
Integrated management of multiple use landscapes and high conservation value forest for sustainable development of the Venezuelan Andean Region

Part I: Project Information

GEF ID

10678

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Integrated management of multiple use landscapes and high conservation value forest for sustainable development of the Venezuelan Andean Region

Countries

Venezuela

Agency(ies)

FAO

Other Executing Partner(s)

Ministry of Popular Power for Ecosocialism (MINEC)

Executing Partner Type

Government

GEF Focal Area

Multi Focal Area

Taxonomy

Focal Areas, Biodiversity, Protected Areas and Landscapes, Productive Landscapes, Land Degradation, Sustainable Land Management, Sustainable Livelihoods, Restoration and Rehabilitation of Degraded Lands, Sustainable Agriculture, Influencing models, Strengthen institutional capacity and decision-making, Stakeholders, Local Communities, Beneficiaries, Civil Society, Gender Equality, Gender results areas, Access to benefits and services, Capacity Development, Capacity, Knowledge and Research, Learning, Knowledge Generation, Sustainable Forest, Climate Change Mitigation, Climate Change, Agriculture, Forestry, and Other Land Use

Sector

Mixed & Others

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

12/8/2021

Expected Implementation Start

8/1/2022

Expected Completion Date

8/31/2027

Duration

60In Months

Agency Fee(\$)

506,298.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors	GET	2,664,726.00	30,454,236.00
LD-1-1	Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	1,332,363.00	7,613,559.00
LD-1-4	Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape	GET	1,332,363.00	7,613,560.00
Total Project Cost(\$)			5,329,452.00	45,681,355.00

B. Project description summary

Project Objective

Reduce and reverse forest degradation in the productive landscapes of the Venezuelan Andean region by creating a favorable environment for biodiversity conservation and sustainable use with emphasis on agroforestry systems.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Institutional strengthening for land use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities	Technical Assistance	<p>Outcome 1.1: Institutional and community capacities for land management with a landscape, environmental sustainability, gender-sensitive and multiple-use approach strengthened.</p> <p><i>Indicators</i> - Area (ha) of landscapes under sustainable land management in productive systems (Core Indicator 4.3). - Number of stakeholders with strengthened capacities for landscape, environmental sustainability, gender-sensitive and multiple-use approaches to land management.</p>	<p>Output 1.1.1 Training program in land management planning, monitoring and evaluation designed and implemented and personnel trained in the 14 selected municipalities of the Andean region</p> <p>Output 1.1.2 Coordination mechanisms for integrated landscape and land use management incorporate biodiversity and ecosystem assets with a gender perspective implemented and validated</p> <p>Output 1.1.3 Land use monitoring and surveillance system in</p>	GET	1,266,395.00	14,865,137.00

the Venezuelan Andes
formulated,
implemented and
validated

Outcome 1.2:
Increased area (ha)
under improved
management in the
buffer zones of the
Areas under Special
Management Regime
(ABRAEs) in the
project area

Indicators

- *Area (ha) of ABRAEs' buffer zones under improved management. (Core Indicator 4.1)*
- *Area (ha) of restored forest land in buffer zones of ABRAEs. (Core Indicator 3.2).*
- *Area (ha) of restored agricultural land in buffer zones outside of ABRAEs (Core Indicator 3.1).*
- Metric tons of carbon dioxide equivalent (CO₂e) sequestered or emission avoided in the agriculture, forestry, and other land uses (AFOLU) sector. (Core Indicator 6)

Output 1.2.1.
Environmental
education program for
landscape
conservation
institutionalized and
supported by local
organizations to
ensure its long-term
operation

Output 1.2.2.
Demonstration pilot
management plans
for sustainable land
management in
ABRAEs' buffer zones
formulated and
implemented in the
field

2. Sustainable increase in productivity of specialty coffee and fine aroma cocoa in line with biodiversity conservation and landscape restoration in the 14 selected municipalities	Investment	<p>Outcome 2.1 Sustainable, gender-sensitive management practices in productive landscapes, contributing to increased productivity, and the establishment of sustainable product supply chains and biodiversity conservation through Agroforestry Systems (SAF)</p>	<p>Output 2.1.1. Programme for capacity building, technical assistance (TA), agricultural extension and field interventions for coffee and cocoa producers focusing on agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices formulated and implemented</p>	GET	1,791,728.00	13,321,969.00
		<p>Indicators - Percentage increase in the average yield per hectare of coffee and cocoa production. - Number of producers (disaggregated by sex) implementing farm plans that incorporate biodiversity conservation measures. (Core Indicator 11) - Area (ha) of agricultural land with agroforestry systems, sustainable and community-based forest management, agroecological production and best practices. (Core Indicator 4.3).</p>	<p>Output 2.1.2. Agroclimatic technical roundtables (MTA) in operation and supporting producers in the management of agroclimatic information and decision making for the development of sustainable production, based on an adaptive production approach and climate risk mitigation in agriculture</p>			
			<p>Output 2.1.3. Validated ecological strategies aimed at</p>			

reducing waste in SAF
and generating clean
energy and
technological
alternatives that
reduce pressure on
agroforestry
resources

3. Strengthening the sustainable market based on improving the quality and diversification of coffee and cocoa by-products	Investment	Outcome 3.1 Market strategies support the conservation and sustainable use of forest ecosystems and sustainable production in selected municipalities of the Andean region	Output 3.1.1. Municipal technical roundtables for the commercialisation of coffee and cocoa value chains functioning and coordinating with the national platform	GET	1,041,535.00	10,874,609.00
		<p>Indicators</p> <ul style="list-style-type: none"> - Number of producers (disaggregated by sex) served by the extension program that commercialize various produce of from coffee and cocoa agroforestry systems. (Core Indicator 11) - Percentage increase in the average volume of sales by type of product and sustainable sub-products of coffee and cocoa agroforestry systems. 	<p>Output 3.1.2. Commercial strategies differentiated by market segments, both for coffee and cocoa as well as for the products of the SAF and community forestry</p> <p>Output 3.1.3. Commercial alliances established by coffee and cocoa producer organizations with relevant actors in the coffee and cocoa value chains</p>			

4. Dissemination, Monitoring and Evaluation (M&E) based on gender principles, adaptive management, and delivery of measurable and objectively verifiable results	Technical Assistance	<p>Outcome 4.1. M&E strategy developed for reporting progress and results achieved by the project in the implementation of its work plans under the adaptive management principle, through objectively verifiable indicators and means of verification</p> <p>Indicators - Percentage of progress achieved in project implementation. - Percentage of implementation of the knowledge management and information exchange strategy. - Percentage of implementation of the communication for development strategy</p>	<p>Output 4.1.1. M&E system formulated and implemented</p> <p>Output 4.1.2. Mid-term review and final</p> <p>Output 4.1.3. Good practices and lessons learned from the project systematized and published</p> <p>Output 4.1.4. MINEC institutional website to continuously exchange specific project experiences, serve as a repository of relevant information, make results, and progress visible, and facilitate replication processes for the duration of the project and beyond</p>	GET	976,044.00	4,444,337.00
Sub Total (\$)					5,075,702.00	43,506,052.00
Project Management Cost (PMC)						
GET					253,750.00	2,175,303.00
Sub Total(\$)					253,750.00	2,175,303.00
Total Project Cost(\$)					5,329,452.00	45,681,355.00

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of People's Power for Ecosocialism (MINEC)	In-kind	Recurrent expenditures	23,000,000.00
Recipient Country Government	Ministry of People's Power for Ecosocialism (MINEC)	Public Investment	Investment mobilized	19,000,000.00
GEF Agency	FAO	Grant	Investment mobilized	3,181,355.00
GEF Agency	FAO	In-kind	Recurrent expenditures	500,000.00
			Total Co-Financing(\$)	45,681,355.00

Describe how any "Investment Mobilized" was identified

- The investment mobilized from MINEC corresponds to donations and national investments associated with the next stages of (i) . The Ecosocialist Tree Mission that promotes reforestation, seed collection and sanitation of rivers and streams, (ii) the National Watershed Reforestation Plan that will support the establishment of forestry and agroforestry plantations, in addition to providing technical assistance; and (iii) funds allocated to achieve the goals established in the national LDN commitments. MINEC will also support implementation through is Ecosocialist Territorial Units (UTECS) covering the municipalities of the project area. - The investment mobilized from FAO corresponds to activities within the framework of technical cooperation programs in the context of the 2030 agenda that seek to strengthen food security policy and rural development policy.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Venezuela	Biodiversity	BD STAR Allocation	2,664,726	253,149	2,917,875.00
FAO	GET	Venezuela	Land Degradation	LD STAR Allocation	2,664,726	253,149	2,917,875.00
Total Grant Resources(\$)					5,329,452.00	506,298.00	5,835,750.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Venezuela	Biodiversity	BD STAR Allocation	75,000	7,125	82,125.00
FAO	GET	Venezuela	Land Degradation	LD STAR Allocation	75,000	7,125	82,125.00
Total Project Costs(\$)					150,000.00	14,250.00	164,250.00

Core Indicators

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
5246.00	5246.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
4,000.00	4,000.00		

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,246.00	1,246.00		

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
537000.00	537000.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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300,000.00	300,000.00		
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Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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237,000.00	237,000.00		
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Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
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Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
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Expected metric tons of CO ₂ e (direct)	1925525	2392849	0	0
Expected metric tons of CO ₂ e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
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Expected metric tons of CO ₂ e (direct)	1,925,525	2,392,849		
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Expected metric tons of CO ₂ e (indirect)		
Anticipated start year of accounting	2022	2022
Duration of accounting	20	20

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit (At PIF) (At CEO Endorsement) (Achieved at MTR) (Achieved at TE)

Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit Energy (MJ) (At PIF) Energy (MJ) (At CEO Endorsement) Energy (MJ) (Achieved at MTR) Energy (MJ) (Achieved at TE)

**Target Energy Saved
(MJ)**

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	23,640	23,640		
Male	23,643	23,643		
Total	47283	47283	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

PART II: PROJECT JUSTIFICATION

a. The **global environmental and/or adaptation problems, root causes and barriers that need to be addressed**

National context

1. The Bolivarian Republic of Venezuela is in the extreme north of South America, with a total area of 916,445 km² and borders Colombia, Brazil, Guyana, the Atlantic Ocean and the Caribbean Sea (Figure 1). The country is divided into 23 States, the Capital District and 72 Federal Dependencies (grouped in the Miranda Island Territory).
2. The geographical location of the Bolivarian Republic of Venezuela gives it a natural diversity that makes it a megadiverse country, as evidenced by the ten existing bioregions, which have a wide diversity of biomes, numerous ecosystems, and a great diversity of flora and fauna species, among others.
3. To preserve the ecological heritage of each of these bioregions, the Venezuelan State created the figure of Areas Under Special Administration Regime (ABRAE). These areas are under a special management regime, as established in the "*Ley Orgánica para la Ordenación del Territorio*"^[1] (articles 15 to 17). There are 24 categories of ABRAEs, of which six categories are of particular importance for biodiversity conservation: i) national parks, ii) natural monuments, iii) wildlife refuges, iv) wildlife reserves, v) wildlife sanctuaries and (vi) biosphere reserves. A total of 406 ABRAEs have been decreed in Venezuela, covering a total area of 63,275,566 hectares, representing about 68.4% of the country's total area^[2]. The management of the ABRAEs is decreed through the respective Management Plan and Use Regulation (PORU), which contains the guidelines and policies for the administration of the area, as well as the criteria for assigning permitted or restricted uses and activities.
4. Because of its geographic location, the Bolivarian Republic of Venezuela has a diversity of climatic zones, resulting from the behaviour of different meteorological elements (e.g., precipitation, temperature, radiation, humidity), along with factors of continentality, relief, latitude, and altitude. The climate is tropical, with variants derived from topography and continentality, with a predominance of a warm climate. Precipitation varies between 400 mm in the arid zones and more than 4,000 mm in the Venezuelan Amazon, and temperatures decrease by approximately 0.67°C for every 100 m above sea level, with an annual average between 24°C and 27°C.
5. In terms of vegetation, Venezuela has nine major types of natural plant formations. In relation to soils, the country has eleven of the twelve types of soils existing in the world. From the point of view of water resources, the country has more than a thousand rivers, 2,500 lagoons, two important lakes, and average flows of 41,430 m³/s in its basins. This condition places the country among the first fifteen nations with freshwater reserves on the planet.

6. The country's forest heritage includes 47.7 million hectares of forests, covering all the ecosystems and forest resources within the national territory: natural forests, forest plantations, trees outside the forest, as well as forest lands and non-tree vegetation forms associated or not with the forest.
7. The 2011 Population and Housing Census recorded a population of 28,974,070 people. The projected population for 2022 is 33,360,238 persons. The population is mainly urban (88.88%) and is concentrated in the central-northern region of the country. Of this population, 66.22% occupies only 46% of the national territory.

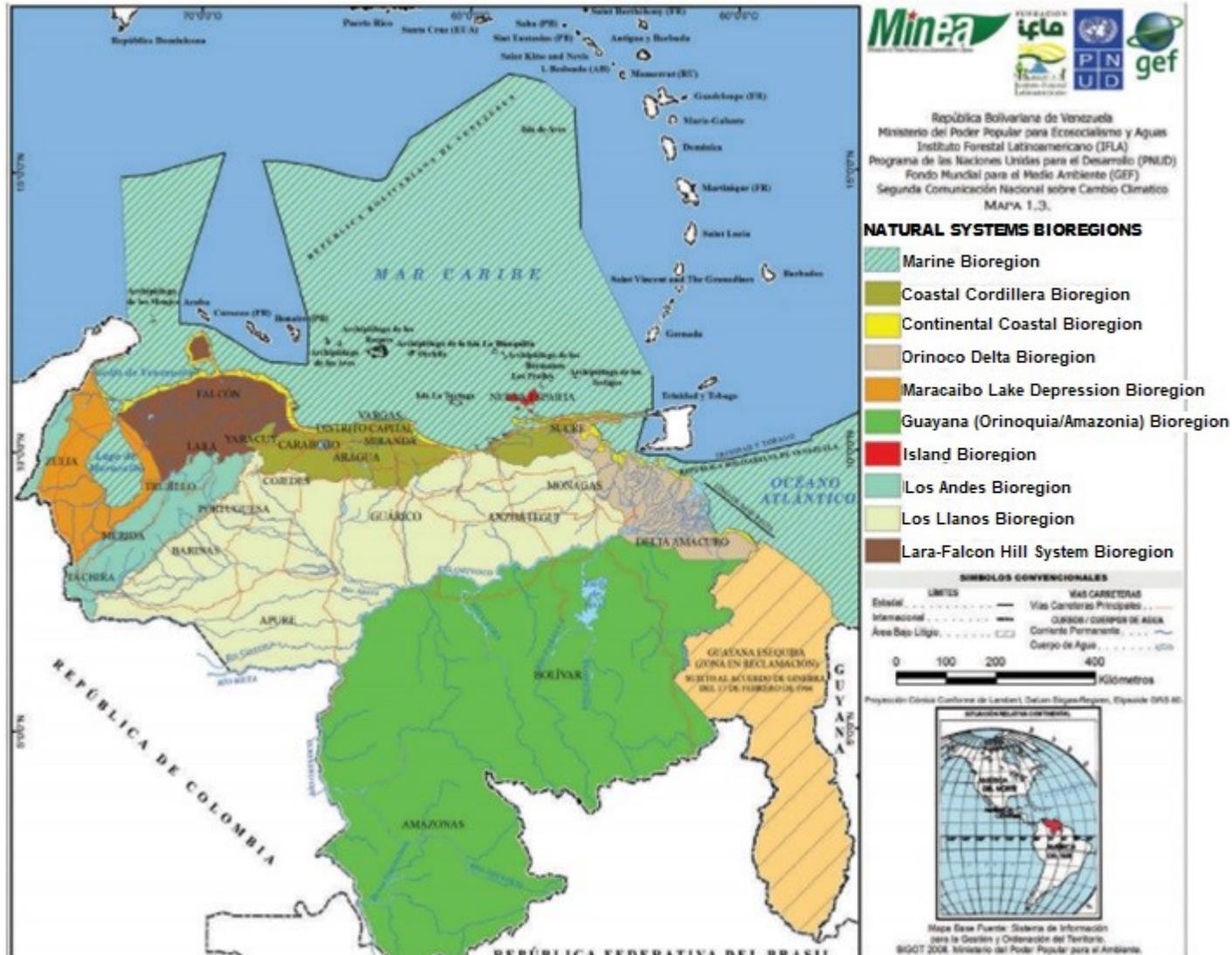


Figure 1. Map of Venezuela bioregions.

Coffee and cocoa production

Coffee

8. In Venezuela, coffee (*Coffea arabica*) is a crop with great tradition and cultural importance. Currently, coffee production is carried out in 19 states located in three geographical zones: Occidente, Oriente and Los Andes. Eight states account for 86 % of the production and in order of production they are: Lara, Portuguesa, Mérida, Táchira, Monagas, Trujillo, Yaracuy and Barinas. The average yield is between 7 q/ha and 20 q/ha (317 kg/ha to 907 kg/ha); the world average production is 700 kg/ha. The states of Lara and Portuguesa have the highest yields because they have a long-standing coffee culture and apply greater care to the crop. The *Corporación Venezolana del Café* (CVC) estimates that there are about 500,000 hectares of coffee. The latest statistics highlight a significant decrease in production that has reached historic lows. In 2017, 33,000 t were reported. However, according to data provided by the Confederation of Agricultural Producers Associations of Venezuela (FEDEAGRO) production in 2020 was 15,750 t.

9. In the country, 1,617,391 q/year are consumed, so it is calculated that the apparent consumption is 2.4 kg person⁻¹ year⁻¹. Currently, the little production in the country is only enough for 25% of the population, which represents about 0.6 kg person⁻¹ year⁻¹ (Agropecuaria, 2019).

10. In the coffee value chain at the national level, the following links can be distinguished: (i) primary production, which includes all agricultural activities up to the mill, (ii) threshing, which consists of the process to transform parchment coffee into green coffee, (iii) trading of green coffee (stockpiling) carried out by intermediaries, which can be companies, producer associations, or natural persons who are in charge of buying and selling coffee, iv) processing in roasting plants, which can be public or private, v) commercialization or distribution that takes the product to the consumer, vi) consumers who are the actors to whom the production of roasted and ground coffee or coffee beans is directed. The value chain also involves suppliers of goods and services such as the provision of inputs, equipment, packaging and training.

Cocoa

11. 4. Cocoa (*Theobroma cacao*) is also a crop with great tradition and cultural and economic importance (Delgado, 2008; Laviana Cuetos, 2009; Ramírez Méndes, 2015; Pérez et al., 2021). Currently, the main production areas are in the states of Sucre (36 % of the cultivated area), Miranda (26 %) and Mérida (8 %). Cocoa has great potential to strengthen its position in the international market and to increase the share of higher value-added products, providing great opportunities to generate income for disadvantaged rural populations. According to ONUDI (2019) in 2008, 21,506.45 t were harvested from a total of 56,706 ha. In 2017, 26,776 t were harvested from an area of 74,736 ha. During this period, the total production increased, but yield decreased from about 380 kg/ha in 2008 to about 360 kg/ha in 2017. According to the United Nations Industrial Development Organization (ONUDI), in the last decade the yield has increased to about 410 kg/ha. Production in 2020 was 26,776 t. The main import markets for Venezuelan cocoa beans are Europe and Asia. Japan is the main buyer, as well as the United States of America, the Netherlands, Germany, Switzerland, Belgium, and Italy.

12. The following links can be identified in the national cocoa value chain: i) primary production, which includes all agricultural activities from planting to harvesting the cocoa pods, ii) post-harvest handling and processing, after opening and shelling the pods, the beans are subjected to fermentation and drying, some producers carry out this complete process, others sell the beans in slurry to intermediaries, iii) storage, generally carried out by intermediaries who buy the cocoa beans or slurry and carry out the processing in their facilities, iv) processing, carried out by industries that transform the cocoa beans into by-products or derivatives such as butter, liquor and powder, the by-products are marketed nationally and

internationally, v) manufacturing, carried out by industries that apply a second industrial process to produce final products such as chocolates and other cocoa derivatives, vi) distribution, which takes the product to the customer in the domestic and/or foreign market, vii) consumers, who are the actors to whom the processed production is directed.

Impact of COVID-19

13. In the South American Andean region, Venezuela is considered to be the country most vulnerable to the COVID-19 crisis (Manzano & Saboin, 2020). According to the national report[3], on 31 August 2021, there were 335,233 positive cases, 319,750 recovered cases, and 4,026 deaths. Since the declaration of quarantine measures until August 2020, COVID-19 had a linear growth, with a low number of cases compared to the rest of the region. Rísquez et al., (2020) stated that Venezuela is a country that was "quarantined" long before the arrival of the pandemic, mainly due to the economic crisis since the number of people entering the country from abroad decreased by 88%, which reduced the exposure of the population to the risk of contagion. However, as of August 2020, imported cases were replaced by local cases known as community cases, which led to an increase in the number of cases and there is currently a constant upward trend in the number of cases.
14. In general, all sectors were affected by the pandemic: primary, industries in general, commerce and tourism. The oil sector was affected by the decrease in global demand and the consequent fall in the price of oil on international markets. An analysis of the situation of Venezuelan companies (KPMG, 2020) indicates that new alternatives for business continuity and operational evolution emerged, considering the needs of a shrinking market and the digital era driven by the technological revolution. 24/7 work schemes, artificial intelligence and teleworking activated opportunities for growth and evolution during the recession. It is estimated that the economic recovery from the recession caused by the pandemic could begin during 2022.
15. In the agricultural sector, farmers were affected by the restrictions in transportation, which caused a lack of transport, inputs, seeds, and technical assistance. This has generated large economic losses and a great social impact. The Venezuelan government is executing plans to evaluate, monitor and mitigate food shortages, allowing the return and apogee of agriculture as a source of development. Currently, the aim is to maintain active the production of agricultural goods and food, as well as their processing and local, regional, and national distribution.

Conservation value of the Venezuelan Andes

16. The Venezuelan Andes are formed by the Sierra de Perijá, the Tamá Massif and the Cordillera de Mérida. This mountain range is the portion of the northern Andes that extends for about 450 km long and 80 km wide, covering about 4% of Venezuelan territory (3,207,257 ha). The mountain range extends along the states of Táchira, Mérida, Barinas, Trujillo, Portuguesa, and Lara (Ataroff & Sarmiento, 2004). This tropical system includes different forest remnants that are mainly threatened by the development of agricultural activities. The present project will concentrate on the Cordillera de Mérida. Specifically in 14 municipalities of the states of Mérida, Trujillo, Portuguesa, Barinas and Lara.

17. The Cordillera de Mérida is a sub-region characterized by a high and narrow mountain range located in the tropical belt (Chacón-Moreno & Suárez, 2020). The climatic regime varies with altitude and exposure, this variability is given by three particular determinants: The first is the altothermal gradient, which ranges from sea level to almost 5,000 m elevation, the second is the configuration of the mountain range, i.e., two long mountain ranges and two long intramontane customary valleys, whose altitudes vary from 400 masl (at its lower limit) flanked by altitudes of the mountain ranges above 4,000 masl, the third is the latitudinal location of the Cordillera de Mérida, which confers it to be between two different climatic patterns in terms of rainfall distribution (Andressen & Ponte, 1973; Monasterio & Reyes, 1980; Sarmiento, 1986; Vivas, 1992; Andressen, 2007; Silva, 2010; Chacón-Moreno & Suárez 2020).

18. These conditions are manifested in various types of environments, examples of some of them are dry or xerophytic in some intra-Andean valleys, such as the Chama and Motatán rivers.
19. Land use in the Andean region reflects the long interaction between humans and their natural environment. They include a complex mosaic of rural landscapes characterized by a mixture of natural areas, crops and livestock areas, scattered hillside settlements and small villages in valleys and foothills. Deforestation is a major driver of landscape change, Pacheco (2011) reported that in 1990 forests covered 1.88 million hectares (out of a total of 3.2 million hectares) and that by 2000 and 2014 forest cover had been reduced to 1.79 and 1.73 million hectares, respectively. In other words, some 145,000 hectares of forest were lost between 1990 and 2015 at annual rates of 2.55% (for 1990-2000) and 2.02% (between 2000 and 2015).
20. In the Cordillera de Mérida, all thermal floors are represented, with different ecosystem units, which vary according to altitude and exposure. In this mountain range, Josse et al. (2009) indicate that there are 16 types of ecosystems (Annex E, Map 1), characterized and defined based on the interpretation of vegetation cover. Osinaga et al. (2014) indicate that Andean forests are fragile ecosystems that harbor exceptional biological diversity and provide ecosystem goods that sustain the lives of millions of people (e.g., water, carbon storage). The forests of the Venezuelan Andes have great variability because of altitudinal gradients and climatic factors caused by the interaction of the complex topography with the trade winds.
21. These forested areas have an approximate area of 1,187,338 ha (46% are within ABRAEs) and have been heavily disturbed and therefore have discontinuous cover. The main causes of forest disturbance are population growth, road building, forest fires, agricultural and/or cattle ranching activities, and illegal logging. However, there are many remnants, particularly in areas of poor access, with very steep slopes, especially in the areas corresponding to the Montane Rainforests of the Northern Andes^[4] (Bosques Nublados). In the lower elevations (between 500 and 2,000 m), the relicts are found in protected areas (ABRAEs). In addition, xeric shrublands and scrublands are reported in high and low areas (180,600 ha) and wooded savannas (11,507 ha).
22. The Cordillera de Mérida is of great ecological and economic importance because, in addition to being a reservoir for a wide variety of flora and fauna, its highest zones are the headwaters of at least ten of the main water tributaries in the area. For example, the Chama River, which rises in the Mucuchies páramo and drains into Lake Maracaibo, and the Portuguesa River, which rises at 1,800 meters above sea level and whose watershed covers an area of 49,730 km², from its source in the mountain range to its mouth at the Apure River (one of the main tributaries of the Orinoco River). There are six large reservoirs along its course, such as Boconó - Tucupido and Las Majaguas. The region's water resources are used for human consumption, agriculture, hydroelectric power generation and recreation.
23. The project area is part of the Andes hotspot. In fact, the Andes is one of 35 critical biodiversity hotspots on the planet. Hotspots are defined as regions that have at least 1,500 endemic plant species and have lost more than 70% of their natural habitat. The Andes hotspot is characterized by the richness and endemism of its species. It contains about one-sixth of all plant life on the planet, including 30,000 species of vascular plants, making it the hotspot with the greatest plant diversity. It also has the greatest variety of amphibians: 981 different species; birds: 1,724 species; mammals: 570 species and is second only to the Mesoamerican hotspot in reptile diversity: 610 species. This hotspot is also noteworthy for its ecosystem goods.
24. In the forests, there are several taxonomic groups, including the Podocarpaceae, a family of conifers represented in the Cordillera de Mérida by five species that are protected by a resolution that prohibits their exploitation (Table 1). Nevertheless, these species are exploited by the local population.

Table 1. Protected species of conifers.

Common Name	Scientific name	Endemic	State of conservation	
			National Red List	Worldwide Red List
Laso Pine	<i>Retrophyllum rospigliosii</i> (Pilg.) C.N.Page	No	In Danger	Vulnerable
Carbon Pine	<i>Podocarpus pendulifolius</i> J.Buchholz & N.E. Gray	Yes	In Danger	Endangered
Royal Pine	<i>Prumnopitys harmsiana</i> (Pilg.) de Laub.	No	Near Threatened	Near Threatened
Royal Pine	<i>Prumnopitys montana</i> (Humb. & Bonpl. ex Willd.) de Laub.	No	Near Threatened	Vulnerable
Royal Pine	<i>Podocarpus celatus</i> de Laub	No	Minor Concern	Minor Concern

National Red List: Llamozas *et al.*, (2003); Huérfano *et al.*, (2020).

Worldwide Red List: www.iucnredlist.org.

Species protected by Resolution 107 "Prohibition of logging, exploitation and deforestation of the Laso Pine (*Retrophyllum rospigliosii*) and any other species of the Podocarpaceae family", published in Official Gazette 34.277 of August 7, 1989. Issued by the former Ministry of Environment and Renewable Natural Resources, today Ministry of People's Power for Ecosocialism.

25. The Venezuelan Andes is a priority region for fauna conservation. It is home to 28 % of the country's amphibian species, 29 % of the country's reptile species, 51 % of bird species and 45 % of mammal species.
26. Table 2 presents some key flora and fauna species with high conservation value. These include frogs of the genus *Atelopus* that are indicators of ecosystem health. For example, the Merida harlequin toad (*Atelopus oxyrhynchus*) and the yellow coal frog (*Atelopus carbonerensis*), both endemic species that are Critically Endangered (IUCN SSC Amphibian Specialist Group, 2020a & 2020b). The decline of their populations is apparently related to chytridiomycosis, climatic disturbances and habitat alteration (Barrios-Amorós, 2003; García *et al.*, 2005; Lampo *et al.*, 2006; IUCN SSC Amphibian Specialist Group, 2020a & 2020b). Another representative species of these forests is the spectacled bear (*Tremarctos ornatus*), which is endangered, particularly due to illegal hunting in various parts of the Andes and the loss of connectivity between natural ecosystems, which has strongly affected populations. Other important species that have been affected by habitat degradation and loss of connectivity are *Leopardus tigrinus*, *Leopardus wiedii*, *Cuniculus taczanowskii*, *Nasuella meridensis* and *Anoura luismanteli*.

Table 2. Key species with high conservation value in the Cordillera de Mérida.

Common name	Scientific name	Endemic	State of conservation	
			National Red List	Worldwide Red List
October Frailejon	<i>Espeletia schultzii</i> Wedd.	Yes	Vulnerable	No data
Purple Frailejon	<i>Oritrophium peruvianum</i> (Lam.) C uatrec.	No	Vulnerable	No data
Carbon Pine	<i>Podocarpus pendulifolius</i> J.T. Buchholz & N.E. Gray	Yes	Endangered	Endangered
Tree fern	<i>Cyathea caracasana</i> (Klotzsch) Domin	No	Least Concern	Sin datos
Laurel	<i>Nectandra subbullata</i> Rohwer	Yes	Endangered	Vulnerable
Tigrillo	<i>Leopardus tigrinus</i> Schreber	No	Vulnerable	Vulnerable
Spectacled bear	<i>Tremarctos ornatus</i> Cuvier	No	Endangered	Vulnerable
Tigrillo	<i>Leopardus wiedii</i> Schinz	No	Vulnerable	Near Threatened
Lapa	<i>Cuniculus taczanowskii</i> Taczanowskii	No	Least Concern	Near Threatened
Guache paramero	<i>Nasuella meridensis</i> Thomas	Yes	Least Concern	Endangered
Merida yellow toad	<i>Atelopus oxyrhynchus</i> Boulenger	Yes	Critically Endangered	Critically Endangered
Mucubají yellow toad	<i>Atelopus mucubajiensis</i> Rivero	Yes	Critically Endangered	Critically Endangered
Luis Manuel Nectarivorous Bat	<i>Anoura luismanueli</i> Molinari	No	Vulnerable	Least Concern

National Red List: Llamozas *et al.*, (2003); Huérfano *et al.*, (2020)

Worldwide Red List: www.iucnredlist.org

Population

27. The 2011 Population and Housing Census identified 643,176 people living in the 14 municipalities that will be the focus of the project (Figure 2, Table 3). The Morán, Campo Elías and Boconó municipalities are the most populated. The three municipalities with the highest number of poor households are Morán, Ospino and Boconó.
28. The economy of the Andean region is fundamentally agricultural. In the lowland areas of the plains, south of Lake Maracaibo, there are water resources and soils with high productive potential, where there are sugar cane, banana, and cocoa plantations, as well as mechanized annual crops, fruit trees and dual-purpose livestock. These activities are carried out on large tracts of land using irrigation, fertilizers, and biocides. Other smaller-

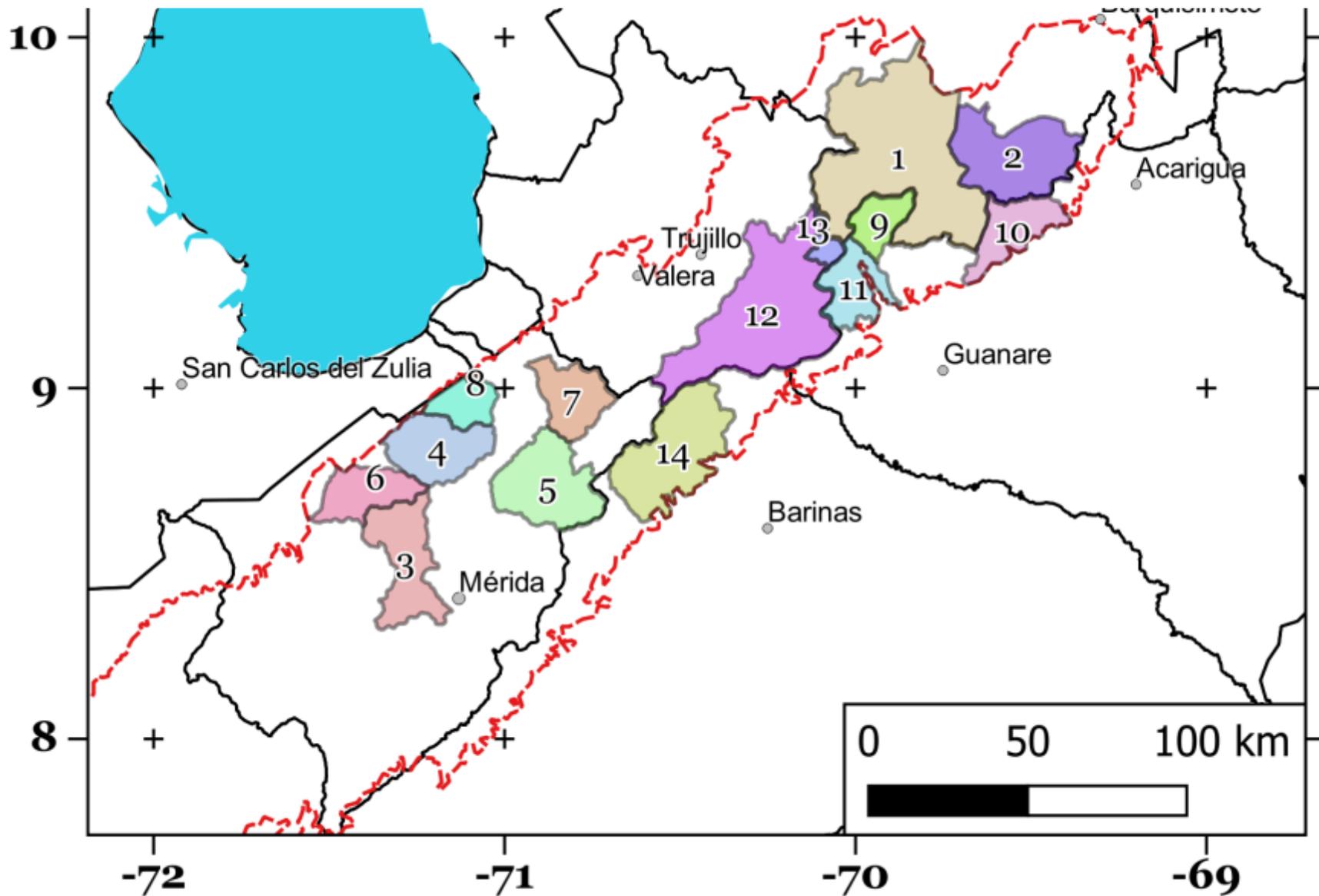
scale agricultural activities include coffee, fruits (e.g., guava, soursop, blackberry, red and yellow pineapple, passion fruit, orange, grapefruit, lime) and high-floor vegetables such as garlic, carrots, cauliflower, cabbage, lettuce, beets, and mushrooms. Roots and tubers such as cassava, celery and potato are typical in this region.

Table 3. Population statistics of the 14 municipalities that are part of the project.

Federal Entity	Capital city	Municipality	Capital of the municipality	Total area (ha)	Total	Men	Women	Poor Households	Extreme Poor Households
Barinas	Barinas	Bolívar	Barinitas	104,700	52,872	26,628	26,244	2,809	780
Lara	Barquisimeto	Andrés Eloy Blanco	Sanare	70,800	47,245	24,915	22,330	5,761	2,519
		Morán	Tocuyo	223,100	123,880	63,640	60,240	10,068	2,710
Mérida	Mérida	Andrés Bello	La Azulita	39,800	14,238	7,539	6,699	687	78
		Campo Elías	Ejido	55,700	99,873	48,757	51,116	3,326	386
		Caracciolo Parra Olmedo	Tucaní	60,700	27,632	14,308	13,324	1,738	399
		Miranda	Timotes	43,000	21,882	11,084	10,798	1,021	169
		Rangel	Mucuchíes	72,100	19,008	9,669	9,339	785	75
		Tulio Febres Cordero	Nueva Bolívia	78,700	34,030	17,478	16,552	2,601	731
Portuguesa	Guanare	Monseñor José Vicente de Unda	Paraíso de Chabasquén	22,200	23,744	12,474	11,270	2,574	961
		Ospino	Ospino	167,500	49,228	25,753	23,475	5,944	2,608
		Sucre	Biscucuy	40,000	41,037	20,891	20,146	3,716	1,255
Trujillo	Trujillo	Boconó	Boconó	136,500	83,176	41,810	41,366	5,803	1,233
		Juan Vicente Campo Elías	Campo Elías	9,580	5,331	2,723	2,608	257	31

Source: 2011 National Census.





Text Box: Municipalities of Morán [1], Andrés Eloy Blanco [2], Campo Elías [3], Caracciolo Parra Olmedo [4], Rangel [5], Andrés Bello [6], Miranda [7], Tulio Febres Cordero [8], Monseñor José Vicente de Unda [9], Ospino [10], Sucre [11], Boconó [12], Juan Vicente Campo Elías [13] y Bolívar [14]. Municipalities 1 y 2 are located in Lara State, Municipalities 3 a 8 are located in Mérida State. Municipalities 9 a 11 are located in Portuguesa State. Municipalities 12 y 13 are located in Trujillo State. The municipality 14 are located in Barinas State. The segmented red line represents the curve 500 meters above sea level.

Figure 2. Location of the 14 municipalities to be targeted by the project.

Agricultural systems

29. The main agricultural produce in the Andean region are roots and tubers, vegetables, fruits, legumes, and tropical crops (Calvani and Farías 2014).

§ In roots and tubers, the main crops are potato (*Solanum tuberosum*), sweet potato (*Ipomoea batatas*), celery (*Arracacia xanthorrhiza*) and mapuey (*Dioscorea trifida*). Potatoes are the most widely grown crop. In the last agricultural census, the states of Mérida, Trujillo and Lara produced 77% of the national potato production.

§ In vegetables, low-floor vegetable production (71%) predominates over high-floor vegetables (29%). High-floor vegetables are those that require more mild temperatures, including carrots (*Daucus carota*), cabbage (*Brassica oleracea*), lettuce (*Lactuca sativa*), beets (*Beta vulgaris*), cauliflower (*Brassica oleracea botrytis cauliflora*), garlic (*Allium sativum*), garlic (*Allium ampeloprasum var. porrum*), eggplant (*Solanum melongena*), beans (*Phaseolus vulgaris*) and chard (*Beta vulgaris*). Low-floor vegetables can withstand higher temperatures, including tomato (*Lycopersicon esculentum*), onion (*Allium cepa*), bell pepper (*Capsicum annuum*), cucumber (*Cucumis sativus*), pumpkin (*Cucurbita* spp.), and coriander (*Coriandrum sativum*). The Andes produce almost 80% of the national production of high-floor vegetables.

§ In fruit trees, the highest production is of permanent cycle fruit trees. The Andes produce 53% of the national production of semi-permanent fruit trees. The most important crops are cambur (*Musa paradisiaca*), banana (*Musa balbisiana*), pineapple (*Ananas comosus*) (semi-permanent cycle) and watermelon (*Citrullus lanatus*) (short cycle). The most important permanent crops are bananas and plantains, and to a lesser extent avocado (*Persea americana*).

§ In legumes, the main products are beans (*Vigna unguiculata*) and caraota (*Phaseolus vulgaris*). Other products are produced in smaller quantities: quinchoncho (*Cajanus cajan*), peas (*Pisum sativum*), and lentils (*Lens culinaris*). The Andes have 35% of the national production of beans (*Vigna unguiculata*), caraota (*Phaseolus vulgaris*) and quincho (*Cajanus cajan*), and 30% of the national production of peas (*Pisum sativum*) and lentils (*Lens culinaris*).

§ Tropical crops include cacao (*Theobroma cacao*), coffee (*Coffea* sp), and sugarcane (*Saccharum officinarum*). Traditionally, most of Venezuela's cocoa production has been in Barlovento (Miranda State) and Paria (Sucre State). However, for several years there has been a growing presence of this crop south of Lake Maracaibo (Mérida State) and it is expanding in Barinas, Portuguesa and Apure. In the last agricultural census, production in Mérida represented 14% of national production. Porcelana cocoa is produced in this area, which is an ancient creole variety that has been cultivated for centuries in the mountains near Lake Maracaibo. It has a very high quality, but low productivity and resistance to disease, so its cultivation was almost abandoned. The growing demand for specialty cocoa has motivated the resumption of its cultivation. Coffee production was previously based mainly in the states of Táchira and Mérida but has shifted to the states of Lara and Portuguesa. These two states produce 43% of the national production. Traditionally, most of the sugarcane production has been in the western part of the country (i.e., western plains, Lara state and part of southern Lake Maracaibo). Currently, it is concentrated between the states of Portuguesa and Lara. It should be noted that different specialists, Calvani & Farías (2014), have been pointing out the progressive decrease in sugarcane production for several years.

30. In the Andean region, production units are small. Calvani & Farías (2014) reported that 74% of production units are smallholdings, plots of less than five hectares, 12% are production units of between 5 and 10 ha and 7% are units of between 10 and 20 ha. Agriculture is mainly family farming. Since the topography is very irregular, not all the land is usable.

31. As for animal production (Calvani & Farias, 2014), in the Andean region it is small and located near large consumption centers, to facilitate the transfer and sale of products. Cattle ranching predominates in the region (73% of the total number of existing animals), followed by pig, goat, sheep, and buffalo farming. Andean high altitude livestock farming is highly technical and includes dairy and dual-purpose livestock. Sheep production is modest, but it is worth noting that in the coffee-growing area of the Morán de Lara municipality, small flocks of sheep are raised together with coffee. The national poultry activity corresponds almost entirely to the raising of hens and broilers (99%).

Project intervention area

32. The project focuses on the area located between 500 and 2,000 meters above sea level, within the 14 municipalities of the states of Mérida, Trujillo, Portuguesa, Barinas, and Lara. The intervention area was selected because it has important forest remnants, which are threatened, by unsustainable agricultural production activities, deforestation, and land degradation. Also, it is important to consider the need to preserve multiple productive landscapes with an emphasis on coffee and cocoa, the presence of investments associated with initiatives of the Government of the Bolivarian Republic of Venezuela and the headwaters of the Tocuyo, Portuguesa, Guanaparo, Santo Domingo, Tucaní and Mucunamo rivers.

33. The project area covers 937,816 ha and a population of 581,177 people. The project covers 83% and 90% of the area and population of the 14 municipalities, respectively (Table 4).

Table 4. Area and population within the project area.

State	Municipality	Surface area (ha)		Population (people)	
		Total	In the project area	Total	In the project area
Barinas	Bolívar	104,700	93,195	52,872	47,062
Lara	Andrés Eloy Blanco	70,800	70,800	47,245	47,245
	Morán	223,100	213,620	123,880	118,616
Mérida	Andrés Bello	39,800	39,800	14,238	14,238
	Campo Elías	55,700	55,700	99,873	99,873
	Caracciolo Parra y Olmedo	60,700	54,412	27,632	24,770
	Miranda	43,000	43,000	21,882	21,882
	Rangel	72,100	72,100	19,008	19,008
	Tulio Febres Cordero	78,700	24,942	34,030	10,785
Portuguesa	Monseñor José Vicente de Unda	22,200	22,200	23,744	23,744
	Ospino	167,500	40,811	49,228	11,994
	Sucre	40,000	38,858	41,037	39,865
Trujillo	Boconó	136,500	158,798	83,176	96,763
	Juan Vicente Campo Elías	9,580	9,580	5,331	5,331
Total		1,124,380	937,816	643,176	581,177

Areas under Special Administration Regime

34. The project area overlaps with eight ABRAEs: six national parks and two natural monuments (Table 5). As previously, indicated (paragraph 3), national parks and natural monuments are categories focused on biodiversity conservation that are administered by the National Parks Institute (INPARQUES). The six national parks and two natural monuments cover an area of 308,895 ha. The Organic Law for Land Management establishes that "it will not be considered incompatible to subject the same territorial space to two or more Special Management Regime Areas, as long as they are complementary" (Article 17).

35. Regarding the permanence of lands in the ABRAEs, these are governed by the declaration of the national park as occupied areas, in the respective development and management plan. In this plan, owners of crops compatible with the park's objectives and occupants prior to its creation may remain in the park as long as they comply with the conditions established in each case to ensure their integration with the park's objectives. In particular, they may continue to grow annual or permanent crops as long as they use their lands in a conservationist manner, without significant erosion or significant pollution of surface or groundwater by agrochemicals, or any other activity that could degrade the environment. According to the Law of Lands and Agrarian Law of May 18, 2005, the National Land Institute (INTI) was granted the competence to issue the certificate of permanence, as provided for in Article 119, paragraphs 12 and 13. This establishes that the referred entity may declare the guarantee of permanence "Agrarian Charter", which protects the right to remain of the occupant-producer of the land in the area he/she is developing. In order to be eligible for an Award Title, the beneficiary must have kept the plot of land productive for a term of not less than three years.

36. The project will focus on managing the areas surrounding the six national parks and two natural monuments in the area (Table 5). Through land management, community forestry and agroforestry systems with a landscape approach, the project will seek to recover these areas by improving connectivity and establishing ecological corridors to improve the living conditions of local populations and improve the conditions of productive landscapes to sustain biological diversity and generate tangible environmental services. The sum of this will allow the recovery of the Andean region's natural capital.

Table 5. Status of Areas Under Special Management Regime intersecting the project area.

Name	Category	Total area (ha)	Surface area within the project area (ha)	Year of creation	Decree of creation	Management Plan and Use Regulations	Identification in the World Database of Protected Areas (WDPA ID)
Sierra Nevada	National Park	276,400	78,063	02/05/1952	Decree 398	Yes [a]	321
Yacambú	National Park	14,600	12,319	13/06/1962	Decree 771	Yes [b]	335
General Cruz Carrillo en Guaramacal	National Park	21,466	21,466	25/05/1988	Decree 2.170	Yes [c]	15135
Dinira	National Park	45,328	34,959	30/11/1988	Decree 2.564	No	20054
Sierra de La Culata	National Park	200,400	122,896	07/12/1989	Decree 640	Yes [d]	20054
El Guache	National Park	12,200	12,200	26/03/1993	Decree 2.347	No	67614
Teta de Niquitao-Guirigay	Natural Monument	21,000	21,000	04/09/1996	Decree 1.473	No	555705241
Chorrera de Las González	Natural Monument	126	126	08/05/1980	Decree 605	No	4374

[a] Decree 4548 de 26/03/1993.

[b] Decree 669 de 10/05/1995.

[c] Decree 672 de 10/05/1995.

[d] Decree 670 de 10/05/1995.

Native natural vegetation.

37. The Cordillera de Mérida is characterized by a complex geography and various climatic conditions, providing a formidable heterogeneity of ecosystems that are also quite diverse in terms of animal and plant species. In relation to ecosystems, Josse et al. (2009) indicate that in the Tropical Andes there are a large number and variety of ecosystems, reporting 16 in the project area (Table 6). They also indicate that the vegetation of the Northern Andes is grouped into humid montane forests, xerophytic rainforests and paramos. The former show exceptional patterns of species and community turnover due to the enormous heterogeneity of habitats resulting from the strong environmental gradients (Kessler et al., 2001; Kessler, 2002); and the latter are located between generally dry pluvial to xeric valleys due to the rain shadow effect. Their flora is xerophytic, where numerous species of much localized endemic distribution have been found, mainly of Cactaceae; while the latter, constitute a physiognomically well-defined community type of the high Andes, characterized by their high level of autochthonous speciation. In fact, they harbor the most diverse tropical mountain flora in the world (Smith and Cleef 1988), with a high degree of endemism at the species and genus level (Sklenář and Ramsay, 2001).

Table 6. Ecosystems found in the Venezuelan Andes (Josse et al., 2009).

Ecosystems
Xeric xeric montane shrubland of the Northern Andes
Shrublands and frailejonales altimontanos paramunos
Humid montane lowland rainforest of the Northern Andes
Low montane subhumid pluvial pluvial forest of the Northern Andes
North Andean high montane Polylepis forests
North Andean altimontane evergreen forests
Northern Andes montane rainforests
Northern Andes montane pluvial montane rainforests
Piemontane rainforests or forests
Low montane rainforests of the Northern Andes
Piemontane rainforests of the Northern Andes
High Andean paramount edaphoxerophyllous cushion scrubland in the high Andes
Low montane inter-Andean xeric scrublands
High Andean montane shrubby scrubland of the Paramount
Low montane wooded savanna of the Northern Andes
Geliturbated and edaphoxerophilous subnival paramuna vegetation

38. The following is a brief description of the most common ecosystems:

§ Xeric shrublands and scrublands: with aparasolate canopy and xeromorphic shrublands with cacti. Characteristic of the inter-Andean valleys, they contain very open and low forests of up to 6-8 m, and thorny thickets with abundant species of *Opuntia* and other genera of Cactaceae. In the canopy are frequent leguminous plants with aparasolate canopies of the *Caesalpinia* and *Senna* genera, where species such as *Dodonaea viscosa*, *Prosopis juliflora*, *Cascabela Thevetia* and *Pithecelobium dulce* can be found.

§ Arbustales and frailejonales altimontanos paramunos: dominated by erect and sclerophyllous shrubs of the genera *Valeriana*, *Gynoxys*, *Diplostephium*, *Pentacalia*, *Berberis*, *Hypericum*, *Gnaphalium*, *Lupinus* and *Hesperomeles*, together with the giant rosettes of the genus *Espeletia*, often mixed with grasses, shrubs as prostrate herbs of the families *Asteraceae*, *Ericaceae*, and also graminoids (*Poaceae*, *Cyperaceae*).

§ Altimontane shrubby paramount grassland: grassland that appears gradually as the effects of elevation and climate, where shrubby life forms are reduced and the dominance of tufted grasses (*Festuca*, *Calamagrostis*) is evident, and associations of xerophytic shrubs of the genera *Diplostephium*, *Hypericum* and *Pentacalia*.

§ North Andean altimontane forests of Polylepis: these are low stature forests growing above 3,000 masl, in very humid but well-drained soils, often with a thick layer of moss. Characteristic genera of this macrogroup are *Polylepis*, *Escallonia*, *Hesperomeles*, *Weinmannia*, *Diplostephium*, *Gynoxis*, *Valeriana* and *Pentacalia*; v) Pluvial montane forests of the Northern Andes: evergreen or semi-deciduous forests 10-15 m high and medium cover. Characteristic species are *Clusia minor*, *Toxicodendron striatum*, *Viburnum tinoides*, *Calycolpus moritzianus*, *Byrsonima spicata*, *Mrysiene coriacea*, *Miconia theaezans*.

§ Pluvial montane forests of the Northern Andes: Dense, evergreen, high forests of the supratropical floor with humid to hyperhumid pluvial bioclimate that are reported between 2,000 and 3,000 masl on the slopes of the different branches of the mountain range in the Andes may be surrounded daily by a layer of fog that influences their functioning and structure, so they are also called Bosques de Niebla (Fog Forests); Important species are *Hedyosmum racemosum*, *Ocotea calophylla*, *Brunnellia integrifolia*, *Ladenbergia undata*, *Oreopanax bogotensis*, *Ilex laurina*, *Alchornea grandifolia*, *Cinchona pubescens*, *Retrophyllum rospigliosii*, *Billia rosea*, *Clethra fagifolia*, numerous species of *Clusia* and *Weinmannia*, as well as other genera of the *Lauraceae* family;

§ Pluvial montane forests of the Northern Andes: seasonal or semi-deciduous evergreen forests, with a canopy of 10-15 m; they grow on slopes and mountain ridges on the slopes with a pluvial climate, on well-drained soils with diverse substrates. Species typical of this macrogroup are *Clusia multiflora*, *Roupala pseudocordata*, *Escallonia floribunda*, *Calycolpus moritzianus*, *Psidium guianensis*, *Mrysiina coriacea*, *M. pelucida*, *Weinmannia glabra* and *Berberis discolor*.

39. Annex E (Map 1) shows the ecosystem coverage and intervened areas as of 2001-2002. The resolution of the images allows visualizing the intervened areas, which include agricultural lands and fragmented and intervened natural vegetation. Annex E Map 2 presents coverage information as of 2019. However, the lower resolution of the images used (i.e., 100 m x 100 m) does not allow for a clear visualization of the areas intervened by anthropogenic activities. The categories "closed forest" and "open forest" are included. These correspond to areas with a woody vegetation cover of more than one hectare[5] with a minimum canopy cover of 10% and a minimum height of maturity in situ of 5m. The contiguous and discontinuous zones are referred to as "closed forest" and "open forest" respectively. Open forest" is assumed to identify disturbed areas that include agricultural systems. The project will focus on strengthening the management of natural vegetation areas in the project area.

Coffee and cocoa agroforestry systems

40. The project will work with small coffee and cocoa producers in the 14 target municipalities. Small producers are defined as those whose crop area does not exceed two hectares[6]. The project will build on the farmers' experience in managing agroforestry systems, encouraging the diversification of these species, so that they contribute to improving connectivity with the landscape and sustaining biological diversity. In addition, the project will promote: agroecological production, diversification of farm production to generate surpluses that can be marketed locally, and the installation of family gardens to generate diverse and nutritious food for the family.

41. Agroforestry systems contribute to biodiversity conservation. In the case of birds, Hernández (2010) found that these productive forestry systems have a positive influence on avifauna that contributes to the pollination and dissemination of various plant species. Lentino et al. (2010) indicate that, in SAF, it is important to have a high number of tree species to favor bird diversity. Coffee and cocoa shade crops reduce the use of pesticides and soil erosion, provide habitat for wildlife and help protect watersheds.

Coffee cultivation

42. In the project area, as in the rest of the country, most coffee farmers are smallholders with mainly family farms of less than two hectares. ONUDI (with data from MPPAPT) reports that in 2018 the states of the Andean region had the following area planted with coffee: i) Lara with 47,215 ha (21.68% of the national total), ii) Portuguesa 47,052 ha (21.60%), iii) Trujillo 18,192 ha (8.35%), iv) Mérida 15,347 ha (7.05%), and v) Barinas 5,169 ha (2.37%). Together they represent 61.05% of the total area cultivated with coffee at the national level.

43. Most of the producers are organized in different ways, but currently the organizations do not generate benefits for them, so most are not active. Among the main organizations within the project area are two types: cooperatives and producer associations, for example: Cooperativa Colimir, Asociacion Cooperativa Centro Regional de Organizaciones Cafetaleras de Portuguesa (CROCEPORT), Cooperativa Quebrada Azul, PACCA Sanare, PACCA Chabasquen, PACCA Guarico, PACCA Biscocuy.

44. In general, coffee is planted in contour or perpendicular to the major slope, also in contour lines and some use individual terraces. The planting distance is 2m x 1m, giving a planting density of 3,500 plants per hectare. The shade includes a variety of forest and productive species, such as: guamo (*Inga spectabilis*), cambur (*Musa paradisiaca*), cacao (*Theobroma cacao*), native and grafted avocado (*Persea americana*), banana (*Musa balbisiana*), macadamia nut (*Macadamia integrifolia*), orange (*Citrus sinensis*), lemon (*Citrus limon*) and mandarin (*Citrus deliciosa*).

45. Few farmers use chemical fertilizers because of their high price. Some do not apply any fertilizer, either because they do not know how to prepare organic fertilizers or because they are not convinced of their effectiveness. Others apply any type of organic fertilizer. Among the organic fertilizers used are: i) vermicompost (worm humus, the leachate is used as foliar fertilizer), ii) chicken manure, iii) manure (cattle and sheep), iv) organic crop residues, v) biol and vi) sulfocalcic broth (calcium polysulfide). Fertilizers are based on the farmer's experience and not on the needs of the plantation since the farmers do not analyze the soil or monitor production. The lack of attention to coffee cultivation makes it more susceptible to the negative effects of climate change.

46. Weed control is done periodically, quarterly, or some growers only do it before harvest. Weeds are eliminated with machetes, weed cutters or, in very few cases, by applying a contact herbicide (Paraquat) to which urea is added to fertilize the plantation. There is no pest or disease control, so no biocides are applied. The most important diseases from an economic point of view are: rust (*Hemileia vastratix*), coffee canker (*Ceratocystis fimbriata*), root rot (*Rosellinia bunodes*), and iron spot (*Cercospora coffeicola*). To deal with this situation, rust-resistant plants are used. Arabica varieties such as INIA 01, Colombia 27, Monteclaro, and Festival, which have been tested by the National Agricultural Research Institute (INIA), are used. In terms of pests, the species with the greatest economic impact are the coffee berry borer (*Hypothenemus hampei*), the leaf miner (*Leucoptera coffeellum*) and the root moth (*Dysmicoccus* spp.).

47. Coffee is harvested between September and December when the cherry is ripe. Many producers make at least three harvests, the last one is done "by even", which means that they harvest all types of fruit, both ripe and green. There are producers that harvest the entire crop "por parejo", since they do not have the labor or family help to make several harvests, this type of harvest reduces the quality of the coffee bean.

48. Then, wet and dry milling is done, both on the farm. These benefits can be of various forms: The most commonly used process is: pulping, fermentation, washing and drying. Pulping is the mechanical removal of the peel and part of the pulp from the cherry by passing it through a pulper. This activity is done on the same day of harvest. The beans are then placed in a fermentation tank for 12 to 18 hours, depending on weather conditions (the higher the ambient temperature, the faster the fermentation). Finally, the beans are washed to remove the mucilage and go to the drying process. Other less popular mills include: The semi-wet beneficio consists of pulping the cherry and immediately proceeding to dry the grains and then threshing them. Carbonic, anaerobic or controlled maceration is the least used method and the one used by specialty coffee. This consists of placing the ripe cherry in a pipe with water (completely closed so as not to allow the entry of oxygen) with a tube for the carbon dioxide to escape. The maceration time depends on the variety of coffee, ranging from 75 to 90 hours. The beans are then dried in African beds for about four weeks, stirring them constantly to prevent the growth of fungus. There is one last uncommon method that corresponds to parapara coffee, this is very simple, it is a matter of waiting for the fruits to dry on the coffee tree and then finishing the drying process in the patios, finally threshing them for sale. This type of processing is done by low-income producers, which do not have the equipment, facilities, or sufficient labor to support them.

49. The beans can be dried in a dryer, naturally in drying patios or African beds. Specialty coffee is dried naturally in African beds or on patios. Currently, the dryer is little used due to the scarcity of fuel. The dried coffee is stored and then threshed. Threshing is done prior to sale and after threshing the product is called "green coffee". In some cases, waste products such as pulp and parchment are used to prepare soil for nurseries.

50. Most producers and/or their families have pulping equipment, a fermentation tank, drying area and storage area. Few have dryers and threshing machines; these services are contracted out to third parties. Women and young people participate in the harvesting and selection of ripe coffee and also help in the nurseries.

51. The price of green coffee during July 2021 (during the data collection) was between USD 90/q and USD 120/q. Currently, the increase in the price of coffee has stimulated the recovery of the crop, although with difficulties derived from the high cost and scarcity of inputs and the lack of knowledge of production alternatives. An additional incentive is that green coffee is used locally as a means of payment and savings.

Cocoa cultivation

52. A high level of poverty and lower levels of development than other agricultural areas characterize the cocoa-growing areas in the southwest of the country (Mérida - South of Lake Maracaibo). According to ONUDI, there are some 4,225 producers, 90% of whom are small farmers. These are characterized by an average of three hectares under cultivation and limited working capital, education, technology, and degree of organization.

53. The Nestlé Cocoa^[7] Plan operates in the project area, executed by the Fundación para el Desarrollo del Cacao (FUNDACACAO), which serves approximately 1,200 producers located along the Pan-American Highway in the state of Mérida (where most of the cocoa is grown). According to FUNDACACAO, cocoa in this area has better phytosanitary conditions compared to other cocoa plantations nationwide. Ninety-five percent of these producers apply pruning and about 80% sell cocoa in slurry.

54. Crops are mostly planted on contour or perpendicular to the major slope, also on contour lines and some use individual terraces. Shade includes a variety of forest and productive species, which vary according to the taste and needs of the producers. Shade species include guamo (*Inga spectabilis*), cambur (*Musa paradisiaca*), avocado (*Persea americana*), and oranges (*Citrus sinensis*). The planting distance is 3m x 3m, giving a density of 1,111 plants/ha. However, many plots do not have this density, due to lack of replacement of dead plants or very low productivity.

55. Very little or no chemical fertilization is applied, due to the high cost of inputs. In a few cases, organic fertilizers are applied, mainly: (i) vermicompost (with the leachate they apply foliar fertilizer), and (ii) fertilizers with the plantation's own materials and animal manure compost. This contributes to the low yield of the plantation and makes it more prone to attack by pests and diseases, as well as to suffer the negative effects of climate change.

56. The most common diseases in cocoa cultivation are: witches' broom (*Moniliophthora perniciosa*), brown spot (fungi of the genus *Phytophthora*), anthracnose (*Colletotrichum gloeosporioides*) and moniliasis (*Moniliophthora roreri*). The main pests are ants of the genera *Crematogaster*, *Camponotus* and *Ectatoma*, which are associated with aphids (*Toxoptera aurantii*) and worms (Lepidoptera larvae). Growers do not control pests and diseases; they do not apply any type of biocides because they are very expensive and difficult to obtain. Some producers seek alternatives such as the use of bio-controllers or the planting of cocoa clones resistant to pests and diseases.

57. Weed control is done with machete or scythe quarterly, semi-annually, or during the harvest season. Pruning is done after harvest time. This is an important task because it gives shape and structure to the tree and serves to clear and facilitate the harvesting of ripe ears. Pruning is also applied to shade trees, which serves to regulate the entry of light and allows adequate conditions (open and ventilated spaces) for the control of pests and

diseases. In addition, it stimulates the production of flowers and fruiting. At the moment, most cocoa producers are not organized and have no interest in becoming organized because they do not perceive tangible benefits.

Coffee and cocoa value chains

58. Two coffee value chains (traditional coffee and specialty coffee) and one cocoa value chain were identified in the intervention area. An important entity in the coffee chain is the Venezuelan Coffee Corporation, which manages the State's activities in the coffee sector, including the production, processing, and distribution of coffee and its byproducts.

Traditional coffee

59. As mentioned earlier, coffee producers no longer sell their entire harvest, but rather keep coffee in parchment to later sell or exchange it according to their needs. It is important to note that, during the preparation of the project, it was not possible to identify support relationships for the primary producer along the chain; there is only a buying and selling relationship.

60. The chain is made up of five links: production, collection, processing, marketing and consumption (Figure 3). The direct actors identified are:

§ Link 1, Primary production: composed of small producers (<3ha of cultivation) that carry out agricultural activities including: planting, maintenance, fertilization, pest and disease control, and harvesting of coffee cherries. Generally, the activities are carried out with the family group and eventually labor is hired mainly for harvesting. Producers also carry out the processing of the harvest (paragraph 73), which includes the processes of pulping, removing the mucilage and drying. Some growers dry under the sun and others use diesel-powered dryers (their own or contracted).

§ Link 2, Collection: composed of intermediaries that are responsible for the purchase and subsequent sale of green coffee to the roasters. These can be: informal traders, who are natural persons (they do not belong to any type of association or company and/or traders) that buy the coffee directly from the producer in exchange for money or consumer goods (e.g., food, medicines) and agricultural inputs. Formal traders, which are private companies or PACCAS that participate in the purchase and sale of cherry, parchment, or green coffee. They buy it from different actors in the chain and sell it to the roasters.

§ Link 3, Transformation: composed of roasting, milling and packaging companies. These companies may be public or private. The size of the existing roasting companies ranges from small companies with the capacity to process about 130 q/day (about six tons) to large companies with better technology and the capacity to process about 10,870 q/day (about 500 tons).

§ Link 4, Commercialization: composed of traders that sell coffee in the market (roasted and ground). Key actors in commercialization are, among others, coffee growers' cooperatives and associations, wholesalers and supermarket chains.

§ Link 5, Consumption: composed of consumers of roasted and ground coffee.

61. Indirect actors in the chain include: input suppliers, which are mainly commercial firms and some Venezuelan government agencies that sell agricultural products. Nurseries, generally the producers themselves manage their own nurseries; however, there are community and private nurseries in the area that sell plants to producers. The two main support services are threshing and drying. Threshing is necessary to transform parchment coffee into green coffee; it is carried out in mills where, by means of specialized machinery, the last films (the parchment-like, silvery husk) that

envelop the coffee bean are removed; producers generally contract this service to other producers for a payment according to the amount of coffee to be processed. Drying consists of the loss of humidity of the coffee, which is necessary to bring it to between 11 and 12%; some producers do not have the equipment for drying and contract this service to other producers or producer associations.

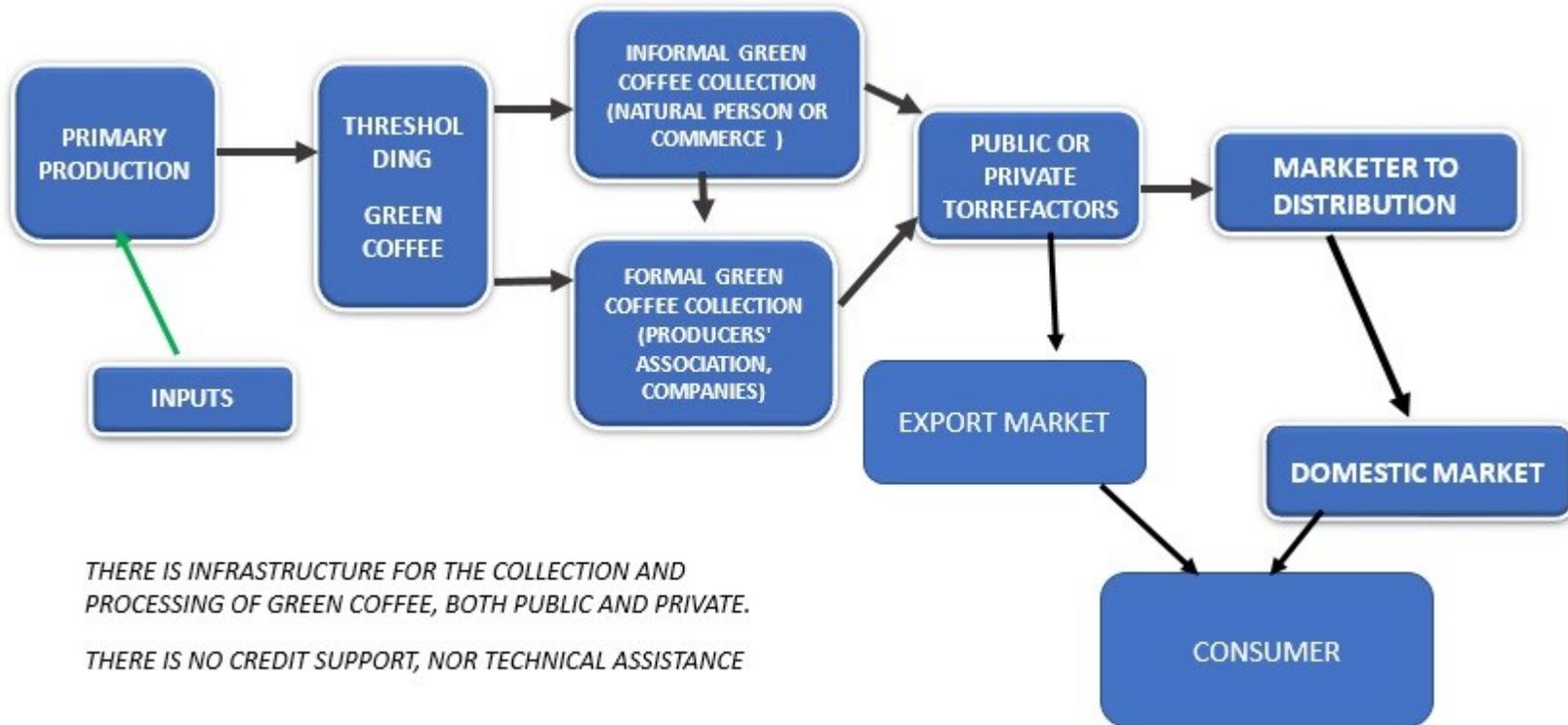


Figure 3. Traditional coffee value chain in the project area.

Specialty coffee

62. Specialty coffee is distinguished by cultural practices and/or physical and sensory properties. This coffee can be sold at a better price in the market. In the project intervention area, some initiatives for small-scale specialty coffee production by private companies have been identified. Production is focused on Arabica coffee, in sites with specific altitude and soil characteristics, and selected quality beans.

63. These initiatives were found in the municipalities of José Vicente Unda and Sucre (Portuguesa State). Some small producers have ventured into specialty coffee production due to the better prices they obtain. For this purpose, producers set aside specific areas where they carry out the required management. They carefully harvest the ripe coffee, which is then processed and threshed. Afterwards, the companies roast and grind the coffee in compliance with certain standards to ensure the quality of the coffee.

64. Worldwide, the demand for specialty coffee has increased continuously over the last 25 years. It is estimated that, globally, 20% of total consumption is of specialty coffee. Therefore, this represents an important niche market and substantial market opportunities for producing countries. Within Venezuela specialty coffee is sold in specialized stores and coffee shops.

65. The chain is made up of the same five links as the traditional coffee chain (Figure 4).

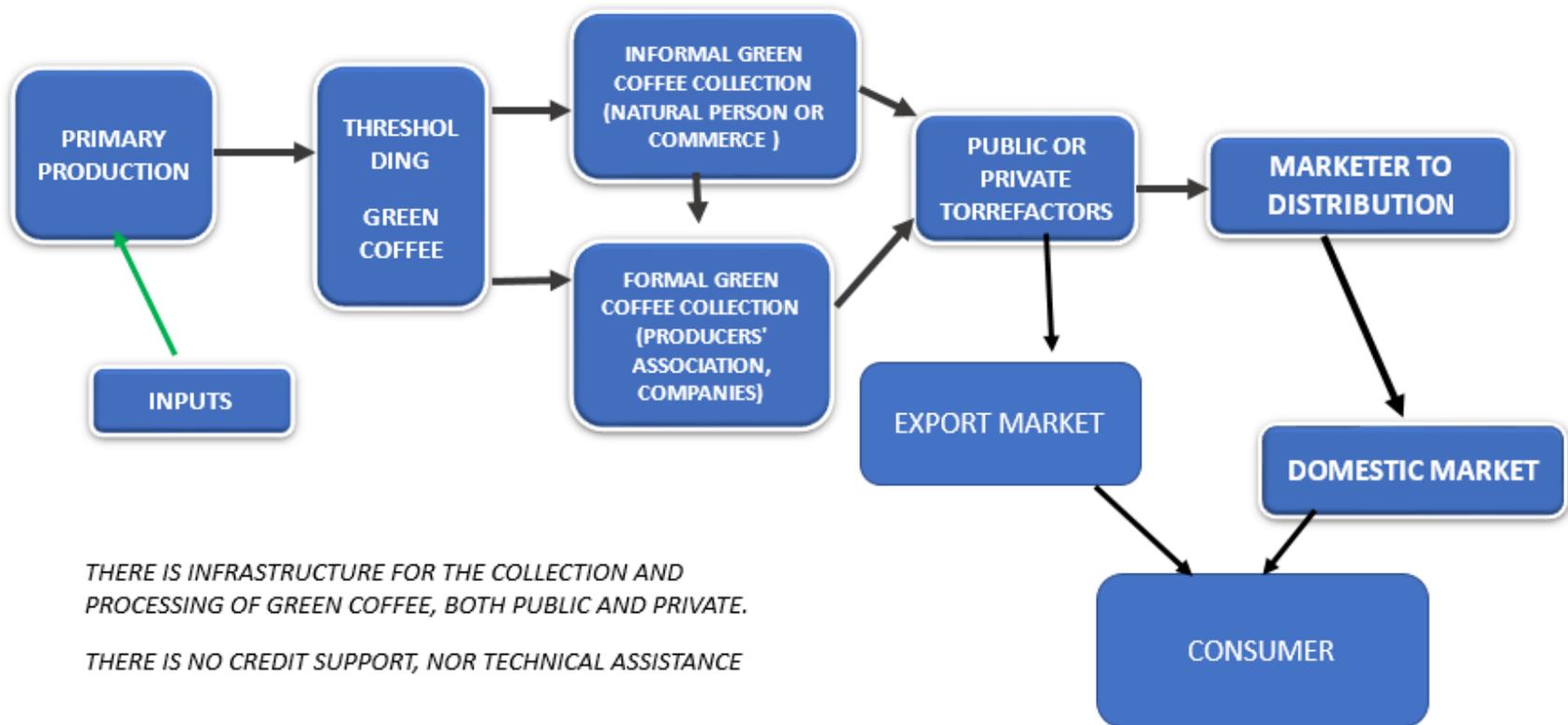


Figure 4. Specialty coffee value chain in the project area.

Cocoa

66. In recent years, due to the country's economic situation, some cocoa producers do not sell their entire harvest. Some farmers process by-products on a small scale and also save the dried beans for sale or exchange at a later date, depending on their economic needs.

67. The chain is made up of five links: production, collection, processing, marketing and consumption (Figure 5). The direct actors identified are:

§ Link 1, Production: composed of small and medium producers, mostly with plots of about three hectares, who carry out all the work related to cultivation and harvesting, and often also benefit cocoa beans. Generally, the activities are carried out with the family group, and labor is eventually hired, mainly for harvesting.

§ Link 2, Storage: composed of intermediaries who are responsible for the purchase and subsequent sale of cocoa. These can be informal or formal intermediaries. Informal intermediaries buy the cocoa beans from the producer and store them for later sale at the purchase points of the formal traders. In addition, some commercial establishments receive cocoa in exchange for money or consumer goods (e.g., food, medicines) or agricultural inputs. Formal intermediaries, which are the collection centers of the Corporación Socialista del Cacao Venezolano (CSCV) or private companies belonging to processing companies. Cocoa can be marketed in slurry, wet fermented and dry fermented. Cocoa in slime has the lowest price and is purchased in bulk in paint buckets. The price of wet fermented cocoa depends on the degree of humidity. This product is sold mainly during the rainy season. Finally, dry and fermented cocoa have the highest price, and depend on the quality evaluation made by the trader.

§ Link 3, Transformation: composed of two types of processing companies: those that produce by-products or derivatives (e.g., such as butter, liquor and cocoa powder) for national or international marketing and those that transform intermediate products into final products such as chocolate and other derivatives; this group includes micro-entrepreneurs. Both types of companies can be public or private; some of them carry out both processes.

§ Link 4, Marketing: composed of marketers that distribute the by-products and final products in national and international markets. This group also includes microenterprises that produce these products by hand and sell them in local commerce or directly to consumers.

§ Link 5, Consumption: made up of consumers of the by-products and final products.

68. Indirect actors in the chain include: input suppliers, which are mainly commercial firms and some state agencies that sell agricultural products; nurseries, generally the producers themselves manage their own nurseries; however, there are community and private nurseries in the area that sell plants to producers; research services: INIA conducts research and advises producers in the states of Portuguesa and Mérida.



IN THE STATE OF MÉRIDA AND PORTUGUESA, THERE IS SUPPORT INFRASTRUCTURE, PUBLIC AND PRIVATE COLLECTION AND PROCESSING CENTERS, THERE IS NO CREDIT SUPPORT OR TECHNICAL ASSISTANCE.

Figure 5. Cocoa value chain in the project area.

The problem and its causes

69. The Tropical Andes are a biodiversity hotspot with high conservation value. Biodiversity hotspots have at least 1,500 endemic vascular plant species and at least 30% of their original vegetation cover (Myers et al., 2000; Norman, 2003).

70. The Tropical Andes Hotspot is in the Andes Mountains and extends from Venezuela in the north to Bolivia in the south, including the northern tropical areas of Argentina and Chile. It is an area of high conservation value due to its diversity of species and endemism, as well as the ecosystem goods it provides such as water production and regulation and carbon capture and storage in moorlands and native forests (Young et al., 2015). It is the hotspot with the greatest diversity and endemism of plants, birds, and amphibians on the planet (Mittermeier et al., 2011). This project focuses on the loss of biological diversity and unsustainable land management in the Venezuelan Andes.

71. The main causes of biodiversity loss in the Venezuelan Andes (Figure 6) are: i) the increase in the agricultural frontier, ii) deforestation, iii) forest fires, (iv) degradation of ABRAEs and v) the substitution and abandonment of shade coffee and cacao crops.

72. The current scenario is influenced by three structural causes: i) high levels of poverty and unsatisfied basic needs, ii) economic instability that has led to a deterioration in the value of the currency, distortion of relative prices and contraction of consumption, iii) loss of traditional agricultural practices related to the conservation of fauna and flora.

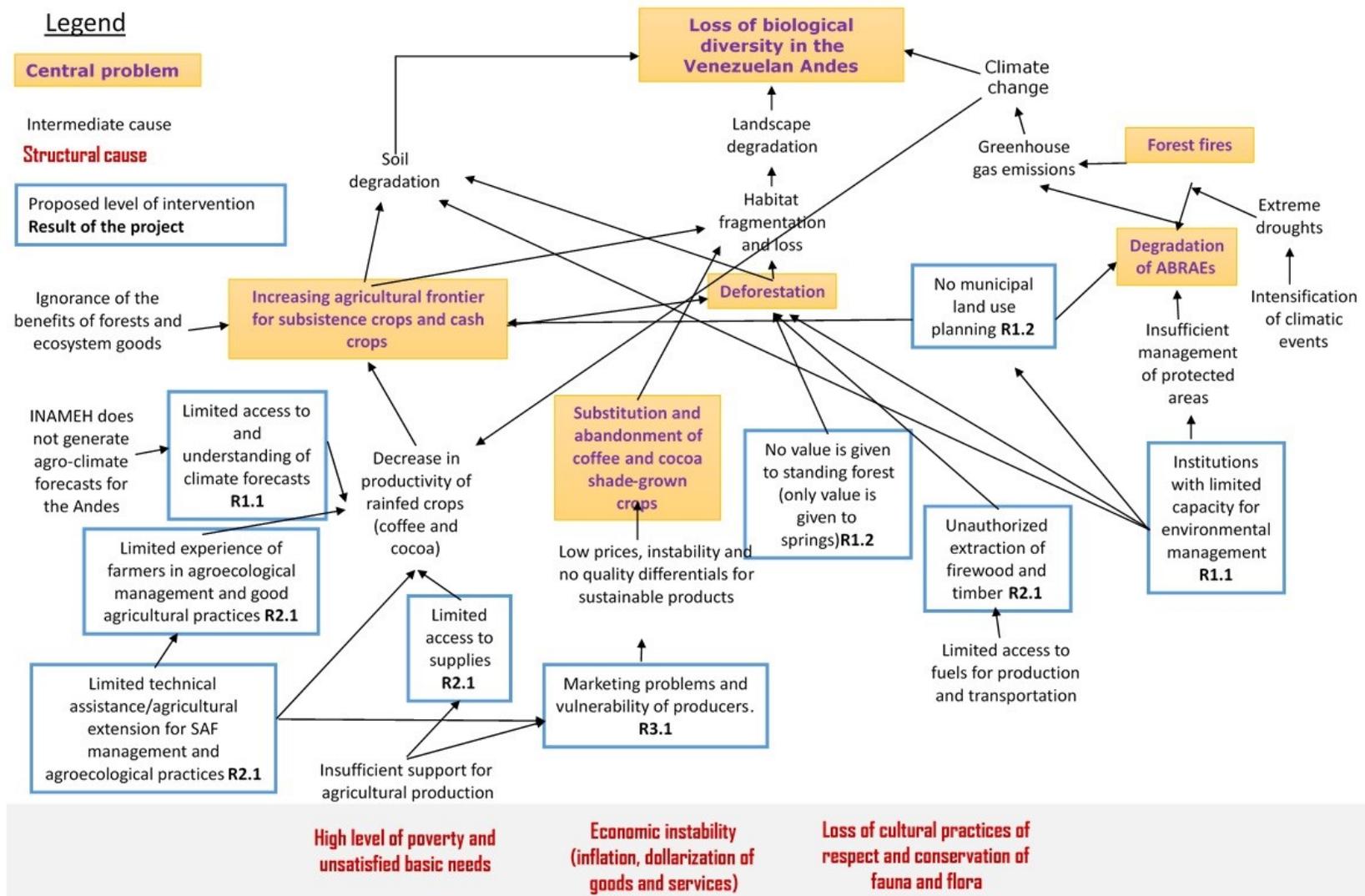


Figure 6. Causality analysis of biodiversity loss in the Venezuelan Andes.

Increase of the agricultural frontier

73. The increase in the agricultural frontier is mainly caused by: a) The expansion of subsistence crops such as beans (*Phaseolus vulgaris*) and corn (*Zea mays*), due to the need of families to produce food for subsistence. b) The expansion of more profitable crops such as vegetables and products that can be stored in dry and short cycle (e.g., beans, corn). c) The decrease in productivity of traditional coffee and cocoa crops, which is generated mainly by: i) poor agricultural management, in turn caused by the lack of renewal of coffee and cocoa plantations and with little adaptation to the conditions environmental and crop and market demands, lack of technical assistance and agricultural extension with an agroecological approach and lack of traditional agricultural inputs. While coffee and cocoa crops are not the main drivers of deforestation in the Venezuelan Andes region, these crops can be relevant to address environmental problems in the area if implemented under an environmentally sustainable approach, as explained in the proposed alternative scenario section. However, farmers do not have the necessary knowledge to apply alternative agroecological practices (e.g., use of bioles), ii) the negative impact of climate change on agriculture and the lack of adaptation measures added to the limited access by producers and technicians to agroclimatic forecasts, in addition to weaknesses in interpretation, do not allow them to make decisions and implement adequate measures to face these effects, iii) limited access to agricultural inputs and bio-inputs (e.g., fertilizers, pesticides) due to shortages and price increases. Agricultural inputs are priced in dollars, limiting their purchase by small-scale farmers.

74. The Trends.Earth tool shows that between 2000 and 2018 about 3,206 ha changed from natural vegetation to cropland^[8] in the 14 municipalities targeted by the project (González-Roglich et al., 2019). The largest agricultural expansion happened in the Bolívar municipality of the Barinas state (2,140 ha) and in the Morán municipality in the Lara state (459 ha). During the field campaign, in both locations, large extensions of fragmented landscape with agricultural and livestock production units were evidenced, validating what was observed in the satellite images. In the case of Bolívar municipality, the most relevant sites observed in terms of agricultural expansion are Altamira de Cáceres, Los Bucares, La Cuchilla, San Miguel and La Soledad. In the municipality of Morán, the most affected sites are located around El Tocuyo, Los Humocaros and the road to Guarico.

75. The field campaign identified several locations where there is a slow agricultural expansion towards more profitable crops. However, this dynamic is clearly evident in the Rangel and Miranda municipalities of Mérida State. This is largely due to market demand for certain horticultural products (e.g., high-floor vegetables) over others. However, coffee and cacao have gained ground as subsistence crops (small production units) where most farms have expanded the area dedicated to coffee, cacao, cambur and plantain, the latter two as a way to capture additional income for their households. An example of this is the axis formed by the Andrés Bello, Caracciolo Parra Olmedo and Tulio Febres Cordero municipalities in the state of Mérida. Other representative sites of this situation are: El Charal and El Rincón in the middle and upper basin of the Tucaní River (Caracciolo Parra Olmedo municipality, Mérida), Villanueva, Guarico, La Fila, La Florida (Morán municipality, Lara), Lechalito, Caspo (Andrés Eloy Blanco municipality, Lara), Villa Rosa, San José de Sagua (Sucre municipality, Portuguesa) and a large part of Monseñor Unda municipality (Portuguesa).

76. In the Andrés Eloy Blanco and Morán municipalities of Lara State, there is evidence of subsistence agriculture, mainly corn and beans. There is also livestock expansion in the Andrés Bello municipality of Mérida State, where there are large extensions of land occupied by large cattle ranches. There is a long tradition of high altitude cattle ranching in the area (generally above 1,000 meters above sea level).

Deforestation

77. The loss of natural vegetation is caused by the expansion of the agricultural frontier (Figure 6), illegal firewood extraction, and urban expansion in specific areas. Firewood is extracted to be used as fuel in homes and in some productive activities (e.g., panela production) due to the severe shortage of fuel. Wood is also extracted to produce handmade items such as doors and floors for domestic use and sale. No evidence was found to affirm that firewood extraction is selective or comes from a specific forest species. The forest species, judging by what was observed in the field, is an aspect that does not seem to be relevant when extracting firewood from woodlots. Both causes in turn occur due to the limited capacity to monitor and control forested areas. With respect to urban expansion, some Andean cities have physical limitations to their expansion, resulting in the transformation of forests and agricultural areas into urban areas (Amaya Hernández, 2013).

78. According to the Trends.Earth tool, in the 14 target municipalities, during the period 2000-2018 some 8,372 ha of forests were converted to non-forest cover. This is equivalent to a loss of about 441 ha/year. The most severe deforestation processes occurred in the municipalities of Bolívar (Barinas State; 2,728 ha), Boconó (Trujillo State; 2,170 ha) and Morán (Lara State; 1,901 ha). According to the "Hansen Global Forest Cover Change"^[9] tool (Hansen et al., 2013) between 2000 and 2020 forest cover was reduced by 21,548 ha. This is equivalent to a loss of about 1,026 ha/year. Given that each tool has an uncertainty inherent to the type of orbital sensor used and the methodology applied, it is worth noting that the forest loss in the project area varies approximately between 450 and 1,000 ha/year.

Forest fires

79. Forest fires in the Venezuelan Andes result mainly from the expansion of the agricultural frontier, (because of agricultural burning), logging for conucos, pastures and trash burning. Two important factors to take into consideration are: i) the intensification of anomalous droughts in recent decades (Paredes & La Marca, 2006; Paredes, 2016; Paredes & Olivares, 2018) and ii) that forest firefighters have severe limitations in dealing with fires (Gutiérrez, 2020). On average, an estimated 1,951 ha/year were affected by forest fires in the 14 target municipalities of the project between 2001 and 2020. Satellite-derived products reveal that these events occur largely over forest cover, followed by grasslands/shrubs. The years with the greatest extent of area burned were 2003, 2018 and 2020 (Table 7). Among the sites with the largest areas burned by fires were Cerro El Campanario (Andrés Bello municipality, Mérida state), Los Hoyos-Santo Domingo (Ospino municipality, Portuguesa state) and the Tres Palos sector (Andrés Eloy Blanco municipality, Lara state). The main driver of forest fires has been the extreme surface dryness (drought) which usually persists for several consecutive weeks, mainly attributed to the El Niño event. In the years 2002-2003, 2018-2019 and 2019-2020 medium category events occurred due to the El Niño event.

Table 7. Area burned (ha) within the 14 municipalities targeted by forest fires according to the MCD64A1 v6 product for the period 2001-2020.

Year	Burned area (ha)	Year	Burned area (ha)
2001	1,333	2011	25
2002	147	2012	49
2003	15,056	2013	923
2004	344	2014	550
2005	1,277	2015	98
2006	245	2016	613
2007	1,671	2017	420
2008	2,060	2018	4,606
2009	172	2019	3,074
2010	2,973	2020	5,093

Source: Prospero et al., (2020).

80. Between 1981 and 2021, 10 extreme drought events occurred. Most of these events were concurrent with the El Niño event (Table 8). This is consistent with the scientific literature that points out that El Niño is an important driver of droughts in the Andes (Trejo et al., 2016). Basically, El Niño blocks the transport of atmospheric moisture into the Andes through a large-scale temporal modification of the circulation in the Halley and Walker cells, reflected by an inhibition of precipitation and persistent good weather (Kayano et al., 2013). The 2013-2015 event was categorized as exceptional due to its persistence for 22 consecutive months.

Table 8. Extreme drought events recorded within the 14 target municipalities according to the standardized precipitation index (SPI) on a monthly scale for the period 1981-2021.

Event	Begin (month/year)	End (month/year)	medium intensity [-]	Duration (months)	Presence of El Niño ^[a]
E1	12/1987	5/1988	-1.12	6	Yes
E2	3/1989	8/1989	-0.91	6	No
E3	12/2000	6/2001	-1.04	7	No
E4	9/2002	3/2003	-1.01	7	Yes
E5	1/2008	6/2008	-0.65	6	No
E6	9/2009	2/2010	-1.10	6	Yes
E7	4/2013	1/2015	-0.79	22	Yes
E8	3/2015	10/2015	-1.40	8	Yes
E9	4/2018	9/2018	-0.64	6	Yes
E10	11/2018	12/2019	-0.86	14	Yes

Source: Naresh Kumar et al., (2009)

[a] Based on NOAA's Climate Prediction Center classification. (bit.ly/3mU1gqr).

ABRAEs degradation

81. The vegetation of the ABRAEs and their buffer zones is fragmented and deteriorating because of deforestation, forest fires, the expansion of the agricultural frontier and unsupervised tourism activities (Figure 6). The conversion of natural lands for agricultural and livestock use is largely due to the need for subsistence food production and the increase of smallholdings because of family growth. A key factor is the disengagement of people from their natural areas and the devaluation of the benefits generated by the standing forest.

82. The management of the ABRAEs is insufficient. Only half of the eight protected areas have management plans, but these are outdated (Table 5). The staff of the institution responsible for managing the protected areas has severe logistical and financial limitations to control the areas under their responsibility. At the municipal level, management of both ABRAEs and land management is considered non-existent.

Substitution and abandonment of shade-grown coffee and cocoa crops

83. Coffee and cocoa production in agroforestry systems and under shade contributes to the conservation of biodiversity and ecosystem goods (Perfecto et al., 2003; Harvey & Villalobos, 2007; Philpott et al., 2008; De Beehouwer et al., 2013). Intensification and shifting cultivation of this type of crops generates negative impacts such as a decrease in pollinator diversity and soil degradation.

84. In the Venezuelan Andes, the substitution of shade-grown coffee and cocoa has occurred in large part due to coffee price controls at the producer level established by the Venezuelan State^[10]. The dominance of old coffee plantations motivated the shift to rust-resistant varieties without shade, as well as to other more profitable crops. Since 2019, after price control was not renewed, there has been a continuous increase in the price of coffee. In addition, many populations now use coffee beans as a means of payment and savings. This has motivated farmers to work on renewing coffee plantations and improving production. In the case of cocoa, since 2017, with highs and lows, the international price has remained on the rise. However, due to the circumstances of the current scenario, some crops were replaced by more profitable alternatives. In both cases, productivity is

low due to inadequate crop management. Farmers are unaware of agroforestry and agroecological practices that would allow them to improve production. There are local agroecological production experiences that are not transmitted to other farmers. A central element is that farmers have limited access to technical assistance and agricultural extension. At the moment, the local market does not recognize differentiated prices for better quality or agroecological products.

85. Even though the coffee and cocoa price situation directly affects producers, at the moment, small farmers have little chance of switching to other crops because: i) they are deeply rooted in the tradition of the crop, ii) they have no economic or technical capacity for a new crop, iii) they only have family labor, and iv) they only know and manage coffee or cocoa crops and those associated with them, which are mostly family farms. In addition to the above, if there are bad conditions for selling coffee or cocoa, the producers basically stop tending the plantations, and dedicate themselves to another activity (e.g., temporary labor) or only tend the crop at harvest time, carrying out weed control beforehand. This situation leads to inadequate crop management, resulting in low production, pest and disease attacks, and plant death, which reduces crop density and decreases productivity, while increasing vulnerability to the effects of climate change.

Barriers limiting the solution to the problem

86. To address the problems and causes mentioned above, the following four barriers need to be addressed.

Barrier 1. Limited institutional capacity to incorporate the climate variable into their work and planning and to manage an integrated approach and multiple use of forests and productive landscapes in the Andean region, favoring the loss of ecosystem functions.

87. During project preparation, it was confirmed that there are weaknesses in the coordination, articulation and concertation between the bodies and institutions of the different levels of government (national, regional and municipal) with competencies to manage forests and lands. The lack of coordination does not allow the development of synergies and collaboration at the landscape level. Existing coordination mechanisms (e.g., working groups, workshops) are only activated for specific actions.

88. In addition, the entities have limited capacities to develop and implement plans and norms that harmonize planning and management with an integrated approach. The competent entities (e.g., MINEC, INPARQUES) lack sufficient personnel and resources to carry out their functions and limited authority for the protection of natural resources. Therefore, there are no governance mechanisms at the landscape level or adequate interinstitutional coordination to manage the territory with an integrated perspective.

89. Institutional personnel are generally aware of the need to implement sustainable production practices and actions for the conservation and restoration of biological diversity. However, they have little capacity to provide technical assistance and support to producers and to disseminate existing experiences and lessons learned. In addition, they have a limited technical base in ecological and operational aspects associated with conservation approaches at the landscape scale and lack of decentralized agricultural extension services and technical assistance at the local level.

Barrier 2. Limited implementation of national environmental policies and weak land use planning framework.

90. Although, in recent years, the Bolivarian Republic of Venezuela has approved important national environmental policies, these policies have not been fully implemented, an example is the National Strategy for the Conservation of Biological Diversity 2010-2020 and its Action Plan. One of its strategic lines, specifies the need to "Preserve and manage spaces of the territory, whose natural elements make them strategic for the Nation, due to the social benefits derived from their conservation and their contribution to the Supreme Social Happiness that lasts". This line is based on the need to build territorial planning and management plans to make the whole country a space for sustainable development. It also proposes the creation and activation of a system of ABRAEs and the participatory updating of PORUs and management plans. However, this policy has not been incorporated

into the country's current approaches to land use planning. Unfortunately, land management instruments, such as the PORUs, have not been updated based on the country's new reality and the requirements of the new legal framework. A successful program was carried out, in which 38 public consultations were held between 1989 and 1996, resulting in 38 PORU proposals (32 for National Parks and 6 for National Monuments) that were never made official. Currently, of the 43 decreed National Parks, only 20 have PORUs published in the Official Gazette and are being implemented. The lack of updated management instruments has contributed to increased deforestation and ecosystem degradation.

Barrier 3. Limitations of producers and technical assistance and extension services for the implementation of sustainable forest management, community forestry, agroforestry systems, production systems and sustainable practices in coffee-cocoa, lead to low productivity, coupled with the lack of knowledge of the benefits of forests and ecosystem goods for agricultural production, influencing the intervention of new spaces that brings loss of forest areas, water resources, biodiversity and land degradation.

91. Small producers have a low level of technology and low level of implementation of good agricultural practices (GAP), integrated pest management (IPM), soil/water management and agroecological and agroforestry management in coffee and cocoa production plots, which influences the low productivity of these crops and of the agrifood system as a whole. The planting area is being increased in order to increase production, without taking into account the negative impacts generated by agricultural activities. This responds to the current needs of farmers and their families, considering that coffee and cocoa are used as currency. In addition, coffee is being harvested early (totally losing quality) because it is being bought by intermediaries and traders. Although the price is low, it is still attractive because the price of coffee is dollarized and can be sold at any time of the year. A similar situation is occurring in some sectors with cocoa.

92. At the same time, forests are being affected, in large part, by two factors: a) The continuous expansion of short-cycle crops (especially corn and carota), which in turn is caused by the increase in the cost of food and the low productivity of the plots. Small farmers, especially subsistence farmers, take advantage of the natural fertility of the soil to produce their crops. The practice used is slash and burn. In addition, the lack of alternative energy sources, mainly for domestic use, results in the extraction of firewood due to the scarcity of gas for domestic use.

93. Most farmers have little knowledge and/or information that visualizes or evidences the benefits of standing forests and the ecosystem goods they produce. Although they are fully aware that they must take care of the water sources and reserve the areas near the streams and rivers, since all the communities depend on water from the rural aqueduct. Land use responds to the needs of the occupants and not to an orderly planning that demarcates adequate sites for agricultural production, sustainable forest management, and forest protection.

94. Poor crop management is caused by the limited use of appropriate technologies and good practices and poor access to technical assistance and extension services. There is no system that links research with technical assistance. Nor is there a clear policy to promote technology transfer to solve the problems of Andean farmers. All this leads to the dispersion of resources and duplication of efforts, which in turn weakens the supply of and access to technological goods and services.

95. The disjointed provision of technical assistance and extension, the low levels of producer associativity and the scant development of a market for quality agricultural goods and services undermine the possibilities of basing production on technological development and innovation. It is clear that the relevant entities have limited capacity to develop training, technical assistance and agricultural extension activities. Even more so in transmitting agroecological practices and agroforestry systems.

Barrier 4. Market imperfections, the lack of differentiated prices for cocoa and coffee produced in an environmentally friendly manner, coupled with the lack of incentives and financing, discourage the implementation of sustainable production practices with quality standards and conservation of natural resources.

96. Value chain actors are not adequately connected. The inclusive value chain approach is not applied. Small producers are not adequately connected to the value chain and its different links. The lack of information and technical assistance geared to the demands of the chain means that production, processing and marketing are not adequately managed and there are weaknesses in the enabling framework for sustainable cocoa and coffee production, with little value added at the farm level.

97. In addition, there is no demand for agroecological products, or products that conserve biological diversity (e.g., "bird-friendly"). Finally, there are no incentives to encourage the application of good agricultural practices and sustainable products.

98. The low level of associativity of small producers and the perception of not generating benefits at the present time limits the possibilities of developing economies of scale that would allow them to make investments (in terms of products and inputs), centralize post-harvesting and reduce the costs of access to training and support services that guarantee quality. On the other hand, there is also no marketing linked to the organizations, since producers depend on intermediaries for the marketing of their product.

99. In the case of cocoa, there is a marginal price difference between cocoa with and without processing. Therefore, small producers tend not to process it because of the time required for the process, the ratio of the kilos of cocoa slurry required to process a kilo of processed cocoa to the price paid and/or because they do not have the necessary infrastructure. In addition, it is an investment that is not compensated by the sale price. Poor crop and post-harvest management practices affect productivity. Poor quality control by intermediaries affects both the internal and external cocoa markets.

100. As with cocoa, there is no price differentiation in coffee based on quality since most of the production is sold to the industry as traditional coffee. This product is of low quality, and the physical and organoleptic defects of the beans increase the losses and, consequently, reduce the yield of the exportable supply. The main causes are: i) deficient infrastructure for post-harvest handling (mainly drying), ii) limited technical capacity for quality management, and iii) limited development of traceability and quality control services. Chain actors do not demand and reward quality with better prices.

101. Interest and demand for specialty coffee is an opportunity, although demand is still marginal. This market niche demands high quality products (e.g., acidity, aroma) for which consumers pay excellent prices, although they do not incorporate environmental requirements (e.g., organic). These products require good crop management and post-harvest treatment. At the moment, there are small initiatives for the production and marketing of organic and bird-friendly coffee.

102. The development and production of specialty coffee in the project intervention area is limited by: i) low price differentiation, ii) higher labor requirements for harvesting, iii) lack of knowledge of post-harvest techniques required, iv) little information on marketing channels, and iv) lack of technical assistance and extension. In addition, there is little price differentiation between common coffee and specialty coffee for the producer. These situations influence the low motivation of farmers, considering that much more effort is required to produce specialty coffee.

b. The baseline scenario and any associated baseline Programs

Sectoral and institutional context

103. The Constitution of the Bolivarian Republic of Venezuela is the highest law of the nation. In its Chapter IX on environmental rights (Articles 127, 128 and 129) it stipulates the joint duty of the Government and society to conserve and preserve the environment, guaranteeing sustainable development and the enjoyment of future generations of an integrated nature. The obligation to organize the territory and the requirement to carry out Environmental and Socio-cultural Impact Studies for any activity that has the potential to damage the ecosystem.

Environmental regulations and entities

Authority with competence in the management of biological diversity, forests and other components of the forest heritage and the main regulations governing conservation and harvesting

104. The national authority in charge of managing biological diversity, forests and other components of the forest heritage is MINEC. The regulations governing the conservation and use of biological diversity are divided into laws, decrees and special plans: The Wildlife Protection Law of 1970 establishes the need to promote and conserve the resources that serve as food and shelter for wildlife; consequently, the National Executive must take the necessary measures to preserve, modify or restore the habitat of wild animals. The Biological Diversity Law of 1999 establishes the guiding principles to conserve the legal assets that make up the biological diversity of the country made up of genes, individuals and animal and plant species, including forestry, in the different ecosystems, and to regulate the access and use of these biological and genetic resources. Decree 2,304 establishes the Norms on hunting in special areas and natural ecosystems, published in Official Gazette 34,987 of 1992. Decree 3,269 on the Regulations of the Law for the Protection of Wild Fauna, published in Extraordinary Official Gazette 5,302 of 1999. The Plan of the Homeland 2019-2025, which in its Historical Objective V establishes "to contribute to the preservation of life on the planet and the salvation of the human species". It specifies the following objectives: i) to develop a comprehensive policy for the use and enjoyment of natural resources, based on respect for nature, which guarantees the conservation, protection and sustainability of biological diversity and the national water system, and ii) to develop training programs associated with specific territorial units, in order to achieve responsible and sustainable environmental management.

105. The General Directorate of Forest Heritage of MINEC is responsible for the management of forests and other components of the forest heritage. Environmental crimes are controlled by the Public Prosecutor's Office through the Environmental Prosecutor's Office. The conservation and use of forests and other components of the forest heritage is regulated by: [1] The Organic Law of the Environment of 1976, whose purpose is to establish the provisions and develop the guiding principles for the management of the environment within the framework of sustainable development as a right and fundamental duty of the State and society, to contribute to the security of the State and the achievement of the maximum welfare of the population and the sustainability of the planet in the interest of mankind. Likewise, it establishes the norms that develop the constitutional guarantees and rights to a safe, healthy and ecologically balanced environment. [2] The Environmental Criminal Law of 1991, which establishes 13 different human activities susceptible to degrade the environment, which can be typified as environmental crimes due to their impact on the flora, fauna, habitat or the ABRAEs. [3] The 2013 Forest Law, which aims to guarantee the conservation of forests and other components of the forest heritage and other forms of non-tree wild vegetation, establishing the precepts that govern the access and management of these natural resources, based on the current and future interests of the Nation, under the guidelines of sustainable and endogenous development. [4] The Plan de la Patria 2019-2025, which in its Historic Objective V states: to establish a policy of sustainable management of forest reserves that regulates the development of economic activities, considers the non-timber uses of the forest, traditional uses, and includes the original inhabitants in the forest management plans to mitigate the environmental risk.

106. Forestlands are governed by the Forest Law. In Chapter III referring to "Forest land, trees outside the forest and other plant formations" forest land is defined as ... "land with or without vegetation, which due to its location, characteristics and functions, or by provision of the law should be used for forest use". It is specified that forest land is land located in forest reserves and areas of forestry vocation, and land that, due to its tradition, current use, or due to its specific conditions, has been classified for forest use. In the project area, only this last condition occurs, therefore, the existing forest areas can be destined by their owners or occupants to protection, sustainable management and multiple use activities.

107. MINEC is responsible for collecting data and information on the Land Degradation Neutrality (LDN) strategic objectives and submitting a national report to the United Nations Convention to Combat Desertification (UNCCD). The progress made in the implementation of the UNCCD Strategic Framework 2018-2030 has been assessed every four years since 2018. Some key actions to advance towards national LDN targets are:

§ Fundación Misión Árbol, in charge of collecting seeds, plant production, planting, maintenance, recovery, conservation and sustainable use of forests.

§ The National Reforestation Company (CONARE), which attends and follows up on public and private requirements for environmental recovery of degraded spaces or in the process of degradation.

§ Since 2021, MINEC's General Directorate of Enforcement and Control of Environmental Impacts has installed Unified National and State Commands against Forest Fires to implement an integrated fire management approach. The commands congregate MINEC, the Ministry of People's Power for Internal Relations, Justice and Peace (MPPPRIJP), the National Institute of Meteorology and Hydrology (INAMEH), Firefighters and Forest Firefighters, Civil Protection, Bolivarian National Guard, National Experimental University of Security (UNES), among other institutions.

§ In 2021, the Dr. José Gregorio Hernández Ramal de Calderas National Park was established. This new protected area is located between the states of Trujillo, Barinas and Mérida, and cover 50,500 ha.

§ Within the framework of the National Action Program to Combat Desertification and Drought Mitigation (PAN), MINEC has promoted different soil management and conservation policies. In this regard, it began a review and alignment process to the UNCCD 2018-2030 strategic framework

§ MINEC has promoted the implementation of the National Drought Strategy, where vulnerabilities to extreme drought events were identified in various productive sectors (including the agricultural sector). More than 150 people participated in this action, from national and international scientific and educational institutions, as well as different national environmental entities.

Authorities with competence in land management and the main regulations governing their management

108. MINEC is the national authority for land management in Venezuela. It has several attached entities, including the National Parks Institute INPARQUES (Official Gazette No. 30.223 of October 3, 1973), which is an autonomous institute with legal personality created to guarantee the conservation, administration and management of the National Parks, Natural Monuments and Recreational Parks that make up the Venezuelan National Parks System.

109. Regarding land management, the main regulation is the Organic Law for the Planning and Management of Land Management (Official Gazette No. 38.633 dated February 27, 2007) with provisions governing the planning and management of land management, in accordance with ecological realities and the principles, criteria and strategic objectives of sustainable development. Venezuela's land use planning is based on two areas of land use. The areas of ordinary regime which are not under legal figures of protection; and the protected areas, called Areas Under Special Administration

Regime (ABRAE). Other relevant norms are: National Land Management Plan (Official Gazette No. 36,571 of October 30, 1998), which is a long term instrument of reference for the country's medium and short term development plans, and also to the sectorial plans adopted by the State. It contains strategies aimed at guiding and controlling economic activities related to tourism, agriculture, water use, and the preparation and updating of management plans and regulations for the use of ABRAEs. Organic Planning Law (Official Gazette No. 5. 554 of November 13, 2001), which establishes the bases and guidelines for the construction, viability, improvement and organization of planning at the different territorial levels of government (national, state and municipal), as well as the strengthening of the mechanisms for consultation and democratic participation; and Organic Law of the Municipal Power (Official Gazette N° 38. 204 of June 8, 2005), which establishes the municipality as the primary political unit of the national organization with competence in matters of territorial planning in terms of the promotion of participation, and the improvement, in general, of the living conditions of the community, in the areas of environmental protection and cooperation with environmental sanitation.

110. The Organic Law for Land Management of 1983 is the main law regulating the ABRAEs. This law establishes provisions to harmonize population, environment and development within the Venezuelan territory. From the forestry point of view, it determines that the protection of the environment and the use of forest resources are part of land management, and for this purpose it is necessary to prepare the relevant land management plans. Articles 15 to 17 establish the ABRAEs and determine that these areas constitute the zones of the national territory that are subject to a special management regime in accordance with special laws. The law establishes 24 categories of ABRAEs and states that they will be created by presidential decree, which will set their limits and designate the entity responsible for their administration. It also establishes that each ABRAE will have a management plan and use regulations governing permitted uses (i.e., the PORU).

111. The main decrees are: Decree 276, on the Partial Regulation of the Organic Law for Land Management on Administration and Management of National Parks and Natural Monuments of 1989. Decree 2,945 on the 1998 National Land Management Plan. The Management Plans and Use Regulations (PORU) of the ABRAEs. These contain the guidelines, directives and policies for the administration of these areas, as well as the criteria for assigning permitted or restricted uses and activities. Table 5 summarizes the status of the issuance of the PORUs for the ABRAEs in the project area. Decree 1,221 of 1991 issuing the Regulations on Environmental Guards. It establishes that environmental protection is the activity aimed at preventing, monitoring, examining, controlling, supervising, sanctioning, and repressing actions or omissions that directly or indirectly could degrade the environment and renewable natural resources. Several entities are established with competence in their jurisdictions, including the National Guard (Component of the Bolivarian National Armed Force) with competence in environmental policing.

Authority in charge of water resources management and the main regulations governing the conservation and use of these resources.

112. The national authority responsible for water resources management is the Ministry of Popular Power for Water Resources (MinAguas). The main regulations are: The Water Law of 2007, which establishes the provisions governing the integral management of water as an indispensable element for life, human welfare and sustainable development of the country and is of strategic nature and State interest. Decree 2,220 on the Norms to Regulate Activities Capable of Causing Changes in Flow, Obstruction of Watercourses and Sedimentation Problems, published in the extraordinary Official Gazette 4,418 in 1992.

Agricultural regulations and entities

113. The main entities relevant to this project are: The Ministry of the People's Power for Productive Agriculture and Land (MPPAPT), which is the national agricultural authority and is responsible for executing the Gran Misión AgroVenezuela (created by Decree Law 1,409 of 2014). The MPPAPT is the governing body for the formulation, coordination, monitoring and evaluation of policies aimed at promoting food security, fostering the development of agro-productive circuits and agri-food systems, and promoting the development of the country's rural areas. It is also responsible for

adapting the national agrifood system to new technologies, promoting the development of self-management capabilities, mainly of small and medium agricultural producers. It is also in charge of stimulating agricultural production yields, in order to satisfy the needs and sustainable management of resources to efficiently guarantee food security for the population. The MPPAPT has several entities attached to it. The relevant ones for the present project are: The National Agricultural Research Institute (INIA), which conducts research in the agricultural area, and whose mission is to promote technological innovation in agri-food to optimize the production function in the national agri-food system, under the communal social structure, within the framework of the social agrarian model. The National Institute of Integral Agricultural Health (INSAI), created by the Law of Integral Agricultural Health (Extraordinary Official Gazette 5. 890 of July 31, 2008), having within its competencies, to execute and develop actions for the surveillance, prevention, control, and eradication of diseases that affect integral agricultural health. The Corporación Venezolana del Café S.A. (CVA), created by means of Decree No. 5.890 of July 31, 2008. (CVA) created by Decree 7,497 of 2010, as a state company that administers, develops, coordinates and supervises the activities of the Nation in the coffee sector. This includes the production, processing and distribution of coffee and its derivative products. Its management is also focused on improving the quality of life of coffee producers, thus contributing to achieve food security and sovereignty of the nation and exports; the Corporación Socialista del Cacao Venezolano S.A. (CSCV), created by Decree 7.497 of 2010, as a state enterprise that manages, develops, coordinates and supervises the activities of the Nation in the coffee sector. (CSCV), created by Decree 7,471 of 2010, is a state-owned company responsible for managing, developing, coordinating and supervising the activities of the State in the cocoa sector, including the production, processing and distribution of cocoa, chocolate and its derivative products.

114. The main regulation in this area is the Law on Land and Agrarian Development (Official Gazette 5.991 Extraordinary of July 29, 2010) which establishes the bases for integral and sustainable rural development. Other relevant regulations are: Administrative Ruling 007/2017 of the MPPAPT (Official Gazette 41.240 of September 20, 2017) which prohibits PACCAs, Associations of producers and producers in general, certified by the CVC, from processing the authorization for the mobilization and commercialization of cherry coffee, parchment coffee and green coffee, related to intermediation. Decree 8.157/11 declaring cocoa of national production as a good of primary need and, therefore, a priority for the production of cocoa, chocolate, its products and by-products. The MPPAPT is ordered to supervise the activities of the State in the cocoa sector, supported by the CSCV. It is also established that the peasant producers, community councils and the private sector, together with their workers, must promote a strategic alliance with the Executive to consolidate cocoa production at national level as a world cocoa power and with the support of the Ministries of the People's Power for Planning and Economy. Finance and Foreign Trade, the most favorable financing conditions will be established in terms of exchange, distribution, commercialization, storage, import and export.

115. The Venezuelan State, through the National Land Institute (INTI), grants the farmers the right of agrarian property over specific land lots so that they can work them and benefit from them, with the commitment of working the land in line with the agricultural plans of the Nation. The agrarian property right is transferred by inheritance to the legal successors (descendants or collaterals). However, these lands cannot be alienated.

116. From the legal point of view, it constitutes a property right that is established through an administrative act called "Land Adjudication" (the person receives an "Adjudication Title"), by means of which INTI grants a parcel or land lot to maintain agricultural productivity and food security. The adjudication process is based on the provisions of the Constitution of the Bolivarian Republic of Venezuela, the Decree with force of Law on Land and Agrarian Development, and the Organic Law of Administrative Procedures. There is a temporary figure called "Carta Agraria" (Agrarian Chart) that is issued by INTI. The Agrarian Chart is a provisional authorization of occupation that is granted to peasants, organized or not, on public lands with agricultural vocation, while the adjudication procedures provided for in the Law on Land and Agrarian Development are processed and resolved. The adjudication procedures are processed by INTI's Regional Land Offices (ORT).

117. The Constitution of the Bolivarian Republic of Venezuela (articles 305, 306 and 307) advocate the consolidation of agriculture to guarantee food security, the incorporation of the peasant population into national development with an adequate level of welfare and the eradication of the latifundium as a system contrary to social interest.

118. The most relevant national plan for the present project is Plan de Siembra 2021, which has nine vertices to strengthen national food production at all scales, by means of scientific, technological, technical, logistical and organizational leverage and a new financial architecture for producers in general, as well as all the actors and sectors of the agri-food production chain, guaranteeing agri-food sovereignty. The nine vertices are: 1) land and productive spaces, 2) mechanization and implements, 3) biological and synthetic inputs to strengthen productive processes, improve them, protect crops, 4) seeds and sovereign genetics, 5) grassroots organization of the People's Power, the forces of the People's Power, 6) financing, 7) production, processing, distribution and supply of all agricultural products, 8) research, development and innovation, and 9) defense, security and integral peace of the entire Venezuelan territory of the Great Mission AgroVenezuela. Vertices 3 and 4 are particularly relevant for this project, as they encourage the use of nationally produced inputs, especially organic and biocontrol inputs, and the production of high-quality seeds for national production.

119. On 24 February 2022 MPPAPT adopted: (i) regulations for the production and distribution of artisanal coffee (Resolution DM/004/2022), (ii) regulations for the associations of coffee producers or processors and torrefactors (Resolution DM/003/2022), and (iii) the protocol for organic coffee certification (Resolution DM/002/2022) (all published in Gaceta Oficial 42,303). Resolution DM/004/2022 allow small producers to produce and directly sell up to 500 kg / month of "artisanal" roasted ground coffee. Resolution DM/003/2022 requests that the associations of coffee producers or processors must provide (i) agricultural equipment and supplies and (ii) technical support to their producers. Finally, Resolution DM/002/2022 requests that organic producers implement social safeguards (e.g., signed labour contract, fair salary) and environmental protection measures (e.g., maintain biological corridors, nurseries of native plant species).

Other projects

120. The project will take advantage of the experiences and lessons learned from the following GEF projects: "Strengthening the Financial Sustainability and Operational Effectiveness of the Venezuelan National Parks System" (GEF ID 3609), which was implemented by the United Nations Development Program (UNDP). In particular, the lessons on the involvement of local communities in the management of ABRAEs and their buffer zones. Project "Sustainable Forest Lands Management and Conservation under an Eco-social Approach" (GEF ID 5410) which is implemented by FAO (project GCP /VEN/011/GFF in Table 9). This project seeks to achieve sustainable forest management through innovation in information management, incentives, participatory governance, empowerment of forest-dependent communities and multiple mechanisms for the recovery of degraded forest areas in representative forest ecosystems in Venezuela. The project is expected to close by the end of 2022. In the meantime, working meetings will be held to gain first-hand experience in aspects such as integrated resource management and how to address global environmental threats in productive landscapes.

121. The project will establish close collaboration with the GEF Small Grants Program (SGP), which is implemented by UNDP (Table 9). The SGP has some interventions in the Venezuelan Andes, with which it will establish direct collaboration. In addition, it will take advantage of the practices and lessons learned in natural resource management and work with local communities. Of particular importance will be the experience of the SGP in incubating ecosocial innovation ventures, which seeks to develop capacities and generate sustainable business opportunities based on biological diversity, such as Andean tourism routes.

122. The project will collaborate directly with the project "fostering the integrated development of seven agricultural value chains", which is part of the "ONUDI-Venezuela Country Program", signed in May 2018. It will work with the national committee of coffee and cocoa value chains to link and strengthen the value chains in the project area (outputs 3.1.2 and 3.1.3). The national action plan for coffee and cocoa aim to: a) improve articulation and strategic organizational capacity among the actors in the value chain; b) increase productivity and quality of the primary products of coffee and fine or flavour cocoa; c) improve processing to comply with national and international certifications; d) improve value of final products, promoting quality and innovation throughout the cocoa value chain; and e) significantly increase the volumes and value of exports of cocoa beans and their derivatives. A key milestone has been the creation of a national committee to convene the actors of the value chains.

123. Table 9 summarizes the main projects related to this initiative.

Table 9. Complementary projects.

FAO Projects				
Symbol	Title	Budget (USD)	Start Date	Completion date
TCP/RLA/3730	Improving agricultural censuses and surveys for the calculation of SDG indicators.	5.000,00	01/08/2020	31/12/2021
TCP/RLA/3802	Emergency response to the impact of COVID-19 on rural livelihoods and the food system	29.960,00	15/05/2020	31/12/2021
TCP/RLA/3805	Support to regional cooperation for climate management of agricultural ecosystems with emphasis on water and soil.	8.000,00	01/12/2020	30/11/2022
TCP/VEN/3701/C1	Strengthening MINEA for the development of statistical operations associated with the 2030 Agenda.	75.000,00	14/08/2018	13/08/2021
TCP/VEN/3702/C2	Strengthening technical-scientific potential in the production of legume seeds linked to family and peasant agriculture.	50.000,00	01/08/2019	30/11/2021
TCP/VEN/3703/C3	Reducing vulnerability to the effects of climate change and increasing the resilience of rural women.	100.000,00	15/12/2019	30/11/2021
OSRO/VEN/100/BEL	Emergency agriculture assistance to food insecure and vulnerable population affected by COVID-19	350.000,00	01/04/2021	30/03/2022
GCP /RLA/208/VEN	Regional Program to Implement Triangular Technical Cooperation Initiatives in the Fields of Food Security, Food and Nutritional Sovereignty and Poverty Reduction	100.000,00	01/01/2015	15/12/2021
GCP /VEN/011/GFF	Sustainable Forest Lands Management and Conservation under an Eco-social Approach	8.249.315,00	31/10/2016	31/12/2022
GCP /VEN/017/EC	Global Network Against Food Crises Partnership Programme - Country Investment Venezuela	3.528.270,00	01/05/2019	31/08/2021

SGP Projects				
Symbol	Title	Budget (USD)	Start Date	Completion date
VEN/SGP/OP6/Y5/CORE/B/D/2019/01	Conservation of the tropical dry forest, a critically threatened landscape, through the promotion of agroforestry systems and implementation of climate-smart technologies as a strategy to generate sustainable livelihoods in communities in the biological corridor Pico Codazzi Natural	30.000,00	01/08/2020	31/07/2021

	Monument, Cordillera de la Costa.			
VEN/SGP/OP 6/Y5/CORE/L D/2019/07	Development of biodiversity friendly practices in production systems in the coffee zone in the community of escalera, Yacambú parish, Andrés Eloy Blanco municipality, Lara state.	20.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/C D/2019/13	Capacity Building for the implementation of the Country Program Strategy (EPP) OP7 of the SGP Venezuela.	25.000,00	01/08/2020	31/08/2021
VEN/SGP/OP 6/Y5/CORE/C D/2019/14	INNOVATION ECO: Promoting sustainable business of biological diversity.	25.000,00	01/08/2020	31/08/2021
VEN/SGP/OP 6/Y5/CORE/L D/2019/11	Quality improvement in the coffee production chain, in order to optimize the welfare of the community of " Caserío Santa Ana, Parroquia La Estación, municipality of Ospino, Portuguesa state.	25.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/L D/2019/08	Sustainable agroecological model for coffee production and environmental restoration in the community of El Retazo, Ezequiel Zamora municipality, Cojedes state.	15.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/L D/2019/09	Productive patios and production processing as a tool for social integration of people with disabilities, Portuguesa state.	20.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/L D/2019/12	Agroecological production on a family scale as an alternative to slash and burn in the rural area of El Hatillo municipality, Miranda state.	30.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/L D/2019/06	Agroecological Program for the Recovery and Conservation of the watershed of the Serranía de la Cerbatana in Río Caribe, Sucre state.	22.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/C C/2019/05	Bioinputs and sustainability project: strengthening the capacities of the agricultural sector of the Canoabo parish, Carabobo state, for the production of biological inputs.	28.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/B D/2019/02	Recovery of degraded forests through reforestation, rehabilitation and sustainable development of at least 20 hectares of cocoa plantations.	15.000,00	01/08/2020	31/07/2021
VEN/SGP/OP 6/Y5/CORE/L	Recovery of degraded soils through the application of climate-smart agro-ecological innovations for the generation of productive patios as a means of sustainable livelihoods	15.000,00	01/08/2020	31/07/2021

D/2019/10	od in the "Rio El Pilar" community in the municipality of Benitez, Sucre State.			
VEN/SGP/OP6/Y6/CORE/BD/2021/01	Sustainable use of Amazon rainforest species in displaced indigenous communities of Puerto Ayacucho, Amazonas State.	20.000,00	01/08/2020	31/08/2022
VEN/SGP/OP6/Y6/CORE/CC/2021/02	Community center for the production, evaluation and commercialization of bio-inputs, with the purpose of improving traditional coffee plantations in the community of El Corozo, parish of Monseñor Etanislao Carrillo, Trujillo State.	20.000,00	01/04/2021	31/08/2022
VEN/SGP/OP6/Y6/CORE/CC/2021/03	Restoration, valuation and sustainable use of the natural resources of the xerophytic forest for the creation of alternative livelihoods, drought mitigation mechanisms and a daptation to climate change in the community of Montecano, La Luz sector, Falcón state.	20.000,00	01/04/2021	31/08/2022
VEN/SGP/OP7/Y2/CORE/BD/2021/02	"A CROWN FOR THE QUEEN" -Ethical-Environmental Tourism in the Laguna La Reina-Higuerote Coastal Wetland.	17.500,00	01/04/2021	31/01/2023
VEN/SGP/OP7/Y1/CORE/LD/2020/04	RESILIENT COMMUNITY: agro-ecological production and value chains in the settlements of Naranjo and Las Garcitas, Canoabo, Carabobo state.	20.000,00	01/08/2021	31/08/2022
VEN/SGP/OP7/Y2/CORE/BD/2021/01	Ex situ conservation and sustainable use of medicinal plants and wild fruits of Ramal de Guaramacal, Trujillo state.	17.500,00	01/03/2021	31/01/2023
VEN/SGP/OP7/Y1/CORE/CC/2020/06	Consolidation of small coffee growers sustainable and sustainable diversification with beekeeping and the generation of added value in the traditional cultivation of coffee (coffea sp.) under shade as a means of livelihood in the upper zone of the municipality of Ospino.	20.000,00	01/08/2021	31/08/2022
VEN/SGP/OP7/Y2/CORE/CD/2021/07	Consolidation of capacity building, M&E and knowledge management for the implementation of the Country Program Strategy OP7 of the SGP.	30.000,00	01/03/2021	31/01/2023
VEN/SGP/OP7/Y1/CORE/CC/2020/05	Establishment of a network of sustainable family rabbit farming nuclei in Montalbán, Carabobo State.	17.000,00	01/08/2021	31/08/2022
VEN/SGP/OP	Development of a community agroforestry reserve with n			

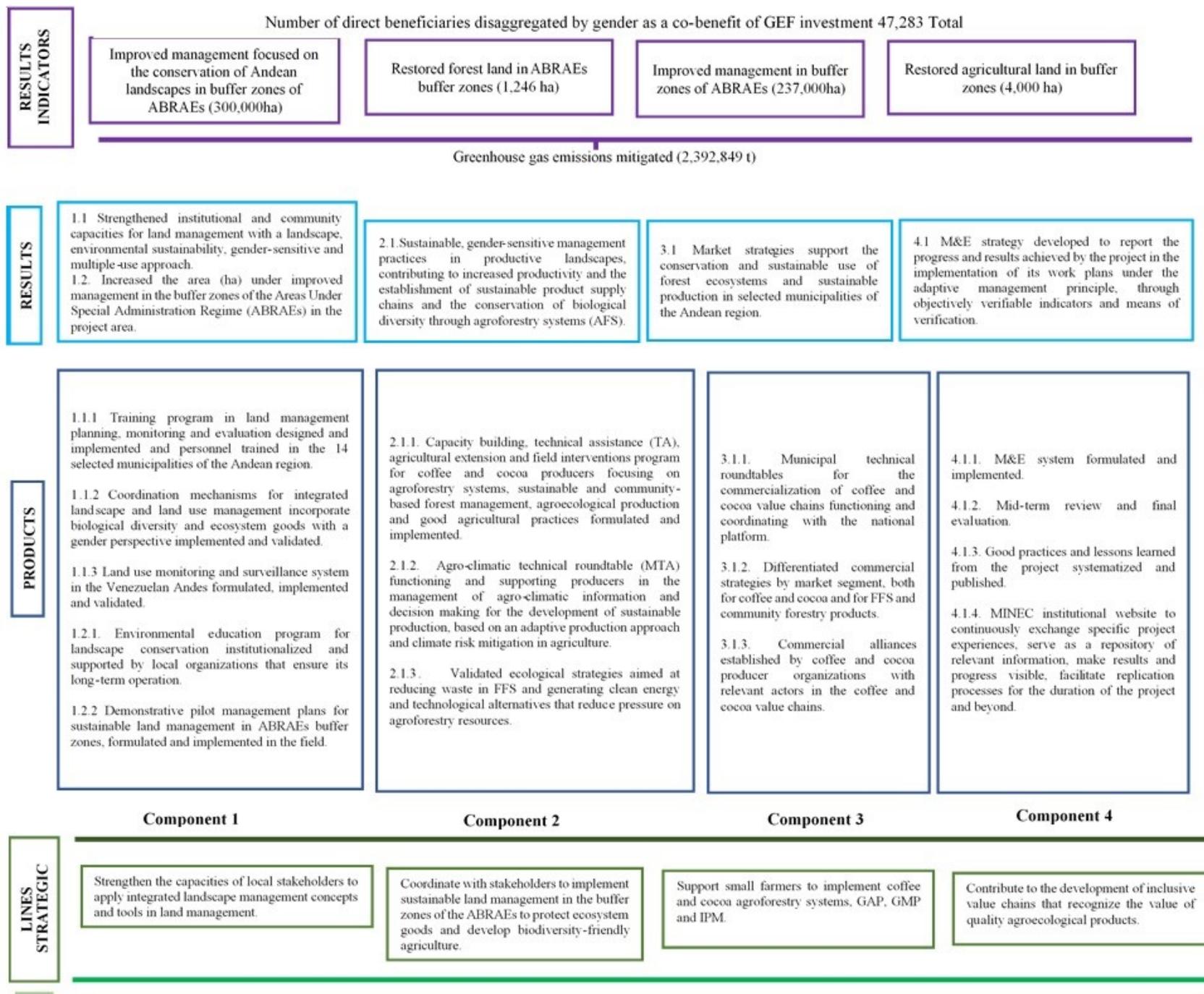
VEN/SGP/OP 7/Y1/CORE/B D/2020/01	ative semi-arid species under agroecological management, allowing for conservation and timber harvesting for artisanal use and food production.	16.000,00	01/03/2021	31/08/2022
VEN/SGP/OP 7/Y2/CORE/C C/2021/06	Implementation of biochar and energy from biomass pyrolysis for carbon sequestration and storage in soils of the community of Filo del Loro. Mérida - Venezuela	20.000,00	01/03/2021	31/01/2023
VEN/SGP/OP 7/Y2/CORE/L D/2021/04	Increase in agroecological production, processing and distribution of finished products, Quebrada Azul, La Azulita, Merida State.	20.000,00	01/08/2021	31/01/2023
VEN/SGP/OP 7/Y2/CORE/C C/2021/05	Agroecological management of coffee and use of the pulp to generate sustainable livelihoods in the community Quebrada "Las Rosas", Parish "Palo Alzao" Sucre municipality, Portuguesa State, Venezuela.	20.000,00	01/08/2021	31/01/2023
VEN/SGP/OP 7/Y1/CORE/C C/2020/07	Agroecological management of the coffee crop, with production of complementary items (Cambur) for the sustainability of the coffee family of the Miraflores sector of the Quebrada Honda de Guache Parish, Lara state.	15.000,00	01/08/2021	31/08/2022
VEN/SGP/OP 7/Y2/CORE/B D/2021/03	Women in arrears without delay: An alternative for sustainable endogenous development in the Páramo Los Uvitos, Sucre municipality, Mérida state.	20.000,00	01/03/2021	31/01/2023

c. The proposed alternative scenario with a brief description of expected outcomes and components of the project.

Project strategy

124. The current scenario is complex, as there are important general and specific limitations (Figure 6). Therefore, it is impossible to address all the causes of the deterioration of the biological diversity of the Venezuelan Andes at once. Consequently, it is necessary to strategically establish key actions that contribute to resolving some of the root causes, such as: i) strengthening conservation actions at the landscape level and ii) promoting the development of coffee and cacao agroforestry systems and agroecological production, as well as community forestry.

125. Without intervention to help reduce pressures on biodiversity, it seems unlikely that the transition to a positive scenario for nature will progress in the near future. Key factors such as: i) land use change, ii) soil deterioration and iii) lack of appreciation for ecosystem goods, among others, will continue to deteriorate the biodiversity base of the Venezuelan Andes.



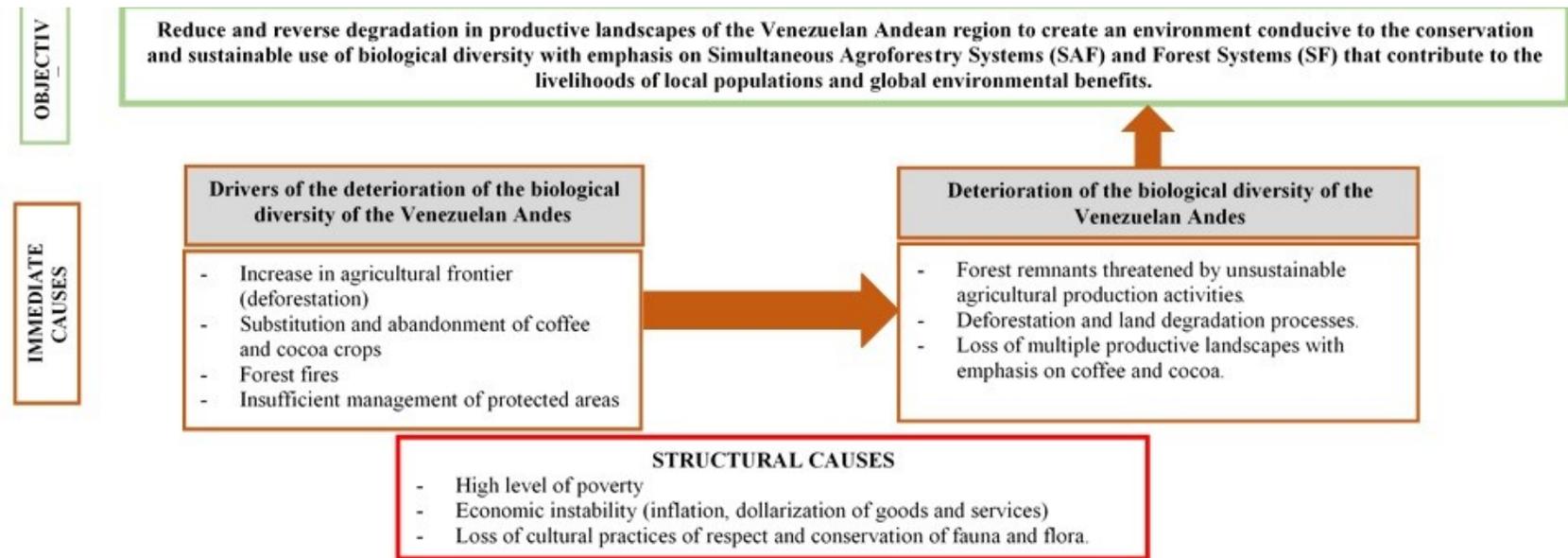
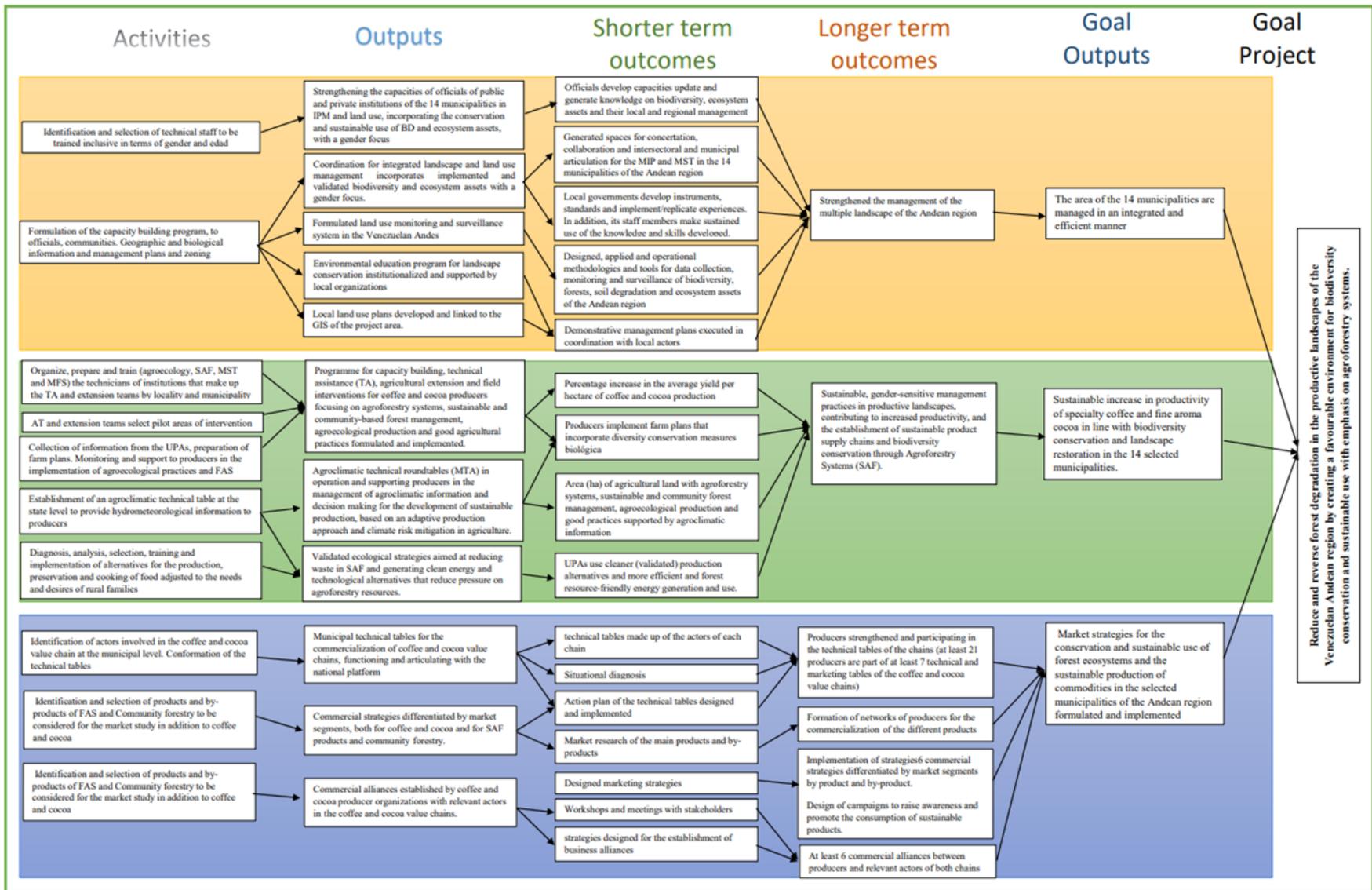


Figure 7. Project theory of change.



i) Productive systems are managed under an integrated landscape vision, ii) The different stakeholders participate in the training plans iii) Trained people are involved in integrated landscape management. iv) Public institutions invest in forest and soil conservation. v) Local stakeholders are motivated to implement coordinated actions with institutions to conserve land. vi) Local organizations committed to environmental conservation

i) Coffee and cocoa producers apply agricultural practices that conserve biological diversity. Producers receive TA and agricultural extension, ii) Coffee and cocoa products apply agricultural practices based on agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices. iii) Cleaner production strategies and more efficient and resource-friendly energy generation and use are easy to implement, affordable and responsive to the needs of producers. iv) Public and private actors actively contribute to the generation, dissemination and use of agroclimatic information.

i) Producers are capable of managing and administering their business ventures and alliances over long-term horizons; ii) the market strategies designed favour income generation, conservation and sustainable use of agricultural forest ecosystems and ABRAEs; and iii) the municipal technical marketing boards of the coffee and cocoa value chains are platforms that favour the integration of stakeholders and linkage with the market

Assumptions

Figure 7a.Expected short and long term outcomes

126. The purpose of the project is to preserve forest remnants of high conservation value, reduce land degradation and deforestation, and sustainably manage multiple productive landscapes with an emphasis on coffee and cacao in the Venezuelan Andes (Figure 6). Key actions will be to encourage smallholder farmers to apply coffee and cocoa agroforestry systems, GAP, GMP and IPM (outcome 2.1) and to contribute to the development of inclusive value chains that recognize the value of agroecological quality products (outcome 3.1). All interventions are based on promoting and strengthening forms of collaboration between public and community stakeholders.

127. The first line of intervention will focus on getting public, community and private organizations to manage the territory with an integrated approach, promoting the development of agroforestry systems and the conservation of natural vegetation. The central elements for achieving change will be public-community collaboration, interinstitutional coordination and action, and capacity building (Figure 7).

128. The main assumptions are: (a) people with greater knowledge and capacity for cross-sectoral collaboration will be able to apply integrated landscape management in land management through agricultural plans and land use plan. b) strengthening the capacity and awareness for landscape conservation, (b) improved capacity and awareness of planning and budgeting officials will drive increased public investment to sustain integrated landscape management; (c) increased productivity per area will reduce pressure on forest resources, biodiversity and ABRAEs; (d) improved and sustained market linkages favor environmentally friendly production of coffee, cocoa and other commodities.

129. To achieve the desired change, the proposed strategy is: First, develop; i) technical capacities of personnel from public (e.g., MINEC, MPPAPT, municipalities), community and private entities, ii) mechanisms for coordination and inter-sectoral collaboration. At the same time, iii) a regional land use monitoring and surveillance system will be developed to support the management of all entities in the area and the generation of information related to land management. Subsequently, apply these capacities and tools in the development of a practical demonstrative exercise, whose lessons learned can be useful to the actors of the Venezuelan Andes, iv) the exercise will be the preparation and implementation of a landscape management plan in three municipalities of the western slope of the Cordillera de Mérida. The practical exercise will include the development and application of a demonstration package for sustainable land use that will motivate, among others, the conservation of natural vegetation and the expansion of agroforestry systems. Finally, promote that local entities allocate budget for sustainable forest management actions, sustainable land management and ecological restoration.

130. The second line of intervention will focus on implementing actions for sustainable land management in the buffer zones of the ABRAEs. The project will support the implementation of action plans in demonstration sites covering a total of 300,000 ha. These plans will channel coordinated actions of i) villagers, ii) local organizations and iii) relevant public entities (e.g., municipalities, MINEC, INPARQUES).

131. The main assumptions are: i) that community councils can manage local initiatives for landscape conservation, ii) that empowered local communities are involved in landscape conservation, iii) that landscape conservation management generates benefits to communities, and iv) that community stakeholders require environmental education programs to raise awareness of the importance of productive landscape and forest conservation and restoration.

132. To achieve the desired change, the proposed strategy is to: i) develop and implement a deconcentrated environmental education program for landscape conservation, anchored in local entities. This would mobilize local organizations and public entities to act to conserve the ABRAEs and their buffer zones. Additionally, it would support local people to value landscape conservation, ii) in selected sites, formulate and implement participatory action plans for sustainable land management in buffer zones of ABRAEs. These practical exercises will serve as demonstrations for other sites and will generate useful lessons. These interventions will seek to cover 300,000 ha under improved management and restore 1,246 ha of forest, iii) develop a regional monitoring and surveillance system to support forest land management of ABRAEs in the project area.

133. The third line of intervention will focus on increasing productivity through the implementation of coffee and cacao agroforestry systems and the application of GAP, GMP, and IPM. The cultivation of coffee and cocoa under shade allow the trees to intercept a good amount of precipitation, protecting the soil from direct rain impacts, and reducing soil erosion. The leaf litter released by this protective layer is deposited on the ground and reduces the erosive potential of the rain that hits the ground. Most of the water is retained by the tree floor, which slowly descends to the ground, reducing surface runoff. This facilitates the work of evacuating water from rivers and streams, allows the infiltration of moisture into the soil and the feeding of aquifers, while avoiding physical wear on the soil. In addition to their crucial role in managing the water cycle, trees contribute in other ways to the functioning of the system. They regulate, for example, photosynthetic activity and control wind impacts. Also, the leaf litter, deposited by coffee and cocoa plants and shade trees, provides nutrients to the soil, reducing the need for fertilizers. Likewise, the presence of leaf litter reduces the growth of weeds, making it less necessary to combat them with other instruments. A more diverse vegetation, finally, accommodates a more varied fauna, which in turn positively affects the physical and chemical processes of the soil (Fournier, 1980).

The central element of the intervention will be sustainable land management on 23,700 ha, which corresponds to 10% of the 237,000 ha of productive landscape, with the implementation of technical assistance and extension services. This pilot area is represented by 4,740 producers (including women and youth).

134. To achieve the desired change, the proposed strategy is to develop and implement a deconcentrated extension program, anchored in local entities, and focused on small coffee and cocoa producers. This program will support farmers to implement agroforestry and agroecological systems that: a) generate sustainable marketable products (e.g., coffee, cacao, cambur) and food for family nutrition, and b) contribute to biodiversity conservation (e.g., food for pollinators and birds). The extension program will first develop, together with volunteer families, 14 demonstration farms on producers' properties (one demonstration farm in each municipality). These farms will demonstrate good agricultural and agroforestry practices. Second, it will apply participatory research to validate agroecological practices implemented by local farmers. The results will feed the extension system to disseminate the experience to producers in the area. Third, establish an agroclimatic technical roundtable (MTA) (Giraldo-Mendez et al.,

2018; Giraldo-Mendez et al., 2020) that integrates key actors to inform about expected changes in the region's climate, transmit information bulletins, increase the management and analysis capacity of agroclimatic information and decision making for the development of sustainable production, based on an approach of production, adaptation and climate risk mitigation in agriculture.

135. Finally, farmers will be supported to design and implement "farm plans" (Palma & Cruz, 2010; FAO, 2011) that include positive measures to conserve biological diversity and integrate into the productive landscape (Cammaert et al., 2007). The extension program will support the implementation of home gardens on farms with the purpose of producing varied and nutritious food for the family. On the other hand, ecological alternatives validated with coffee and cocoa producers will be included through the extension and TA programs, aimed at reducing waste in agroforestry systems (bioinputs, use and recycling of products and by-products of the PFS) and the generation of clean energy and alternatives that reduce the pressure on agroforestry resources. The project also aims to reduce pressure on agroforestry resources (use of pruning by-products for cooking and food preservation), the risk of contamination and promote the efficient use of water (efficient technologies for coffee processing, water recycling) and technologies that optimize food cooking and reduce the use of firewood.

136. The fourth line of intervention will focus on marketing based on increasing the supply of coffee and cocoa with quality standards by taking the value chains (FAO, 2017), as platforms for articulation and connection with market actors that recognize the value of agroecological coffee and cocoa, as well as other products produced in agroforestry systems.

137. The main assumptions are: i) producers are capable of managing and administering their business ventures and alliances over long-term horizons; ii) the market strategies designed favor income generation, conservation and sustainable use of agricultural forest ecosystems and ABRAEs; and iii) the municipal technical marketing boards of the coffee and cocoa value chains are platforms that favor the integration of stakeholders and linkage with the market.

138. To achieve the desired change, the proposed strategy is: municipal technical marketing roundtables will be formed with the actors involved in the chain, which will coordinate with the national platform of coffee and cocoa value chains and its action plan supported by ONUDI, for the development of actions related to the project and in particular in favour of marketing. The municipal technical roundtables will be the basis for building and implementing an action plan to consolidate sustainable coffee and cocoa value chains in the Andean region. At the same time, market mechanisms and instruments will be explored to differentiate agroecological production of coffee, cocoa and other products.

139. In addition, a market study will be carried out to identify and characterize the market segments or niches for specialty coffee, fine aroma cocoa and other products associated with the SAF. The study will provide updated information on volumes demanded by segment, the demands or requirements in terms of quality and timing, volumes demanded, prices and the possibility of increasing them in the case of offering cocoa and certified coffee, as well as the current commercialization route. The market study will help identify the issues to be reinforced in the plan to strengthen organizational and entrepreneurial capacities. Finally, it will be used to design the commercial strategy and the business and associative models that facilitate access to the different market segments, as well as the formation of commercial alliances. As part of the strategy, campaigns will be designed to promote the consumption of these products.

140. Capacity-building will also be provided in the areas of organization, technical and business management and marketing, encouraging small producers to strengthen their productive organizations and develop the skills and abilities to participate actively in value chains. For example, negotiating supply and price agreements, ensuring product quality, adding value and identifying new lines of work.

Project components

Component 1. Institutional strengthening for land use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities

Outcome 1.1 Institutional and community capacities for land management with landscape, environmental sustainability, gender-sensitive and multiple-use approaches strengthened.

141. The project will develop i) an institutional framework for coordination and ii) capacities in the staff of public and community organizations, technicians, and local promoters, to implement land use management and sustainable production and management of multiple-use landscapes and reduce land degradation, with emphasis on agroforestry, community forestry, the application of the gender approach and planning processes, monitoring and evaluation of land management (output 1.1.1), ii) coordination and technical planning and multilevel investment mechanisms will be defined between MINEC and INPARQUES or with the municipalities. The project will seek to protect critical areas for connectivity, fragile ecosystems, water recharge areas, and ecological corridors. The project will support the municipalities in identifying potential areas for conservation and restoration, and in defining and implementing biodiversity conservation strategies, promoting sustainable forest management and sustainable land management as part of land use planning.

142. Comprehensive actions will be implemented to strengthen the various levels of government (national, regional and municipal), taking into account their respective legal competencies. The project will support the development of multilevel coordination mechanisms among public actors to: i) optimize joint planning, ii) motivate the coordinated implementation of public policies, and iii) improve the efficiency and effectiveness of the entities' interventions (output 1.1.2). These interventions pursue the participatory and collective construction by the actors in the territory, especially the communities, for the implementation of national policies and local strategies. This in turn implies developing/strengthening spaces for political, social and technical dialogue between levels and between actors. In this way, the project will support the preparation and implementation of a pilot plan for the "landscape management of three municipalities on the western slope of the Mérida mountain range". These plans are expected to generate lessons on governance, land use conflict management, territorial planning, sustainable land management and biodiversity conservation. The pilot plan will serve as a showcase for other municipalities in the area to learn and replicate the lessons learned. It is hoped that all of this will: i) facilitate intersectoral and interinstitutional collaboration, ii) avoid overlapping activities, iii) encourage the allocation of financial resources, and iv) improve the efficiency and effectiveness of government interventions in the Andean region.

143. Improved inter-institutional and multi-level coordination will strengthen efforts to generate early deforestation warnings and monitoring and surveillance processes. The project will support the development of an early warning system and the use of the Trends.Earth tool to facilitate effective planning and decision making (Output 1.1.3). As part of the monitoring and surveillance system, carbon equivalent, sequestered or avoided emissions will be measured and relevant information disaggregated by gender and municipality will be generated to assist in decision making and support the implementation of operational plans, programs and regulations for sustainable agriculture and forestry.

144. The project will focus on the 14 target municipalities. Though the experience and knowledge will be offered to neighbouring municipalities. For this purpose, the project will (i) organise exchange visits, (ii) make available pertinent technical documents and guidelines, and (iii) provide technical assistance for the initiation of their own pilots on integrated landscape management.

Output 1.1.1 Training program in planning, monitoring and evaluation of land management designed and implemented and personnel trained in the 14 selected municipalities of the Andean region.

145. The project will develop and implement a capacity building program for technicians from MINEC, MPPAPT, mayors' offices, and community leaders. It is expected to train some 300 people, at least 30% of whom will be women.

146. Training will focus on the application of integrated landscape management. Some central elements will be: i) neutrality in land degradation, ii) integrated land management articulated with productive landscapes and productive systems approaches to mitigate and adapt to climate change, iii) management of protected areas and ecological corridors, iv) indicators for land management and restoration, and v) use of available information for decision making and planning.

147. The training program will be designed in collaboration with MINEC, MPPAPT and the universities of the region (Universidad de los Andes, Universidad Nacional Experimental de los Llanos Ezequiel Zamora, and Universidad Centroccidental Lisandro Alvarado). Also, with the World Soil Alliance and other recognized bodies linked to the subject. The linkage with research institutes and academia will be key to facilitate the transmission of knowledge. Training modalities will include semi-face-to-face and virtual mechanisms.

148. The project will also strengthen the capacities of grassroots organizations such as community councils, neighborhood associations, irrigation units, and water boards. Citizen participation is essential to meet the challenge of adapting the regulations for shared management with the communities. Taking into account the existence of new forms of social organization and the legal framework that protects them. As well as their vision and mission regarding the territory to be managed.

149. The training process will make use of the knowledge and experience that the participants have regarding the topics to be addressed, in such a way that local knowledge is incorporated through a dialogue of knowledge, including women's knowledge of local biological diversity, forest use and soil management. Community training is expected to facilitate the development of conservation and restoration agreements at the farm level.

150. The main activities to be developed are: a) Identification of local institutions, technical personnel, and community leaders to be trained, as well as the diagnosis of training needs. Within this technical staff, technical assistance and extension to producers and communities will be included. b) Formulation of a capacity building program with a gender and age inclusive approach to Integrated Landscape Management (ILM). In reference to the topics, methods and tools will be developed to be used in differentiated capacity building programs, using as resources the Stakeholder Involvement Plan, as well as the Strategy and Action Plan on Gender Perspective, c) Implementation of the technical and institutional capacity building plan (municipal governments and institutions in the territory) for the incorporation of the ILM approach.

Output 1.1.2 Coordination mechanisms for integrated landscape and land use management incorporate biological diversity and ecosystem goods with a gender perspective implemented and validated.

151. To achieve institutional coordination through the harmonization of programs/policies to strengthen public policies with a territorial approach between central, regional and municipal authorities, it is important to carry out a participatory process to reach an agreement on the integrated landscape management approach. Following this process, it will be necessary for governments, both at the central and municipal levels, to develop

and strengthen participatory instruments and policies such as agreements, ordinances, technical guidelines, manuals, etc., to facilitate the implementation of community forestry practices, SLM and sustainable forest management (SFM) with a landscape approach appropriate for each territory.

152. The project will support the preparation and execution of a landscape management plan for three municipalities (Carraciolo Parra and Olmedo, Andrés Bello, and Tulio Febres Cordero) on the western slope of the Cordillera de Mérida. This process will be a demonstration exercise to put into practice the knowledge on integrated landscape management (output 1.1.1), the inter-institutional collaboration mechanisms (output 1.1.2) and the land use monitoring and control system (output 1.1.3). The plan will implement integrated landscape management actions in some 18,500 ha of the Venezuelan Andes.

153. The plan will be based on:

- § A participatory process that integrates the key actors in its formulation and implementation. It is hoped that this will stimulate multilevel dialogue, the search for consensus, to reach agreements and to manage conflicts.
- § The use of a territorial integration approach to connect areas of high conservation value that are not currently protected with existing protected areas.
- § Harmonising local livelihoods with biodiversity conservation.
- § Designing strategic actions to conserve soils, combat deforestation and promote agroforestry production systems.

154. The following actions will be executed:

- § Form a working table with the three municipalities and other pertinent entities. The table will agree on the working procedures.
- § Prepare a participatory diagnosis and social cartography on the state of the forests and soil degradation in the three municipalities. The process will ensure (a) the participation of women and youth, and (b) highlight the perspectives and concerns of the communities.
- § Formulate the landscape management plan. The process will be participatory and will include the various actors in the territory (e.g., producers, water users, neighbourhood associations, women's groups, youth groups). It will ensure that the plan is articulated with the municipal plans. The plan will include (i) strategic diagnosis, (ii) vision and mission, (iii) strategic objectives, (iv) action plan with strategic guidelines and priority actions, (v) key indicators for monitoring and evaluation, (vi) strategy for financing, and (vii) a governance scheme and institutional arrangements necessary for its implementation.
- § Disseminate the plan so that local actors understand the responsibilities of the municipalities, government entities, productive sectors, and the community in general in the implementation of the established measures.
- § Implement the land use plan through annual operational plans. The project will promote the implementation of measures to: (i) improve ecological connectivity (output 1.2.2), (ii) combat deforestation, (iii) conserve soils, and (iv) promote agroforestry systems.
- § Document and evaluate progress and identify and disseminate learning. Meetings and guided visits will be organized so that the key actors from the other municipalities learn about the experience. Lessons from the demonstration plan are expected to motivate the development of other coordination mechanisms in the project area.

Output 1.1.3 Land use monitoring and surveillance system in the Venezuelan Andes formulated, implemented and validated.

155. The project will support the development of instruments that incorporate specific guidelines and directives on sustainable production types and models. This mechanism is a key component in the governance framework, and is the guarantee of adequate compliance with environmental standards at the local level, as it will enable the development of a participatory monitoring and surveillance program, allowing for the strengthening of sustainable production regulations in the 14 municipalities of the Andean region.

156. The project will promote the monitoring and collection of timely information on the current state of soil and land degradation for decision making regarding the sustainable use and management, control, restoration and conservation of soil resources, through the use of the Trends.Earth platform^[11]. This information will be used to improve understanding of resource health and to plan future actions or decision making.

157. The project will support local initiatives for the testing of citizen observatories at the local level for monitoring land use changes related to productive activities in the productive landscapes outside the protective forests where this project will be implemented. They will also be a key instrument in the promotion of municipal ordinances declaring the selected landscapes as ecological territories. In addition, the project will carry out activities to raise awareness and disseminate information on the early warning system.

Outcome 1.2. Increased area (ha) under improved management in the buffer zones of the Areas Under Special Administration Regime (ABRAEs) in the project area.

158. The project intervention area is made up of multiple-use landscapes, made up of relevant and representative samples of mountain ecosystems and landscapes, outside protected areas that border rural communities with a long tradition of productive agricultural and livestock management.

159. One of the strategies to be implemented is the consolidation of ecological corridors defined by the landscape analysis in the areas adjacent to the ABRAEs. Among the criteria evaluated are: the heterogeneity of natural forest cover, their spatial configuration, the dynamics of forest patches and the viability of joining them through the establishment of potential routes that promote the reestablishment of the structure and composition of the forests. For this, a review and compilation of cartographic information was carried out, with the tool provided by Teich et al. (2021), where the key areas of biological diversity, type of cover, dynamics of plant productivity, soil organic carbon, forest losses and gains between 1992-2018 can be detailed and analyzed; in addition, roads, population centers, contour lines, among others, were considered. This, associated with the methodologies proposed by Yerena (1994), Cartaya et al. (2016) and Colorado et al. (2017), allowed a detailed evaluation of biophysical factors (type of vegetation cover, size of fragments, among others) and social factors (e.g. proximity to population centers), which facilitated the precise selection of areas, considering the movement of species and defining the surfaces selected to establish ecological corridors. (Figure 8)

160. As a complement to the information obtained through the tool provided by Teich et al. (2021), on organic carbon, field studies will be conducted with specialized personnel on carbon equivalent (CO₂e) sequestered or avoided emissions in the agriculture, forestry and other land uses sector (AFOLU) expressed in metric tons of carbon dioxide equivalent.

Output 1.2.1. Environmental education program for landscape conservation institutionalized and supported by local organizations that ensure its long-term operation.

161. Within the framework of the project's activities, it is proposed to develop an environmental education program oriented towards a continuous and permanent teaching and learning process aimed at all people, in order to prepare them to participate voluntarily, responsibly and actively in the solution of current and future environmental problems. Participation and action are central elements of environmental education related to natural areas, since it is necessary to support and guide actions aimed at concrete achievements for conservation, the improvement of environmental awareness and the quality of people's lives.

162. The actions to be promoted within the framework of environmental education will be based on the open classroom, understood (Pellegrini, 2001) as a "didactic educational resource that helps the visitor, the user, the educational community and the communities to understand the importance of the ecological, geographical, cultural, historical, geological, social and scenic values present in it".

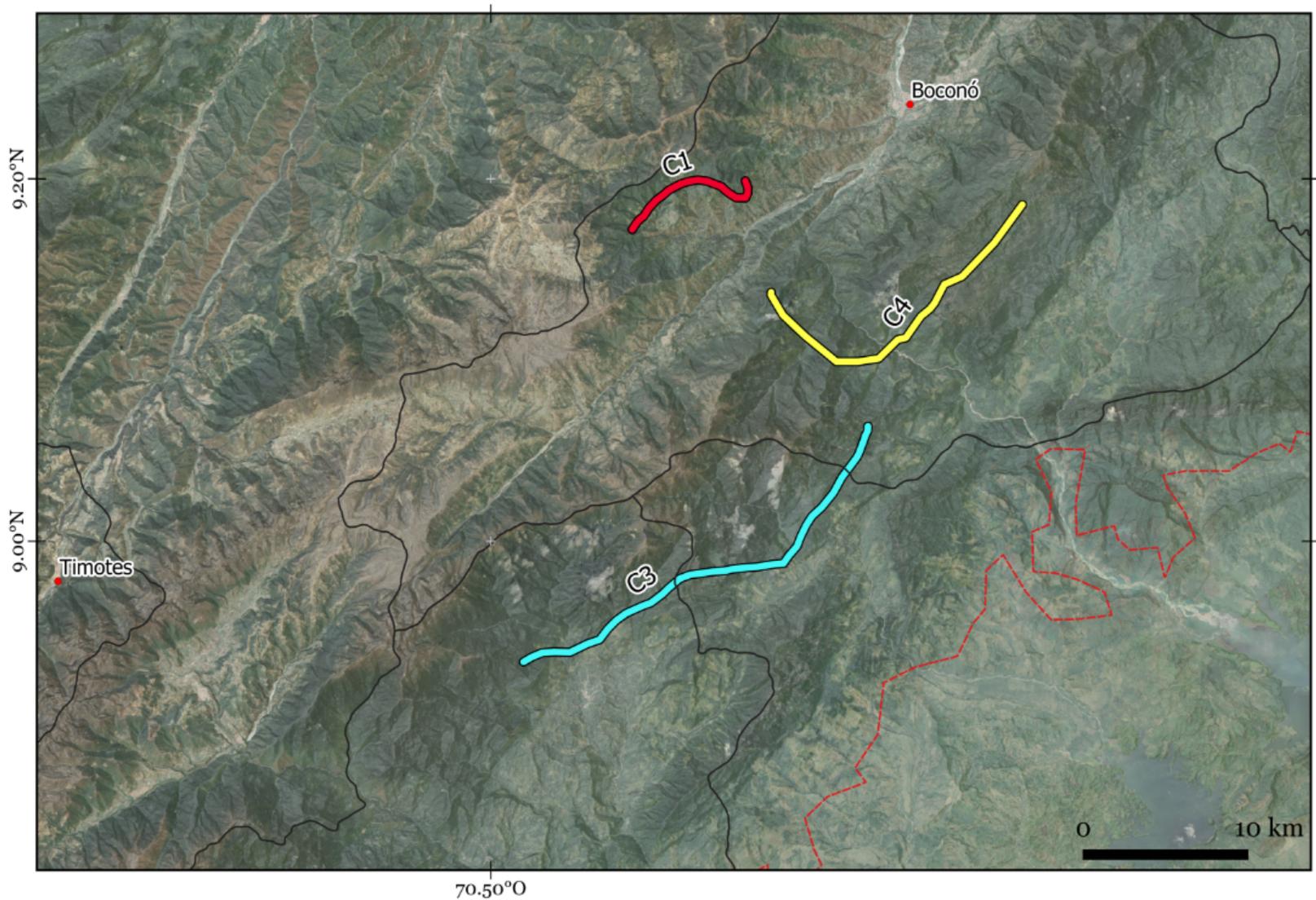


Figure 8. Spatial distribution of the ecological corridors Teta de Niquitao-Guirigay [C1 red], Calderas [C3 blue] and Guaramacal [C4 yellow].

163. Following Pellegrini's citation of INPARQUES' experiences in Venezuela -1992, 1997-, it is interesting to consider the five areas of action related to environmental education that, according to these working documents, contribute to the fulfillment of the objectives of natural areas, which are: educational - recreational, interpretation of nature, outreach and information, community outreach and training. Of which the project will emphasize

outreach and information, which will aim to communicate to the general public the importance of the protection and conservation of protected or unprotected community areas, and to inform about the fundamental characteristics and options for their knowledge and enjoyment. It will focus on the use of social media, social networks, brochures, posters, videos, billboards, newsletters and others.

Output 1.2.2. Demonstration pilot management plans for sustainable land management in ABRAEs' buffer zones formulated and implemented in the field.

164. For the buffer zones of the ABRAEs, demonstration pilot management plans will be developed in the project area with the objective of generating a culture aimed at the rational management of natural resources, sustainable use, conservation and restoration in the development of the activities of the communities living in these areas, with the participation of the stakeholders involved: MINEC, MPPAPT and affiliated entities, the governments, mayors' offices and universities of the region, among others.

165. The strategy proposes working directly on the productive activities developed in the communities. To this end, it is important to consider the suitability of the territory, the type of landscape in which it is located, the human capacities and the available infrastructure. Work with the population must be constant in order to include the necessary considerations so that the strategies are developed locally, including established regulations such as management plans and regulations for the use of the NP, or state and municipal plans. For this reason, the plans will be designed in such a way that they are linked to public policies and local and regional markets. The main result of these plans are the land use plans, where the sites to be worked on are located and the strategies that indicate the activities to be developed, including the actors, times and sources of financing in the short, medium and long term.

166. Each demonstration pilot management plan will be designed based on the participation of the communities in a series of participatory workshops in which they will discuss the links between landscape conservation, productive activities and the quality of life of the population and agree on a shared vision for the future. This will be based on a prioritization of problems and their analysis using problem trees, objectives and SWOT analysis (Strengths, Weaknesses, Opportunities and Threats). In addition, it is important to define lines of work that will serve as axes to guide activities and actions; i) strengthening of local organization through training processes, support to grassroots organizations on environmental issues, generation of discussion spaces, promotion of exchanges of experiences between communities in the Andean region, ii) the strategy of the plans is the participatory zoning of the territory, where zones or areas within the pilot site will be jointly defined so that the communities can establish their potential and limitations and the type of activities that should be promoted or restricted, iii) the next action refers to the use of landscape management tools, understood as those elements that constitute or improve the habitat, increase functional connectivity or simultaneously fulfill these functions for the benefit of biological diversity, iv) finally, there are the actions of conservation and restoration of the previously zoned landscape, implemented in the field with community participation.

167. The demonstration pilot management plans will cover an area of 300,000 ha (Map 5 and Annex E2) (GEF core indicator 4.1). Outside this area 1,246 ha of forest land (GEF core indicator 3.2) and 4,000 ha of agricultural land will be restored (GEF core indicator 3.1). For the restoration of agricultural land, management plans will be defined starting with the agricultural production units (UPAs) and extending to the locality, which encourages associativity, considering the different types of production systems present, especially coffee and cacao, as well as those that conserve remnants of primary and secondary forest on their properties.

168. The project will promote the monitoring and collection of timely information on the area under management and the status of the buffer zones of the ABRAEs and the restored forest and agricultural area in buffer zones outside the ABRAEs, this information should be used to improve the understanding of the health of the buffer zones and to plan future actions or decision making with respect to sustainable use and management, control, restoration and conservation.

Component 2. Sustainable increase in the productivity of specialty coffee and fine aroma cocoa, in line with biodiversity conservation and landscape restoration in the 14 selected municipalities.

Outcome 2.1 Sustainable, gender-sensitive management practices in productive landscapes implemented to increase productivity and establish sustainable product supply chains and biodiversity conservation through Agroforestry Systems (SAF).

169. This result will be directed towards capacity building of technical assistance services, agricultural extension and producers (men and women) to implement agroforestry systems, sustainable forest management, agroecological production and good agricultural practices for the production of coffee, cocoa and other farm products. These practices will increase their resilience, equity and sustainability while achieving an increase in productivity (kg/ha of cocoa slurry and q/ha of green coffee) based on the current average production. Actions at the farm level will have a landscape perspective to contribute to the conservation and restoration of biological diversity and productive landscapes. Likewise, project actions will contribute to rehabilitate rural agricultural livelihoods in a stage of recovery from the COVID-19 pandemic and country situation.

170. The project intervention will aim to improve management of 237,00 ha of agricultural land (GEF core indicator 4.3) in the 14 target municipalities (Map 5). GEF resources will be invested to establish 23,700 ha of demonstration plots strategically distributed along the project intervention area. It is estimated that the demonstration plots will benefit about 4,740 producers (including women and young people). The management of the demonstration plots will be improved by providing technical assistance and extension services to the farmers to develop and implement farm plans that will incorporate SAF, SLM, SFM and biodiversity conservation measures.

171. The demonstration area will be identified during the first year of the project. There, improved management of coffee and cocoa agroforestry systems will be developed to serve as models to be replicated throughout the intervention area by MINEC and the Ministry of Popular Power for Agriculture Productive and Land (MPPAPT) and their attached bodies like the Venezuelan Coffee Corporation (CVC), the Venezuelan Cocoa Socialist Corporation (CSCV), the National Institute of Agricultural Research (INIA) and the National Institute of Integral Agricultural Health (INSAI). Specific interventions will include:

§ Information campaigns implemented by MINEC and MPPAPT to disseminate knowledge and best practice about coffee and cocoa agroforestry systems with an emphasis on agroecology, that have been validated by the research centers (INIA).

§ Establish fair-minded markets that recognize the value of agroecological products, with the support of coffee and cocoa corporations (i.e., CVC and CSCV), to motivate farmers to implement improved agricultural practices.

§ Implement research and extension services on SAF and agroecology to establish technological references by INIA that are acknowledged and certified by INSAI.

§ Logistics support and funding provided by CVC and CSV to producers who develop coffee and cocoa agroforestry systems with emphasis on agroecological management which is in line with INIA's technological references.

§ Develop alliances between the actors of the coffee and cocoa value chains to ensure good quality and sufficient quantity of produce from agroforestry systems and agroecological management. This will generate better market conditions for the farmers that receive technical assistance from public and private entities.

All of this will be supported by a communication and dissemination plan designed and implemented by the project.

172. In this pilot area will be identified in the first year, where actions will be developed to promote coffee and cocoa SAF, through the development of plans and programs that will serve as models to be implemented throughout the project intervention area, by the Venezuelan State through the responsible authorities MINEC and MPPAPT and their attached bodies, especially CVC and CSCV, once they are validated, and supported by capacity building both at the institutional, community and producer level. Also included is the establishment of agroecological models of coffee and cacao production systems, validated by INIA as responsible for research in the agricultural area, on the basis of which a production model of agroecological products will be established that will allow for their sustainability. All of this will be supported by a communication and dissemination plan designed and implemented by the project.

173. The project will consider gender strategies through the promotion of affirmative actions, comprehensive and participatory information services for agriculture, support for the resilience of family agriculture, and the evaluation and reporting of practices in the agricultural sector, taking into account the organizational and economic empowerment of women producers.

Output 2.1.1. Programme for capacity building, technical assistance (TA), agricultural extension and field interventions for coffee and cocoa producers with a focus on agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices formulated and implemented.

174. As a basis for capacity building, an assessment of training, technical assistance and extension needs will be made. Considering the current characteristics of the systems and their agroecological approaches, as well as key considerations for the development of a favorable environment for agroecology, training and education plans will be drawn up at two levels: for producers and for technical assistance service technicians. These programs will contain for each case the definition of training course profiles, material design and didactic instruction experiences. Training will consider the use of "learning-by-doing" or extension methodologies developed and tested by FAO, using graphic methodological resources, in a simple and user-friendly format, with practical exercises and visits to places where the activities to be taught are carried out. The training will incorporate a gender approach that considers the role of women within the cultural, economic and social dynamics, encouraging their participation according to the topics of their interest, their time and avoiding that the project activities are an overload of work. In addition, they will take into account the work schedules of the producers and their families to minimize interference with the daily tasks of men and women, and thus ensure their participation in the organized activities.

175. These programs include: (i) SAF in coffee-cocoa crops (incorporation of new genetic material, trees and perennial species in combination with annual crops) with the objective of increasing and maintaining the amount of conserved biomass, soil fertility improvement, and diversification of production; (ii) SFM including reforestation, forest restoration, multiple-use plantations, and watershed management, and soil and water management, pruning and thinning management; iii) conservation agriculture and the use of best practices (GAP), which include different Cleaner Production

Practices (CPP) with the use of biological alternatives for pest and disease management (IPM), as well as the proper management of production residues and fermented coffee water, in addition to contributing to the efficient use of water and soil (including processing practices), thus mitigating the environmental problems inherent to the coffee and cocoa production processes; iv) the project will include the establishment of plots or showcase units and/or local innovation and experimentation, based on reference data generated by INIA and/or universities, to validate and adapt technologies and practices to local conditions in the 14 municipalities. This includes support for the production of nurseries using certified coffee and cacao seeds. Both the team of researchers and the team of extension technicians will locate the showcase plots in strategic locations and with the support of collaborating producers and counterpart institutions.

176. The use of some native species of *Guadua angustifolia*, *Bambusa vulgaris* and *Phyllostachy* will be promoted as an opportunity for sustainable development and as a reforestation and conservation tool for protecting the banks of watercourses, in order to stabilize them and contribute to mitigating the effects of climate change at the local level, using the benefits of native bamboo species for their rapid growth, and the ability to more quickly reforest areas devastated by deforestation and soil erosion.

177. Proposed models of coffee or cocoa demonstration plots will be designed for each municipality. Depending on the conditions of each farmer and farm, the agroecological practices to be implemented in the SAF will be selected between the farmer and the extensionist. The design should contain the surface area, the practices to be developed, the duration of the implementation, the information to be generated, the follow-up of the practices developed, and the material required. It is important when selecting the target producer that his plot is located in a potential area, which will allow him to be a model to disseminate technical information to the neighbors of the locality. In addition, the criteria for the selection of the demonstration plot should be included: that there is safety in the place (for humans and animals), that there is availability of water and soil resources, that the producer is creative and interested in supporting, that the place is appropriate for the application of technologies and has easy access. On these demonstration plots, the extensionists will be able to carry out different demonstration activities so that they can be replicated by the producers in their respective plots under the support and assistance of the technician. As an incentive for the implementation of the plots, the project will provide the required logistics.

178. The technical staff that will implement technical assistance and agricultural extension in the field will be made up of personnel from the local institutions of MINEC, MPPAPT (CVC, CSCV, INIA) and local institutions (mayors' offices) and NGOs (FUNDACACAO and PACCAs). These technicians, together with the producers identified in the intervention areas, will prepare the sketches of the UPAs, geo-referenced with the current situation, on the basis of which future or desired farm plans will be prepared with a focus on agroforestry, agroecology and biodiversity conservation. The technicians will provide technical assistance and extension to the producers and their families, starting with an analysis and decision making on the best sustainable production alternatives to be implemented in their UPAs, which will contribute to increase the productivity of coffee and cocoa crops. The technical staff will also be in charge of implementing the instrument for the Evaluation of Agroecological Performance (TAPE), which will demonstrate the transformation of the UPAs towards sustainable agricultural and food systems.

179. This series of field interventions will be accompanied by an implementation schedule adapted to the situation of the farmer and his family, as well as the support provided by the project in terms of the logistics necessary for its implementation (tools and inputs). Finally, the results achieved by the producer and his farm will be made known to the entire locality. The project will promote the adoption of agroecological practices in the cultivation of cocoa and coffee in response to the demands of potential markets that value environmentally and socially responsible production. Technicians using farm research methods and procedures (Spósito, 1990) will be able to evaluate at the farm level, the increase in productivity (kg/ha of cocoa in slurry and q/ha of green coffee) based on the different practices established in coffee and cocoa crops.

180. The main activities to be carried out are: i) organizing groups of technicians from the institutions in charge of technical assistance and agricultural extension by locality and municipality, ii) selection of pilot areas for intervention (surface area and producers with a focus on gender and youth inclusion), iii) training plan that includes: diagnosis of technical staff and producers' capacities and preparation of training plans with emphasis on agroecology, SAF, SLM and SFM, iv) collection of information from the UPAs and preparation of farm plans, v) monitoring and support to producers in the implementation of practices incorporated into the productive systems in the farm plans and connectivity actions, in addition to productive alternatives: family gardens, medicinal plants, spices and aromatic plants for diversification in food production and marketing of surpluses, vi) implementation of demonstration plots, vii) validation of agroecological practices at the local level and development of local agroecological models of coffee and cocoa agroforestry systems, and viii) promotion of associativity among producers as a means of gaining greater access to local and regional markets, which involves identifying groups interested in becoming partners.

181. At the same time, the technical staff will be able to identify successful experiences that can be replicated locally and promote the exchange of experiences to improve the quality of coffee and cocoa.

Output 2.1.2. Agro-climatic technical roundtables (MTA) in operation and supporting producers in the management of agro-climatic information and decision making for the development of sustainable production, based on an adaptive production approach and climate risk mitigation in agriculture.

182. The project will promote as an innovative initiative the conformation and operation of the MTAs where it will integrate regional actors of the agricultural sector to inform, especially small producers, about the expected changes in the climate of their region, how these may affect their crops and what they can do to reduce the negative impacts. The implementation of the MTAs will be based on existing experience (Giraldo-Méndez et al., 2018; Giraldo-Méndez et al., 2020), which will be adapted to the particular conditions of the project intervention area.

183. These roundtables will be implemented in each of the target states, which will serve as a liaison between the area's producers, technical personnel and representatives of INAMEH, MINEC and MPPAPT. The roundtables will have periodic meetings established based on the needs of the parties. The periodicity of information on agro-climatic forecasts will also be agreed upon and will be reflected in bulletins. It is important to establish communication channels to inform all levels, both institutional, producers and communities, of possible climatological events that should be taken into account.

184. The main activities to be carried out are a) establishment of an information center at the state level, b) training of personnel who will participate in the technical roundtables, c) establishment of guidelines for the operation of the roundtables and d) issuance of bulletins.

Output 2.1.3. Validated ecological strategies aimed at reducing waste in SAF and generating clean energy and technological alternatives that reduce pressure on agroforestry resources.

185. To address the food shortages induced by the COVID19 pandemic and the country situation, the project foresees within the capacity building program the implementation of home gardens, medicinal plants, spices and aromatic herbs in the UPAs, with the aim of producing food diversity to meet the food security and income diversification needs of households, while reducing dependence on corn and beans. In support of maintaining food availability throughout the year, the use of clean energy for food preservation is foreseen, among the alternatives are: dehydration, smoking,

acidification, salting, pickling. In the case of food cooking, which at the same time reduces the use of firewood, there are solar ovens and improved stoves. These activities, in addition to making products available throughout the year and not only at harvest time, help reduce women's work in the home by facilitating cooking tasks.

186. The activities to be developed are as follows: i) diagnosis of capacities for the implementation of gardens and food processing, ii) analysis of alternatives for the production, preservation and cooking of food adjusted to the needs and desires of rural families, iii) training for the implementation of alternatives selected by the families, and iv) implementation of alternatives.

Component 3. Strengthening of the sustainable market based on quality improvement and diversification of coffee and cocoa by-products.

Outcome 3.1 Market strategies support the conservation and sustainable use of forest ecosystems and sustainable production in selected municipalities of the Andean region.

187. ONUDI's experience and progress in the development of the national committee for coffee and cocoa value chains (paragraph 117), which coordinates the actors in both chains, will be used. At the local level, the project will promote the creation of municipal technical committees to agree on joint actions to improve the quality of raw materials, the production process, post-harvest handling, processing and marketing. This will also include the necessary requirements to classify products as sustainable or agroecological and create the basis for access to differentiated markets. It is envisaged that this incentive, in addition to access to new and traditional markets, as well as increased productivity and the generation of organizational-entrepreneurial capacities in producers, will favor the adoption of good practices and generate conditions for establishing win-win commercial relationships. Thus, the technical roundtables are the mechanism for coordinating actions between the public and private sectors to promote coordination among the different links in the chains.

188. In addition, the project will promote the commercialization of other products derived from production under agroforestry and agroecological schemes produced in the UPAs, in order to diversify family income and at the same time strengthen conservation, sustainable ecosystem management and the application of the agroecological, agroforestry and community forestry approach. The project will also assist in the identification of potential markets and biodiversity-friendly businesses, facilitate relationships between producer groups, preferably organized in networks, and buyers, with a view to creating sustainable commercial relationships during and after the project's financing is completed. Similarly, support will be provided for the implementation of strategies to differentiate the product(s) in the market, such as: designations of origin, positioning of the country brand^[12] for sustainable products, adoption of quality norms and standards, coordination and allocation of funding for research and the adoption of technology that favors the resilience and productivity of the coffee and cocoa SAF.

189. The chains will work in coordination with the entities responsible for regulating and financing the agricultural sector to create or establish guidelines, financial services and mechanisms related to the production of coffee and cocoa under agroforestry and agroecological schemes, so that they can be incorporated into regulations and other norms to establish differentiation in credit requirements and conditions, so as to encourage production under these schemes, as well as access to preferential markets. The project will consider gender strategies, through the incorporation of women and young people in the capacity building activities foreseen in the component, as well as in supporting the commercialization of coffee, cocoa and products derived from agroforestry and agroecological management produced in the UPAs, guaranteeing their active participation in value chains.

Output 3.1.1. Municipal technical roundtables for the commercialization of coffee and cocoa value chains functioning and coordinating with the national platform.

190. Based on the platform provided by ONUDI for the coffee and cocoa chains, a space will be requested in the committees of both chains to socialize the requests for technical assistance, innovation, and transfer-extension of coffee and cocoa producers within project area. A first step will be to establish municipal technical roundtables to bring together the local actors of the coffee and cocoa value chains.

191. The municipal roundtables will be participatory platforms to facilitate dialogue, understanding and collaboration among local producers, traders, processors, sellers, service providers and finance providers.

§ First, key stakeholders will be identified and convened to form the roundtable. The project will ensure that there is adequate representation of the different actors involved in the coffee and cocoa value chains and will promote their active participation at the negotiating tables. The project will encourage that the representatives that will have a seat in the roundtables ought to be chosen by consensus applying selection mechanisms that favour equal participation of women and men. The representatives will adequately inform their constituency of the issues discussed and the agreements reached in the municipal roundtable.

§ Second, each roundtable will agree on their purpose and will establish their means of operation (e.g., frequency of regular meetings, decision-making process, dissemination of learnings).

192. A situation analysis will be prepared in collaboration with each municipal roundtable to identify key issues and needs to improve the functioning of the coffee and cocoa value chains. The results of the analysis (e.g., bottlenecks, needs, opportunities, threats) will be used to prepare with ONUDI an action plan. This plan will include aspects related to the bottlenecks and systemic opportunities in the coffee and cocoa value chains that have an impact on the project, such as, for example the definition of quality standards, advocacy for the establishment of reference prices according to volume, quality and linkage with agroecological or agroforestry production, advocacy for the revision of requirements and inclusion of differentiated criteria for the production of cocoa and agroecological coffee in sources of financing-credit, definition of a basic curriculum to be managed by the technicians responsible for TA for coffee and cocoa production in chains resilient to climate change, as well as training on issues related to organization, management, business techniques, marketing and conflict resolution.

193. The technical working groups will discuss the need to establish price differentiation in the different markets at different levels (producer, processor, consumer), based on the quality of the products and post-harvest treatments in the production of the different items under agroecological and agroforestry approaches, so that price differentiation is seen as an incentive and recognition for producers who have adopted changes in their current production patterns and consequently obtained better benefits. Part of these mechanisms could be events that visualize the contributions of the changes and help the massification of the implementation of GAP, GMP, IPM, etc., such as, for example, the day of the innovative producer, organic coffee or cocoa route, or business rounds in the production areas with the most relevant buyers and with the best potential to recognize the changes made through price.

194. The activities to be carried out are as follows: i) identification of actors involved in the value chain at the municipal level, ii) formation of municipal technical marketing roundtables, iii) situational diagnosis, iv) action plan coordinated with the national platform, and v) monitoring and follow-up of the action plan.

Output 3.1.2. Differentiated commercial strategies by market segment, both for coffee and cocoa and for SAF and community forestry products.

195. The project will carry out a market study to identify and characterize the market segments or niches for specialty coffee and fine aroma cocoa and other products. The study will provide updated information on volumes demanded by segment, the demands or requirements in terms of quality and timing, volumes demanded, prices and the possibility of increasing prices in the case of offering cocoa and certified coffee, as well as the current marketing route. The market study will help identify the issues to be reinforced in the plan to strengthen organizational and entrepreneurial capacities. Finally, it will serve to define the commercial strategy and the business and associative models that facilitate access to the different market segments.

196. Within the framework of the demands of the value chains, the project will support technology transfer and access to tools and knowledge, through training, technical assistance, innovation and research, as well as analyze the feasibility of creating designations of origin and/or a country brand, taking into account local value chains, production with an agroecological approach and the requirements for such purposes.

197. At the same time, the project will support the consolidation of enterprises for the marketing of coffee and cocoa products and by-products of the SAF and agro-ecological products, incorporating them into the local and regional market, in support of marketing, in each of the areas of intervention and with the active participation of the producing families who participate in the project and are integrated into the coffee and cocoa value chains.

198. The project will promote the formation of networks among project beneficiaries that develop other products under the agroecological and agroforestry approach in their UPAS, in order to have access to differentiated markets for these products. In addition, it will identify market options for SAF and community forestry by-products.

199. At the level of the different stakeholders and especially producers, the criteria and requirements to be met for price differentiation in relation to quality parameters and post-harvest treatment, based on SAF, as well as the additional benefits related to the establishment of these systems in conservation and sustainable use, will be disseminated to them, and the exchange of knowledge in the local and regional environment of the benefits of sustainable production with respect to traditional production will also be considered.

200. As part of the commercial strategy, a communication and awareness-raising strategy will be developed on the value and benefits of products with a sustainable seal aimed at producers, buyers, industry, consumers, and local, regional and national government entities. In addition, based on the results of the market study, the project will evaluate possible national and international certifications and alternative systems for coffee, cocoa and other SAF products that are viable under local, regional and market conditions at the municipal technical marketing roundtables.

201. The activities to be carried out are as follows: i) identification and selection of the products and by-products to be studied, ii) market research, iii) design of market strategies based on the results of the study, iv) creation of networks of producers of sustainable products, v) design of awareness and promotion campaigns for the consumption of sustainable products, and vi) implementation of the awareness and promotion campaigns.

Output 3.1.3. Commercial alliances established by coffee and cocoa producer organizations with relevant actors in the coffee and cocoa value chains.

202. The project will support the formation of commercial alliances based on the results of the market study and the identification of potential allies, through workshops with interested organizations to explain the steps to be taken to establish commercial alliances and their implications, as well as support through the design of strategies for the establishment and subsequent monitoring.

203. The main activities will be: i) identification of product or by-products, ii) identification of potential allies, iii) workshops/meetings with interested organizations, iv) design of strategies, v) implementation of strategies, and vi) support during alliance building.

Component 4. Dissemination, monitoring and evaluation (M&E) based on the principles of adaptive management, and the delivery of measurable and objectively verifiable results.

204. Based on the objectives, indicators and targets established in the project's results framework, they will monitor adaptive management measures, restored areas, land uses in the project area, and the results of the GAP. On the other hand, information disaggregated by gender and municipality will be generated to enable timely and corrective decisions based on the level of project performance and risk situations regarding the proper implementation of the work plan. It is expected that the monitoring system will make it possible to extract lessons learned from the implementation of the project and the permanent recording of information.

Outcome 4.1. M&E strategy developed for reporting progress and results achieved by the project in the implementation of its work plans under the adaptive management principle, through objectively verifiable indicators and means of verification.

205. The information resulting from the M&E system will be disaggregated by gender, age group and municipality, in order to report and make visible the role of women and intersectionality in the project and their contribution to restoration, sustainable production and income generation through the commercialization of coffee and cocoa and other SAF products. The monitoring system will also generate information on the level of women's participation in the different activities provided by the project.

206. The technical team of the Project Management Unit (PMU - For more information, see section 6 on Institutional Arrangements and Coordination) will design the project M&E system and will be responsible for the implementation of the monitoring and evaluation plan, including the project start-up workshop, annual planning workshops, monitoring of activities, outputs and outcomes, monitoring of the risk matrix and identification of potential risks and mitigation measures to reduce these unexpected risks. The Project Coordinator will prepare Project Progress Reports (PPR) on a semi-annual basis and provide inputs to the FAO-VE Office for the preparation of the annual Project Implementation Report (PIR). These reports will include the project results framework with performance indicators, baseline and semi-annual target indicators, monitoring of the risk matrix and identification of potential risks and mitigation measures to reduce these unexpected risks. M&E will also include the completion of the GEF monitoring tools and the FAO-VE Institutional Capacity Measurement Template at mid-term and at the end of the project.

Output 4.1.1. M&E system formulated and implemented.

207. A project Monitoring and Evaluation (M&E) system will be developed based on the indicators outlined in the project's logical framework. This system will track the development objective (impact) and component (process) indicators of the logical framework and will be based on project level information. In addition to providing evidence that the project meets the stated objectives and associated results.

Output 4.1.2. Mid-term review and final evaluation.

208. The Mid-Term Review (MTR) will be carried out three years after the start of the project at the latest and will assess the progress of each project activity and the achievement of the project indicators presented in the results framework (PART III: ANNEXES) and the multi-year work plan (Annex F). This evaluation will also assess the disbursement of financial resources and co-financing provided by the project partners, as well as monitor and evaluate the administrative aspects agreed between the FAO agency and MINEC for the implementation of the project. The RMT will also report on the adaptive management of the project and improve its implementation for the remainder of its duration.

209. The final evaluation (FE) aims to assess the implementation of all activities foreseen in the project, as well as the allocation of GEF resources and their disbursement and expenditure in accordance with GEF and FAO policies and standards, and in accordance with the description of activities. The FE will serve to extract and identify lessons learned, disseminate them in an efficient manner and make recommendations to ensure the sustainability of project results.

Output 4.1.3. Good practices and lessons learned from the project systematized and published.

210. The project will publish and disseminate at least eight documents, systematizing project experiences, best practices and lessons learned, as well as life stories, in digital and online formats (mailing lists, partner websites and social media). The publications will include information on the methodologies applied, difficulties encountered, project successes and the achievement of project objectives.

Output 4.1.4. MINEC's institutional website to continuously exchange specific project experiences, serve as a repository of relevant information, make results and progress visible, and facilitate replication processes for the duration of the project and beyond.

211. The project has foreseen the creation, maintenance and integration of a space hosted on the MINEC institutional website to continuously exchange specific project experiences, serve as a repository of relevant information, success stories, reports and systematizations; as well as to make results and progress visible, facilitate replication processes for the duration of the project and its long-term sustainability.

d. Alignment with GEF focal area and/or impact program strategies

212. BD-1-1. Integrate biodiversity in all sectors, as well as in landscapes and seascapes through the integration of biodiversity in priority sectors. The project responds directly to the BD focal area strategies, as it proposes an integrated approach to landscape management that harmonizes sustainable development with conservation, incorporates environmental considerations in economic sectors, promotes planned land use and restoration of degraded areas, and establishes collaborative, participatory, public-private partnerships and decision-making mechanisms with community participation. This approach aims to integrate and strengthen sustainable livelihoods and the protection of ecosystem goods in the

Venezuelan Andes region, considering the concept of "landscape", which integrates all land uses and includes crop areas, pastures, forests and watersheds. The approach proposes to connect biological diversity with sustainable use, with an emphasis on productive landscapes dedicated to coffee and cacao cultivation, through the implementation of sustainable production techniques based on agroforestry systems and the development of sustainable production chains of these diverse systems. As well as the establishment of biological corridors, the restoration of degraded and deforested landscapes, and the promotion of synergies between production and government agencies oriented to the conservation of biological diversity.

213. LD-1-1. Maintain or improve the flow of agroecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM). The project represents a great opportunity for sustainable land integration in productive landscapes, especially those referring to coffee and cacao agroforestry systems, as it will emphasize diversification and efficient and integrated management of land, water and forest resources that form the natural capital base of the Andean region and meet food security and growth objectives, reducing pressure on natural areas, especially those that are threatened by agricultural expansion.

214. LD-1-4. Reduce pressures on natural resources from competing land uses and increase resilience in the broader landscape. The project plans to reduce pressure on natural resources by increasing and improving the provision of goods from current subsistence farming systems towards sustainable systems, through the promotion and implementation of integrated land management practices, i.e. promoting sustainable agriculture and forestry, by strengthening farmers' access to rural assets and services for innovation, incorporating a rights-based approach, gender with a territorial approach, facilitating the transition towards sustainable productive and agri-food systems.

e. Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing.

Baseline scenario without GEF intervention

215. During the last decade, the focus of conservation in the country has shifted towards promoting sustainable production and sustainable use of resources on lands located outside protected areas. The management of formally protected areas in the Bolivarian Republic of Venezuela represents a high cost (establishment and maintenance), and is often difficult due to the country's situation. Moreover, having only formal protected areas is insufficient to protect biological diversity, as more than half of all species are found in productive landscapes. This suggests that biodiversity conservation efforts must include producers within the production landscape if they are to be effective. Therefore, an expanded conservation and sustainable use program explicitly designed to address biodiversity conservation outside protected areas will be implemented, as well as the integration of BD criteria into regular government programs and projects.

216. Therefore, this project proposes to scale up efforts to mainstream biodiversity conservation and sustainability of multiple-use landscapes through capacity building; the integration of biodiversity enhancement and land degradation considerations into the management of plans and programs to support coffee and cocoa producers; and the creation of inter-institutional coordination and articulation mechanisms, working with producers and their organizations, to catalyze opportunities for positive socio-economic and environmental outcomes (specifically in biodiversity), thus helping to ensure the long-term sustainability of the Andean region's landscape.

217. Biodiversity in the Andean region is threatened by production activities related to subsistence and extensive agriculture, tourism and cattle ranching. The impact of production activities on biological diversity and the global environment is reflected in changes in land use, with forest areas converted to agricultural use (including sun coffee or grazing). These changes in land use lead to habitat destruction, soil erosion, water pollution,

ecosystem fragmentation and species loss. At the same time, since most farmers (and communities) in the area live in conditions of poverty and marginalization, their management decisions are often strongly determined by their short-term economic needs, which often override long-term sustainability and environmental concerns. For example, cocoa and coffee crops under various shade systems support higher levels of biodiversity than other tropical crops and are suitable for reforestation of areas that have been cleared. However, cocoa and coffee in the selected project regions are produced on smallholdings, with a low input-low output system and poor management practices, resulting in low productivity and low yields that can drop to only 350 kg/ha for cocoa and 6-8 q/ha for coffee. Under poor management practices, pest and disease problems increase, productivity is reduced and, therefore, conversion to less biodiversity and environmentally friendly production activities is incentivized. In efforts to increase productivity, alternative high-input sun coffee and cocoa production systems compete with shade systems that provide high biodiversity and environmental benefits.

218. The area to be covered by the project is of high priority in terms of poverty reduction and mitigation of social and economic marginalization, hence the importance of consolidating income generation opportunities through the integration of biodiversity considerations into the region's landscapes. The market can play a catalytic role in mainstreaming biodiversity conservation and sustainability; however, in Venezuela, constraints to sustainable production of products/services include: (i) yields that are low compared to conventional systems, due to low intensity production and weak technological appropriation; (ii) lack of economies of scale due to fragmentation of production and marketing, and lack of cohesion among producer groups; and (iii) poor technical, administrative and financial capacity of producers or their organizations to carry out improvements and benefit from existing market opportunities for differentiated biodiversity-friendly products.

219. On the other hand, non-governmental efforts to boost sustainable production are scattered and small-scale. However, innovative investments are needed to expand production initiatives, improve productivity and quality, add value and develop new markets.

Alternative scenario with GEF intervention

220. Despite the important contribution of the programmed baseline investments, these will not be sufficient to reduce deforestation and land degradation in the multiple-use landscapes of the Andean region. The alternative GEF investment scenario will help remove the barriers that prevent the implementation of an integrated landscape-level strategy that promotes the conservation of the region's forests and a reduction in desertification/land degradation processes, in order to ensure the flow of multiple ecosystem services. A description of the alternative scenario with the GEF intervention is presented below.

221. With GEF support, the Government of the Bolivarian Republic of Venezuela (GdRBV) could carry out a more ambitious program aimed at mainstreaming biodiversity conservation and sustainability in the multiple-use landscapes of the Andean region, generating national and global benefits. The GEF alternative would include investments to expand the scope of activities proposed in the baseline scenario and implemented through the four project components.

222. The GEF alternative will make possible complementary investments needed in relation to: (i) improving biodiversity conservation; (ii) strengthening institutional and community capacities in the implementation of the regulatory and land use planning framework for the reduction of deforestation and desertification processes in the Andean region; (iii) strengthening the provision of services to producer groups; (iv) strengthening the collective capacities of producers for the production and marketing of sustainable products; v) reducing information gaps and technical deficiencies of producer groups; vi) strengthening systems to support the development of biodiversity-friendly supply chains, including innovation and extension, standard setting, compliance assessments, and market promotion; and vii) supporting regional exchange of knowledge and experiences. The combined cost of the GEF alternative (baseline scenario plus complementary GEF investments) is estimated at US\$ 45,681,355.

223. The project's approach to mainstreaming biodiversity conservation and sustainable use is based on the following principles: (i) maintenance of connectivity between productive landscapes along ecological corridors; (ii) application of integrated farming and pest management principles; (iii) use of existing instruments in the country for land use management and land zoning to encourage the development of sustainable production chains and conservation activities in the multiple use landscape of the project area; and (iv) minimizing the environmental impact of project activities (including investments in infrastructure that might be necessary to support value addition activities).

224. By working with small-scale producer associations; i) the project will benefit communities in the region through the use of their natural resources to overcome poverty and increase the region's competitiveness, while maintaining or improving conditions for biodiversity conservation by supporting greater integrity and connectivity of the region, ii) The project will also contribute to reduce the region's vulnerability to climate change by preserving the resilience of regional ecosystems, iii) Implementation of the GEF alternative would result in the following outcomes: (a) minimizing threats to biodiversity in the project area by increasing multiple landscapes under improved management that mainstream biodiversity conservation and sustainable use, (b) ensuring biodiversity conservation in the project area by supporting producers to conserve biodiversity through the implementation of improved production practices and strengthening market linkages, c) strengthening the capacities of producer associations for technical production, business management and marketing of sustainable products, d) strengthening institutional frameworks to support the integration of biodiversity considerations into selected production systems through improved standards and corresponding compliance assessment systems; information systems to support sustainable production and financing.

Incremental costs

225. The GEF grant will provide the necessary incremental investments that would be more difficult to obtain through governmental or non-governmental budgetary sources for coordinated investments in technical production; organizational capacity building and organizational coordination; harmonization of standards; and development of the public-private programs necessary to achieve sustainable conservation of biological diversity through the successful integration of small producers in the Andean region into differentiated markets.

226. The GEF funding proposal will complement the counterpart investment resources provided by the GoRBV, which have been allocated to the region to continue supporting its achievements.

227. Estimates for ecosystem protection in the selected areas, both in quantity and quality, included in the project area are below the international levels proposed by the IUCN. Many critical ecosystems are threatened by unsustainable development, including human settlements, tourism and infrastructure, as well as increasing conversion to agricultural production. Under this scenario, habitats will continue to shrink and viable populations of endangered species will slowly disappear without the incremental investments needed to link producer groups to sustainable markets and stimulate alternative production systems that are compatible with conservation.

228. The landscape of the Andean region, which is home to most of the country's biological diversity, is currently subject to market forces that discourage investments in sustainable production systems at the scale necessary for long-term conservation. Moreover, non-governmental efforts for sustainable production are scattered and small-scale, thus innovative investments are needed to diversify production and develop new markets to protect against price fluctuations, which can lead to negative impacts on the environment.

229. Given its non-traditional and innovative nature, GEF funding will provide the necessary incremental investments for the development of sustainable production chains, including appropriate technology, capacity building for technical production, coordination of producer groups, assisted development for dissemination of marketing strategies, and land use planning. In addition, to ensure that biodiversity benefits continue to increase

and to strengthen efforts to incorporate sustainable products into the country brand, the incremental GEF investment will support the development of a comprehensive monitoring and evaluation/verification system.

230. GEF resources will also be used to identify additional barriers to sustainability in value chains, including national and regional policies. As a result, producers will be empowered to use tools that will enable them to access national and international markets through increased information, improved technical assistance and agricultural technology, expanded branding and marketing efforts with increased production volumes, and better quality/value-added products. This will help improve livelihoods for communities in the Andean region.

231. The proposed amount of US\$45,681,355 represents the GoRBV's estimate of the incremental cost required to achieve the expected overall benefits that would not be fundable through existing programs. This investment would also help establish a framework for channeling ongoing investments and leveraging new investments in the agroforestry and conservation sectors in the country; and enhance their application to sustainable production, which could generate greater economic stability to complement the substantial social and environmental gains obtained through previous GEF and GoRBV conservation projects.

232. In summary, the total project cost will be US\$ 51,010,807. This includes a national contribution of US\$ 45,681,355 (89.5%) and a GEF grant of US\$ 5,329,452 to cover the incremental costs.

Table 10. Incremental cost matrix

Component	Category of Cost	US\$	National benefits	Global benefits
1. Institutional strengthening for land use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities.	Scenario base (GoRBV)	14,865,137	<p>Implementation of integrated capacity building programs</p> <p>Strengthening the framework for compliance with sustainable product standards.</p>	<p>More efficient training and performance of government officials at central, state, municipal and local community levels.</p> <p>Expanded conservation and sustainable use program explicitly designed to address biodiversity conservation outside protected areas, as well as the integration of biodiversity criteria into regular government programs and projects in the Andean region.</p> <p>Area under biodiversity friendly production and sustainable use providing global environmental benefits, such as maintaining vegetation areas that provide habitat connectivity, contributing to water absorption and decreasing erosion processes in the upper watersheds of the Andean region.</p>

				The project will install continuous actions of protected and non-protected areas for the conservation and sustainable use of biological diversity, which will not only ensure the conservation of globally significant biological diversity, but also the link between key areas such as ecological corridors.
	With the alternative of the GEF	1,266,395	Benefits of the baseline scenario extended to a larger number of stakeholders on integrated landscape management. Strengthening of the institutional capacities of stakeholders to carry out monitoring, evaluation and follow-up of SLM and SFM practices in the Andean region. Sensitization of the inhabitants of the intervention area on the conservation of biological diversity and the sustainable use of resources.	Extended baseline scenario benefits
	Increase	13,598,742		.
2. : Sustainable increase in the productivity of specialty coffee and fine aroma cocoa in line with biodiversity conservation and landscape re	Scenario base (Gd RBV)	13,321,969	Improvement of productivity and quality in the target production systems.	Complementing baseline development activities to expand the area under biodiversity-friendly production systems and sustainable use. Adoption of resource and land-use management practices that help achieve biodiversity conservation objectives by maintaini

<p>storage in the 14 selected municipalities.</p>				<p>conservation objectives by maintaining habitat integrity and forest cover, while fostering local environmental values and economic opportunities through maintaining the productivity of the natural resource base (e.g., improved soil conservation practices).</p>
	<p>With the alternative of the GEF</p>	<p>1,791,728</p>	<p>Benefits of the baseline scenario extended to a larger number of producers and their families, to improve productivity and quality and target production systems in line with biological diversity.</p>	<p>Extended baseline scenario benefits</p>
	<p>Increase</p>	<p>11,530,241</p>		
<p>3. Strengthening the sustainable market based on quality improvement and diversification of coffee and cocoa by-products.</p>	<p>Scenario base (Gd RBV)</p>	<p>10,874,609</p>	<p>Income benefits for members of the producer associations selected for the project. New markets developed for biodiversity-friendly products. Increased sales. Integration of value chains through strategic alliances. More sustainable products available to local consumers</p>	<p>Demonstration of the market potential of sustainable use of biodiversity resources and implementation of biodiversity-friendly production systems.</p> <p>More sustainable products available to meet global demands.</p>
	<p>With the Alternative GEF</p>	<p>1,041,535</p>	<p>Integration of value chains through strategic alliances. New markets developed with biodiversity. Increased</p>	<p>Benefits of the extended baseline scenario.</p>

			sales.	
	Increase	9,833,074		
4. Dissemination, Monitoring and Evaluation (M&E) based on gender principles and strategies, adaptive management and delivery of measurable and objectively verifiable results.	Scenario base (Gd RBV)	4,444,337	Strengthening local, regional and national M&E systems for socioeconomic and environmental outcomes resulting from planned investments.	Improved understanding of the socioeconomic and environmental benefits of market-based mechanisms to promote biodiversity conservation and sustainable use in multiple-use landscapes. The learning generated by the program is considered in programming or planning related investments worldwide.
	With the Alternative GEF	829,644	Development and implementation of strategies for Information and Communication Management for Rural Development, in order to systematize and disseminate results achieved, good practices, experiences and lessons learned.	Benefits of the extended baseline scenario.
	Increase	3,614,693		
TOTAL	Scenario base (Gd RBV)	43,506,052*		
	With the Alternative GEF	4,929,302	Extended baseline scenario benefits	Benefits of the extended baseline scenario.
	Increase	38,576,750	.	

* Does not include: M&E Budget and project management costs (PMC).

f. Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF / SCCF)

233. The government institutions involved and their staff (MINEC, MPPAPT, mayors' offices) and local communities in the Andean region will receive support to develop their capacities to manage the territories using an integrated, gender-sensitive, multiple-use approach, with emphasis on SAF, to ensure the sustained provision of ecosystem goods, generating global environmental benefits, as detailed below:

234. The project will generate global environmental benefits, in line with national development priorities, and will be sustained in the long term by the local and regional benefits it will generate in terms of environmental sustainability and improved livelihoods. The main global environmental benefits to be obtained from the project are: i) 1,246 hectares of forest land restored in the 14 selected municipalities of the Andean region and located within the buffer zones of ABRAEs; ii) 4,000 hectares of degraded agricultural land under SFM and PFS located outside ABRAEs and coffee-cocoa UPAs; iii) 542,246 ha landscapes under improved practices ; iv). greenhouse gas emissions mitigated by a total of 2,392,849 t CO₂eq; v) incorporation of biodiversity preservation and land degradation reduction considerations into policy and planning frameworks, with an increase in the flow of investments directed to SFM, PES and restoration in the selected municipalities. The estimate of carbon dioxide equivalent emissions is based on the assumption that 5,246 ha in buffer zones and productive landscapes are restored with improved practices through the implementation of PES practices; and 23,700 ha are improved through SFM and GAP, which corresponds to 10% of the 237,000 ha of coffee and cocoa productive systems, involving 4,740 producers.

The beneficiaries of the project are estimated to be 47,283 persons, considering those participating directly in project activities, whose estimated goals by output are presented in the Project Results Framework in Annex A of the Agency Project document (approximately 15,800 persons, from which the project will ensure that 30% of them are women), and also families from the cocoa and coffee producers located in the areas of intervention of the 14 municipalities where the project will be implemented, who will also see direct improvement in their livelihoods. The estimated distribution of beneficiaries is presented in Table 11.

Table 11. Project beneficiaries.

Item	Direct intervention beneficiaries	Number of persons	Other beneficiaries
Advice and technical assistance in production, maintenance, harvest and post-harvest in family farming. Provision of agricultural tools and supplies. Support to implementation of sustainable agricultural practices. Training on environmental conservation practices and gender equality	Poor and extreme poor households	6,864	Family groups, local population, businesses, producers and processors of coffee and cocoa.
Provision of supplies and tools for the production, planting and sowing of agroforestry plants. Training on environmental conservation practices and gender equality	Formal education technical schools	8,400	Other formal technical schools, producers and their families.
Advice and technical training focused on strengthening capacities according to their competencies. Provision of tools and equipment to personnel that will monitor project indicators.	Staff of national and local public institutions	4,000	Other personnel of national and local public institutions, local population.
Training on environmental conservation practices and gender equality. Support on administration, financial management and trading of coffee and cocoa and other agricultural produce.	Community social organizations	5,320	Families, local population, producers, and processors.
Training on environmental conservation practices and gender equality. Provision of tools for conservation activities.	Environmental protection and conservation groups	300	Local population
Advice and technical assistance for the production, maintenance, harvest, post-harvest, industrial and artisanal processing of coffee and cocoa. Provision of tools and supplies. Training on environmental conservation practices and gender equality. Provision of tools for conservation activities. Training on administration, financial management and trading of coffee and cocoa and other agricultural produce.	Producer organizations	5,600	Families, other producers and processors, businesses, other value chain members.
	Coffee and cocoa producers	11,200	
	Coffee and cocoa processors	5,600	
TOTAL		47,283	

235. The project will contribute to the following Aichi targets and indicators:

Table 12. Aichi Targets

Aichi Biodiversity Target	Project results	Performance Indicators
Component 1: Institutional strengthening for land use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities.		
Target 17: By 2015, each Party has developed, adopted as a policy instrument, and begun to implement an effective, participatory and updated national biodiversity strategy and action plan.	Result 1.1: Institutional and community capacities for land management with a landscape, environmental sustainability, gender-sensitive and multiple-use approach strengthened.	<ul style="list-style-type: none"> - At least 300 people are trained in integrated landscape management. - 15 interrelated actors follow an agreed multi-year work plan and produce agreements to incentivize integrated landscape management. - 14 municipalities and 5 government entities in the Andean area use the land use monitoring and surveillance system. - 3 municipalities on the western slope of the Mérida mountain range serve as the basis for developing and executing the landscape management plan. - There is a 15% average percentage increase in the flow of investment directed towards sustainable forest management, sustainable land management and/or ecological restoration in the 14 municipalities through plans and programs to support coffee and cacao producers.
Target 15: By 2020, increase the resilience of ecosystems and the contribution of biodiversity to carbon stock	Result 1.2. Increased area (ha) under improved management in the buffer zones of the Areas under Special Administration Regime (ABRAEs) in the	<ul style="list-style-type: none"> - At least 300,000 ha in the buffer zones of ABRAEs will be under improved management. - 1,246 ha of forestland restored in buffer zones of ABRAEs.

<p>iversity to carbon stocks through conservation and restoration, including the restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>	<p>tion regime (ABRAEs) in the project area.</p>	<ul style="list-style-type: none"> - At least 4,000 ha of agricultural lands are restored in buffer zones of ABRAEs. - 2,392,849 metric tons of carbon dioxide equivalent (CO₂e) sequestered or emissions avoided in the agriculture, forestry, and other land uses (AFOLU) sector.
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Component 2: Sustainable increase in the production of specialty coffee and fine aroma cocoa in line with biodiversity conservation and landscape restoration in the 14 selected municipalities.

<p>Target 14: By 2020, ecosystems that provide essential services, including water-related services, that contribute to health, livelihoods and well-being are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.</p>	<p>Result 2.1 Sustainable, gender-sensitive management practices in productive landscapes, contributing to increased productivity and the establishment of sustainable product supply chains and the conservation of biological diversity through agroforestry systems (SAF).</p>	<ul style="list-style-type: none"> - In 237,000 ha of coffee and cocoa agroforestry systems under sustainable and community forest management. - 4,740 producers served by the extension and TA program increase coffee and cocoa productivity. - 23,700 ha of agricultural land under the extension and TA program implemented; agroforestry systems, sustainable and community forest management, agroecological production and good practices. - 80% of the UPAs served by the extension program have family gardens and implement ecological and clean energy alternatives for food preservation and cooking.
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Component 3: Strengthening the sustainable market based on quality improvement and diversification of coffee and cocoa by-products.

<p>Target 2: by 2020, at the latest, biodiversity values are integrated into national and local development and pov</p>	<p>Result 3.1 Market strategies support the conservation and sustainable use of forest ecosystems and sustainable production in selected municipalitie</p>	<ul style="list-style-type: none"> - 1,000 producers served by the extension program market various products from coffee and cocoa agroforestry systems. - 60% percentage increase in the average volume of sales by type of product and sustaina
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development and poverty reduction strategies and planning processes and integrated in to national accounting, as appropriate, and reporting systems.	of the Andean region.	ble subproducts from coffee and cocoa agroforestry systems.
Component 4: Monitoring and Evaluation (M&E) based on the principles of adaptive management and the delivery of measurable and objectively verifiable results.		
Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values and functioning, its status and trends, and the consequences of its loss, are advanced, widely shared, transferred and applied.	Result 4.1. M&E strategy developed to report the progress and results achieved by the project in the implementation of its work plans under the adaptive management principle, through objectively verifiable indicators and means of verification.	- 8 newsletters and 3 publications with best practices and lessons learned related to the project systematized and published.

g. Innovativeness, sustainability and potential for scaling up

Innovation

236. In this proposal, the main aspects in which innovation processes can be generated are those related to the productivity and competitiveness of coffee and cocoa with a significant presence of small producers. Secondly, there is the strengthening of productive capacities and the sustainable use of natural resources in the local communities of the 14 selected municipalities. The project will also promote revolutionary and innovative development models that emphasize the inclusion of young people and women, organizational strategies adapted to family economy enterprises, strategies to promote investment and access to markets for small producers, local entrepreneurship in the production and marketing of bioinputs and bio-controllers, and alternative systems for certifying sustainable products. These actions will favor the sustainability of the results achieved in the long term.

237. In a scenario with local, national, and global challenges, such as the impact of COVID-19, climate change, the need to reduce greenhouse gas emissions and the growing instability surrounding the scarcity of land, water and energy, reveal some of the pressures. In agriculture, innovation plays a key role in making it effective, efficient and sustainable. The role of rural women is fundamental in this regard because it is common for them to

persist in their own work, either individually or through associative groups; they are also characterized by inclusive undertakings that generally revolve around the development of a wide range of products linked to the natural resources existing in the geographic areas they inhabit and determined by the needs of the communities in which they are located; creativity and ingenuity are widespread.

238. Additional elements of innovation are:

- § To incorporate the concepts and practices of integrated landscape management, sustainable forest management, agroforestry and sustainable soil management in land use planning processes. The interinstitutional coordination mechanism and the demonstration landscape management plan (output 1.1.2) will be a novel approach.
- § That municipalities use the Trends.Earth platform to monitor changes in land use.
- § To introduce agroforestry and agroecological production practices (e.g., biols, natural biocides) on the farms of small coffee and cocoa producers.
- § To apply landscape management tools for the conservation of biodiversity on farms (e.g., live fences, enrichment of coffee shade) and buffer areas of ABRAEs (e.g., enrichment of remnants of natural vegetation, corridors).
- § To experience the application of agroclimatic technical roundtables with local actors.
- § To integrate the concepts and practices of inclusion and responsibility in the coffee and cocoa production chains.
- § To develop municipal technical roundtables for the coffee and cocoa value chains and to articulate them to the national platform.
- § To test instruments so that consumers and local markets recognize and value the agroforestry and agroecological products of the farms of small producers.

Sustainability

239. The project's approach using landscape management and diversification of sustainable products makes a lot of sense for producers. It is expected that they will continue to apply these alternatives in the future, as they are consistent with market trends and will also contribute to reducing costs (in fertilizers, for example) and generating additional income (from the sale of other products and preferential prices). From a socioeconomic point of view, and making a brief analysis of the rural economy of the Andean region, these practices also make a lot of sense and will most likely continue to be used in the future. Additionally, the targeting strategy responds to geographical and sustainability criteria related to an agroecological occupation for the production of specialty coffee and fine aroma cacao in the short, medium and long term. This strategy will achieve the expansion of cultivation and agroforestry systems in intervened and degraded areas. In addition, by improving capacities in sustainable management techniques for agroforestry systems, the project can effectively and timely meet the technical support needs of the producers involved.

240. Through the installation of showcase units or demonstration farms, producers will have the opportunity to verify the benefits of these production systems and the different techniques promoted, which can have a favorable effect on the incorporation of new areas with these production systems, generate income, diversity and improve the quality of life of producers. Finally, the proposed project will ensure sustainability of results through capacity building of both government officials and local stakeholders. The project seeks to increase the capacity of government officials for integrated planning and monitoring of productive landscapes for the benefit of biodiversity. By following an inclusive approach to natural resource use planning,

stakeholders will make more informed decisions that could lead to more sustainable, equitable and economic land use. Any activities implemented that come from a consensual approach based on comprehensive information will also be more likely to succeed and be more sustainable in the long term.

241. To support this strategy, it will also be important to consider gender equality and economic growth as a joint effort. Helping to reduce gender gaps can lead to a significant increase in production (FAO, 2011). In the context of value chain development, it is considered necessary not only to incorporate the gender approach as a human right, but also as a requirement to ensure sustainable growth in the areas of intervention.

242. The project's actions seek to develop new market rules and ensure the sustainable quality of the products. The strengthening of organizations will enable producers to increase their bargaining power in new and existing markets, the use of participatory guarantee systems (PGS) for certification, the organization of collective sales and the creation of physical spaces where new types of markets can be held. These institutional innovations increased farmers' capacities to negotiate prices that reflected the additional value of sustainably produced products. During project implementation, relationships between public agency actors and civil society (producers, cooperatives, companies) will be strengthened, creating favorable institutional environments for the implementation of measures aimed at supporting the sustainability of actions once the project ends, such as: (i) promotion of innovative participatory systems or platforms where farmers play multiple roles, as farmer, researcher and market agent, (ii) local government can provide physical spaces for markets by organizing regular outlets for sustainably produced products, (iii) national authorities can sponsor sustainable food fairs and exhibitions and create market channels by prioritizing sustainable products in public procurement schemes, (iv) national and regional authorities can provide legal recognition, tax incentives and innovative financing for new organizational forms, such as social enterprises, inclusive business models, cooperatives and equity corporations, among others.

Replicability

243. The complementarity of the project with national policies and plans will give it high replication potential. Systematization, dissemination and communication strategies will help demonstrate the effectiveness of SFM, SAF, SLM and management techniques and their impact on productivity and income diversification, which will facilitate the replication of experiences, good practices and lessons learned. Exchanges of experiences will be organized between the communities served by the project and other communities, and these exchanges will serve as platforms for the dissemination of the results obtained. Networking among institutions will allow the extrapolation and dissemination of the project's actions and results to other areas where the results can be implemented and replicated. The systematization of experiences and lessons learned will serve to promote the national and international replication of project results. It is important to mention that it is also possible to generate associative experiences that are generally led by women or have high female participation as a gender-sensitive practice with the possibility of being replicated and extended to different territories.

Theory of change for scaling and durability

244. The GEF Scientific and Technical Advisory Panel (STAP) requested that the project document include a theory of change aimed specifically at scaling and durability. Figure 9 and the following paragraphs explain actions to be implemented to support upscaling, replication and/or sustainability of the key expected project deliverables.

245. Improved integrated landscape management (outcome 1.1). As indicated before, the project will concentrate on 14 target municipalities and will deliver (i) a training course, (ii) improved coordination mechanisms and (iii) a land surveillance tool. These items will be used in a demonstration pilot landscape management plan in three municipalities (output 1.1.2, Figure 9[a]). All these are valuable deliverables that could benefit other areas of the

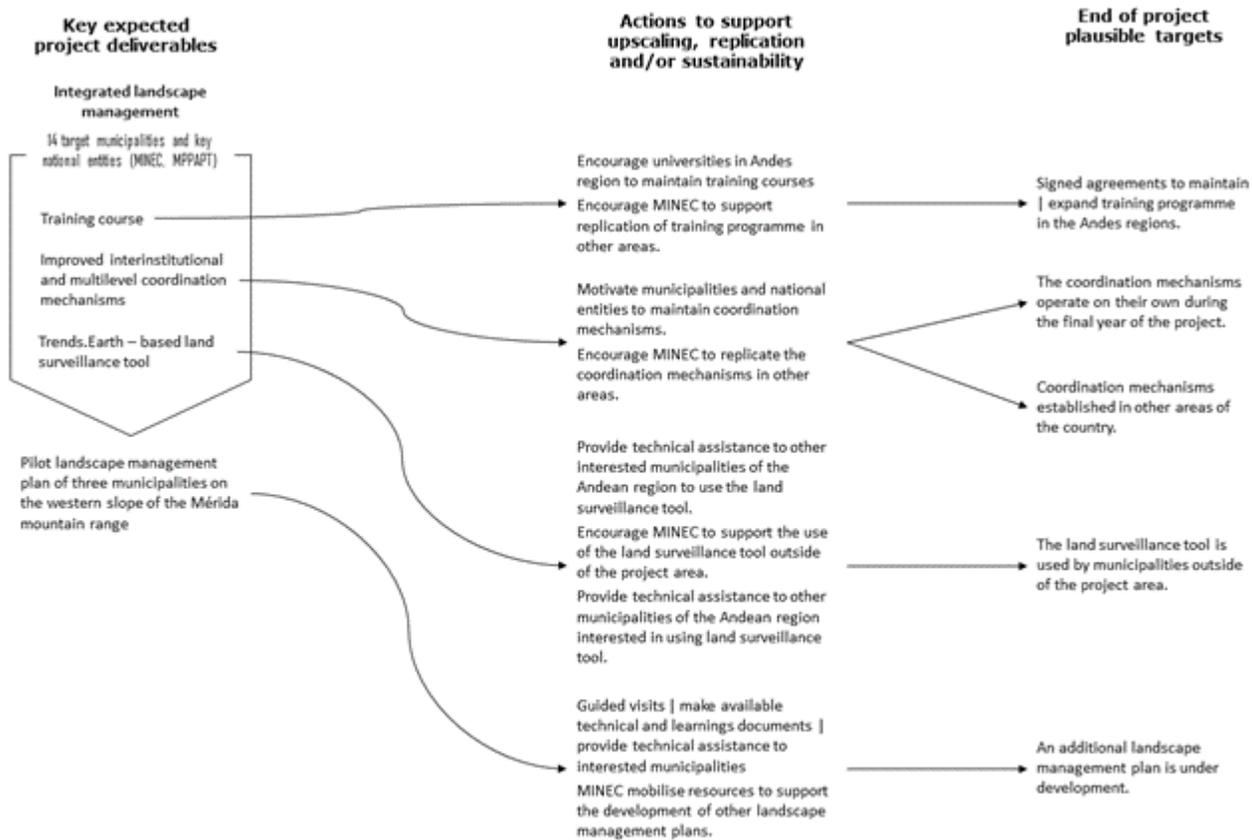
country. During implementation, the project team will motivate that universities, other municipalities and MINEC to take action and to apply these deliverables in other scenarios. In addition, the project team will promote that other municipalities from the project area see the pilot landscape planning experience and, as appropriate, will facilitate technical assistance to start similar initiatives.

246. Improved sustainable land management in ABRAEs' buffer zones (outcome 1.2). To sustain the implementation of the project supported management plans it will be necessary to encourage that the stakeholders establish long-term collaboration mechanisms and that key entities allocate resources (Figure 9[b]). MINEC will have a central role in driving change. On the one hand, MINEC has assured that during project implementation will mobilize resources to strengthen the management of the ABRAEs. On the other hand, MINEC can transfer the project lessons to other parts of the country.

247. Increased production in agroforestry systems (outcome 2.1). Maintaining the extension programme will be crucial to sustain the production in the 23,700 ha of project-supported demonstration plots (Figure 9[c]). Therefore, the project team will motivate national and local entities (e.g., producers organizations, processors) to take charge the extension programme in their geographic area of interest. Complementarily, MINEC and MPPAPT have assured direct support to expand the agroforestry area in the Venezuelan Andes region (paragraph 171). Regarding the agro-climatic technical roundtables (output 2.1.2), the project team incentive that their members commit longstanding support. But it will be crucial that INAMEH, MINEC and MPPAT support their operation, as well as to transfer learnings to other regions of the country.

248. Increased demand for agroforestry produce (outcome 3.1). The municipal technical marketing roundtables (output 3.1.1) can sustain themselves if their members benefit from their operation. To contribute to their continuation the project team will nurture transparent and meaningful dialogue among stakeholders (Figure 9[d]). It is foreseen that this will contribute to establish positive and productive collaboration among their members. It is also anticipated that the dissemination of key lessons could benefit value chain stakeholders in other parts of the country. MPPAPT intervention will be necessary to expand the demand for agroforestry produce by incentivising market differentiation and consumption. Finally, strong commercial alliances depend on a range of factors, like attaining mutual benefits and trust. The only thing that the project team can do to support these commercial endeavours is to promote transparent and meaningful dialogue among parties.

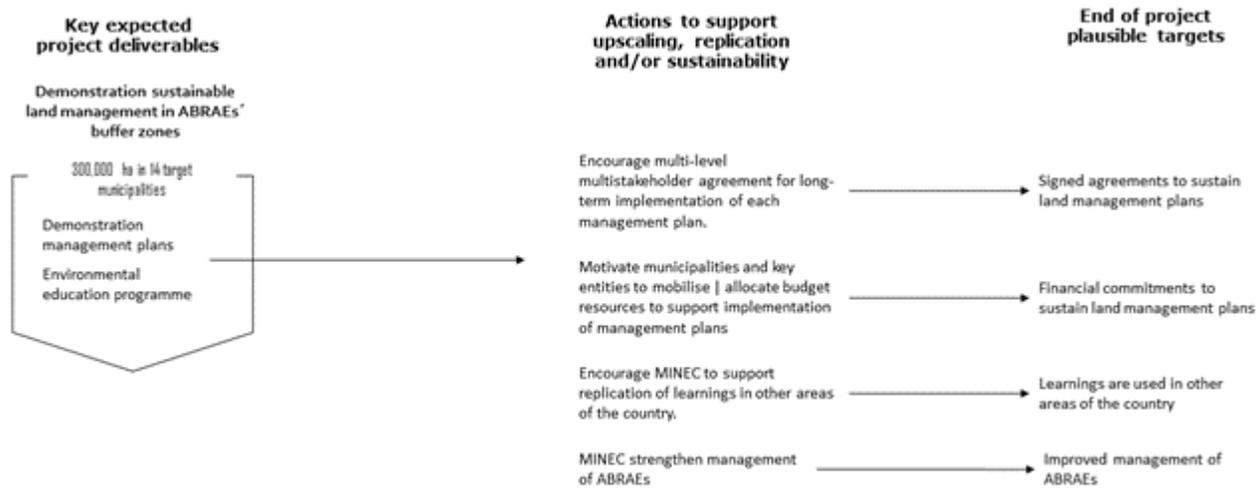
[a]



Assumptions

1. The trained persons catalyse action in support of land use planning based on a landscape approach.
2. The participating universities become interested and have the resources to maintain the training courses.
3. Other municipalities see the advantages of landscape planning and improved coordination and mobilise resources to advance these matters.
4. MINEC support scaling-up and replication.

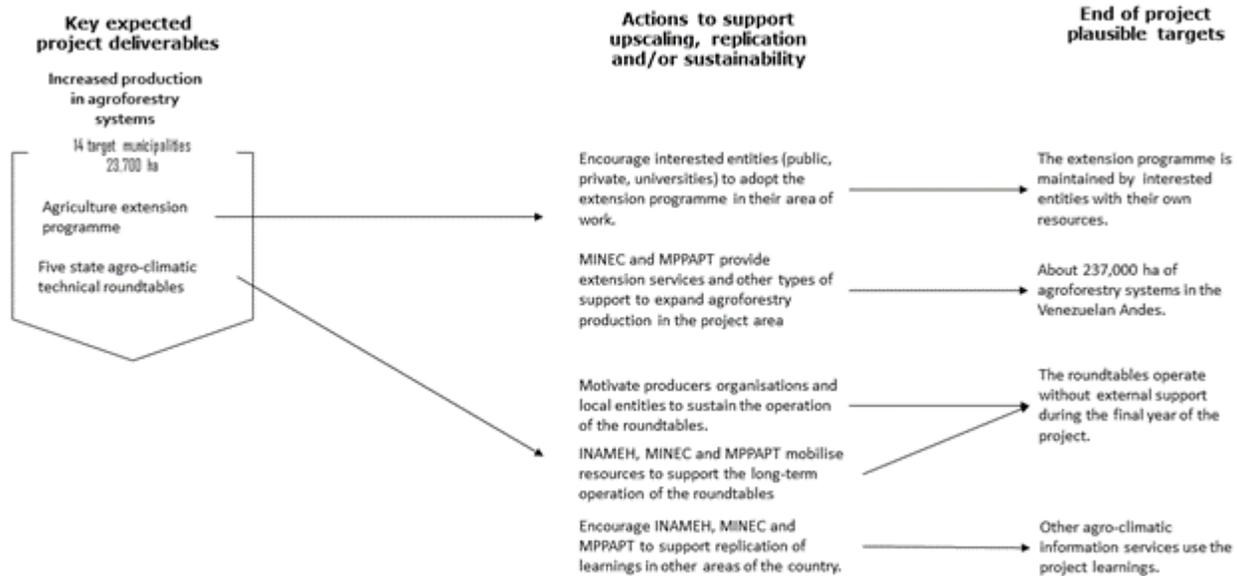
[b]



Assumptions

1. Local groups benefit from sustainable land management actions and commit to long-term implementation of the management plans.
2. Municipalities and other key entities can mobilise resources to sustain the implementation of the land management plans.
3. MINEC support scaling-up and replication and invest in improving the management of the ABRAEs of the project area.

[c]



Assumptions

1. Farmers and coffee and cocoa value chain members price the contributions of the extension programme and the agro-climatic roundtables and mobilise support to maintain their operation and to expand their coverage.
2. MINEC and MPPAPT mobilise resources to scale-up support to agroforestry farmers.
3. There is an increasing demand for zero deforestation, organic and specialty cocoa and coffee.

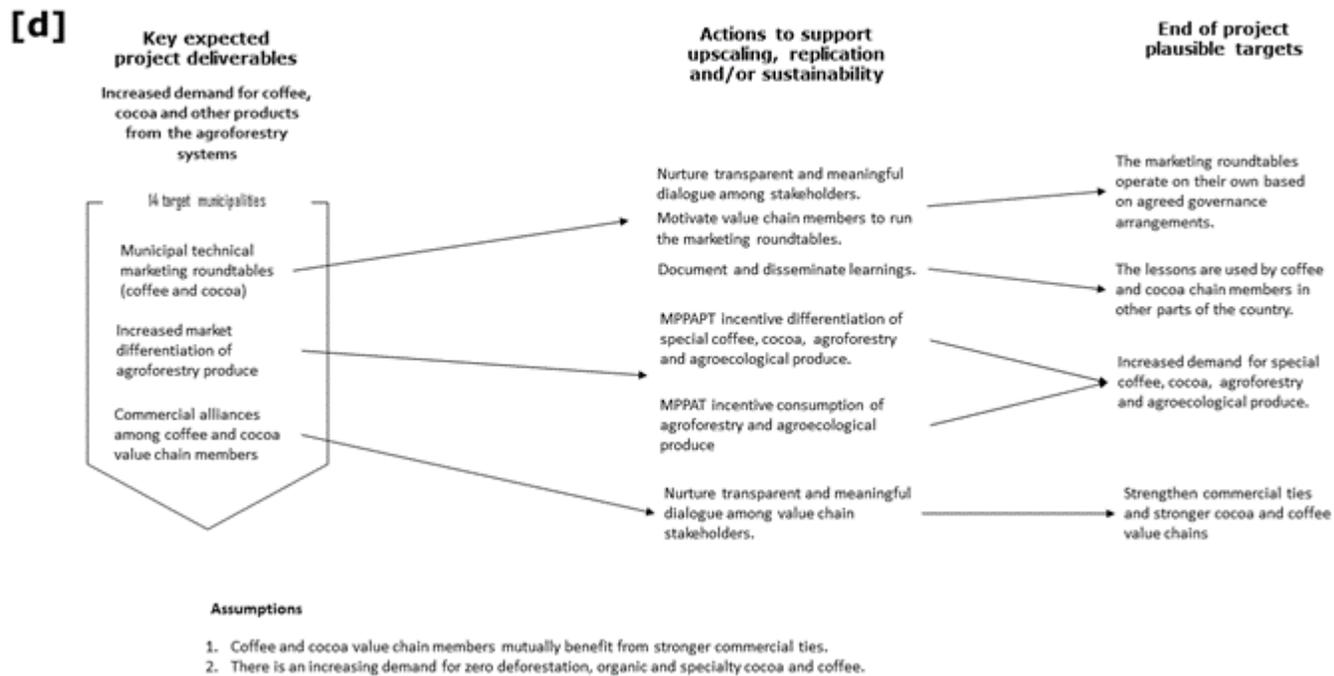


Figure 9. Theory of change for scaling and durability.

Table 13. Summary of changes in alignment with project design and the original FIP

Aspect	PIF	PRODOC Change Justification
Number of municipalities served	12 municipalities	14 municipalities were added: Andrés Bello in the state of Mérida and Ospino in the state of Portuguesa, due to the need to complement the intervention area in coffee and cocoa crops to comply with the Core indicators.
Criteria for selection of project intervention areas	The lower limit is set at 500 msnm	The project's intervention area is established as the strip between 500 and 2000 meters above sea level, not including the Andean paramo.
Barriers	Barriers 1	Barriers 1 is maintained. It was incorporated as Barrier 2. <i>Limited implementation of national environmental policies and weak land use planning framework.</i>
	Barriers 2	Barrier 2 becomes barrier 3 and the aspects identified during the field visit are incorporated

		ated as follows: Barrier 3. Limitations of producers and technical assistance services for the implementation of sustainable forest management, community forestry, agroforestry systems, productive systems and sustainable practices in coffee-cocoa lead to low productivity, coupled with the lack of knowledge of the benefits of forests and ecosystem services for agricultural production, influencing the intervention of new spaces that brings loss of forest areas, water resources, biodiversity and land degradation.
	Barriers 3	Barrier 3 becomes barrier 4 and the aspects identified during the field visit are incorporated as follows: Barrier 4. Market imperfections, lack of differentiated prices for cocoa and coffee produced in an environmentally friendly manner, coupled with the lack of incentives and financing discourages the implementation of sustainable production practices with quality standards and conservation of natural resources.
Components and results	Component 1, result 1.1	<p>Community management is incorporated into Outcome 1.1: Institutional and community capacities for land management with landscape, environmental sustainability, gender-sensitive and multiple-use approaches strengthened.</p> <p>The outputs are worded as follows:</p> <p>1.1.1 Training program in planning, monitoring and evaluation of land management designed and implemented and personnel trained in the 14 selected municipalities of the Andean region.</p> <p>1.1.2 Coordination mechanisms for integrated landscape and land use management incorporating biological diversity and ecosystem goods with a gender perspective implemented and validated.</p> <p>1.1.3 Land use monitoring and surveillance system in the Venezuelan Andes formulated, implemented and validated.</p> <p>Results 1.2: Increased surface area (ha) under improved management in the buffer zones of the Areas under Special Administration Regime (ABRAEs) of the project area.</p> <p>1.2.1. Environmental education program for landscape conservation institutionalized and supported by local organizations[13] to ensure its long-term operation.</p> <p>1.2.2 Demonstrative pilot management plans for sustainable land management in buffer zones of ABRAEs, formulated and implemented in the field.</p>
	Component 2 and result 2.1.	<p>Component 2 is reworded as follows, giving priority to productivity:</p> <p>Sustainable productivity increase in specialty coffee and fine aroma cocoa in line with biodiversity conservation and landscape restoration in the 14 selected municipalities.</p>

		<p>Outcome 2.1 Sustainable, gender-sensitive management practices in productive landscapes implemented to increase productivity and establish sustainable product supply chains and biodiversity conservation through Agroforestry Systems (SAF).</p> <p>The outputs are worded as follows:</p> <p>Program for capacity building, technical assistance (TA), agricultural extension and field interventions for coffee and cocoa producers with a focus on agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices formulated and implemented.</p> <p>2.1.2. Agro-climatic technical roundtable (MTA) functioning and supporting producers in the management of agro-climatic information and decision making for the development of sustainable production, based on an adaptive production approach and mitigation of climate risks in agriculture.</p> <p>2.1.3. Validated ecological strategies aimed at reducing waste in SAF and generating clean energy and technological alternatives that reduce pressure on agroforestry resources.</p>
	<p>Component 3 and result 3.1</p>	<p>Component 3 is adjusted to the current market situation by managing the concept of sustainable market and sustainable products as a first step toward price differentiation. Component 3. Strengthening the sustainable market based on quality improvement and diversification of coffee and cocoa by-products.</p> <p>Outcome 3.1 Market strategies support the conservation and sustainable use of forest ecosystems and sustainable production in selected municipalities in the Andean region.</p> <p>The outputs are worded as follows:</p> <p>3.1.1. Municipal technical marketing boards for the coffee and cocoa value chains functioning and articulating with the national platform.</p> <p>3.1.2. Commercial strategies differentiated by market segments, both for coffee and cocoa as well as for the products of the SAF and community forestry.</p> <p>3.1.3. Commercial alliances established by coffee and cocoa producer organizations with relevant actors in the coffee and cocoa value chains.</p>
	<p>Component 4 and result 4.1</p>	<p>Component 4 incorporates a few variants and is worded as follows. Dissemination, Monitoring and Evaluation (M&E) based on gender principles, adaptive management and delivery of measurable and objectively verifiable results.</p>

		<p>Outcome 4.1. M&E strategy developed for reporting the progress and results achieved by the project in the implementation of its work plans under the adaptive management principle, through objectively verifiable indicators and means of verification.</p> <p>4.1.1. M&E system formulated and implemented.</p> <p>4.1.2. Mid-term review and final evaluation.</p> <p>Good practices and lessons learned from the project systematized and published. 4.1.4.</p> <p>4.1.4. MINEC institutional website to continuously exchange specific project experiences, serve as a repository of relevant information, make results and progress visible, and facilitate replication processes for the duration of the project and beyond.</p>
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[1] Official Gazette 3.238 Extraordinary Meeting of August 11, 1983.

[2] Includes land area of 91,644,500 ha (916,445 km²). Does not include the 159,500 km² of Essequiba Guyana and includes more than 50,000,000 ha (500,000 km²) of aquatic surface (preliminary surface, subject to modification, of the aquatic spaces of the Bolivarian Republic of Venezuela in the Caribbean Sea and the Atlantic Ocean).

[3] <https://covid19.patria.org.ve/estadisticas-venezuela/>

[4] https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.722544/Bosques_Montanos_Pluviales_de_los_Andes_del_Norte

[5] The Forest Law (Official Gazette 40.222 of August 6, 2013) defines natural forests as the "ecosystem covering areas equal to or greater than half a hectare (0.5 ha.), which has formed spontaneously through the interrelation between biotic and abiotic factors specific to a given geographical area, characterized by the dominance of individuals of arboreal forest species".

[6] VII Agricultural Census 2007-08. MPPAPT.

[7] www.nestle.com.ve/cvc/programas-de-creacion-de-vc/plan-cacao

[8] Transition from forest, wetlands and other land cover/land use to cropland.

[9] <https://glad.earthengine.app/view/global-forest-change>

[10] Prices paid to the producers were fixed by harvest until September 2019 (Providencia Administrativa 252/2019 of the Ministry of People's Power for National Commerce). The four-year bout of hyperinflation (2017 - 2021) and the impact of the COVID-19 pandemic led to cease coffee price controls. Nowadays the Venezuelan Coffee Corporation and processors pay fluctuating market prices.

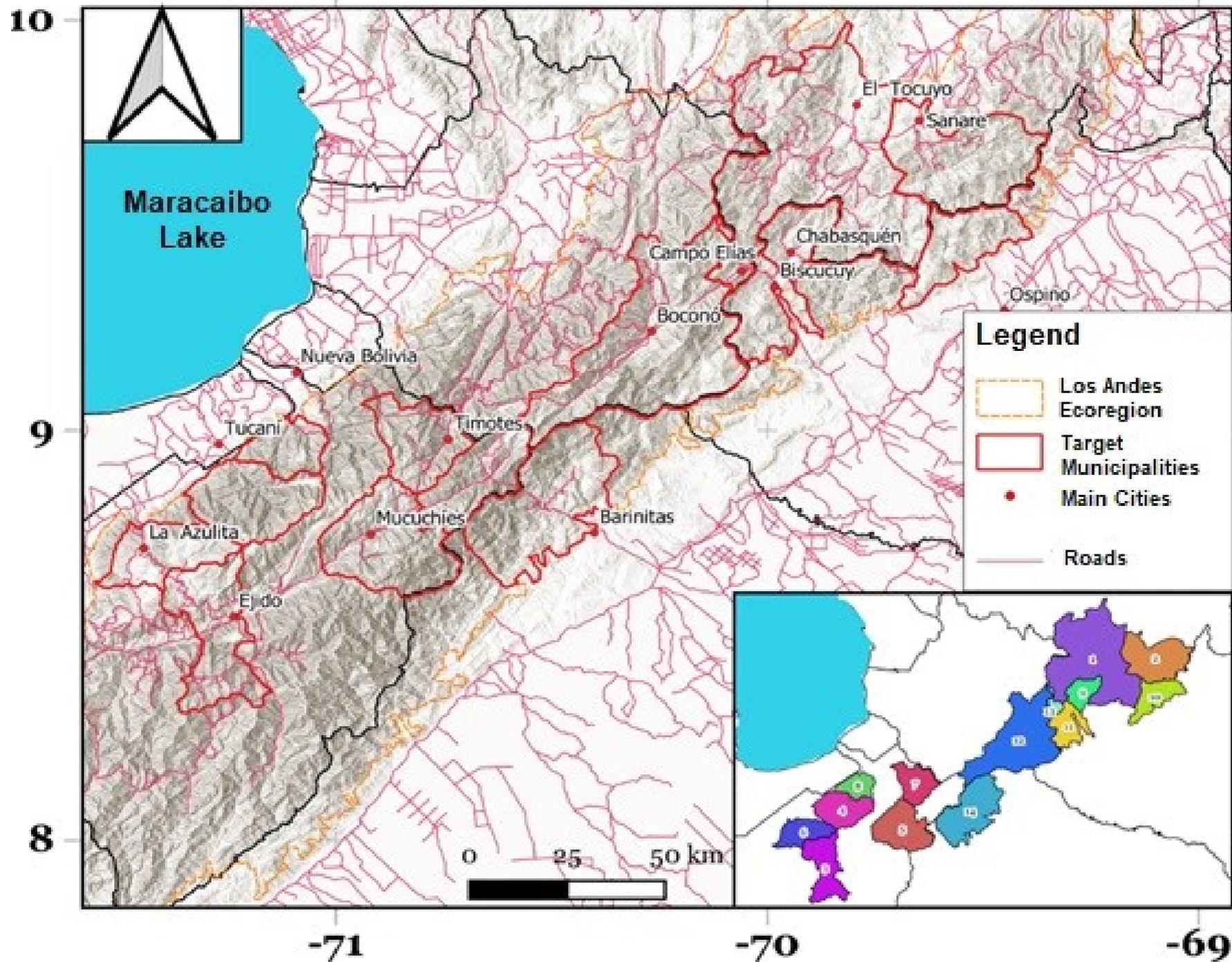
[11] This platform supports the calculation of the three indicators (changes in land productivity, land cover and carbon stocks) to monitor the achievement of Land Degradation Neutrality (LDN). On the other hand, it will also measure carbon equivalent, sequestered or avoided emissions, relevant information disaggregated by municipality.

[12] Strategy to capitalize on a country's reputation in international markets, based on what it can offer visitors and investors. It has 3 dimensions: tourism, exports and foreign direct investment.

[13] They include: community councils, NGOs, neighborhood associations, school community, producer organizations.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.



The municipalities are 1: Morán; 2: Andrés Eloy Blanco; 3: Campo Elías; 4: Caracciolo Parra Olmedo; 5: Rangel; 6: Andrés Bello; 7: Miranda; 8: Tulio Febres Cordero; 9: Monseñor José Vicente de Unda; 10: Ospino; 11: Sucre; 12: Boconó; 13: Juan Vicente Campo Elías; 14: Bolívar.

Map 1. Geographical location of the project area showing the 14 target municipalities, main cities, population centers and main roads.

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Process of consultation and participation of key stakeholders and beneficiaries during project formulation.

249. The stakeholder consultation process began through: PPG kick-off workshop, held on June 7, 2021 in the state of Merida, which was aimed at national and local public institutions, university institutions, as well as local political leaders in the project intervention area; collection of field information from public and private institutions at the local level, social actors and farmers in the intervention area; online interviews and email requests with some national, regional and local stakeholders. Additionally in this phase of the PPG, the active participation of stakeholders was verified through various meetings and contacts keeping them informed of the entire process; PPG review and validation workshop, held on 4 November 2021 in the city of Caracas, MINEC headquarters, with the attendance and participation of representatives of the Directorates of MINEC, as well as representatives of ONUDI, and members of the FAO working group.

250. Throughout the consultation process, stakeholders were informed of the objectives and scope of the project, were consulted about their interest in participating in the formulation and implementation stage of the project, which allowed the identification of some capacities and limitations of these actors, and relevant information was collected on proposals to be incorporated into the project design.

251. The application of information-gathering instruments in the field was the most enriching strategy for obtaining updated and real information to feed the project baseline. The consultant team developed six information-gathering instruments, including surveys and interviews, to obtain general information on communities, landscape management, local public policy, the current situation of coffee and cocoa producers, the functioning of marketing chains and producer organization, all of which were endorsed by the project's Lead Technical Officer (LTO).

252. In the field, the instruments were applied physically and with the KoBoToolbox tool^[1], and the participation of the stakeholders consulted was endorsed by means of attendance lists. A total of 170 information-gathering instruments were applied in the 5 states and 14 municipalities selected. Ten community profiles, 20 landscapes, 11 meetings with mayors, mayoral staff and other local institutions, 12 surveys of coffee and cocoa processing companies, 4 surveys of producer organizations, 21 surveys of cocoa producers, 90 surveys of coffee producers, 1 survey of NGOs, 1 survey of the Agricultural Technical School (ETA).

253. These instruments made it possible to gather information on the local characteristics of some of the communities visited, for example, population data, how their livelihoods have been affected in the COVID context and what measures have been applied, existing forms of community organizations and the capacities and strengths they have for project development; With regard to the institutions, the most relevant data collected consisted of identifying the current implementation of agro-productive projects with emphasis on coffee and cacao and environmental protection and conservation, as well as identifying the needs, interests and institutional capacities in order to define strategies adjusted to the regional and local reality. Consultations with private stakeholders and producers' organizations were based on obtaining information on existing infrastructure for processing cocoa and coffee, production capacity and

existing marketing chains for obtaining items to be processed and selling the final product; Finally, the consultations directed at small and medium producers consisted of gathering information on socioeconomic aspects of the family group, size of the production unit, items produced and the purposes of production, socio-environmental risks and threats they face in the processing and marketing of products, what agricultural practices they apply, whether they receive training, advice and technical assistance from national, regional or local institutions, among others, and the concept assumed by the producers on the consequences of forest degradation. Annex I2 "Stakeholder Participation Matrix" summarizes the locations and consultations with key stakeholders.

254. The same methodology will be applied for consultations throughout the implementation stage, considering that not all key stakeholders have necessarily already been identified. In relation to the above, in the first months of the project it is necessary to identify key private stakeholders for their incorporation and thus strengthen the sustainability of the project. Another aspect of great interest is the identification and contact with social leaders and women's and youth organizations in the area to be intervened in order to schedule meetings, interviews or assemblies to facilitate the implementation of the strategies to be implemented and the identification of the direct beneficiaries of the project. Annex I2 presents the "Stakeholder Participation Matrix" which lists the stakeholders^[2] consulted and the future consultations to be carried out so far.

Project stakeholders.

255. During the formulation stage, stakeholders have been identified at different levels: macro, intermediate and field. At the macro level, key stakeholders include the ministries responsible for environmental, agricultural and gender equality issues; coffee and cocoa corporations dedicated to the administration, development, coordination and supervision of activities in each sector; national universities; and at the intermediate level, private cocoa and coffee processing companies, as well as exporters of these products, suppliers of agricultural inputs, technologies and tools; educational institutions at the intermediate technical and university level located in the municipalities; cooperatives and social production companies dedicated to the production and processing of coffee and cocoa; actors that act as intermediaries in the marketing chains; and finally, at the field level, there are the small and medium-sized producers of coffee, cocoa and other subsistence products, including family farmers and the families of the producers as their means of livelihood. The stakeholders identified in the intervention area are listed below.

Table 14. Stakeholders

Stakeholders, entities attached or under administration	
Ministry of People's Power for Ecosocialism (MINEC)	
	National Reforestation Company (CONARE)
	National Parks Institute (INPARQUES)
	Latin American Forestry Institute (IFLA)
Ministry of the People's Power for Internal Relations, Justice and Peace (MPPRIJP)	
	National Institute of Meteorology and Hydrology (INAMEH)
Ministry of the People's Power for Productive Agriculture and Land (MPPAPT)	
	National Institute for Agricultural Research (INIA)
	National Institute for Integral Agricultural Health (INSAI)
	Fund for Socialist Agrarian Development (FONDAS)
	Venezuelan Coffee Corporation (CVC)

	Venezuelan Cocoa Socialist Corporation (CSCV)
Ministry of the People's Power for Planning (MPPP)	
Ministry of the People's Power for Urban Agriculture (MPPAU)	
	Foundation for Training and Innovation to Support the Agrarian Revolution (CIARA)
Ministry of the People's Power for Women and Gender Equality (MinMujer)	
	National Women's Institute (INAMUJER)
Ministry of People's Power for Science and Technology (MINCYT)	
	Foundation for the Development of Science and Technology (FUNDACITE)
United Nations Industrial Development Organization (ONUDI)	
Cocoa processors: Cocoa by-product processing and manufacturing plants.	
	El Cimarrón - La Azulita chocolate plant.
	EPSDC Che Guevara 2021 - Tucaní
Coffee roasting, grinding and packaging plants.	
	Agroecological Commune El Tambor - La Azulita
	Las Colinas del Mirador Cooperative (Colimir) - Tucaní
	Crosepor
	Café de Altura Biscocuy
	Aromáticos de Venezuela Coffee
	Doña Rosa Coffee
	Don Juan Coffee
	Botalón Group
	Amanecer Group
NGOs	
	Ecoazul
Community organizations and community councils	
Agricultural Technical Schools (ETA)	
Small and medium producers	
<p>14 municipalities in the intervention area:</p> <p>Barinas State: Mayor's Office of the Bolívar municipality,</p> <p>State of Lara: Mayor's Office of the Morán and Andrés Eloy Blanco municipalities,</p> <p>State of Mérida: Mayor's Offices of the municipalities of Andrés Bello, Campo Elías, Caracciolo Parra y Olmedo, Miranda, Rangel and Tulio Febres Cordero,</p> <p>Portuguesa State: Mayors' offices of the municipalities of Monseñor José Vicente de Unzueta, Ospino and Sucre,</p> <p>Trujillo State: Mayors' offices of the municipalities of Boconó and Juan Vicente Campo Elías.</p>	

Table 15. Local communities consulted during project design.

State	Municipality	Parrish	Communities consulted	Date
Barinas	Bolívar	Calderas	El Mirador	17/07/2021
			La Cuchilla	
			Vega del Molino	
		Altamira de Cáceres	Caserío la quinta	16/07/2021
			Altamira de Cáceres	
			Canta Rana	
			Potreritos	
Lara	Morán	Hilario Luna y Luna	La Fila	14/07/2021
		Guárico	Los Altos	
	Andrés Eloy Blanco	Pío Tamayo	Lechalito	15/07/2021
			Casco Centro	16/07/2021
		Campo Elías	La Mesa	La Mesa de los Indios
Jají			Manzano Alto	
			Boconó	
Carraciolo Parra y Olmedo		Florencio Ramírez	Río Frío Alto	11/07/2021
Miranda		Timotes	Vía hacia Piñango	14/07/2021
			Salida de Timotes es sentido vía Chachopo	15/07/2021
			Aldea San Rafael, sector Los Acaos	

Mérida	Andrés Bello	La Azulita	El Chorotal	08/07/2021
			Bachaquero	
			Aldea Mirabel	
			Capital Azulita	
			Holanda	09/07/2021
			Caño Guayabo	
			San José de Limones	
	Caracciolo Parra y Omedo	Florencio Ramírez	Río Frío Alto	11/07/2021
			Río Frío Medio	
			El Pinar	12/07/2021
		Tucaní	El Charal	11/07/2021
			Río Bonito Bajo	
	La Redoma			
	Tulio Febres Cordero	María Concepción Palacios	Río Bonito Alto	10/07/2021
			Luciano Parra	
La Pica San Roque			12/07/2021	
Las Virtudes				
La Pica San Roque				
Santa Apolonia	Santa María	13/07/2021		
	Sector El Ron			
Ospino	Ospino	Caserío Monte Verde	07/07/2021	
	La Aparición		07/07/2021	
	Villa Rosa	Gavilán	08/07/2021	
		Centro		

Portuguesa	Sucre		Barrio Nuevo	09/07/2021
			Rastrojos I	
		Concepción	Caserío Filo Claro	
			Las Flores	
		San José de Saguá	Centro	
			El Poblado	
		Biscocuy	Mesa del Zorro	
			Santo Cristo	
Monseñor Unda	Paraíso de Chabasquen		13/07/2021	
Trujillo	Boconó	Parroquia El Carmen	Loma Isleta	11/07/2021
			Loma de Mitimbis	
			Bicho I	
	José Vicente Campo Elías	Campo Elías	Santa Elena	12/07/2021
			La Hacienda	

Table 16. Key stakeholders of the coffee and cocoa value chains.

Coffee value chain				
Key stakeholders	Description	Forms of organization	Key initiatives	Involvement in the project
Producers	Small producers (≤ 2 ha plots)	In the project area, there are two types of organization: cooperatives and associations	Production and selling of gourmet and specialty coffee (Cooperativa CROCEPORT)	Direct beneficiaries of the project actions. Participate in municipal roundtables
Traders	They buy coffee directly from the producers, generally to sell it	Social property companies (EPS) for the commercialization of coffee	Production and selling of specialty coffee (Sucre, Unda and C	Participate in municipal roundtables

	o the processors, they can be formal or informal.	Cooperatives, Producer Associations Individuals (informal intermediaries)	Caracciolo Parra municipalities)	Contribute to scaling-up
Processors	Public and private roasters (torrefactoras)	Government entities (CVC, Café Venezuela, Café Fama de América) Private entities (Grupo Botalón, Grupo Amanecer)	None	Participate in municipal roundtables
Distribution	Public and private companies	CVC and private entities	None	Participate in municipal roundtables
Cocoa value chain				
Key stakeholders	Description	Forms of organization	Key initiatives	Involvement in the project
Producers	Small producers (≤ 2 ha plots)	Local producers' associations	Nestlé Cocoa Plan in Merida state	Direct beneficiaries of the project actions. Participate in municipal roundtables
Traders	They buy cocoa directly from the producers, generally to sell it to the processors, they can be formal (representing a company) or informal (individuals).	Private companies Government companies through CSCV	None	Participate in municipal roundtables
Processors	Government processors (Cacao Cimarron) Association of cocoa processors (APROCAO) which groups the companies with the greatest purchasing and milling capacity Cocoa by-product manufacturers	Government companies through CSCV Association of cocoa processors (APROCAO) Microenterprises Local enterprises (Asociación Civil de Productores y Consumidores. Cacao Criollo de Portuguesa, Comuna Che Guevara, Caracciolo Parra municipality)	Production support Training to give added value Technical assistance, implement training plans supported by local institutions (INIA, CSCV)	Participate in municipal roundtables Contribute to scaling-up

Distribution	National and international trading companies Government companies through CSCV	Venezuelan Cocoa Chamber (CAPEC)	None	Participate in municipal roundtables
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256. For the mapping or analysis of stakeholders, we used the Situational Strategic Planning (PES) or problem-based^[3] methodology, where the "strategic analysis" is described as a series of steps whose starting point is the identification of stakeholders, the identification of allies or opponents and the valuation of each one based on the definition of "critical aspects" that within the analysis are considered fundamental for the achievement of the proposed strategies. The key actors identified for each project component are listed below.

Table 17. Key actors related to the project components.

Componentes	Actores Clave
1. Institutional strengthening for land-use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities.	FAO, GEF, the Ministries of People's Power for Ecosocialism (MINEC), Planning (MPPP), Productive Agriculture and Land (MPPAPT), Women and Gender Equality (MinMujer), and their affiliated entities, NGOs, social organizations, formal education centers, state governments and mayor's offices of the 14 municipalities.
2. Sustainable increase in the productivity of specialty coffee and fine aroma cocoa in line with the conservation of biological diversity and landscape restoration in the 14 selected municipalities.	FAO, GEF, the Ministries of People's Power for Ecosocialism (MINEC), Women and Gender Equality (MinMujer), Productive Agriculture and Land (MPPAPT), Urban Agriculture (MPPAU) and its affiliated entities, NGOs, small coffee and cocoa producers, social organizations, Agricultural Technical Schools (ETAs) and the mayor's offices of the 14 municipalities.
3. Strengthening of the sustainable market based on quality improvement and diversification of coffee and cocoa by-products.	FAO, GEF, the Ministries of People's Power for Ecosocialism (MINEC), Productive Agriculture and Land (MPPAPT), National Commerce, Economy and Finance, Tourism and its affiliated entities, NGOs, small producers, coffee and cocoa roasters and processors, coffee and cocoa intermediaries and traders, social organizations, state governments, mayors of the 14 municipalities.

257. Macro-level actors, such as MINEC and the MPPAPT, executing partners and their attached entities, responsible for policy implementation, control and supervision in environmental, agricultural and livestock matters, respectively, should be involved throughout the project implementation stage. This is so that other institutions with national scope can improve the application of policies and strengthen inter-institutional relations that will enable the incorporation of environmental and productive issues into policies at the macro, regional and local levels.

258. Consideration will be given to linking with NGOs whose objectives are linked to the objectives pursued by the project. Therefore, they may be organizations that add positive results to the project, with the incorporation of environmental and gender issues as a transversal axis, which can support the training and education of producers and families.

259. The municipal governments, as the local political power, are aware of the current reality and the economic and social behavior; however, their management capacity in terms of personnel and budget is low. However, they are willing to provide support and contribute to the project's objectives.

260. University education institutions and technical schools were identified in the different municipalities, which are particularly interested in participating in the implementation of the project and have personnel trained in different areas.

261. Intermediaries and/or traders play an important role in the cocoa and coffee value chains. According to information provided by producers, these intermediaries have means of transport and facilities for pre-treatment of products (in the case of cocoa), storage and transport, which are then sold to large companies for processing.

262. The small producers identified in the project intervention area live in households that are classified as poor and extremely poor, according to the Unsatisfied Basic Needs (UBN) methodology. Women, as homemakers and responsible in greater proportion than men for reproductive activities, require economic-productive development activities that involve the rest of the family members. There is an evident increase in the participation of young people in the region's agricultural activities, so some strategies should focus on supporting them with technical assistance and improved technologies for managing their productive units.

[1] It is a tool developed by UN OCHA, which allows to build forms, collect data through telephone, Tablet or other devices, generate data reports.

[2] Operational Guidelines for Stakeholder Engagement of FAO

[3] Flavio Carucci T. (2003). Problem-Based Strategic Planning: A Participatory Approach.

Please provide the Stakeholder Engagement Plan or equivalent assessment.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

The main elements of the stakeholder engagement plan are as follows

263. The ministerial actors with competence in environmental, agricultural, land management and gender issues, as well as their national, state and local agencies, will be involved throughout the project implementation stage in training programs for personnel in technologies, techniques, management tools, land supervision and monitoring, and agroforestry production in multiple-use landscapes with emphasis on SAF and agroecological production, incorporating the gender perspective in the actions to be carried out under the project. These programs will enable them to improve ABRAEs' supervision and control mechanisms, provide training, advice and technical assistance to local coffee and cocoa producers, strengthen and create inter-institutional mechanisms to improve territorial management and implement gender-focused policies. They will develop reforestation plans that allow for the incorporation of social and environmental organizations and NGOs.

264. The governors' and mayors' offices will also be beneficiaries of the training programs and will facilitate spaces for the development of these training activities and will update socioeconomic and agricultural production data with a gender perspective. Through the mayor's offices, links will be established with social leaders, public and private companies, and educational centers located within the municipality, with trained personnel to provide advice and technical assistance to producers for plant production, planting, maintenance, harvesting, reforestation, and other activities. There are some companies dedicated to coffee and cacao processing with facilities in adequate conditions for the development of training programs.

265. The social organizations and community councils are a bridge between the communities and the official entities, in addition to having a communication network within and outside the communities. They will be beneficiaries of the training and capacity building programs and will support the implementation of the project in terms of land management and the recovery of degraded areas.

266. Small coffee and cacao producers are the main beneficiaries of the project, who will be provided with technical assistance for the incorporation of good agricultural practices with an agroecological approach and PES; logistical support, training for the development of activities for the recovery of degraded areas, supervision and monitoring of these activities. This group of stakeholders includes populations that are vulnerable to the effects of the social, environmental and economic policies being developed in the project's area of intervention.

The complaint mechanism

267. Queries, doubts, complaints or concerns of beneficiaries and project stakeholders regarding social and environmental commitments will be addressed at the project management/technical level through the project technical coordinator. If conflicts arise that cannot be resolved at that level, they will be resolved at the Country Office or Regional Office level. "If a concern or complaint cannot be resolved through consultation and action at the project management or project management level, a complaint may be filed by requesting a review at the Office of the Inspector General (OIG) in accordance with the guidelines for compliance reviews" as set out in the FAO Environmental and Social Standards.[1].

Table 18. Role of key stakeholders in project implementation.

Key players	Role in project implementation
Ministry of the People's Power for Ecosocialism (MINEC)	National responsible for environmental and territorial management policies. Executing and co-financing partner. Responsible for national management and the Project Steering Committee (PSC).
Ministry of the People's Power for Productive Agriculture and Lands (MPPAPT)	Responsible for the national policy for agricultural production. Implementing a national co-financing partner. Participates in the Project Steering Committee (PSC).
Ministry of the People's Power for Gender Equality and Women's Empowerment (MPPAGE)	Responsible for national policy on gender equality and protection against abuse.

r Women and Gender Equality (MinMujer)	se of women.
People's Ministry of Urban Agriculture. (Minppau)	Entity in charge of providing technical assistance, training and developing projects in urban and peri-urban areas.
United Nations Industrial Development Organization (UNIDO)	The entity responsible for coordinating stakeholders with the national platform in the coffee and cocoa value chains.
National Institute of Meteorology and Hydrology (INAMEH)	Official entity in charge of disseminating hydrological and meteorological information.
14 mayor's offices of the selected municipalities.	Co-financiers, co-executors, members of the Project Steering Committee, associating them with a participation mechanism by representativeness that allows for operability.
National Parks Institute (INPARQUES)	Entity attached to MINEC, responsible for the management of the National Parks System.
National Reforestation Company (CONARE)	Entity attached to MINEC, in charge of plant production and restoration of degraded areas at the national level.
Latin American Forestry Institute (IFLA)	MINEC's agency has a team of researchers in forestry, agroforestry, climate change, watershed management and geographic information systems, watershed management and GIS, and is dedicated to training and research in environmental management plans.
National Institute for Integral Agricultural Health (INSAI)	Ascribed to the MPPAPT. Its competence consists of strengthening the phytosanitary and zoonosanitary protection system in the agricultural activity. In charge of contributing to the achievement of sustainable agriculture.
National Institute of Agricultural Research (INIA)	Ascribed to the MPPAPT. It has a staff of researchers in the agricultural area. It will contribute its knowledge through training, research and services for the development and validation of genetic resources.
Social organizations or community councils	The community councils, as community organization bodies, will be linked to the project in activities stipulated in the execution of the project.
NGOs and private companies	Service providers and executors through letters of agreement.
Small and medium producers	Beneficiaries of the actions of the project components. Members of the Project Steering Committee

Project beneficiaries

268. The project will directly benefit 47,283 persons (see paragraph 234, Table 11).

[1] FAO (2015) Environmental and social management. Guidelines

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain) Yes

Beneficiaries and executors of some actions

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assessment.

3. Gender equality and women's empowerment.

269. The actions developed in the gender plan are aimed at reducing the gender gaps identified in the project's area of intervention, which is why it is planned to make visible the importance of the productive activities carried out by women and their participation in the commercialization chains identified. Training, advisory and technical assistance activities will be carried out with a gender perspective, with equal participation by men and women and without discrimination against women. These actions are described in the gender action plan.

270. The Constitution of the Bolivarian Republic of Venezuela (CRBV) [1] stipulates "equality" as a fundamental principle and as a superior value of the national legal system, making reference to the fact that "All persons are equal before the law...no discrimination based on race, sex... shall be allowed... that nullifies or impairs the recognition, enjoyment or exercise under equal conditions". that nullify or impair the recognition, enjoyment or exercise under conditions of equality", it also establishes that "The law shall guarantee the legal and administrative conditions for equality before the law to be real and effective; it shall adopt positive measures in favor of persons or groups that may be discriminated, marginalized or vulnerable", thus establishing compliance with the commitments made in the Universal Declaration of Human Rights, and that the State has special interest and will to comply with the provisions of the CEDAW[2] Convention, which currently has 189 States parties.

271. The national legal system upholds the principles of equality established in the CRBV, the CEDAW Convention and the objectives defined in the Beijing Platform for Action [3] aimed at maintaining and sustaining the bases of gender equality for "the recognition, enjoyment and exercise of human rights and fundamental freedoms" and promoting the empowerment of women for the effective enjoyment of equal opportunities for men and women in the exercise of their rights. In relation to the above, the Third Socialist Plan for the Economic and Social Development of the Nation 2019 - 2025, within its strategic objectives, stipulates the strengthening of the social policy through the strengthening and consolidation of the Bases of Socialist Missions[4] in order to eradicate poverty. In its objective 2.2.1.2, it establishes "incorporating the gender equality perspective in public policies that guarantee women's rights and promote non-discrimination and protection of socially vulnerable groups". At the national level, in addition to the guiding principles established in the CRBV on equality, there is a set of legal norms aimed at the protection of women: The Organic Law on the Right of Women to a Life Free of Violence (Ley Orgánica sobre el Derecho de las Mujeres a una Vida Libre de Violencia)[5], whose objective is to guarantee the eradication of violence against women through the promotion of socio-cultural changes that allow the equal exercise of their rights in access to resources, participation, capacity for action and decision making; The Law for the Protection of Families[6], Maternity and Paternity, whose objective is to develop mechanisms for the protection of the family and to promote respect, equality, solidarity and tolerance within the family.

272. Gender equality as a transversal axis of national policy is promoted by the Ministry of Popular Power for Women and Gender Equality (MinMujer)[7] through the development and implementation of social and women's protection policies, among which the following stand out: the national plans and programs for Humanized Childbirth and Breastfeeding, Soy Mujer, Una Vida Libre de Violencia and Defensoras Comunes, in addition to those implemented by the National Women's Institute (INAMUJER)[8] with the following programs: 0800 mujer, casa de abrigo, centro de atención y formación integral de la mujer

and la patria es una mujer. All these actions address basic and strategic needs through care and attention during pregnancy and breastfeeding, financial support and technical assistance to strengthen productive projects, training, attention and assistance on violence against women and care for women diagnosed with cancer.

Diagnostic findings

273. In general, the project intervention areas are characterized by limitations for both men and women with respect to education, health, work, access to basic services, and opportunities to improve the economic income of the population.

274. The participation of women is quite marked at the community level, since a very high percentage of them are involved in the functions of community political organizations, supervising and controlling the benefits of food, subsidies and pensions of national social policies. In most cases, they represent the sectors and communities where they live before local and national bodies of the executive branch[9].

275. At the household level, women's roles are clearly defined; they are the ones who are dedicated to meeting the basic needs of the household, such as buying food and preparing meals, taking care of the children, cleaning the house, among others; however, sometimes the whole family is involved in these activities. Women's workload is increased by the fact that they are active participants during planting, maintenance, harvesting and post-harvesting of crops, without neglecting the rest of the activities at the community and household level.

276. An important factor to consider in this process is that in all the municipalities the presence of a significant number of women producers was certified. The participation of women stands out in the production of vegetables in family production units. As well as in various agricultural activities for subsistence food production.

277. Some limitations or barriers identified during the information search and collection process are due to the fact that they do not carry updated information with a gender perspective. Therefore, it is necessary for institutions in general to incorporate a gender perspective through institutional capacity building. The main gaps identified in the intervention area are: invisibilization of the role of women in productive activities and low participation of men in agricultural organizations.

278. In order to address gender barriers and gaps, the gender action plan proposes the development of activities focused on training and sensitization of institutional personnel at the local, regional and national levels on gender equality, as well as the strengthening of diagnostic and monitoring units in this area; create training, advisory and technical assistance programs for the production, maintenance and processing of cocoa and coffee, ensuring the equitable participation of women and men; in addition to the promotion of handicraft production of cocoa products and by-products for women and youth, in order to improve livelihoods and promote the scaling up of cocoa and coffee production. See Table 19 in Gender Action Plan.

Gender action plan

279. Taking into account the cross-cutting nature of gender policies at the national level and the requirements of the GEF, the following gender action plan is presented in order to respond to the gaps and barriers identified in the project intervention area, based on territorial management for productive development under improved agricultural practices, the conservation of ABRAEs, the development and improvement of value chains that allow for the scalability of coffee and cocoa products and by-products.

280. The project will incorporate gender issues throughout its cycle, based on the premise that, in addition to ensuring the participation of women (and their organizations) in the spaces generated by the project, it will contribute to their effective empowerment as social actors. The project recognizes the cultural characteristics of the relevant groups and the role of the family in production and income generation, the socioeconomic differences between men and women, and the differences in environmental knowledge in each case. The project has developed a strategy that links the most important gaps identified as parity in decision-making, improvement of women's income and livelihoods, and especially the use of time. In this sense, and in accordance with the gender mainstreaming strategy: (i) each activity was analyzed to include the necessary elements to ensure a reduction of the identified gaps and establish positive actions when necessary, (ii) specific activities have been included directed towards the empowerment of women and youth (in terms of capacities, economic empowerment and access to planning processes, (iii) indicators have been included in each outcome of the Project, to contribute to the measurement of progress in this field, and these will be monitored as part of the M&E system, (iv) budgetary provisions have been included to ensure the measures and actions to be undertaken. Incorporations on these issues have been assessed in the Gender Action Plan.

281. It is important to note that gender has been mainstreamed throughout the project document (PRODOC), including the Results Framework. As already noted in the gender analysis, the proportion of women and men in the direct beneficiaries is 70% men, 30% women. The project will take the following actions in support of gender equality and women's empowerment: i) project participants will receive basic gender sensitization training. This includes all project staff and stakeholders (output 1.1.1), ii) project staff will receive preparation (training of trainers) and then deliver gender sensitization sessions for other groups, iii) a brochure on gender equality will be developed, kept up to date and available throughout the project, iv) Training courses (output 2.1.1) will be gender sensitive in terms of participation, didactic design and use of language, v) in the pilot demonstration action plans for sustainable land management in buffer areas of ABRAEs and farm plans (outputs 1.2.2, 2.1.1 and 2.1.3), vii) documents on lessons learned and good practices, will take into account the participation of women and youth. The process of documenting project learning will ensure that the contributions and roles of women and men in each exercise are recorded (Output 4.1.3), viii) project staff and all actors involved in field activities will ensure that all meetings and events are conducted with equal participation, mutual respect, and collective decision making by women and men. It will also take affirmative action to empower women in meetings, ix) participation in meetings, trainings and other events will be documented using gender disaggregated data. The project monitoring plan incorporates gender specific indicators, number of participants in sensitization events.

Regarding the result areas for gender equality identified by the GEF, while recognizing cultural characteristics and considering the findings from the diagnostic where there is a marked women participation at community level (see paragraph 274), the project will build upon these and actively promote the participation of women in project activities, while also increasing awareness in stakeholders and beneficiaries, not only at the institutional level, but also among local communities. Activities in Outputs 1.1.1. and 1.2.1 of the gender action plan that have a strong focus on training and education aimed to personnel from national institutions and beneficiaries, will include gender equality considerations, highlighting national legal regulations governing women's equality and equity rights and the importance of the inclusion of women in the access and control of resources. This will be complemented by affirmative actions for the participation of women in field activities described in Output 2.2.1. Activities from this output will also promote the empowerment of women and their participation in committees and decision-making bodies created by the project at the local level, while activities from Output 3.1.2, related to technical and financial training in SAF, value chains and markets, will contribute to generate socio-economic benefits for the participating women. Finally, as previously mentioned, activities from Output 4.1.3 are oriented to systematically documents and disseminate successful experiences of gender inclusion and women empowerment, that will also be shared among stakeholder and beneficiaries, further contributing to showcase and raising awareness on the benefits of implementing a project under a gender equality approach. The Gender Specialist and the M&E consultant from the project team will be in charge of keeping a register of sex disaggregated beneficiaries and of analyzing the participation of women according to the project proxy indicators mentioned in the Gender Action Plan and the Results Framework (Annex A of the Agency Project document).

Table 19. Gender action plan

Component 1: Institutional strengthening for land use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities.				
Key findings of the gender analysis				
1. Staff of national and local institutions with little training in gender equality. 2. 2. Institutional deficiencies in providing training, advice and technical assistance to farmers. 3. Local institutions have little updated information on roles, capacity for action and access to resources disaggregated by sex.				
Project activities to address the identified barriers and gaps	Indicators and targets	Chronology	Responsibilities	Logistical and budgetary requirements
Output 1.1.1 Training program in planning, monitoring and evaluation of land management designed and implemented and personnel trained in the 14 selected municipalities of the Andean region.				
Activity 1. Train staff of national, regional and local institutions on the importance of women's reproductive, community and productive roles. Activity 2. Conduct workshops on the SDGs and global and national policies on gender equality, as well as national legal regulations governing women's equality and equity rights. Activity 3. Strengthen units for diagnosis, monitoring, generation of statistics and follow-up on gender equality. Activity 4. Conduct courses on methodologies and tools for the collection of qualitative and quantitative information with a gender perspective. Activity 5. Prepare gender reports through the collection of information in the field on the current status of gender equality at the municipal level by applying methodologies and tools provided, in coordination with MinMujer.	Indicator: Number of people (differentiated by sex) from public institutions and community organizations trained. (Core Indicator 11) Goal: Train 300 employees of local and national public institutions (30% women).	Year 2 to 5	Project team, MINEC, MPPAPT, MinMujer.	<ul style="list-style-type: none"> Personnel specialized in gender. Supplies for trainees: food, notebooks, pencils, pens, pencil sharpeners, among others. Sites where training activities will take place. Technological work equipment: computers, videobeacons. Per diem for specialists
Output 1.2.1 Environmental education program for landscape conservation institutionalized and supported by local organizations to ensure its long-term operation.				
Activity 1. Design of the environmental education program with a gender perspective. Activity 2 Implementation of the environmental education	Indicator: Number of people (disaggregated by sex and age range) in the project area trained in the environmental education program for lands	Year 2 to 5	Project team, MINEC, MPPAPT MinMujer	<ul style="list-style-type: none"> Personnel specialized in gender. Supplies for trainees: food, notebooks, pencils, pens, pencil sharpeners, among others. Sites where training activities

<p>Activity 2. Implementation of the environmental education program</p>	<p>cape conservation. (Core Indicator 11) Target: > 5,000 people (>30% women)</p>			<p>Sites where training activities will take place.</p> <ul style="list-style-type: none"> · Technological work equipment: computers, videobeans. · Per diem for specialists
<p>Component 2: Sustainable increase in productivity of specialty coffee and fine aroma cocoa in line with biodiversity conservation and landscape restoration in the 14 selected municipalities. Key findings of the gender analysis</p> <ol style="list-style-type: none"> 1. Deficiencies in the development and implementation of policies framed in environmental conservation activities with a gender perspective. 2. Invisibilization of the role of women in productive activities. 3. Increased participation of men in agricultural producer organizations. 				
<p>Project activities to address the identified barriers and gaps</p>	<p>Indicators and targets</p>	<p>Chronology</p>	<p>Responsibilities</p>	<p>Logistical and budgetary requirements</p>
<p>Output 2.1.1. Program for capacity building, technical assistance (TA), agricultural extension and field interventions for coffee and cocoa producers with a focus on agroforestry systems, sustainable and community forest management, agroecological production and good agricultural practices formulated and implemented.</p>				
<p>Activity 1. Train, provide advice and technical assistance to small producers for crop maintenance and for the production of species for agroecological agroforestry systems for the recovery of affected and commercial areas. Activity 2. Identify the main items produced in family farming production units and create a training and technical assistance program aimed at increasing the production of strategic items to address extreme poverty. Activity 3. Carry out recovery activities in affected and degraded areas, encouraging the participation of women and young people.</p>	<p>Indicator: Number of producers (disaggregated by sex) served by the extension and TA program that increase coffee and cocoa productivity. (Core Indicator 11) Target: > 4,740 producers (>30% women)</p>	<p>Year 2 to 5</p>	<p>Project team, MINEC, MPPAPT</p>	<p>Resources and inputs:</p> <ul style="list-style-type: none"> · Gender specialist, agroforestry crop management specialists, forestry engineers, agroecology and family farming specialists. · Supplies for trainees: food, notebooks, pencils, pens, pencil sharpeners, among others. · Sites where training activities will take place. · Technological work equipment: computers, videobeans. · Per diem for specialists
<p>Component 3. Strengthening of the sustainable market based on quality improvement and diversification of coffee and cocoa by-products. Key findings of the gender analysis:</p> <ol style="list-style-type: none"> 1. Increased workload for women involved in productive activity. 2. Invisibilization of the role of women in productive activity. 				

3. Greater participation of men in the marketing processes of UPAS products.				
Project activities to address the identified barriers and gaps	Indicators and targets	Chronology	Responsibilities	Logistical and budgetary requirements
Output 3.1.2. Differentiated commercial strategies by market segment, both for coffee and cocoa and for SAF and community forestry products.				
<p>Activity 1. Gender study to promote women's participation in value chains.</p> <p>Activity 2. Train, provide technical and financial advice to women and young people for the processing of SAF and agro-ecological UPAS products.</p> <p>Activity 3. Promote regional or municipal events such as cocoa fairs in municipalities and fairs or meetings of coffee and cocoa farmers from the municipalities involved in the project. Events where the products that are generated, their benefits and advantages are shown and made known.</p> <p>Activity 4. Work on the evaluation of proposals to establish denomination of origin in cocoa and coffee plantations in the project area based on the quality of the products generated, the agricultural practices applied and the social processes involved.</p>	<p>Indicator: Number of women and young people trained in the handling and processing of SAF and agro-ecological products of the UPAS.</p> <p>Target: Train 20 women and young people per year.</p> <p>Indicator: Participation of women and men in activities and events developed to promote the production, processing and marketing of SAF and agro-ecological products of the UPAS.</p> <p>Target: 30% participation of women and young people in the activities.</p>	Year 2 to 5	Project team, MINEC, MP PAPT.	<p>Resources and inputs:</p> <ul style="list-style-type: none"> Gender specialist, a groforestry crop management specialists, forestry engineers, agroecology and family farming specialty value chain specialist. Supplies for trainees: food, notebooks, pencils, pens, pencil sharpeners, among others. Sites where training activities will take place. Technological work equipment: computers, videobeaners. Per diem for specialists
Component 4: Dissemination, Monitoring and Evaluation (M&E) based on gender principles and strategies, adaptive management and delivery of measurable and objectively verifiable results.				
Project activities to address the identified barriers and gaps	Indicators and targets	Chronology	Responsibilities	Logistical and budgetary requirements
Output 4.1.3. Good practices and lessons learned from the project systematized and published.				
<p>Activity 1. Identify and interview women and young people who develop relevant activities within their communities, in order to build life stories that can be disseminated to the p</p>				<ul style="list-style-type: none"> Gender specialist, agrofore

<p>ublic at large.</p> <p>Activity 2. Develop a media plan that will allow for periodic dissemination days at the local, national and international level on all social media platforms, about the role of women and youth in the project.</p> <p>Activity 3. Prepare audiovisuals, posters in social networks that reflect the importance of the role of women and youth in agricultural production and commercial activity.</p> <p>Activity 4. Prepare documents, manuals and guides showing the experience developed throughout the project.</p>	<p>Indicator: Number of documents, newsletters with best practices and lessons learned related to the project systematized and published.</p> <p>Target: At least 4 newsletters and 1 publication.</p>	<p>Year 3 to 5</p>	<p>Project team, MINEC, MPPAPT</p>	<p>stry crop management specialists, forestry engineers, agroecology and family farming specialists.</p> <ul style="list-style-type: none"> · Technological work equipment: Computers, · Per diem for specialists
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[1] Constitución de la República Bolivariana de Venezuela (CRBV) - 1999

[2] Convención sobre la eliminación de todas las formas de discriminación contra la mujer (CEDAW)

[3] Adopted at the Fourth World Conference on Women held in Beijing in 1995. "constitutes an agenda for the empowerment of women...The Beijing Declaration and Platform for Action sets out a series of strategic objectives and actions for the advancement of women and the achievement of gender equality." Retrieved from: <https://www.unwomen.org/es/how-we-work/intergovernmental-support/world-conferences-on-women>

[4] "They are logistical and operational centers built in areas identified with extreme poverty in Venezuela to guarantee health, food, social care and education services." Taken from: <http://www.minec.gob.ve/hace-seis-anos-se-crearon-las-bases-de-misiones-socialistas/>

[5] Official Gazette No. 38,668 of April 23, 2007

[6] Gaceta Oficial N° 38.773 del 20 de septiembre de 2007

[7] "Governing body of public policies, plans, programs and projects of the Venezuelan State, which promotes the participation of women in popular power and guarantees the exercise of their rights and gender equality." Taken from: <http://minmujer.gob.ve/>

[8] "is the State body that executes public policies emanating from the Ministry of Popular Power for Women and Gender Equality (MinMujer), for the permanent defense of women's human rights, in order to propitiate their real and effective access to all spheres of social life in equal opportunities and conditions as men. InaMujer is responsible for the promotion and strengthening of institutional mechanisms at the national level for the defense of women's human rights".

[9] It is important to clarify that these statements are the result of the analysis of the information obtained in the field through surveys and interviews.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

4. Private sector engagement.

282. Currently, it is private companies that have designed and implemented marketing and commercialization programs and practices for the distribution of their products with various actors in the country. The project will seek to establish strategic alliances with the private sector (Table 20) and local initiatives in the project area (Table 21), promoting their participation in the project's areas of intervention, taking into account their important role in the coffee and cocoa value chains. Private stakeholders also participate in the value chain committees developed by ONUDI.

283. The strategic alliances will seek to create synergies in key areas such as i) capacity building to improve the quality of products and by-products throughout the chain, ii) agroecological and agroforestry production, and iii) small producers' access to differentiated markets.

284. Technical committees will be formed in both areas for the different areas of intervention of the project, involving in each case the actors that form part of the chain. Through the project's participation in the coffee and cocoa committees and technical roundtables, alliances with specific private companies will be strengthened to integrate them into the different activities to be carried out by the project in accordance with their areas of expertise and work, and they will participate in training activities and the exchange of experiences on sustainable production, best practices and certification schemes, dissemination of information on sustainable production and other related projects.

285. The project intervention areas are classified as the main coffee producers in the country. Improving quality and productivity will increase the supply of coffee and quality cocoa for specific market niches, as well as for the traditional agroindustry, thus affecting the competitiveness of the sector. In the case of cocoa, there are many processing and manufacturing companies associated with cocoa in the country, as well as several foundations that promote training in techniques for the production of fine chocolate. In the case of coffee, there is currently an interest and boom in specialty coffee in the country, where private enterprise plays an important role in training producers and the agroindustrial sector in the specific techniques and requirements necessary for its production, as well as in marketing and access to niche markets.

286. In both cases, their possible participation is considered in the capacity building activities considered in outputs 2.1 and 3.1 aimed at different actors in the different links of the value chain related to: improving the quality of the raw material and the entire production and post-harvest process, as well as management and marketing. The project will also promote direct linkages between producers and buyers of specialty coffee and fine aroma cocoa produced under agroecological and agroforestry schemes.

Table 20. Private sector companies identified in the coffee and cocoa value chains

Company	Type
Nestlé	Transnational company. Processing and manufacturing exporter. Provides support to producers in production and financing.
Chocolates El Rey	National company, processing and manufacturing of cocoa beans and derivatives. Provides support to producers in production and export aspects.

Chocolates Franc eschi	National company, cocoa marketing and processing.
Cacao San José	National company, processing of intermediate cocoa products.
KKO Real	Company that processes intermediate cocoa products and manufactures final products.
Cavencal	Company processing intermediate cocoa products and manufacturing final products.
Chocolates el Globo	Cocoa intermediate products processing company
Chococao	Cocoa intermediate products processing company
Fundacacao	Supports the Nestlé Cocoa Plan, which is responsible for promoting, fostering, defending, protecting and strengthening the production of native cocoa with an organic approach.
Café Blandin	Company based in Caracas. Currently promoting the sector in Trujillo, being the main production center, the city of Boconó, and Guanare.
Cafés aromáticos	Company that processes specialty coffee on a small scale, located in the project area of the Unda municipality, provides advice to producers.
Café de altura Biscucuy	Small-scale specialty coffee processing company located in the project area in the municipality of Sucre, providing advisory services to producers.
Café Amanecer	Traditional and gourmet coffee processing company
Café Santa Barbara	Traditional and gourmet coffee processing company
Café la Protectora	Traditional and gourmet coffee processing company
Café Della Nona	Traditional and gourmet coffee processing company
Café Nuestro café	Traditional and gourmet coffee processing company

Table 21. Private initiatives found in the project area.

ASOCIACION CIVIL de Productores y Consumidores. Cacao Criollo de Portuguesa
Located in the Ospino municipality, Portuguesa state. Objectives: to strengthen the training-research processes, carry out outreach activities and promote cocoa cultivation, and determine some productive and nutritional indicators. Provide training on crop management to students, technicians and farmers. Promote entrepreneurship to produce chocolates, use of cocoa butter for cosmetics and food.
Gran Cacao Portuguesa
Family business located in the city of Acarigua, which advises farmers in cocoa production, marketing, and preparation of by-products. It applies a triple impact approach (economic, social and environmental) to reduce social and economic inequalities and to improve environmental conditions in cocoa-producing communities in Portuguesa.
Café de Altura Biscucuy C.A.
Company located in Biscucuy, Portuguesa state. It provides advice and training to improve the coffee value chain. It trains professional baristas to promote consumption of specialty coffees.
Cafés Aromáticos Venezuela
Company located in Chabasquen, Portuguese state. It buys and process green beans to produce specialty coffees. Also advise farmers to produce high quality coffee. Its processing machinery was acquired with support of CAF Development Bank of Latin America.
Cooperativa CROCEPORT
Located in the Ospino municipality of the Portuguese state. It was established 40 years ago. It implements a GEF Small Grants Project "Improvement of quality in the coffee production chain, in order to optimize the well-being of the community of Caserío Santa Ana, La Estación Parish, Ospino municipality, Portuguesa state". This cooperative has 100 members and coffee processing equipment (dryers, threshers, and packers) to serve its members and other local producers. It has two coffee brands and has experimented in the production of specialty coffees.
Cooperativa Colinas del Mirador (COLIMIR)
Located in the municipality of Caracciolo Parra Olmedo, Merida state. Produces organic coffee. In 2021 produced 40 metric tons. It is formed by 25 families. Women actively participate in the organization and the production process.
Empresa de Propiedad Social Che Guevara 2021
Formed by 14 communal councils, it is in the Tucaní parish of the Caracciolo Parra y Olmedo municipality. It produces coffee, cocoa, vegetables and small animals like goats and sheep. Cocoa processing is done by women. They process about 400 kg per day of chocolate bars.
Nestlé Cocoa Plan

It has been operating since 2007 to promote cocoa production. Provides technical assistance and knowledge transfer to local producers. In the project area it serves about 1,200 producers of Merida state.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Section A: Project Risks

Risk description	Impact [1]	Probability of occurrence ³	Mitigation actions	Responsible party
Volatility in commodity prices	Moderate	P=3	National and international prices will be monitored regularly. The project will work on internalizing the negative impact on the environment in the cost structure for each raw material (coffee and cocoa) to help convince buyers of the advantages of buying sustainably produced raw materials. After identifying certifying companies, the project plans to seek alternative marketing mechanisms for sustainable products using best available practices. With relevant institutions, the project will explore the establishment of mandatory norms, standards and certifications for producers and buyers to redirect this threat. Platforms for sustainable product supply chains will provide a space for discussion of alternatives and strategies to address potential price variations.	
Insufficient institutional support: government agencies may not effectively support project implementation during the execution period.	Low	P=2	The project has been requested by the National Government, through MINEC in support of its activities at regional and national level in the commitment to the 2030 Agenda with a comprehensive look towards economic, social, environmental, cultural and political development, with the responsibility to guide public policies to the fulfillment of the SDGs and advance in each of them towards the year 2030, in addition to the priorities and recommendations included in the National Strategy for the Conservation of Biological Diversity and the National Action Plan submitted to the United Nations Convention to Combat Desertification and Drought. Agreements and commitments will be promoted among the institutional actors involved in the project.	Project partners (MINEC, MPPAPT, 14 Municipalities)
Lack of interest of institutional actors for inter-sectoral and inter-institutional coordination, based on the landscape	Moderate	P=3	Interinstitutional coordination and cooperation mechanisms among public institutions will be developed and strengthened to address the problems of the Andean region with a comprehensive	Project partners (MINEC, MPPAPT, 14 Municipalities)

pe approach, resulting in a lack of coordination and complementarity, and duplication of roles and responsibilities.			and multiple-use approach. Capacity building of the institutional actors involved in these mechanisms will contribute to improve the dissemination of information among the different actors and levels (national, regional, local) and improve coordination.	ies)
High turnover and changes in government administration considering the project implementation period may cause delays.	Moderate	P=3	In case of significant changes that may affect implementation, the Steering Committee and the Project Technical Coordinator will promote high-level and/or technical meetings and prepare materials to inform and raise awareness on the importance of the project for the sustainable development of the region and the country, as well as related public policies and programs.	CDP
Insufficient adequate funding to sustain post-project activities due to the country's economic situation.	Moderate	P=3	The participating institutions will sign inter-institutional agreements for the coordination and implementation of project interventions that will allow for the sustainability of the project after its completion. The project will promote adequate coordination, at all levels, among all institutions and actors, with a clear definition of roles and responsibilities, as well as channels for decision making.	Project partners (MINEC, MPPAPT, 14 Municipalities)
Lack of interest to participate on the part of producers/producer groups.	Moderate	P=3	The project will support producers in increasing productivity and income from sustainable forest and soil management (component 2). In the case of local organizations, agreements will be signed and presented to the boards of directors of each organization and approved by majority vote. Awareness-raising and capacity building will be promoted so that, to the extent that there is greater knowledge and awareness, producers, leaders and members of the organizations will support the actions, as they are the main stakeholders in ensuring the results of the project, as they will contribute to the sustainability of their livelihoods and food security. As well as, the establishment of outreach, dissemination and capacity building programs, while supporting the integration of producers to sustainable markets. Training activities will focus on demonstrating the added value of sustainable practices and the overall performance of production units or plots. Farmer transition to sustainable systems will be promoted where total production and market improvements appear to be promising, and where possible, under Participatory Guarantee Systems (PGS) to encourage participation.	

Multisectoral work with deficient articulation that does not allow for the alignment of sectoral policies for land management.	Moderate	P=3	Environmental sustainability and land use zoning are considered government priorities. To mitigate this risk, the project scope includes strengthening inter-institutional coordination and local governance structures, based on lessons learned from other projects involving a wide range of stakeholders.	
Market niches for sustainable products are fragile and may not materialize/biodiversity benefits acquired during project implementation or may be compromised.	Moderate	P=3	Improving producer organization, technical capacity and efficiency in the production of biodiversity-friendly goods will help to increase returns, improve livelihoods and maintain (and increase) biodiversity benefits. A holistic and integrated approach is being considered that includes the quality and productivity characteristics of goods and services within the framework of sustainable production systems, which adds value to the product systems.	
Project implementation delays caused by the effects of the COVID-19 pandemic	Moderate	P=3	The project will initiate implementation during 2022 and the World Health Organization forecasts that the pandemic will end this year. However, there are a number of derived circumstances that could hinder project implementation. Therefore, the set of mitigation measures will be executed; these are outlined in Annex O.	Project management unit
Difficulty to materialise the project co-financing	Moderate	P=3	Aggravated pandemic-related circumstances could require that the government focus public spending on key issues like health care, securing food provisions and supporting economic recovery. To address this risk the project management unit will: (i) maintain fluid communication with key project partners to identify difficulties in materialising co-financing, (ii) encourage project partners to maintain as much as possible their contributions to the project, (iii) seek opportunities for collaboration with other ongoing projects and initiatives to obtain contributions that can add to project co-financing.	Project management unit
Impact of climate variability and change in the Andean region.	Moderate	P=2	The project will develop agroclimatic technical roundtables that (i) will integrate key entities, (ii) will inform coffee and cocoa producers and other stakeholders about the expected changes in the region's climate, and (iii) will disseminate successful experiences in climate risk management. The MTAs will prepare and disseminate information bulletins (i.e., agroclimatic forecasts) to contribute to a better management of coffee and cocoa cultivation, increase the ability to analyze a	Project management unit and I NAMEH

			groclimatic information and support decision-making for the development of sustainable production.	
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[1] H: High; M: Moderate; L: Low.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

6.a Institutional arrangements for project implementation.

290. MINEC as the executing entity will have overall technical and execution responsibility for the project, and the Food and Agriculture Organization of the United Nations (FAO) will be the GEF implementing entity (GEF Agency), as described below. The "project" is the project document (PRODOC) approved by the Global Environment Facility (GEF) and signed by the Government of the Bolivarian Republic of Venezuela and FAO. MINEC will act as the main executing entity and will be responsible for the day-to-day management of project results. MINEC is responsible for the timely implementation of the agreed project results, operational oversight of implementation activities, timely reporting and effective use of GEF resources for the intended purposes and in line with FAO and GEF policy requirements. At the request of the government of the Bolivarian Republic of Venezuela, and as documented in the OFP letter of support, FAO will also provide support to execution through the day to day administration of the GEF resources under the programmatic guidance of the MINEC.

291 The project organization chart is shown in Figure 10.

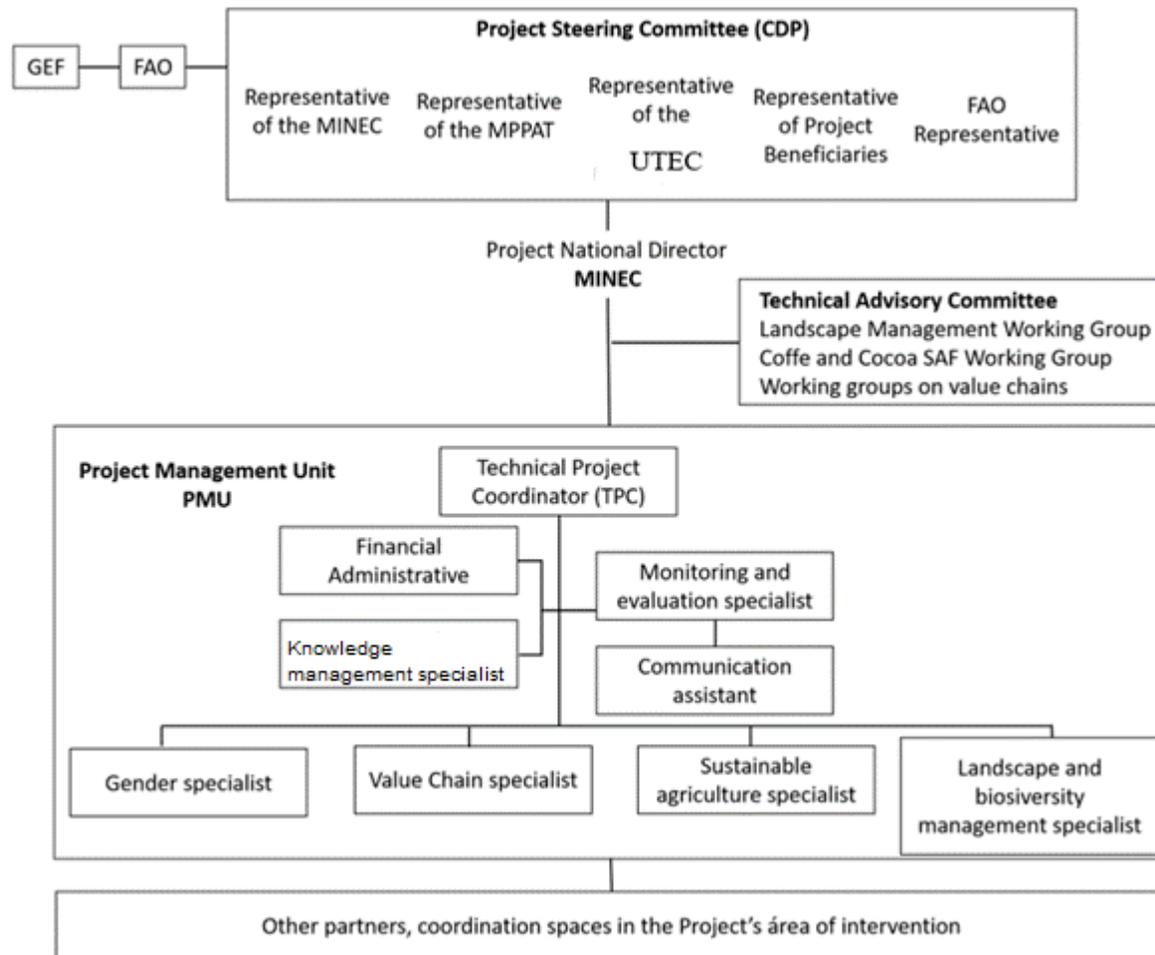


Figure 10. Project organization chart.

Project Steering Committee

292. A Project Steering Committee (PSC, CDP in spanish) will be formed to make strategic decisions for the project, made up of formally designated representatives of MINEC, MPPAPT (and the attached entities already identified), the mayors' offices in the project area, beneficiary producers and the FAO Representative in Venezuela. The PSC is a collegiate advisory council that will be chaired by the MINEC delegate. The main functions of the PSC are:

- a. Provide strategic guidance and definitions for project implementation.
- b. Oversee project implementation and ensure the technical quality of project outcomes and outputs.

- c. Review and agree on the project strategy and methodology, as well as agree on any changes and modifications that may be necessary based on field implementation.
- d. Approve annual work plans and budgets, as well as progress reports.
- e. Review and comment on the mid-term and final evaluation reports of the project, as well as adopt measures to implement the recommendations.
- f. Coordinate and manage through institutional means the timely contribution of the co-financing agreed upon by each institution participating in the project, as well as other sources of financing that contribute to the project's objective and results.
- g. Promote agreements and other forms of collaboration with national and international organizations that contribute to the execution of the project and the achievement of its results.
- h. Convene and organize meetings with the different national, regional and local stakeholders, when appropriate.
- i. If necessary, resolve conflicts related to the project and its proper execution.
- j. Adopt measures and take steps to ensure the sustainability of the project's main products, as well as their scaling up and replication.
- k. Promote the dissemination of the project's lessons and learnings.

293. The PSC shall hold regular meetings at least twice a year. However, if its members deem it necessary, extraordinary meetings may be called. The meetings may be held in person or by electronic means. Whenever possible, face-to-face meetings will be held in the project area. All decisions of the committee shall be made by consensus. At its first meeting, the PSC will agree on its operating procedures.

294. The members of the PSC will be formally designated through a formal note addressed to FAO. The 14 municipalities participating in the project will agree on the person who will represent them on the Project Steering Committee. The same will be done by the producers participating in the project. The persons representing the municipalities and producers will ensure that the PSC takes into account the perspectives and visions of the project beneficiaries.

295. Each PSC member will serve as the project Focal Point in their respective entities or sectors. Therefore, the project will have a focal point in each entity or sector involved. As focal points, the members of the Project Steering Committee:

- i. Technically supervise the project activities related to their entity or sector.
- ii. They will ensure the smooth two-way exchange of information and knowledge between their entity/sector and the project.
- iii. Facilitate coordination and linkage between the project activities and the work plans of their entity/sector.
- iv. Facilitate the provision of co-funding to the project.

National Project Director

296. The Minister of MINEC shall designate an official of the Ministry as the National Project Director (DNP). He/she will be based at MINEC and will be responsible for:

- i. Represent the government in the activities related to the project.

- ii. To be the liaison with FAO, representing MINEC as the main executing agency.
- iii. Coordinate activities with all national entities related to the different components of the project, as well as with the project partners.
- iv. Ensure the implementation of PRODOC and the strategies and decisions of the Project Steering Committee.
- v. Supervise and guide the Project Technical Coordinator (see below) on government policies and priorities.
- vi. Ensure the proper technical and administrative implementation of the project, through monitoring and evaluation of the project work plans, in close coordination with the Project Technical Coordinator.

Technical Advisory Committee

297. The Technical Advisory Committee (CTA) is a forum for inter-institutional coordination and will have an executive body composed of formally appointed technical delegates from MINEC, MPPAPT and FAO, and will be chaired by the National Project Director. At its first meeting, the Technical Advisory Committee will agree on its operating procedures.

298. The main functions of the Technical Advisory Committee are:

- i. Ensure smooth communication and cross-sectoral collaboration among project partners.
- ii. Provide technical guidance to the National Project Director and the project unit to support the achievement of project results.
- iii. Oversee the project's technical working groups.
- iv. Review the annual operational plan and its corresponding budget before they are submitted to the project steering committee for consideration.
- v. Review and comment on the draft Project Implementation Review Report (PIR) before it is submitted to the Project Steering Committee for consideration.
- vi. Evaluate and comment on the Mid-Term Review Report.

299. There will be three technical working groups dealing with (i) landscape management (Output 1), (ii) coffee and cocoa agroforestry systems (Output 2) and (iii) coffee and cocoa value chains (Output 3). The working groups will (i) provide technical inputs and advice for project implementation and (ii) facilitate inter-sectoral coordination. The working groups will bring together delegates formally designated by the project partners.

Project Management Unit

300. A Project Management Unit (PMU) will be established and financed by the GEF grant. The main functions of the project unit, following the guidance and guidelines of the Project Steering Committee (PSC), are to ensure the efficient management, coordination, implementation and monitoring of the project through the effective implementation of the PRODOC and the annual work plan and budget.

301. The PMU will be composed of a Project Technical Coordinator (PTC), five technical specialists, a financial assistant, a communication assistant and a knowledge management specialist:

- i. Project Coordinator,

- ii. specialist in landscape management and biological diversity,
- iii. specialist in sustainable agriculture,
- iv. specialist in value chains,
- v. gender specialist,
- vi. monitoring and evaluation specialist,
- vii. communication assistant,
- viii. financial assistant,
- ix. knowledge management specialist.

At least 50% of the members of the PMU shall be women.

302. The project unit will be located within the project area. The project offices will be located within the project partners' facilities, which will provide space and facilities for the operation of the PMU, as well as the coordination of project actions in the territories, in accordance with the agreed work plans. Terms of reference are provided in Annex M of the Agency Project Document.

Project Technical Coordinator

303. Under the guidance of the National Project Director, the PTC has the authority to direct the day-to-day implementation of the project, as well as to supervise and guide the management, administration and technical quality of the project, on behalf of the main executing entity and within the guidelines established by the PSC.

304. The primary responsibility of the PTC is to ensure that the project produces the outputs specified in the PRODOC, to the required quality standard and within the specified time and cost constraints. This person will support the coordination and supervision of the project and provide technical expertise and guidance within the guidelines established by the Project Steering Committee and FAO.

305. The PTC will inform the PSC and FAO of any delays or difficulties encountered during implementation so that corrective action and appropriate support can be taken.

306. This person will be responsible for, among other things:

Technical functions

- - The PTC will provide advice and will review all technical products developed by the technical consultants, M&E Specialist and regional facilitators, to ensure alignment with project objectives and quality standards.
- - Ensure the integrality and complementarity of the four components of the project during the implementation and compliance with the technical approaches that have been considered in each of its components.
- - Ensure a high level of collaboration between participating institutions and organizations at the national and local levels.
- - Take the necessary steps to facilitate, through agreements and inter-institutional alliances, the development of the project and the fulfillment of its goals.
- - Conduct regular field supervision visits and provide advice to technical staff of implementing partners.

- - Provide technical oversight and guidance to implementing partners for the implementation of project activities. Conduct regular field monitoring visits and provide advice to the technical staff of the implementing partners.
- - Monitor risks in accordance with the risk matrix and ensure the implementation of mitigation measures.
- - Coordinate and carry out M&E activities including: i) periodic M&E visits to project intervention sites, ii) monthly M&E of progress in meeting output and outcome indicators, iii) provide technical and operational support to staff of institutions participating in the project; iv) propose eventual changes in project implementation strategies if necessary.
- - Complete the GEF monitoring tools (BD, LD) at mid-term and at the end of the project.
- - Provide technical guidance and supervision to the PMU and partners for the implementation of project activities. For each component of the project the PTC will have the following technical functions and responsibilities.

Coordination functions

- - Organize and lead the inception workshop, annual project progress review and planning workshops with local stakeholders and implementing partners for the preparation of the annual work plan and budget (AWBP).
- - Coordination and constant communication with implementing partners' staff in charge of project activities; Coordinate the work of consultants hired for project implementation.
- - Prepare Project Progress Reports (PPR) in coordination with project specialists.
- - Support the LTO in the preparation of the annual project review report (PIR).
- - Support MINEC in the preparation of reports on cash and in-kind co-financing provided by co-financiers as well as other partners that were not foreseen in the Project Document.
- - In consultation with the Project Steering Committee, the FAO Evaluation Office, the LTO and the FAO-GEF Coordination Unit, support the organization of the mid-term and final evaluations.
- - Prepare, with the support of the project specialists, terms of reference and technical specifications for contracting services and/or signing letters of agreement for the implementation of project activities.
- Schedule, organize and participate in Steering Committee meetings, acting as Secretary

GEF Agency

307. FAO will be the GEF Agency for the project and will consequently provide project cycle management and support services as set out in the Global Environment Facility's "Project and Program Cycle Policy". In addition, it will have responsibility for oversight and provision of technical advice during project implementation. As the GEF agency, FAO has overall responsibility to the GEF for the delivery of results. FAO's roles and responsibilities are described in Annex K of the Agency Project Document. In order to mitigate the risk of money devaluation, the agency will hold cash balances and disburse when required by the MINEC as Executing Entity, responsible for the achievement of project outcomes and for the adequate use of all resources. As requested by the government in the OFP letter, FAO will provide support administering a portion of the resources, disbursing only when required by MINEC and in line with the work plans and budgets validated by the project Steering Committee. FAO will also engage into Letters of Agreement with national institutions that will be identified during project implementation, following FAO rules and procedures, for the execution of activities that correspond to more than half of the project budget, also under the guidance of the MINEC.

6.b Coordination with other GEF-funded projects and other relevant initiatives.

308. The project is in line with the GEF / FAO project "Sustainable Forest Management and Forest Conservation in Ecosocial Perspective" (# 5410) that seeks to achieve sustainable forest management through innovation in information management, incentives, participatory governance, empowerment of (mainly indigenous) forest-dependent communities and multiple mechanisms for the recovery of forest areas in degradation processes in representative forest ecosystems in Venezuela. The coordination of this initiative will liaise with this project to propose exchange with beneficiaries and project staff on aspects such as approaches to integrated resource management and how to address global environmental threats in productive landscapes, to ensure efficient use of resources and stimulate local community participation in the management of protected areas. Synergies could also be developed to strengthen value chains and markets for forest products.

309. The project is linked to the project "Strengthening the Financial Sustainability and Operational Effectiveness of Venezuela's National Parks System" (#3609) implemented by UNDP, whose objective is to develop the necessary capacities and mechanisms to increase and diversify the financing of the National Parks System. For example, lessons learned from this project on protected area management could be useful for this project.

310. The project will articulate actions with the Value Chain Committees created by UNIDO for the coffee and cocoa items, created within the framework of the project "Promoting the integral development of seven agricultural value chains", which is part of the "UNIDO-Venezuela Country Program", which the Bolivarian Republic of Venezuela has been developing with the United Nations Industrial Development Organization (UNIDO), signed in May 2018. Coordination with these national committees will be aimed at strengthening the coffee and cocoa value chains in the project intervention areas, creating technical roundtables in each of the municipalities with the different actors involved in the chain, including the direct beneficiaries of the project in order to support the actions proposed in the action plans of both chains.

311. The Small Grants Program (SGP) of VEN/SGP/OP6 and 7 will play a key role under this project as a source of practices and lessons learned from its small-scale natural resource management initiatives. Taking advantage of its experience in working with local communities, the SGP will be used as a mechanism for allocating funds with local communities in the target areas as beneficiaries, especially those related to the incubation program for eco-social innovation ventures, which seeks to bring together Venezuelan entrepreneurs with the intention of training them and generating sustainable business opportunities based on biological diversity, especially with the Andean tourism eco-entrepreneurship routes. This coordination will be of fundamental importance for the promotion of sustainable products, as proposed in product 3.1.2. Similarly with projects aimed at the sustainable use of the region's landscapes, agroecological production for food security, the development of biodiversity-friendly practices in coffee and cacao production systems, and the improvement of quality in the coffee and cacao production chain in the communities of the states of Portuguesa, Mérida, Trujillo and Lara.

312. The project will follow the development and seek to use the learnings from the "The Food Systems, Land Use and Restoration (FOLUR) Impact Program" (GEF ID 10201). This program promotes sustainable integrated landscapes and efficient food value chains at global scale. Cocoa and coffee are part of the target production chains.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

Consistency with national policies and strategies

313. The project is consistent with the policy framework applied in the country, specifically those related to the sustainable use and conservation of biological diversity, sustainable forest management, mitigation of climate change due to changes in land use, deforestation and forest degradation, as well as those related to the administration of ABRAEs and agrifood security. It is important to highlight that the Venezuelan regulatory framework for the management of different land uses and the preservation of biological diversity is one of the most robust in South America, but its implementation is deficient mainly due to limited institutional articulation, which favors the loss of biological diversity, ecosystem functions and forest degradation. In this sense, the project aims, first, to strengthen institutional capacities to incorporate the multiple-use landscape approach at different levels of government, through the articulation of national development goals with the objectives of the different municipalities; second, to create coordination capacities at multiple levels to optimize joint planning and coordinated implementation of public policies and interventions in the Andean region; strengthening dialogue and decision-making mechanisms; third, incorporating the landscape approach and environmental sustainability criteria into land use planning and development; strengthening the regional applicability of regulations; and fourth, obtaining knowledge to support sustainable production and landscape management.

314. It is binding with what is established in the Plan for the Homeland 2019-2025, which makes reference in its Historical Objective No. I "To defend, expand and consolidate the most precious asset that we have reconquered after 200 years: national independence", given that the project will take into consideration the following points raised by this plan: achieve food sovereignty to guarantee the sacred right to food of our people; promote agricultural production without agrotoxins, based on native diversity and a harmonious relationship with nature; promote diversified production models, based on family, peasant, urban, peri-urban and indigenous agriculture, which recovers, validates and disseminates traditional and sustainable models of production; and promote sustainable agriculture as a strategic basis for agri-food development. Likewise, it is directly linked to its Historical Objective No. V "To contribute to the preservation of life on the planet and the salvation of the human species", in particular National Objective 5.1 "To build and promote the eco-socialist productive economic model, based on a harmonious relationship between man and nature, which guarantees the rational, optimal and sustainable use and exploitation of natural resources, respecting the processes and cycles of nature"; and its Strategic Objective 5. 1.3 "To generate socio-productive alternatives and new social, economic and financial cooperation schemes for the leverage of ecosocialism and the establishment of fair trade, under the principles of complementarity, cooperation, sovereignty and solidarity. Likewise with National Objective 5.2 "To protect and defend the permanent sovereignty of the State over natural resources for the supreme benefit of our People, who will be its main guarantor", and its Strategic Objective 5.2.1 "To promote actions at the national and international level for the protection, conservation and sustainable management of strategic areas, such as sources and reservoirs of fresh water (surface and subway), watersheds, biological diversity, seas, oceans and forests".

315. In turn, it is linked to the National Program Plan Siembra 2019-2025, which is aimed at boosting national food production, to contribute to the achievement of national agrifood security, the sacred food of the people and the activation of the country's productive apparatus; for this it is contemplated: promote one million conucos until 2025, for the development of 700 thousand hectares; promote the Center for the Recovery of Popular Seed; develop 48 farms for the production of certified seeds for cereals, vegetables, tubers and legumes; develop 1,185 biofactories for the production of bio-inputs, fertilizers and biological controllers; promote 24 farms for the production of fodder plants, for animal food plants. It is also aligned with the Forestry Law, which will support its

implementation by promoting actions and measures to ensure the sustainability of forest ecosystems and their components, giving preponderance to the protection of forests, conservation of water sources and biological diversity, as well as the recovery and increase of forest cover in the national territory, the promotion of multiple-use forestry plantations and agroforestry systems. It is also in line with the principles of the Forestry Policy and will contribute to strengthen it by promoting an effective and efficient forest management model that conserves forests and promotes productive and sustainable forest development; fostering the generation of information on forest ecosystems to conserve and increase global environmental benefits; promoting social inclusion, access and participation of local populations in the benefits of multiple-use forest plantations and agroforestry systems; and developing forest incentives and innovative financial instruments for sustainable agroforestry development.

316. The project is consistent with the United Nations Framework Convention on Climate Change (UNFCCC), whose objectives are: to reduce vulnerability to the effects of climate change by building adaptive capacity and resilience; and to facilitate the integration of climate change adaptation, in a coherent manner, into relevant existing and new policies, programs and activities, into concrete development planning processes and strategies, across all relevant sectors and at different levels as needed. This takes into consideration the information in its section "GHG mitigation opportunities", 6.6 Emission mitigation options for the forestry sector, which in turn is based on chapter 2.6 Land-use change and forestry of the General GHG Emissions Inventory. For this reason, the management of forests in the areas of influence constitutes an action with high "GHG mitigation potential". The implementation of soil and water conservation programs and the "integration of sustainable development principles in the country's policies and programs to reverse the loss of natural resources" are also prioritized as relevant actions.

317. This project will contribute to achieve the following national voluntary LDN targets:

§ By 2030, increase forest cover by 262,361 hectares (0.53 per cent).

§ By 2030, reduce by 50% the incidence of forest fires throughout the country.

§ By 2030, 100,000 hectares of cultivated agricultural land per year are recovered and maintained.

§ By 2030, sustainable land management has been implemented in 50% of shrub and pasture cover.

§ By 2030, naturally regenerate 50% of shrub and pasture cover as forests.

§ By 2030, the integration of the LDN into land use planning has been promoted and supported, particularly within areas with high critical levels of the land degradation process.

§ By 2020, improve coordination between different institutions, civil society, trade unions and encourage participatory mechanisms.

318. Likewise, it is consistent with "The National Action Plan to Combat Desertification (PAN)", specifically with the strategic line 2.4.1 Sustainable development of areas affected by processes that lead to stop desertification and the effects of drought, which identify, among other actions, to stop desertification processes, and the recovery and restoration of degraded areas with special emphasis on basins and sub-basins. On the other hand, the third national report to the United Nations Convention to Combat Desertification (UNCCD) identified as key actions those focused on forest restoration for the generation of synergies with the conventions on biological diversity and climate change. In addition, the project is also consistent with the objectives established in the Land Degradation Neutrality (LDN) commitments.

319. The project is consistent with the Sustainable Development Goals (SDGs), in particular SDG 15: protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity and its targets"; 15.2: by 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally; 15.3: by 2030, combat desertification, restore degraded land and soils, including land affected by desertification, drought and floods, and strive for a land degradation neutral world; 15.5: take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species; and 15.9: by 2020, integrate ecosystem values and biodiversity into national and local planning, development processes, poverty reduction strategies and accounts. As can be seen, the project harmonizes, operationalizes and implements the objectives of both conventions, thus addressing the country's priorities.

320. The project is part of the National Biodiversity Conservation Strategy 2010-2020 and its National Action Plan: Maintaining Globally Significant Biodiversity in Landscapes and Seascapes. The Biodiversity Focal Area, introduces the conservation and sustainable use of biodiversity in productive landscapes, seascapes, and production sectors. Focal Area Land Degradation Target 3, Integrated Landscapes: Reduce pressures on natural resources from competing land uses in broader landscapes and Program 4: Increase sustainable land management through a landscape approach. The project is analogous with the Aichi targets and will contribute to their achievement, particularly in relation to strategic objective B: Reduce direct pressures on biodiversity and promote sustainable use; target 5: by 2020, the rate of loss of all natural habitats, including forests, is at least halved and, where possible, approaching zero, and degradation and fragmentation are significantly reduced; and target 7: by 2020, areas for agriculture, aquaculture and forestry are sustainably managed ensuring biodiversity conservation. Under Strategic Goal D: Enhance benefits for all biodiversity and ecosystem services; target 14: by 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks are enhanced through conservation and restoration, including restoration of at least 15 percent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and combating desertification.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Knowledge management.

329. The project will include knowledge and information management in all its actions, considering its relevance to achieve more efficient and effective project management. To this end, the application of the FAO Knowledge Management Strategy will be ensured. ^[1]

330. The exchange of experiences on best practices and lessons learned, including success stories, will be disseminated through publications. The specific topics to be covered in these publications will be defined during the course of project implementation. All publications will be uploaded into the modules created by the institutions in their information platforms and distributed to local partners and government staff.

331. The guidelines in terms of knowledge management and learning will be set out in a knowledge management strategy to be prepared during the first months of implementation and will include contributions from the partner entities. This strategy will be based on the following principles:

- § The core of the knowledge management system will be the development of systematizations of good practices and successful experiences, all of which are understood in a broad sense that considers not only the practical description of the actions envisaged in the project, but also compiles strategic, methodological and institutional aspects or experiences of achievements in governance, ecosystem dynamics and value creation for the chains identified in each zone.
- § Although it covers all areas of the project, it is in the territorial area where the generation and adaptation of content will be concentrated, as well as the identification of a large part of the target groups (national and local authorities, rural populations, development technicians, etc.).
- § In addition to systematizations, the knowledge management system should promote the dissemination of: i) project contents, objectives and operating rules, as an instrument of transparency in its management; ii) links with national information systems; and iii) training and capacity building opportunities at the national, regional and local levels.
- § The strategy will prioritize digital content in order to maximize its dissemination and facilitate the maintenance of the content in the long term. It will also promote linkages with knowledge dissemination platforms and collective learning centers among cooperation organizations that promote integrated landscape management. The practices implemented will be inserted in the databases on sustainable land management.

332. It is important to mention that FAO is currently developing intervention themes similar to the present proposal in various regional, national and subregional projects in several countries, with which knowledge management can take advantage of processes of thematic deepening and exchange of experiences.

333. Communication and visibility actions will be aligned with FAO's corporate communication strategy and will benefit from the existing experience, knowledge and resources of the communication office. Therefore, the communication strategy and plan will ensure the visibility of all project partners, including the participation of the donor, the implementing agency and key government institutions at central, state and municipal levels, taking into account and complying with the guidelines of the respective corporate communication strategies.

Communication strategy

334. Many of the project activities will address the high visibility of the project, as well as mechanisms to ensure that communications in support of project messages are effective. Component 1 activities involving institutional strengthening will provide significant visibility at the level of authorities and decision makers at different levels (national, regional and local institutions in the project intervention area). Likewise, at the level of the numerous civil society actors

(community organizations, producers' associations, NGOs) with whom the project will interact in the processes of action planning, implementation and monitoring throughout the life of the project. The development of participatory and gender strategies will contribute to improve communication within the project. The workshops foreseen in the component will support the training and sensitization of stakeholders, and the socialization of information and results of the activities undertaken. Information and training materials will support the communication of key project messages, including, among others, environmental governance, integrated multiple landscape management, inter-institutional coordination and collaboration, land use planning and participation.

335. In component 2, the sustainable increase in the production of specialty coffee and fine aroma cocoa in line with the empowerment of women, the preservation of livelihoods, the conservation of biological diversity and the restoration of the landscape in the 14 selected municipalities, allow to give visibility to the project, through the producers and their families that implement coffee and cocoa production systems, with agroecological and PES approaches, and other sustainable production systems, who participate through workshops, the training materials will serve to transmit knowledge and raise awareness among beneficiaries regarding the project's key message for this component. The promotion of productive alternatives that at the same time conserve biological diversity and provide the rural family with healthy food produced and processed in a biodiversity-friendly manner. Participatory processes in addition to training, including demonstration farms, farm management plans, as well as the recovery of degraded agricultural areas in buffer zones will support the dissemination of information and knowledge on the need to conserve biodiversity and productive alternatives compatible with conservation, through the extension program in order to promote the adoption of good practices, agroecology and SAF.

336. Component 3, strengthening the sustainable market based on improving the quality and diversification of coffee and cocoa by-products, establishes various methodologies for participation, communication and dissemination, including a high level of stakeholder participation when analyzing the coffee and cocoa value chains and other sustainable products, as well as dissemination plans aimed at product processors and consumers to encourage them to purchase sustainable products, all of which will contribute to the visibility of the project. Strategic alliances with the private sector will make it possible to expand the information generated through the implementation of the project.

337. Component 4 will contribute to communication and visibility through the systematization of experiences and lessons learned. The project will prepare publications on these experiences and lessons learned. Likewise, the project's website will be hosted on the MINEC web page, where there will be a periodic publication of the project's progress and results for the dissemination of information and exchange of experiences. In addition, the project will ensure mechanisms for maximum dissemination of the documentation generated by the project, particularly the final report, the technical reports and the mid-term review and final evaluation reports.

Lessons from other projects

338. GLORIA-Andes Project (Venezuela). Impacts of climate change on high mountain biological diversity in the Andean region, through long-term observation. Lessons: ecological vision on the conservation of wetlands and water springs in the highlands of the Venezuelan Andes. How vital it is to work together with the communities to plan and execute protection strategies for the ABRAEs. To learn about the biological diversity in the highest areas of the Venezuelan mountains.

339. Andean Forest Network Project (Venezuela). Promote research on the ecology of Andean forests, particularly that which generates useful knowledge for the conservation of these systems, as well as communication among scientists, technicians and decision makers in the Andean region. Lessons: introduction to good conservation practices through reforestation and recovery of forested areas in cloud forests. Conservation actions in the face of forest degradation processes. Community participation and its influence on the conservation of ecosystem goods.

340. Project: Conservation of Biological Diversity in the Productive Landscape of the Venezuelan Andes, Terrandina. Lessons learned: Organizational strengthening process as a basis for the adoption of biodiversity-friendly production systems promoted by the Terrandina project. The implementation of agricultural practices allows the conservation of the environment, such as shade-grown coffee, with low impact on the natural environment.

341. Project: Agricultural Extension Program. PREA. Lessons: Stimulation of capacities in rural families as managers of their own development, in order to achieve their conscious and active participation in the processes of social, economic and technological changes required to improve their living conditions, in the context of a sustainable, competitive agriculture based on equitable relations.

342. Development of Poor Rural Communities Project (CIARA-PRODECOP). Lessons: social, productive and economic organizations, through multi-interest groups and rural funds, promote the improvement of the quality of life and the economy of poor rural families and small producers, by improving their insertion in local development processes, increasing their agricultural income and their socioeconomic conditions. The "citizenship" of tens of thousands of poor rural dwellers. Through training and promotion of community organization, users have "recognized each other", have "grouped together", have "awakened" and have learned to exercise their right as citizens to petition the authorities in an organic and articulated manner. It was carried out in the states of Portuguesa, Trujillo, Mérida and Lara.

343. Global Network Against Food Crises Partnership Programme - Country Investment Venezuela GCP /VEN/017/EC Lessons: Increasing agricultural production and food security with a resilience approach in vulnerable rural communities in the Bolivarian Republic of Venezuela.

Table 23. Knowledge management.

Knowledge Management Activities	Time Period	Costs \$
1. Communications assistant	Continuous	115,500
2. Participation in the design of project communication strategy and dissemination of results and lessons learned	Continuous	Included in the costs of the project coordinator
3. Knowledge Management Specialist	Continuous	115,500
4. Production of technical documents, protocol and maps	Annually	32,000
5. Systematization of best practices and lessons learned	Year 5	49,000
6. Publication of documents for dissemination	Year 5	30,469
Total \$		342,469

[1] FAO's Knowledge Management Strategy

9. Monitoring and Evaluation

Describe the budgeted M and E plan

Monitoring and evaluation.

344. Project results, as outlined in the results framework, will be monitored quarterly, semi-annually and annually, and evaluated periodically during implementation to ensure effective achievement of results. The project monitoring and evaluation plan will also facilitate learning and ensure that knowledge is shared and widely disseminated, thus supporting the extension and replication of project results.

345. Project monitoring and evaluation will be carried out in accordance with established FAO-VE and GEF procedures by the project team. The project M&E plan will be presented and refined at the project inception workshop, including a review of indicators, means of verification, and full definition of project staff and their M&E responsibilities.

Monitoring and evaluation roles and responsibilities

346. The Project Management Unit in the field will be responsible for initiating and organizing key monitoring and evaluation tasks. These include: the project initiation workshop and report, quarterly reports, six-monthly and annual progress and implementation reports, documentation of learning, support and cooperation with independent external evaluation exercises.

347. Performance monitoring and analysis will be carried out through: i) monitoring of project management and implementation according to the work plan (POA), ii) technical monitoring of the scope of project performance indicators, iii) progress supervision missions led by the project coordinator together with the FAO-VE Representation team and the Lead Technical Officer (LTO), iv) mid-term review and final evaluation.

348. The FAO-VE Representation will organize monitoring missions (at least once a year) to the project sites to assess their progress. The missions will be organized by the project coordinator and technical team. The Steering Committee members will participate in the coordination of the missions. The Steering Committee will strategically oversee that project activities achieve results and will be part of the monitoring visits and ongoing reporting on the assessment of project progress.

Monitoring and evaluation plan

349. The project monitoring and evaluation plan includes the following activities:

- a. Inception workshop: the inception workshop will be held within the first three months of project start-up, with the stakeholders involved in the project. An overall objective of the inception workshop is to help the project team understand and take ownership of the project objectives and outcomes. The inception workshop will be used to detail the roles, support services and responsibilities of all stakeholders.
- b. Inception Workshop Report. The FAO-VE representation as the implementing agency will produce an inception report that documents all changes and decisions made during the inception workshop on the project's planned activities, budget, results framework, and any other key aspects of the project. The inception report should be produced within one month after the respective workshop, and will serve as a key input for the timely planning and execution of project start-up and activities.
- c. Establishment of the baseline: in the event that all necessary baseline data has not been collected during the PPG phase, this data will be collected and documented by the relevant project partners within the first year of implementation.

- d. Project results monitoring plan: objective, outcomes, and outputs. A plan was developed for monitoring project results during the PPG phase, including indicators, outcomes and outputs, metrics to be collected for each indicator, methodology for data collection and analysis, baseline information, location of data collection, frequency of data collection, responsible parties, and indicative resources required to complete the plan. Table 24 presents the project results monitoring plan, which completes this M&E component. Monitoring of these indicators throughout the life of the project will be necessary to assess whether the project has successfully achieved its intended results.
- e. Project Steering Committee Meetings. Project Steering Committee (PSC) meetings will be held semi-annually or annually, as appropriate. The committee will meet to review and approve the annual budget and project work plans, analyze situations that arise in implementation and identify solutions, and increase coordination and communication among key project partners. PSC meetings will be monitored and results will be reported appropriately.
- f. Quarterly Progress Reports. The FAO-VE office, as the implementing agency, will submit to MINEC quarterly financial reports including budget tracking and disbursement requests to cover anticipated quarterly expenditures.
- g. Annual Project Implementation Report (PIR) FAO-VE, in its capacity as implementing agency, will prepare an annual PIR to monitor progress made since the start of the project and specifically for the reporting period (July 1 to June 30). The PIR will summarize the annual results and progress of the project. A summary report will be shared with the Project Steering Committee. This report will be validated with MINEC, for subsequent submission to the GEF.
- h. Final Project Report. The executing agency will prepare a final report at the completion of the project.
- i. Learning and Knowledge Generation. Project results will be disseminated within and outside the project intervention area through existing networks and forums for information exchange. The project will identify and participate, as relevant and appropriate, in scientific, political and/or other networks that will benefit the implementation of the project through its lessons learned. The project will identify, analyze and share learnings that could be beneficial for the design and implementation of similar projects in the future. There will be a two-way flow of information between this project and other projects with a similar focus.

Evaluation Provisions

When the project implementation reaches 50%, an external consultancy will carry out the Mid-Term Review (MTR). The BH will organize the MTR in consultation with the PSC, PMU, LTO and the FAO-GEF Coordination Unit. The MTR will be carried out in order to review the progress and effectiveness of the project implementation, in terms of achievement of objectives, outcomes and outputs. The MTR will allow the implementation of corrective actions, if necessary. The MTR will provide a systematic analysis of the information included in the Monitoring Plan (see above), with emphasis on the progress in achieving the targets of the expected outcomes and outputs compared to expenditures. The MTR will refer to the Project Budget and the AWPB approved for years 1 and 2. The MTR will contribute to highlighting replicable good practices and the main problems faced during project execution and will suggest mitigation measures to be discussed by the PSC, LTO and the FAO-GEF Coordination Unit.

The GEF evaluation policy foresees that all medium and large size projects require a separate terminal evaluation. Such evaluation provides: i) accountability on results, processes, and performance; ii) recommendations to improve the sustainability of the results achieved and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project taking into account the “GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects.” FAO Office of Evaluation (OED) will provide technical assistance throughout the evaluation process, via the OED Decentralized Evaluation Support team – in particular, it will also give quality assurance feedback on: selection of the external evaluators, Terms of Reference of the evaluation, draft and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

After the completion of the terminal evaluation, the BH will be responsible to prepare the management response to the evaluation within 4 weeks and share it with national partners, GEF OFP, OED and the FAO-GEF CU.

Table 24. Project monitoring and evaluation plan.

Monitoring and Evaluation Activities	Main Responsible	Time Period	Costs \$
1. Start-up workshop and start-up report	FAO Project Coordinator	Up to three (3) months after signing the Financing Agreement.	5,000
2. Multi-level monitoring of the project (national, regional, local)	PMU	Continuous	M&E Specialist 57,750
3. PPR Report	FAO Project Coordinator	PPR is delivered every six (6) months.	2% of the project coordination time, 10% of the M&E Specialist's time
4. Monitoring visits and progress assessment	FAO Management Committee Steering Committee	At least once per year or as needed	FAO visits will be paid for by the GEF Agency fees. Project coordination visits will be covered by the project travel budget.
5. Independent mid-term evaluation	FAO Project Team	At mid-term of project execution	28,500 for external consulting
6. Final independent evaluation	FAO - Office of Independent Evaluation	Year 4, six (6) months prior to project closing.	28,500 for external consulting
7. Final Report	FAO (FAO Venezuela, LATO, FAO-GEF Coordination Unit, Reporting Unit TCS)	Two months before the end of the project	6,650
Total \$			146,400

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

Benefits.

350. In the intervention area, the project will serve small rural producers and their families, with special attention to women and young people, who are considered among the ranks of poor households and extremely poor households, and will provide them with capacity building through technical assistance services to implement agroforestry systems, sustainable forest management, agroecological production and good agricultural practices for the production of coffee, cocoa and other farm products. The project's actions will also contribute to rehabilitating rural agricultural livelihoods in a stage of recovery from the Covid-19 pandemic and the country's situation. The adoption of agroforestry and agroecological systems, coupled with good agricultural practices, which encompass different cleaner production practices (CPP), will enable the production processes of coffee and cocoa and other crops to improve and rehabilitate agricultural land in the project intervention area, improving crop conditions, maintaining yields and improving food security in the future. In addition, a program of productive alternatives will be established, including: family gardens, medicinal plants, spices, aromatic and ornamental plants for the diversification of food production and marketing of surpluses, as well as food preparation activities (without cooking) and alternatives for cooking food with clean energy.

351. In this way, the sustained agricultural economy and its products will provide locally produced fresh food both for the family and for the local community and local and regional markets, a situation that compensates for the limitations of movement due to quarantine (by Covid19) and at the same time decreases dependence and the need for food from other regions. In this context, small rural producers and their families take on productive work, which generates a fair income, secures their home, which is their place of work while protecting the family, which translates into better prospects for personal development and social integration.

352. In this way, the project supports the four pillars of decent work through: training to improve production and productivity of coffee and cocoa and other items with a sustainable approach, improvement of working conditions in rural areas, associativity with the inclusion of women and youth, diversification of the livelihoods of: women and men small-scale producers, supporting access to markets and value chains, agribusiness for sustainable products, rural participation and governance in land management, protection of forests and value chains and negotiations in local markets.

353. All of the above translates into socioeconomic benefits driven by the implementation of the project in the intervention areas at the local and regional level, producing an impact at the national level.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF

CEO Endorsement/Approval MTR

TE

Medium/Moderate

Medium/Moderate

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Section B: Environmental and social risks of the project.

Classification of Environmental and Social Risks: Moderate risk

287. In compliance with the FAO and GEF environmental and social management guidelines, whose objective is to "Identify, assess and manage the environmental and social risks and impacts of a project, adopt a mitigation hierarchy and promote sustainable agriculture and food systems", an assessment is carried out to identify the potential risks that may be generated by some of the actions to be carried out by the project during the implementation stage and subsequently propose mitigation measures. In order to achieve this, an assessment is carried out to identify the potential risks that may be generated by certain actions to be carried out by the project during the implementation stage and then propose mitigation measures. The result of this analysis will make it possible to classify the project in a risk level: low, medium or high.

288. For this analysis, the FAO's "Environmental and Social (E&S) Project Assessment Checklist" was used to review the environmental standards that the project may influence. The environmental standards or safeguards stipulated in the guidelines are:

ESS 1 Natural resource management

ESS 2 Biodiversity, ecosystems and natural habitats

ESS 3 Plant genetic resources for food and agriculture

ESS 4 Animal - Livestock and Aquatic - Genetic resources for food and agriculture.

ESS 5 Pest and pesticide management.

ESS 6 Involuntary resettlement and displacement.

ESS 7 Decent work

ESS 8 Gender equality

EES 9 Indigenous peoples and cultural heritage

289. According to the results and products designed for each component, the environmental standards or safeguards in which some risks or potential negative impacts may be identified during project implementation, which also require preventive and mitigating measures to reduce the impact, are ESS 2

Biological diversity, ecosystems and natural habitats and ESS 3 Plant genetic resources for agriculture and food. The following table describes the potential risks associated with each safeguard and the measures to be implemented to reduce the potential impact.

Table 22. Environmental and social risks of the project

Social and environmental risks and impacts	Mitigation measures	Implementation and responsibility	Cost	Timeline
ESS 1: Natural resource management				
N/A	<p>The project's strategies include the development of plans, programs, and the creation and promotion of mechanisms focused on integrated land management, which involves the classification of land use types, in conjunction with the relevant authorities, and the promotion and strengthening of sustainable agricultural practices within the intervention area, with an emphasis on PES.</p> <p>In this sense, no potential negative impacts are foreseen in this regard.</p>	Project partners (MINEC, MPPAPT, 14 Municipalities)	Component 2 includes	<i>During project execution</i>
ESS 2: Biodiversity, ecosystems and natural habitats				
Some of the actions to be developed within the project consist of improved management activities to conserve biological diversity and sustainable use in buffer zones of ABRAEs, defined as the borders between these protected areas and zones with other types of uses.	<p>Project actions will only support sustainable agroforestry activities that are already established and delimited in the buffer zones.</p> <p>The competent land management agencies will strengthen the control and protection systems in the areas not yet affected by agricultural activities</p>	Project partners (MINEC, MPPAPT, 14 Municipalities)	Component 1 includes	<i>During project execution</i>

<p>These actions may involve the establishment of plantations with non-local tree or shrub species.</p>	<p>by agricultural activities.</p> <p>The project will develop training plans to encourage the recovery and maintenance of degraded buffer zones and reduce the generation of negative impacts.</p> <p>Forest restoration plans in buffer zones will be based on research on tree and shrub species representative of the local flora.</p>			
<p>ESS 3: Plant genetic resources for food and agriculture</p>				
<p>The incorporation of genetic varieties to improve the productivity of coffee and cocoa production units is being considered. This may involve the transfer of new pests and diseases to the production units.</p>	<p>The project will develop training plans for producers and their families that will contribute to the proper management of crops, including the selection of appropriate varieties of both coffee and cocoa, in order to improve their productivity. These actions will strengthen livelihoods and resilient populations with the capacity to improve their productive units.</p> <p>The incorporation of cocoa or coffee varieties will be carried out under the advice and assistance of the National Institute of Agricultural Research (INIA), the entity in charge of agricultural genetic research in the country and seed certification.</p> <p>Local varieties will be used and genetic conditions will be improved to improve resistance to pests and diseases that develop</p>	<p>Project partners (MINEC, MPPAPT, 14 Municipalities)</p>	<p>Component 2 includes</p>	<p><i>During project execution</i></p>

	in the area.			
ESS 4: Animal - Livestock & Aquatic - Genetic Resources for Food and Agriculture				
N/A	N/A	N/A	N/A	N/A
ESS 5: Pest and pesticide management				
N/A	<p>The project will promote the use of cleaner production practices through biological alternatives for the management and control of crop pests and diseases.</p> <p>The use, promotion, or supply of pesticides or pesticides to producers for crop management will not be considered.</p>	Project partners (MINEC, MPPAPT, 14 Municipalities)	Component 2 includes	<i>During project execution</i>
ESS 6: Involuntary resettlement and displacement				
N/A	N/A	N/A	N/A	N/A
ESS 7: Decent work				
N/A	<p>It will promote the creation of local agribusinesses through the establishment of community nurseries, production of bio-inputs, with the participation of women and young people, thus expanding the sources of family income. As well as tourism ventures: bird watching, agro-ecological routes. Local enterprises of agricultural by-products.</p> <p>The gender action plan establishes specific objectives aimed at promoting the participation and empowerment of women and young people in decent jobs</p>	Project partners (MINEC, MPPAPT, 14 Municipalities)	Component 3 includes	<i>During project execution</i>

	young people in decent jobs.			
ESS 8: Gender equality				
N/A	<p>The project strategies incorporate actions aimed at equal participation, access to resources and capacity for action by women and men.</p> <p>The gender barriers and gaps identified in the project intervention area have strategies and actions aimed at diversifying and improving the livelihoods of women and men, as well as promoting women's participation in productive activities and capacity building. These actions are described in the gender action plan.</p> <p>The project has proposals aimed at the economic strengthening of women and the incorporation of families in the development of activities to reduce the workload.</p>	Socios del proyecto (MINEC, MPPAPT, 14 Alcaldías)	Se incluye todo el proyecto	<i>During project execution</i>
ESS 9: Indigenous peoples and cultural heritage				
N/A	N/A	N/A	N/A	N/A

[1] FAO (2015) Environmental and social management guidelines, Roma.

Upload available ESS supporting documents.

Title	Module	Submitted
GEFID 10678 Annex I1 Environmental and Social Risks 04112022	CEO Endorsement ESS	
GEF10678 ESS checklist	CEO Endorsement ESS	
FAO Climate Screening	Project PIF ESS	
FAO Risk Certification	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Annex A1: Project Results Framework

Results	Indicators	Baseline	Mid-term goal	Goal at the end of the Project	Means of verification	Assumptions	Responsible for data collection
<p>Objective: Reduce and reverse forest degradation in the productive landscapes of the Venezuelan Andean region by creating a favorable environment for biodiversity conservation and sustainable use with emphasis on agroforestry systems.</p>							
<p>Component 1: Institutional strengthening for land use management and inclusive sustainable production and management in multiple-use landscapes and high conservation value forests in the 14 selected municipalities.</p>							
<p>Outcome 1.1: Institutional and community capacities for land management with landscape, environmental sustainability, gender-sensitive and multiple-use approaches strengthened.</p>	<p>1. Area (ha) of landscapes under sustainable land management in productive systems (Core Indicator 4.3)</p>	0	≥ 100,000 ha	≥ 237,000 ha	Quarterly project monitoring reports GIS information	Productive systems are managed under an integrated landscape vision.	Landscape and diversity management specialist and monitoring and evaluation specialist, GIS consultant.
	<p>2. Number of stakeholders^[1] with strengthened capacities for landscape, environmental sustainability, gender-sensitive and multiple-use approaches to land management.</p>	Stakeholders do not have strengthened capacities for landscape, environmental sustainability, gender-sensitive and multiple-use approach.	≥ 10	≥ 15	Quarterly project monitoring reports. Report of training results with identification of participating actors.	The different stakeholders participate in the training plans	Landscape and diversity management specialist and monitoring and evaluation specialist,
<p>Output 1.1.1 Training program in planning, monitoring and evaluation of land management designed and implemented and personnel trained in the 14 selected municipalities of the Andean region.</p>	<p>3. Number of people (disaggregated by sex) from public institutions and community organizations trained. (Contributes to Core Indicator 1¹⁾)</p>	By 2021, the staff of public institutions and community organizations do not have the capacity to integrate biodiversity conservation, multiple-use landscape management, and land degradation reduction.	≥ 150 people (more than 30% women))	≥ 300 persons (más de 30% de women)	Training results report with identification of participating stakeholders.	Trained people are involved in integrated landscape management.	Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist

Output 1.1.2 Coordination mechanisms for integrated landscape and land use management incorporate biodiversity and ecosystem goods with a gender perspective implemented and validated.	4. Average annual percentage increase in the flow of investment [2] directed to integrated landscape management.	By 2021, investment in actions that contribute to integrated landscape management is not discernible. To be estimated in year 1.	≥ 10% Average annual increase in investment flow from the 14 municipalities	> 15% Average annual increase in investment flow of the 14 municipalities	investment flow reports in the annual budgets of public institutions.	Public institutions invest in forest and soil conservation.	Project Coordinator, Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist
	5. Number of coordination mechanisms established for integrated landscape and land use management that incorporate biodiversity and ecosystem goods, with a gender perspective.	By 2021, inter-institutional coordination mechanisms do not include integrated landscape and land use management that incorporates biological diversity and ecosystem goods, with a gender focus.	2 Coordination mechanisms established for integrated landscape and land use management incorporating biological diversity and ecosystem goods, with a gender focus and budget and sources of funding. sources of funding sources consensual	2 Coordination mechanisms in place for integrated landscape and land-use management that incorporate biodiversity and ecosystem assets, with a gender focus (>80%). of compliance with planned actions).	2 Coordination mechanisms in place for integrated landscape and land-use management that incorporate biodiversity and ecosystem assets, with a gender focus (>80%). of compliance with planned actions).	Documents of the mechanisms and their action plans	National, state and municipal institutions are interested in contributing to integrated landscape management.
Output 1.1.3 Land use monitoring and surveillance system in the Venezuelan Andes formulated, implemented and validated.	6. Number of municipalities and government entities in the Andean area using the land use monitoring and surveillance system.	As of 2021, this type of system is not available in municipalities and/or government entities. governmental entities.	≥14 municipalities ≥5 government entities	≥14 municipalities ≥5 government entities	Record of system use. Annual survey of entities using the system.	Andean municipalities and governmental entities manage land use supported by the monitoring and surveillance system.	Project Coordinator, Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist
Outcome 1.2: Increased area (ha) under improved management in the buffer zones of the Areas Under Special Administration Regime (ABRAEs) of the project area.	7. Area (ha) of ABRAEs' buffer areas under improved management [3]. (Core Indicator 4.1)	As of 2021, there are no ABRAEs buffer areas under improved management.	≥150,000 ha	≥300,000 ha	Action plans for sustainable land management in ABRAEs buffer zones. Quarterly progress reports on the action plans. Land use maps. Biannual reports on the execution of action plans.	Local stakeholders are motivated and coordinate actions to implement sustainable land management actions. Institutional and community stakeholders have a sufficient capacity to	Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist

					Plans.	Insufficient capacity to manage.	
	8. Area (ha) of forest land restored in buffer zones of ABRAEs. (Core Indicator 3.2)	By 2021 there are no areas of restored forest land.	≥700 ha	≥1,246 ha	Action plans for sustainable forest management in buffer areas of ABRAEs. Quarterly reports of reforestation actions. Monitoring system reports.	Local stakeholders protect reforested areas. Institutions linked to SFM and SLM support reforestation actions.	Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist
	9. Area (ha) of agricultural land restored in buffer areas outside ABRAEs (Core Indicator 3.1)	As of 2021, there is no data on restored agricultural land.	≥ 2000 ha	≥4,000 ha	Quarterly extension program reports. Land use maps. Monitoring system reports.	Coffee and cocoa products are interested in applying techniques to restore degraded soils.	Landscape and diversity management specialist, sustainable agriculture specialist and monitoring and evaluation specialist.
	10. Metric tons of carbon dioxide equivalent (CO ₂ e) sequestered or emission avoided in the agriculture, forestry, and other land uses (AFOLU) sector. (Core Indicator 6)	To be established at the beginning of the project on the basis of studies carried out.	≥ 350,000 metric tons (CO ₂ e)	≥2.392.849 metric tons (CO ₂ e)	Results of the studies carried out using the EX_ACT tool	Institutions, producers and communities are involved and participate, and invest in the implementation of measures for the protection and sustainable management of forests to avoid CO ₂ e emissions.	Project Coordinator, Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist
Output 1.2.1 Environmental education programme for landscape conservation institutionalized and supported by local organizations ^[4] to ensure its long-term operation.	11. Number of people (disaggregated by sex and age range) in the project area trained in the environmental education program for landscape conservation. (Contributes to Core Indicator 11)	As of 2021 there are no environmental education programs focused on landscape conservation in the project area.	≥ 2,500 persons (>30% women)	≥ 5,000 persons (>30% women)	Records of participants in each event disaggregated by sex, age range and municipality. The records should include name, ID number, sex, age, place of residence and affiliation of each person.	Las personas se motivan a poner en práctica los nuevos conocimientos.	Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist
	12. Number of local organizations implementing environmental education program.	As of 2021 local organizations do not implement environment	≥ 7 organizations	≥ 14 organizations	Report on environmental education programs focused on landscape conservation in the p	Local organizations committed to environmental co	Landscape and Diversity Management Specialist, Monitoring and

		al education programs focused on landscape conservation in the project area.			project area implemented by local organizations.	nservation	Evaluation Specialist and Communication Assistant.
Output 1.2.2 Demonstration pilot management plans for sustainable land management in ABRAEs' buffer zones formulated and implemented in the field.	13. Number of demonstration management plans implemented in coordination with local stakeholders.	As of 2021, there is no data on collaborative local actions for sustainable land management in the buffer areas of the ABRAEs in the project area.	≥7 plans	≥14 plans (at least one in each municipality)	Action plan documents. Quarterly reports on the execution of each action plan.	Local stakeholders are motivated to implement coordinated actions with institutions to conserve land.	Project Coordinator, Landscape and Diversity Management Specialist and Monitoring and Evaluation Specialist
Component 2: Sustainable increase in the productivity of specialty coffee and fine aroma cocoa in line with biodiversity conservation and landscape restoration in the 14 selected municipalities.							
Outcome 2.1 Sustainable, gender-sensitive management practices in productive landscapes, contributing to increased productivity, and establishment of sustainable product supply chains and biodiversity conservation through Agroforestry Systems (SAF).	14. Percentage increase in the average yield per hectare of coffee and cocoa production.	As of 2021, there are no records of average yields per ha of coffee and cocoa under sustainable management[5] schemes and verified in the 1st year of the project.	≥30% increase in average yields per ha of coffee and cocoa production under sustainable management schemes	≥80% average yield per ha of coffee and cocoa production under sustainable management schemes	Quarterly reports of the TA and extension program. Farm plans and production records.	Coffee and cocoa producers apply agricultural practices that conserve biological diversity. Producers receive TA and agricultural extension.	Sustainable Agriculture Specialist and Monitoring and Evaluation Specialist, AT and Extension Staff
	15. Number of producers[6] (disaggregated by sex) implementing farm plans that incorporate biodiversity[7] conservation measures. (Contributes to Core Indicator 11, the total estimated distribution of beneficiaries is presented in Table 11)	As of 2021, in the project area, no producers were identified as using farm plans to incorporate biodiversity conservation measures.	≥2,000 producers (>30% women)	≥4,740 producers (>30% women)	Quarterly extension program reports. Farm plan progress reports.	The producers are convinced of the importance of carrying out ecological connectivity measures with neighboring forests or farms and the conservation of biological diversity.	Sustainable Agriculture Specialist and Monitoring and Evaluation Specialist, AT and Extension Staff
	16. Area (ha) of agricultural land with agroforestry systems, sustainable and community-based forest management	As of 2021, in the project area, there is no information on agricultural land with	≥100.000 ha	≥237.000 ha	Quarterly TA and outreach program reports..	Coffee and cocoa producers apply agricultural practices based on	Sustainable Agriculture Specialist and Monitoring and Evaluation Specialist, AT and

	nt, agroecological production and best practices. (Core Indicator 4.3)	agroforestry systems, sustainable and community forest management, agroecological production and good practices.				agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices.	Extension Staff
Output 2.1.1. Programme for capacity building, technical assistance (TA), agricultural extension and field interventions for coffee and cocoa producers with a focus on agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices formulated and implemented.	17. Number of producers (disaggregated by sex) attended by the extension and TA program that increase coffee and cocoa productivity. (Contributes to Core Indicator 11, the total estimated distribution of beneficiaries is presented in Table 11)	To 2021, the baseline established at the beginning of the project will be used as a starting point.	≥ 2,000 producers (>30% women) Review gender plan to unify criteria	≥ 4,740 producers (>30% women)	Quarterly extension program reports. Farm plan progress reports. Attendance list for extension activities.	Producers receive TA and extension. and apply agricultural practices with focus on agroforestry systems, sustainable and community forest management, agroecological production and good agricultural practices.	Sustainable Agriculture Specialist and Monitoring and Evaluation Specialist, AT and Extension Staff
	18. Area (ha) of land attended by the extension and TA program with agroforestry systems, sustainable and community-based forest management, agroecological production and best practices.	0 ha	≥ 10.000ha	≥ 23.700ha	Quarterly extension program reports. Farm plan progress reports. Attendance list for extension activities.	Coffee and cocoa producers apply agricultural practices based on agroforestry systems, sustainable and community-based forest management, agroecological production and good agricultural practices. Producers receive TA and extension.	Sustainable Agriculture Specialist and Monitoring and Evaluation Specialist, TA and Extension Staff
Output 2.1.2. Agro-climatic technical roundt	19. Number of bulletins issued by MTAs with producer participati	Agroclimatic information for producers in the	≥ 36 bulletins	≥ 60 bulletins	MTA work plans. Agro-climatic bulletin	Public and private actors actively contri	Sustainable agriculture specialist and monitoring

ables (MTA) in operation and supporting producers in the management of agro-climatic information and decision making for the development of sustainable production, based on an adaptive production approach and climate risk mitigation in agriculture.	on.	Andean region will not be prepared and disseminated by 2021.			s. MTA performance evaluation document.	but to the generation, dissemination and use of agroclimatic information.	and evaluation specialist, communication assistant, INAMEH.
Output 2.1.3. Validated ecological strategies aimed at reducing waste in SAF and generating clean energy and technological alternatives that reduce pressure on agroforestry resources.	20. Number of ecological strategies to be implemented	No strategy for 2021	4 strategies	10 strategies	Strategy documents designed and validated.	The strategies are part of the TA and outreach program.	Sustainable Agriculture Specialist and Monitoring and Evaluation Specialist, TA and Extension Staff Gender specialist
	21. Percentage of UPAs served by the extension and TA program that use cleaner production strategies and generation and use of more efficient and forest resource-friendly energy sources.	As of 2021, there is no data on UPAs[8] that use cleaner production strategies and more efficient and forest resource-friendly energy generation and use.	≥ 40 % of UPAs using cleaner production strategies and more efficient and resource-friendly energy generation and use.	≥80% of UPAs using cleaner production alternatives and more efficient and resource-friendly energy generation and use.	Follow-up reports on the implementation of cleaner production alternatives and the generation and use of more efficient and friendly energy with forest resources. Quarterly reports on the extension program. Progress reports on farm plans.	Cleaner production strategies and more efficient and resource-friendly energy generation and use are easy to implement, affordable and responsive to the needs of producers.	Sustainable agriculture specialist and monitoring and evaluation specialist, TA and extension staff. Gender specialist
Component 3: Strengthening of the sustainable market based on quality improvement and diversification of coffee and cocoa by-products.							
Outcome 3.1 Market strategies support the conservation and sustainable use of forest ecosystems and sustainable production in sel	22. Number of producers (disaggregated by sex) served by the extension program that commercialize various produce from coffee and cocoa agroforestry systems. (Contributes to Core Indicator 11. th	By 2021, agroecological coffee and cocoa production is minimal. The market does not distinguish agroecological products.	≥500 producers (30% women) Define the participation of women as producers	≥1,000 producers (30% women)	Quarterly extension program reports.	Buyers and processors recognize and value sustainable coffee and cocoa production.	Value chain specialist, sustainable agriculture specialist

ected municipalities of the Andean region.	the total estimated distribution of beneficiaries is presented in Table 11)		Establish new goal				
	23. Percentage increase in the average volume of sales by type of product and sustainable sub-products ^[9] of coffee and cocoa agroforestry systems.	As of 2021, there is no information on sales of sustainable products from coffee and cocoa agroforestry systems.	≥25% increase over baseline (To be defined in the first year).	≥60% increase over baseline	Quarterly reports. MPPAPT Statistics	Buyers and processors recognize and value sustainable products.	Value Chain Specialist, Sustainable Agriculture Specialist and ONUDI
Output 3.1.1. 24. Municipal technical roundtables for the commercialization of coffee and cocoa value chains are functioning and coordinated with the national platform.	Number of technical roundtables functioning and articulating.	As of 2021, there are no	At least 7 technical tables	14 technical tables	Minutes of the formation of the municipal technical committees	Producers are motivated to participate in the technical and marketing roundtables.	Value Chain Specialist, Sustainable Agriculture Specialist and ONUDI
	25. Number of producers (disaggregated by sex) participating in the municipal technical roundtables for the commercialization of agroforestry products.	By 2021, there are no producers that are part of the technical and marketing roundtables.	At least 21 producers are part of the technical and marketing roundtables of the coffee and cocoa value chains.	At least 42 producers are part of the technical and marketing roundtables of the coffee and cocoa value chains.	Minutes of the technical roundtable meetings List of participants in the technical roundtables	Producers are motivated to participate in the technical and marketing roundtables.	Value Chain Specialist, Sustainable Agriculture Specialist and ONUDI
Output 3.1.2. Differentiated commercial strategies by market segment, both for coffee and cocoa and for SAF and community forestry products]	26. Number of commercial strategies differentiated by market segments for products and by-products. (To be defined in the first year)	As of 2021, there are no reported commercial strategies differentiated by market segments by products and by-products.	≥6 commercial strategies differentiated by market segments by product and by-product	≥14 commercial strategies differentiated by market segment by product and by-product	Market strategies document Market studies specific to coffee and cocoa value chains.	The market is interested in sustainable products and there is an increased demand for them.	Value chain specialist and sustainable agriculture specialist
Output 3.1.3. Commercial alliances established by coffee and cocoa producer organizations with relevant actors in the coffee and cocoa value chains.	27. Number of business alliances established by coffee and cocoa producer organizations with relevant actors in the value chains.	As of 2021, there are no reports of formal commercial alliances.	≥6 commercial alliances	≥12 commercial alliances.	Quarterly project follow-up reports. Commercial alliance documents	Value chain actors are interested in coffee and cocoa SAF products, which facilitates the establishment of partnerships.	Value chain specialist and sustainable agriculture specialist

Component 4: Dissemination, monitoring and evaluation (M&E) based on gender principles and strategies, adaptive management, and delivery of measurable and objectively verifiable results.							
Outcome 4.1 M&E strategy developed for reporting progress and results achieved by the project in the implementation of its work plans under the adaptive management principle, through objectively verifiable indicators and means of verification.	28. Percentage of progress achieved in the implementation of the project.	0%	35-50%	100%	Quarterly progress reports. Operational plans, baseline and monitoring system PIRs PPRs Mid-term evaluation Final evaluation	Project M&E plan and related actions implemented Project implemented	Project team/monitoring and knowledge management specialist
	29. Percentage of implementation of the knowledge management and information exchange strategy.	0	50% of the management strategy is implemented.	100% of the management strategy is implemented.	Knowledge Management and Information Sharing Strategies Document Project management reports	The strategy facilitates the appropriation of knowledge and exchange of information related to the scope of the project.	Project team/monitoring and knowledge management specialist
	30. Percentage of implementation of the communication for development strategy	0	50% of the communication strategy is implemented	100% of the communication strategy is implemented.	Communication Management Strategies for Development Document Project management reports	The strategy facilitates communication for development related to the scope of the project.	Project team/monitoring and knowledge management specialist
Output 4.1.1. M&E system formulated and implemented.	31. M&E system implemented	0	% 100 monitoring system	% 100 monitoring system	M&E reporting of indicators for the three components PIR PPRs	Effective use of the system by the project and other stakeholders to enable timely reporting.	Project team/implementing partners
Output 4.1.2. Mid-term review and final evaluation	32. A mid-term review and a final evaluation	N/A	Medium review	Final evaluation	Mid-term review and end-of-term evaluation reports	Mid-term review and final evaluation completed in accordance with FAO and GEF guidelines on time	Project team/external evaluators
Output 4.1.3. Good practices	33. Number of documents, bulletins with best practices and less	Project starts 2022	At least 4 newsletters and 1 publications	At least 8 newsletters and 3 publications	Newsletters and publications of good practices and lessons learned	The project generates good practices and	Project Team- MINEC-FAO/ Communication assistance

and lessons learned from the project systematized and published.	ons learned related to the project systematized and published.			ons	ed Six-monthly project reports Documents submitted and approved	nd lessons learned	stant
Output 4.1.4. MINEC's institutional website to continuously exchange specific project experiences, serve as a repository of relevant information, make results and progress visible, and facilitate replication processes for the duration of the project and beyond.	34. Project web page accessible from the MINEC web portal with updated information on the project, results, experiences and lessons learned generated by the project.	Project starts 2022	Project web page accessible from the MINEC web portal.	Project web page accessible from the MINEC web portal.	Verification of the functioning of the web page on the MINEC web portal.	MINEC's institutional website is fully operational.	Project Team- MINEC-FAO/ Communication assistant

[1] Referred to public institutions (MINEC, MPPAPT and attached institutions), community and private institutions.

[2] Corresponds to: integrated landscape management, agroforestry systems, sustainable forest management, sustainable land management

[3] Improved management is understood as the application of sustainable land management practices.

[4] They include community councils, NGOs, neighborhood associations, school community, producer organizations.

[5] Current yields in green coffee are 7-20q/ha and cocoa in slurry are 350 to 410kg/ha. A quintal (q) of green coffee weighs 46 kg.

[6] Responsible for the combination of production factors, such as resources: human, land, capital.

[7] Among the measures are: i) maintenance and establishment of borders between plots with different plant species, ii) maintenance and restoration of existing slopes and gullies, iii) creation of forests in unproductive or steep areas, iv) inclusion of a variety of fruit and forest species in the crops.

[8] According to the 2011 agricultural census (MPPAPT), there are 13,439 UPAs growing coffee in Lara, 12,042 UPAs in Portuguesa, 8,961 UPAs in Trujillo, 8,629 UPAs in Mérida and 1,662 UPAs in Barinas. According to the 2008 agricultural census (MPPAPT), there are 7 cocoa farms in Lara, 96 UPAs in Portuguesa, 159 UPAs in Trujillo, 2,669 UPAs in Mérida and 224 UPAs in Barinas.

[9] They can be: honey, musaceae and other fruit trees.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Annex B: Response to Project Revisions.

STAP comments	
Commentary	Agency Response
1. STAP applauds the inclusion of a theory of change (ToC) at this stage, the description of which helps to quickly outline the logic of the proposed project (although this presentation is more of a logical framework and it is difficult to be sure that it was carried out a logical process backwards to design this set of component actions). It would help to clarify the relationship between the different component actions and the intended long-term objectives to add short-term and long-term results in the middle. Without this, it is difficult to consider whether the components are necessary and sufficient to achieve the results, and whether there can be con	An explicit causal analysis was developed and a theory of change was prepared. See the sections "the problem and its causes" and "project strategy".

<p>confidence in the durability of the results after the GEF investment ends.</p>	
<p>2. The proposal notably incorporates gender issues from start to finish, not only in section 3, which also deserves to be applauded. STAP encourages the project team to apply the same rigor in gender mainstreaming during project design and implementation.</p>	<p>A gender action plan was prepared. The actions were mainstreamed throughout the project design.</p>
<p>3. However, during project design, STAP particularly urges proponents to</p> <ul style="list-style-type: none"> (i) improve ToC by establishing the logic of the component activity to the result more clearly, working from the results to ensure that the components are not only necessary but also sufficient to achieve the results, and closely observe the assumptions that are built into the project design; (ii) consider developing a separate ToC specifically aimed at scale and durability; (iii) ensure that the ToC assumptions are formally monitored and evaluated over time to allow them to be known; and (iv) pay more attention to issues that could undermine the durability of the project, includi 	<ul style="list-style-type: none"> i) Figure 7 presents the improved theory of change, adding the logic of the activities in each component, and where the scalability and durability throughout the project are shown. ii) Section "g. Innovativeness, sustainability and potential for scaling up", has the requested separate theory of change, in paragraphs 244-248 "Theory of change for scaling and durability" of the Agency Project Document. iii) This aspect is included in the activities covered by component 4 of the project. iv) Climate change is assessed through climate risk analysis, which is presented in the annex 11. In the case of the population, an increase in the same that may affect the expansion of the agricultural frontier is not contemplated, given that in the update the country presents a migratory process due to the country situation.

<p>ng climate change and the potential for population growth to overwhelm improved management in this region or cause damage from leakage from here to surrounding areas.</p>			
<p>Part I: Project Information B. Indicative Project Description Summary</p>	<p>What STAP looks for</p>	<p>Response</p>	<p>Agency response</p>
<p>Project Objective</p>	<p>Is the objective clearly defined, and consistently related to the problem diagnosis?</p>	<p>Yes; and from the start highlights the need for benefits to the local population as well as GEBs.</p>	<p>The project results framework updated after developing a revised Theory of Change as suggested by STAP</p>
<p>Project components</p>	<p>A brief description of the planned activities. Do these support the project's objectives?</p>	<p>These encompass institutional capacity building; sustainable production practices for coffee and cocoa, market mechanisms to provide incentives for this, and adaptive M&E. Subject to the comment above, these appear necessary to the objectives; it is less clear whether they are strictly sufficient to achieving them, as discussed below (ToC).</p>	
<p>Outcomes</p>	<p>A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits/adaptation benefits?</p>	<p>Yes</p>	
<p></p>	<p>A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits/adaptation benefits?</p>	<p>Plausible; attention needs to be paid to ensuring they are durable</p>	
<p>Outputs</p>	<p>A description of the products and services which are</p>	<p>Plausibly necessary but see following comments on whether they are fully sufficient</p>	

	<p>expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?</p>		
Part II: Project justification	<p>A simple narrative explaining the project's logic, i.e. a theory of change.</p>	<p>We applaud the presentation of a ToC in the PIF, but note that neither the diagram nor the associated text really addresses the question of whether the set of comments is sufficient to achieve the outcomes; we are not confident that a systematic (even if simple) ToC process has been undertaken that works back from the objectives to critically test this (e.g. see STAP ToC Primer: https://www.stapgef.org/theory-change-primer). It would help to do this to provide more insights into whether the components are truly sufficient to achieve the outcomes</p>	<p>A revised ToC was developed during project formulation and the results framework was updated to respond adequately to the problems identified.</p>
1. Project description. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)	<p>Is the problem statement well-defined?</p>	<p>Yes, including noting rising forest loss and fragmentation, loss of traditional production systems' competitiveness, poor regulatory implementation, increasing but poorly controlled accessibility, population growth, rural poverty, as well as climate change. Some of these may present challenges to the durability of project outcomes that should be addressed further (see below).</p>	<p>A separate ToC was developed to identify and address scaling and durability challenges of project outcomes. The ToC is included into section "g. Innovativeness, sustainability and potential for scaling up"</p>
	<p>Are the barriers and threats well described, and substantiated by data and references?</p>	<p>Three barriers are identified – limited institutional capabilities, lack of support to producers who lack knowledge of better practices, and a lack of access to markets that value green practices. Given the pressures of population growth and immigration, it would be good to reflect on whether there are additional barriers to better regional outcomes, such that even if some producers access better returns for their products, others might not continue to damage surrounding areas, resulting in leakage of any achieved GEBs. Also, past examples of certification systems failing when donor funding ends are noted (p.20) – how will this outcome be avoided again?</p>	<p>Regarding barriers, a Causality analysis of biodiversity loss in the Venezuelan Andes was developed and presented in Figure 6 of the Agency project document.</p>
	<p>For multiple focal area projects: does the problem</p>	<p>Yes, clear links between biodiversity and land</p>	<p>Innovative syste</p>

	statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	degradation (and probably other areas). The objective also appropriately emphasizes integration between local and global benefits.	ms for certification will be explored (par 242) and supported by the Venezuelan government through new regulations (par 119 of the Agency Project Document).
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Yes. Table 2 highlights on almost every row that there is limited coordination or networking, which would seem another key barrier to good outcomes: how will this project ensure it does not become another unliked row in the next table like this?	Regarding coordination, the project will work on a coordination mechanism specifically in Output 1.1.2 to overcome the limited coordination identified as a barrier.
	Does it provide a feasible basis for quantifying the project's benefits?	There is little quantification in the baseline section (which mostly focuses on other activities and organisations), but there is relevant material earlier and later (e.g. Table 3) in the proposal. It may be good to collate this succinctly here.	
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Probably	
	For multiple focal area projects:		
	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	Probably, though not in this section	
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	Useful projects identified, but the stated lessons of a lack of coordination among diverse programs should be reflected more in the proposal.	

	how did these lessons inform the design of this project?	Good potential.	
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	<p>It is great that the proposal provides a ToC; however, even in a simple form (which is fine) it needs more detail on how the components add up to lead to desirable outcomes. Whilst the components are plausibly necessary for the outcomes, at present it is hard to see any critical appraisal of whether they are sufficient.</p> <p>In essence, the proposal is that better institutional strength coupled with better awareness and consequent implementation of sustainable practices, with access to green markets for incentives to do this, coupled with M&E will achieve the outcomes. But it is realistic to expect the green market premiums to exceed the drivers of population pressures and poverty? Even if this is so in the short term, what are the prospects of this continuing long-term as population continues to rise and the climate changes?</p> <p>It is useful to have a ToC so as to be able to ask these sorts of questions of the logic.</p>	
	What is the sequence of events (required or expected) that will lead to the desired outcomes?		
	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	As above Some component descriptions contain a worrying number of "we will try to...", "we hope to", "this should..." (others are written more assertively). Where there is genuine uncertainty, this is fine but these should be expressed as assumptions or intentions, and then explicitly monitored to allow adaptive management.	The comments were considered and the expected outcomes and components updated based on them.
		Broadly; but the ToC lacks a critical appraisal of underlying or implicit assumptions in the logic. STAP recommends that the guidelines for ToCs in STAP's Primer are followed more directly to document these assumptions, and to re-assess 'necessary and sufficient'. There is a good emphasis on local engagement, and especially women's empowerment. However, noting COVID, it would be a	The ToC was revised and expanded, and presented in Figure 7 of the Agency Project Document. The text has also been revised and uncertainties mar

	<p>Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?</p>	<p>ment. However, noting COVID, it would be good to know this is more than aspirational – do we know that locals want to make these changes? Will the local communities work together to participate (e.g. para89 “with the participation...”)? Might there be cultural barriers? etc. para106 has a good outline of supporting government officials to allow more co-design of local plans, but will there be bureaucratic cultural barriers to this? Even if there are not, how will the project ensure that its own participants understand genuine co-design (rather than superficial consultation)?</p> <p>There are many other implicit assumptions which it would help to make clear and then target with some monitoring to test whether they hold up as the project unfolds – e.g. do the sustainable practices ultimately deliver better livelihoods, etc.</p>	<p>ked as assumptions.</p> <p>Regarding COVID, an analysis has been included as Annex O, and component 3 will strongly support the involvement of local participants, promoting roundtables for local coordination.</p> <p>At the same time, a separate ToC for scaling and durability has been developed and presented in section “g. Innovativeness, sustainability and potential for scaling up”</p>
	<p>Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?</p>	<p>This would be greatly enhanced by monitoring and evaluation aimed explicitly at testing the assumptions in the ToC (as amended, see above), in order that implementation flexibility can learn as the project proceeds. STAP’s ToC Primer discusses this process of a adaptive MEL. In addition, Component 4, which deals with knowledge management, should be monitoring and marketing the local benefits in ways that resonate with local participants, to develop and maintain their support (or change the project if these are not being generated). Demonstrating value to participants is a key element of the ToC (also needed for scaling and durability) that might be elaborated. In this regard Component 3 is rather light (p.37), and particularly important to make durable beyond the end of the project investment.</p> <p>Component 4 is vital for several aspects, including any scaling, but rather passive (‘project website?’).</p> <p>Here it would help to draft a simple ToC for</p>	

		scaling and ask, what activities in this project would set it up to be more likely to scale afterwards?	
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Plausible, but dependent on having confidence that the barriers above are really the only ones to achieving the outcomes. In addition, might other drivers like climate change and population increases undermine the durability of GEBs achieved? This should be addressed in further design – might climate change undermine the proposed sustainable practices or crop choices? Might population increase overwhelm improved management in this region or cause damage to leak from here to surround areas? Can national policy help avoid these issues?	An analysis of causality was developed during project formulation to strengthen the identification of barriers. Also, an analysis of climate risk is included in Annex 11.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change		
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits/adaptation benefits, and are they measurable?	Yes, and nicely balanced with intended local benefits that are necessary to maintain local support	
Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes, though more compelling if eventually scales out beyond the targeted examples.		
Are the global environmental benefits/adaptation benefits explicitly defined?	Yes		
Are indicators, or methodologies, provided t			Thank you for the

<p>o demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?</p>	<p>MEL needs more development – what might be measured is indicated, but how it will be tracked is not made clear.</p>		<p>Thank you for the comments. No responses required.</p>
<p>What activities will be implemented to increase the project's resilience to climate change?</p>	<p>The climate risk screen describes a number of interventions that will focus on strengthening the climate resilience of cocoa and coffee production. The project also aims to develop land use plans based on climate assessments that draw from the national meteorological services, and research institutions</p>		
<p>7) innovative, sustainability and potential for scaling-up</p>	<p>Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?</p>	<p>Not in a global sense, but in context possibly. However, greater attention should be paid to durability and scaling in the ToC process (see below), and to whether there are other barriers such as cultural norms, that might impede scaling.</p>	
<p>Is there a clearly-articulated vision of how the innovation will be scaled-up, for e</p>	<p>Long-term this project will only have a small impact on GEBs unless it is both durable and scaled; the current section on scaling is thin and wishful, mostly based on a dissemination push model. STAP strongly recommends that more attention be paid now to potential means of scaling (various other mechanisms could be posited, so me</p>		<p>A separate ToC for scaling and durability was developed as proposed, and componen</p>

<p>example, over time, across geographies, among institutional actors?</p>	<p>of which may benefit from preparatory actions during the initial project); ideally STAP suggests a separate ToC be developed for this possible eventual phase, so that the ToC for this project can be informed by what might be needed to make scaling more feasible later. (STAP's guide on Durability and its ToC Primer provide more advice on these issues.)</p>		<p>t 3 expanded during project formulation.</p>
	<p>Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?</p>	<p>With scaling, transformational impact is possible, but attention is needed to how this might occur. In particular, Component 3 is currently the main hope for creating enduring financial incentives for better management, but it is the least developed and convincing part of the proposal.</p>	
<p>1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place</p>		<p>ok</p>	<p>No responses required.</p>
<p>3. Gender Equality and Women's Empowerment. Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include</p>			

<p>project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/tbd.</p> <p>If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision making; and/or economic benefits or services. Will the project's results framework or logical framework include gender sensitive indicators? Yes/no/tbd</p>	<p>Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?</p>	<p>As noted, it is good that gender issues are embedded credibly throughout the proposal, as well as summarized here</p>	<p>A gender analysis and action plan were developed during project formulation.</p>
	<p>Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?</p>	<p>An analysis of this is proposed, and should be progressed very early.</p>	
		<p>Overall the risks seem reasonably comprehensive, except that project durability depends on indefinite adequate financing which is marked as a Low risk, when it would seem in fact High. The climate risk screening provides good information on how the project aims to strengthen land use planning by</p>	<p>The risks were revised during project formulation considering STAP comments. Regarding the use of climate data by st</p>

<p>5. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design</p>	<p>Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control? Are there social and environmental risks which could affect the project? For climate risk, and climate resilience measures: • How will the project's objectives or outputs be affected by climate risks over the period 2020 to propose measures that address these risks to be further developed during the project design</p>	<p>...relying on climate assessment expertise in the Andes. Additionally, the project will use climate data and information to inform and implement its interventions. However, as currently written, component 1 (and the description of the climate risk screening) assumes that stakeholders will use the climate data and information for developing and implementing climate resilient plans. STAP suggests considering the factors that will enable stakeholders to use the climate modelling knowledge. These enabling conditions include supportive institutions, building agency while capacity is being built, and remaining cognizant of the various social structures (e.g. gender, culture, norms, values) that influence how individuals may process and use the climate information and data. The project team may find the following paper on the use of climate information useful: https://doi.org/10.1016/j.crm.2020.100242 Additionally, it would help to have an open appraisal of what processes will be put in place to ensure that villagers are not encouraged to adopt practices or livelihoods that subsequently become maladaptive due to climate change (or indeed any other trends in drivers, e.g. population)</p>	<p>...stakeholders, the project will promote agroclimatic technical roundtables, with the participation of local stakeholders and technical experts that help to understand climate data and plan agriculture activities accordingly. The project will also work with roundtables with stakeholders to improve the cooperation between producers.</p>
<p>6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives</p>	<p>Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?</p>		
	<p>Is there adequate recognition of previous projects and the learning derived from them?</p>	<p>Yes, but developing coordination beyond just GEF supported activities would seem desirable.</p>	<p>The comment was considered and a coordination mechanism has been</p>
	<p>Have specific lessons learned</p>		

	<p>learned from previous projects been cited?</p>		<p>en included that goes beyond just GEF supported activities.</p>
	<p>How have these lessons informed the project's formulation?</p>		
	<p>Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?</p>		
<p>8. Knowledge management. Outline the "Knowledge Management Approach" for the project, and how it will contribute to the project's overall impact, including plans to learn from relevant projects, initiatives and evaluations.</p>	<p>What overall approach will be taken, and what knowledge management indicators and metrics will be used?</p>		<p>A separate ToC for scaling and durability was developed as suggested.</p>
	<p>What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?</p>	<p>This seems to be mainly congruent with Component 4, and as noted above is unimaginative nor obviously tailored to the context. STAP would suggest that a scaling ToC would include more active engagement of other regions in visits to/observing the successes here, to develop champions for scaling during the course of this project, etc. Tracking and demonstrating the livelihood benefits and the success of other incentives would be other examples of explicit actions more likely to create fertile ground for scaling out.</p>	

<p>GEF Council Comments</p>	
<p>Comments from Canada The focus on agroforestry is important and we are pleased to see it included. Furthermore, focusing on the sustainable production of commodities such as c</p>	<p>Thank you for the comment. No answer is required.</p>

<p>cocoa in terms of reducing deforestation is critical to trying to reduce deforestation rates in Venezuela.</p>	
<p>Comments from France Regarding the GEF ID 10678 project in Venezuela: while we recognize the importance of sustainable cocoa and coffee production, we are concerned about the governance standards observed in this country, especially with regard to international aid. That is why we insist that this project be subject to rigorous monitoring of the use of the funds allocated.</p>	<p>The project will be monitored as established in the Monitoring and Evaluation Section, paragraphs 344-349 of the Agency Project Document. FAO, in its role of implementing agency, will also ensure a rigorous monitoring in the use of the funds.</p>
<p>Comments from Germany Germany welcomes the well thought out proposal and, in particular, the significant government support, and commends the inclusion of various government agencies and programs that the proposed project seeks to strengthen. However, there are some sections that would require strengthening. Germany requests that the following requirements be taken into account during the design of the final project proposal:</p>	<p>Thank you for the comment, which is appreciated.</p>
<p>1. Germany requests to review the project components for more details on how local communities and drivers of degradation are being addressed. The program lists a variety of activities, but seems quite generic in several respects, without a specific focus derived from the circumstances in the program area / selected communities. For example, it is not clear how Component 3 could realistically create a price premium for sustainability or establish co-investment schemes in the current difficult political and economic circumstances. Linking it to established supply chains would be an even bigger challenge (see private sector engagement).</p>	<p>The results framework was adjusted to be more precise in the intervention. The articulation with the local communities will be done at various levels. On the one hand, public-community collaboration mechanisms will be developed as a basis for executing various actions such as comprehensive landscape planning and interventions to manage the buffer zones of the ABRAES (see theory of change in PRODOC). On the other hand, the Community Councils will be mobilized to act to conserve natural environments. These councils are present in all the communities in the intervention area. They are grassroots organizations "social groups" created to "directly exercise the management of public policies and projects aimed at responding to the needs and aspirations of communities" in order to build a "society of equity and social justice", according to the Venezuelan legislation (protected by the Organic Law of Community Councils, Official Gazette 39,335 of December 28, 2009). Finally, it will work directly with small farmers and their organizations. With regard to obtaining a price premium for sustainable products, work will be done on improving quality and promoting that these products are differentiated within the market. At the beginning of the project, a market study will be prepared to identify niches for specialty coffees and cocoas. The results of the study will be analyzed in the municipal technical tables and the Andean committee of the value chain of coffee and cocoa (product 3.1.2) to generate proposals for product differences.</p>

	<p>duct 3.1.2) to generate proposals for product differences.</p> <p>Regarding quality, the project will work with public and private buyers to establish the quality standards they require for their market niches and then the extension program will promote the improvement of cultivation, harvesting and postharvest activities.</p> <p>Regarding differentiation in the market, it will work with the entities in charge of regulating and financing the agricultural sector and with public and private buyers to promote the adoption of instruments and mechanisms to differentiate agroforestry and agroecological products in the markets. At the national level, it will work with the Corporación Venezolana del Café S.A. and the Corporación Socialista del Cacao Venezolano S.A. to achieve differentiation for coffee and cocoa, and with the National Institute for Agricultural Research to issue technological benchmarks for agroecological and agroforestry production.</p> <p>The project will strengthen the links between the links in the coffee and cocoa value chains (products 3.1.1 to 3.1.3), articulating with the national initiative developed by UNIDO</p>
<p>2. Given the emergency, it is unrealistic that the project can address the food shortages induced by the COVID-19 pandemic. The project plans to develop a training program and implementation of home gardens with the aim of producing different nutritious foods to meet the needs of the home. However, local risks and circumstances are not sufficiently addressed.</p>	<p>Mobility restrictions have limited travel to urban centers to sell products and purchase inputs, goods and services. However, at the local level, exchange mechanisms (barter) have been developed to commercialize agricultural products and basic foods. The agricultural extension program will promote the installation of family gardens on the farms to promote the production of various foods (products 2.1.1 and 2.1.6). Production on the farms will be based on agroecological schemes, taking advantage of inputs such as plants and plant and animal remains to produce biofertilizers and natural biocides. In addition, knowledge will be provided for the preservation of food and the use of alternative cooking methods (e.g., solar ovens and improved cookers).</p>
<p>3. Section 7 - Innovation: As attempts have been made in several countries to improve sustainability and productivity in small-scale coffee and cocoa farming, it is not clear how exactly this qualifies as an "innovative approach". We request to further detail the additionality and innovation of the projects, as well as to participate in similar projects in the region to take advantage of the existing knowledge.</p>	<p>PRODOC better details the innovation elements of the project. What is innovative for small farmers will be to introduce agroforestry and agroecological production practices (e.g., bioles, natural biocides) and landscape management tools for biodiversity conservation (e.g., enrichment of cocoa shade) on their farms. It will take advantage of national and international experience on sustainable coffee and cocoa production.</p>
<p>4. Private sector participation: Since coffee and cocoa value chains are important components, the projects lack details on how productive participation can be achieved. Premiums or access to export markets require direct links with the private sector and the identification of potential partners. We request to re-develop this section and provide a detailed</p>	<p>The project will promote the link between producers and the other links in the value chains (outcome 3). It will take advantage of the interest of companies to take advantage of the growing demand for specialty coffees and cocoas. During project preparation, potential private partners were identified. The incorporation of the private sector in the project was also required.</p>

<p>plan for private sector engagement.</p>	
<p>5. The risk assessment does not reflect the difficult political and economic circumstances in Venezuela - risk ratings should make a clearer reference to the political context and detail both mitigation measures and possible consequences.</p>	<p>The risk analysis (Section 5) for the project was reviewed and expanded during project formulation, addressing possible impacts from political and economic circumstances. The Venezuelan State, given the political and economic situation, is implementing a series of actions, aimed at low-income and vulnerable populations, through programs and missions, for example: CLAP, Negra Hipólita, and entities such as CVC and CSCV support small coffee and cocoa producers through the delivery of inputs and technical assistance.</p>
<p>Comments from Japan The below comments from Japan were provided prior to the Council meeting. An initial agency response was provided and can be found in the list of documents specific to the project in the GEF Portal.</p> <p>Tropical forest-related programs (GEF ID #10726, 10689, 10678, 10718, 10688) We welcome these important programs related to tropical forests, especially with regard to productive forest supply chains and landscape restoration, which are issues that require urgent global attention. We support a rigorous data-driven approach in this field, and we wonder if the focal agency on supply chain / forest-related trade issues within the CPF and the main data provider for FAO's tropical forests is involved, that is, the International Tropical Timber Organization (we only see the TFA mentioned). To better align with an inclusive multi-stakeholder approach, we enlist the involvement of specialized organizations / platforms like these with relevant global data, experience and networks to ensure efficient and effective approaches for relevant stakeholders and to reduce duplication of efforts on the global stage. The organization also has relevant indicators and guidelines on legal and sustainable supply chains and forest landscape restoration related to tropical forests, which can help assess and measure the impact of relevant projects</p>	<p>Thank you for the comment. The project will focus on conserving the existing natural vegetation cover and recovering degraded areas. No forestry work is foreseen. However, if relevant, contact will be made with the International Tropical Timber Organization</p>
<p>Comments from the United States of A</p>	<p>Risks of political and institutional nature have been considered into section</p>

<p>merica</p> <p>1. While we believe this project would have a significant and positive regional impact, the current political instability is likely to hamper successful implementation.</p>	<p>5 of the project.</p>
<p>2. The proposed Theory of Change includes several components and a general objective. It would be useful to see short-term and long-term results to help better define the trajectory of the project.</p>	<p>Figure 7 and 7a are included where the theory of change is detailed, adding the logic of the activities in each component, and where the scalability and durability throughout the project are shown.</p>
<p>The proposal focuses on supporting farmers motivated by better economic conditions driven by better ecological and environmental agricultural practices. One of the greatest risks to the success of the program is the volatile nature of the commodity market. We are concerned about the level of risk this component represents and would like to see additional information on mitigation strategies</p>	<p>Agreed that the volatility of coffee and cocoa prices is a significant risk. The project will seek to articulate sustainable coffee and cocoa production with the growing demand for specialty coffees and cocoas. For this, work will be done on improving the quality of farm production and strengthening the relationship between the links in the value chains.</p> <p>Components 2 and 3 of the project will promote: the associativity of producers to produce ecological and zero deforestation products so that they have a differential price and/or a stable price and a secure market, supported by an outreach campaign aimed at consumers and processors that encourages the consumption of this type of products will open up a range of possibilities to introduce these products to a differential market. Also included is support for producers in adding value to products at different levels of the chain to obtain better income from sales.</p>

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

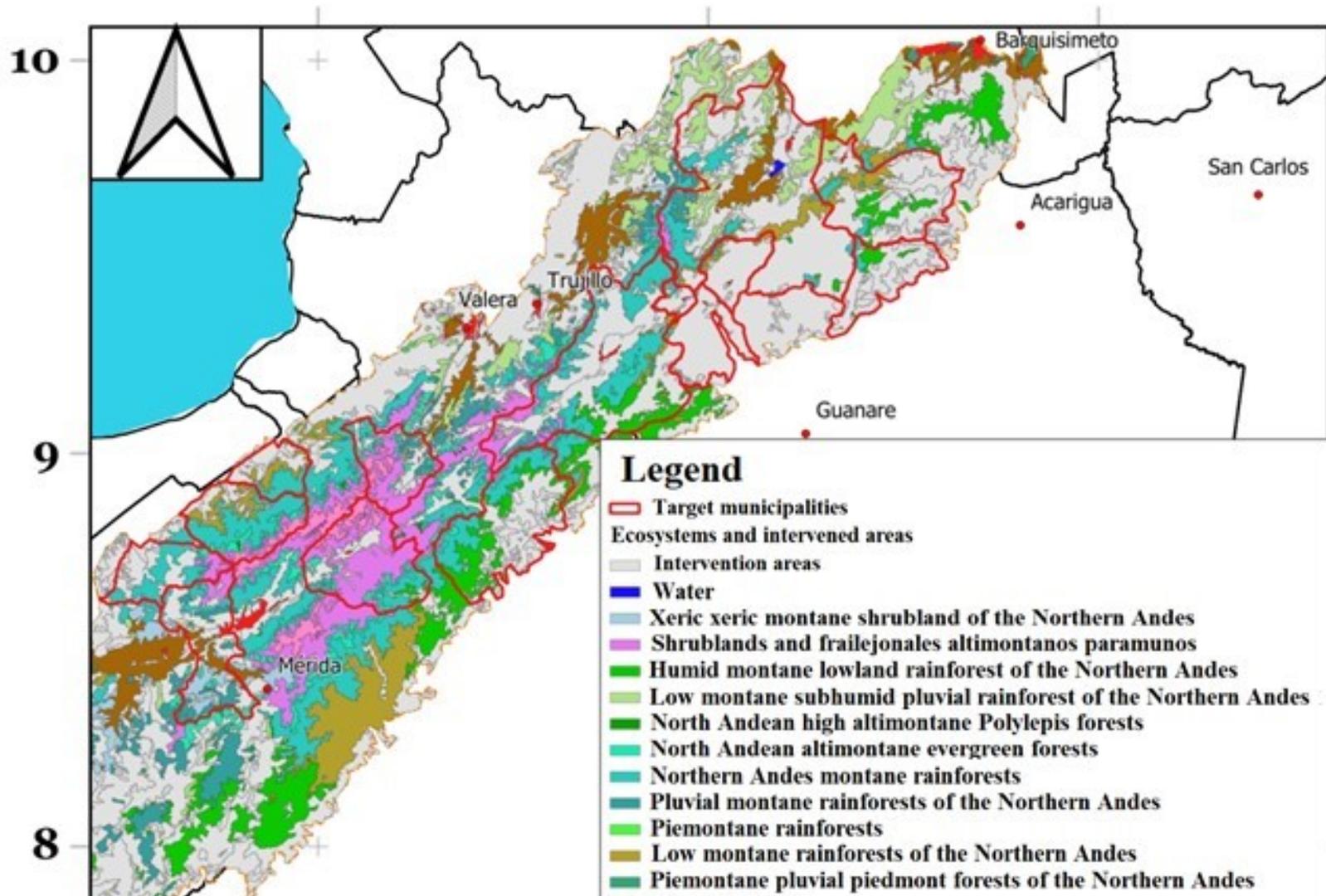
<p>PPG approved: (\$) 150,000</p>			
<p><i>Project preparation activities implemented</i></p>	<p><i>Amounts GETF/LDCF/SCCF (\$)</i></p>		
	<p><i>Budgeted Amount</i></p>	<p><i>Amount spent to date</i></p>	<p><i>Committed Amount</i></p>
<p>5570 Consultants</p>			
<p>National consultants</p>			

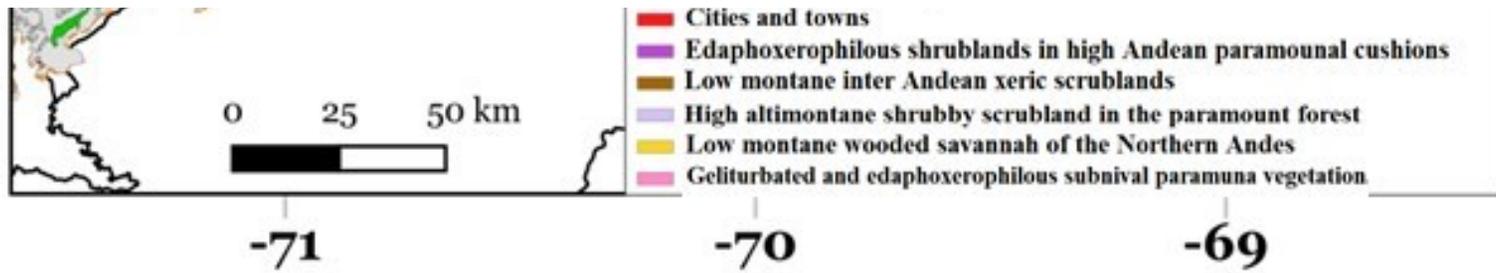
PPG Coordinator	20,240.00	20,240.00	9,000.00
Specialist in socio-environmental and gender analysis	6,000.00	6,000.00	0
Biodiversity Specialist	12,800.00	12,800.00	0
Agroforestry Systems Specialist with an emphasis on coffee and cocoa production	12,800.00	12,800.00	1,957.00
Value chain specialist	12,800.00	12,800.00	0
Expert in Geographic Information System	6,000.00	6,000.00	0
Management and monitoring assistant	19,360.00	19,360.00	8,280.00
Translator	3,000.00	0	0
ICRU-IT	3,800.00	3,030.00	0
Subtotal National Consultants	96,800.00	93,030.00	19,237.00
International Consultants			
Senior Expert in Project Design (GEF)	24,000.00	16,000.00	0.00
Expert in Neutral Land Degradation	4,000.00	4,000.00	0.00
Subtotal International Consultants	28,000.00	20,000.00	0.00
5900 Travel			
National/local travel	14,830.00	10,661.00	0.00
Subtotal Travel	14,830.00	10,661.00	0.00
5023 Training			
Launch Workshop and Socialization of Design with Actors	4,500.00	4,746.73	0,00
Logical Framework Workshop / final agreement	5,870.00	1,679.27	0,00
Subtotal Training	10,370.00	6,426.00	0,00
5024 Expendable			
Office material and biosecurity material	0.00	646.00	0.00
Subtotal Expendable	0.00	646.00	0.00
TOTAL BUDGET REVISION - PPG	150,000.00	130,763.00	19,237.00

If at CEO endorsement, PPG activities have not been completed and there is an unspent fund balance, agencies may continue to conduct readiness activities exclusively (including workshops and baseline completion, where necessary) for up to one year from the CEO endorsement/approval date. No later than one year from the CEO endorsement / approval date. Agencies must report PPG closure to the Trustee in their Quarterly Report.

ANNEX D: Project Map(s) and Coordinates

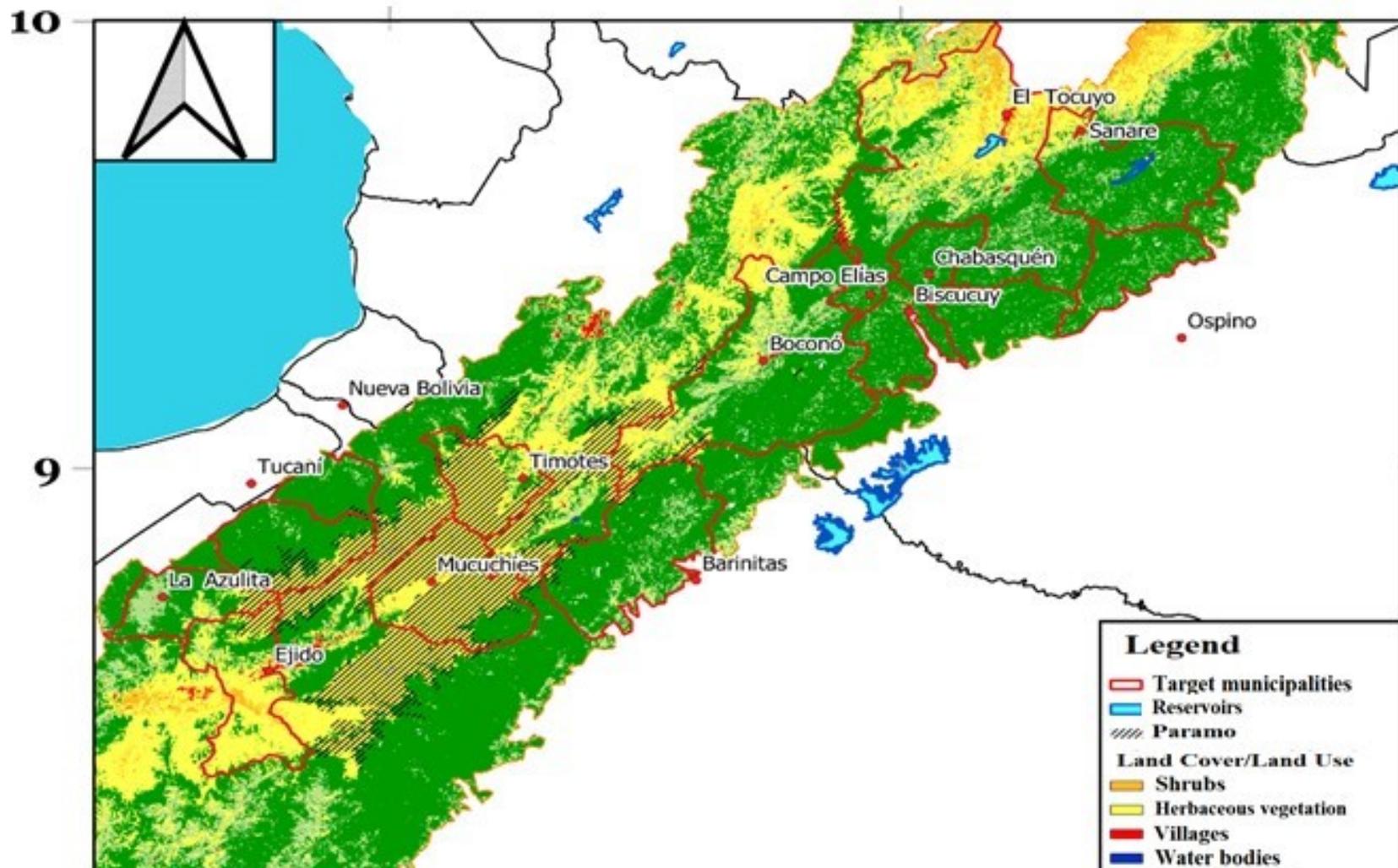
Please attach the geographical location of the project area, if possible.





Source: Chacón-Moreno et al., (2013). Landsat images, resolution 30 m x 30 m and control points.

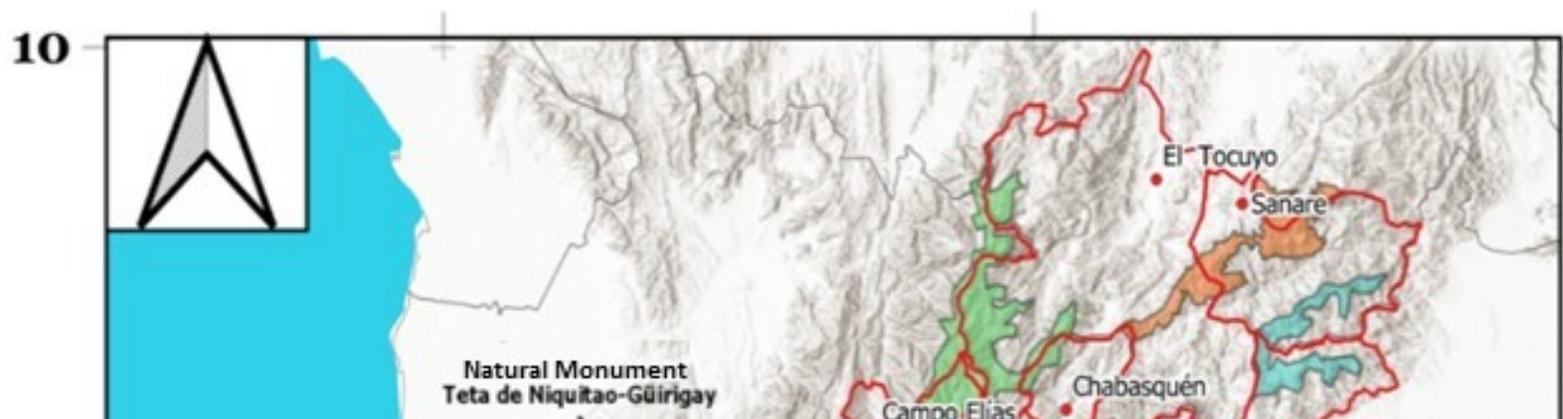
Map 1. Ecosystems and intervened zones in the project area.

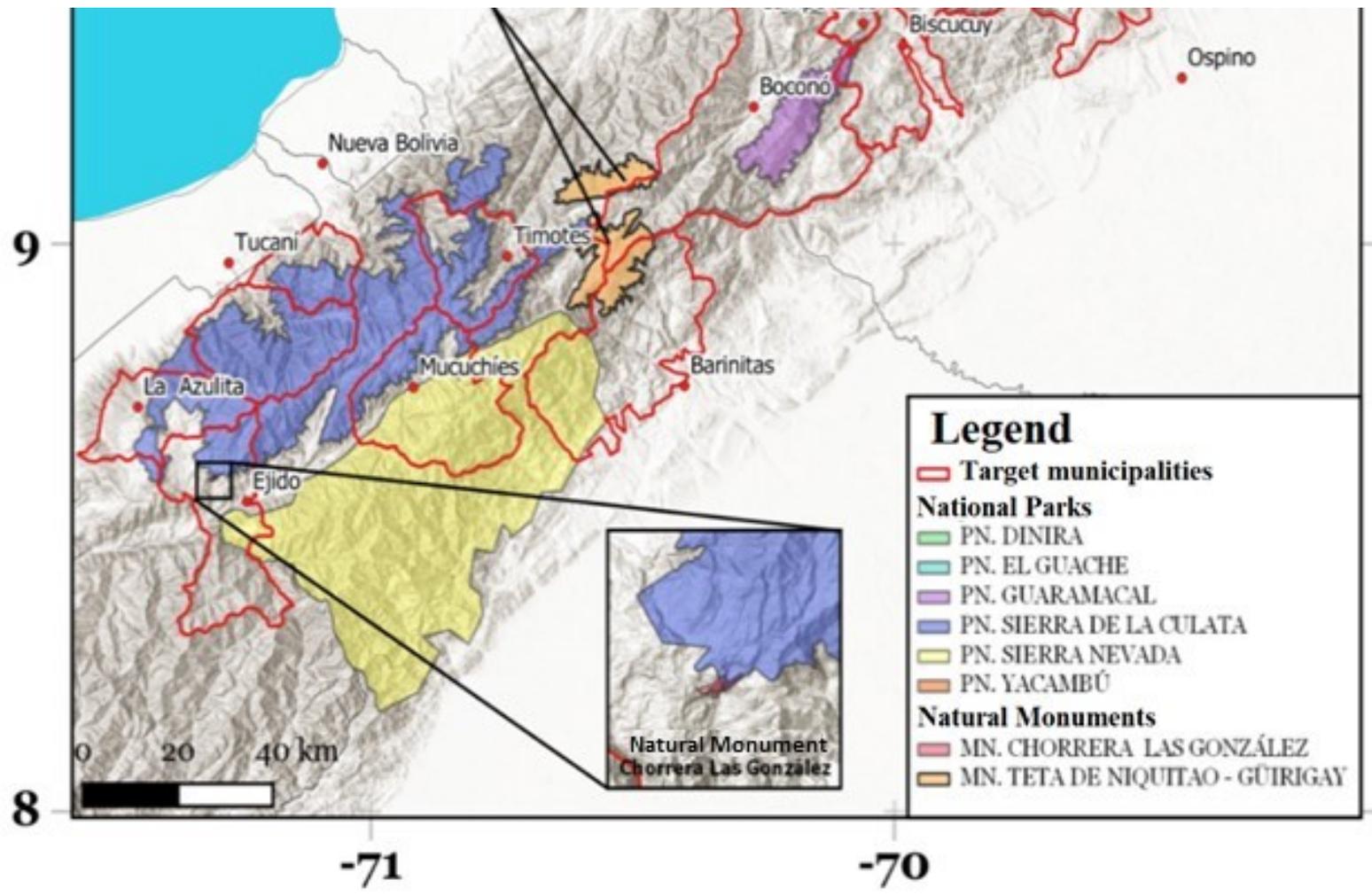




Source: Copernicus Global Land Service. Product CGLS-LC100. Resolution 100 m x 100 m.

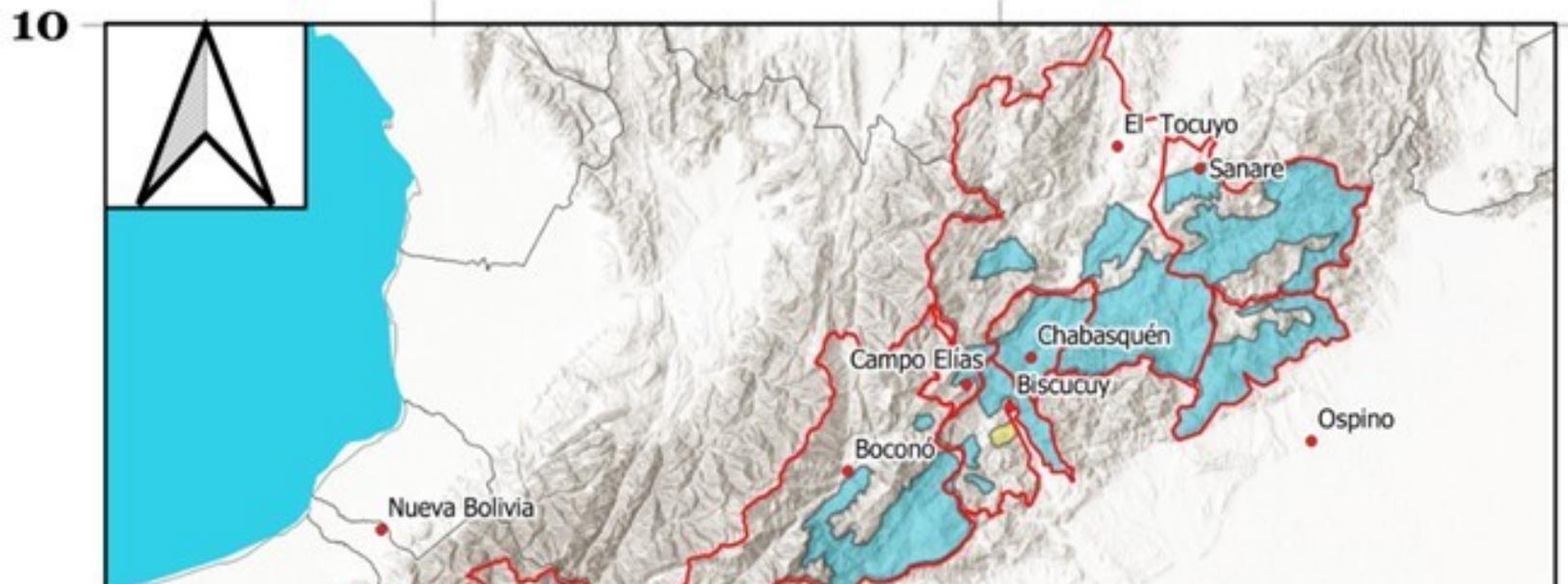
Map 2. Land cover and land use for the year 2019 in the project area.

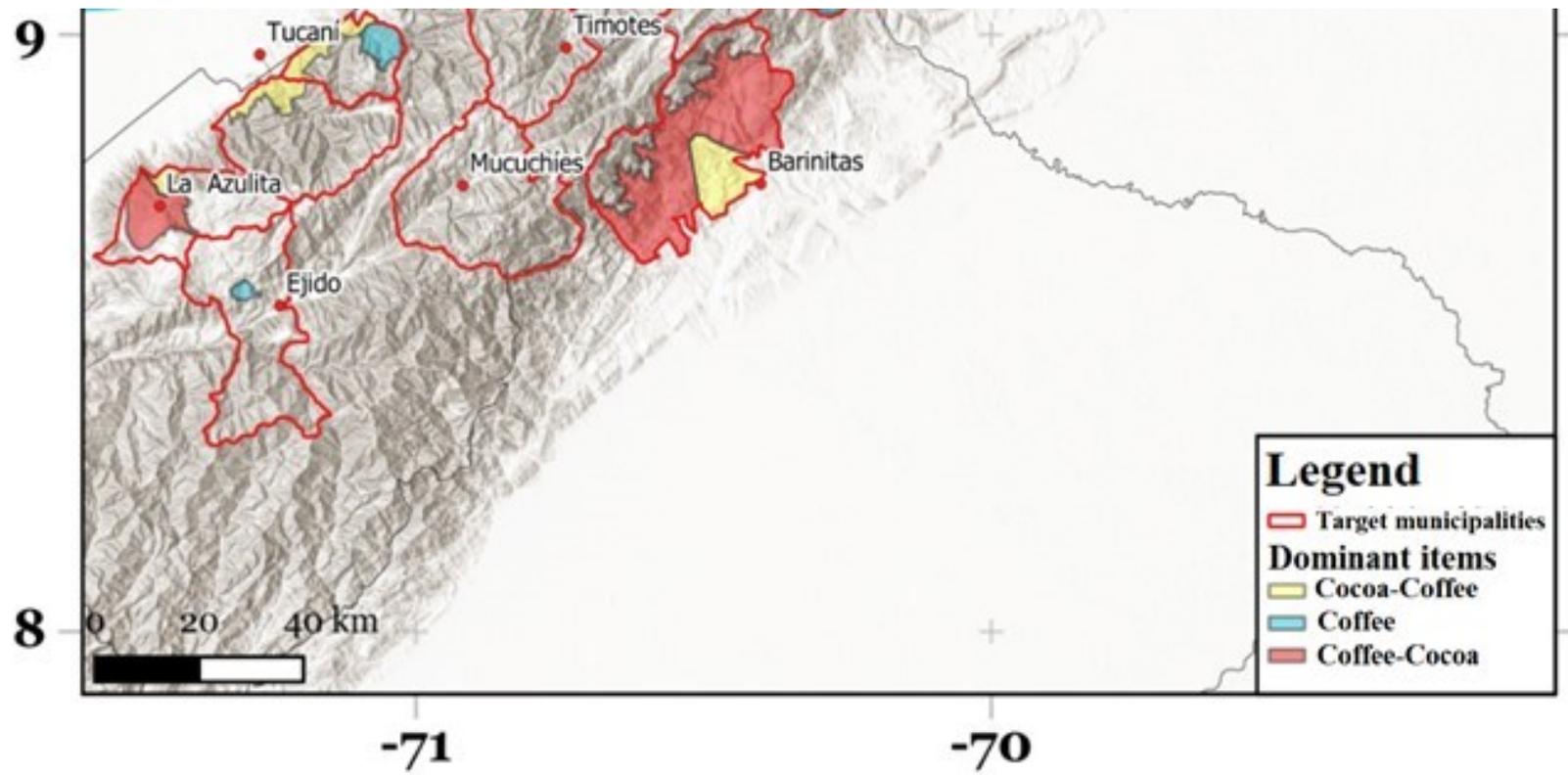




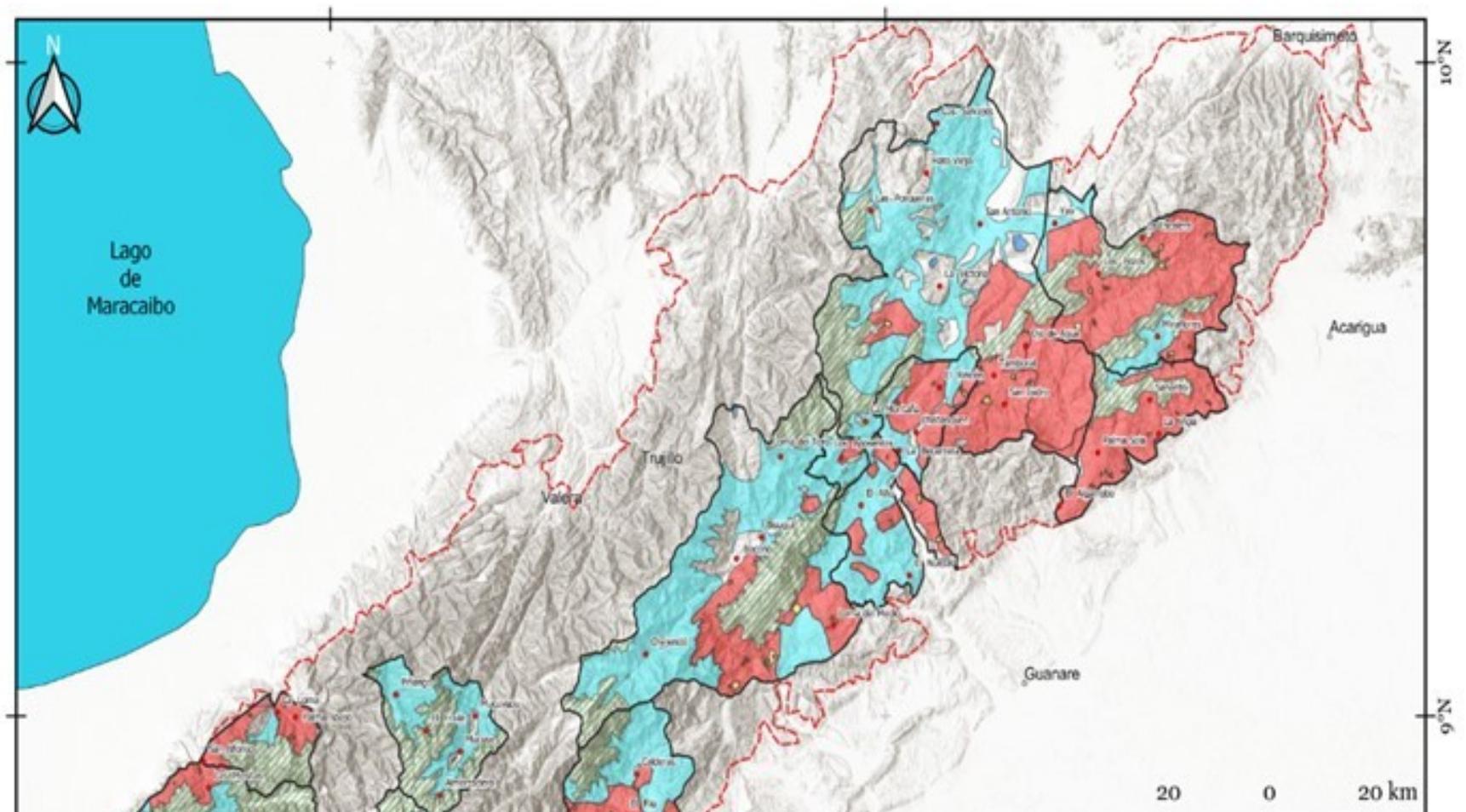
The national parks Sierra Nevada, Yacambú, Guaramacal, Dinira, Sierra de La Culata and El Guache; and the natural monuments Teta de Niquitao-Guirigay and Chorrera de Las González totally or partially intersect the 14 target municipalities. For clarity, their total spatial extension is shown.

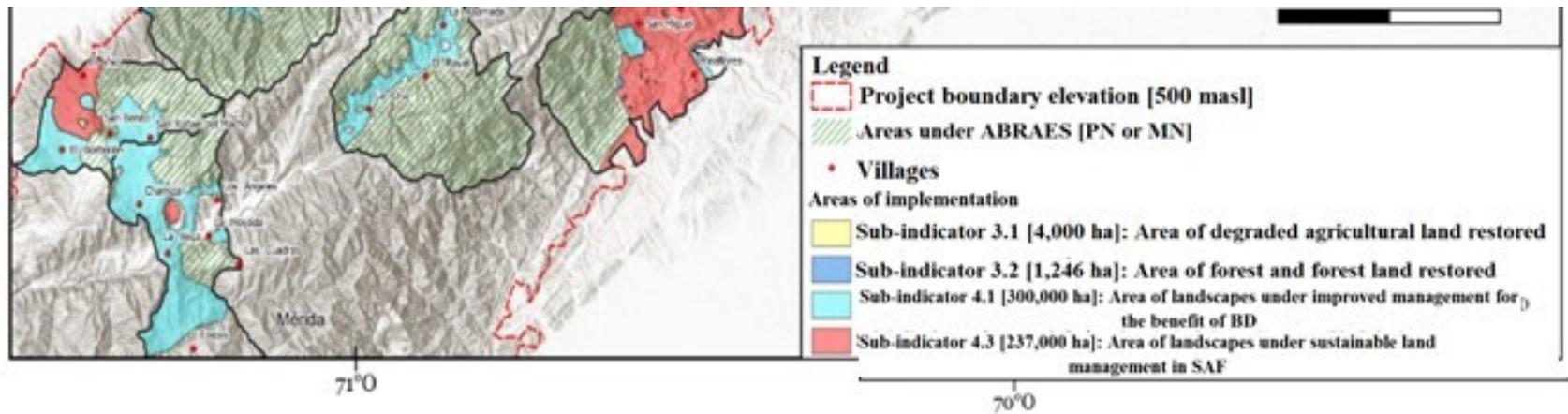
Map 3. Spatial distribution of ABRAES in the project area.





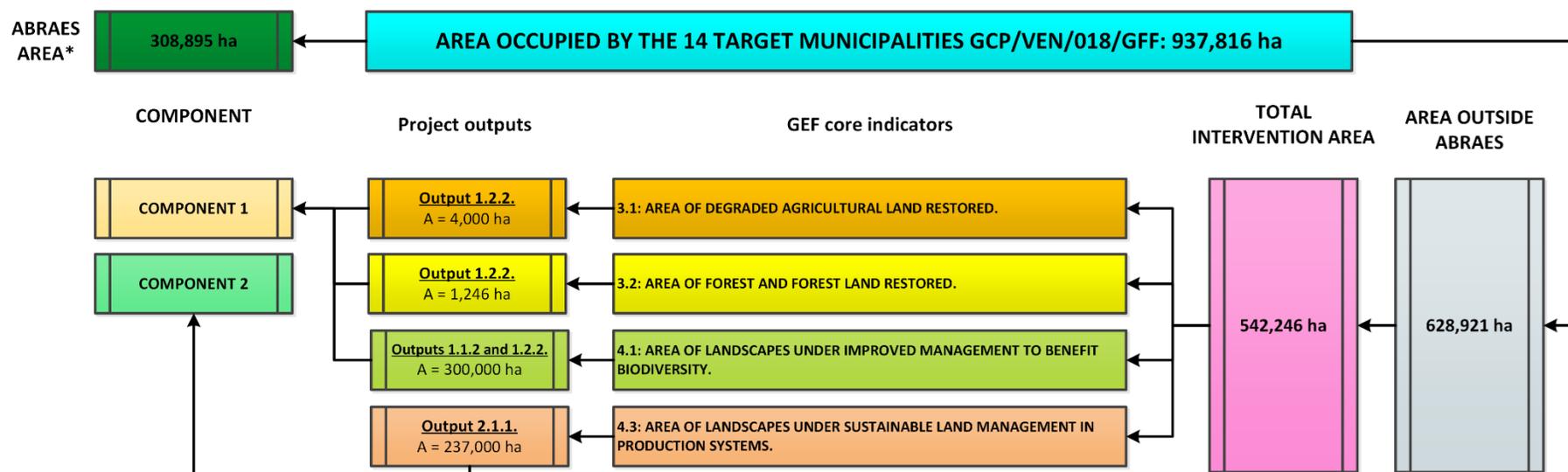
Map 4. Spatial distribution of coffee and cocoa production zones in the 14 target municipalities.





Map 5. Spatial location of the project intervention areas.

Annex E2: Project Areas



Note: *PN Sierra Nevada, Yacambú, Guaramacal, Dinira, Sierra de La Culata y El Guache; MN Teta de Niquitao-Guirigay y Chorrera de Las González.

ANNEX E: Project Budget Table

Please attach a project budget table.

Budget distribution by project components

	Component 1	Component 2	Component 3	Component 4					
	Total	Total	Total	Total	M&E	PMC	Total GE F	MINEC Execution	FAO Support Services

5013 Consultants									
Landscape management tools	6,720	-	-	0			6,720	6,720	
Agroforestry technicians	-	6,720	-	0			6,720	6,720	
Specialty coffee processing	-	-	6,720	0			6,720	6,720	
Processing of fine flavor cocoa	-	-	6,720	0			6,720	6,720	
TAPE Training	-	6,720	-	0			6,720	6,720	
Alternative certification systems	-	-	6,720	0			6,720	6,720	
Sub-total international Consultants	6,720	13,440	20,160	0	0	0	40,320	40,320	
Project technical coordinator	9,500	9,500	9,500	9,250		127,250	165,000	165,000	
Financial assistant	-	-	-			115,500	115,500	115,500	
Knowledge management specialist	-	-	-	115,500			115,500	115,500	
Monitoring and evaluation specialist	-	-	-	57,750	57,750		115,500	115,500	
Communication assistant	-	-	-	115,500			115,500	115,500	
Gender specialist	-	-	-	115,500			115,500	115,500	
Value chain specialist	-	-	132,000				132,000	132,000	
Specialist in sustainable agriculture	-	132,000	-				132,000	132,000	
Landscape and biodiversity management specialist	132,000	-	-				132,000	132,000	
Formulation of the Demonstration Plan for Landscape Management of 3 municipalities	19,000	-	-	0			19,000	19,000	
Design of the Environmental Education Plan for landscape conservation aimed at communities.	5,000	-	-	0			5,000	5,000	
Formulation of 14 demonstration action plans for sustainable management.	13,000	-	-	0			13,000	13,000	
Design of an early warning system in pilot landscapes	7,000	-	-	0			7,000	7,000	
Design of a capacity building program at the national, regional and municipal levels, to support sustainable management and conservation of biodiversity in the Andean multiple country.	7,000	-	-	0			7,000	7,000	
Design of mechanisms to support the coordination of networking and information exchange for decision-	7,000	-	-	0			7,000	7,000	

making among national, state and municipal institutions.									
Lansat digital image processing	-	-	-	4,000			4,000	4,000	
Monitoring and mapping of vegetation and land use in the project area	-	-	-	7,000			7,000	7,000	
Assessment of the socioeconomic and cultural aspects of the communities in the area of intervention of the Project	-	-	-	10,000			10,000	10,000	
Gender plan	-	-	-	6,000			6,000	6,000	
Evaluation of biodiversity within the coffee and cocoa agroforestry systems and their essential variables	7,000	-	-	0			7,000	7,000	
Mechanism for the restoration of Andean forests	7,000	-	-	0			7,000	7,000	
Carbon Dioxide equivalent monitoring	34,000	-	-				34,000	34,000	
Design of an agricultural extension program aimed at coffee and cocoa production systems under an agroecological and SAF approach	-	12,000	-	0			12,000	12,000	
Design of the training plan with agroecological and SAF approach for the technical personnel in charge of implementing the extension plan.	-	7,000	-	0			7,000	7,000	
Guide for the establishment of farm plans.	-	7,000	-	0			7,000	7,000	
Guide for farm families on the use of green and clean energy strategies.	-	7,000	-	0			7,000	7,000	
Formation of the agroclimatic technical roundtable for support of producers	-	6,000	-	0			6,000	6,000	
Design of digital media to share and disseminate permanent and permanent information on the progress of the Project	-	-	-	7,000			7,000	7,000	
Study to promote women's participation in sustainable product value chains in the project intervention area	-	-	8,000	0			8,000	8,000	
Design of a capacity building plan in organization, technical, management, business and marketing	-	-	9,000	0			9,000	9,000	
Identification and characterization of sustainable product chains in the 14 municipalities	-	-	12,000	0			12,000	12,000	

C-17 municipalities									
Design of the Action Plan for the marketing technical roundtables	-	-	6,000	0			6,000	6,000	
Design of an awareness campaign aimed at the different actors in the coffee and cocoa chains on the importance of establishing local and regional networks as support for marketing	-	-	7,000	0			7,000	7,000	
Design of a campaign to promote the consumption of agroecological and SAF products	-	-	7,000	0			7,000	7,000	
Market study aimed at identifying and characterizing the segments or niches into which specialty coffee and fine aroma cocoa are divided	-	-	12,000	0			12,000	12,000	
Evaluation of alternative sustainable products certification systems	-	-	7,000	0			7,000	7,000	
Comparative study of production costs under conventional production systems versus agroforestry systems of coffee and cocoa under agroecological approach	-	-	-	7,000			7,000	7,000	
Design of the training program on gender equality and methodology for field data collection with a gender perspective	-	-	-	7,000			7,000	7,000	
Participatory biodiversity monitoring	16,000	-	-	0			16,000	16,000	
Lessons learned Farm plans as a tool for local management in favor of agroforestry, agroecological production and biodiversity conservation	-	-	-	7,000			7,000	7,000	
Lessons from the use of ecological alternatives and clean energy for food preservation and cooking that support the family in a healthy eating and reduce the workload, all under a concept of respect for biodiversity and sustainable development.	-	-	-	7,000			7,000	7,000	
Lessons learned agroecological practices on local coffee and cocoa farms as a means for sustainable and biodiversity-friendly production	-	-	-	7,000			7,000	7,000	
Lessons learned from integrated management of the multiple landscapes of the Andean region.	-	-	-	7,000			7,000	7,000	

Systematization of successful cases of sustainable product chains	-	-	-	7,000			7,000	7,000	
Systematization of institutional articulation in the territory of the Andean region in the landscape approach	-	-	-	7,000			7,000	7,000	
Systematization of best sustainable practices based on a gender perspective.	-	-	-	7,000			7,000	7,000	
Sub-total national Consultants	263,500	180,500	209,500	510,500	57,750	242,750	1,464,500	1,464,500	
5013 Sub-total consultants	270,220.00	193,940	229,660	510,500	57,750	242,750	1,504,820	1,504,820	
5650 Contracts									
Letter of agreement to implement agroforestry, reforestation and restoration plans in the 14 municipalities	793,500	0	0	0			793,500	793,500	
Letter of agreement for the implementation of the agricultural extension program and technical assistance with an agroecological and SAF approach.	0	791,833	0	0			791,833	791,833	
Letter agreement for design and implementation of demonstration farms with agroecological focus and SAF in coffee and cocoa.	0	413,280	0	0			413,280	413,280	
Letter agreement to improve the technical capability of coffee and cocoa quality control laboratories		0	350,000				350,000	350,000	
Letter of agreement for Community-based production of high genetic quality coffee plants nurseries	0	0	80,000	0			80,000	80,000	
Letter of agreement for Community-based production of high genetic quality cocoa plants nurseries			90,000	0			90,000	90,000	
Letter agreement for the production of bioinputs as a business model to support small enterprises in line with the organic coffee and cocoa production			90,000	0			90,000	90,000	
Mid-term review	0	0	0		35,000		35,000		35,000
Final Report					6,650		6,650		6,650
Final Evaluation	0	0	0		42,000		42,000		42,000
5650 Sub-total Contracts	793,500	1,205,113	610,000	0	83,650	0	2,692,263	2,608,613	83,650
5021 Travel									

International travel consultants	8,000	8,000	8,000	0			24,000	24,000	
Local travel	92,975	92,975	92,975	92,975			371,900	371,900	
5021 Sub-total travel	100,975	100,975	100,975	92,975		-	395,900	395,900	
5023 Training									
Workshops with consultants to define strategies and tasks	12,000	0	0	0			12,000	12,000	
Workshops with communities for promotion and training with a focus on conservation and landscape management	28,000	0	0	0			28,000	28,000	
Workshops with producers for promotion and training in agroecological management and SAF, with emphasis on coffee and cocoa	28,000	0	0	0			28,000	28,000	
Workshops for field personnel for training in agricultural extension with a focus on agroecological management and SAF.	0	28,000	0	0			28,000	28,000	
Workshops for field personnel in landscape management and spatial planning training.	0	11,200	0	0			11,200	11,200	
Workshops with public institutions for the development of operational plans	5,600	0	0	0			5,600	5,600	
Workshops for the establishment of coordination support mechanisms, the networking, information exchange and decision-making processes between national state and municipal institutions.	5,600	0	0	0			5,600	5,600	
Workshops for the implementation of the foray plan on issues of organization, technical business management and marketing aimed at the actors of the chain	0	0	28,000	0			28,000	28,000	
Workshops on Leadership and conflict management for members of producer associations.	0	0	11,200	0			11,200	11,200	
Workshops for the implementation of technical marketing roundtables	0	0	11,200	0			11,200	11,200	
Workshops for strengthening alliances and developing marketing capabilities	0	0	28,000	0			28,000	28,000	
Training workshop for staff of national, regional and local institutions	0	0	0	11,200			11,200	11,200	

n gender mainstreaming in all their activities									
Project Start-up Workshop	0	0	0		5,000		5,000	5,000	
Annual Project Review Planning Workshops				35,000			35,000	35,000	
Workshop for Project closure	0	0	0	5,000			5,000	5,000	
5023 Sub-total training	79,200	39,200	78,400	51,200	5,000	0	253,000	253,000	
5024 Expendable procurement									
Cabinet supplies and supplies	22,500	22,500	22,500	22,500			90,000	90,000	
Supplies of Technical Field Equipment	0	100,000	0	0			100,000	100,000	
Design, editing, printing, technical documents, protocol and maps	0	0	0	32,000			32,000	32,000	
Publication of project lessons and experiences.	0	0	0	30,469			30,469	30,469	
Supply of materials and equipment for production system activities	0	130,000	0	0			130,000	130,000	
5024 Sub-total expendable procurement	22,500	252,500	22,500	84,969	0	0	382,469	382,469	
6100 Non-expendable procurement									
Satellites Images	0	0	0	90,000			90,000	90,000	
Vehicle rental and fuel costs						11,000	11,000	11,000	
6100 Sub-total non-expendable procurement	-	-	-	90,000	-	11,000	101,000	101,000	
TOTAL	1,266,395	1,791,728	1,041,535	829,644	146,400	253,750	5,329,452	5,245,802	83,650

SUBTOTAL Comp 1	1,266,395
SUBTOTAL Comp 2	1,791,728
SUBTOTAL Comp 3	1,041,535
SUBTOTAL Comp 4	829,644
Sub total	4,929,302
M&E Budget	146,400
Subtotal	5,075,702
Project Management Cost (PMC)	253,750
TOTAL GEF	5,329,452

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit a finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).