

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

☐ NGI

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, Mainstreaming, Biodiversity, Protected Areas and Landscapes, Sustainable Land Management, Land Degradation, Land Degradation Neutrality, Influencing models, Private Sector, Type of Engagement, Stakeholders, Civil Society, Communications, Gender results areas, Gender Equality, Gender Mainstreaming, Capacity, Knowledge and Research, Knowledge Generation, Productive Landscapes, Agriculture and agrobiodiversity, Forestry - Including HC VF and REDD+, Carbon stocks above or below ground, Land Cover and Land cover change, Land Productivity, Community-Based Natural Resource Management, Sustainable Livelihoods, Restoration and Rehabilitation of Degraded Lands, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Local Communities, Behavior change, Community Based Organization, Non-Governmental Organization, Trade Unions and Workers Unions, Individuals/Entrepreneurs, SMEs, Partnership, Participation and leadership, Capacity Development, Knowledge Generation and Exchange, Gender-sensitive indicators, Women groups, Beneficiaries, Sex-disaggregated indicators, Training, Seminar, Workshop

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

506,298.00

Submission Date

9/25/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	GET	2,664,726.00	30,454,236.00
LD-1-1	GET	1,332,363.00	7,613,559.00
LD-1-4	GET	1,332,363.00	7,613,560.00
Total Project Cost (\$)		5,329,452.00	45,681,355.00

B. Indicative Project description summary

Project Objective

Reduce and reverse forest degradation in productive landscapes of the Venezuelan Andean region to create a favorable environment for the conservation and sustainable use of biodiversity with an emphasis on Simultaneous Agroforestry Systems (SAF) that contribute to the livelihood of local populations and global environmental benefits

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Institutional strengthening for the management of territorial use, and inclusive sustainable production and management in multiple use landscapes and high conservation value forests in the 12 selected municipalities	Technical Assistance	<p>1.1. Personnel from public organizations manage the territories using a comprehensive, gender sensitive, multiple use approach, with emphasis on SAF, to ensure the sustained provision of ecosystem services (including soil conservation, water resources, biodiversity and carbon sequestration) in the 12 selected municipalities.</p> <p><i>Indicators</i></p> <p><i>-Number of innovative mechanisms and institutional, regulatory and financial frameworks established to support the conservation of BD, SLM in the Andean region.</i></p>	<p>1.1.1 Personnel from public agencies with strengthened capabilities to plan, manage, monitor and evaluate productive landscape by integrating biodiversity conservation, multiple-use landscape management, and land degradation reduction integrating a gender and interculturality approach.</p> <p>1.1.2 Mechanisms established to support the coordination, networking and exchange of information, and decision-making processes between national, state and municipal institutions (MINEC, MPPAPT, government offices, mayor offices, municipalities, universities) in order to</p>	GET	1,820,366.00	14,865,137.00

<p><i>-Number of staff (tracked by gender and youth) and institutions that participate in the design of innovative mechanisms and frameworks to support the conservation of BD and SLM</i></p>	<p>facilitate programmatic alignment and optimize the use of resources.</p>
<p><i>-Percent increase in the flow of investment directed to SFM, SLM and/or ecological restoration in the selected municipalities through plans and programs to support coffee-cocoa producers.</i></p>	<p>1.1.3 Local land use monitoring and surveillance systems (in line with SDG 5.a.1 and 5.a.2) adopted that generate relevant information to aid decision-making and support the implementation of operational plans, programs and regulations for sustainable agricultural and forestry production</p>

<p>1.2 In Areas Under Special Administration Regime (ABRAES, in Spanish), the areas under improved management for their conservation in terms of biodiversity and sustainable use increase in relation to the total area covered by the 12 selected municipalities.</p>	<p>1.2.1 New areas under improved management for their conservation in terms of biodiversity and sustainable use in the ABRAES of the Venezuelan Andean region.</p>
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Indicator: The area within ABRAES under improved management for conservation in terms of biodiversity and

sustainable use increases 25% compared to the baseline (to be defined during the PPG) in the 12 selected municipalities.

2. Sustainable commercial production of specialty coffee and fine flavor cocoa in line with women empowerment, livelihood preservation, biodiversity conservation and landscape restoration in the 12 selected municipalities	Investment	<p>2.1 Coffee-cocoa producers implement gender-sensitive sustainable management practices in productive landscapes, contributing to the establishment of deforestation-free supply chains and the biodiversity conservation through Agroforestry Systems (AFS) based on coffee-cacao.</p> <p><i>Indicators:</i></p> <p><i>-At least 80% of the targeted coffee and fine flavor cocoa producers apply sustainable management practices in the Agriculture Production Units (APUs) of the 12 selected municipalities.</i></p> <p><i>-At least 80% of the targeted coffee and cocoa producers successfully apply Cleaner Production Practices (CPP) in the APUs of the 12 selected municipalities.</i></p>	<p>2.1.1 Capacity development program for coffee and cocoa producers (including strengthening technical assistance services and women's organizations) to implement SFM and SLM with emphasis on SAF, developed and implementation started</p> <p>2.1.2 Best practices for reducing forest degradation and loss (e.g. SFM, SLM SAF, restoration, GAP, conservation agriculture) and improving ecosystem services disseminated and transferred to coffee and cocoa producers targeting:</p> <p>(i) At least 1,246 ha of Forests restored in buffer zones of the target municipalities.</p> <p>(ii) At least 4,000 ha of productive landscapes restored with Simultaneous Agroforestry Systems (SAF) based on coffee-cacao that improve biodiversity in the Venezuelan Andean region.</p>	GET	1,473,827.00	13,321,929.00
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-At least 20% of the targeted coffee and cocoa producers are co-beneficiaries of GEF investment (50% women and youth)

-Number of threatened Andean species seen in the APUs of the 12 selected municipalities increase by 25%

-Area of restored forest increases by 25% relative to the baseline (to be defined during the PPG) in the 12 selected municipalities.

-Percentage of productive landscapes under SAF improved management based on coffee-cocoa to benefit biodiversity with respect to the baseline (to be defined during the PPG) in the 12 selected municipalities.

-Area of productive landscapes area under SAF improved management based on coffee-cocoa to benefit

*biodiversity increases by
25% with respect to the
baseline (to be defined
during the PPG) in the 12
selected municipalities*

3. Strengthening of green marketing based on quality improvement and diversification of coffee and cocoa by-products	Investment	<p>3.1 Market strategies support the conservation and sustainable use of forest ecosystems, and the sustainable production of green commodities in target municipalities in the Andean region.</p> <p><i>Indicators:</i></p> <p>-Value of coffee-cocoa sales in the domestic and international markets with a sustainable production model that emphasizes the economic empowerment of women, considering farmers from plots that have ecological certifications.</p> <p>-Proportion of sales of goods and services produced under biodiversity-friendly practices in the APUs of the 12 selected municipalities, with a target of 60%</p>	<p>3.1.1 Mechanism adopted for the promotion and establishment of networks and marketing chains with green brand/seal.</p> <p>3.1.2 Networking Mechanism agreed by participating institutions to facilitate access to green credits and incentives to implement SAF and have access to green markets.</p> <p>3.1.3 Mechanism of price differentiation adopted between conventional production and sustainable production.</p> <p>3.1.4 Market survey implemented to support the establishment of purchase and sale contracts for green commodities.</p> <p>3.1.5 Establishment of (i) co-investment mechanisms between buyers and producers, and (ii) costs and certification management mechanisms.</p>	GET	1,051,469.00	10,874,609.00
4. Monitoring and Evaluation (M&E)	Technical Assistan			GET	730,007.00	4,444,377.00

based on the principles of adaptive management and the delivery of measurable and objectively verifiable results

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4.1. Project implementation is supported by a gender-sensitive M&E strategy based on measurable and verifiable results and adaptive management principles

4.1.1 M&E strategy developed with relevant stakeholders for clear definition of expected results, expected time periods for completion and confirmation through objectively verifiable indicators and means of verification.

4.1.2 Mid-term review and final evaluation to constructively inform and advise on project implementation, sustainability considerations and application of adaptive measures, when necessary.

4.1.3 Best practices and lessons learned related to the project that are systematized and disseminated to a variety of audiences and stakeholders.

4.1.4 Creation, maintenance and integration of a space hosted on MINEC's institutional website to continuously exchange project-specific experiences, highlight results and progress, and facilitate

replication processes while
the project lasts and
beyond.

	Sub Total (\$)	5,075,669.00	43,506,052.00
Project Management Cost (PMC)			
	GET	253,783.00	2,175,303.00
	Sub Total(\$)	253,783.00	2,175,303.00
	Total Project Cost(\$)	5,329,452.00	45,681,355.00

C. Indicative 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 Popular Power for Ecosocialism (MINEC)	In-kind	Recurrent expenditures	8,769,482.00
Recipient Country Government	Ministry of Popular Power for Ecosocialism (MINEC)	Public Investment	Investment mobilized	10,000,000.00
Recipient Country Government	People's Ministry for Productive Agriculture and Lands (MPPAPT)	In-kind	Recurrent expenditures	6,765,481.00
Recipient Country Government	People's Ministry for Productive Agriculture and Lands (MPPAPT)	Public Investment	Investment mobilized	10,000,000.00
Recipient Country Government	Mayors' Office, Municipality of Tulio Febres Cordero	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Caracciolo Parra Olmedo	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Campo Elías	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Rangel	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Miranda	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Bolívar	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Boconó	In-kind	Recurrent expenditures	538,753.00

Recipient Country Government	Mayors' Office, Municipality of Morán	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Andrés Eloy Blanco	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Sucre	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Monsignor José Vicente de Unda	In-kind	Recurrent expenditures	538,753.00
Recipient Country Government	Mayors' Office, Municipality of Juan Vicente Campo Elías	In-kind	Recurrent expenditures	538,754.00
GEF Agency	FAO	Grant	Investment mobilized	3,681,355.00
Total Project Cost(\$)				45,681,355.00

Describe how any "Investment Mobilized" was identified

- Investment mobilized from MINEC corresponds to grants and national investments associated to the next phases of the (i) Misión Arbol Ecosocialista which promotes reforestation, seed collection and sanitation of rivers and streams, the (ii) National Plan for the Reforestation of Hydrographic Basins which will support the establishment of forest and agroforestry plantations, as well as providing technical assistance; and (iii) funds allocated to achieve the goals established under National LDN commitments. - Investment mobilized from MPPAPT corresponds to public investments in the target landscape within the context of (i) the Plan Café with seeks to invest in agroforestry and conservation and to provide technical assistance, the (ii) Plan Siembra (2019-2025) which will invest in forest restoration, the creation of seedbeds and nurseries, and the renewal of coffee/cocoa plantations; and (iii) the AgroVenezuela Great Mission which will provide technical assistance, inputs and financing to agricultural producers. -Investment mobilized from FAO corresponds to activities in the framework of the technical cooperation programs in the context of agenda 2030 which seek to strengthen food security policy and rural development policy

D. Indicative 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 GEF Resources(\$)					5,329,452.00	506,298.00	5,835,750.00

E. Project Preparation Grant (PPG)
PPG Required



PPG Amount (\$)				PPG Agency Fee (\$)			
150,000				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	0.00	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			

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			

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	0.00	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)
300,000.00			

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)

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)
237,000.00			

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)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	1925525	0	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)
Expected metric tons of CO ₂ e (direct)	1,925,525			

Expected metric tons of CO ₂ e (indirect)	
Anticipated start year of accounting	2022
Duration of accounting	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)
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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)
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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			
Male	23,643			
Total	47283	0	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

-Area of forest restored (Core Indicator 3) is expected to take place in the buffer zones for ABRAES -Indicator 4.1: Sustainable Land Management (SLM) practices in buffer zones of ABRAES -Indicator 4.3: SLM practices in the broader landscape

Part II. Project Justification

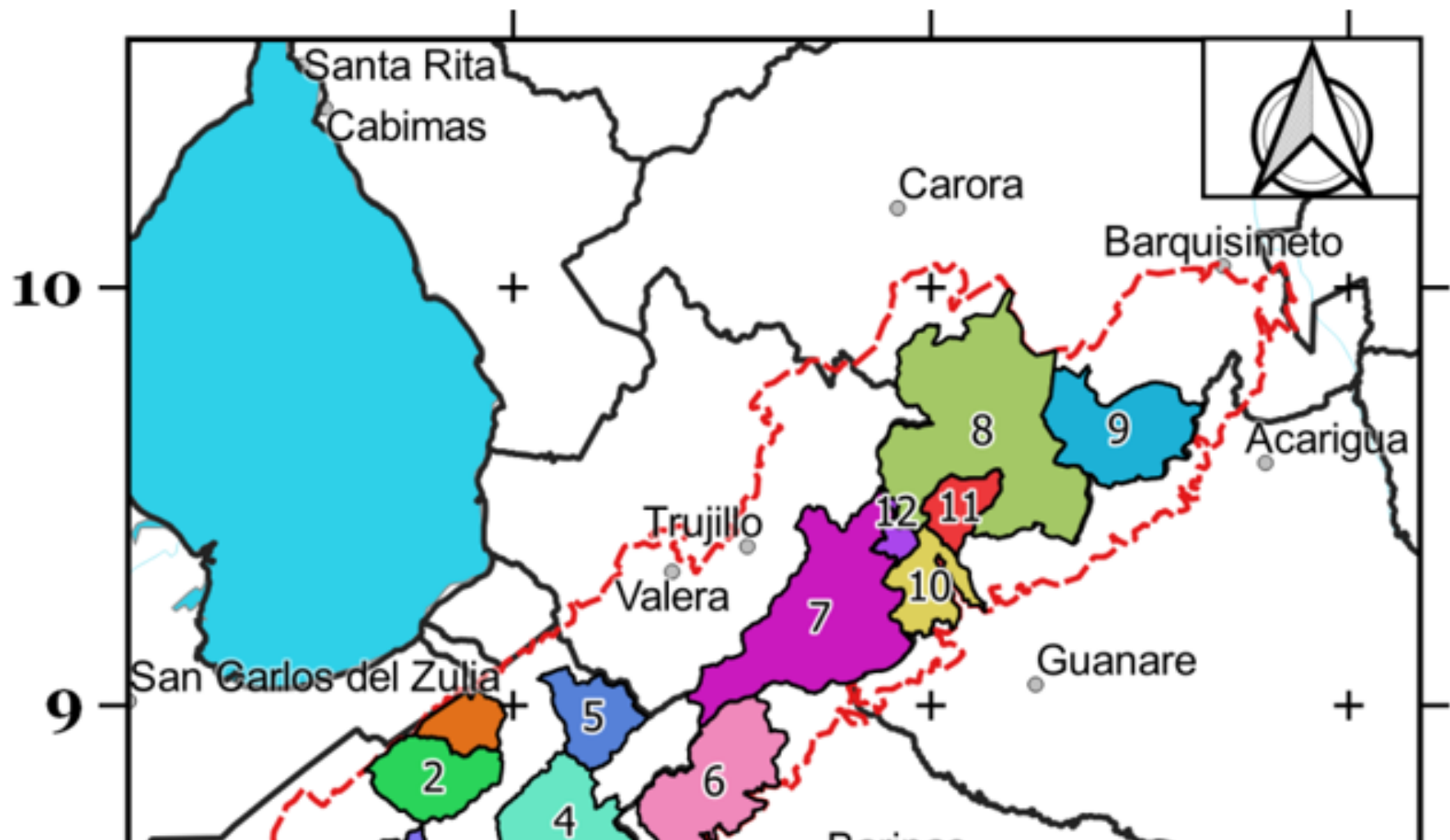
1a. Project Description

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Global environmental significance

1. The top 20 megadiverse countries of the world account for more than 70% of the global biodiversity, and Venezuela plays a key role this group. The most biologically valuable ecoregions of the world were defined by Olson (1998), and Venezuela contributes with a total of 14 ecoregions. One of these is the Tropical Andes ecoregion which is also one of the 25 biodiversity hotspots of the world (Myers 2000). Among them, the Tropical Andes has also the highest number of plant and vertebrate species and the highest number of endemism.
2. The Tropical Montane system, whose lower altitude limit is 500 meters above the sea level (masl.), covers approximately 4% of the country's area (3,207,257 ha) is located in the Venezuelan Andean region. This tropical system comprises different forest remnants threatened by the development of unsustainable agricultural production activities. In this context, the area of interest of the project is shown in Figure 1, it encompasses 12 municipalities in Mérida, Trujillo, Portuguesa, Barinas and Lara states, and covers an area of 878,954.86 ha.
3. The criteria for selecting these municipalities were: a) including coffee and cocoa plantations, b) bringing together investments associated with initiatives of the Government of the Bolivarian Republic of Venezuela, c) presenting threats inherent to deforestation processes, d) being located at 500 meters above sea level. It should be noted that 83% of the municipalities selected as areas of interest are located in the headwaters of the hydrographic basins of the Tocuyo, Portuguesa, Guanaparo and Santo Domingo rivers (Figure 2), which drain into the Orinoco river basin. The hydrographic basins of the Tucani and Mucunamo rivers drain into the Maracaibo lake basin.

4. The Andean region forests, in particular those comprised in the project's area of interest, stand out from other ecosystems as a critical point of global biodiversity. Those forest present biophysical and socio-economic characteristics that make them global priorities for biodiversity conservation and sustainable management, in line with Goal 15.4 of the Sustainable Development Goals (SDG) adopted in 2015: "Until 2030, ensure the conservation of mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits essential for sustainable development" (United Nations, 2015).
5. Despite the evident destruction of forest ecosystems in the Venezuelan Andes, 31.86% (280,109.95 ha) of the area of interest is covered by Areas under Special Administration Regime (ABRAE): 30.31% (266,437.52 ha) encompass six national parks and 1.55% (13,672.43 ha) three national monuments (Figure 3).



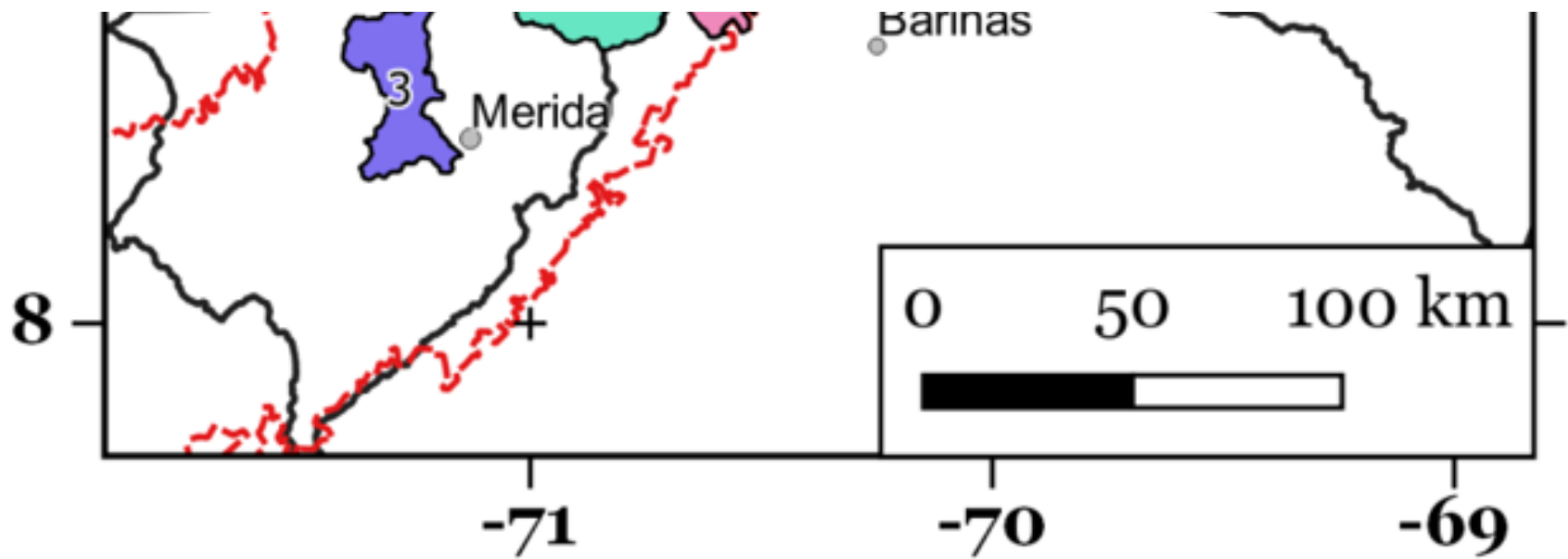
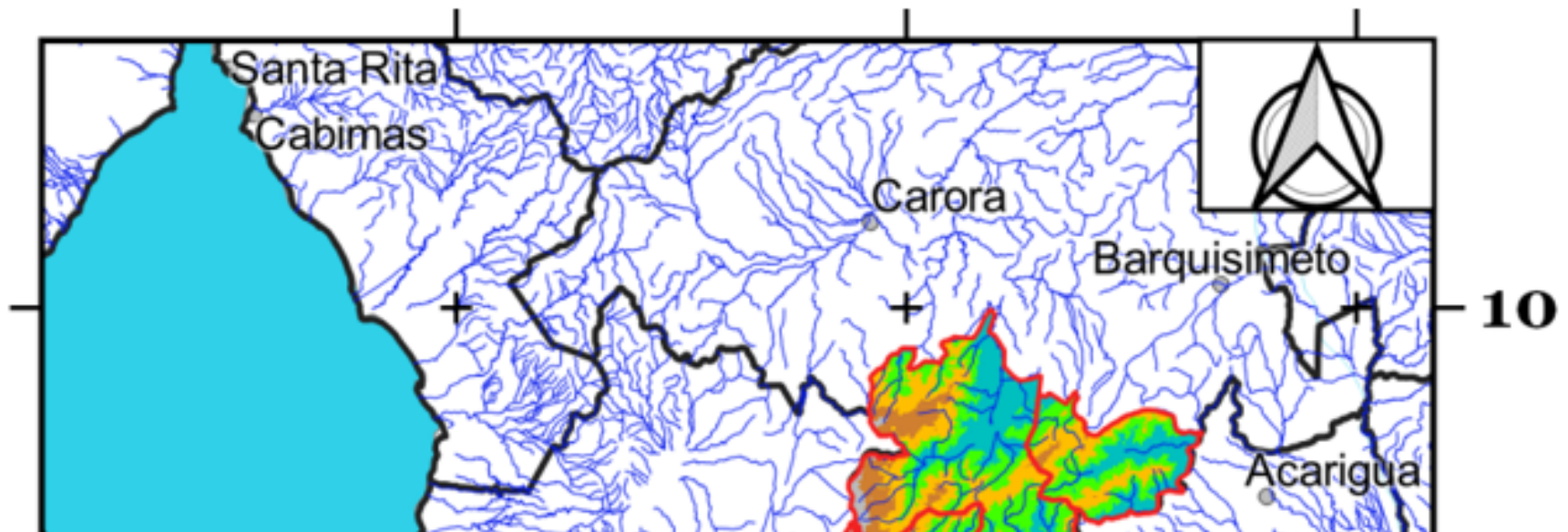


Figure 1. For the area of interest is shown the municipalities of Tulio Febres Cordero [1], Caracciolo Parra Olmedo [2], Campo Elías [3], Rangel [4], Miranda [5], Bolívar [6], Boconó [7], Morán [8], Andrés Eloy Blanco [9], Sucre [10], Monseñor José Vicente de Unda [11] and Juan Vicente Campo Elías [12], in which [6] is located in Barinas, [8 and 9] in Lara, [1, 2, 3, 4 and 5] in Mérida, [10 and 11] in Portuguesa, [7 and 12] in Trujillo - the segmented red line represents the 500 meters above the sea level curve.



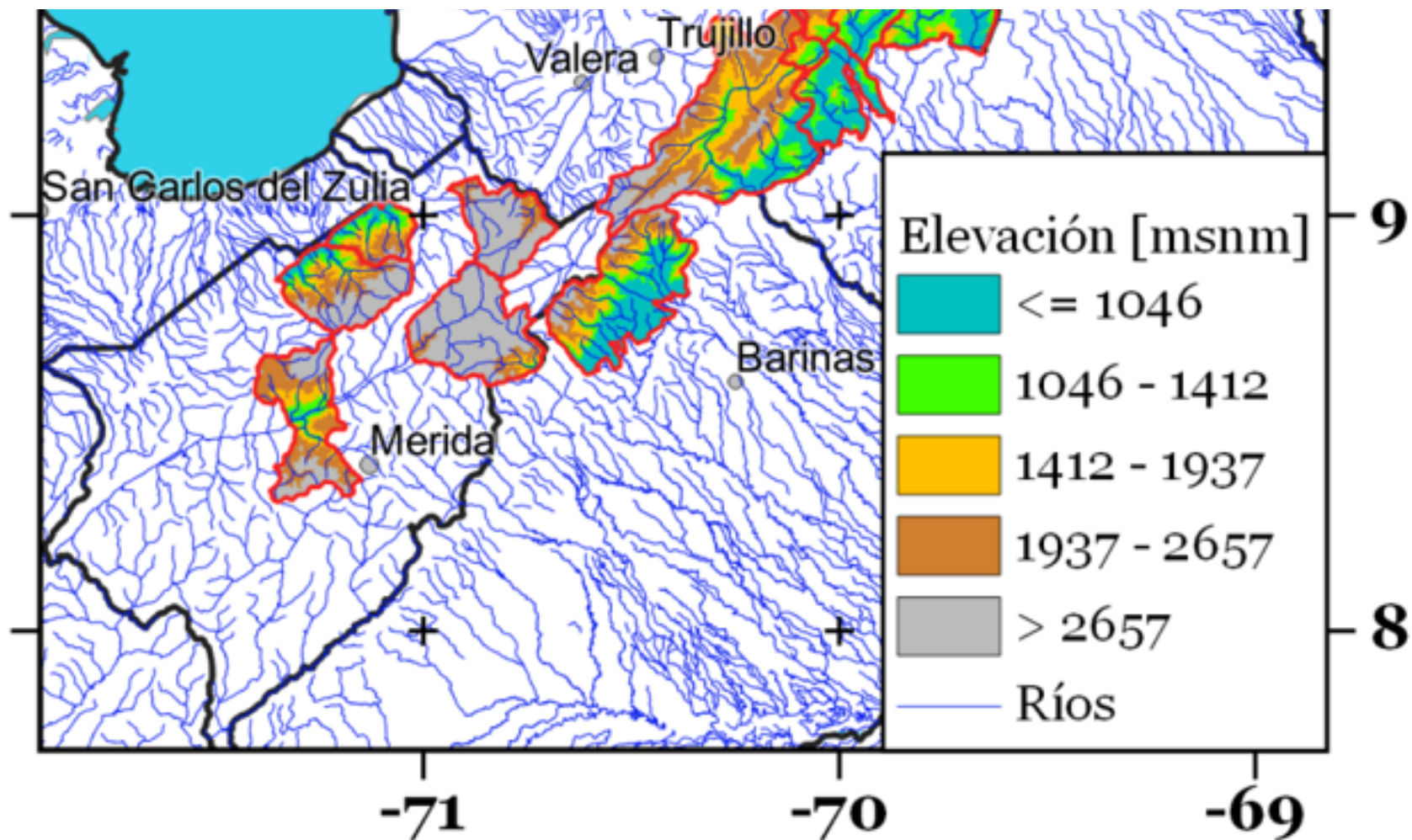


Figure 2. For the area of interest is shown hypsometry and hydrography - hypsometry was derived from the Shuttle Radar Topographic Mission (SRTM) DEM product.



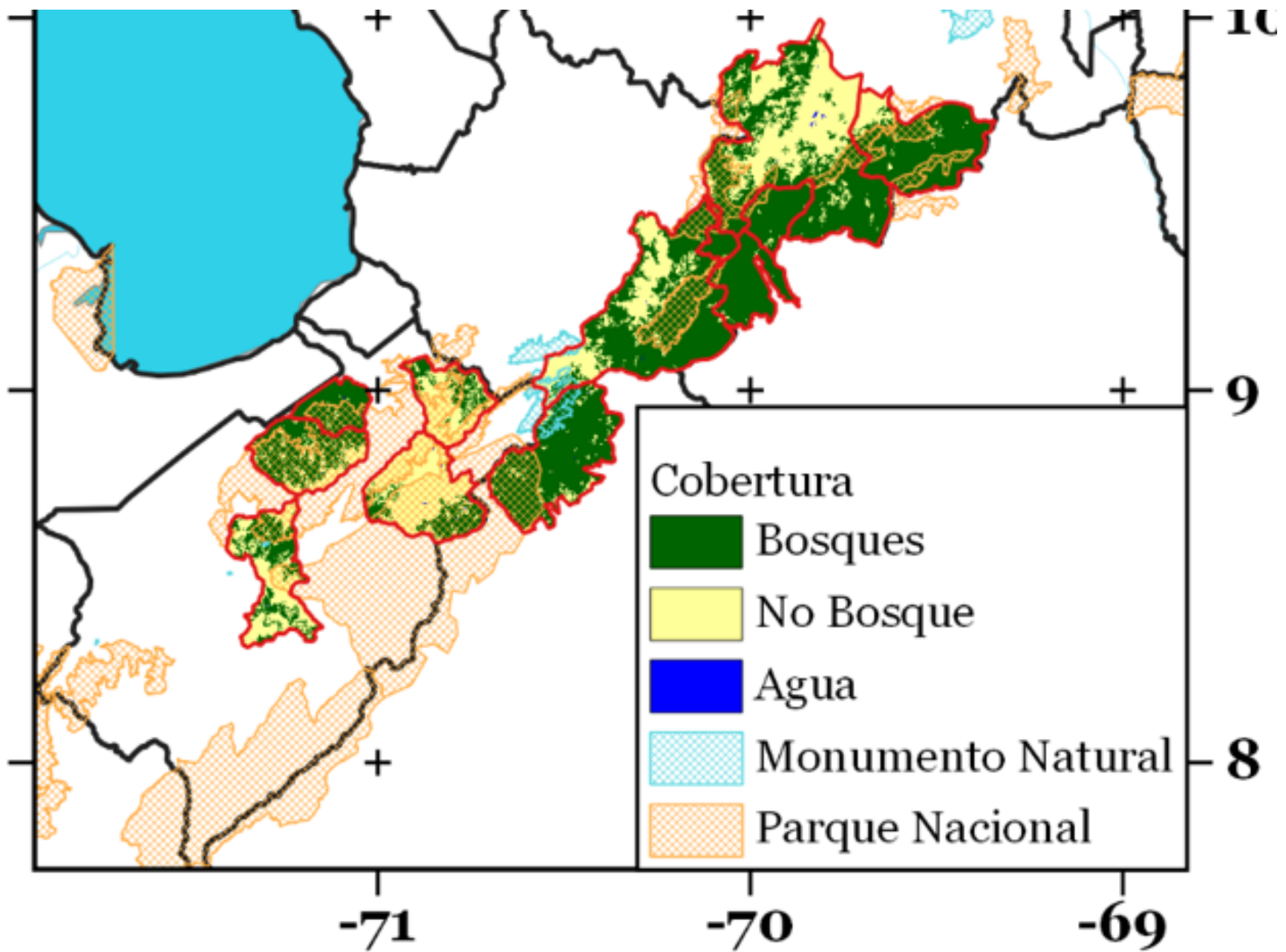
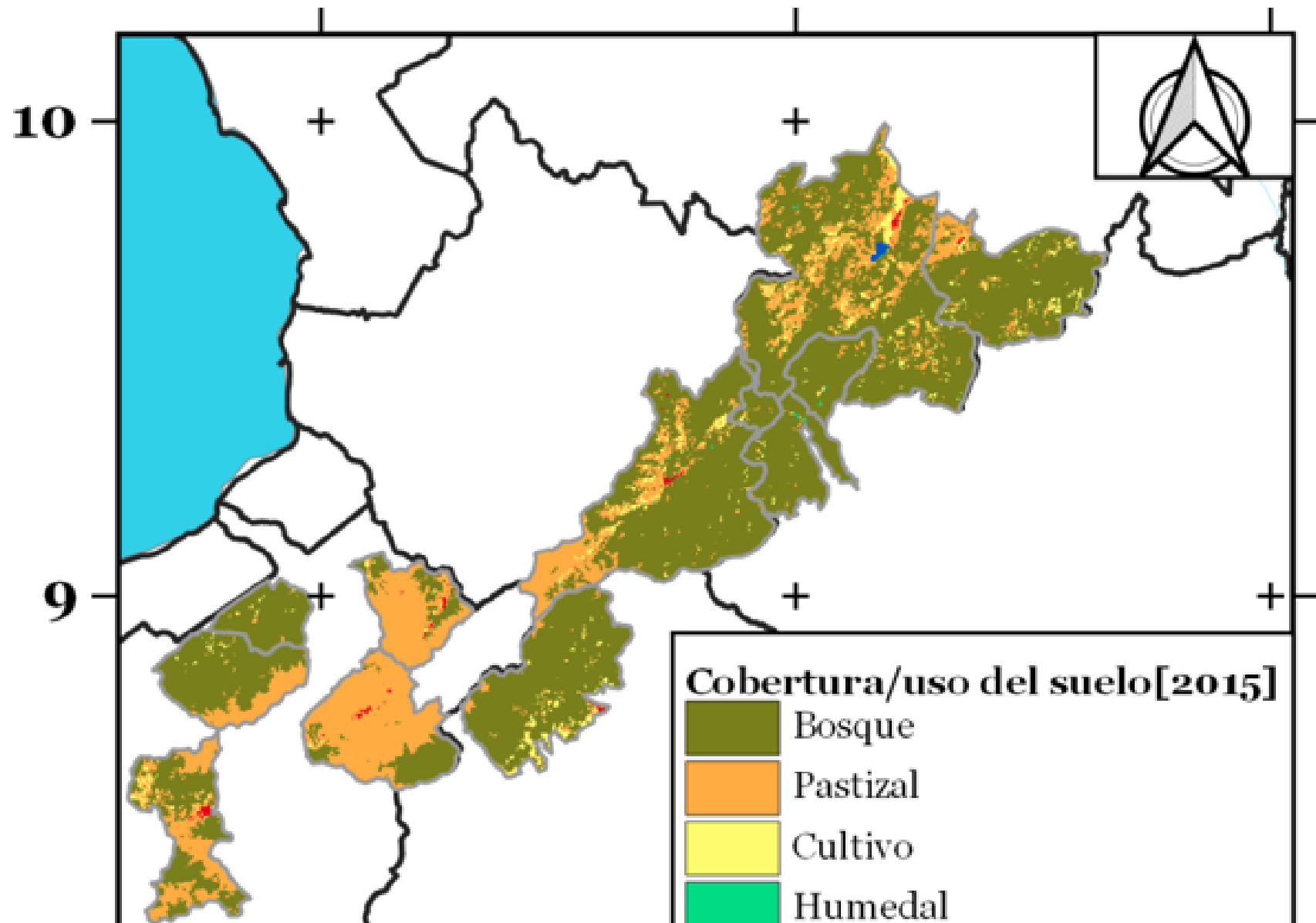


Figure 3. For the area of interest is shown forest distribution in 2017 according to the ALOS-2 PALSAR-2 (Advanced Land Observing Satellite-2 Phased Array type L-band Synthetic Aperture Radar-2) product, along with natural monuments.

6. Land use in the Andean region reflects the long interaction between human beings and their natural environment. They include a complex mosaic of rural landscapes characterized by a mixture of natural areas, crops and livestock areas, dispersed settlements in slopes and small villages in valleys and foothills, as well as towns with high intensity land use (see Figure 4). The fragmentation of forests in 2015 compared to 2000 is a threat to their preservation. The best-preserved areas are located 1000 meters above sea level where steep slopes are dominant and there are national parks (Figure 3). Forest loss is significant in Trujillo and Barinas states, where deforestation moved on from lowlands when roads were opened (Figure 5).



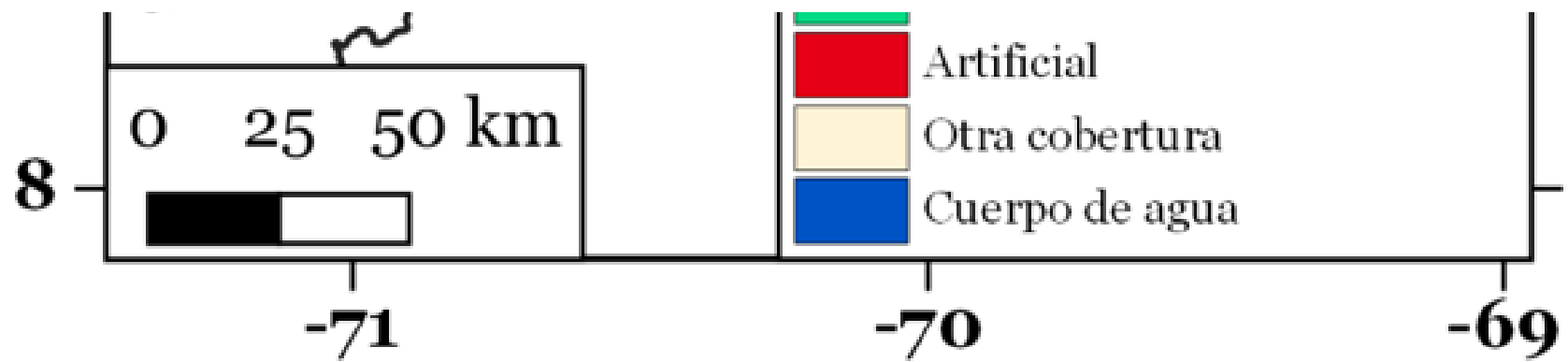
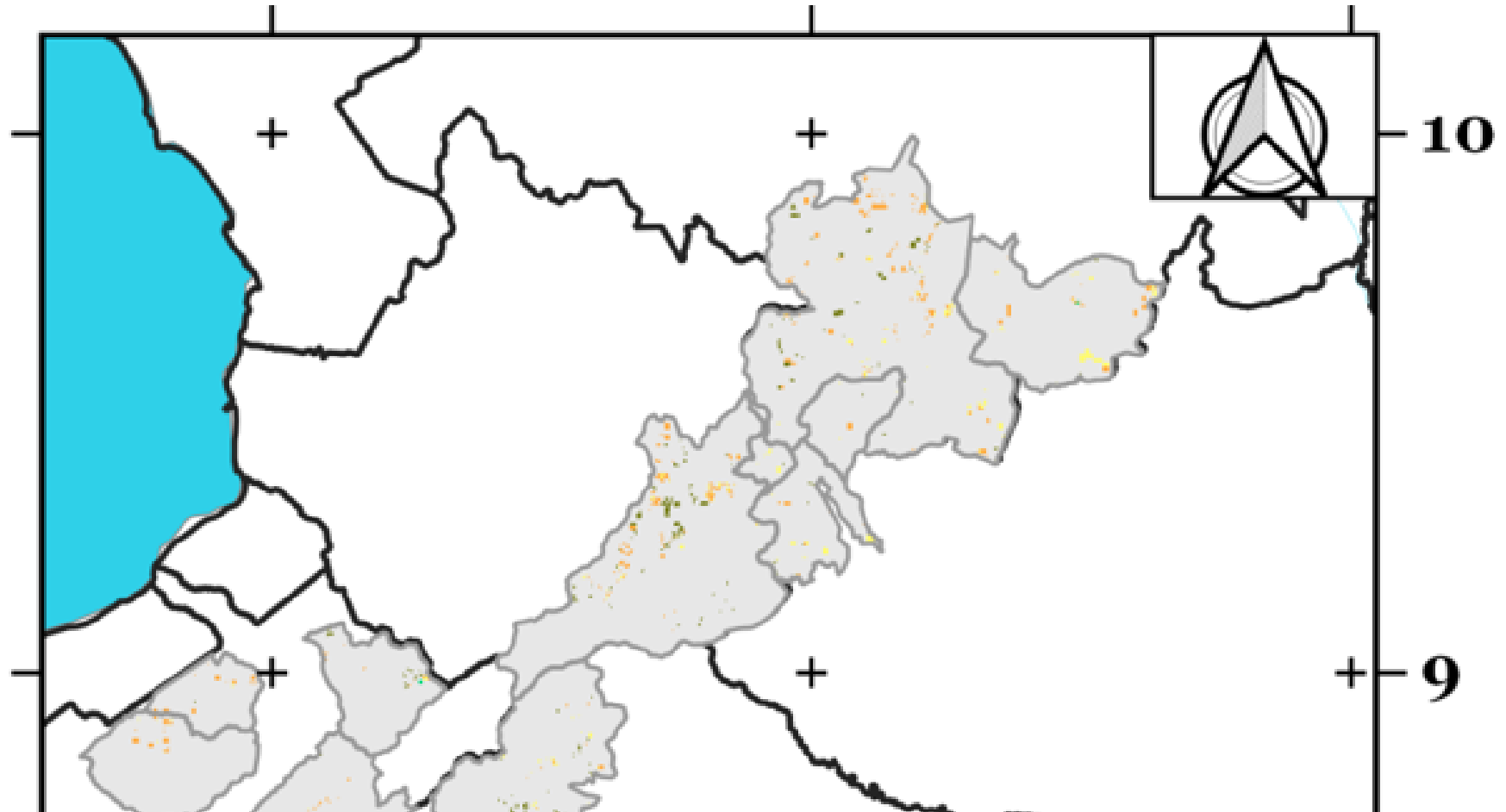


Figure 4. For the area of interest, according to the Trends.Earth tool developed by Conservation International (available online at <http://trends.earth>), is shown spatial distribution of the main covers and uses of the land in 2015.



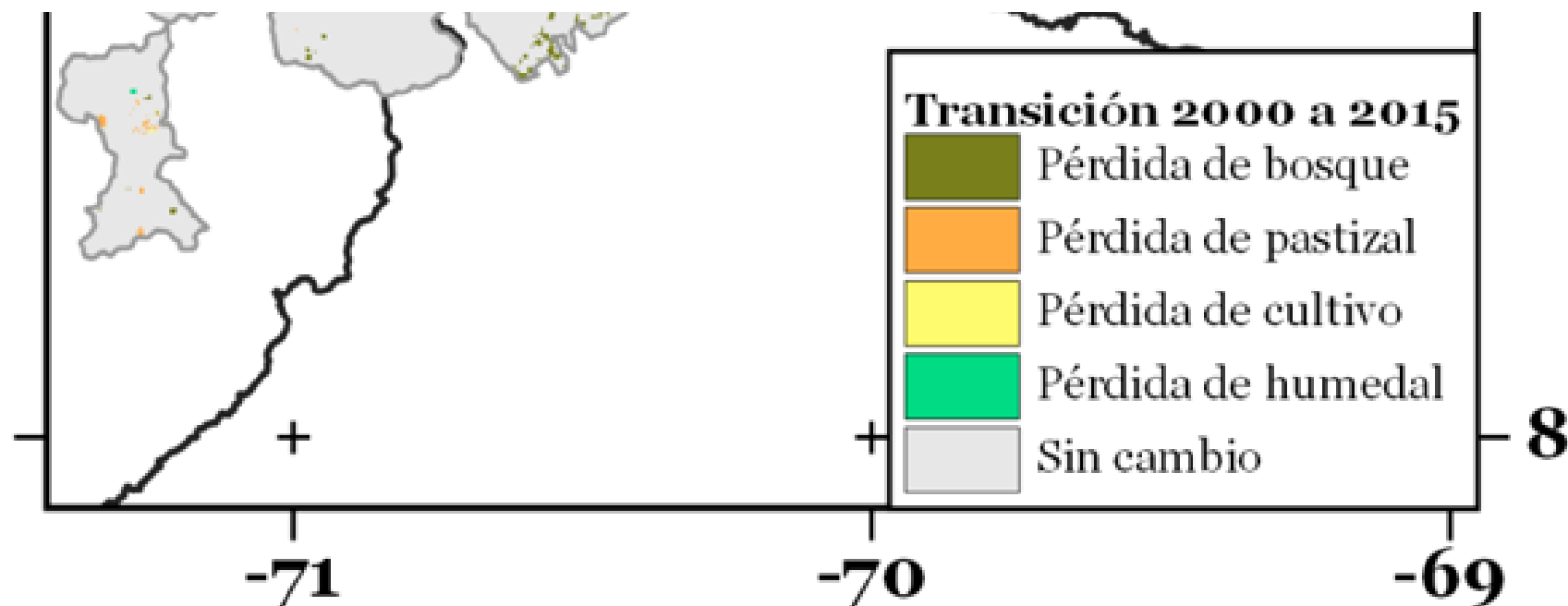


Figure 5. For the area of interest, according to the Trends.Earth tool developed by Conservation International (available online at <http://trends.earth>), is shown main transitions between 2000 and 2015.

7. To have a quantitative perspective on forest loss in the municipalities making up the area of interest of the project, we estimated the transition between covers and land uses between 2000 and 2015 (see Figure 5). This analysis revealed that about 7,500 ha of forests were replaced by non-forest covers during this time window. However, a recent study more accurate (Pacheco, 2011[1]) using Landsat satellite imagery on the dynamics of forest cover in the Andes region shows that in 1990 forests covered 1.88m ha (out of 3.2m ha total land). By 2000 and 2014, forest cover had gone down to 1.79m and 1.73m hectares, respectively. This is, between 1990 and 2015 approximately 145,000 hectares of forest were lost at annual rates of 2.55% (for 1990-2000) and 2.02% (between 2000 and 2015). A quick assessment based on the Hansen dataset for the target 12 municipalities shows that between 2000 and 2019, approximately 18,233 ha of forest were lost. This represents nearly one third of the forest loss in the Andean region. The target municipalities also cover around a third of the land are in the Venezuelan Andes. The proposed project will follow a landscape approach to conserve nearly 337,000 ha of productive landscape where biodiversity is satisfactorily represented. It will also support the restoration of 5,246 hectares of forest and agricultural land (with agroforestry).

8. Along with forested areas, there is a productive landscape characterized by the collective effort of several generations of peasant families that built up social, cultural and productive institutions in challenging rural conditions. Additionally, there is a centennial coffee culture, a unique legacy transmitted from generation to generation, which is now at risk due to a decrease in the cultivated area and low economic profitability. It is then evident the need to generate strategies for the economic, social and environmental sustainability of coffee growing in the region.

9. In view of the foregoing, the **proposal seeks to conserve the productive landscape where the biodiversity of the region is satisfactorily represented and where the elements of such productive landscape, the ecological and evolutionary processes sustaining them and the environmental services they provide to the communities continue to exist in the long term.** Actions should, among other aspects, lead to increasing the self-regulation capacity of ecosystems, protecting biodiversity, decreasing land use conflicts and significantly reducing the use of polluting pesticides and chemical fertilizers, as well as promoting the positive trends of land use that favor the model and future vision of the territory by duly integrating the special and specific features of its different ecosystems and the social, economic and cultural sectors making it up through sustainable productive activities.

10. The long-term solution to reduce the loss of biodiversity in the productive landscapes of the Andean region consists of integrating biodiversity into the coffee-cocoa sector by (i) offering better incentives to farmers so they will implement coffee production systems in harmony with biodiversity; and (ii) by having municipalities applying planning measures based on the landscape that will contribute to the livelihood of local populations and global environmental benefits. To achieve this goal, the project must improve competitiveness among producers by increasing productivity in terms of added value to coffee-cocoa and enhancing market conditions. Producers can only improve their quality of life and reduce pressure on forests and protected areas when they obtain additional benefits.

General environmental aspects of relevance in the region

11. The project area is part of the Andes hotspot. In fact, the Andes is one of the 35 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 around one sixth of all plant life on the planet, including 30,000 species of vascular plants, what makes it the hotspot with the greatest diversity of plants. It also has the largest variety of amphibians: 981 different species; birds: 1,724 species; mammals: 570 species, and ranks second after the Mesoamerican Hotspot in reptile diversity: 610 species. This hotspot is also noteworthy for its ecosystem services. It is the source of water for the main tributaries of the Amazon and Orinoco rivers, the largest and the second largest rivers in the world in water discharge. Its rivers supply water for capital and industrial cities, and for agriculture and energy production in the western region of South America.

12. In addition, the Andean region is one of the most diverse areas of the country and has been identified by Conservation International as one of the 25 areas of global biodiversity concentration and included by the World Wide Fund for Nature (WWF) among the 17 conservation priorities in Latin America. This region stands out for its biological distinctiveness and for being home to 45,000 - 50,000 species of plants (8-20% of the world), 20,000 of which are endemic. BirdLife International considers the northern Andean region as a region of global importance for endemic birds (Stattersfield et al., 1998; Wegw & Long, 1995). Due to its location between the Caribbean coast to the north, the lowlands of the Orinoco River to the southeast and the coastal chain to the east, this region has a representation of Andean, Amazonian, coastal and plains species, which provides it with a high degree of biodiversity. Furthermore, this region constitutes the northern limit of many Andean species and the eastern limit of Central American species. For example, the Cordillera de Mérida is home to the westernmost population of the striped anteater (*Tamandua mexicana*) in South America and the northernmost populations of the Andean marsupial rat (*Caenolestes obscurus*).

13. The Andean region (Táchira, Mérida and Trujillo states) covers 4% of the national territory. As altitude increases, the landscape transitions from sub-montane forest to deciduous forest, then to cloud forest and moorland, and then to some inter-montane valleys with thorny shrubs (semi-desert enclaves), all of it creating diversified physical conditions that house varied elements of flora and fauna.

14. As seen in Figure 3, the area of interest for the project also contains Areas under Special Administration Regime (ABRAE). The Ministry of the Environment and Renewable Natural Resources (MARNR), since 1979 began the planning of land use based on the Organic Law for Territory Management, whose objectives were integrated into the National Territory Management Plan, officially recognizing the ABRAES, which are geographical spaces, sites and elements of the environment with unique biophysical characteristics or other qualities and potentialities in the sociocultural that deserve to receive from the State an effective and permanent protection under a “sui generis” administration regime that guarantees the physical integrity without diminishing their values, through its use in accordance with those objectives and adequate protection and management with those characteristics. The National Parks and National Monuments also are framed as ABRAES (Gondelles, 1992[2]). The management of the National Park System is decreed through the Use Regulations and Management Plan (URMP), which contains the directives, guidelines and policies for the administration of the ABRAE, as well as the criteria for the assignment of uses and permitted or restricted activities. It is important to highlight that the Venezuelan regulatory framework for managing the different land uses and preservation of the biodiversity is one the most robust in the South America, but its implementation is deficient mostly due to the limited institutional articulation, which favors the loss of biodiversity, ecosystem functions, and forest degradation. The project site includes 6 protected areas (ABRAES) classified as National Parks identified as Key Biodiversity Areas and Alliance for Zero Extinction sites (Please see Table 3 below) as they host endemic animals and plants, some under risk of extinction. These are (i) the Sierra de la Culata National Park, (ii) The Sierra Nevada National Park, (iii) Guamaracal National Park, (iv) Dinira National Park, (v) Yacambú National Park, and (vi) El Guache National Park.

15. The areas for buffer uses of an ABRAE are allowed for existing agricultural activities and those based on the concept of rural development sustainable (e.g. truchiculture and horticulture) at the time of approval of the ABRAE. In this project, agroecological actions aimed at improving the productive systems will be carried out in buffer areas to improve the living conditions of native populations and recover the weakened environmental capacities in productive landscapes in terms of biodiversity and tangible generation of environmental services.

General climate and soil characteristics in the region

16. The Andean region presents great variations in precipitation and temperature, which are forming factors that generate the greatest diversity of soils. The average annual temperature varies from below zero in the highest peaks to about 24 °C in the lowlands. With variable altitudes, about 70% of this region is occupied by steep topographies that enclose small intramountain valleys. The rest of the territory is made up by piedmont and plains landscapes in the slopes that drain towards Los Llanos and Maracaibo lake (see Figure 3). This situation is reflected by a complex interaction between the relief and biological and climatic factors (MARN, 2004).

17. Regarding the types of soils of the Venezuelan Andean region, Ochoa et al. (2009) classifies them in the following taxonomic orders: Inceptisols (52.19%), Entisols (18.73%), Ultisols (15.44%) and Mollisols (13.55%). Entisols and Inceptisols occur on any type of geological material, under all climatic and topographic environments. Ultisols have important percentages on cretaceous materials and are generally located on clay materials (shales) at altitudes between 1000 and 2500 meters above sea level, with the highest percentage being seen at 2000 meters above sea level in areas with precipitation close to 1600 mm. In general, they are acidic desaturated soils with high aluminum content and an abundance of micaceous minerals, which shows a low to moderate degree of evolution.

Socio-economic characteristics of productive activities in the region

18. Historically, the economy of the Andean region has been determined by agriculture. This activity continues to be a key economic activity which varies depending on (i) the area where it is developed, (ii) the production methods, and (iii) the techniques used. In the low areas of the plains, south of Maracaibo lake, there are water resources and soils with high productive potential, where sugar cane, bananas, and bananas and cacao plantations are seen, as well as mechanized annual crops, varied fruit growing and dairy and meat cattle raising, activities that are developed in large areas of land using irrigation, fertilizers and biocides, among other inputs.

19. Diverse agriculture in terms of crops and techniques has also developed, and an important peasant production is still present (see Crops category in Figure 4). In this area, the production of items such as coffee, fruits (guava, soursop, blackberries, red and yellow pineapple, passion fruit, oranges, grapefruits, limes, etc.) and high-altitude vegetables such as garlic, carrots, cauliflower, cabbage, lettuce, beets and mushrooms stand out. Roots and tubers such as yucca, celery and potatoes are also typical in this region. It should be noted that potato cultivation is the largest production in the country. Mérida state produces 158 thousand 871 tons, followed by other Andean states such as Trujillo with 51 thousand 510 tons.

20. This involves an intensification of agricultural practices and an evolution of the relationship that Andean peasants have with the land. The status of the Andean mountains seems to have evolved from a living space where peasants lived in close relationship with their land and essentially generate products for self-consumption, to a productive space that supplies regional and national vegetable markets. This development has caused the transformation of rural spaces through the specialization of production and the modernization of production tools and inputs, and the introduction of chemical and organic fertilizers, machinery and irrigation. Those crops are developed at altitudes between 1500 and 3500 meters above sea level, and even at higher altitudes affected by frost.

21. One of the most important crops in the Andean region is coffee, which is cultivated in the 500 to 1500 masl strip, an ancestral tradition of the region. Coffee was the engine that energized Venezuelan economy and generated the highest foreign exchange earnings for the national treasury. Coffee generated significant changes in the Andean region, such as the consolidation of urban centers, the improvement of social conditions and the opening of new pathways,

both through lands and rivers, for reciprocal trade between coffee-growing areas and the city of Maracaibo. This city was the port where coffee exports to Europe and the United States took place and the reception center for agricultural inputs, semi-finished and processed products, and imported technology. All the above led to qualitative changes in the populations of those states and transformations in their ways of life (Cartay, 2004).

22. According to official figures, coffee production in the Andean region is the largest nationwide. Coffee production is broken down as follows: Lara state with 891,400 quintales (qq)^[3]; Portuguesa state with 831,739 qq; Táchira state with 260,000 qq; Trujillo state with 137,000 qq; and Mérida state with 119,000 qq, for a total of 207,143 ha planted in 58,802 agricultural production units (APU's).

23. Another important item in the region is cacao, which was the first production and export item of the Venezuelan economy, very much appreciated in international markets. The traditional areas of cacao cultivation in Venezuela include three regions, of which the Andean one represents 20% of the planted area. In the southwestern region of Venezuela, the largest cultivated area is in Mérida, with 7,680 ha, which represents a minimum percentage of the potential area. We recommend that state policies encourage this important agricultural item. According to a study of the potential areas for the development of cacao planting in Mérida state carried out by Gómez (2002), there are some 23,221.86 ha of suitable soils where cacao can be cultivated without restrictions, and 148,773.26 ha that have slight restrictions.

Characteristics of the main anthropic threats with environmental impact in the region

24. In this complicated natural geodiversity, three socioeconomic factors that drive the natural resources base stand out: settlements, agriculture, and transportation infrastructure. These three factors add greater heterogeneity to the regional territory. In terms of human occupation, it should be noted that the main urban centers and productive areas are located in the middle and upper parts of the longitudinal valleys of important rivers such as the Torbes, La Grita, Mocotíes, Chama, Santo Domingo, Burate, Boconó, Tucuyo, Motatán, Castán and Carache rivers. The opening of the foothill trunk roads unleashed a particularly important migratory flow from the high Andean areas to the low Andean areas leading to the elimination of forest masses and population increase, which resulted in a considerable reduction of landholding size and fragmentation of the Andean natural ecosystems. These trunk roads linked the region with center-north urban markets in particular, which are the main destination of agricultural production.

25. The threat faced by biodiversity in the productive landscapes of the Andean region related to the pressure exerted by the population on the land and the natural resources, is reflected in an average rate of deforestation higher than 2% for the 2000-2014 period, as seen in all studies carried out and mentioned in the previous sections. Even though at the beginning of the eighties it was pointed out that the agricultural frontier of the Venezuelan Andes presented apparent depletion (Venturini, 1983), the described trends show just the contrary, an expansion of the agricultural space. As a matter of fact, during the last three decades commercial horticulture incorporated high-Andean scrub lands and paramo lands. The expansion of highland cattle raising continues to the detriment of cloud forests, as well as the substitution of traditional coffee planting for short-cycle crops with greater profitability and high-altitude dairy

farming. Similarly, it is important to point out that the Andean foothills located in these ecosystems are under constant threat due to the pressure exerted on them in the western high plains' region and the southern area of Maracaibo lake to obtain ecosystem services from these forests, as the mentioned regions have depleted their forests.

26. In the Andean region, the upward movement of the agricultural frontier has been stimulated to increase cultivated land and satisfy the population's food demand. This has had an impact on both the availability and the quality of water. In this regard, West (1996) found that the main impact of paramo deterioration by agricultural activities is the decrease in water availability. Many of the high mountain wetlands face serious threats caused by inadequate intervention through human activities. Water production in the Andean paramo of Merida (upper basin of the Chama River), until now relatively significant, is what allows the intensive development of agriculture activities with markedly commercial and market purposes, little diversified, with high yields, focused on a great variety of potato crops, even if the production of vegetables such as carrots, cabbage, cauliflower and others is maintained to a lesser degree only (Florez y Manzanilla, 1999, quoted in Naranjo y Duque, 2004).

27. The pressure exerted by intensive traditional production systems and subsistence agriculture on forests and protected areas, as well as the deterioration and loss of soil fertility and its biodiversity, significantly impact the sustainability of the rural landscape. This is partly due to a land use model that separates the land necessary for agricultural production from the land used as managed areas for conservation, ignoring the interrelation between the two of them. In fact, the greatest challenge of sustainable land management in the region is to respond to the ever-increasing demand for agricultural products and at the same time preserve biodiversity and ecosystem functions, and maintain the way of life of mountain family agriculture.

28. Population growth, the change in traditional production systems and the expansion of markets have involved changes in land cover and uses in the Andean region that can lead to degradation processes that translate into various forms: desertification, acidity, instability and erosion. The use, occupation and extreme natural dynamics are contributing to the degradation, deterioration, contamination and, in many cases, to the destruction of the soil. The final effect of all the above is the inability to adequately sustain the economic functions and the original ecological functions.

29. Deforestation generates multiple impacts at the social and economic levels, which results in the loss of food options (game and fruits), energy sources, construction materials and fodder for domestic animals, as well as the alteration in ecosystem services such as the ability to store and regulate water, the prevention of erosion, the maintenance of soil fertility, climate regulation (including shade and humidity for people and animals), and the control of floods and landslides in rainy seasons, among others.

30. In this scenario, commercial agriculture in the Andean region will continue to develop at the expense of natural resources and generate a negative impact on environmental values of global importance, threaten environmental services and cause the loss of livelihoods of the most vulnerable populations that directly depend on these natural resources (see Figure 4).

31. This project will be developed in rural communities and includes ABRAE buffer zones (see Figure 3). The municipalities selected as areas of interest for the project have a population of 579,710 inhabitants (according to the 2011 census). Table 1 summarizes their socioeconomic characteristics according to the statistics of the population census. On average, the rural population is 36.72% and varies between 5.5% and 100%. Of this population, 39.13% is poor, although this indicator varies from 4.75% to 63.9%, which reveals a marked level of poverty. To a large extent, this particularity can be attributed to the fact that the territories where they live offer little diversification in economic activities and small producers do not have sufficient income, coupled with difficult access to basic services. It is then of paramount importance to overcome poverty and increase the quality of life through a sustainable growth strategy.

32. The proposed project focuses attention on small farmers and coffee and cacao producers located in 12 municipalities (see Figure 1). In general, the project seeks to promote conservation, sustainable use of biodiversity and harmonious use of the territory. In this context, the project's aim is to prepare a plan for territory use and development with a predominance of one- to two- hectare production units taken care of by the household. With respect to cacao, the productive units in the project area have an average surface of 3.4 ha. A small percentage of small farmers and coffee and cacao producers is organized in cooperatives. This explains why the majority of them have serious difficulties to access the different agricultural goods and services. It also shows that they have a limited capacity to face challenges of various kinds such as pests attack and the presence of new competitors in a more interconnected global market.

Table 1. Principal social indicators in the project's area of interest

State	Municipality	Total (inhab.)	Rural (%)	Population				Poverty (%)	Total Area (ha)	Area of interest (ha)
				Women		Men				
				N	%	N	%			
Barinas	Bolívar	52,872	22.1	26,244	49.64	26,628	50	28.80	109,623.31	93,194.90
Lara	Morán	123,880	46.5	60,240	48.63	63,640	51	49.90	223,100.00	213,619.52
	Andrés Bello	47,245	60	22,330	47.26	24,915	53	37.80	224,713.07	83,889.89
	Tulio Febres Cordero	34,030	25.8	22,330	65.62	23,915	70	44.90	64,288.32	24,941.79
	Caracciolo Parra Olme	27,632	18.3	13,322	48.22	14,390	52	46.80	78,715.78	51,412.28

Mérida	do	27,882	6.98	4	51.18	8	49	13.02	62,339.45	62,339.45
	Campo Elías	99,873	6.98	51,116	51.18	48,757	49	13.02	62,339.45	62,339.45
	Miranda	21,882	36.85	19,798	90.48	11,084	51	18.67	41,640.31	41,640.31
	Rangel	19,008	28.64	9,339	49.13	9,669	51	17.21	72,587.83	72,587.83
Portuguesa	Sucre	41,037	44.8	20,146	49.09	20,891	51	77.30	40,000.00	38,858.48
	Monseñor José Vicente de Unda	27,744	22.7	11,270	40.62	12,474	45	63.90	46,570.11	25,555.81
Trujillo	Campo Elías	5,331	100	2,723	51.08	2,608	49	43.60	155,821.71	9,116.29
	Boconó	83,176	30.7	41,366	49.73	41,810	50	42.70	136,500.00	158,797.80
Total:									1,255,899.89	875,954.35

Barriers that need to be addressed

Barrier 1: Limited institutional capabilities to incorporate the climatic variable to their work and planning, and to manage a comprehensive multiple use approach of forests and productive landscapes in the Andean region, which favors the loss of biodiversity and ecosystem functions.

33. The public policies of related institutions are mainly aimed at establishing cash crops as a productive activity to achieve food security without taking into account aspects related to the negative effects of the substitution of forest masses by short-cycle crops, what causes the expansion of the agricultural frontier in a disorderly manner in high areas that, due to their characteristics, generate strong processes of land degradation. This is related to the fact that the agricultural planning developed by MPPAPT, as well as the specific plans undertaken by local governments in the agricultural field, do not incorporate the management of productive landscapes, the conservation of biodiversity, the sustainable management of land, and the conservation of ecosystem functions. Likewise, weaknesses in planning and coordination between stakeholders regarding the negative impacts of their activity and insufficient knowledge on biodiversity conservation and promotion of ecosystem integrated management and ecological connectivity coupled with insufficient awareness of the society

in general on conservation and sustainable development, present significant challenges to achieve a balance between sustainable use and economic development in the Andean states. There are also institutional weaknesses in the adequate implementation of land use monitoring and surveillance to comply with plans and regulations, and insufficient online information supported by updated and reliable statistics for decision-making.

34. Although knowledge on an integrated approach to productive landscapes and land degradation management exists, the managers of the institutions require support to incorporate such knowledge into planning tools. At a technical level, progress has been made in defining the objectives and remit of the entities that participate in matters of biodiversity conservation and sustainable use and sustainable productive landscape management, but participation of the directly affected communities and their organizations has been scarce because they have limited themselves to receiving information and handling diagnoses without actually having an all-encompassing approach of all actors involved.

35. Several institutions have mandates related to sustainable agricultural development. The Ministry of Popular Power for Ecosocialism (MINEC) enforces environmental regulations. The MPPAPT promotes chain coordination and concertation processes to foster development of an agricultural sector. The Rural Development Institute (INDER, attached to MPPAPT) keeps land registration and sanitation records and provides the agricultural sector with infrastructure for rural support services to the agricultural sector. Governors' and mayors' offices promote the preparation of plans for territory planning and economic development in states and municipalities (supported by production plans). However, inter-institutional coordination and networking is limited when measures and actions to counteract biodiversity loss and land degradation are needed. In fact, there is a duplication of responsibilities in the plans, projects and programs, as well as competition between institutions and little compliance with current regulations in national and state agricultural plans related to land use.

36. The National Parks Institute (INPARQUES) manages the national parks within the project area. IMPARQUES is an agency attached to the MINEC. Similar to above-mentioned institutions, the operational activities in national parks are deficient in terms of biodiversity conservation due to limited resources available, poor training of personnel in biodiversity-related problems, and use of an inadequate strategy to integrate localized communities inside and outside of the national parks. Control and monitoring are also inefficient because these do not incorporate adequate knowledge to assess the temporal dynamics of biodiversity. For example, the Sierra Nevada National Park contains representative samples of the country's natural and cultural heritage, nevertheless, there are recurrent conflicts related to human settlements, whose inhabitants carry out agricultural and tourist activities, and exploit a wide variety of non-timber forest products to make crafts. Although these activities are permitted in particular areas of the parks, under certain circumstances, it leads to environmental degradation because of the contamination of water and soils, and the fragmentation of the landscape. On the other hand, it should be noted that the tourism generates significant economic benefits to the native inhabitants, but this activity does not necessarily take into account the conservation of natural landscapes and native biotic resources.

37. Insufficient awareness by society as a whole on monitoring and surveillance contribute to having an insufficient supply of information and adequate tools to evaluate the impact of the strategies on conservation and sustainable use of biodiversity and the management of sustainable productive landscapes. As a consequence, the final results of the interventions cannot be quantified and adequately evaluated, adjusted or disseminated.

Barrier 2. Limitations of producers and technical assistance services for the implementation of SFM, SAF, productive systems and sustainable practices in coffee-cacao result in low productivity, which favors land use change, the loss of forest areas, water resources and biodiversity, and causes land degradation.

38. The technological management of coffee and cacao crops and the resulting productivity are low, which induces substitution by more profitable crops. Producers lack information on the impacts of their agricultural activities, as well as knowledge to adopt better production options at their locations. They are also not fully aware of the benefits of forests and ecosystem services for agricultural production and the impact that unsustainable activities have on them. Since their perception of the importance, characteristics and benefits of the components and properties of ecosystems is limited, when producers compare the various potential uses of the land they tend to prefer items that currently provide greater income, instead of items that would involve a non-tangible profit, that are less profitable or that have long-term yields (such as primary forest, shade coffee and diversification with cocoa, among others).

39. Poor crop management practices are routinely applied. There are no ongoing training programs to update producers in organic farming techniques, shade management, pruning, crop association and marketing of their production. Moreover, research has focused on the management of pests and diseases, neglecting productivity through shade control, irrigation and fertilization.

40. There is no harmonious spatial planning of land use that delimits first-class sites for coffee production, sites for sustainable forest management, and sites for forest protection to safeguard the ecological integrity and stability of the areas and provide producers with economically viable alternatives in the coffee-cacao market. A clear indication of the most appropriate use of land and resources, combined with technological changes leading to diversification of the economy based on agriculture in target areas, would contribute to the reduction of environmental degradation and the recovery of degraded areas. Therefore, to achieve a more sustainable production, production policies need to be aligned with environmental and economic policies and anchored in land development plans that prioritize areas according to different types of crops and take into account types of soil, climatic factors, distance to markets and social aspects, among others.

41. Poor farming and animal husbandry practices, forest exploitation activities and inappropriate use of resources contribute to increasing rural poverty and losing biodiversity. The loss and degradation of natural habitats endanger the survival of numerous endemic species of the region.

42. Clean intensive cultivation has continuously increased, the clearing of forest plots to transform them into croplands and the application of herbicides have directly affected biodiversity and the supply of ecosystem services. The financial resources available to reduce biodiversity threats are limited by government entities. Of special attention in this context is the destruction of productive lands in the Andean region due to their conversion in soil for agriculture, poor agricultural/livestock practices, over-exploitation of montane forests and general lack of environmental awareness in the rural population. Those processes have repercussions on soil erosion and deterioration, depletion of streams, untimely flooding, low quality of drinking water and loss of biodiversity and soil productivity in forest areas, as well as significant impacts on biodiversity conservation and the local rural economy, which is closely dependent on coffee production.

43. Technical assistance services do not have sufficient capacity to provide support, given that the number of technicians to serve producers is very low (one or two per municipality). This means that only a not very representative part of the producers receives assistance. The objective of the Coffee Plan was to generate networking among State entities, provide priority service to coffee-producing families, and guarantee them a better quality of life. The plan made it possible to inject financial resources to renovate roads and plantations, purchase equipment, build or refurbish coffee roasting plants, purchase transportation and build houses, among other. However, training, research, technology transfer, innovation and promotion of consumption were not addressed in the same way. Currently, there is no level of productivity or organization that allows associations to add value to their production, compete with country's traditional brands, increase profitability, improve the quality of life and contribute to environmental conservation.

44. Coffee and cocoa show low productivity and crop technical management without environmental sustainability criteria. The low production levels per hectare, which domestically average six quintals, are a source of grave concern in agricultural policies. In the case of coffee, this variable is even more important since coffee is a product traded in the commodities market. Thus, the ability of producing countries to negotiate selling prices is practically nil. For this reason, actions aimed at increasing the income of coffee and cacao families should mainly focus on improving production levels and efficiently managing crops. The poor technical capacity of producers, the high incidence and severity of pests and the deforestation in coffee farms are the main causes that explain the low levels of coffee production, productivity and environmental sustainability. Production is carried out under poor management conditions and producers have difficulties to obtain high-quality and productive seeds.

45. Regarding management, the limited use of technologies and low access to technical assistance services explain poor crop management. The absence of an interconnected system of research, development and innovation, and the weak consensus to implement policies aimed at solving problems in the productive sector and based on solid technology transfer mechanisms, result in resource dispersion and effort duplication that end up weakening the supply and access to technological goods and services. Likewise, the disconnected provision of technical assistance together with the low levels of association and the scarce development of a market for quality agricultural goods and services, reduce the possibilities of basing production on technological development and innovation.

46. Regarding seeds, the high incidence and severity of pests are having a great impact on productivity levels due to the predominance of old plantations. We estimate that 90% of the plantations are over 20 years old or have not been renewed for several decades in almost all producing regions, which makes them more susceptible to being attacked by pests. Finally, the sanitary management of crops is inadequate as a consequence of the weakening of the national phytosanitary prevention and control system (FEDEAGRO, 2008).

47. At the moment, a consequence of the Covid 19 pandemic is the severe restriction on circulation, which has caused agricultural producers in the Andean region, cannot move their products to different national and regional markets, so these end up rotting in the fields.

Barrier 3. The vulnerability of coffee-cacao producers in a market where green commodities are not valued, and the lack of incentives and green financing discourage the implementation of sustainable production and conservation practices.

48. People now recognize in Venezuela that Venezuelan coffee is increasing its share in specialty coffee markets, where the sensory quality in the cup demanded by consumers is high and rewarded with excellent prices. However, the proportion of coffee sold to the large coffee industry as common coffee is higher and characterized by its low quality. The presence of physical and organoleptic defects increases waste and consequently reduces the yield of the exportable supply. Some of the main reasons that directly explain this problem are: insufficient post-harvest infrastructure, mainly drying facilities; poor development of technical capacities for quality management, and limited development of quality infrastructure services or other support services that guarantee the traceability of quality-defining parameters and/or conditions throughout the value chain.

49. Deficiencies in the use of new technologies make the national coffee system inefficient, with an average yield of around six quintals, well below the yields seen in neighboring countries like Brazil (30 qq) and Colombia (18 qq). Efficient programs for the transfer of modern technologies must be implemented and new varieties with higher productivity and resistance to pests, diseases and climate change be introduced.

50. The scarce technical capacities in quality management are explained, on the demand side, because there is no interest by chain stakeholders to learn and incorporate good agricultural or manufacturing practices into their production processes, since owners of coffee storage facilities do not reward quality with better prices; and on the supply side, because few training services or technical assistance are offered in producing areas on issues related to quality management.

51. Regarding access and use of financial services, small coffee growers point out that the formal financing system demands many requirements when they apply for agricultural loans. Therefore, they often resort to informal financing, which is more viable, despite the fact that the bank's agricultural interest rate is 13% and lenders offer a high monthly interest rate. Loan sharks can be agricultural producers or intermediaries, and the loan is short-term with different payment methods; the most common are, a) one part in cash and the other with harvest product, and b) only in cash. Coffee growers who go to banks and are granted credit, mention that financing settlement takes place at the wrong time, in relation to the coffee calendar, which affects the performance of the productive unit and causes gradual indebtedness of coffee growers. Since coffee growers do not receive the credit on time, they pawn the harvest by selling it directly to businesses or intermediaries at prices below the prices set in the official gazette, because they do not have the ability to pay due to low yields and need to have cash once the harvest takes place. This affects the renewal of coffee plantations and the application of cultural practices.

52. Although coffee is considered a flagship item since 2008, its importance in the agro-export basket and its impact on rural family economy is very little. Hence, what has been achieved in terms of commercial positioning and conquering new markets is negligible.

53. The low level of association of small coffee growers limits the possibilities of developing economies of scale that would allow them to make investments, centralize post-harvest and reduce the costs of having access to training and support services that will guarantee quality.

54. Producers depend on intermediaries for marketing and have less access to the market chain than processors, wholesalers and consumers. In the coffee sector, there are no supply chain approaches in production, and there is little added value at farm level due to the lack of technical support to address post-harvest productivity and quality issues, which contributes to having a low income. Moreover, most producers are not able to generate added value to their production in terms of processing and marketing. Likewise, they do not have access to export market niches that offer better prices or profits. Individual producers and producers who are in associations with low levels of consolidation have almost no leverage in negotiations and little capacity to make decisions related to favorable price agreements; to have access to current and reliable information on the market; to obtain the technical, financial, marketing and administrative support required to meet the production standards and quality levels demanded by market niches. Likewise, volume and quality are factors that would allow access to international buyers, and despite the fact that there are marketing mechanisms in place, organizational capacity is weak. Certification systems have been implemented with donor support, but they present widespread discontinuation when funding ends. There have not been enough marketing and communication efforts to support product certification. On the consumer side, there is no educated market that appreciates high-quality coffee and is willing to pay a price higher than for conventional coffee, which would be an incentive for coffee growers to produce top-quality coffee. The implementation of certification systems is still in an early stage, due to their complexity.

55. In addition to this, it is in rural areas where gender gaps are accentuated, in a context of rising food prices, weather shocks and lack of protection of livelihoods; sharpening the general restrictions, especially in the agricultural production area. Given this, statistical data from the country (INE 2014), confirm that in some states of action of the project, only 21% of the agricultural producers reported are women. Also that, to a smaller extension of the productive unit, the number of women producers increases. Thus, the number of female producers with access to plots of between 0.5 and 10 hectares in these states comprises almost 12 thousand women, who represent 71% of female agricultural producers in the area, showing a gap linked to inequalities in land tenure and recognition of the productive work they do.

56. Likewise, there are gender gaps in access to a large number of agricultural inputs, including land, livestock, work, education, extension services, credit, fertilizers and machining equipment; and more recently in the national context, gaps in access to fuel, or technological services, which means that the agricultural labor force of women usually achieves lower yields than that of men, not because they are less capable, but because they are also less capable. they occupy smaller farms and use less inputs, fertilizers and seeds.

2) The baseline scenario and any associated baseline projects

57. The Venezuelan government attaches great importance to development compatible with the protection of the environment, as stated in the objectives of the Second Plan for Economic and Social Development of the Nation 2013-2019, which establishes in its Objective 5.1: Build and promote an eco-socialist productive economic model based on a man and nature harmonious relationship that guarantees the rational, optimal and sustainable use and exploitation of natural resources respecting nature processes and cycles; and in its Objective 5.2: 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.

National Strategy for the Conservation of Biological Diversity 2010-2020 and its Action Plan

58. Strategic framework for biological diversity conservation in the Bolivarian Republic of Venezuela, and management tool for the preparation and implementation of a set of national, regional and local operations and actions that have materialized in the different national sectors as defined conservation lines and basis for the development of related policies in the fields of education and legislation, in addition to becoming the basis for the new institutional framework, the interconnection of sectorized bureaucratic structures and the formulation of proposals for regional integration in this matter. The strategy consists of seven lines of work, highlights the conservation of threatened species that require specific actions for the recovery of their natural populations, and devises actions and activities for the sustainable use of biological diversity and the management of strategic areas for their conservation in response to ecosystem destruction, degradation and fragmentation.

Misión Árbol Ecosocialista

59. This program was created in 2006 and is an initiative to reforest woodland areas affected by indiscriminate logging. Currently, it is a comprehensive project that urges the raising of awareness in people about the intrinsic rights and duties of our relationship with nature. The project entails the meaningful and active participation of the community in the creation of a new development model based on forest recovery, conservation and sustainable use to improve the population's quality of life. To this end, the following aspects are promoted: the planting of native plants and trees, the collection of seeds, the sanitation of rivers and streams, the cleaning of green areas, and the holding of extensive recycling days and nationwide conservation talks. After more than 13 years in the environmental fight, some 50 tons of seeds collected and more than 5,573 eco-brigades registered. By 2019 it had 40 million specimens planted throughout the national territory. This program is in charge of reforesting jointly with the Compañía Nacional de Reforestación (CONARE), an entity attached to the Ministry of Popular Power for Ecosocialism (MINEC). Since 2009, more than 29,000 people had joined the mission through 2,639 conservation committees distributed in 280 municipalities. The participation of women is 40% (11,783 women) of which 627 are community coordinators and leaders, while the participation of men is 60% (16,919 men) being 1,490 coordinators and leaders within their communities. The conservationist committees are group of people from the same locality, organized to promote and develop agroforestry and reforestation activities, as well as training initiatives and training for the population in the field on environmental conservation. Likewise, this mission incorporates the education sector at all levels to promote environmental ethics, principles and values on which the country's economic and social development model is based. Furthermore, it contributes to the development and diversification of socio-productive activities and the generation of employment in rural areas.

Program for the Establishment of Goals in Land Degradation Neutrality in the Bolivarian Republic of Venezuela

60. The purpose of the Establishment of the Land Degradation Neutrality Goal (LDN) is to preserve the productivity of land resources, support ecosystem functions, and thereby meet the needs of current and future generations. Actions are focused on striking a balance between anticipated new land degradation and future steps to improve degraded land. The national referential baseline was delimited accordingly, and a conceptual note was prepared with voluntary

goals and related steps to achieve LDN by 2030. Based on the 2030 Agenda for Sustainable Development, especially SDG 15, countries are urged to protect, restore and promote the sustainable use of terrestrial ecosystems, manage forests sustainably, combat desertification, halt and reverse land degradation, and slow the loss of biological diversity.

The Agro Venezuela Mission

61. The purpose of this mission is to guarantee the right to food security through technical assistance, supply of inputs and financing for agricultural producers, among other. This mission benefits the country's producers who have land or areas where they can carry out an agricultural project. It began in 2012 with the purpose of strengthening national food production by providing technical, financial and logistical support to small, medium and large producers, mainly in the following sectors: vegetables (corn, rice, soybeans, sunflower, potato, sugar cane, coffee and cocoa), livestock (chickens, eggs, pork, milk, goats, sheep and beef) and fishing and aquaculture (tuna and shrimp).

The Plan Siembra 2019-2025 National Program

62. The purpose of this plan is to promote national food production, contribute to the achievement of national agri-food security - the sacred food of the people- and stimulate the country's productive capacity by guiding small and medium producers of annual crops so they can plant an adequate number of areas to meet the needs of the domestic market and at the same time improve their income and optimize the use of productive resources. The plan includes five proposals: a) promoting one million farms until 2025 for the development of 700 thousand hectares, b) fostering the Popular Seed Recovery Center, c) establishing 48 certified seed production farms for cereals, vegetables, tubers and legumes, d) developing 1,185 bio-factories for the production of bio-inputs, fertilizers and biological controllers, and e) promoting 24 farms for the production of forage crops for animal feed facilities, for what we have available 228,439 million bolivars. Regarding the coffee sector, the Plan Siembra 2019-2025 contemplates the rescue of primary production, the renewal and maintenance of coffee plantations, the production of seeds and the establishment of quality germinators and nurseries, as well as the renewal of 63 thousand hectares.

The Venezuelan Coffee Corporation (CVC).

63. Official Gazette 39452 of June 23, 2010 includes the creation of the CVC to comply with the duty of the Executive Branch to guarantee the agri-food security of the Venezuelan population through the implementation of policies aimed at developing production ways and means. The purpose of the CVC is to administer, undertake, coordinate and supervise State activities in the coffee sector, including the production, processing and distribution of coffee and its by-products, as well as to integrate the efforts of state-owned companies and joint venture companies in the coffee sector to strengthen productive networks and endogenous development.

64. The CVC has reinforced inter-institutional ties for, a) providing comprehensive support to primary coffee production, b) establishing a social and productive infrastructure for coffee communes, c) building a network of socialist communal distribution of roasted ground coffee, and d) comprehensively training technicians, producers and workers of the coffee circuit; all the foregoing under the development framework established by the Simón Bolívar Project and the First Socialist Plan. The CVC supervises the following companies: Empresas Café Venezuela S.A., Empresa Nacional del Café S.A., Café de Venezuela Tiendas y Servicios S.A., VENEDOM (Empresa Gran Nacional with the Commonwealth of Dominica); Fama de América S.A. and CAFEA.

The Venezuelan Cacao Socialist Corporation (CSCV)

65. The purpose of the Corporación Socialista joint venture, attached to the People's Ministry for Agriculture and Lands (MPPAT) is to administer, undertake, coordinate and supervise State activities in the cocoa sector, including the production, processing and distribution of cocoa, chocolate and its by-products, to improve the quality of life of producers, satisfy people's needs, contribute to the achievement of the Nation's agri-food security and promote exports.

Foundation for the Development of Science and Technology (FUNDACITE)

66. The National Plan for Science, Technology and Innovation of the Venezuelan State (2005-2030) is premised on the transformation of social and productive relations by linking the potentialities and capabilities of the communities through Socialist Productive Innovation Networks (RSIP). The RSIPs are a type of organization that promotes cooperation and association between small- and medium-sized units that produce common goods and services through mutual support to solve problems of inputs, materials, financing, marketing, education and training, technological developments and specialized technical assistance. The RSIPs are supported by an innovation system that favors socio-productive conditions in a region.

Institutions engaged in teaching and research

67. The Institute of Environmental and Ecological Sciences of Universidad de los Andes (ULA) offers courses, diplomas and general training for the development of research to improve coffee productivity. Among other educational centers, the Intangibles Management Unit of ULA (UGIULA) offers, in alliance with the Intellectual Property Research Center (CIPI) and the ULA, courses on trademarks and their protection for coffee and cacao producers and processors of Merida state.

The University of Coffee. Course on coffee trademarks and their protection

68. The purpose of the University of Coffee is to promote the transformation of the economic system by transcending the capitalist oil rentier model and moving to the socialist productive economic model, thereby developing the productive forces for the transition to Bolivarian socialism. In this context, we propose the consolidation and improvement of the Sistema Integral de Torrefacción Café Venezuela, S.A., which will booster the strengthening and consolidation of the agri-food production chain of the coffee sector by incorporating national added value and guaranteeing the security and food sovereignty of the Venezuelan population.

Municipalities/Agricultural departments

69. They include local governments and cooperation programs and networks to reinforce the demands of the local productive system and guarantee productive development conditions. They are also responsible by law for improving public services, networking roles, environmental management and productive development.

The National Institute of Agricultural Research (INIA)/The National Seed Service (SENASA)

70. INIA-SENASA are entities attached to the People's Ministry for Agriculture and Lands (MPPAT). With the genetic improvement program, INIA seeks to strengthen national research and production of coffee and cacao strategic items through new high-quality varieties and the creation of a National Germplasm Bank that will concentrate the largest diversity of these crops. INIA's research has led to improved cultivars of good yield and high seed-to-cup quality, such as the Monte Claro coffee variety, which is a high-yield cultivar with high grain density (17/64). The yields of this cultivar exceed 41 quintals per hectare (qq/ha). Likewise, the Araguañey variety is a bilinear made up of two cultivars with different sources of tolerance to rust (the main disease of coffee crops) and important production levels exceeding 45 qq/ha.

71. SENASA has established norms that regulate the inspection and certification procedure of seed production of coffee varieties registered as eligible cultivars. SENASA has established specific field and quality requirements of the produced seeds that are necessary for approval. Requirements: I.- Eligible cultivars, II - Seed production area, III - Isolation, IV - Field inspections, V - Debugging, VI - Specific field requirements, VII - Harvest, and VII - Specific seed requirements.

The National Fund for Science, Technology and Innovation (FONACIT)

72. The Science, Technology and Innovation National Plan 2005-2030 contemplates the financing of important scientific projects that affect national food production, in particular improved seeds of cocoa, musaceae, sweet potato, coffee, yam, carrot and beans. Four of the financed projects are aimed at improving cacao production. FONACIT will identify the best combination of trees-cacao, as well as the advantages and disadvantages they could have in the

study area. FONACIT also seeks to know, through the fall of leaves from the trees to the system, which is the contribution of nutrients and which of the four types of cacao better withstands drought. Furthermore, the territorial units of FONACIT provide technical support to producers to improve their agricultural practices and reinforce coffee projects financed by FONACIT.

Table 2. Summary of baseline information on government projects, programs and policies

Central provincial/ departmental/ municipal governments	Entity*	Name of the policy/program/project that will co-finance the GEF Project	Number of years for policy/project/ program implementation (estimated)	Objectives, expected results, expected outputs of the policy/program/project (only those related to the GEF project)	GEF project component that this policy/plan/ program complements (see PIF)	Existing gaps (what is lacking, what is needed to improve ecosystem management and conservation)
Central	MINEC	1) National Strategy for Conservation of Biological Diversity in the Bolivarian Republic of Venezuela 2) Misión Árbol Ecosocialista 3) National Plan of Hydrographic Basins Reforestation 2017-2019 4) Program for the Establishment of Goals in Land Degradation Neutrality in the Bolivarian Republic of Venezuela	All project years	1) See details in the previous section 2) See details in the previous section 3) <u>Objectives</u> : Reforesting springs waters or water sources, enriching and/or recovering buffer zones and building windbreaks. <u>Results and expected outputs</u> : Forest plantations and conservation plantations, as well as technical assistance on the implementation and maintenance of soil and water practices in schools with the participation of communal councils 4) See details in the previous section	1,2 and 3	Limited coordination and harmonization of actions with other institutions related to SLM and SFM activities; inappropriate environment for effective governance of the regulations that manage land use conflicts and the promotion of sustainable production and SFM and SLM practices
Central	MPPAT	1) Plan Café 2) Plan Siembra 2019-2025 3) Agro Venezuela Great Mission	All project years	1) <u>Objectives</u> : Strengthening and consolidating the agri-food production chain of the coffee sector incorporating greater national added value. <u>Results</u>	1 and 2	Limited networking with coffee and cocoa programs being developed Fragmentation

				<p><u>and expected outputs:</u> Renewal of coffee plantations, increase in quality and productivity; development of hedging instruments for low prices</p> <p>2) <u>Objectives:</u> Converting the approved resources into food for the people by guaranteeing the sustainability and the production of raw materials in the country. <u>Results and expected outputs:</u> Increase of the coffee national production; creation of seedbeds and nurseries; renovation, pruning and fertilization with the support of governments' and mayors' offices of coffee states and municipalities</p> <p>3) <u>Objectives:</u> Providing technical assistance, inputs and financing to agricultural producers. <u>Results and expected outputs:</u> Benefit producers with agriculture suitable land</p>		and overlapping of actions
Central	INSAI	National strategy against CBB (state records for early diagnosis and control of the spread of diseases associated with the cultivation of coffee-cacao)	All project years	<u>Objectives:</u> Installing demonstration plots and using bioinsecticides. <u>Results and expected outputs:</u> Workshops, talks, exchange of knowledge and debates	1 and 2	Limited networking with coffee and cocoa programs being developed Fragmentation of actions
Central	INIA Cacao (CESID Cacao)	Germplasm Bank (the only one in the world that has 15 hectares of Criollo Porcelana Cocoa, 1.5 hectares of Criollo Guasare Cocoa and 1 hectare of Criollo cacaos collected in Zulia, Mérida and Táchira states)	All project years	<u>Objectives:</u> Collecting, evaluating and preserving cacao materials of interest in natural observation areas. <u>Results and expected outputs:</u> Workshops, talks, and making cocoa grafts and disseminating new plants	2 and 3	Limited networking with coffee and cocoa programs being developed Fragmentation of actions
State	FUNDACITE	Organic Coffee and Cacao RSIP Scaling Project	All project years	<u>Objectives:</u> Encouraging value addition in cultivation by strengthening agroecological practices, organizing production and consolidating family farming. <u>Results and expected outputs (in</u>	1, 2 and 3	Limited networking with coffee and cocoa programs being developed Fragmentation of actions

				Mérida): Start-up of a roasting plant with an initial capacity of 50 tons of high-quality coffee per year; improvement of cacao production processes and comprehensive and ecological restoration of the Creole cacao		
Municipal	Mayors' offices/ municipal, agricultural and environmental department or offices	Programs, cooperation networks and authorities of the local governments of the 12 municipalities (see Figure 1)	All project years	<u>Objectives</u> : Providing technical support for the organization, production, processing and export of coffee and cacao. <u>Results and expected outputs</u> : Development of strategic lines to promote the economic structures of the municipalities	1,2 and 3	Limited coordination and networking with the central government, especially in field activities
Regional	Institutions engaged in teaching and research	Institutional lines of teaching and research	All project years	<u>Objectives</u> : Leading lines of research on coffee, cacao and agroforestry systems, as well as studies to improve supply chains. <u>Results and expected deliverables</u> : Knowledge networks to document good practices, feasibility studies, design and implementation of training and education programs	1,2 and 3	Limited linking with sustainable management plans and programs

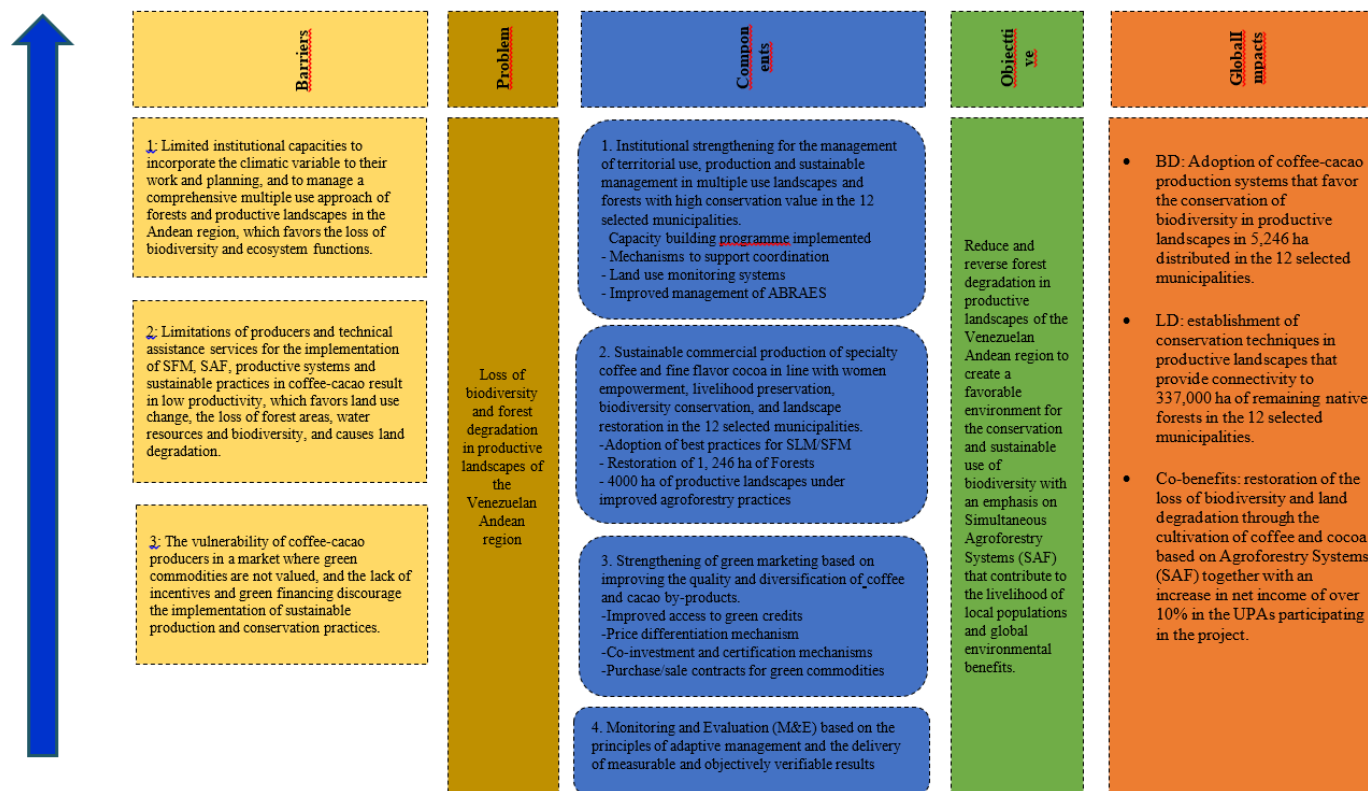
Note: * MINEC: Ministry of Popular Power for Ecosocialism; MPPAT: People's Ministry for Agriculture and Lands; INSAI: National Institute of Integral Agricultural Health (former SASA); INIA: National Institute of Agricultural and Livestock Research; FUNDACITE: Foundation for the Development of Science and Technology.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project

73. The objective of the proposed project is **to reduce and reverse forest degradation in productive landscapes of the Venezuelan Andean region by creating a favorable environment for biodiversity conservation and sustainable use with an emphasis on Agroforestry Systems (SAF)**, which will contribute to the livelihoods of local populations and provide global environmental benefits through the establishment of a Sustainable Production and Governance Framework

based on a landscape approach and the optimization of ecosystem services and livelihoods. In this sense, two approaches will be applied: i) strengthening of institutional capacities to incorporate the multiple-use landscape approach at different government levels through coordination of the national development goals with the objectives of the different municipalities; creating capabilities for multiple-level coordination to optimize joint planning and coordinated implementation of public policies and intervention in the Andean region; strengthening the dialogue and decision-making mechanisms; incorporating the landscape approach and environmental sustainability criteria in land use planning and development; strengthening the regional applicability of regulations; and obtaining knowledge to support sustainable production and landscape management; and ii) strengthening the capabilities of coffee and cocoa producers for the sustainable management of high conservation value forests and soils (including conservation of biodiversity, water resources, and carbon sequestration), since this will contribute to the recovery and maintenance of ecosystem services key for sustainable production; increasing production and productivity; incorporating actions that will contribute to final product improvement for its commercialization with added value, thereby increasing income and improving livelihoods. This will be achieved with an integrated approach to sustainable management and production in the APUs of the Andean region. The project's Theory of change is presented next:

The Theory of Change



74. These approaches will be implemented at two levels. A first level, of a systemic nature, at central, regional and local institutions; and a second level in the field with interventions in selected municipalities. The purpose of the previous approaches is to transform current (non-sustainable) production practices into sustainable forest and land management practices that conserve forested areas, improve the conservation of threatened species, and ensure a permanent

supply of the ecosystem services necessary for production, thereby contributing to the development of deforestation-free supply chains and improving the livelihoods of target groups, the latter approach with special emphasis on small producers and producer associations.

75. The project's strategy responds to the new vision on forestry policies in Venezuela that recognizes forest ecosystems not only as makers of timber goods, but also as forest ecosystems whose structure and operation represent a multiple use heritage asset, generate other types of goods and services of evident environmental, socioeconomic and cultural value, and have strategic relevance in the geopolitical structure of the country. The project's strategy is also based on the active participation of public and community stakeholders to develop an environment leading to biodiversity-rich agroforestry systems and soil conservation in the Andean productive landscape. This will generate social, environmental and economic benefits for local and regional interest groups, and guaranteeing the sustainability of results and the replication of the experiences and lessons learned, as well as national and global benefits. Producers and their families are in conditions of vulnerability, so the project will contribute to poverty reduction, food security, cultural identity and preservation of traditional and local knowledge, as well as appreciation of the natural heritage.

76. Especially at the field level with interventions at the municipal level, working with women's or mixed organizations offers an opportunity to reduce gender gaps, because it favors the articulation of networks at the level of civil society, coordinated work and simultaneously with the institutionality in a planned manner.

77. In this context, we can also promote key actions such as providing technical assistance, access to appropriate tools and methodologies to improve market entry, strengthen the diversified economy and environmental sustainability, with the participation of women in the community economy and development productive, because it is proven that women are agents of social change.

78. In this sense, women can increase forest production, but not only timber but also agriculture as a whole, and close the gender gap especially in the two key crops (coffee and cocoa) and this will also mean higher income in the hands of women. It is a strategy that has proven its validity to improve the health, nutrition and even the academic results of girls and boys in the homes to which they belong. By increasing the human capital of women and providing information on markets and extension services, it is possible to guarantee agricultural productivity and economic growth in the selected territories.

79. Additionally, the production of coffee and cocoa under an agro-ecological approach leads to the generation of green jobs and income. The latter is linked both to the sale of these products and the ones derived from the agro-ecological system (e.g., products of apiculture). The increase in the variety, quantity and quality of the agro-ecological products will strengthen regional and national food security of coffee and cocoa producers, increasing their resilience to the effects of the COVID-19 outbreak in the Venezuelan Andean region. On the other hand, the preparation of bio-supplies from coffee waste, coffee nurseries (seedlings) and grafted cocoa plants are potential sources of employment for younger producers and women. Each of these contributions will contribute to the gradual strengthening of the economy in local communities under a Covid19 post-pandemic scenario.

80. Regarding the protected areas, the project will focus its attention on: 1) increasing the management capacity of protected areas, through the generation of basic environmental information, the execution of a training program for key actors at the central and regional levels, the development of methodological capacities, learning from past experiences and harmonization of technical approaches among institutions; 2) consolidating the system of protected areas by updating or developing management instruments, and; 3) stimulating the financial sustainability of protected areas by training to supervisors, optimizing the use of available funds, and promoting the increase and diversification of income. A key feature of the project is the consolidation of a mechanism based on a consensual approach in line with the conservation of biodiversity where all the actors involved in the implementation of the project participate in order to ensure the sustainability of the long-term benefits of the project. More details about the protected areas and how can the project will address biodiversity-related barriers are found in Table 3. It is important remark that the protected areas or parts of them are not explicitly categorized as Areas of High Conservation Value Forest (HCVF) by the Venezuelan regulatory system, however, most of the forests located in the target municipalities have been considered as hotspots because of their high concentration of biodiversity in the most recent recent scientific literature (Gomez and Molina, 2017^[1]).

[1] Gómez, H. A., & Molina, M. (2007). Principales causas de la deforestación en la vertiente sur del Parque Nacional Sierra Nevada, Venezuela. *Revista forestal venezolana*, 51(1), 25-34.

Table 3. How the project will address biodiversity-related barriers in ABRAES and their buffer zones.

Name	Area (hectares)	Key Biodiversity	Drivers of degradation	What the project will do
Sierra de la Culata WDPA ID: 30033 National Park (Cat II)	200,400	<p>This site has been identified as a Key Biodiversity Area based on the presence of significant populations of globally threatened species and significant populations of endemic species known only to be found in a limited area.</p> <p>This site has also been identified as an Alliance for Zero Extinction Site based upon the presence of the one remaining population of at least one species on the IUCN Red</p>	<p>Deforestation.</p> <p>Expansion of agricultural frontier.</p> <p>Hunting and illegal extraction.</p>	<p>Support the development of connectivity between buffer areas by implementing SAFs</p> <p>Work with local coffee-cocoa producers to decrease pressure on the biodiversity by implementing gender-sensitive sustainable management practices and Agroforestry Systems (AF</p>

		<p>the species on the IUCN Red List of Threatened Species assessed as either Critically Endangered or Endangered</p> <p>Plants:</p> <p>Different species of espeletias (frailejón in Spanish), shrubs such as composites, ericaceous, melastomataceae; ferns, lichens and fungi.</p> <p>Animals:</p> <p>-230 species of birds, including the endemic <i>odontophorus columbianus</i>.</p> <p>- 40 species of amphibians (40% endemic; two under risk of extinction)</p> <p>-140 species of mammals, including</p>		<p>ecology systems (and S) based on coffee-cacao.</p> <p>Work with protected area rangers to support monitoring of the traffic or illicit trade of species of flora and fauna.</p> <p>The project will develop and implement biodiversity conservation educational strategies aimed at local communities, schools, universities and relevant sectors to increase understanding and promote solutions for the environmental, health and social effects of deforestation and degradation of landscapes.</p>
<p>Parque Nacional Sierra Nevada</p> <p>WDPA ID: 321</p>	276,446	<p>This National Park is of great ecological importance, as it ensures the preservation of the highest ecosystem in the country, including Pico Bolívar.</p> <p>One of the largest species can be found in the park is the</p>	<p>Deforestation.</p> <p>Expansion of agricultural frontier.</p> <p>Hunting and illegal extraction.</p>	<p>Work with protected area rangers to support monitoring of the traffic or illicit trade of species of flora and fauna.</p> <p>Support the development of connectivity</p>

		<p>e spectacled bear, besides being the only representative of the family Ursidae in the Andes, is one of the endangered species.</p>		<p>between buffer areas by implementing SAFs.</p> <p>Within the framework of this project, the conservation of biological diversity and water as a functional and environmental service contribute to SDG 15.</p>
Parque Nacional Guaramacal	21,466	<p>The Guaramacal Park can be distinguished by a great endemism, highlighted by the presence of species such as the palmera frailejón <i>Ruilopezia paltonioides</i>. Its flora is still under study and the provisional inventory has about 1,227 species, highlighting an important richness of orchids and ferns, as well as various endemic species of frailejones.</p>	<p>Deforestation.</p> <p>Expansion of agricultural frontier.</p> <p>Hunting and illegal extraction.</p>	<p>Work with local coffee-cocoa producers to decrease pressure on the biodiversity by implementing gender-sensitive sustainable management practices and SAFs based on coffee-cacao.</p> <p>Work with protected area rangers to support monitoring of the traffic or illicit trade of species of flora and fauna.</p>
Parque Nacional Dinira	45,328	<p>This National Park was created in order to protect the upper basin of the Tocuyo River. Therefore, it is of great ecological importance, as it ensures the preservation of the</p>	<p>Persistent organic pollutants (pesticides) mainly derived from agricultural activities.</p>	<p>Stakeholders capacity for decision-making will be strengthened through the provision of specific tools and training, focusing</p>

		<p>terrestrial ecosystems.</p>		<p>using on mainstreaming considerations on biodiversity, climate change and management, to introduce actions aimed at increasing resilience and reducing vulnerability of conservation objects in this national park.</p>
Parque Nacional Yacambú	14,600	<p>It was created with the purpose of protecting part of the Yacambú river basin, whose waters will feed the reservoir José María Ochoa Pilé, which is of vital importance for water supply in the city of Barquisimeto and for economic development in the dry valleys of Quibor, where there is a protected area of sustainable use for agricultural purposes. It has humid cloud forest vegetation in its highest parts, where trees such as bucaré, araguaney and oak predominate. There are also 14% of the orchids known in the country, that is, about 60 species.</p> <p>Presence of mammals such as the aragato monkey, the deer matacan and caramerudo, cachicamo, the honey bear, among the birds stands the quacharaca and snakes li</p>	<p>Forest fires.</p> <p>Deforestation.</p> <p>Expansion of agricultural frontier.</p> <p>Hunting and illegal extraction.</p>	<p>Support the development of connectivity between buffer areas by implementing SAFs</p> <p>Work with local coffee-cocoa producers to decrease pressure on the biodiversity by implementing gender-sensitive sustainable management practices and AFS based on coffee-cacao.</p> <p>Work with protected area rangers to support monitoring of the traffic or illicit trade of species of flora and fauna.</p>

		the guacharo, and snakes like the Viperinae.		
Parque Nacional El Guache	12,200	<p>It was decreed National Park on June 5, 1992, in order to protect the high basins of the Guache, Ospino, Boco, Toco and Are rivers, which provide water to the agricultural area of the Portuguese state.</p> <p>The tree species present are the guamo, the matapalo, the tacamahaco and the quiripití. In many sectors of the park there are a large number of tree ferns, as well as orchids of the Cattleya genus, which take shelter in the foliage</p>	<p>Forest fires.</p> <p>Deforestation.</p> <p>Expansion of agricultural frontier.</p>	<p>Support the development of connectivity between buffer areas by implementing SAFs</p> <p>Work with local coffee-cocoa producers to decrease pressure on the biodiversity by implementing gender-sensitive sustainable management practices and Agroforestry Systems (AFS) based on coffee-cacao.</p>

Component 1. Institutional strengthening for the management of territorial use, production and sustainable management in multiple use landscapes and forests with high conservation value in the 12 selected municipalities;

Result 1.1 Personnel from public organizations manage the territories under a comprehensive and multiple use approach with emphasis on SAF, ensuring the sustained provision of ecosystem services (including soil conservation, water resources, biodiversity and carbon sequestration) in the 12 selected municipalities; Result 1.2 In Areas Under Special Administration Regime (ABRAES, in Spanish), the areas under improved management for their conservation and sustainable use increase in relation to the total area covered by the 12 selected municipalities;

81. In the first place, the specific deliverables and activities of this component will include the development of specialized training to improve the capabilities of the personnel of public organizations and their departments, in particular MINEC, MPPAPT, and governments' and majors' offices, for such personnel to be able of carrying out planning, monitoring and evaluating activities that include considerations of integrated land management and promote conservation and sustainable use in an equitable manner. The intention is that institutional personnel can have knowhow and methodologies to fully understand the concept and problem of biodiversity loss, the supply of ecosystem services and land degradation in the Andean region, intervention ways in the field and their

relationship with the natural heritage value and the culture of producers. Training will include diagnosis, development of training plans, definition of training courses profiles, and design of material and learning experiences. This will help to maintain a balance between the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the use of the resources.

82. In the second place, when working with the trained institutional personnel, we will try to incorporate into agricultural planning considerations of ecosystem services conservation and sustainable use, and monitoring and evaluation strategies based on SAF and SFM at central and regional level. This will be done with the agricultural plans of MPPAPT and the governments' and mayors' offices, as well as in field programs such as the Coffee Plan and the Great Agro Venezuela Mission. We will try to convey to national and regional institutions and their officials a working methodology of planning, monitoring and evaluation, for them to be able to design and manage coherent plans and programs with a comprehensive and multiple use approach.

83. In the third place, coordination, networking and exchange of information and decision-making mechanisms will be developed among national, state and municipal institutions including MINEC, MPPAPT, governments' and mayors' offices, INDER, Universities in the region, and other key stakeholders. These mechanisms may take the form of working groups at different levels (state and local), that will operate based on a comprehensive and multiple use approach and which purpose will be to foster plans and programs in the field for inter-institutional coordination and networking, develop a common vision for intervention in the Andean region, facilitate programmatic alignment and complementarities, and optimize the use of the invested resources. The purpose of this proposal is setting a path towards progress in awareness of the problems and elements that hinder conservation of productive spaces, and do it through collective learning based on the exchange of experiences and the participation of all stakeholders, which will generate a true meaningful participation of the involved communities and associations (even beyond the end of the project). To complement the efforts, we will develop local systems for land use monitoring and surveillance that will support the application of sustainable agricultural and forestry production plans, programs and regulations based on the use of tools such as Trends.Earth, which was successfully used in the Program for the Establishment of Goals in Land Degradation Neutrality (LDN) in the Bolivarian Republic of Venezuela.

84. With strengthened capacities, we hope to increase the earmarking and flow of financial resources to plans and programs already underway in the Andean region. This will control the expansion of the agricultural frontier to the detriment of natural areas, consolidate areas under agroforestry systems, implement good agricultural practices and reduce and reverse the degradation processes in the project's area.

85. Special attention should be paid to the need to conserve natural vegetation covers and riparian vegetation belts in riverbanks of river basins tributaries and streams that supply the communities in project areas. For this purpose, actions designed through forests and landscapes ecological restoration processes will be taken that will protect riverbed channels and maintain the connectivity of Andean forest ecosystems. This activity will be carried out jointly with local stakeholders under the premise that local communities must assume ownership and be aware of the need to undertake restoration actions in degraded lands. This includes a diagnosis of the processes of change in land cover and use, as well as the strategies that accelerate and guide the natural process of plant regeneration, as well as the creation of capabilities in planning and executing ecosystem restoration measures to increase restoration efficiency.

86. Special attention should be paid also to the pandemic caused by Covid-19 because of it is affecting different social and economic sectors in the Andean region. In order to face their consequences is necessary to create alliances and synergies between the institutions and communities of the selected municipalities to develop an early warning system based on geospatial tools supported with funds of the project. They allow tracking the evolution of Covid-19 in terms of confirmed cases, tests performed, intensive care patients and deceased grouped by sex and age. These tools also provide useful information to the adoption of preventative or risk-reducing measures and strategies that will mitigate the impacts of future events.

Component 2. Sustainable commercial production of specialty coffee and fine flavor cocoa in line with livelihood conservation and landscape restoration in the 12 selected municipalities;

Result: Coffee-cocoa producers implement gender-sensitive sustainable management practices in productive landscapes, contributing to the establishment of deforestation-free supply chains and the biodiversity conservation through Agroforestry Systems (AFS) based on coffee-cacao.

87. We will foster the development of producer (men and women) capabilities and technical assistance services to implement SAF, SFM, productive systems and sustainable practices for coffee-cocoa sustainable production. This will include the diagnosis of capabilities and, based on that diagnosis, the development of educational and training plans at two levels: producers and technical assistance services. This will include the definition of training courses profiles and the design of material and teaching experiences in each case. Training will take into account the use of “learning-by-doing” methodologies or extension methodologies such as field schools devised and tested by FAO that will use graphic methodological resources in a simple and friendly format, and practical exercises and visits to places where the activities to be taught are carried out. Training will incorporate a gender approach that takes into account the role of women within the cultural, economic and social dynamics, encourages their participation based on women interest topics and timing, and avoids project activities being a work overload for them.

88. We will promote the development of sustainable productive landscapes through the dissemination and adoption of ecological and biodiversity-friendly practices for specialty coffee and cacao producers. We will work incorporating producers (men and women) in the definition of land use plans, taking into account the different types of production systems (shade-grown coffee and cacao, existing forest areas in the APUs or areas within them that were converted to other uses). Those plans include: i) use of SAF in coffee-cacao crops (incorporation of new genetic material, trees and perennial species in combination with annual crops) to increase and maintain the amount of conserved biomass, improve soil fertility and diversify production; ii) use of SFM including reforestation, forest restoration, multiple use plantations, hydrographic basin management, and soil and water management); iii) conservation agriculture and use of good practices (GAP), which involves different Cleaner Production Practices (CPP) that minimize both the use of agro-chemical products and the generation of production residues, and that contribute to the efficient use of water and soil, thus mitigating the environmental problems inherent to coffee and cacao production processes; iv) diversification will be promoted through the incorporation of other activities, such as rural tourism, and the development of non-timber forest products (NTFPs) associated with coffee and cacao cultivation and with potential to provide direct economic incentives to farmers; v) the project will contemplate the establishment of some demonstration plots or showcase units in established agroforestry systems to expose the benefits of the implemented techniques and promote their adoption, i.e., training and technical assistance will be encouraged to achieve a change of attitude in the

productive sector and in this way transform current (unsustainable) production practices into sustainable forest and land management practices that conserve forests and ensure a permanent supply of the ecosystem services necessary for production, which will contribute to the development of deforestation-free supply chains and improve the livelihoods of target groups, the latter with special emphasis on small producers. In this project, deforestation-free supply chains are mainly guaranteed by the verification of their certifications as deforestation-free supplies or with traceable and reliable evidence about its source and industrial processing.

89. Regarding the use of SFM, the project will implement a forest restoration model based on different SFM and SLM (agroforestry and reforestation) practices with the participation of local communities. This model will seek to generate experiences and lessons aimed at: i) diversifying and increasing the forest landscape of natural ecosystems present in target municipalities in the Andean region; ii) restore areas and protection zones that allow the generation of connectivity between fragments of natural forest relevant to the conservation of biodiversity; iii) conserve and regenerate the biodiversity in the areas to be restored, with an emphasis on species, formations or forest types with conservation problems; iv) restore areas that allow to improve the functioning of areas that contain high conservation values; v) contribute to the preservation of the cultural traditions of local communities by increasing the surface area for the production of medicinal plants or other non-wood forest products; vi) promote restoration in watercourse protection areas; vii) and favor the stabilization of the soil to avoid erosion and promote the formation of topsoil. Practices already proven in the region as successful will be implemented to prevent and / or reverse land degradation. The conservation of biodiversity and carbon sequestration will be cross-cutting themes that will be taken into account in the design and implementation of the demonstration projects.

90. The criteria to be taken into account for the selection of sites to be restored will be elaborated, taking into account aspects of biodiversity, traditional uses and ecological potential. To that end, species adapted to the ecological conditions of the area and accepted by the communities will be used, such as: *Eritrina poeppigiana*, *Eritrina glauca*, *Psidium caudatum*, *Montanoa quadrangularis*, *Cassia spectabilis*, and *Psidium guajava*, *Syzigium jambos*, *Solanum betaceum*, *R. glaucus* among others.

91. A key element in the implementation of the proposal, in addition to the policies, measures and actions, is the integration and complementarity of the incentives, existing or to be developed, that can be effective in avoiding deforestation and forest degradation processes. The incentive systems, monetary and non-monetary, must be differentiated according to the activities to be promoted. For instance, it is not possible to have the same structure, timing, agreements and incentive amount for an activity aimed at developing agroforestry systems as for those inclined towards bio-project or conservation. To face the causes and factors of deforestation linked to activities productive activities outside forests, for example the expansion of the agricultural frontier, it is necessary to develop a productive transformation towards sustainable systems that integrate measures from both supply and demand. The supply should promote sustainable production with best practices and efficient soil management to intensify sustainable production in deforested areas, without expanding to new forested areas. As a complement, measures must be promoted from the demand, such as the factors of preference or demand from the consumer, and ensure that the productive changes generated are permanent and sustainable.

92. Although most of the project outputs of the component 2 are linked to the LD focal area, the recent scientific literature highlights the potential of forest restoration to mitigate biodiversity losses, recovering not only faunal species diversity, but also functional diversity and ecosystem functions in a relatively short period of time[4]. Therefore, the final results derived for this component will favor the conservation and sustainable use of biodiversity in target municipalities in the Andean region.

93. To address the food shortage induced by the COVID19 pandemic, the project plans to develop a training program and implementation of home gardens with the aim of producing different nutritious foods to meet household needs, and whose surpluses can be sold in local markets. It is important to highlight that nature-based solutions are actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits. Furthermore, the project will create new jobs by investing in a green recovery program consistent with sustainable and nature-based development, which will strengthen the regional economy, biodiversity, reversion of degraded lands to sustainable uses, and resilience against new outbreaks of the disease in the communities of the selected municipalities.

Component 3. Strengthening of green marketing based on improving the quality and diversification of coffee and cacao by-products.

Result: Market strategies support the conservation and sustainable use of forest ecosystems, and the sustainable production of green commodities in target municipalities in the Andean region.

94. The purpose of this component is to develop capabilities and technical and financial assistance to introduce biodiversity-friendly management and production practices that will make easier for coffee-cacao producers to enter or increase their access to green goods and service markets. To this end, the project will increase the producer ability to be organized in groups and associations, and improve their technical and business management skills, as well as their marketing skills. The project will also assist in the identification of potential biodiversity-friendly markets and businesses, and facilitate relationships between producer groups, preferably organized in networks and buyers, with a view to create sustainable business relationships during and after the financing provided by the project. The project will also implement strategies for product differentiation in the market, such as: designation of origin, positioning of the country brand, adoption of quality standards and financing for research and adoption of cutting-edge technology. Regarding specialty coffee and cocoa marketing, particular attention will be given to production volumes, to having appropriate infrastructure in storage centers, improve product quality and implement internal control systems focused on obtaining certifications. The project will aim at reinforcing value chains, overcoming productive barriers such as knowhow, capability and technology, achieving significant social and environmental impacts on biodiversity conservation and adding value to the supply. This will boost the entry of the specialty coffees and cocoas in markets that favor biotrade and demand quality. 1. The following activities are expected to be implemented:

- Mechanism designed and adopted for the promotion and establishment of networks and marketing chains with green brand/seal.

- Networking Mechanism agreed by participating institutions to facilitate access to green credits and incentives to implement SAF and have access to green markets.
- Mechanism of price differentiation adopted between conventional production and sustainable production.
- Market survey implemented to support the establishment of purchase and sale contracts for green commodities.
- Establishment of (i) co-investment mechanisms between buyers and producers, and (ii) costs and certification management mechanisms.

Component 4. Monitoring and Evaluation (M&E) based on adaptive management principles and the delivery of measurable and objectively verifiable results.

Result: Project implementation is supported by a gender-sensitive M&E strategy based on measurable and verifiable results and adaptive management principles.

95. The outcome associated with this component is designed to ensure that project implementation is supported by an M&E strategy based on measurable and verifiable results and adaptive management principles. The M&E strategy of the project will be formulated with the relevant stakeholders and the expected results will be clearly defined, as well as the expected time frames for its achievement and confirmation through objective indicators and means of verification. Annual work plans and the pertinent budgets will also be developed based on the expected results and the respective progress made, including the progressive steps and milestones required to obtain measurable achievements. To help with this process, annual work plans will be combined with annual progress indicators in a participatory manner for each result. Mid-term and end-of-period evaluations will be carried out at strategic intervals to inform and advise on project implementation in a constructive way, paying attention to sustainability considerations, preparing a coherent “exit strategy” and applying adaptive measures, as needed. During the course of project implementation, the lessons learned and the best practices related to the project will be systematized and disseminated to various audiences and groups of interest. A project website will also be established and updated (with relevant links to MINEC and MPPAPT, among other) to share experiences on an ongoing basis, disseminate information, develop policies and integration, highlight results and progress, and facilitate process replication while the project lasts.

4) Alignment with GEF focal area and/or Impact Program strategies

96. The proposed project is aligned with the following focal area strategies:

- BD-1-1 Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors. The project will integrate a wide variety of improvements in favor of the biodiversity that exists in the productive landscapes dedicated to the cultivation of coffee and cocoa, through the implementation of sustainable production techniques based on agroforestry systems. In this way, the aim is to recover connectivity between ecosystems.
- LD-1-1 Maintain or improve flow of agroecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM). The project will increase the volume of coffee and cocoa production, as well as the flow of ecosystem services from the coffee and cocoa farmlands managed with a sustainable approach based mainly on the use of SAF.
- LD-1-4 Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape. The project plans to reduce the pressure on natural resources and increase the resilience of the landscape against anthropic threats, promoting an attitudinal change in coffee and cocoa producers in favor of the preservation of the landscape and the rational use of their natural resources.

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

97. The project rests on an operational baseline managed mainly by MINEC and MPPAPT. However, investment in plans and programs of these institutions is made in specific areas and is not sufficiently coordinated or integrated to achieve greater efficiency and have a greater impact on sustainability, therefore the intervention of the GEF. With the support of GEF resources, the identified barriers will be addressed, as detailed below.

98. Under Component 1, GEF resources (USD 1,820,366) will contribute to removing barrier # 1 by strengthening institutional capacities for management based on the integrality and multiple use approach. The project will build on efforts being carried out by different stakeholders in the target region. This includes work being undertaken by the Ministry of Popular Power for Ecosocialism (MINEC) in the context of the National Plan of Hydrographic Basin Reforestation (NPHBR) or the Misión Arbol Socialista, where efforts are centered at the local level. In addition, the project will build on efforts implemented by the different productive sectors (MPPAT with the Plan Café and Plan Siembra 2019-2025, as well as coffee and cocoa producer organizations) to improve the productivity of the agricultural sector and to improve target value chains. The proposed project will help national efforts to mainstream biodiversity in the coffee and cocoa sectors by taking a landscape approach. Significant effort will be placed on building local capacity to carry out participatory and integrated land use planning efforts that will allow stakeholders maximize their productivity without degrading biodiversity. This will include technical assistance to develop training plans and capacity building training; the integration of biodiversity improvement and land degradation considerations in the management of plans and programs to support coffee-cocoa producers; and the creation of inter-institutional coordination and articulation mechanisms. As Table 2 above shows, there are at least 7 different types of actors that are not always involved in integrated planning, or whose efforts to change productive practices are coordinated. The project will seek to provide a framework for these sectors to cooperate.

99. In Component 2, GEF resources (USD 1,473,827) will address barrier # 2 through the improvement of the capacities of producers and technicians to implement sustainable production practices that contribute to reducing and reversing forest degradation and soils in the selected municipalities of the Andean region. Currently, the government of Venezuela is investing significant resources to restore forests lands via the Mision Arbol Ecosocialista and the NPHBR by reforesting water sources, building windbreaks, conservation plantations and investing in buffer zones. In addition, the government is investing its own resources to restore agricultural lands via the Plan Siembra 2019, the Plan Café, the Agro Venezuela Great Mission where they are renewing coffee and cocoa plantations, investing in nurseries and providing technical assistance to farmers. The proposed project will work with these actors to align investments within the context of the integrated plan that will be developed under Component 1 and with a view to support the establishment of Land Degradation Neutrality goals for Venezuela. Currently, the different institutions are carrying out efforts in isolation. By aligning objectives and investments and increasing stakeholder capacity, the project will increase the impact of current investments to produce global environmental benefits. To this end, the proposed project will invest in technical assistance to: train producers and strengthen technical assistance services, including diagnoses, design of training plans and implementation of training actions; implement defined and agreed practices in the field, including SFM, SAF, conservation agriculture, and crop and post-harvest management techniques; design of an awareness plan and communication strategy with tours and field visits, exchange tours among producers; establishment of showcase units; communication and awareness raising in the communities to ensure adoption of more efficient practices.

100. In Component 3, GEF resources (USD 1,051,469) will address barrier # 3 through the improvement of the marketing of products by producers based on improving the quality and diversification of coffee and cocoa products. The project will build on efforts to improve value chains, including those of the National Agricultural Research Institute who focuses on collecting and improving germoplasm, efforts from Fundacite to encourage the production of organic coffee and cocoa, as well as municipal efforts to strengthen cooperation networks. Similarly, Municipal offices are providing technical support for the organization, production, processing and export of coffee and cocoa. The proposed project will work with these actors and project beneficiaries (particularly women and youth) to strengthen the different links of the value chain. This involves the training of companies/organizations (targeting at least 50% female led), including diagnoses, design of training plans and implementation of training actions; the development of promotion strategies and the establishment of networks and commercial production chains, including the exchange of successful experiences, fostering alliances, and development of business plans; as well as inter-institutional articulation for companies / organizations to access credits and incentives.

101. Finally, Component 4 will have incremental financing from the GEF (USD 730,007) with which it will take care of monitoring and evaluation, placing the main focus on financing activities to monitor the progress of the project and compliance with indicators, external evaluations of mid-term and final, the systematization of experiences and lessons learned from the project, preparation of dissemination materials, and dissemination of the partial and final results and output of the project. It will build on national efforts to monitor forests and agricultural lands (within the context of LDN activities and the National Forest Monitoring System), and awareness and knowledge management activities currently carried out by the partner ministries (MINEC/MPPAT) in the context of the programs mentioned in table 2 above.

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

102. The project will generate global environmental benefits, in line with national development priorities, and 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 achieved from the project are: (i) 1,246 hectares of forest land restored in the 12 selected municipalities of the Andean region and located within buffer zones of ABRAES; (ii) for the 12 selected municipalities, 4,000 hectares of degraded lands under MFS and SAF located outside ABRAES and UPAS of coffee-cacao; 537,000 ha of coffee and cocoa growing areas in UPAS under MFS and SAF, involving 1,000 producers (of which 50% women) and their families, with which an estimated total of 5,000 benefited people; (iii) Emissions avoided in a total of 1,925,525 ton CO₂eq; (iv) incorporation of biodiversity preservation and land degradation reduction considerations into policy and planning frameworks, with an increase in the flow of investments directed to MFS, SAF, and restoration in the selected municipalities; (v) the implementation of agroecological systems by local communities provides them with benefits for both the gradual strengthening of their livelihoods and green reconstruction during the post-pandemic Covid19 recovery phase. The estimation of carbon dioxide equivalent emissions is based on the assumption that: i) 5,246 hectares of annual crops in buffer zones and productive landscapes without improved practices and burning of residues were transformed through the implementation of SAF practices based on coffee-cacao; ii) 10% out of 100,000 hectares degraded forest in buffer zones of ABRAES was improved with training plans and technical assistance; and iii) 10% out of 227,000 hectares with annual crops (coffee and cacao) without improved practices was improved with best practices and efficient soil management.

7) Innovation, sustainability and potential for scaling up

103. Innovation: In this proposal, the main aspects in which innovation processes can be generated are those related to coffee and cocoa productivity and competitiveness with a significant presence of small producers. Secondly are the strengthening of productive capabilities and the sustainable use of the natural resources of the local communities of the 12 selected municipalities. The project will also promote revolutionary and innovative development models that emphasize the inclusion of youth and women and organizational strategies adapted to the family economy businesses, as well as strategies to promote investment and access to markets by small producers. These actions will favor the sustainability of the results achieved in long term.

104. 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 increasing instability around land, water and energy scarcity, reveal some of the pressures agriculture is subject to, and that's where innovation plays a critical role in achieving effective agriculture, efficient and sustainable. The role of rural women is fundamental in this regard because it is common for either by their own work, individually or through associative groups, the effort to overcome the same is persistent; in addition to being characterized by integrating ventures that usually revolve around the development of a broad set of products linked to the natural resources existing in the geographical areas they inhabit and determined by the needs of the communities in which they are located; there creativity and ingenuity is broad.

105. Sustainability: Project approach using landscape management and product certification and diversification tools makes a lot of sense for producers. We hope that they will continue to apply those tools in the future since they are consistent with market trends and will also contribute to reduce costs (in fertilizers, for example) and generate additional income (from the sale of other products and preferential grain prices). From a socioeconomic point of view and making a brief analysis of the Andean region rural economy, these practices also make a lot of sense and will very 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

coffees and fine flavor cocoa in the short, medium and long term. This strategy will achieve the expansion of cultivation and agroforestry systems in intervened and degraded areas. Furthermore, when the capabilities on agroforestry systems sustainable management techniques are improved, the project can, effectively and in a timely manner, take care of the technical support needs required by the involved producers.

106. By installing showcase units or demonstration plots, producers will have the opportunity to verify the benefits of these production systems and the different techniques that are promoted, which may 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 by building capacity of both government officials and local stakeholders. The project seeks to increase capacity of government officials for integrated planning and monitoring of productive landscapes for the benefit of biodiversity. By following an inclusive approach to planning the use of natural resources, stakeholders will make more informed choices that could lead to more sustainable, equitable and economic use of the land. Any activities implemented that come from a consensual approach based on comprehensive information will also be more likely to succeed and more sustainable in the longer term.

107. To support this strategy, it will also be important to consider gender equality and economic growth as a joint effort, help reduce gender gaps and can lead to a significant increase in production (FAO, 2011). In the context of the development of value chains, 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.

108. Replicability: The complementarity of the project with national policies and plans will give it a high potential for replication. The dissemination and communication strategy will help to demonstrate the effectiveness of SFM, SAF, SLM and of management techniques and their impact on productivity and income diversification, which will facilitate the replication of experiences and lessons. We will organize exchanges of experiences between project communities and other communities, and such exchanges will operate as platforms for dissemination of the results obtained. Networking among institutions will allow the extrapolation and dissemination of project actions and results to other areas where the results can be implemented and replicated. The systematization of the experiences and lessons learned will serve to promote national and international replication of project results. It is important to mention that associative experiences can also be generated 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 various territories.

[1] Pacheco, C., Aguado, I., & Mollicone, D. (2011). Las causas de la deforestación en Venezuela: un estudio retrospectivo. *Biollania*, 10(1), 281-292.

[2] Gondelles, R. (1992). El régimen de áreas protegidas en Venezuela. Artes Gráficas, Banco Consolidado, Caracas. 68 p

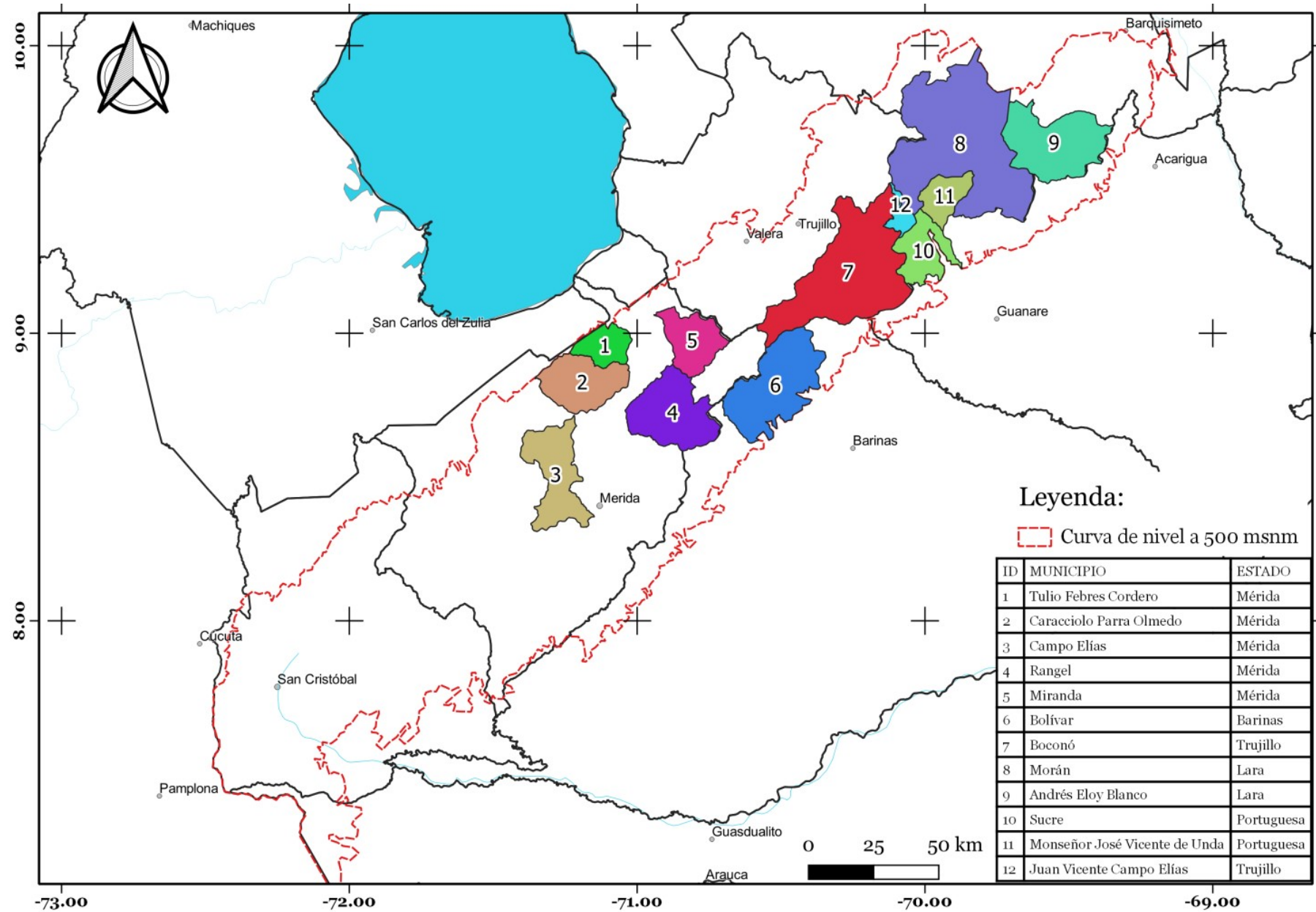
[3] Quintal is a unit of weight equal to a hundred weight (112 lb) or, formerly, 100 lb.

[4] Derhé, M. A., Murphy, H., Monteith, G., & Menéndez, R. (2016). Measuring the success of reforestation for restoring biodiversity and ecosystem functioning. *Journal of Applied Ecology*, 53(6), 1714-1724.

Hua, F., Wang, X., Zheng, X., Fisher, B., Wang, L., Zhu, J. & Wilcove, D. S. (2016). Opportunities for biodiversity gains under the world's largest reforestation programme. *Nature Communications*, 7(1), 1-11.

1b. Project Map and Coordinates

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



2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

109. Even though the COVID-19 situation prevented the project design team to participate in face-to-face meetings with key stakeholders, the project carried out a virtual consultation process with local government officials, private sector organizations (i.e. coffee and cocoa trading associations and representatives from private companies), civil society organizations, local communities, and key stakeholders via emails, WhatsApp messages, and social networks. The project will include the participation of relevant stakeholders from civil society, local communities, and private sector entities as described in Table 4 below.

Table 4. Identification of stakeholders' role in the project design process

Stakeholders	Interest/Role in Project Preparation and Design
<i>Public entities</i>	
People's Ministry for Eco-socialism (MINEC)	This is the national environmental authority responsible for formulating and implementing forest policies through environmental planning and spatial planning tools. Executing partner. MINEC will lead the project's design process and be in charge of calls to institutions and key stakeholders, and the organization of workshops for central and regional/local project design consultations and validation.
People's Ministry for Agriculture and Land (MPPAT), and attached agencies such as: Conglomerado Corporación Venezolana del Café (CVC), Corporación Socialista del Cacao Venezolano	They are responsible for primary economic production, plant and animal origin production, fisheries and aquaculture, as well as for intervention of the public sector to guarantee the sanitary condition and quality of goods and services related to plant and animal production. They will implement the Coffee Plan and other research and assistance programs, provide technical information and experiences, summon key institutions and stakeholders, and participate in project design consultations and validation.

Mayors' offices of the 12 selected municipalities /agricultural and livestock departments of the municipalities	They are the highest local authorities with broad powers in planning, regulation, technical assistance and marketing of local goods, responsible for promoting economic, territorial and environmental development and supplying basic services. They have work units with functions related to the provision of basic services to rural areas and/or economic and territorial activities (agriculture, industry, tourism and conservation). They are co-executing partners and participate in project design consultations and validation.
People's Ministry for Science and Technology (FUNDACITE)	This ministry implements capability building programs in coffee and cocoa and carries out research on their varieties and diseases, in addition to the successful experience in creating producer networks. It provides technical information and successful experiences, and participates in project design consultations and validation.
National Parks Institute (INPARQUES)	INPARQUES is an autonomous agency attached to the MINEC since 1977. This was created to respond to the need to have an agency with national scope for the creation, conservation, defense, improvement and administration of national parks. The institute addresses both the deficit of recreational areas as a consequence of the growth of the urban population, as well as the preservation, administration, development and use of natural areas.
Universities and research centers (UCV, ULA, UCLA, UNELLEZ, LUZ, UBV)	They will participate in knowledge networks and the platform, as well as in the design and implementation of training programs for technicians, producers and communities. The project can work with universities and different research centers or scientific institutions to provide training and strengthen the technical capabilities of the project's government partners. They will participate in project design consultations and validation.
<i>Other partners</i>	
Private sector groups such as cocoa trading, processing and exporting companies: Asociación Venezolana de la Industria del Café, Agropecuaria Aprocao, C. A., Nestlé, Cámara Venezolana de Cacao (CAPEC), Chocolates el Rey	They will be invited to be part of the Sustainable Supply Chain Platform according to their areas of specialty and work, and participate in training activities and exchange of experiences on sustainable production, best practices and certification schemes, dissemination of information on sustainable production and other project issues related to their members and associates, as well as in the promotion, replication and escalation of lessons, and participate in project design consultations and validation.
Associations of small producers at different levels, such as federations, cooperatives and associated groups. The associations (men, women and mixed) are	They will participate in an inclusive way in the consultations and validations of the project design, providing information on field experiences, identification of good practices and local and traditional knowledge on land use and sustainable forest management practices.

integrated by coffee and cacao produce
rs and represent coffee and cacao grow
ers from all over the country

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

110. The participation of women in agricultural activities is decisive, since due to the characteristics of the rural population in the country, many women are in charge of the family group and must assume the different tasks. The active participation of the family group in the different stages of the process, from the nursery to the harvest, is common in coffee and cocoa crops. Women have traditionally had a significant participation in both coffee and cocoa harvesting tasks, being more careful in this work, as well as in post-harvest tasks. Women lead the production of finished by-products and packaging due to their dedication and delicacy. With the migration of young people and the aging of the active coffee-growing population, a feminization of the coffee activity is registered due to the migration of men to urban areas in seek of improving income (Villalonga, 2012^[1])

111. Within the framework of the project, it will be necessary to have technical tools that facilitate the incorporation of the gender approach in institutional settings and in participatory processes with rural communities. To do this, the development and implementation of an internal team training plan and the design of a specific strategy for the inclusion of the gender dimension in project management are proposed.

112. Starting from a gender-sensitive diagnosis, the gaps, roles and activities to be developed will be identified and through the analysis of these data, methodologies will be designed and applied to evaluate the participation of women and men in decision-making in the instances of community organization. and in the formulation of initiatives, norms, programs, laws and policies associated with the project.

113. All the products in execution within the framework of the project will be reviewed to guarantee the incorporation of gender analysis from its formulation, implementation actions, and evaluation and monitoring of all the results in the field, taking into consideration the gender policy of the FAO and GEF.

114. The project will ensure that there is a good representation of women during its implementation and will consider the impact of project activities on women. Based on the above, an action plan will be developed with activities and indicators, and this plan will be integrated into the project.

115. The workload of the participating women will be studied and analyzed, and if determined, coordinate actions to reduce it by up to 20% through technological improvements, improvements in services and infrastructure or preparation and / or execution of a sensible action plan to gender.

116. Elements will be presented that allow the principles of equality-equity and the way in which the project contributes to its achievement to be included in a transversal manner. In the context of the project, women are seen as active agents of change and, therefore, one of the project strategies is to promote and achieve the full, true, active and quality participation of women, guaranteeing them spaces and taking into account their contributions.

[1] Villalonga, C. E. (2012). ¿ Masculino y femenino? Representaciones del género y el poder en los andes venezolanos. Cuba Arqueológica. Revista digital de Arqueología de Cuba y el Caribe, 5(1), 20-31.

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; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

117. The project will include the participation of relevant actors from civil society and the private sector. This includes small scale farmers located in the project area who will participate as project beneficiaries (targeting women and youth) and project partners. The participation of the private sector associations in the project is expected in the form of sustainable supply chain platforms, in which, through dialogue, the actors agree on the priorities and actions (according to their capacities and roles) that they should take to make the coffee and cocoa sectors more sustainable.

118. In this context, those private sector actors for whom the sustainable production of coffee and cocoa and the preservation of the environment are relevant due to the high value it has for their clients, could co-invest in technical assistance, acquisition of equipment and drying infrastructure and the international certification under a win-win approach.

119. This scenario would also favor the public-private alliance in favor of sharing risks and costs, contributing to the development of supply chains, sustainable and free from deforestation for their marketable products.

5. Risks to Achieving Project Objectives

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 (table format acceptable)

Table 5. Project risks, probability and mitigation steps.

Risks	Probability	Mitigation Steps
Volatility in the price of raw materials	High	International prices will be regularly monitored, as well as public institutions and producer associations. The project will work to internalize the negative impact on the environment in the cost structure for each raw material (coffee and cacao), and help to convince buyers of the advantages of buying sustainably produced raw materials. After identifying certification companies, the project plans to incorporate added value to the raw material under a certification scheme, by using the best available practices. The project will, jointly with the relevant institutions, explore the establishment of mandatory regulations, standards and certifications for producers and buyers in order to redirect that threat. The Sustainable Supply Chain Platforms will provide a space for the discussion of alternatives and strategies to deal with potential price variations.
Insufficient national, regional, and local inter-institutional coordination and a deficit in cooperation mechanisms with regard to the private sector and local institutions that causes a delay in the implementation of project activities	Medium	The project will develop and strengthen mechanisms for inter-institutional coordination and cooperation among public institutions to address the problems of the Andean region with a comprehensive multiple use approach. The development of capabilities of the institutional stakeholders involved in these mechanisms will contribute to improving the dissemination of information and coordination among different actors and levels (central, state, municipal).
Lack of institutional support: Government agencies may not effectively support project implementation during the execution period	Low	The project has been requested by the national government, through the Ministry of Popular Power for Ecosocialism (MINEC), to support regional and national activities within the Agenda 2030 commitments. Such activities are aimed at achieving economic, social, environmental, cultural and political development, and guiding public policies to fulfill the SDG's and make progress in each one towards the year 2030, as well as the priorities and recommendations included in the National Strategy for the Conservation of Biological Biodiversity and the National Action Plan presented to the United Nations Convention to Combat Desertification and Drought. Agreements and commitments will be encouraged among the institutional stakeholders involved in the project.
Lack of interest and commitment by		The methodological and strategic approach of the project will be participatory. During the d

<p>y producers, local communities and their associations to participate in the project translates into low levels of participation that put the implementation, achievement and sustainability of project's results and objectives at risk</p>	<p>Medium-low</p>	<p>design phase, participatory processes of project design consultation and validation will be carried out to foster interest, involvement and ownership. The activities will take place in areas that have the support and active participation of the local community. The feasibility of project proposals will be demonstrated in terms of increasing productivity and income from forest and soil sustainable management. In the case of local associations, agreements will be signed and presented to the directors of each association and approved by a majority. A awareness-raising and capability-building will be promoted, and when producers, leaders and members of the associations have greater knowledge and awareness, they will support the actions and be the main stakeholders interested in ensuring project results, as they will contribute to the sustainability of their livelihoods and food security.</p>
<p>Lack of project sustainability: The risk exists that, at the end of the project, there will be a lack of adequate financing and capability to carry out the undertaken activities</p>	<p>Low</p>	<p>The project will strengthen regional, national and private institutional capacities to ensure that the technologies and knowledge necessary for the continuation of project activities can be transferred to the relevant institutions prior to project closure. The incorporation of sustainable land management considerations into plan and program management of key institutions will contribute to a better allocation and direction of financial resources.</p>
<p>Economic and commercial blockade</p>	<p>Low</p>	<p>The economic and commercial blockade imposed on Venezuela does not directly affect coffee and cacao marketing in international markets. Accordingly, this risk can be classified as low for the project.</p>
<p>Shocks caused by disease or environmental degradation</p>	<p>Medium-low</p>	<p>The project uses an integral approach based on finding solutions based on nature. Therefore, the project will carry out actions that not only protect, restore and help to sustainably manage the Andean forest ecosystem in Venezuela, but also seek to do so in an integrated way that involves the actors that depends on mentioned ecosystem so as to obtain benefits for biodiversity and for the well-being of native communities. In this context, the project will be supporting the resilience of the selected area against external shocks.</p> <p>Similarly, climate change can affect restoration and conservation activities as changes in rainfall patterns and high temperatures may cause forest fires or lead to the extinction of threatened species. Similarly agroforestry systems focusing on cocoa and coffee are expected to be affected by climate change. In this context, the project will integrate climate risk into institutional strengthening, will include climate data into the monitoring and surveillance system, and ensure that best practices include an understanding of climate impacts on production and sustainability (please refer to climate screening).</p> <p>The risks associated with the Covid 19 pandemic will be taken into account. Training and outreach programs, especially training at the local level, will include biosecurity protocols for</p>

		the prevention of this disease as well as the steps to follow for confirmed cases. Actions in the territory will have the support of health institutions and will extend beyond the end of the Covid 19 pandemic.
Risks associated with selection of the inputs required for SAF	Low	The project will promote producer awareness and training to improve their understanding of the risks associated with the use of different varieties and the quality of the coffee and cocoa plants to be used, among other bio-inputs inherent to SAF. The selection of varieties will take into account the preservation of native biodiversity in productive landscapes.
Risk associated with certification in keeping with international standards	Low	Networking and incentive mechanisms will include channels for economic contributions to producers who apply favorable biodiversity practices. These revenues will allow producers to bear the expenses of the certification process and contribute to strengthen their capabilities. This will be reflected by an increase in the bargaining power of organized producers, who will be able to achieve economies of scale through group certification and accessibility to new certification schemes for small producers. Furthermore, the proposed SAF maximize the number of the components of productive systems from which economic benefits can be derived, increase the stability of the farm's income and minimize financial risks through the production of fruits, honey and nuts, as well as medicinal herbs and plants and agritourism, among other products.

120. Beyond the immediate and necessary focus on health and humanitarian responses to the current coronavirus pandemic, the world is also starting to consider ways to confront the profound societal impact of the COVID-19 crisis that will be with us in the months and years to come, along with setting in motion proper recovery actions. The science-based evidence suggests that this pandemic was triggered by the direct collision between natural systems and human systems^[1]. The root cause is the weakening of the services ecosystems that have provided for humanity over thousands of years. Therefore, the only lasting solution to COVID-19 and other such similar diseases is to promote transformational change to the human systems, so that a balance between natural systems and human systems be restored within planetary boundaries. In this context, the project should be seen as a unique opportunity where a set of actions will be implemented in the immediate, medium and longer term to help address this crisis in target municipalities in the Andean region.

Covid-19 Risk analysis

Possible impacts and mitigation actions during project design

121. During project design, the evolution of the COVID-19 pandemic may affect travel, meetings and consultations. Nevertheless, as it was done with the initial stakeholder consultations, alternative remote tools and methodologies to develop meetings will be used to mitigate these risks. The alternatives include communication via emails, WhatsApp messages, social networks and video calls. Travel will be limited to and virtual meetings will be held whenever

possible. Face-to-face meetings will be held following national biosecurity guidance. During the entire duration of project preparation, the evolution of the pandemic will be monitored to include mitigation measures in the design of the project.

122. Regarding the impacts caused by the COVID-19 crisis on project preparation, the project will deal with them developing an adaptation of the security protocol described in the Human Resources Guidelines for Offices during the Novel Coronavirus (COVID-19) pandemic by the FAO (online available at <https://bit.ly/2Hoj2Qz>) taking into account the particular characteristics of inhabitants and environmental conditions in the target municipalities. We have also noticed during project preparation that transport and face-to-face meeting costs have increased, so this will be considered in the preparation budget. During project implementation, FAO will use both FAO and WHO's guidance on how to implement farmer field schools (<http://www.fao.org/3/ca9938es/CA9938ES.pdf>) and food safety[1], respectively.

Risk analysis and mitigation strategies in the project

123. The project will start implementation in 2022, when the COVID-19 pandemic is expected to be under control. Nevertheless, the following risks (and corresponding mitigation strategies) imposed by the on-going COVID-19 pandemic or other possible similar are recognized:

124. Restricted of mobility measures can cause delays in the development of activities and may affect agricultural production. In order to mitigate this risk, Training and outreach programs, especially training at the local level, will include biosecurity protocols for the prevention of this disease as well as the steps to follow for confirmed cases. Actions in the territory will have the support of health institutions and will extend beyond the end of the Covid 19 pandemic.

125. The COVID-19 pandemic can also affect different social and economic sectors in the Andean region. Mitigation strategies for this risk may include the creation of alliances and synergies between the institutions and communities of the selected municipalities to develop an early warning system based on geospatial tools supported with funds of the project. These tools also provide useful information to the adoption of preventative or risk-reducing measures and strategies that will mitigate the impacts of future events. In addition, the project plans to develop a training program and implementation of home gardens with the aim of producing different nutritious foods to meet household needs, and whose surpluses can be sold in local markets.

Opportunities to mitigate impacts, deliver GEBs and contribution to green recovery and building back better

126. Beyond the immediate and necessary focus on health and humanitarian responses to the current coronavirus pandemic, the world is also starting to consider ways to confront the profound societal impact of the COVID-19 crisis that will be with us in the months and years to come, along with setting in motion proper recovery actions. The science-based evidence suggests that this pandemic was triggered by the direct collision between natural systems and

human systems[2]. The root cause is the weakening of the services ecosystems that have provided for humanity over thousands of years. Therefore, the only lasting solution to COVID-19 and other such similar diseases is to promote transformational change to the human systems, so that a balance between natural systems and human systems be restored within planetary boundaries. In this context, the project should be seen as a unique opportunity where a set of actions will be implemented in the immediate, medium and longer term to help address this crisis in target municipalities in the Andean region. These action include:

- Creation of new jobs by investing in a green recovery program consistent with sustainable and nature-based development, which will strengthen the regional economy, biodiversity, reversion of degraded lands to sustainable uses, and resilience against new outbreaks of the disease in the communities of the selected municipalities. In particular, the production of coffee and cocoa under an agro-ecological approach leads to the generation of green jobs and income. The latter is linked both to the sale of these products and the ones derived from the agro-ecological system (e.g., products of apiculture).
- The increase in the variety, quantity and quality of the agro-ecological products will strengthen regional and national food security of coffee and cocoa producers, increasing their resilience to the effects of the COVID-19 outbreak in the Venezuelan Andean region.
- The preparation of bio-supplies from coffee waste, coffee nurseries (seedlings) and grafted cocoa plants are potential sources of employment for younger producers and women. Each of these contributions will contribute to the gradual strengthening of the economy in local communities under a Covid19 post-pandemic scenario.
- All the project actions will derive in the generation of global environmental benefits in line with national development priorities, and sustained in the long term by the local and regional benefits it will generate in terms of environmental sustainability and improved livelihoods the restoration of degraded areas, the improvement of management and the mitigation of greenhouse gas emissions as explained above in the core indicators and global environmental benefits above.

[1] https://apps.who.int/iris/bitstream/handle/10665/331856/WHO-2019-nCoV-Food_Safety-2020.1-spa.pdf?ua=1

[2] Leal Filho, W., Brandli, L. L., Lange Salvia, A., Rayman-Bacchus, L., & Platje, J. (2020). COVID-19 and the UN sustainable development goals: threat to solidarity or an opportunity?. *Sustainability*, 12(13), 5343.

[1] Leal Filho, W., Brandli, L. L., Lange Salvia, A., Rayman-Bacchus, L., & Platje, J. (2020). COVID-19 and the UN sustainable development goals: threat to solidarity or an opportunity?. *Sustainability*, 12(13), 5343.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

127. The project will have an execution period of 5 years. The Government of Venezuela will be responsible for the execution of the project, in close collaboration with the Food and Agriculture Organization (FAO), as the implementing agency of the GEF.

128. The project will be technically executed by the People's Ministry of Popular Power for Ecosocialism (MINEC). At the beginning of the project, a Project Steering Committee (PSC) will be established in order to advise on the implementation of the project, and will be comprised by the General Directorate of Ecosystem Conservation Management Policies (DGPGE), the Office of Management and International Cooperation from the MINEC, a MPPAT's representative, representatives of the 12 selected mayors and two beneficiaries, appointed via general assembly, and the FAO, more other institutions that may be invited to the meetings. Its main functions will be: to analyze and approve the regular work plans, the terms of reference and the selection of consultants; provide strategic guidance and monitor the project implementation; review progress and evaluation reports; discuss strategic topics or problems that arise during the project implementation, as well as provide institutional support for the necessary inter-institutional coordination and the contributions to project activities. The PSC will maintain a continuous flow of information among its members through electronic means, in addition to additional or extraordinary meetings, remotely or by other means if necessary.

129. The FAO, MINEC and other participating entities will collaborate with executing agencies of other programs and projects in order to identify opportunities and facilitate mechanisms to achieve synergies with other relevant projects supported by the GEF, as well as with projects supported by other donors. This collaboration will be carried out through: (i) informal communications between the GEF agencies and the execution partners of other programs and projects; (ii) exchanges of information and dissemination materials between the projects. In order to guarantee that opportunities for coordination and collaboration between different initiatives materialize, specific coordination functions have been included in the scope of work of the Project Management Unit (PMU), which have been included in the terms of reference of the Technical Coordination of the project, whose results must be explicitly reflected in the project progress reports.

130. The PMU will be constituted by a Project Team (EP) financed by the GEF. The main function of the PMU is to ensure the execution of the project through the implementation of the annual work plans. The PMU will be under the supervision of the PSC. In this context, a Technical Project Coordinator will be appointed, who will be under the supervision and guidance of the PSC. There will also be available municipal teams that will locally represent the project and coordinate with existing public and private entities through strategic alliances and contracts with associations, institutions and service providers directly linked to project users.

131. GEF funds in Venezuela are very important in the environmental sector. As Table 5 shows, 14 GEF-funded projects have been launched and/or approved; six of them focus on biodiversity conservation and one has a multifocal approach. All GEF project funds have been channeled through the Ministry of Popular Power for Ecosocialism (MINEC), which is the national focal point. These GEF projects will stay in contact, proposing the exchange with the beneficiaries and the project staff, in terms of the approaches for the integrated management of resources and the way to address the global environmental threats in productive landscapes, as well as in the multiple mechanisms for the recovery of forested areas and the generation of added value to forest products or goods.

Table 6. Support from international donors channeled through MINEC and related to biodiversity and degradation.

Donor	Support Focus Area	Number of Projects
GEF	Biodiversity	<ol style="list-style-type: none"> 1. Implementation of the National Biosafety Framework in Venezuela in accordance with the Cartagena Protocol on Biosafety (GEF Project ID: 5290). 2. Strengthening the Venezuelan Marine and Coastal Protected Areas System 3. Support to Venezuela for review of the National Action Plans (EPANB) and development of the 5th Report to the Convention on Biological Diversity (CBD). 4. Support in the preparation of the 3rd National Report on the Application of the Cartagena Protocol on Biosafety. 5. Preparation and development of the 6th National Report and Update of the National Biodiversity Strategy and Action Plan. 6. Support for the development of a legal and institutional framework on access to genetic resources, benefit-sharing and traditional knowledge in line with the CBD and its Nagoya Protocol, in Venezuela.
	Degradation	<ol style="list-style-type: none"> 1. Integral Social Development and its Interrelation with Climate Change in Hydrographic Basins of Lara and Falcón States (PDELAFA). 2. Capacity Building in the Agriculture, Forestry and Other Land Uses Sector in Venezuela, to improve transparency in the implementation and monitoring of the NDCs within the framework of the Paris Agreement. 3. Initiative to prepare the National Plan to Combat Drought 2018-2019. 4. Establishment of the Land Degradation Neutrality Program included in Target 15.3 of the Sustainable Development Goals, establishing that degraded soils and lands will be restored by 2030, including lands affected by desertification and drought. In addition, efforts will be made to achieve a world with a neutral effect on land degradation. 5. GEF support to the National Convention 2018. Reporting Process-Umbrella III Project. 6. Support for institutional capacities strengthening of the People's Ministry of Popular Power for Ecosocialism for hydrographic basin management through the National Reforestation Plan.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

132. The project is part of the legal, political and philosophical framework enshrined in the Constitution of the Republic of Venezuela, the Plan of the Nation 2019-2025, the National Strategy for the Conservation of Biodiversity 2010-2020 and its National Action Plan: Maintain globally significant biodiversity in landscapes and seascapes. The Biodiversity Focal Area, introduce biodiversity conservation and sustainable use in productive landscapes and seascapes, and production sectors, Focal Area Land Degradation Target 3, Integrated landscapes: Reduce pressures on natural resources from competing land uses in broader landscapes, Program 4 Increase sustainable land management through the landscape approach.

133. The project is consistent 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 feasible, brought close to zero, and degradation and fragmentation is significantly reduced, and Target 7: By 2020, areas for agriculture, aquaculture and forestry will be sustainably managed ensuring biodiversity conservation; and Strategic objective D: Enhance the benefits for all biodiversity and ecosystem services, Target 14: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks have been enhanced through conservation and restoration, including restoration of at least 15 percent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation, and to combating desertification.

134. Furthermore, the project is consistent with the Sustainable Development Goals (SDG), 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 halt biodiversity loss; and its goals 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 soil, including lands affected by desertification, drought and floods, and strive to achieve 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 and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts. As you can see, the project harmonizes, makes operational and implements the objectives of both conventions, thereby attending to the country's priorities.

135. The project is aligned with 'El Segundo Plan de Desarrollo Económico y Social de la Nación 2013-2019', which seeks through its Objectives 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 5.2. Protect and defend the permanent sovereignty of the State over natural resources for the supreme benefit of our people, which will be its main guarantor. The project is consistent with the

principles of the Forest Policy whose fundamental objective is to achieve sustainable forestry development, based on the construction of a productive, fair, balanced, participatory and inclusive model, with greater collective and individual benefits; as well as in harmony with the conservation of forest ecosystems and the environment.

136. The project is consistent with 'La Primera Comunicación Nacional sobre Cambio Climático a la CMNUCC (2005)', which indicates two options for mitigating climate change in the forestry sector: (i) sustainable management of forests, and (ii) reforestation / forest restoration activities, and with regard to adaptation, proposes, among other measures, the promotion of agroforestry systems, sustainable water and soil management, and the use of conservation agriculture. The project is consistent with 'El Plan de Acción Nacional de Lucha contra la Desertificación (2004)', in particular with the strategic line 2.4.1 Sustainable development of areas affected by processes leading to desertification and the effects of drought, which identifies, among other actions, stopping desertification processes, and the recovery and restoration of degraded areas with special emphasis on watersheds and sub-watersheds. For its part, the third national report to the 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 also is consistent with the goals established under National Land Degradation Neutrality (LDN) commitments.

137. Furthermore, the project is in line with 'El Marco de Prioridades Nacionales 2013-2016 de la FAO en Venezuela', framed within priority area C Adaptation to climate change, risk management and preservation of the environment, and its Result 3: Management, monitoring and evaluation of environmental strategies aimed at sustainable forest management, adaptation to climate change and preservation of food security, improved and strengthened in key areas for the application of the country's environmental legal framework.

138. The project is in line with the GEF / FAO Project "Ordenación Forestal Sustentable y Conservación de Bosques en la perspectiva Ecosocial" (# 5410) that 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 forest areas under degradation processes in representative forest ecosystems of Venezuela. The coordination of these initiatives will be in contact with this project to propose the exchange with the beneficiaries and the personal project, in aspects such as the approaches for the integrated management of resources and the way to address global environmental threats in productive landscapes.

139. The project "Fortalecimiento de la Sostenibilidad Financiera y Efectividad Operacional del Sistema de Parques Nacionales de Venezuela" (# 3609) implemented by PNUD, whose objective is to develop the capacities and mechanisms necessary to increase and diversify the financing of the National Park System to ensure the efficient use of resources and stimulate local community participation in the management of protected areas will be linked to this project. For instance, the lessons learned from this project on the management of protected areas could be useful for the project. Likewise, synergies could be developed to strengthen value chains and markets for forest products.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

140. Knowledge management will be a cross-cutting activity throughout the project to create institutional memory, promote continuous learning and generate documentation for the expansion of the project and visibility strategies for capacity development and political advocacy. The experiences and lessons on important elements will be systematized and published, especially those of an inclusive nature (for example: Processes that contribute to the reduction of land degradation in planning, good SFM and SLM practices, application of the gender approach, empowerment of women, participatory processes and capacity development), in digital format. and printed formats and languages (Spanish and English) adapted to different audiences (decision makers and authorities, technicians and communities). This information will be disseminated through various means such as social networks, local radio and print media to raise awareness about the importance and value of forest ecosystems in the Andean region. Likewise, the local exchange of experiences between beneficiaries and mixed and women's organizations will be promoted to strengthen knowledge networks, NGOs, universities and institutional members linked to the project to promote the replication and expansion of successful experiences. The web platforms of FAO and MINEC will be used to access existing knowledge and disseminate information. For the management of knowledge of the results and products towards actors outside the project, web pages adapted to non-institutional audiences will be used, where a simple language and easy to understand by people not specialized in conservation issues. Thus, the articulation of community leadership instances and the empowerment of rural women in each municipality will also be promoted. Likewise, methodological processes will be developed for the gender-sensitive community approach..

9. 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			

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

1. At Project level, FAO applies a risk management process focused specifically on individual Project risks, with the purpose of:
 1. Identifying, assessing and managing social and environmental risks and potential project impacts;
 2. Adopting a hierarchy of mitigation measures;
 3. Promoting sustainable food and farming systems.
2. FAO has nine (9) social and environmental standards that must be met by any Project funded or approved by the Organization:

SAFEGUARD	TRIGGER QUESTIONS	APPLICABLE?
ESS 1: Natural Resource Management	Would this project: 1) result in the degradation (biological or physical) of soils or undermine sustainable land management practices? or 2) include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water? or 3) reduce the adaptive capacity to climate change or increase GHG emissions significantly? or 4) result in any changes to existing tenure rights (formal and informal) of individuals, communities or others to land, fishery and forest resources?	NO
ESS 2: Biodiversity, ecosystems and natural habitats	Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?	YES The project will work to improve management and restore land in buffer zones of Areas Under Special Administration Regime in the target sites.
ESS 3: Plant Genetic Resources for	Would this project: 1) introduce crops and varieties previously not grown, and/or; 2) provide seeds/planting material for cultivation, and/or; 3) involve the importing or transfer of	

Food and Agriculture	seeds and or planting material for cultivation or research and development; 4) supply or use modern biotechnologies or their products in crop production, and/or 5) establish or manage planted forests?	NO
ESS 4: Animal - Livestock and Aquatic - Genetic Resources for Food and Agriculture	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?	NO
ESS 5: Pest and Pesticide Management	Would this project: 1) result in the direct or indirect procurement, supply or use of pesticides: on crops, livestock, aquaculture, forestry, household; or as seed/crop treatment in field or storage; or through input supply programmes including voucher schemes; or for small demonstration and research purposes; or for strategic stocks (locust) and emergencies; or causing adverse effects to health and/or environment; or 2) result in an increased use of pesticides in the project area as a result of production intensification; or 3) result in the management or disposal of pesticide waste and pesticide contaminated materials; or 4) result in violations of the Code of Conduct?	NO While the project will work with coffee and cocoa producers, the target is to improve production practices, including a reduction of highly hazardous pesticides.
ESS 6: Involuntary displacement and resettlement	Would this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?	NO
ESS 7: Decent work	Would this project affect the current or future employment situation of the rural poor, and in particular the labor productivity, employability, labor conditions and rights at work of self-employed rural producers and other rural workers?	If positive effects are considered, the answer is YES, the project will take into account FAO guidance to improve working conditions.
ESS 8: Gender equality	Could this project risk be overlooking existing gender inequalities in the participation of men and women in decision-making and/or in their differential access to productive resources, services and markets?	NO

ESS 9: Indigenous Peoples and Cultural Heritage	<p>Would this project:</p> <p>1) have indigenous peoples living outside the project area where activities will take place; or 2) have indigenous peoples living in the project area where activities will take place; or 3) adversely or seriously affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical and non-physical or intangible) inside and/or outside the project area; or</p> <p>4) be located in an area where cultural resources exist?</p>	The project will work local communities.
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3. As per FAO rules, the project will carry out an Environmental and Social Analysis as part of the project preparation process

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
FAO Climate Screening	
FAO Risk Certification	

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Miguel Alberto Serrano Orta	Director of Integration and International Affairs	Ministry of Popular Power for Ecosocialism	10/20/2020

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

