indicator, the number of women in participation spaces must be counted.
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	<p>The available documentation must be used.</p> <p>Indicator for orchid category: Biodiversity</p>

Activity ID	A-11
ID Indicator	A-11.1
Indicator Name	# Number of people hired to protect and care for the territory and follow up on compliance with the management plan and conservation agreements.
Guy	Result
Goal	Involve people from the territory in monitoring activities for the protection of the territory's natural resources
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of people
Monitoring methodology	For the measurement and reporting of this indicator, the number of people hired in REDD+ activities for community monitoring, care and protection of the forest is counted
Frequency of monitoring	Quarterly
Responsible for measurement	Local Coordinator Governance-Local MRV Coordinator-Local implementer/operator REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Staff contracts 2. Activity reports
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-11
ID Indicator	A-11.2

Indicator Name	# Number of women hired to protect and care for the territory and to monitor compliance with the management plan and conservation agreements.
Guy	Result
Goal	Involve women in the territory in monitoring activities for the protection of the territory's natural resources
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Women
Monitoring methodology	For the measurement and reporting of this indicator, the number of women hired in REDD+ activities for community monitoring, care and protection of the forest is counted
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Staff contracts 2. Activity reports
Remarks	The available documentation must be used. Indicator for Orchid Category: Gender
Activity ID	A-11
ID Indicator	A-11.3
Indicator Name	# Number of people participating in and accompanying activities for the protection and care of the territory
Guy	Result
Goal	Equitable participation of people from the territory in REDD+ activities focused on the protection and care of the territory
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Number of people

Monitoring methodology	For the measurement and reporting of this indicator, the number of people who PARTICIPATE in REDD+ activities for the protection and care of the territory must be counted. They are not hired people , it refers to people from the territory who are involved in activities such as community monitoring tours, reforestation, training spaces in care and protection of resources, etc. The data must be disaggregated by sex (Man and woman).
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit MRV Coordinator-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Attendance lists of spaces for protection and care of the territory 2. Database reports 3. Minutes or reports 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-12
ID Indicator	A-12.1
Indicator Name	# Number of people with strengthened capacities for the management and conservation of the territory
Guy	Result
Goal	Strengthen the capacities of community members to manage the administrative, legal, operational, monitoring and governance aspects of the REDD+ project.

SDGs to be met	SDG4
Unit of Measure	Number of people trained
Monitoring methodology	<p>For the measurement and reporting of this indicator, the number of people trained is counted. Capacity building will improve their capacity to manage the territory and the REDD+ project.</p> <p>An evaluation of the strengthened capacities must be carried out, for this an initial evaluation and a final evaluation must be carried out on each day to show that the capacity was strengthened.</p>
Frequency of monitoring	Quarterly
Responsible for measurement	<p>Local Organization Governance-Local MRV Promoters- Local</p> <p>Local REDD+ Coordinator-Local REDD+ Unit</p> <p>Implementer/Operator REDD+ Coordinator Unit REDD+ Unit</p>
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Lists of capacity building assistance 2. Database 3. Capacity Building Assessment 4. Photo and/or video record
Remarks	<p>The available documentation must be used.</p> <p>Indicator for Orchid Category: Community</p>

Activity ID	A-13
ID Indicator	A-13.1
Indicator Name	# of petition, complaint, and claim requests received
Guy	Product

Goal	Establish an effective mechanism for petitions, complaints and claims that receives the requests filed by the community
SDGs to be met	SDG 13
Unit of Measure	Number of applications received
Monitoring methodology	For the measurement and reporting of this indicator, the number of petitions, complaints and claims received is counted.
Frequency of monitoring	Quarterly
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Lists of capacity building assistance 2. Database 3. Capacity Building Assessment 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-13
ID Indicator	A-13.2
Indicator Name	# of petition, complaint, and claim requests resolved
Guy	Product
Goal	Establish an effective mechanism for petitions, complaints, and grievances that responds to requests filed by the community
SDGs to be met	SDG 13
Unit of Measure	Number of requests resolved

Monitoring methodology	For the measurement and reporting of this indicator, the number of people trained is counted. Capacity building will improve their capacity to manage the territory and the REDD+ project. An evaluation of the strengthening capacities must be carried out, for this an initial evaluation and a final evaluation must be carried out on each day to show that the capacity was strengthened.
Frequency of monitoring	Quarterly
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Lists of capacity building assistance 2. Database 3. Capacity Building Assessment 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-14
ID Indicator	A-14.1
Indicator Name	# Spaces for community engagement with local authorities, neighbors and other stakeholders to build and discuss issues related to the REDD+ project
Guy	Result
Goal	Establish effective and sustainable spaces for community participation that promote dialogue, engagement and the construction of agreements with neighbors and local authorities, addressing issues related to REDD+ in an inclusive and collaborative manner.
SDGs to be met	SDG 15

Unit of Measure	Number of participation spaces
Monitoring methodology	For the measurement and reporting of this indicator, the number of participation spaces where stakeholders (neighbors, local authorities and other interested parties) are involved, is counted. These spaces include: meetings, socializations, assemblies, exchanges, workshops, etc
Frequency of monitoring	Quarterly
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes and reports of meetings 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-14
ID Indicator	A-14.2
Indicator Name	# Number of people actively participating in spaces for dialogue and collaboration with local authorities, neighbors and other stakeholders
Guy	Result
Goal	Promote the equitable participation of the people of the territory in effective and sustainable spaces that promote dialogue, the strengthening of relationships and the construction of agreements with neighbors and local authorities, ensuring an inclusive and collaborative approach to address issues related to REDD+
SDGs to be met	SDG 15
Unit of Measure	Number of people

Monitoring methodology	For the measurement and reporting of this indicator, the number of people in community participation spaces with local authorities, neighbors and other stakeholders to build and discuss issues related to the REDD+ project must be counted
Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-14
ID Indicator	A-14.3
Indicator Name	# Number of women who actively participate in spaces for dialogue and collaboration with local authorities, neighbors and other stakeholders
Guy	Result
Goal	Encourage the participation of women in the territory in effective and sustainable spaces that promote dialogue, strengthening relationships and building agreements with neighbors and local authorities, ensuring an inclusive and collaborative approach to address issues related to REDD+
SDGs to be met	SDG 15
Unit of Measure	Number of women
Monitoring methodology	For the measurement and reporting of this indicator, the number of people in community participation spaces with local authorities, neighbors and other stakeholders to build and discuss issues related to the REDD+ project must be counted

Frequency of monitoring	Quarterly
Responsible for measurement	Local implementer/operator Productive coordinator-local REDD+ unit
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Attendance lists of participation spaces 2. Database 3. Minutes or reports of spaces for the construction of governance instruments 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Community

Activity ID	A-17
ID Indicator	A-17.1
Indicator Name	# Number of women with strengthened capacities in REDD+ and community leadership.
Guy	Result
Goal	Strengthen the capacities of women in the community to effectively lead and manage the administrative, legal, operational and governance aspects related to the REDD+ project.
SDGs to be met	SDG 4, SDG 13
Unit of Measure	Number of women
Monitoring methodology	<p>For the measurement and reporting of this indicator, the number of people trained is counted. Capacity building will improve their capacity to manage the territory and the REDD+ project.</p> <p>An evaluation of the strengthened capacities must be carried out, for this an initial evaluation and a final evaluation must be carried out on each day to show that the capacity was strengthened.</p>

Frequency of monitoring	Quarterly
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit
Indicator result in the reporting period	
Information support document	1. Lists of capacity building assistance 2. Database 3. Capacity Building Assessment 4. Photo and/or video record
Remarks	The available documentation must be used. Indicator for Orchid Category: Gender

Activity ID	A-18
ID Indicator	A-18.1
Indicator Name	# Number of women actively involved, participating in and accompanying initiatives for the protection and care of the territory within the framework of REDD+
Guy	Result
Goal	Guarantee the participation of all women in the territory in the processes of construction and implementation of REDD+, encouraging their linkage, contribution and accompaniment in activities aimed at the protection and sustainable care of the territory.
SDGs to be met	SDG 8
Unit of Measure	Number of women
Monitoring methodology	For the measurement and reporting of this indicator, the number of women who participate in REDD+ activities is counted, this implies unifying data on women in: community participation spaces, beneficiaries of productive and food security activities, training, hiring, other REDD+ activities.
Frequency of monitoring	Quarterly
Responsible for measurement	Local Implementing Organization/Operator Coordinator Governance-Local REDD+ Unit

Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Women in REDD+ activities database 2. Evidence of participation; listings, reports, contracts, registrations, surveys, etc 4. Photo and/or video record
Remarks	<p>The available documentation must be used.</p> <p>Indicator for Orchid Category: Gender</p>

Activity ID	A-19
ID Indicator	A-19.1
Indicator Name	# Number of people participating in meetings or workshops on decision-making for social investment.
Guy	Result
Goal	Implement participatory processes to identify and prioritize social investment
SDGs to be met	SDG 1, SB 5, SDG 13, SDG 15
Unit of Measure	Number of people
Monitoring methodology	For the measurement and reporting of this indicator, a record of the people who participate in meetings or workshops on decision-making for social investment is carried out.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit Local REDD+ Coordinator
Indicator result in the reporting period	
Information support document	<ol style="list-style-type: none"> 1. Database of people participating in decision-making for social investment 2. Evidence of participation; lists, minutes, records, surveys, etc. 4. Photo and/or video record
Remarks	Indicator for Orchid Category: Community

Activity ID	A-19
ID Indicator	A-19.2
Indicator Name	# Number of women participating in meetings or workshops on decision-making for social investment.
Guy	Result
Goal	Implement participatory processes where women in the territory actively participate, to identify and prioritize social investment
SDGs to be met	SDG 1, SB 5, SDG 13, SDG 15
Unit of Measure	Number of Women
Monitoring methodology	For the measurement and reporting of this indicator, a record is made of women who participate in meetings or workshops on decision-making for social investment.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit Local REDD+ Coordinator
Indicator result in the reporting period	
Information support document	1. Database of people participating in decision-making for social investment 2. Evidence of participation; lists, minutes, records, surveys, etc. 4. Photo and/or video record
Remarks	Indicator for Orchid Category: Community Indicator for Orchid Category: Gender

Activity ID	A-19
ID Indicator	A-19.3
Indicator Name	# Identified social investment needs
Guy	Result

Goal	Determine the priority social investment needs for the project.
SDGs to be met	SDG 1, SB 5, SDG 13, SDG 15
Unit of Measure	# Social investments
Monitoring methodology	To measure and report on this indicator, social needs identified by community members during workshops and meetings will be recorded and reported.
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit Local REDD+ Coordinator
Indicator result in the reporting period	
Information support document	1. Photographic record and/or videos. 2. Lists of attendance at the workshops and meetings convened. 3. Minutes of the meetings and workshops convened. Reports.
Remarks	Indicator for Orchid Category: Community

Activity ID	A-19
ID Indicator	A-19.4
Indicator Name	# Families benefited from social investments
Guy	Result
Goal	Benefit families/households in the territory with the Social Investments of REDD+ Projects, thus promoting sustainable development and improving the quality of life in local communities.
SDGs to be met	SDG 1, SB 5, SDG 13, SDG 15
Unit of Measure	# Families benefited

Monitoring methodology	Different sources of information will be used to measure and report on this indicator: Social impact assessment surveys Population censuses Registries of beneficiaries of social investment The data must be disaggregated by gender. Men and women
Frequency of monitoring	Annual
Responsible for measurement	Local implementer/operator Coordinator Governance-Local REDD+ Unit Local REDD+ Coordinator
Indicator result in the reporting period	
Information support document	1. Photographic record and/or videos. 2. Attendance Registries-Lists 3. Censuses 3. Meeting Minutes
Remarks	Indicator for Orchid Category: Community

Activity ID	A-19
ID Indicator	A-19.5
Indicator Name	# Women benefited from social investments
Guy	Result
Goal	To benefit women in the territory with the Social Investments of REDD+ Projects, thus promoting sustainable development and the improvement of the quality of life in local communities.
SDGs to be met	SDG 1, SB 5, SDG 13, SDG 15
Unit of Measure	# People benefited
Monitoring methodology	To measure and report on this indicator, different sources of information will be used: Social impact assessment surveys , population censuses, or Registers of beneficiaries of social investment.
Frequency of monitoring	Annual

Responsible for measurement	Local Coordinator Governance-Local REDD+ Unit Local REDD+ Coordinator	implementer/operator
Indicator result in the reporting period		
Information support document	<ol style="list-style-type: none"> 1. Photographic record and/or videos. 2. Social impact assessment 3. Attendance Records-Lists 4. Censuses 5. Minutes 	
Remarks	<p>Indicator for Orchid Category: Community</p> <p>Indicator for Orchid Category: Gender</p>	

Activity ID	A-20	
ID Indicator	A-20.1	
Indicator Name	Area deforested at time t within the project area; has	
Guy	Impact	
Goal	Monitoring of changes in forest to non-forest cover in project area to determine deforestation.	
SDGs to be met	SDG 13, SDG 15	
Unit of Measure	Hectares	
Monitoring methodology	<p>Monitor the progress of deforestation and its changes in cover through remote sensing in accordance with the BCRO002 methodology.</p> <p>For the measurement and reporting of this indicator, the forest area is identified and estimated during the monitoring period in the project area using Geographic Information Systems and satellite images from remote sensing to determine the change.</p>	
Frequency of monitoring	Annual	

Responsible for measurement	Cabildo Mayor: Supervision of the implementation of the carbon technical teams MRV Operator technical equipment : support in design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Analysis and table of deforestation results Satellite imagery, Shapefile Coverage Usage Change Maps
Remarks	

Activity ID	A-20
ID Indicator	A-20.2
Indicator Name	Degraded area at time t within the project area; has
Guy	Impact
Goal	Monitoring forest to non-forest cover changes in project area to determine degradation
SDGs to be met	SDG 13, SDG 15
Unit of Measure	Hectares
Monitoring methodology	Monitor the progress of degradation and its changes in coverage using remote sensors in accordance with the BCR0002 methodology For the measurement and reporting of this indicator, the forest area is identified and estimated during the monitoring period in the project area using Geographic Information Systems and satellite images from remote sensing to determine the change.
Frequency of monitoring	in each monitoring period.

Responsible for measurement	Cabildo Mayor: Supervision of the implementation Technical teams of carbon Operator: support in design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Analysis and table of deforestation results Satellite imagery, Shapefile Coverage Usage Change Maps
Remarks	

Activity ID	A-20
ID Indicator	A-20.3
Indicator Name	Deforested area at time t within the area of leakage; has
Guy	Impact
Goal	Monitoring changes in forest to non-forest cover in the vanishing belt to determine deforestation
SDGs to be met	SDG 13, SDG 15
Unit of Measure	
Monitoring methodology	Monitor the progress of deforestation and its changes in leakage belt coverage using remote sensors, in accordance with the BCR0002 methodology For the measurement and reporting of this indicator, the forest area is identified and estimated during the monitoring period in the project area using Geographic Information Systems and satellite images from remote sensing to determine the change.
	in each monitoring period.

Responsible for measurement	Cabildo Mayor: Implementation Supervision Carbon technical teams Operator: support in design, implementation and follow-up. Executing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Analysis and table of deforestation results Satellite imagery, Shapefile Coverage Usage Change Maps
Remarks	

Activity ID	A-20
ID Indicator	A-20.4
Indicator Name	Area degraded at time t within the leakage area; has
Guy	Impact
Goal	Monitoring forest to non-forest cover changes in the vanishing belt to determine degradation
SDGs to be met	SDG 13, SDG 15
Unit of Measure	
Monitoring methodology	Monitor the progress of degradation and its changes in leakage belt coverage by means of remote sensors, in accordance with the BCR0002 methodology For the measurement and reporting of this indicator, the forest area is identified and estimated during the monitoring period in the project area using Geographic Information Systems and satellite images from remote sensing to determine the change.
Frequency of monitoring	in each monitoring period.

Responsible for measurement	Cabildo Mayor: Implementation Supervision Carbon technical teams MRV teams Operator: support in design, implementation and follow-up. Executing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Analysis and table of deforestation results Satellite imagery, Shapefile
Remarks	

Activity ID	A-20
ID Indicator	A-20.5
Indicator Name	# Tons of CO ₂ not emitted (avoided)
Guy	Result
Goal	Reduce CO ₂ emissions
SDGs to be met	SDG 13, SDG 15
Unit of Measure	t CO ₂ e
Monitoring methodology	With the activity data obtained in the monitoring period, the formulas described in section 14.5 of the BCR 0002 methodology are applied. To estimate the total reductions in the estimated period, and the estimate of uncertainty.
Frequency of monitoring	Annual
Responsible for measurement	Local Implementer/Operator Organization Cabildo Mayor: Implementation Supervision Carbon technical teams MRV teams Operator: support in design, implementation and follow-up. Executing agent: technical support and accompaniment
Indicator result in the reporting period	

Information support document	Emission Spreadsheets (ERR)
Remarks	Available and up-to-date documentation of the methodology should be used.

Activity ID	A-21
ID Indicator	A-21.1
Indicator Name	# Strategies for the protection and restoration of ecosystems
Guy	Product
Goal	Develop a detailed plan that includes specific actions for the protection and restoration of the ecosystem.
SDGs to be met	SDG 15
Unit of Measure	# Strategies
Monitoring methodology	For the measurement and reporting of this indicator, the number of strategies implemented is counted and supported by the documents prepared detailing the plan for the protection and restoration of ecosystems
Frequency of monitoring	Once, at the beginning of the project
Responsible for measurement	Cabildo Mayor: Implementation Oversight Governance, carbon and carbon management technical teams. Operator: support in design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Restoration Strategy Implementation Reports
Remarks	

Activity ID	A-21
ID Indicator	A-21.2
Indicator Name	# Number of hectares under restoration with native species, sustainable techniques and regular monitoring

Guy	Result
Goal	Establish restoration actions for the protection and restoration of the ecosystem with native species accompanied by sustainable techniques and community monitoring
SDGs to be met	SDG 15
Unit of Measure	Hectares
Monitoring methodology	This indicator is reported by measuring the hectares restored in the project area.
Frequency of monitoring	Once, at the beginning of the project
Responsible for measurement	Cabildo Mayor: Implementation Oversight Governance, carbon and carbon management technical teams. Operator: support in design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	White Paper Minutes Photographs
Remarks	

Activity ID	A-22
ID Indicator	A-22.1
Indicator Name	# Hectares of intact forest area
Guy	Result
Goal	Improve the structure and composition of degraded forest areas after the implementation of restoration and conservation measures.
SDGs to be met	SDG 15

Unit of Measure	Hectares
Monitoring methodology	<p>Intact forest area is implemented as a measure of forest habitat cover. This approach has been justified in Richards and Panfil (2011) that change in biodiversity correlates strongly with changes in vegetation cover and Pitman (2011) that the size and connectivity of forest ecosystems correlate with levels of natural ecological function.</p> <p>Remote sensing data representing land use classification and land use change during the monitoring period will be used to measure this indicator. Based on the information collected with satellite images and the stratification map, the information will be processed to identify the area of intact forest.</p>
Frequency of monitoring	Each monitoring period
Responsible for measurement	<p>Cabildo Mayor: Supervision of implementation Technical teams on carbon, geomatics and biodiversity Operator: support in the design, execution and monitoring. Executing agent: technical support and accompaniment.</p>
Indicator result in the reporting period	Soil classification results and change of cover.
Information support document	
Remarks	Indicator for orchid category: Biodiversity

Activity ID	A-22
ID Indicator	A-22.2
Indicator Name	# of bird species, mammals and plants of high conservation value
Guy	Result

Goal	Strengthen the conservation of ecosystems by identifying species of high conservation value and biological communities, using monitoring techniques and ancestral local knowledge.
SDGs to be met	SDG 15
Unit of Measure	Number of species
Monitoring methodology	<p>Direct observation methodology under a defined protocol for monitoring biodiversity and permanent plots.</p> <p>For the measurement and reporting of this indicator, the following must be done:1. Record endemic species 2. Register VOC (object conservation value) species, critically endangered, vulnerable or endangered species (IUCN Red List Categories and Criteria)3. Register species of interest to the community.</p> <p>The report should include analyses of species richness and abundance.</p>
Frequency of monitoring	Annual
Responsible for measurement	<p>Local communities: Implementation, monitoring</p> <p>Local REDD+ technical teams: biodiversity, governance and MRV</p> <p>Operator: support in design, implementation and monitoring.</p> <p>Executing agent: technical support and accompaniment.</p>
Indicator result in the reporting period	
Information support document	Records of bird, mammal and plant species of high conservation value. Biodiversity monitoring photographs and videos. Monitoring Technical Report: Wealth and Abundance Data and Analysis.
Remarks	Indicator for orchid category: Biodiversity

Activity ID	A-22
ID Indicator	A-22.3
Indicator Name	# of native seed plant species identified and georeferenced for restoration processes.
Guy	Result
Goal	Identify seed sources and the selection of individuals that contribute most to effective restoration processes.
SDGs to be met	SDG 15
Unit of Measure	Number of species
Monitoring methodology	<p>This indicator allows the identification of seed sources and the selection of individuals that contribute to an effective restoration process.</p> <p>For the measurement and reporting of this indicator, the following must be done:1. Involve communities in the identification and care of seed sources.1. Register the species identified by local REDD+ communities and teams as seed companies.2. Map seed sources of native species for ecological restoration.</p> <p>Based on the data obtained, analysis of</p>
Frequency of monitoring	Annual
Responsible for measurement	Local communities: Implementation, monitoringLocal REDD+ technical teams: biodiversity and MRVOperator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	Records of native seed plant species. Biodiversity monitoring photographs and videos. Monitoring Technical Report: Wealth and Abundance Data and Analysis.

Remarks	Indicator for orchid category: Biodiversity
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Activity ID	A-22
ID Indicator	A-22.4
Indicator Name	# Plant species identified with potential uses
Guy	Result
Goal	Identify and register plant species with potential uses, classifying them into specific categories (medicinal, food, handicraft, construction, and cultural/traditional) to promote their conservation and sustainable use.
SDGs to be met	SDG 15
Unit of Measure	Number of species
Monitoring methodology	<p>For the measurement and reporting of this indicator, the following must be done:</p> <ol style="list-style-type: none"> 1. Carry out an inventory and identify species that may have other uses through direct observation, disaggregating the record into: <ol style="list-style-type: none"> 1. Species for medicinal use 2. Species for food use 3. Species for artisanal use 4. Species of use for construction 5. Species for cultural/traditional use 2. Identify common names, scientists, specific uses, and method of collection. 3. With the data obtained, calculate the importance value index (IVI), an index that measures the importance of species in an ecosystem. It will calculate from frequency, density and relative dominance. This index provides information that allows us to identify species that require special attention in terms of conservation and management.
Frequency of monitoring	Annual

Responsible for measurement	Local communities: Implementation, monitoring Local REDD+ technical teams: biodiversity and MRV Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	Records of plants identified with potential uses. Biodiversity monitoring photographs and videos. White Paper: Data & Analytics
Remarks	Indicator for orchid category: Biodiversity

Activity ID	A-22
ID Indicator	A-22.5
Indicator Name	# Areas of use identified with plants with potential uses
Guy	Result
Goal	Identify and register sectors of the territory where plant species with potential uses are identified according to defined categories (medicinal, food, handicrafts, construction and cultural/traditional) to promote conservation and sustainable management actions based on local and ancestral knowledge.
SDGs to be met	SDG 15
Unit of Measure	# of sectors
Monitoring methodology	For the measurement and reporting of this indicator, it is necessary to: 1. Identify specific sectors for the use of useful plants in the project area. 2. Work with the community to locate harvesting areas on local maps, integrating ancestral knowledge about the distribution and use of plants.
Frequency of monitoring	Annual

Responsible for measurement	Local communities: Implementation, monitoring Local REDD+ technical teams: biodiversity and MRV Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	Records of sectors identified with plants of potential use. Local maps Maps with information on georeferenced points. Technical report on community participation for the identification of sectors. Biodiversity monitoring photographs and videos. White Paper: Data & Analytics
Remarks	Indicator for orchid category: Biodiversity

Activity ID	A-22
ID Indicator	A-22.5
Indicator Name	# Areas of use identified with plants of potential uses
Guy	Result
Goal	Identify and record sectors of the territory, where plant species with potential uses are identified according to categories defined in indicator A-22-4.
SDGs to be met	SDG 15
Unit of Measure	# of sectors
Monitoring methodology	For the measurement and reporting of this indicator, it is necessary to: 1. Identify specific sectors for the use of useful plants in the project area. 2. Work with the community to locate harvesting areas on local maps, integrating ancestral knowledge about the distribution and use of plants.
Frequency of monitoring	Annual

Responsible for measurement	Local communities: Implementation, monitoring Local REDD+ technical teams: biodiversity and MRV Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	Records of sectors identified with plants of potential use. Local maps Maps with information on georeferenced points. Technical report on community participation for the identification of sectors. Biodiversity monitoring photographs and videos. White Paper: Data & Analytics
Remarks	Indicator for orchid category: Biodiversity

Activity ID	A-22
ID Indicator	A-22.6
Indicator Name	# of invasive species identified in the project area
Guy	Result
Goal	Conserve native biodiversity in the project area through the identification of invasive species and community monitoring.
SDGs to be met	SDG 15
Unit of Measure	Number of invasive species
Monitoring methodology	For the report of this indicator you must: 1. Involve communities in the surveillance and reporting of any new or unusual species (flora or fauna). 2. Record the invasive species that have been identified in the project area. As an identification reference, the following can be used: 1. The official list of invasive species for Colombia, according to resolutions 848 of 2008, 207 of 2010 and 654 of 2011 of the Ministry of Environment and Sustainable Development. 2. Ancestral knowledge of the territory.

Frequency of monitoring	Annual
Responsible for measurement	
Indicator result in the reporting period	Local communities: Implementation, monitoring Local REDD+ technical teams: biodiversity and MRV Operator: support in design, implementation and monitoring. Executing agent: technical support and accompaniment.
Information support document	Records of invasive species Photographs and videos
Remarks	Indicator for orchid category: Biodiversity

Project emissions monitoring

During the implementation of the project, activity data and emission factors are monitored in accordance with the provisions of section 13 of the Methodology BCR0002 version 4.0, published on May 27, 2024 by BioCarbon Cert. The reduction of GHG emissions from REDD+ activities shall be estimated following the procedure and equations presented in section 13.6 on GHG emissions in the period of analysis.

Activity Data

Annual deforestation in the project area

The estimate of deforestation in the project area in the monitoring period is estimated with the equation:

$$CSB_{proy,año} = \left(\frac{1}{t_2 - t_1} \right) * (A_{REDD+proy,1} - A_{REDD+proy,2})$$

Where

- $CSB_{proy,año}$ = Annual change in the area covered by forest in the project area (ha).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $A_{REDD+proy,1}$ = Forest area, in the project area at the beginning of the monitoring period (ha)

- $A_{REDD+proy,2}$ = Forest area, in the project area at the end of the monitoring period (ha).

Annual deforestation in the area of leakage

The estimate of deforestation in the area of leakage, in the monitoring period, is estimated with the equation:

$$CSB_{f,año} = \left(\frac{1}{t_2 - t_1} \right) * (A_{f,1} - A_{f,2})$$

Where

- $CSB_{f,año}$ = Annual change in the area covered by forest in the area of leakage (ha).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $A_{f,1}$ = Forest area, in the area of leakage at the beginning of the monitoring period (ha).
- $A_{f,2}$ = Forest area, in the area of leakage at the end of the monitoring period (ha).

Annual degradation in the project area

The estimate of annual degradation in the project area is estimated with the equation:

$$DFP_{REDD+proy,año} = \left(\frac{1}{t_2 - t_1} \right) * (A_{núcleo} - A_{núcleo-parche})$$

- $DFP_{REDD+proy,año}$ = Annual primary degradation in the project area (ha).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $A_{núcleo}$ = Project area in core class, in the year of the beginning of the monitoring period (ha).
- $A_{núcleo-parche}$ = Project area that changes from core to patch, in the final year of the monitoring period (ha).

And

$$DFS_{REDD+proy,año} = \left(\frac{1}{t_2 - t_1} \right) * (A_{perforado} - A_{perforado-parche})$$

- $DFS_{REDD+proy,año}$ = Annual secondary degradation in the project area (ha).

- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $A_{perforado}$ = Project area in class drilled, in the year of the start of the monitoring period (ha).
- $A_{perforado-parche}$ = Area that changes from drilled to patch, in the final year of the monitoring period (ha).

Annual degradation in the leakage area

The estimate of the annual degradation in the leakage area is estimated with the following equations:

$$DFP_{f,año} = \left(\frac{1}{t_2 - t_1} \right) * (A_{núcleo,f} - A_{núcleo-parche,f})$$

- $DFP_{f,año}$ = Annual primary degradation in the leakage area (ha).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $A_{núcleo,f}$ = Area of leaks in core class, in the year of the beginning of the monitoring period (ha).
- $A_{núcleo-parche,f}$ = Leakage area that changes from core to patch, in the final year of the monitoring period (ha).

And

$$DFS_{f,año} = \left(\frac{1}{t_2 - t_1} \right) * (A_{perforado,f} - A_{perforado-parche,f})$$

- $DFS_{f,año}$ = Annual secondary degradation in the leakage area (ha).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $A_{perforado,f}$ = Leakage area in class drilled year of start of the monitoring period (ha).
- $A_{perforado-parche,f}$ = Leakage area that changes from drilled to patch, in the final year of the monitoring period (ha).

GHG emissions in the monitoring period

Deforestation

The annual emission from deforestation in the project area is calculated following the equation:

$$EA_{REDD+proy,año} = DEF_{REDD+proy,año} * TCO_{2eq}$$

Where

- $EA_{REDD+proy,año}$ = Annual emission in the project area (tCO₂ ha).
- $DEF_{REDD+proy,año}$ = Annual deforestation in the project area (ha).
- TCO_{2eq} = Total carbon dioxide equivalent (tCO_{2e} ha).

The annual emission from deforestation in the area of leakage is calculated following the equation:

$$EA_{f,año} = (DEF_{f,año} * TCO_{2eq}) - EA_{lb,f,año}$$

Where

- $EA_{f,año}$ = Annual emission in the leakage area (tCO₂ ha).
- $DEF_{f,año}$ = Annual deforestation in the area of leakage (ha).
- TCO_{2eq} = Total carbon dioxide equivalent (tCO_{2e} ha).
- $EA_{lb,f,año}$ = Annual emission from deforestation in the area of leakage in the baseline scenario (tCO_{2e}).

Degradation

The annual emission from degradation in the project area is calculated following the equation:

$$EA_{REDD+proy,año} = (DFP_{REDD+proy,año} * DTBCO_{2eq1}) + (DFS_{REDD+proy,año} * DTBCO_{2eq2})$$

Where

- $EA_{REDD+proy,año}$ = Annual emission in the project area for the monitored period (tCO_{2e}).
- $DFP_{REDD+proy,año}$ = Annual historical primary degradation in the project area (ha).
- $DTBCO_{2eq1}$ = Carbon dioxide equivalent contained in the total biomass difference per hectare in the primary degradation class (tCO_{2e} ha⁻¹).

- $DFS_{REDD+proy,año}$ = Annual historical secondary degradation in the project area (ha).
- $DTBCO_{2eq,2}$ = Carbon dioxide equivalent contained in the total biomass difference per hectare in the secondary degradation class (tCO_{2e} ha⁻¹).

The annual emission from degradation in the leakage area is calculated following the equation:

$$EA_{f,año} = (DFP_{f,año} * DTBCO_{2eq1}) + (DFS_{f,año} * DTBCO_{2eq,2})$$

Where

- $EA_{f,año}$ = Annual emission in the leakage area for the monitored period (tCO_{2e}).
- $DFP_{f,año}$ = Annual historical primary degradation in the leakage area (ha).
- $DTBCO_{2eq1}$ = Carbon dioxide equivalent contained in the total biomass difference per hectare in the primary degradation class (tCO_{2e} ha⁻¹).
- $DFS_{f,año}$ = Annual historical secondary degradation in the leakage area (ha).
- $DTBCO_{2eq,2}$ = Carbon dioxide equivalent contained in the total biomass difference per hectare in the secondary degradation class (tCO_{2e} ha⁻¹).

Quantifying the project's emission reductions

Deforestation

The reduction in emissions from deforestation avoided, in the monitoring period, is estimated according to the equation:

$$RE_{DEF,REDD+proy} = (t_2 - t_1) * (EA_{DEF,lb,año} - EA_{DEF,REDD+proy,año} - EA_{DEF,f,año})$$

Where

- $RE_{DEF,REDD+proy}$ = Reduction of emissions from deforestation avoided in the monitoring period (tCO_{2e}).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $EA_{DEF,lb,año}$ = Annual emission from deforestation in the baseline scenario (tCO_{2e}).
- $EA_{DEF,REDD+proy,año}$ = Annual emission from deforestation in the project area for the monitored period (tCO_{2e}).

- $EA_{DEF,f,año}$ = Annual emission from deforestation in the area of leakage for the monitored period (tCO₂e).

Degradation

The reduction of emissions due to degradation, in the monitoring period, is estimated according to the equation:

$$RE_{DEG,REDD+proy} = (t_2 - t_1) * (EA_{DEG,lb,año} - EA_{DEG,REDD+proy,año} - EA_{DEG,f,año})$$

Where

- $RE_{DEG,REDD+proy}$ = Reduction of emissions due to avoided degradation (tCO₂e).
- t_2 = End year of the monitoring period (year).
- t_1 = Year of start of the monitoring period (year).
- $EA_{DEG,lb,año}$ = Annual emission from degradation in the baseline scenario (tCO₂e).
- $EA_{DEG,REDD+proy,año}$ = Annual emission of degradation in the scenario with project (tCO₂e).
- $EA_{DEG,f,año}$ = Annual emission from degradation in the leakage area for the monitored period (tCO₂e).

Monitoring of the REDD+ Safeguards

Below is the monitoring plan for each applicable safeguard.

ID Safeguards	SVG-1
ID Indicator	SVG-1.1
Indicator Name	Correspondence with national legislation
Guy	Result
Goal	Ensure that 100% of the activities carried out by the project comply with national legislation.
Unit of Measure	Percentage

Monitoring methodology	The measurement of compliance with the indicator will be carried out by comparing the number of activities that comply with the regulations against the total number of programmed activities
Frequency of monitoring	in each monitoring period
Responsible for measurement	Cabildo Mayor: Implementation Oversight Governance teams. Operator: support in design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Monitoring report with all project activities that have been scheduled comply with current legal regulations. Minutes/lists/photos of participatory spaces
Remarks	All the activities of the project have been planned in compliance with current regulations and the corresponding legal requirements

ID Safeguards	SVG-2
ID Indicator	SVG-2.1
Indicator Name	Transparency and access to information
Guy	Result
Goal	Ensure that 100% of the territory's inhabitants access project information in a timely and transparent manner
Unit of Measure	Percentage

Monitoring methodology	Measurement of compliance with the indicator will be verified through the number of actors who have access to project documents and information in the language and media appropriate to the community. In addition to the implementation of transparency mechanisms as a stakeholder service mechanism or PQR.
Frequency of monitoring	Annual
Responsible measurement for	Cabildo Mayor: Supervision of the application Government teams. Operator: support in the design, implementation and monitoring. Implementing Agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	Support for the means of disseminating information: radio, video calls, documents, brochures, billboards, community participation spaces, emails, websites, among others. Minutes/lists/photos of participatory spaces Evidence of PQR mechanism records.
Remarks	All the activities of the project have been planned in compliance with current regulations and the corresponding legal requirements

ID Safeguards	SVG-3
ID Indicator	SVG-3.1
Indicator Name	Accountability
Guy	Result

Goal	Ensure that institutions and actors prepare and report on REDD+ management to partners, institutions and the public, highlighting the implementation and respect of safeguards
Unit of Measure	Accountability spaces
Monitoring methodology	The measurement of compliance with the indicator will be verified by means of a number of spaces, assemblies or meetings held to render accounts, report agreements, progress, investments made in the project, as well as compliance with the agreements established in the distribution mechanism. The information must be shared through appropriate materials, ensuring understanding and monitoring of the development of the project.
Frequency of monitoring	Annual
Responsible for measurement	Cabildo Mayor: Implementation Oversight Governance teams. Operator: support in design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Support of the spaces used for accountability: Minutes/lists/photos of participatory spaces
Remarks	

ID Safeguards	SVG-4
ID Indicator	SVG-4.1
Indicator Name	Recognized forest governance structures

Guy	Result
Goal	Strengthen forest governance mechanisms, ensuring that REDD+ actions are developed in accordance with existing standards or by creating new articulation arrangements that facilitate the participation and decision-making of the actors involved.
Unit of Measure	Governance instruments
Monitoring methodology	The measurement of compliance with the indicator will be verified through the governance instruments generated or improved to strengthen the governance of the territory. A record will be kept of the community participation spaces developed for the development of these governance instruments.
Frequency of monitoring	in each monitoring period
Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in design, implementation and follow-up. Implementing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Support of community participation spaces for the construction or improvement of governance instruments: Minutes/lists/photos of participatory spaces Support of the governance instruments generated or improved.
Remarks	

ID Safeguards	SVG-5
ID Indicator	SVG-5.1
Indicator Name	Capacity building

Guy	Results
Goal	To comprehensively strengthen the capacities of the actors involved in the REDD+ project to increase efficiency in decision-making and promote informed and transparent decision-making.
Unit of Measure	People with strengthened capacities
Monitoring methodology	The measurement of compliance with the indicator will be verified through the registration of the number of people with strengthened capacities for the management and conservation of the territory.
Frequency of monitoring	Annual
Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in design, implementation and follow-up. Implementing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Support of community participation spaces for the construction or improvement of governance instruments: Minutes/lists/photos of participatory spaces Support of the governance instruments generated or improved.
Remarks	

ID Safeguards	SVG-6
ID Indicator	SVG-6.1
Indicator Name	Free, prior and informed consent
Guy	Ensure the effective and free participation of indigenous communities in decision-making on projects that affect their territories and natural resources, in full compliance with national and international standards of free, prior, and informed consultation.

Goal	
Unit of Measure	Number of Requests
Monitoring methodology	The measurement of compliance with the indicator will be verified through the stakeholder consultation sessions held and the number of sessions held will be recorded.
Frequency of monitoring	Annual
Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in design, implementation and follow-up. Implementing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Evidence of the consultations carried out: request for prior consultation, minutes of meetings, attendance lists, photographic record.
Remarks	

ID Safeguards	SVG-7
ID Indicator	SVG-7.1
Indicator Name	Respect for traditional knowledge
Guy	Result
Goal	Promote, respect and guarantee the recognition of traditional knowledge systems and the visions of the territory of ethnic and local peoples and communities, in compliance with national legislation and applicable international conventions.
Unit of Measure	Number of Sessions

Monitoring methodology	It will include quantifying the consultation sessions conducted with stakeholders, community validation of the proposal for the development of the deforestation initiative, and recording the total number of sessions conducted and documented.
Frequency of monitoring	Annual
Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in design, implementation and follow-up. Implementing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Evidence of the consultation sessions: sessions held, minutes of assemblies, attendance lists, photographic record.
Remarks	

ID Safeguards	SVG-8
ID Indicator	SVG-8.1
Indicator Name	Profit sharing
Guy	Product
Goal	Ensure the equitable distribution of the benefits of actions to reduce deforestation and the sustainable use of forests for ethnic communities through consultation and consensus processes.
Unit of Measure	Distribution agreements
Monitoring methodology	It will include the quantification of the agreements reached in the structuring of an equitable benefit-sharing mechanism.
Frequency of monitoring	Annual

Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in design, implementation and follow-up. Implementing agent: technical support and accompaniment
Indicator result in the reporting period	
Information support document	Resource sharing agreements defined and agreed upon by the communities. Evidence of community participation spaces: attendance lists, minutes, agreements. Photographic record.
Remarks	

ID Safeguards	SVG-9
ID Indicator	SVG-9.1
Indicator Name	Territorial rights
Guy	Product
Goal	Guarantee respect for and protection of the territorial and fundamental rights of indigenous, ethnic and local communities, promoting their inclusion, participation and autonomy, generating a report on compliance with collective rights in the implementation of the project.
Unit of Measure	Number
Monitoring methodology	To monitor this compliance, a review report will be prepared on the regulations related to property rights in indigenous Resguardos, ensuring that these rights are respected throughout the useful life of the project.
Frequency of monitoring	Each monitoring period
Responsible for measurement	

Indicator result in the reporting period	Cabildo Mayor: Supervision of the application Government teams. Operator: support in design, implementation and follow-up. Implementing agent: technical support and accompaniment
Information support document	Resolutions on land titling Regulatory review report
Remarks	

ID Safeguards	SVG-10
ID Indicator	SVG-10.1
Indicator Name	Participation
Guy	Result
Goal	Ensure the full and effective participation of all actors involved in REDD+-related governance and decision-making processes
Unit of Measure	Spaces for participation
Monitoring methodology	To monitor this compliance, the active and equitable participation of communities in decision-making processes will be verified to ensure adequate governance. Document sessions, meetings or decision-making spaces, detailing the number of actors actively participating.
Frequency of monitoring	Annual
Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in the design, implementation and monitoring. Implementing Agent: technical support and accompaniment.
Indicator result in the reporting period	

Information support document	Evidence of participation spaces for decision-making. Information and consultation session attendance records
Remarks	

ID Safeguards	SVG-11
ID Indicator	SVG-11.1
Indicator Name	Conservation of forests and their biodiversity
Guy	Impact
Goal	Promote forest conservation through the effective implementation of REDD+ initiatives, ensuring that the measures adopted do not negatively affect biodiversity.
Unit of Measure	Compliance
Monitoring methodology	Geographic Information System (GIS) will be used to perform a detailed analysis and verify the forest area present within the project area.
Frequency of monitoring	Annual
Responsible for measurement	Cabildo Mayor: Supervision of the application Government teams. Operator: support in the design, implementation and monitoring. Technical teams GIS Implementing Agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	GIS analysis with deforestation information. Biodiversity monitoring registry.
Remarks	

ID Safeguards	SVG-12
ID Indicator	SVG-12.1
Indicator Name	Provision of environmental goods and services
Guy	Impact
Goal	Promote forest conservation through the effective implementation of REDD+ initiatives, ensuring that the measures adopted do not directly or indirectly affect the provision of goods and services.
Unit of Measure	Compliance
Monitoring methodology	Geographic Information System (GIS) will be used to perform a detailed analysis and verify the forest area present within the project area.
Frequency of monitoring	Annual
Responsible measurement for	Cabildo Mayor: Supervision of the application Government teams. Operator: support in the design, implementation and monitoring. Technical teams GIS Implementing Agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	GIS analysis with deforestation information. Biodiversity monitoring registry.
Remarks	

ID Safeguards	SVG-13
ID Indicator	SVG-13.1
Indicator Name	Environmental and territorial planning
Guy	Product

Goal	Strengthen the forest governance of the indigenous community through governance instruments such as: Environmental Management Plan, updating of internal regulations, demarcation of conservation areas, promotion of no-logging agreements, and design of territorial governance instruments, integrating community participation, gender approach and capacity building on REDD+ issues
Unit of Measure	Number of governance instruments
Monitoring methodology	This indicator will be measured by quantifying the governance instruments generated in each monitoring period.
Frequency of monitoring	Each monitoring period
Responsible for measurement	Cabildo Mayor: Supervision of the application teams. Operator: support in the design, implementation and monitoring. Implementing Agent: technical support and accompaniment.
Indicator result in the reporting period	
Information support document	1. Governance instrument documents: Environmental management plan, internal regulations, zoning plan, no-logging agreements. 2. Evidence of the spaces for participation made for the construction of the instruments: minutes and records.
Remarks	

ID Safeguards	SVG-14
ID Indicator	SVG-14.1
Indicator Name	Sectoral planning
Guy	Product

Goal	Design and implement at least three REDD+ sectoral strategies aligned with environmental and territorial planning instruments and conservation regulations, within a period of two years.
Unit of Measure	Number of shares
Monitoring methodology	<p>Sectoral strategies: these are those REDD+ interventions or activities implemented that are integrated into environmental and territorial planning instruments, and into current legislation for the conservation of forests and biodiversity.</p> <p>This indicator is measured by accounting for sectoral strategies.</p>
Frequency of monitoring	Each monitoring period
Responsible for measurement	<p>Cabildo Mayor: Supervision of the application Government teams.</p> <p>Operator: support in the design, implementation and monitoring.</p> <p>Implementing Agent: technical support and accompaniment.</p>
Indicator result in the reporting period	
Information support document	Monitoring report on REDD+ strategies aligned with territorial and environmental planning instruments.
Remarks	

ID Safeguards	SVG-15
ID Indicator	SVG-15.1
Indicator Name	Forest control and surveillance to prevent displacement of emissions
Guy	Product

Goal	Quantify GHG emissions in the leakage area and generate an annual community monitoring report to support territory control and critical emissions tracking.
Unit of Measure	Compliance
Monitoring methodology	GHG emissions in the project leakage area are quantified and compared to the baseline to identify the trend of change. Community monitoring is reported to support actions to control the territory and follow-up to critical areas and events of GHG emissions.
Frequency of monitoring	Each monitoring period
Responsible for measurement	
Indicator result in the reporting period	Cabildo Mayor: Supervision of the implementation of technical teams for governance, carbon and carbon management. Operator: support in the design, implementation and monitoring. Implementing Agent: technical support and accompaniment
Information support document	Emissions monitoring report in the leakage area. Community monitoring reports and records.
Remarks	

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

Complete the table for data and parameters that are determined or available at validation and remain fixed throughout the project quantification period. Copy this table for each data and parameter.

<i>Data / Parameter</i>	
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<i>Data unit</i>	
<i>Description</i>	
<i>Source of data used</i>	
<i>Value(s)</i>	
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	
<i>Justification of choice of data or description of measurement methods and procedures applied</i>	
<i>Additional comments</i>	

16.3 Data and parameters monitored

Complete the table for all data and parameters monitored during the project quantification period. Copy this table for each data and parameter.

<i>Data / Parameter</i>	
<i>Data unit</i>	
<i>Description</i>	
<i>Measured /Calculated /Default:</i>	
<i>Source of data</i>	
<i>Value(s) applied</i>	
<i>Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)</i>	
<i>Monitoring frequency</i>	
<i>Measuring/ Reading/ Recording frequency</i>	

<i>Measurement/Calculation method (if applicable)</i>	
<i>QA/QC procedures applied</i>	

17 References

Alcaldía de Vigía del Fuerte. (2020). Plan de Desarrollo de Vigía del Fuerte 2020-2023 “El cambio lo hacemos tod@s”.

Brown, E., N. Dudley, A. Lindhe, D.R. Muhtaman, C. Stewart, y T. Synnott (eds.). 2013 (septiembre). Guía genérica para la identificación de Altos Valores de Conservación. Red de Recursos de AVC (HCVRN).

Gobernación de Antioquía. (2018). Gobernación de Antioquía. Obtenido de Departamento Administrativo de Planeación: <https://antioquia.gov.co/images/PDF2/Planeacion/ley-715/estudios-etnoeconomicos-gobernacion-agosto-2019-digital-definitivo.pdf>

González, J. Cubillos, A., Chadid, M., Cubillos, A., Arias, M., Zúñiga, E., Joubert, F. Pérez, I, Berrío, V. Caracterización de las principales causas y agentes de la deforestación a nivel nacional período 2005-2015. Instituto de Hidrología, Meteorología y Estudios Ambientales – IDEAM-. Ministerio de Ambiente y Desarrollo Sostenible. Programa ONU-REDD Colombia. Bogotá, 2018.

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM). (2013). Zonificación Hidrográfica. Bogotá D.C. Colombia. Descargado en 2023: <http://www.siac.gov.co/catalogo-de-mapas>

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM). (2014a). Clasificación climática de Caldas - Lang. Datos homogenizados Normal Climatológica 1981 - 2010. Bogotá D.C. Colombia. Descargado en 2023: <http://www.siac.gov.co/catalogo-de-mapas>

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM). (2014b). Temperatura Media Anual Promedio Multianual Periodo 1981-2010. Bogotá D.C. Colombia. Descargado en 2023: <http://www.siac.gov.co/catalogo-de-mapas>

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM), Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (Instituto Humboldt), Instituto de Investigaciones Marinas y Costeras José Benito Vives de Andrés (Invemar) e Instituto Geográfico Agustín Codazzi (IGAC). (2017). Memoria técnica. Mapa de ecosistemas continentales, costeros y marinos de Colombia (MEC), escala 1:100.000. 170 pp.

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM). (2021). Mapa de Coberturas de la Tierra Metodología Corine Land Cover Escala 1:100.000. Periodo 2018.

Leemans, R. (1992). Global Holdridge Life Zone Classifications. Laxenberg (Austria): IIASA. Descargado en 2023: <https://resources.unep-wcmc.org/products/31d5e80482834f6ba6ee51a2813b82e7>

Martínez Z. C., Arbeláez T. M. Gutiérrez B. A., Lacoste M., Velásquez E. J., 2016. Clima y Paz 2040 – Urabá Antioqueño, Nutibara y Urrao. Construido para Corpourabá por Cordupaz y E3, Ecología, Economía y Ética.

Ministerio de Ambiente y Desarrollo Sostenible. (2016). *Plan Nacional de Adaptación al Cambio Climático*. Bogotá, Colombia: Ministerio de Ambiente y Desarrollo Sostenible.

Ministerio de Medio Ambiente. MADS, 2017. Política Nacional de Cambio Climático. Dirección de Cambio Climático. 290 pp. Bogotá D.C.

Ministerio de Medio Ambiente. MADS. (20 de Junio de 2024). Sistema de Información Ambiental de Colombia SIAC. Obtenido de Ley segunda: <http://www.siac.gov.co/ley-segunda>

Organización Indígena de Antioquía. (2011). PLAN DE SALVAGUARDA EMBERA CAPÍTULO ANTIOQUIA. Departamento Antioquía: Gobernación de Antioquía.

Programa Colombia Forestal. (2005). Plan de Manejo Forestal para 26000 Hectáreas del Consejo Comunitario Mayor de la Asociación Integral del Atrato - Municipio de Vigía del Fuerte Departamento de Antioquía. Bogotá: U.S. Agency for International Development/Colombia.

Programa de las Naciones Unidas para el Desarrollo (PNUD). (2013). Perfil Productivo municipio de Vigía del Fuerte. Bogotá: Programa de las Naciones Unidas para el Desarrollo (PNUD).

Rogelis Rincón, R., González Moreno, V., Rodríguez Padilla, R., Romaña Palacios, A., & Pérez Guzmán, D. (2022). El Atrato es la vida. Conflicto armado y economías extractivas en el río Atrato. Bogotá : Foro Interétnico Solidaridad Chocó y del Centro Sociojurídico para la Defensa Territorial SIEMBRA.

Sistema de Monitoreo Territorial -ONIC. (2022). Resguardo ríos Jengadó-Apartadó. Obtenido de https://wiki.monitoreoterritorialonic.co/index.php?title=Resguardo_Los_rios_Jengad%C3%B3-Apartad%C3%B3#Planes_de_manejo_y_ordenamiento_ambiental_territorial

Sistema de Monitoreo Territorial -ONIC. (2022). Resguardo El Salado. Obtenido de https://wiki.monitoreoterritorial-onic.co/index.php?title=Resguardo_El_Salado#cite_note-cll-34

Sistema de Monitoreo Territorial -ONIC. (2022). Resguardo Río Jarapeto. Obtenido de https://wiki.monitoreoterritorialonic.co/index.php?title=Resguardo_R%C3%ADo_Jarapeto&oldid=5009.

Vasco, L.G. (1985). Jaibanás. Los verdaderos hombres. Fondo de Promoción de la Cultura del Banco Popular, Colección Textos Universitarios, Bogotá D.C., Colombia. Consultado en: <http://www.luguiva.net/libros/detalle.aspx?>

Appendix 1. Post-registration changes summary.

Provide a concise overview of the post-registration modifications proposed in this version of the GHG Project Document, and, where applicable, a chronological record of all post-registration changes to the project activity that have been approved by the BCR Technical Committee following its registration. For all post-registration changes, include justifications, the impact of the changes on relevant BCR requirements, and any supplementary information pertaining to the modifications.

All post-registration changes shall follow the provision in section 14.5 of the BCR Standard Operating Procedures .

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NOTE: This Project Document (PD) shall be completed following the instructions included. However, it is important to highlight that these instructions are complementary to the BCR STANDARD, and the Methodology applied by the project holder, in which more information on each section can be found.