LDN Target-Setting and Restoration of Degraded Landscapes in Western Andes and Coastal areas

Part I: Project Information

GEF ID
10184

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
LDN Target-Setting and Restoration of Degraded Landscapes in Western Andes and Coastal areas

Countries
Ecuador

Agency(ies)
FAO

Other Executing Partner(s)
CONDESAN (Operating Partner)

Executing Partner Type
CSO

GEF Focal Area
Land Degradation

Taxonomy

Focal Areas, Land Degradation, Food Security, Sustainable Land Management, Sustainable Agriculture, Drought Mitigation, Ecosystem Approach, Sustainable Livelihoods, Integrated and Cross-sectoral approach, Income Generating Activities, Restoration and Rehabilitation of Degraded Lands, Community-Based Natural Resource Management, Sustainable Pasture Management, Improved Soil and Water Management Techniques, Land Degradation Neutrality, Carbon stocks above or below ground, Land Cover and Land cover change, Biodiversity, Biomes, Tropical Rain Forests, Paramo, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Transform policy and regulatory environments, Demonstrate innovative approache, Stakeholders, Communications, Awareness Raising, Behavior change, Private Sector, Capital providers, SMEs, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Indigenous Peoples, Beneficiaries, Type of Engagement, Partnership, Information Dissemination, Consultation, Participation, Civil Society, Community Based Organization, Non-Governmental Organization, Local Communities, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Gender results areas, Capacity Development, Participation and leadership, Capacity, Knowledge and Research, Learning, Adaptive management, Indicators to measure change, Theory of change

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

1/29/2021

Expected Implementation Start

3/1/2021

Expected Completion Date

9/30/2025

Duration

48In Months

Agency Fee($)

419,540.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
LD-1-1	Maintain or improve the flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM).	GET	1,071,000.00	5,457,008.00
LD-1-2	Maintain or improve the flow of ecosystem services including sustainable livelihoods of forest dependent people through Sustainable Forest Management (SFM	GET	1,071,000.00	6,590,579.00
LD-1-3	Reduce pressures on natural resources from competing land uses in the wider landscape.	GET	1,071,000.00	4,200,000.00
LD-2-5	Create enabling environments to support the scaling and integration of SLM and LDN.	GET	1,203,210.00	12,081,200.00
		Total Project Cost($)	**4,416,210.00**	**28,328,787.00**

B. Project description summary

Project Objective

Prevent, reduce and reverse land degradation processes (SDG 2, 13, 15) to promote the sustainable development of rural communities, ensuring the provision of key ecosystem services and food sovereignty, within the framework of national efforts to achieve the LDN in Ecuador (2.4.1; 13.2.1; 15.3.1).

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1: Strengthening enabling environment for LDN implementation and monitoring.	Technical Assistance	**Outcome 1.1**: Institutional actors make decisions with a LDN approach based on an established monitoring system that is regularly fed. **Target:** LDN information gathering and monitoring system working and producing LDN national indicator reports mainstreaming gender and interculturality variables. **Outcome 1.2**: Key actors at national and sub-national levels apply knowledge and tools for the implementation of the LDN approach to measures planning, implementation and monitoring. **Targets:** i) At least 100 technicians (national, sub-national, researchers) with solid knowledge	**Output.1.1.1**: LDN indicators baseline assessed at national and local level. - **Output.1.1.2**: Participatory assessment of SLM practices that prevent and reduce land degradation, restore ecosystems, reduce emissions and enhance the provision of ecosystem services. - **Output 1.1.3**: Monitoring of LDN indicators at national and sub-national levels, integrated with reporting mechanisms. **Output 1.2.1**. Capacity strengthening tools for LDN targets planning, implementation and monitoring, with a gender and intercultural approach, and available, operational	GET	1,079,307.00	13,332,740.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2: Demonstration of LDN approach to promote resilient livelihoods and SLM/SFM practices in prioritized landscapes	Investment	**Outcome 2.1**: Landowners and users adopt sustainable land management practices at intervention sites to prevent and/or reduce land degradation and restore ecosystem services. **Targets: i)** 2,000 ha of forests restored to maintain ecosystem services in 3 intervention sites (GEF Indicator #3.2) ii) 2,000 ha of paramo and shrub ecosystems restored to maintain ecosystem services in 3 intervention sites (GEF Indicator #3.3) iii) 4,750 ha of landscapes under SLM in productive systems in 3 intervention sites (GEF Indicator #4.3) iv) 20,000 ha of high value	**Output.2.1.1**: Ongoing participatory plans for the LDN implementation (mainstreaming gender, landscape, and intercultural approaches) in the context of the LDN National Action Plan. - **Output 2.1.2**: Gender and intercultural-sensitive SLM/SFM practices implemented in the project intervention areas (ecosystems and productive landscapes), which restore vegetative cover, soil organic carbon, water regime and increase productive systems sustainability.	GET	2,002,205.00	5,214,461.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3: Promoting innovative incentive mechanisms to encourage the adoption of SLM/SFM practices in agricultural and forest landscapes.	Technical Assistance	**Outcome 3.1** Actors in selected value chains include the SLM approach to enhance resilience and generate socio-economic benefits based on incentives and improvements in market access mechanisms. **Targets**: i) At least 1000 beneficiaries have access to SLM incentives and mechanisms that strengthen SLM in value chains, and at least 480 people with strengthened capacities in LDN (disaggregated by sex and ethnicity) (GEF Indicator #11) iii) At least 10% increase in income generated on the smallholders? farm who have incorporated SLM.	**Output 3.1.1:** Designed and operational mechanisms and institutional arrangements for the implementation of incentives to promote the adoption of SLM/SFM, mainstreaming gender and interculturality. **Output 3.1.2**: Designed and operational mechanisms and institutional arrangements to improve market access for smallholders (men and women) that are part of the SLM approach into the selected value chains.	GET	752,754.00	8,198,815.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
4: Project monitoring and evaluation and lessons learned	Technical Assistance	**Outcome 4.1**: Knowledge management, M&E and disseminated lessons learned from the project. **Target:** Project outcomes achieved and demonstrating sustainability	**Output.4.1.1:** Mid-term review and final evaluation carried out. **Output: 4.1.2:** Overall environmental benefits, co-benefits and costs of SLM/SFM monitored, assessed and lessons learned from the project analysed. - **Output: 4.1.3:** Knowledge management outputs, developed and disseminated. **Output: 4.1.4:** Communication strategy developed and implemented to support the expansion of SLM/SFM to achieve LDN targets.	GET	379,131.00	233,782.00
				Sub Total ($)	**4,213,397.00**	**26,979,798.00**

Project Management Cost (PMC)

GET	202,813.00	1,348,989.00
Sub Total($)	**202,813.00**	**1,348,989.00**
Total Project Cost($)	**4,416,210.00**	**28,328,787.00**

Please provide justification

PMC slightly surpasses the 5% of GEF amount in order to provide the Operational Partner (CONDESAN) with the necessary managerial and administrative support to ensure the overall efficient management, coordination, implementation and monitoring of the project. Such support would count, for the most part, on the project coordinator, an M&E specialist and an administrative/financial assistant.

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	FAO	Grant	Investment mobilized	50,000.00
GEF Agency	FAO	In-kind	Investment mobilized	3,125,000.00
Civil Society Organization	CONDESAN	In-kind	Recurrent expenditures	67,852.00
Civil Society Organization	CONDESAN	Grant	Recurrent expenditures	204,148.00
Recipient Country Government	REM Program	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	Ministry of Agriculture and Livestock (MAG)	Grant	Recurrent expenditures	46,111.00
Recipient Country Government	Ministry of Agriculture and Livestock (MAG)	In-kind	Recurrent expenditures	18,612,692.00
Recipient Country Government	Ministry of the Environment and Water (MAAE)	In-kind	Recurrent expenditures	4,545,914.00
Donor Agency	GIZ	In-kind	Investment mobilized	300,000.00
Recipient Country Government	GADP Manabi	In-kind	Recurrent expenditures	77,070.00
Recipient Country Government	GADP Chimborazo	In-kind	Recurrent expenditures	100,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	GADP Imbabura	In-kind	Recurrent expenditures	200,000.00
			Total Co-Financing($)	**28,328,787.00**

Describe how any "Investment Mobilized" was identified

The total amount of investment mobilised is $4,475,000. The investment mobilized for the project considers the investments that will take place in Ecuador in the next years that contribute to the fulfilment of the proposed objectives. FAO Ecuador will provide funds in the order of USD 3,175,000, which will contribute to the achievement of the results of Component 2 (Output 2.1.2): SLM / SFM practices promoted with a focus on gender and interculturality, in the project intervention areas (ecosystems and productive landscapes), which restore vegetation cover, soil organic carbon, water regime and increase the sustainability of productive systems) and, Component 3 (Output 3.1 .2: Mechanisms and institutional arrangements designed and operational to improve market access for small producers (men and women) that integrate the SLM approach in the selected value chains). This funds correspond to the following projects: 1.- GCP / ECU / 101 / EC "Andean Landscapes: Promoting integrated landscape management for the promotion of sustainable livelihoods in the Ecuadorian Andes", will support the strengthening of value chains and processes of restoration and sustainable management of the land in the provinces of Imbabura, Pichincha and Bol?var. 2.-GCP / GLO / 931 / MUL ?Mechanism for Forests and Farms Facility? that supports value chains and initiatives for sustainable land management in the province of Imbabura. 3- GCP / RLA / 224 / SPA ?Reduction of vulnerability of rural women and their livelihoods for a resilient agriculture? that supports sustainable land management initiatives in the province of Manab?. GIZ will contribute with a co-financing of $300.000 for supporting activities of all the projects?s Components in the provinces of Bol?var, Tungurahua and Chimborazo. This project has complimentary activities on SLM practices, value chains and governance of natural resource management.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
FAO	GET	Ecuador	Land Degradation	LD STAR Allocation	4,416,210	419,540
				Total Grant Resources($)	**4,416,210.00**	**419,540.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **false**

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
FAO	GET	Ecuador	Land Degradation	LD STAR Allocation	150,000	14,250
				Total Project Costs($)	**150,000.00**	**14,250.00**

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)
4000.00	4000.00	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)

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)
4,000.00	2,000.00		

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)
	2,000.00		

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)
33000.00	24750.00	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)

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)
8,000.00	4,750.00		

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)
25,000.00	20,000.00		

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

Title	Submitted
Updated_20210325_Annex_P_Supplementary_Material	
Annex_P_Setting_targets_for_GEF_core_indicators	

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?e (direct)	12170020	9596730	0	0
Expected metric tons of CO?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?e (direct)	12170020	9,596,730		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting	2020	2021		
Duration of accounting	20	20		

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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

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

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

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	2,400	2,338		
Male	3,600	3,112		
Total	6000	5450	0	0

Part II. Project Justification

1a. Project Description

1) Global environmental and/or adaptation problems, main causes and barriers to consider (systems description)

The Land Degradation Neutrality (LDN) as a comprehensive approach to responses to land degradation impact.

1. The United Nations Convention to Combat Desertification (UNCCD) defines land degradation as ?the reduction or loss, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities? (Article 1f, UNCCD). There are various definitions of land degradation, but in general they include long-term negative trends in the provision of benefits, caused directly or indirectly by processes of anthropogenic origin, and with social and ecological impacts (UNEP 2007; IPCC 2019).

2. The direct causes of land degradation relate to human activities and biophysical processes that have direct impact on the state of natural land capital, the functionality of ecosystems, the goods and services they provide, and human well-being, while the underlying causes correspond to social processes mediated by environmental processes that structure the proximate causes (Geist and Lambin 2002; Cowie et al. 2018). The direct causes of land degradation correspond to anthropic pressures such as unsustainable agricultural and forest practices, the use of unsuitable technologies, and ecosystem conversion, among others. The underlying causes relate to the interaction of demographic, political, institutional, cultural and market dynamics (Eswaran, Lal, and Reich 2001; Cowie et al. 2018).

3. Responses to land degradation processes require diverse strategies linked to direct and underlying causes at different spatial and time scales. For example, structural responses related to changes in the patterns of demand for food, access to education and health, access to water, productive land and other means of production, require public policy transformation processes and coordination between actors from the public-private sector, the academia and civil society that may occur over long-time scales. Interventions regarding capacity strengthening of producers, diversifying rural livelihoods, and promoting sustainable ecosystem, water and soil management practices may influence pressure processes and improve the state of the natural land capital at local scales and immediate time framework (Andersson, Brogaard, and Olsson 2011). This set of responses falls under the broad umbrella of sustainable land management (SLM), which includes the use of land resources (e.g., ecosystems, water, soils, animals and plants), to produce goods and services that meet changing patterns of human needs while ensuring the productive potential and environmental functionality of these resources in the long term (Liniger et al. 2019).

4. Land Degradation Neutrality (LDN) is a comprehensive approach that seeks to articulate SLM responses to reduce pressure on biosphere resources related to increasing demand for food, competition

for land use, and building resilience of productive systems and ecosystems (Cowie et al. 2018). Land Degradation Neutrality is defined as a ?state in which the quantity and quality of land resources needed to maintain ecosystem services and functions and improve food security are stable or increase within specific time and spatial scales? (Decision 3/COP.12, UNCCD 2015).

5. The LDN approach establishes a hierarchy of responses to prevent the degradation of productive lands that are being managed sustainably maintaining their social and ecological functions, to reduce ongoing land degradation processes, and to restore the productive potential and ecosystem functions of degraded land (Cowie et al. 2018). Avoiding land degradation processes is economically efficient and effective, for example, through forest, soil, and water conservation strategies (McConnell, Sweeney, and Mulley 2004; Van Der Hoek 2017). The LDN is one of the goals of SDG 15 of the Agenda 2030 (UN 2015), which seeks to combat desertification, restore degraded lands and soils and strive to achieve a land degradation-neutral world (Goal 15.3).

6. At the core of LDN, the goal is to avoid additional net losses of land-based natural capital in comparison to the conditions found in a specific baseline period. The mechanism for neutrality requires mapping and quantifying a baseline of pre/defined indicators, and monitoring gains and losses relative to the baseline in the future. The key requirement of LDN is that counterbalancing anticipated losses with planned gains in land-based natural capital, must occur within the same land type, such as gains in one land type cannot counterbalance losses in a different land type (Cowie et al, 2018). For a given period of application and biophysical or administrative territorial unit, LDN is achieved if no net loss or gains occur across all land use types.

Global Environmental Significance of the Tropical Andes and its Land Degradation Issues

7. The countries that share the tropical Andes belong to the group of 17 countries classified as megadiverse countries at the global level, and their territory covers two biodiversity ?hot spots?: Tropical Andes and Choc?/Dari?n/Western Ecuador (Myers et al. 2000). This diversity is connected to the influence of the Andean mountain range, which creates pronounced environmental gradients reflected in naturally heterogeneous landscapes (Young 2011). It is estimated that 44% of the more than 84 million inhabitants of the seven Andean countries live in mountain areas, but this percentage varies from 82% in Bolivia, 80% in Colombia, 56% in Peru, 50% in Venezuela, 46% in Ecuador (Devenish and Gianella 2012). The Andes are home to headwaters that are important for their social, economic and environmental roles, so the sustainable management of Andean ecosystems and productive landscapes is important for downstream populations (McClain and Naiman 2008; Ponette-Gonz?lez et al. 2015). Landscapes in Andean countries have long histories of human settlement. Pre-Hispanic productive systems showed remarkable characteristics of adaptation to the diverse agro-ecological conditions associated with coastal areas, the Andean mountain range, and the Amazon plain. Some of these adaptations have to do with output exchange networks of multiple altitudinal strips, complex irrigation systems and terraced crops, use of rigs, farming systems on the Amazon river banks, among others (Denevan 2001).

8. The ecosystems of the tropical Andean countries are characterized by their biological diversity and fragility, and the importance of the ecosystem goods and services they provide to local populations. Tropical mountains have been identified as particularly sensitive and vulnerable environments to the

combined effects of climate change and land cover/land use change (Chakraborty 2019). Impacts on the composition and structure of Andean ecosystems related to upward migration of species following change in bioclimatic conditions have been documented, with implications for the provision of ecosystem goods and services at local, regional and global levels (Fadrique et al. 2018). Similarly, Andean production systems face particular challenges related to difficult agroecological conditions for production; asymmetric links between producers and local, national and international markets; changes in local organizational logics, persistence of political, social and economic processes that generate poverty cycles, among others (Stadel 2008). Paradoxically, as in other developing countries, rural populations that produce food are the poorest, and lack of access to adequate food (Schindler et al. 2015), with particularly critical impacts on women, girls and boys (Tognelli et al. 2016).

9. The main direct cause of land degradation in the Tropical Andes derives from unsustainable agricultural practices and interventions, which rely on the conversion and degradation of natural ecosystems to extract short-term goods and services (Pena et al. 2020; Santib??ez and Santib??ez 2007). Young mountain ranges, like the Andes, with their steep slopes and surface materials that move freely, are prone to large volumes of soil and rock being washed away from stream banks and ravines. However, land erosion that occurs in the Andes is largely accelerated by farming activities. Rates of soil loss are particularly high on small farms (smallholdings) with erosive crops (e.g. maize) and where erosion control practices, when applied, are rudimentary (Southgate and Whitaker 1992).

10. Land degradation processes in Andean countries reflect the diversity of ecological and productive conditions in these countries. For example, deforestation of lowland tropical forests alters the continuous contribution of vegetation to soil organic carbon, increasing the risk of water erosion and subsequent loss of fertility. In the area of coastal Xeric deserts and scrublands, farmland clearance requires irrigation, which increases the risk of soil salinization. In paramo or puna ecosystems, there is soil and water contamination in vegetable crops (e.g. tubers) with intensive use of fertilizers, biocides and other agrochemicals (FAO and ITPS 2015). In the tropical Andes, high biological diversity is associated with high cultural diversity. Degradation processes affect the cultural identity of local communities, especially indigenous peoples, and can lead to the loss of traditional local knowledge (IPBES 2018).

The global environmental problem: Land degradation in Ecuador

11. In Ecuador, land degradation is a long-standing problem that has been documented for several decades. The Land Degradation Neutrality (LDN) Target Setting Programme implemented in 2017 with the support of the Secretariat and the Global Mechanism of the United Nations Convention to Combat Desertification (UNCCD) characterised the following direct causes of land degradation in Ecuador 1) deforestation and removal of natural vegetative cover, 2) degradation through overgrazing, 3) inadequate management of crops and pastures, 4) over-exploitation of vegetation for domestic use, 5) urban development and infrastructure, 6) other causes related to mining and industrial activities, natural events and water resources contamination. The underlying causes identified were: 1) consumption patterns and domestic demand, 2) poverty, 3) lack of access to high-quality education, 3) governance and institutions, and 4) other causes related to demographic processes (including changes in the availability of rural labour) and climate change.

12. *Soil degradation*: De Noni and Trujillo (1986a, 1986b) assert that the agricultural practices introduced by the Spanish colonizers had a direct consequence in accelerating erosion[1][1], especially in mountainous areas where the elements of the natural environment, such as climatic conditions, slope, soils, and vegetation, confer a condition of fragility to the Andean ecosystems (De Noni and Trujillo 1986a). In their study, carried out in the 1980s, it was estimated that approximately 48% of continental Ecuador was affected by erosion processes, mainly along the outer faces of the Andes and the sides of the intermountain valleys (De Noni and Trujillo 1986b; Southgate and Whitaker 1992).

13. The greatest soil loss occurs in the coastal hills of Manab? province and along the agricultural border at the north of the coast and east, while erosion is particularly severe in the highlands. ?In some areas of the highlands, once the arable soil has disappeared, the land is abandoned by the farmers and erosion continues on the subsoil. The quantitative results obtained in 50 m2 runoff plots in Hoya de Quito (Ilal? and Alangas?), allows to predict that, throughout his life, a peasant can see the loss of up to one meter of the soil on his property? (De Noni and Trujillo 1986b: 6). In the Coast, in the 1980s, De Noni and Trujillo (1986b) already documented areas of active erosion, either by runoff, as in the Santa Elena Peninsula in the Pedro Carbo canton, or by mass movements in Manab?, in the Jipijapa - Portoviejo depression, Chone - Eloy Alfaro watershed and the canyon flanks of the Esmeraldas River.

14. Soil erosion in Ecuador causes land productivity to decrease. With fertilizers, farmers try to partially make up for the impact of erosion on yields. However, after cumulative land degradation exceeds a threshold, crop production often becomes economically unviable. In the highlands, that threshold is quickly reached on the slopes surrounding the intermountain valley bottoms, with over 341,000 hectares (60%) of farmland abandoned or converted to grasslands since the mid-1960s (Southgate and Whitaker 1992: 798).

15. To understand the current processes and patterns of land degradation, it is necessary to understand the interactions between land use systems and bioclimatic conditions. For example, Podwojewski (2002) documents the effects on soil properties to the northwest of the Chimborazo volcano, where a long history of overgrazing, especially sheep, has led to converging patterns of degradation in a gradient from dry to wet paramo. The degraded areas have lost plant species, the soil organic carbon has decreased by 40% to 50%, and the water retention capacity has decreased by 75%, compromising the water regulation function of the paramo.

16. The abandonment of land is a problem that worsens the degradation processes. Harden (1996), based on 109 experiments with field rainfall simulation in the Paute river watershed in the highlands, demonstrated that abandoned or fallow land represents an even greater risk of organic matter loss and erosion due to increased rapid runoff, compared to productive land. The continued degradation of abandoned or fallow land in the study area in the southern Andes of Ecuador relates to unsustainable grazing practices that continue after agricultural use that do not allow vegetative cover to regenerate, leading to accelerated erosion and further land degradation (Harden 1996: 276). Soil erosion is a problem that directly affects farmers, especially small-scale farmers who only have access to fragile land for their productive activities. Other negative externalities relate to the sedimentation in water

infrastructure. In the case of the Litoral, plant nutrients attached to eroded soils contribute to water quality problems in reservoirs (Southgate and Whitaker 1992).

17. *Vegetation*: The latest national assessment of land degradation estimates that a 48% of natural land use systems are moderately degraded and a 17% are severely degraded. In the case of transformed land-use systems, 61% show moderate degradation and 17% show severe degradation. In total, 47% of the surface of continental Ecuador (i.e., 12,049,390 ha) shows some degree of degradation[2][2].

18. In 2016, native forest covered 50.73% (12.6 million ha), farmlands 35.88% (8.9 million ha) and shrub and herbaceous vegetation 9.48% (2.4 million ha) of the surface of continental Ecuador (MAE 2018). Native forest decreased from 13.6 million ha to 12.6 million ha in the period 2000 - 2016, with annual national deforestation rates of 0.57%/year, 0.36%/year and 0.48%/year in the periods 2000-2008, 2008-2014 and 2014-2016, respectively. Farmland has increased from a 32.77% of the national territory in 2000 to a 35.88% in 2016 (MAE 2018).

19. The processes to convert areas of natural vegetation to crops and grasslands have been one of the main direct causes of the impact on the remaining ecosystems. Recent deforestation processes at the national level result from the interaction of different direct and underlying drivers, which vary in terms of relative importance in different regions of the country. Castro et al. (2013) identified the demand for agricultural inputs for domestic consumption and the production of permanent crops (e.g. cocoa, bananas, palm) for export as the main causes of deforestation at the national level in the period 1990 - 2008. These underlying causes are, in turn, related to more structural and long-term changes in land access and tenure patterns, rural-urban migration, and intensification of farm production (Castro et al. 2013). In the cordillera and semi-dry valleys of central and southern Manab? and Santa Elena, the main direct cause of deforestation in the 2000-2008 period was the expansion of grasslands and flint maize crops. In contrast, in the north of the Costa region the main direct causes were the expansion of permanent crops, especially African palm (Castro et al. 2013).

20. Habitat loss and fragmentation associated with ecosystem conversion produce impacts on the composition of biotic communities at different scales (Cisneros-Heredia et al. 2010; Tapia-Armijos et al. 2015). Ecosystem conversion affects ecosystem functions related to important ecosystem services, such as carbon sequestration or water regulation. The Land Use, Land Use Change and Forestry (LULUCF) sector represents the second largest source of net emissions at the national level, with a 25% after the energy sector (MAE 2017).

21. *Water:* The ecosystems conversion and degradation compromises the capacity at local and landscape scales for water provision and regulation (Ponette-Gonz?lez et al. 2015). The specific sources of impact differ according to the type of ecosystem and management characteristics of the existing productive systems in the watersheds. For example, cloud forests perform water regulation functions related to the capture of atmospheric humidity and horizontal rain. In areas with high seasonality of rainfall, such as dry forests on the coast, the contribution of fog water in dry periods can exceed the contribution of rain (Tobon 2009).

22. Afforestation of non-forest ecosystems and conversion to agricultural systems affects the capacity of watersheds to provide water. Conversion to cropland usually results in watersheds having more acute discharge peaks and lower dry season baseflow. This translates into lower regulation capacity of watersheds over time. Afforestation, especially in the case of paramo watersheds with exotic species, reduces water generation in the watersheds (Ochoa-Tocachi et al. 2016).

23. A direct link between land cover/land use patterns and water quality has been documented. For example, Damanik-Ambarita et al. (2016) characterized a direct influence of land use on water quality in the Guayas River watershed. Areas with a prevalence of natural vegetation had better quality conditions than areas of agricultural or urban land use. The use of pesticides in agriculture is also an important source of water pollution and impact on aquatic biotic communities (FAO 2011). A better characterization of the impact of pesticide and other agrochemicals used on aquatic ecosystems in Ecuador has been identified as a priority research line (Damanik-Ambarita et al. 2016).

24. *Climate Change:* Climate change is an additional pressure factor for land, both at national and local levels. Some available climate change scenarios (MAE, 2017) show that by 2040 the average rainfall could increase by 4 to 10%. However, unstable rainfall patterns add uncertainty about the availability and reliability of water for crops and other uses. It is estimated that the average temperature will increase (from 0.66 to 0.87?C) and therefore, water use and evapotranspiration will increase, and these landscapes could become more vulnerable to drought.

25. In addition, the increase in average temperature will affect the carbon storage capacity of soils and reduce the water regulation capacity of the soil, increase the risk of soil erosion and decomposition of organic matter (Buytaert et al., 2011; Urbina & Benavides, 2015; Hribljan et al., 2016). The resulting changes in these ecosystems could threaten carbon stability in the paramo and high Andean wetlands, transforming them from a long-term carbon sink to a source of emissions.

26. On the other hand, it has been documented that climate change is causing changes in the distribution of flora and fauna species (Fadrique et al. 2018) with important implications for agricultural production systems. Changes in agroecological conditions have also been documented in Andean productive systems, linked to local perceptions of increased vulnerability to natural hazards (e.g. landslides), extreme weather events and changes in precipitation patterns (L?pez, Jung, and L?pez 2017). Changes in crop distribution, pest?s incidence because of climate change and variability, are already creating local adaptation needs. For example, on the slopes of the Cotacachi volcano in Imbabura province, there has been an altitudinal migration of 200-300 m in maize crops, accompanied by producers? efforts to obtain seeds that better adapt to the new conditions (Skarb? and VanderMolen 2016).

27. The project will intervene in three intervention areas: Costa, Sierra Centro and Sierra Norte, which are described in detail in section 1.b and Annex O. During the project design phase, analysis and consultations with local actors were carried out to identify the main characteristics of the land degradation in each site, and which are reflected in Table 2 of the aforementioned section.

Remaining barriers

Barrier 1: Lack of information and limited capacities for adequate monitoring of progress towards LDN at different scales

28. During the Conference of the Parties (COP) 12 of the UNCCD held in Ankara in 2015, the Parties agreed that the Land Degradation Neutrality (LDN) approach would integrate into the national plans to combat land degradation and that the voluntary LDN targets would be selected by the countries themselves. Ecuador, as UNCCD signatory country, has committed to establish voluntary LDN targets and monitor key indicators at national level such as (i) land cover and land cover changes (ii) land productivity and (iii) soil organic carbon levels. However, the necessary adjustment of LDN targets has not been fully implemented by the country due to the lack of knowledge and needs to strengthen institutional capacities to monitor national baseline indicators.

29. In recent years, there have been important advances in other monitoring processes, such as the National Forest Monitoring System (NFMS) and the National Biodiversity Monitoring System (NBMS), as well as the desertification and drought modelling processes implemented by the Ministry of the Environment and Water (MAAE) and the Ministry of Agriculture and Livestock (MAG) respectively. Institutional capacities must be strengthened to include these initiatives into an indicator monitoring system to assess the LDN progress at the national level. Some priority issues include the need for methodological and management standards and reports on soil organic carbon and land productivity.

30. In addition, at national and sub-national levels there is a lack of knowledge regarding: (i) proximate and underlying causes of land degradation; (ii) impacts of degradation processes on ecosystem services and food security; and (iii) interactions with the effects of other global environmental change processes, especially climate change. Similarly, greater conceptual integration is required to monitor the combined impacts of land degradation on other key ecosystem services, especially hydrological services (e.g., regulation, sediment control, maintenance of water quality).

31. At local scale, in Ecuador there is a lack of knowledge about the effectiveness and impact of Sustainable Land Management (SLM) and Sustainable Forest Management (SFM) practices, conservation and restoration of ecosystems, on biophysical and economic systems. SLM/SFM practices have been implemented throughout several projects and in several regions of the country; however, these practices are not being validated, registered or monitored because there is no monitoring strategy in Ecuador to create a robust baseline information, which can later be synthesized and analysed at broader scales (e.g., landscape, watershed, region, national). This restricts the possibility to replicate and scaling these practices and include them in public policies.

Barrier 2: Weak institutional framework to include comprehensive LDN approach and lack of effective inter-sectoral and multi-level coordination mechanisms

32. Despite country commitments under the UNCCD and LDN framework, there is no institutional regulatory framework to comprehensively addresses land degradation. Existing institutional and legal frameworks do not address land degradation in all sectors, nor do they consider its effects on food security and the maintenance of ecosystem services. Agricultural policies have traditionally emphasized short-term increases in production and productivity, without including a systemic

sustainable management vision. This affects land degradation processes, which affects biodiversity, food security and rural communities? resilience, contributes to the emission of Greenhouse Gases (GHG) from the Agriculture, Forestry and Other Land Use (AFOLU) sectors, and prevents the realization of socioeconomic benefits related to the maintenance of key ecosystem functions and services. In addition, no mechanisms have yet been established for cross-sectoral work, promoting a common and joint approach aimed at preventing, reducing and reversing degradation processes. Collaboration between sectors remains limited or ineffective, especially in the key sectors of environment and agriculture. In practice, the promotion of agricultural productivity is usually addressed separately from key ecosystem services, especially water provision and regulation, maintenance of soil fertility, pollination, and so on.

33. The establishment of LDN targets at the national level and the implementation of actions at different levels lacks a solid institutionality that is exemplified by 1) the absence of a common conceptual framework adopted by competent institutions to guide the implementation of joint and comprehensive actions, 2) the current regulatory and policy framework offers some opportunities to enhance LDN actions, however, there is a high level of dispersion in its objectives and proposals for actions under strictly sectoral approaches, 3) limited institutional capacities of the various actors to design, plan, implement and monitor LDN/SLM initiatives, 4) a significant reduction in budget allocations, 5) emerging mechanisms that connect the competent bodies in planning, implementing, monitoring and assessing SLM practices (i. e. horizontal coordination), and 6) weak mechanisms of articulation between governance levels (i.e. vertical articulation), which means that, in many cases, decentralized autonomous governments act independently and results have no possibility to be scaled up or replicated.

34. In the last decade, the Central Government has promoted national economic incentive programmes to encourage restoration and reforestation as a means of alleviating the high rates of deforestation nationwide. The National Forest Restoration Programme (NFRP) for conservation purposes and the Reforestation Programme for commercial purposes, promoted by the MAAE and MAG respectively, were developed independently, without common guidelines, aimed at different objectives, and implemented according their own exclusive institutional arrangements. Despite having any number of hectares under intervention, both programmes had difficulties regarding management models, limitations of fiscal resources to maintain investments and, in some cases, lack of actions continuity by the beneficiaries. These two national incentive programmes partly exemplify the weak institutionality that exists in the country which has conditioned the implementation of actions under a common plan or with more effective inter-institutional coordination mechanisms. For example, many lessons about the conditions and institutional arrangements that influenced programmes success can be learned from these national experiences; however, so far, no joint process exists between ministries or the stakeholders that would capitalise on these experiences.

35. Finally, Ecuador has not yet established its LDN objectives. Given that it is a multi-sectoral approach, it is required that government institutions, the academia, civil society and local actors, engage in a comprehensive, multilevel and intersectoral technical and political process. The progress made by the Core Group on Land Degradation Assessment, in the framework of the GEF/FAO project ?Decision Support for the Integration and Scaling of Sustainable Land Management?, is a technical

platform of multiple decision makers that could be improved and made official, defining clear roles for the institutions involved, to fill this institutional gap for the establishment and implementation of the LDN objectives.

Barrier 3: Weak planning frameworks and governance mechanisms that do not include SLM for the achievement of LDN

36. The different administrative levels, sectors and planning tools are not coordinated in a way that they can support the LDN approach by aligning LDN/MST processes with land use planning. The LDN/MST approach has the potential to integrate actions for the maintenance and recovery of ecosystem services, responses to climate change, promote sustainable production systems, combat biodiversity loss, among other objectives, which need to be coordinated among different levels of governance.

37. There is a lack of institutional (central and local government) and community (local communities, NGOs, cooperatives, farmers' associations) capacities to include and implement SLM practices, and to establish and monitor progress in the attainment of LDN. National and local planning systems lack LDN/SLM criteria and collaboration between sectors remains limited (even at the local level).

38. The Technical Secretariat for Planning, Planifica Ecuador, provides an operational framework for spatial planning in Ecuador. The instruments for local planning are the Development and Land Management Plan (PDOT) formulated at all administrative levels (local, municipal, regional, national). On the other hand, in recent years, efforts have been made to include ecological and economic zoning concepts in local planning instruments. The MAG has developed an agro-ecological zoning tool as part of the Agricultural and Public Information System (SIPA) to guide territorial planning at the local MAG offices. The MAAE has developed guidelines to include climate change and disaster risk management into land management processes. Both tools have relevant elements for SLM/LDN planning, but there are still no governance mechanisms to facilitate their specific articulation in the PDOT. The PDOTs identify the environmental and productive problems of the provinces and have policies, programmes and projects in which SLM practices can be more effectively mainstreamed under a LDN approach.

Barrier 4: Limited transfer and dissemination of technologies, knowledge and practices that prevent and reverse land degradation processes.

39. Overgrazing, unsustainable crops and grasslands management, and the conversion and overexploitation of forests and other ecosystems are the most important direct causes of land degradation in Ecuador and in the project intervention areas. In addition, climate change exacerbates the pressure on ecosystems and productive landscapes due to changes in temperature, rainfall and more frequent extreme weather events.

40. In addition to structural barriers related to inequity in access to productive land, dependence on unsustainable agrochemicals-intensive production practices, technical assistance and training programmes, both at central and local government levels, there are various other limitations. The

initiatives that have included notions of sustainable land management are few and have a marginal effect compared to projects that still encourage a productive model based on monoculture and use the so-called technological kits, a model linked to that of the green revolution.

41. While recent developments have increased the knowledge to combat land degradation, SLM concepts are mostly interpreted as soil fertility management, erosion control and increased use of agricultural inputs to improve productivity of specific crop and livestock activities, rather than sustainable and resilient production systems, considering a landscape approach and multiple social, economic and environmental objectives.

42. On the other hand, although there is an organic production regulation and sustainable production practices are encouraged, the application of these principles is still considered under the monoculture model, which increases the incidence of pests and, therefore, the need to apply chemicals to combat pests resistant to organic products.

43. In addition, although several SLM practices have been implemented at a pilot level, they have not been scaled up through technical packages and recommendations adapted to the specific ecosystems and particularities of each territory. The implementation of universal recipes - without these adaptations to the context - reduces the impact of agro-ecological and SLM practices.

44. The predominance of technical assistance based on unsustainable models stems from the fact that most professional careers still teach a compartmentalised agricultural production model, in which each farm subsystem is considered separately, and based on the principles of the green revolution. While some professional careers are already including notions of organic production, SLM and, to a lesser extent, agro-ecological principles in the syllabus, these initiatives are still marginal. In general, the personnel available for technical assistance is limited, and most of them teach techniques and principles based on a conventional model that promotes monoculture and the use of chemicals without a comprehensive management view between production systems and interrelations at the landscape - Agricultural Unit (AU) - plot level.

45. On the other hand, workshop methodologies of technical assistance programmes, have proven to be ineffective in passing on knowledge. The practical methodologies, the exchange of experiences or the farmer-to-farmer model, which has proven to be successful, have also been applied to a lesser extent. Hence, the impact of efforts to train in SLM practices is even more limited.

46. At the policy level, this situation is reflected in the inadequate design of agricultural support programmes and the lack of a harmonised agri-environmental strategy and financing mechanisms to promote SLM/SFM. As a result, production strategies focus on short-term productivity benefits and do not include the implementation of SLM practices in productive landscapes to maintain a variety of ecosystem services and restore degraded lands.

Barrier 5: Lack of appropriate incentives to promote sustainable land management practices

47. The Ecuadorian State, through public institutions, has not generated enough incentives to explicitly favour the SLM/SFM. There are specific programmes that promote SFM, but at the

agricultural level, non-harmonised public policies sometimes create perverse incentives that promote unsustainable practices. However, various State incentives have the potential to favour the adoption of sustainable practices if they are properly articulated with local sustainable land management initiatives promoted by local governments or civil society. Among the incentives provided by the State are the access to financing for seeds and inputs, the land allocation programme, the production security system (AgroSeguro), the access to infrastructure and equipment for collection and processing, the incentives for forest restoration and the promotion of commercial plantations and incentives for forest conservation, among others. This demonstrates that there is a political will to design and implement various types of incentives relevant to the LDN, but in a poorly articulated manner.

48. Small rural producers with family farming economies are characterized by low collateral, low profitability of their AUs, and high vulnerability to market shocks, natural disasters and the effects of climate change. This hampers the access to financial services and financial risk management mechanisms such as insurance. Added to this, there are few credit lines in the country that promote SLM/SFM for small rural producers. Small farmers have limited access to extension and financial services in the project intervention areas; only a 5.2% of agricultural producers have access to services through credits from private, public or popular and supportive banks (INEC, 2020). The lack of access to financial capital is a critical bottleneck, along with labour limitations and insecurity of land tenure, for the adoption of good practices for sustainable land management by small producers (cf. Medina 2017). Despite a growing interest among financial institutions to include sustainability criteria into their operations, formal financial services have a limited geographical reach in rural areas and their products and services are mostly based on conventional approaches.

49. Financial institutions in Ecuador lack the risk assessment capacities for non-traditional sectors related to the peasant family economy; they do not have systems to monitor and verify social and environmental impact indicators and have limited knowledge to offer green financial products to land users who are willing to invest in sustainable environmental practices and have difficulties in the access to financial services (e.g., lack of collateral). Some private financial institutions offer credit lines for the environmental sector. Not all the institutions include projects to favour sustainable land management within these lines but are mainly focused on industrial energy efficiency or cleaner production projects, and on energy-efficient household equipment. As regards the public sector, BanEcuador has made incursion into green financing with a credit line aimed at sustainable livestock. The popular and solidarity sector is entering this market, but with a limited coverage. On the other hand, it has been identified that there are non-profit microfinance institutions which finance or collaborate in the implementation of financing mechanisms for sustainable initiatives.

50. On the other hand, there is limited access to differentiated markets that encourage the adoption of long-term sustainable practices by agricultural producers. There are weak partnership and marketing capacities. This generates value chains with low value addition and without sustainable management, which does not allow the creation and maintenance of long-term stable trade relations. Additionally, agrifood value chains have not been assessed throughout their different links and entire life cycle (e.g., inputs, production, transport and processing). Commercial enterprises and certification agencies in the country point out that there is a growing demand for products with organic certification for national supermarkets and a high demand for export markets; they also point out that other sustainability

certifications requested for export are those of Fair Trade and Small Producers. Trade certifications have an annual cost and require some level of producers? organization such as an internal control system, a traceability and accounting system and daily records of activities; sometimes organizations may require technical support. Certifications promoted by the MAG (AFC seal for family farming) and the MAAE (?Free from Deforestation? certification) are an alternative that may be used on the value chain products promoted in the project, to communicate the environmental value of the products to the consumer.

51. At sub-national level, there are marked differences in local government capacities and priorities with respect to SLM/FSM. There are some experiences and local initiatives in which decentralized autonomous governments have promoted and articulated innovative mechanisms (such as water funds) to get adequate SLM financing in their localities. The challenge is to expand their coverage, enhance their replication in other contexts and achieve financial and institutional sustainability.

2) Baseline scenario and associated projects

Institutional Framework

52. In Ecuador, two national public institutions are key to sustainable land management and to foster the LDN approach: The **Ministry of Environment and Water (MAAE)** and the **Ministry of Agriculture and Livestock (MAG)**.

53. As the environmental authority, the **MAAE** is entitled to: i) issue the national environmental policy; ii) establish norms and control and follow-up mechanisms for the conservation, sustainable management and restoration of biodiversity and natural heritage; iii) grant and control environmental authorizations according to its competencies, and iv) create, promote and implement environmental incentives. The MAAE has two undersecretariats closely related to the LDN: the Undersecretariat of Climate Change and the Undersecretariat of Natural Heritage. Also, the MAAE is responsible of the administration of the Unified Environmental Information System (SUIA), which articulates information on the state and conservation of the environment.

54. The MAAE through the Undersecretariat of Climate Change and the National Climate Change Adaptation Directorate is the technical focal point of the UNCCD. The Ministerial Decree 045 of April 2014 establishes the National Authority of Desertification, Land Degradation and Drought, presided by the Minister of the Environment and coordinated by the Undersecretariat of Climate Change. Its mandate is to support the implementation of the country?s commitments under the UNCCD trough: 1) creation of the legal framework needed to combat desertification and land degradation and promote sustainable land management, 2) coordinate efforts to generate and disseminate key knowledge items, 3) support Decentralised Autonomous Governments (DAGs) in the design and implementation of sustainable land use management initiatives to combat desertification and land degradation, and 4) promote synergies with the UN Conventions that address climate change, biodiversity, and other international instruments related to desertification and land degradation.

55. By Executive Decree No. 1007, the Water Secretariat and the Ministry of the Environment merged on 4 March 2020, and the MAAE took on the competences, powers and processes of the Single

Water Authority, as well as steering, planning and managing water resources. The most important competencies and responsibilities include: i) exercising the authority and implementing public policies relating to the comprehensive management of water resources; ii) coordinating the formulation of water quality and pollution control policies; iii) drafting the National Water Resources Plan and the comprehensive water resource management plans for each river watershed; iv) approving national water planning, establishing water protection areas and demarcating hydrographic v) granting authorizations for water uses; vi) updating the public water registry; vii) establishing mechanisms for coordination and complementarity with Decentralized Autonomous Governments regarding the provision of public services for irrigation and drainage, drinking water, sewerage, sanitation, and wastewater treatment; viii) issuing a technical feasibility report for the implementation of drinking water, sanitation, irrigation, and drainage projects; ix) ensuring the protection, conservation, integrated management, and sustainable use of surface and groundwater reserves; x) establishing general parameters for public water services provision rates (drinking water, sanitation, irrigation and drainage) and setting water use authorisations and productive exploitation rates; xi) formulating, managing and supervising the annual infrastructure priority plan and managing the multipurpose water infrastructure; xii) implementing a register to identify and quantify water flows and authorisations for its use or productive exploitation; and xiii) raising awareness among users and consumers on the responsible use of water for human consumption.

56. The MAAE coordinates the Interinstitutional Committee on Climate Change (CICC), made up of various State institutions and set up under Executive Decree No. 495 on 8 October 2010. The objective of this committee is to have a comprehensive and cross-sectional approach to the climate system, which requires intersectoral coordination, as well as the cooperation and intervention of public and private actors to implement policies and strategies. The CICC is made up of various national institutions such as the MAAE and MAG. The IACC has several working groups and in 2018 the authority of this committee was reformulated, which made it possible to incorporate the themes related to desertification and related issues. In the Working Group on Agriculture, Land Use, Land Use Change and Forestry (LULUCF), Natural Heritage, Water Heritage, Food Sovereignty, Seas and Oceans, the themes analysed are: a) Inputs for the UNCCD; b) Analysis of advances in international desertification policy. In the International Negotiations working group, the topics analysed are: c) International stance and policy for the United Nations Framework Convention on Climate Change (UNFCCC) and for the UNCCD; d) Validation of UNFCCC/UNCCD delegations; e) Consolidation of the national stance for international negotiations on change; and f) Delivery of information, experiences and lessons learned regarding combat against desertification. The CICC and working groups will analyse the proposals that the country will submit to the UNCCD on Land Degradation Neutrality targets.

57. The **MAG** is the governing, coordinating and regulatory body for public policies on rural land[3][3], agricultural production and food sovereignty guarantee and is vested with the following competencies: i) monitoring rural land compliance with the social and environmental role; ii) regulating the sustainable use of land for agriculture and forests; iii) drawing up national agricultural development policies; iv) implementing and promoting sustainable productive projects for peasant family farming diversification and diversion; v) allocating rural land for agricultural production as part

of agricultural redistribution programmes; vi) granting ownership deeds of lands in ancestral possession of indigenous, Afro-Ecuadorian and Montubio communities, communes, peoples and nationalities; vii) regulating and controlling the use of products and technologies that may affect the soil; viii) establishing mechanisms and incentives for the productive integration of small and medium-sized family farmers; ix) providing technical assistance, training and technological innovation to improve productivity and facilitate access to markets. The Agricultural and Public Information System (SIPA) is under the mandate of MAG. MAG has several Undersecretariats closely linked to the LDN: the Undersecretariat of Peasant Family Farming, the Undersecretariat of Agricultural Production, and the Coordination of Agricultural Policies Analysis and Studies. Among its responsibilities is the administration of the Agricultural and Public Information System, to produce, manage and provide timely information to producers and economic agents involved in agricultural production and markets and rural land services.

58. In addition, as part of country efforts since 1998, other responsibilities regarding LDN fall on the **Decentralised Autonomous Governments (DAGs)**. The DAGs (provincial, cantonal and parish) operate at territorial units level with the following purposes: i) provide equitable and supportive development by strengthening the process of autonomy and decentralisation; ii) the recovery and conservation of nature and the maintenance of a sustainable and viable environment; iii) the provision of a safe and healthy habitat for citizens; the protection and promotion of cultural diversity and respect for areas of exchange and the preservation and development of cultural heritage; iv) participatory planned development for reality transformation and good living; and v) encourage productive activities.

59. The DAGs exercise their environmental management competencies within their territories. The DAGs at the province level perform various tasks, some of which represent opportunities to encourage the LDN approach, namely: a) promoting the sustainable development of their provincial district; b) drawing up and implementing the provincial development plan and the land management plan; c) fostering provincial productive and agricultural activities, in coordination with the other decentralized governments; d) taking on the provincial environmental management. Cantonal DAGs have also mandates that are articulated with LDN objectives. These include: a) the preparation and implementation of the cantonal development and land management plan and b) the promotion of local economic development processes with special care to the social solidarity economy. In relation to the rural parish DAGs, the following functions are relevant to the project intervention: a) the preparation and implementation of the rural parish development and land management plan; b) the promotion of investment and economic development, especially in the popular and solidarity economy; and c) the promotion of community productive activities, the preservation of biodiversity and environmental protection. The activities of the DAG should be coordinated with the environmental policies, programmes and projects of all other government levels.

60. In terms of the administrative system, the DAGs have the power to associate with each other (temporarily or permanently) to achieve common or regional objectives. These associations of DAGs have incorporated land management goals that can support the implementation of the LDN approach in their territories. For example, associations of municipalities have been formed (such as the Association of the South-Western Front of Tungurahua, which groups together the cantons of Cevallos, Mocha, Quero and Tisaleo) and consortiums (such as the Consortium to Address Climate Change in the Coastal

Range, made up of the provinces of Santa Elena, Manab?, Guayas, four municipalities and twelve parishes), which represent institutional innovations that seek to address common environmental problems in a coordinated and cooperative manner, beyond the scope of individual territorial jurisdictions.

Relevant national and sub-national policies to prevent and recover from land degradation

61. Ecuador has a set of policies promoted by national and sub-national competent bodies driving State-promoted investments. The **National Development Plan 2017-2021- Toda una Vida (Entire Lifetime)** is organised into three programmatic areas of action and nine national development objectives. Pursuant to the Constitution, the Plan is mandatory for the public sector and indicative for the other sectors. The Plan is made up of a National Territorial Strategy (NTS) whose objective is ?to direct interventions towards a better quality of life for the population, through the definition of policies, programmes and projects to be implemented in the territory, which contribute to an equitable and transparent public resources allocation?.

62. **Ecuador's agricultural policy: towards sustainable rural land development: 2015-2025** seeks to reverse the structural trends of an exclusionary agricultural model, which has eroded the natural resource base to replace it with a new scheme focused on four strategic objectives: a) to contribute to reducing poverty and socio-economic inequality of rural inhabitants, in particular, to improve the social inclusion of small and medium-size farmers living in the countryside; b) to improve the contribution of agriculture to guarantee food security and sovereignty for the Ecuadorian population; (c) to enhance the contribution of agriculture to rural territorial development and national economic growth with social inclusion and sustainable agricultural systems; (d) to support change in the national production matrix, in terms of replacing primary and agro-industry imports, diversification of export supply, and generation of the agro-industrial development primary base. It gives special attention to small agricultural units, family farming, as well as community partnership and work. It favours the LDN insofar as it proposes a change in the agricultural model focused on a sustainable use of land, water, genetic resources and other natural resources used for food and agricultural production.

63. The **National Climate Change Strategy 2012-2025 (NCCS)** envisions that by 2025 Ecuador has managed the climate change challenges in a timely manner, ensuring Good Living and nature rights. The NCCS identified two strategic lines of work: (1) adaptation, which aims to create and strengthen the capacity of social, economic and environmental systems to address climate change impacts; and (2) climate change mitigation, aimed at creating favourable conditions for the adoption of measures to reduce GHG emissions and increase carbon sinks in strategic sectors. The **REDD+ Action Plan 2016-2025** provides guidelines for implementing REDD+ based on four specific objectives: 1) Supporting the articulation of intersectoral and governmental policies, and mainstreaming climate change into public policies; 2) Supporting the transition to sustainable and deforestation-free production systems; 3) Improving sustainable forest management and the use of non-wood forest products; 4) Contributing to the sustainability of initiatives for the conservation and regeneration of forest cover within the framework of the targets established in the National Development Plan and other national policies. The **National Biodiversity Strategy (NBS) 2015-2030** proposes a set of

measures to guarantee the human right to live in a healthy, pollution-free and sustainable environment, while protecting the rights of nature. Its four strategic objectives are: 1) To incorporate biodiversity and related goods and ecosystem services in public policies management; 2) To reduce pressures and the inadequate use of biodiversity to levels that ensure its conservation; 3) To distribute the benefits of biodiversity and related ecosystem services in a fair and equitable manner, taking into account gender and intercultural specificities; 4) To strengthen national knowledge and capacities management that promote innovation in the sustainable use of biodiversity and ecosystem services.

64. At the sub-national level, the provincial DAGs in the project intervention areas (see Section 1.b and Annex O for detailed information on the intervention areas) have intersectoral territorial planning instruments. In its diagnosis, the **PDOT for the Province of Bolivar to 2020** identifies several risks, including soil erosion as one of the major problems in the province, especially in paramos, river pollution with wastewater, the growth of the agricultural border and the subsequent decrease of vegetative cover, the lack of a management plan for the Chimborazo Wildlife Production Reserve and the lack of regulations for protective forests. The environmental management model proposes to formulate protected areas management plans and water resource management for all the watersheds in the province. It proposes to increase farm production through the rational use of management models and efficient use of production factors. The **PDOT for the Province of Chimborazo 2015** (in the process of being updated) provides a reference framework to understand the problems of the province and main challenges, including the loss of ecosystems, the misuse of water and soil, contamination by human waste and erosion. The **Tungurahua Agenda 2017-2019** proposes collaborative work in three areas: water, people and work. In keeping with the same, it defines the following objectives: ?To increase water resources in quality and quantity, through appropriate management of water resources?, ?To improve the living conditions of the Tungurahua population?, ?To raise income and employment in the province?.

65. The updated **PDOT for Imbabura Province 2015-2035** identifies as problems the overuse of land due to the low agricultural vocation in the province, and therefore a small number of productive areas, although the province has more than half of its surface occupied by native forest, paramo and shrub vegetation. The province has set out a series of public policies in line with the LDN approach, such as increasing the surface area of protected areas and promoting reforestation within the framework of the Provincial Forestry and Reforestation Plan. In terms of production, it is proposed, among other things, to make progress in the comprehensive organisation of river watershed units, increase access to irrigation, improve the trading space of agricultural chains and promote ?sustainable productive activities to improve living conditions and the revitalisation of the local economy?. The PDOT for the **Pichincha Province 2015-2019** identifies risks of erosion, mainly on mountain slopes, contamination of water resources and a high rate of deforestation. The strategic objectives of the PDOT that support LDN are: 2 ?Promote productive development according to land vocation and potential, articulating value chains, the financial system, the industrial and business sectors, and the popular and socio-supportive economy with strategic public-private partnerships?; 3 ?Promote short alternative circuits to promote food sovereignty?; 4 ?Sustainable and integrated water resources and natural heritage management?; and 7 ?Encourage research, innovation and technology transfer to support the production of goods and services under a sustainable approach that improves territorial competitiveness?.

66. The **PDOT for Manab? Millennium Province 2015-2024,** recognises the importance of the province's farm and livestock production ?but with not environmentally friendly practices which have caused forest, soil and water degradation and an increase in disaster risks?, hence, it is one of the provinces with the highest annual deforestation rate. The Plan includes a productive agenda that includes some programmes, prioritizes productive chains, and contains strategies to face the environmental problems in the province such as the reforestation programme and the sustainable livestock programme. The **PDOT for Santa Elena Provincial Government 2015-2019** identifies problems related to deforestation and climate change that have intensified the droughts and water deficit in more than half of the provincial territory, disappearance of the mangroves and degradation of the dry forest related to productive activities. It has two strategic objectives in relation to the environmental and productive problems in the province, adjusted to elements of the LDN approach: ?To conserve water, soil and biodiversity as common goods of the population, facing at the same time the deterioration of the natural environment? and ?To contribute, promote and support the productive systems: tourism, fishing-aquaculture and agriculture in the province?.

Legal Framework

67. The **Constitution of Ecuador** approved in 2008, states the preservation of the environment, the conservation of ecosystems, biodiversity, the prevention of environmental damage and the recovery of degraded natural areas to be in the public interest. It determines that soil conservation is of public interest and a national priority, and therefore the State must prevent its degradation and, in those areas affected, encourage forestation, reforestation and revegetation. The Constitution guarantees: i) the conservation, recovery and comprehensive management of water resources, watersheds and ecological flows, regulating all activities that may affect the quality and quantity of water, and the balance of ecosystems, especially in water sources and recharge areas; ii) the conservation, management and sustainable use, recovery, and limitations of possession of fragile and threatened ecosystems; and, iii) the State commitment to providing farmers and rural communities with support for soil conservation and restoration, as well as for the development of farming practices to protect them and promote food sovereignty. As a guiding element, the Constitution provides for the guarantee of the State towards a sustainable development model, environmentally balanced and respectful of cultural diversity, which preserves biodiversity and the natural regeneration capacity of ecosystems and ensures that the needs of present and future generations are met. Furthermore, it sets forth that food sovereignty is a State obligation and strategic objective, establishing a series of responsibilities such as: the promotion of agro-food production and transformation of small and medium production units, communities and the social and solidarity economy; the promotion of redistributive policies that allow peasants access to land, water and other productive resources; the preservation and recovery of agro-biodiversity and ancestral knowledge and the establishment of preferential financing mechanisms for small and medium-sized producers.

68. Under the constitutional guidelines, the Ecuadorian State has developed a series of normative instruments regarding natural resources management in the agrarian and environmental fields and planning. The **Organic Law on Rural and Ancestral Lands** (14/03/2016) establishes the protection and use of rural production land and the safeguarding of its environmental function as a national priority. It also establishes that the State must take measures to prevent degradation caused by intensive

use, pollution, desertification and erosion. It includes economic incentive programmes for communities, communes, towns and nationalities in fragile ecosystems, which could contribute to foster conservation and restoration, favouring LDN and creating opportunities to promote smallholders sustainable value chains. The **Organic Law for Agrobiodiversity, Seeds and Sustainable Agriculture** (01/06/2017) aims to protect, revitalise and multiply agrobiodiversity with regard to plant genetic resources for food and agriculture; to ensure production and free and permanent access to quality seeds and variety through the promotion and scientific research and the regulation of sustainable agricultural models; respecting the various identities, knowledge and traditions in order to guarantee the self-sufficiency of healthy, diverse, nutritious and culturally appropriate food in order to achieve food sovereignty and contribute to the *Buen Vivir (*Good Living) or *Sumak Kawsay*.

69. The **Organic Law on Productive Development, Investment Attraction, Job Creation, and Fiscal Stability**. (20/08/2018) aims to revitalise the economy, promote investment and employment, as well as long-term fiscal sustainability and establishes specific incentives to attract private investment including the agro-industrial and agro-associative sectors, such as income tax exemption. The law does not establish that investments have an environmental approach and, therefore, does not necessarily favour the LDN. The aim of the **Organic Law on the Food Sovereignty Regime** (17/02/2009) is to ensure individuals, communities and peoples, self-sufficient healthy, nutritious and culturally appropriate food, promoting sustainable food production. It establishes that the State will encourage the consumption of nutritious foods, preferably of agro-ecological and organic origin, by supporting marketing, carrying out promotional and educational programmes for healthy food consumption, identification and labelling of the nutritional contents and coordinating public policies. It also seeks to protect agro-biodiversity.

70. The **Organic Law on School Feeding** (14/04/2020) ensures the right to food and nutrition of school-age children and adolescents, part of the National Education System, for the enjoyment of a dignified, healthy and active life. It promotes and encourages peasant production to meet the demand of the school feeding system, which can favour the strengthening of value chains with a LDN approach, if food production is environmentally sustainable. The purpose of the **Organic Law on Popular and Solidarity Economy and the Popular and Solidarity Financial Sector** (28/04/2011) is to a) Recognize, promote and strengthen Popular and Solidarity Economy and the Popular and Solidarity Financial Sector in their exercise and relationship with the other sectors of the economy and with the State; b) To foster the Popular and Solidarity Economy developed in the communes, communities, towns and nationalities, and in their productive economic units to achieve *Sumak Kawsay*; c) To establish a common legal framework for natural and legal persons who are part of the Popular and Solidarity Economy and the Popular and Solidarity Financial Sector; d) To establish the regime of rights, obligations and benefits of persons and organizations subject to this law and, e) To establish the public institutions that will be responsible for regulating, controlling, promoting and supporting the economy. The law could favour LDN provided that one of its principles is social and environmental responsibility. In addition, it sets forth that the State will encourage activities to be carried out in accordance with the postulates of sustainable development established in the Constitution and which contribute to the natural heritage conservation and management.

71. The **Organic Code of Production, Trade and Investment** (16/12/2010) regulates the productive process in the stages of production, distribution, exchange, trade, consumption, management of externalities and productive investments aimed at achieving *Buen Vivir*. It promotes investment in sustainable initiatives in priority economic sectors: production of fresh, frozen and industrialized food; the forestry and agro-forestry chain and processed products. It also establishes fiscal incentives for productive investments, especially for clean and sustainable production, and promotes the community socio-productive model.

72. The **Law on Water Resources Uses and Exploitation** (6/08/2014) guarantees the human right to water, as well as regulates and controls the authorisation, management, preservation, conservation, restoration of water resources, water use and management, comprehensive management and recovery in its different phases, forms and physical states. It explicitly states the control of activities that may cause the degradation of water and related aquatic and terrestrial ecosystems, and the adoption of measures for the restoration of degraded ecosystems. It also provides for annual budget allocation at all government levels for the recovery and restoration of watersheds and infrastructure that guarantee the preservation and conservation of water quality and supply.

73. The **Environmental Organic Code - COA** (12/04/2017) guarantees the right of people to live in a healthy and ecologically balanced environment (Art. 1), which includes the conservation, sustainable management and recovery of the natural heritage, biodiversity and all its components, and of the soil (preventing erosion, degradation, desertification and allowing restoration). The COA presents a broad framework for action in line with the LDN approach, mainstreaming biodiversity and ecosystem conservation objectives with sustainable soil management and climate change mitigation. This includes measures and actions to avoid deforestation, natural forest degradation and ecosystem degradation, as well as the rehabilitation and protection of areas vulnerable to floods, droughts, frost and soil degradation. The COA regulates ecological restoration (of soils and ecosystems, with forest plantations or agroforestry systems), prioritizes natural regeneration wherever possible, and provides that the DAG, within the scope of their competencies (together with land management plans), give primary attention to degraded soils or soils in the process of desertification, under the guidelines of the National Environmental Authority.

74. The **Organic Code of Territorial Organisation - COOTAD** (19/10/2010, modified on 16/01/2015) regulates the organisation of the territory and integrates the decentralised autonomous government regulations to guarantee their political, administrative and financial autonomy. For this purpose, it breaks down the functions of the decentralised autonomous governments (see above, sub-section on institutional framework) and regulates the treatment of community lands and territories. It defines land management[4][4] and emphasises that it must be ?based on the principles of the social and environmental roles of land, the prevalence of the general interest over the individual interest, and the equitable distribution of burdens and benefits?. It also establishes rural property tax exemption for community lands of indigenous or Afro-Ecuadorian communes, communities, peoples and nationalities and lands of their ownership where they maintain primary forests or reforest with native plants. COOTAD also specifies that investments in works aimed at preserving or increasing the productivity of

the land, protecting it from erosion or other adverse factors, shall be excluded from the value of the property.

75. The **Organic Law on Citizen Participation and Social Control** (09/09/2009, amended 23/03/18) regulates the organisation, operation and authority of the Council for Citizen Participation and Social Control, which is the institution responsible for promoting the exercise of rights relating to citizen participation. The **Organic Law Governing Territorial Use and Management of Land** (30/06/2016) sets out the principles and general rules governing the exercise of powers in relation to territorial use and management of urban and rural land. The purpose of the law is to promote the equitable and balanced development of the territory to ensure the right to a safe and healthy habitat, adequate and decent housing, in compliance with the social and environmental role of property and inclusive urban development. As regards rural soils, this law provides for five types of ?treatment?: conservation, development, mitigation, productive promotion and recovery, which are in line with LDN approaches.

Baseline initiatives

76. Ecuador, as a signatory to the UNCCD, is committed to establishing and implementing measures that meet the global commitments of LDN, and in this way, contribute especially to Objective 15.3 of the Sustainable Development Goals (SDG) to achieve LDN by 2030. In this context, actions at different levels have been undertaken by public and private actors.

Ministry of the Environment and Water

77. The MAAE manages the **Single Environmental Information System (SUIA)** that provides public information on protected areas, deforestation, ecosystems, land use systems, national environmental indicators and others. This information will support the setting of LDN targets, and LDN metrics will be integrated into SUIA during project implementation and coordinated with the Agricultural and Public Information System of the Ministry of Agriculture and Livestock (SIPA) to refine the development of indicators and monitor LDN targets. The SUIA is interconnected with the National Information System (NIS), which is the national information platform for planning and public investment managed by the Technical Secretariat for Planning, Planifica Ecuador, which is attached to the Presidency of the Republic. The MAAE is also developing the **National Forest Monitoring System (NFMS)** with the support of the Food and Agriculture Organization of the United Nations (FAO) through the OpenForis system, a set of free, open-source software tools that facilitate data collection, analysis and report generation. This initiative is a collaborative effort of numerous public and private institutions organized by the Forestry Department of FAO. One of the components of OpenForis is the System for Earth Observations, Data Access, Processing and Analysis for Land Monitoring (SEPAL). Through SEPAL, FAO supports the Government of Ecuador in measuring deforestation, assessing forest degradation and classifying land use.

78. The **Umbrella IV** project implemented between 2019-2020 with the support of FAO aims at supporting the national reporting process to the UNCCD. Through joint work with the CICC, various national actors have been connected to identify the different activities related to the collection of information on land degradation, with the aim of strengthening governance, standardizing

methodologies and strengthening technical capacities in information and monitoring systems to contribute to drawing up reports, especially the Performance Review and Assessment of the Implementation System (PRAIS) and activate the technical workgroup 1 on climate change and desertification. Through this project, a valuable space has been created to introduce the LDN approach in the country and strengthen capacities regarding land degradation information, monitoring and assessment systems.

79. The **National Forestry Restoration Programme (NFRP)** sets out the commitment of Ecuador with the restoration and conservation of the forest landscape, within the framework of the Initiative 20x20 in which Ecuador is a participant, and which contributes to the Bonn Challenge. The updated NFRP objectives are: i) By 2021, the national area in the process of restoration will increase to 129,700 ha; and ii) By 2021, 2,039,755 people will have a direct benefit and 15,338,029 people will have an indirect benefit from restoration processes. This initiative is financed through national budgets (USD1.5 million) of public funding with the support of international donors. The proposed GEF/FAO project will contribute to the national NFRP objectives.

80. The **Socio Bosque Programme (PSB)** has been implemented since 2008 with the main objective of conserving native forests and paramos. It is a voluntary scheme where individual and collective landowners sign agreements on forests, paramos and other native plant formations conservation with the MAAE in return for annual economic compensation per hectare. The goal of the project is the conservation of 3,600,000 hectares of forest nationwide, although, so far, the largest area is in the Amazon. Some studies suggest that an effect of the programme is the lower rates of deforestation and the reduction of unwanted management practices, although governance and organisational strengthening are critical factors together with the level of trust, land tenure and liquidity constraints that hampers access to the programme (Jones et al. 2017; Hayes, Murtinho, and Wolff 2017; Bremer et al. 2016). The **REDD Early Movers (REM) Programme** is being implemented jointly with the MAG and financed by the KfW Development Bank and the Norway's International Climate and Forest Initiative (NICFI) in the period 2019-2022 and the funds are managed by the Sustainable Environmental Investment Fund (FIAS). It is a programme of performance-based payments for reducing emissions from deforestation and forest degradation (REDD). It aims to contribute to the financing process of Ecuador's REDD+ Action Plan. The program will work on Conservation and Projects with Communities, Peoples and Nationalities, Productive Systems and Goods Free of Deforestation, and Forest Management (Restoration, Forest Extension, National Forest Assessment. The programme has intervention in the provinces of Esmeraldas, Manab?, Santa Elena, El Oro, Chimborazo, Bol?var, Cotopaxi, Azuay, Loja, Zamora, Morona Santiago and Napo.

81. The **Implementation of SLM Practices and Capacity Development in Communities affected by Degradation** (2019-2021) project is funded by the UNCCD and the Korean Forest Service (KFS), and the main activities are carried out in Manab? province. SLM practices and capacity development in communities affected by land degradation are being implemented through a joint work between MAAE, MAG, DAG and academia. The experiences gained from this project will serve as validated practices in the field that may be replicated in other areas of the country. The **Financial Instruments and Land Use Planning to Reduce Emissions** project **of the Deforestation Programme** (2017-2022) financed by the Green Climate Fund and implemented by the United Nations Development Programme

(UNDP) considers strengthening public policies at the national level and reducing emissions from deforestation and forest degradation (REDD+). At the national level, it will provide planning management tools and a forest monitoring system to be operational until 2022. Through the **PROAmazon?a Programme** (2017-2023), the MAAE is promoting the development of ?Free from Deforestation? certification which is an alternative that may be used on products of the value chains promoted in the project, to instil the environmental value of the products in the consumer.

82. The MAAE, MAG and FAO **Agricultural Managers' Programme focused on Sustainable Land Management and Climate-Smart Livestock in Loja and Manab?** (2016-2020) provinces promotes capacity strengthening including participatory rural assessments under a knowledge management approach prioritizing participation and interaction among various stakeholders to understand the specific needs and interests of the territory. The programme makes a distinction regarding training processes of different actors like promoters at the local level, to encourage peasant-to-peasant learning, strengthening local leadership.

83. The Project **Integrated Management to Combat Desertification and Land Degradation and Promote Climate Change Adaptation (GIDACC)** was funded and implemented by the MAAE in the period 2014-2019. This project promoted the adoption of traditional and innovative sustainable production practices to protect water and biodiversity resources. Also, the GIDACC Project promoted sustainable land management alternatives to improve the condition of productive landscapes through the systematization and implementation of 85 practices, focused on the provinces of Tungurahua, Manabi, Loja, El Oro, and Azuay. The practices included water management and harvesting, forest conservation and restoration, agroforestry and silvopasture systems, agroecological vegetable gardens, and improved access to markets.

84. The Project **Strengthening the Resilience of Communities to the Adverse Impacts of Climate Change with Emphasis on Food Security and with Gender Considerations in the Jubones Watershed and the Pichincha Province (FORECCSA)** was implemented in the period 2012-2018 with the support of the Adaptation Fund. The project articulated MAAE, MAG and the DAGs of the two intervention areas in the design and implementation of adaptation measures adjusted to the local social and environmental contexts. The implemented measures were focused on securing access to water through the construction of micro-reservoirs, small-scale irrigation systems, conservation of water sources, improvement of potable water distribution systems, and sustainable land management in agricultural and agroforestry systems. In total, 240 communities and more than 6.000 families were direct beneficiaries of these activities.

85. The Project **Adaptation to the Impacts of Climate Chante on Water Resources in the Andes (AICCA)** is funded by the GEF for the period 2018-2022 with the Development Bank of Latin America (CAF) as implementing agency and MAAE and CONDESAN executing field activities. The AICCA Project seeks to generate evidence and systematize adaptation initiatives in specific sites in Colombia, Ecuador, Peru and Bolivia. In Ecuador, the Project is working in the provinces of Napo and Azuay, strengthening local governance platforms, designing and implementing sustainable land management practices with smallholder agriculturalists, and streamlining climate change adaptation guidelines in planning and policy tools.

86. The **National Drought Plan (PNS)** for Ecuador was developed by MAAE, MAG and the National Service for Risk Management to provide guidelines for action in the period 2021-2030. The Plan seeks to align land use planning, conservation, climate change adaptation and sustainable land management action so they minimize the negative impacts of drought on infrastructure and livelihoods. The PNS includes strategies to generate evidence that supports decision making, including increasing early warning capabilities in the climate and water monitoring systems, reduce productivity losses in the agricultural and livestock sectors, streamline drought risk management in development and land use plans and articulate public agencies, research institutions and actors in the private sector.

87. The **National Forest Assessment** is a process implemented by the MAAE with support of FAO. A first phase was implemented between 2009 and 2013, and resulted in the measurement of 1.639 forest plots grouped in 711 conglomerates. This information allowed the estimation of carbon stocks in above ground and below ground dead and live biomass, mapped at the national level in nine forest carbon strata. A second inventory is underway, with funding by the REDD Early Movers (REM) Programme.

Ministry of Agriculture and Livestock

88. The MAG promotes programmes and projects aimed at generating basic information on the state of soils and other aspects related to the social and productive dimensions of the agricultural and livestock sectors in Ecuador. MAG manages the Agricultural and Public Information System **(SIPA)**, which was created by the Organic Law of Rural Lands and Ancestral Territories (LOTRTA) of 2016 to provide statistical and geographic information on the agriculture sector. Some indicators are prices, foreign trade (agricultural and agro-industrial), crop yields, and land use estimates. MAG has mapped the highly degraded soils (cangahuas) in Pichincha and Imbabura, to determine soil restoration activities in productive areas. The project articulates actions between SIPA (MAG) and SUIA (MAAE) as the main information systems in Ecuador. Like the SUIA, SIPA is also interconnected with the NIS managed by the Technical Secretariat of Planning. The MAG has promoted a participatory process to build the new **State Policies for Agriculture 2020-2030** with the collaboration of FAO and the Centro Latinoamericano para el Desarrollo Rural (RIMISP). The proposal deals with policies for climate change adaptation and environmental sustainability and is in the socialising process for enriching and strengthening its social legitimacy.

89. MAG started the process of developing the **Participatory Soil Management, Conservation, and Recovery Plan (PMPCRS)**, which is a mandate of the Organic Law of Rural Lands and Ancestral Territories (LOTRTA) of 2016. As a first step in this process, on 2020 MAG developed the **Guide for the Formulation of the PMPCRS.** The guide, establishes a participatory and inclusive process that uses existing information inputs to identify the goals and measures that address the drivers and resulting processes of desertification and soil degradation in order to increase its productivity, preserve its ecosystem services, contribute to food security and sovereignty, and reduce poverty rates. The PMPCRS will promote comprehensive soil management strategies, through soil conservation and recovery and good management practices for the sustainable use of rural production land.

90. The **National Programme for Participatory Technological Innovation and Agricultural Productivity (PITPPA)** started in 2013. Through this program, MAG acquired nine ploughing

tractors, with the aim of rehabilitating areas of hard cangahua-type soils, to include them into production processes in Carchi, Imbabura, Pichincha, Cotopaxi, Tungurahua and Chimborazo provinces. The tractors have been delivered to several municipal DAGs in these provinces, and during 2019, 650 hectares have been intervened, benefiting 421 producers. Some the parishes intervened are Pun?n (Chimborazo) and Cangahua (Pichincha), which are highly degraded and are part of the project's intervention area. The **Alternative Circuits for Local Trade and the Peasant Family Farming Seal Programme** (created in 2017) promotes a comprehensive sustainable farm management through field schools. The training programme promotes farm planning and sustainable production practices such as agroforestry and the use of organic fertilizers. At the national level, it promotes alternative marketing circuits of direct sales from producers to consumers resulting in higher producers? incomes. The PFF seal is a label that guarantees the social origin of family farmer products for access to markets, but the inclusion of an agro-ecological PFF production seal is being considered. At present, the procedures manual to obtain the PFF seal is under review.

91. The **Good Agricultural Practices Certification Programme,** created in 2013, encourages the certification of production units in good agricultural practices to guarantee the quality of food in its primary production phase, ensuring food safety, environmental care and workers' health. The programme aims at improving the competitiveness of Ecuadorian agricultural products so, since 2019 the certification is mandatory for exporters. The certification service is free of charge to facilitate access to all producers in the country, and so far, 956 production units have been certified. The **National Sustainable Livestock Project** (Since 2011) is part of the livestock activity of small and medium sized producers, with environmentally friendly production models. Its objective is to guarantee the production, manufacture, industrialization and commercialization of livestock products and by-products that are economically profitable, environmentally friendly, socially equitable, and sustainable over time and that increase living standards. The project has received training from FAO for the implementation of the Climate-Smart Livestock approach.

92. The project **Catalyzing Inclusive Value Chains with Partnerships (DINAMINGA)** with funding from the International Fund for Agricultural Development (IFAD) for the period 2016-2021 aims to contribute to rural development by supporting small farmers from production to marketing. The project will benefit 20,000 families of small cocoa, blackberries and golden berries producers. It includes strengthening the capacity of farmers' organisations to produce more and better-quality food with higher value in financial, administrative and business management, facilitating partnerships with private companies. It will encourage models of public-private-production partnerships. Some of the project locations are Chimborazo, Manab? or Imbabura. It provides a baseline for capacity development in good agricultural and post-harvest practices, as well as diversification and access to new markets. The **Technical Assistance for Strengthening Agro-climatic Risk Monitoring in Ecuador** (2019-2021) project implemented by FAO, in coordination with MAG and the National Institute of Meteorology and Hydrology (INAMHI), promotes the use of the Global Information and Early Warning System on Food and Agriculture and the Agriculture Stress Index System. This project will enable institutions such as MAG, INAMHI or MAAE to use these global tools to improve their capacities to assess agriculture risks due to droughts. By setting LDN targets, this information will contribute to monitor droughts as a driver of land degradation.

93. Finally, MAG implements the **Project Identification of the Genetic Base and Physical and Biochemical Characterization of Regional Agrobiodiversity (Agave, Guadua and Opuntia Genera) for Production and Industrialization** that proposes to generate bio-knowledge to incorporate the Ecuadorian agrobiodiversity of agaves, guadua and opuntias in the agricultural, industrial, environmental and advanced research processes, to generate sustainable production alternatives and to recover degraded areas. The aim is to characterise the genetic base of local agrobiodiversity, to rescue and recover it, considering the space and ecosystemic distribution.

Decentralised Autonomous Governments

94. The project's intervention areas cover the provinces of Manab?, Santa Elena, Bol?var, Chimborazo, Tungurahua, Imbabura and Pichincha (see Section 1.b and Annex O for detailed information on the intervention areas). The DAG are key actors in territorial management, and within the framework of their competencies, they have supported, promoted and/or led the implementation of different initiatives and mechanisms, be they for governance, conservation, or development of SLM incentives.

95. *Conservation strategies*: The creation of protected areas by the DAG is a strategy that has been promoted throughout the country in recent years, guiding actions towards the conservation and restoration of areas that provide ecosystem services for the population, be it water, recreation, or

tourism. The **Intag Area of Conservation and Sustainable Use (ACSU)** created in 2019 in Imbabura and the **Mojanda Cambug?n ACSU** in process of being formally established in Pichincha are examples of local conservation areas aimed at preserving key ecosystem services and promoting sustainable land management practices. In the provinces of Manab?, Santa Elena, Bol?var, Chimborazo, and Tungurahua, the trend has been to create community conservation areas where communal areas were defined for natural regeneration (particularly in the paramos) or reforestation. The satisfactory results observed by the communities in terms of coverage and ecosystem services (e.g., increase in baseflow and water regulation in certain areas of paramos in Tungurahua; pollination and promotion of beekeeping in the Santa Elena forests) have encouraged replication of the experiences within and outside their provinces. Likewise, the establishment of bio-corridors has become one of the strategies previously promoted to consolidate a territorial management that integrates ecological (i.e. connectivity) and social (e.g. associativity) criteria.[5][5] These are the **Chong?n Colonche Biocorridor** in Puerto L?pez and Santa Elena cantons; the **Intercommunity Biological Corridor** of **Boliche - Cocha Colorada** paramo in the process of approval, in the Simi?tug parish; the **Chimborazo Biocorridor** located in the Faunistic Production Reserve Chimborazo; **Pisque Mojanda Biocorridor** between Otavalo and Pedro Moncayo; and the **Cotacachi Cayapas Biocorridor** in the buffer zone of the Cotacahi - Cayapas ecological reserve, in the Cotacachi canton of Imbabura province.

96. *Water Funds and water governance mechanisms*: Some municipal or provincial governments, together with other stakeholders, have promoted the establishment of Water Funds as financial mechanisms to ensure long-term financing for the conservation of water sources. The **Fund for the Protection of Water (FONAG)** has been operating since 2000 in Pichincha and Napo Provinces, specifically in the upper Guayllabamba river watershed, in addition to the eastern and western water units which supply the DMQ; the **Water and Sustainable Development Fund of Imbabura Province (FONADERI)** is currently being set up to cover watershed and micro-watershed of the province; The **Guayaquil Water Fund for the Conservation of the Daule River Watershed (FONDAGUA)** has been operating since 2015 and covers the Daule river watershed and crosses 28 cantons in the provinces of Santo Domingo de los Ts?chilas, Manab?, Guayas and Los R?os; the proposed **Rio Grande Water Fund** to conserve the Rio Grande watershed in Manab?; the **Tungurahua Paramos Fund and Fight Against Poverty (FMPLT)** under implementation since 2008 in the Tungurahua watersheds and micro-watersheds; and the **Chimborazo Life Fund**, created in 2019 and in process of implementation in the Chimborazo province watersheds. Funds such as FONAG and FMPLT have become national and international references for more than ten years and have allowed the management and conservation of important ecosystem areas and contributed to improving the quality of life of families in the areas of implementation.

97. In addition, the **Guaranda Canton Water Board** is a multi-stakeholder governance platform that promotes integrated management of the p?ramo, conservation of water sources (in quantity and quality) for use by rural communities and the city stands out. Although it is a mechanism in the initial stage of development, this opens opportunities to develop tools that can be used in municipal policies. The process developed in the province of Tungurahua, through the implementation, since 2004, of the province's **New Management Model** and the establishment of the **Water Parliament** as a

participatory construction space for provincial policy, is noteworthy. This model has served as a regional model, encouraging the replication of mechanisms such as water funds.

98. *Incentives*: Incentives for SLM/SFM implemented by local governments take many forms. There are land use regulations, tax exemptions, policies to promote sustainable production, among other types of incentives. For example, the Municipality of the Metropolitan District of Quito (DMQ) applies property tax exemptions to landowners who conserve forests and natural ecosystems within metropolitan protected areas; the Provincial Government of Pichincha has an ordinance to encourage agro-ecological food production in the province; the Provincial Government of Tungurahua, as part of its agriculture strategy, promotes agro-ecological production and has training programmes and a Clean Agriculture Certification Unit; in addition, many of the local governments provide the physical space for fairs to market products of sustainable origin.

99. Field schools on issues relevant to land degradation are rooted in local processes and are linked to the specific farmers? needs. One of the types of schools identified are the field schools linked to DAG, which arise from the articulation with external organizations. The **Bioagriculture School** of the Pimampiro Municipal DAG came out from a partnership with the Centro Ecuatoriano de Biotecnolog?a y Ambiente (CEBA). The **Agroecology School of the Bosque Seco project** of the Santa Elena Provincial DAG was developed together with NGO Heifer Ecuador in 2016 and is linked to the Agroecology Fair supported by DAG Santa Elena.

Initiatives driven by the private sector, communities, and civil society

100. *Capacity strengthening*: At sub-national level, land degradation is dealt through Sustainable Land Management (SLM) initiatives and in the field of conservation it is related to natural resources management and protection. The **Training Consortium for the Sustainable Management of Renewable Natural Resources (CAMAREN)** made up of public and private institutions,[6][6] is devoted to renewable resources management training, aimed at capacities strengthening and work with institutions and social organizations. Training is carried out in a differentiated way with 1500 field technicians, 1450 rural promoters and 100 professionals trained as specialists in topics such as Integrated Water Resource Management, Agrarian Studies, production and markets and public and socio-environmental natural resources management in the rural environment. In addition, CAMAREN has promoted the Ecuadorian Water Resources Forum as a multi-stakeholder platform that fosters capacity strengthening processes. **Permanent Community Liaison Scenarios** of Universidad Estatal del Sur de Manab? (UNESUM) is a programme where the specific problems of the community are made visible as well as the resources available to the university to find solutions. UNESUM works in 16 provinces of the country with a wide range of local actors who are trained according to their needs. In terms of land degradation, training has been provided to improve production practices; strengthen forest projects? organizational, entrepreneurial, marketing and leadership, sustainable management of natural and agricultural resources, and management of global positioning system technology capacities.

101. The other two types of *field schools* identified are **field schools related to multi-stakeholder platforms** and **agro-ecology schools driven mainly by NGOs and farmers' associations.** In the first

case, the schools come out from actor?s interaction. This is the case of the Water School of Guaranda Water Workgroup. The school was born out of the needs of the actors who articulate at the workgroup and is currently working with the NGO Protos to consolidate this process. The second case involves the participation of parish, municipal and provincial DAGs and responds to various training processes promoted by actors from the cooperation, academic and social organisations (e.g. SWISSAID, Salesian Polytechnic University, Rikolto, SEDAL Foundation, Centre for Research and Training in Agroecology-CINCA, RESSAK, Association of Agroecological Producers of La Esperanza, among other organisations present in Cayambe and Pedro Moncayo) which are examples of this type of process.

102. *Financial services and green financing*: **BanEcuador** has reached an agreement with the Climate-Smart Livestock project to set up a pilot plan with the output Livestock Green Credit at a preferential rate that is quite attractive for the implementation of sustainable practices. The bank also has financial agreements with MAG to purchase production inputs and seeds. Private banks also offer green credits. **Banco Codesarrollo** has a product named CrediEcol?gico that has an environmental approach that is very compatible with SLM; however, it does not have low-cost capital to maintain a prime rate for this product. Its product CrediDesarrollo, despite not having an explicit environmental focus, can favour SLM since it finances land purchase to organisations. **Banco Pichincha** has a product called Biocr?dito Productivo that includes financing for irrigation systems that optimize water use and good agricultural practices. It has numerous agencies and Points of Agency in the provincial capitals of the intervention area. **Produbanco** has a green line for funding environmental projects with efficient use of resources, sustainable production and consumption, environmentally cleaner technology, and energy efficiency. The bank has agencies in the provincial capitals of the intervention zone. The **Nueva Esperanza Credit Union** and the **Valles del Lirio Credit Union** implemented a pilot line of credit with a prime rate for production with support from the German Cooperation Agency GIZ, tied to an agriculture insurance policy for losses due to weather events. In addition, there are some complementary support actors who are channelling funds into microcredit. The **Ecumenical Church Loan Fund (ECLOF)** serves micro and small agriculture producers with related financial and non-financial services, giving loans for trading funds to associations and can also act as a second-tier bank. It works with a solidarity guarantee model. The **EcoMicro Programme** initiative works with microfinance institutions to develop green products for climate change adaptation projects. The initiative promotes links between certified providers of climate solutions and participating financial institutions so that producers have access to these solutions under better conditions. Currently, the programme works with eight institutions including banks, cooperatives, and NGOs.

103. *Mechanisms to promote market access for SLM products*: Several local and national agro-ecological networks have been established over the past few years, comprising agro-ecological producers, educational institutions, NGOs and responsible consumers operating in the intervention areas. The **Coordinadora Ecuatoriana de Agroecolog?a (CEA)** brings together different actors to make a proposal for human rural development from an agro-ecological perspective, promoting debate as well as political and technical proposals. Its areas of action are food security, marketing, internal control systems, alternative energies and Latin American integration. The **Colectivo Agrecol?gico** is a broad space for articulation and coordination which, since 2008, has brought together multiple networks, organizations, associations and groups of farmers and consumers who work in favour of

agro-ecology and food sovereignty. It promotes awareness campaigns, coordination of economic marketing circuits, academic and social events, political advocacy actions, agro-ecological peasant training, among other actions. The **campaign ?Que rico es Comer sano y de Nuestra Tierra! (How delicious it is to eat healthy food from our land!)** is a citizen initiative of responsible consumers who are looking for healthy, local and agro-chemicals-free food. The initiative promotes spaces to sell agro-ecological products, offering information on multiple fairs, shops, restaurants, community baskets, coffee shops, events and farms at the national level. The **Red de Guardianes de Semillas (Seed Guardians Network)** is made up of producers who, within the framework of agroecology and permaculture, care for and exchange seed diversity. At present, the network is made up of more than 100 families of guardians, distributed in 15 provinces. The network is also a space for sharing knowledge and experiences. The **National Commission of Agroecology (CNA)** is made up of agro-ecological producers from various provinces and aims at the articulation of small-scale farmers networks and organizations to strengthen agro-ecology in the country.

Participation in global platforms

104. Ecuador is part of two relevant global platforms promoted by FAO: The **Global Soil Partnership (GSP)** and the **Mountain Partnership**. The Global Soil Partnership was established in December 2012 as a mechanism to develop a strong interactive partnership and improve collaboration and synergy among stakeholders. One of the key objectives of the GSP is to improve the governance and sustainable soils management by promoting strong partnerships so that global soil issues are discussed and addressed by multiple stakeholders. The Mountain Partnership promotes joint work between countries, groups and organisations under a common objective: improving the lives of mountain people and the sustainable development of mountain areas around the world. The Mountain Partnership forges links with existing multilateral instruments related to mountains including the Convention on Biological Diversity (CBD), UNCCD, UNFCCC and the International Strategy for Disaster Reduction (ISDR). Ecuador joined the Mountain Partnership on 30 May 2006.

105. MAAE, MAG, and other agencies and institutions in Ecuador have systematized valuable information generated in the implementation of SLM practices in different initiatives. These information outputs have been incorporated into the World Overview of Conservation Approaches and Technologies (WOCAT), a global database focused on the compilation and dissemination of sustainable land management knowledge. The information contributed cover forest restoration, water management, soil rehabilitation, sustainable practices in silvopastures and agroecological systems, terracing, riparian vegetation, among other SLM technologies and approaches.

106. Although Ecuador has not yet made progress in establishing LDN targets, the national authorities are fully convinced of the importance of integrating a range of actions and policies to make headway towards multiple SDGs, enhance synergies between the conventions, allow for reporting on the country's progress towards international commitments, and aim for specific LDN targets. In keeping with the same, the country has made significant efforts to address the challenges related to land degradation.

107. Despite these advances, in the baseline scenario these efforts are still not sufficient to remove the identified challenges. Without the intervention of the Global Environment Facility (GEF), the

weaknesses described in detail in Section 1.a Project Description - Remaining Barriers will persist. The lack of knowledge about the interactions between the multiple direct and underlying causes of land degradation; the political, economic and institutional conditions of the enabling environment for implementing SLM practices, and the effectiveness of the existing approaches; institutional weaknesses in incorporating integrated SLM approaches and in inter-sectoral and multi-level coordination; lack of access to adequate capital and knowledge; appropriate incentives; and unfavourable market conditions are barriers to scale up and adopt SLM practices. Under these conditions, baseline initiatives will not have sufficient momentum to produce transformational and learning change from the LDN approach, with appropriate scaling up and replication to reduce and reverse land degradation processes to promote sustainable development of rural communities, ensuring provision of ecosystem services and food sovereignty. This is the entry point for the GEF.

3) The proposed alternative scenario with a brief description of the expected outcomes and components of the project and the project?s Theory of Change.

Project intervention strategy

108. The project design is based on the Scientific Conceptual Framework for Land Degradation Neutrality, which details the key elements for the establishment and implementation of policies aiming at degradation neutrality (Orr et al. 2017). The LDN is a situation in which the quantity and quality of land resources (e.g., soil, vegetation, water) needed to support ecosystem functions and services and increase food security are stable or increasing (UNCCD 2015). Building on the proposal of Orr et al (2017), an adapted version of the conceptual framework is proposed as a guide for implementing activities at the national and subnational levels (Figure 1), building a logical bridge between theory and implemented actions).

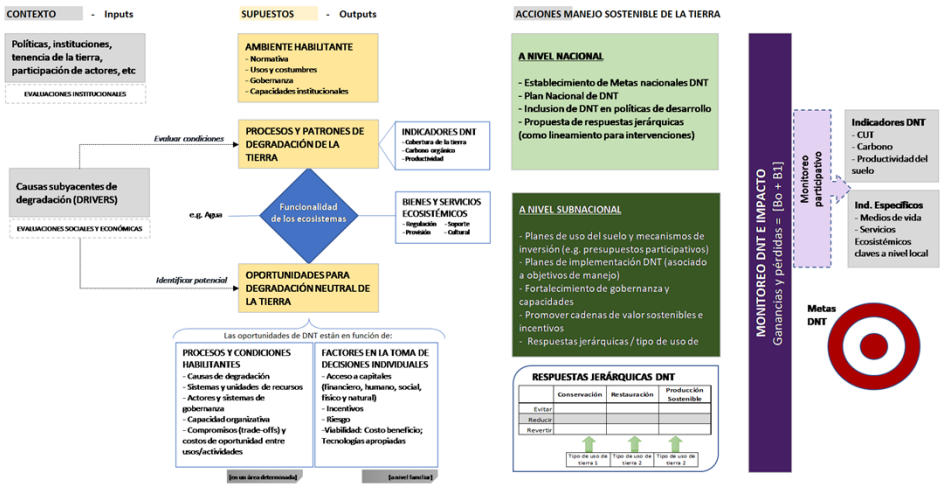

Figure 1: Conceptual framework for LDN planning, implementation and monitoring in Ecuador

109. In the same vein, the project strategy aims at creating a platform to facilitate the implementation of the LDN approach (at national and sub-national levels) and promote a wide adoption of SLM by encouraging the design of strategies, the use of tools and the implementation of practices in its intervention sites, applying LDN hierarchical responses to improve small rural farmers? production systems and to sustain and restore the variety of ecosystem functions. At the national level, the project will support the country's efforts to define and validate LDN targets and create an enabling environment that facilitates their achievement. At the sub-national level, complementary tools will be used at different levels (plots, AU, landscapes, micro-watersheds and political-administrative units). This will be implemented in three intervention sites: 1) Coast, covering the provinces of Manab? and Santa Elena, 2) Central Highlands covering the provinces of Bol?var, Chimborazo and Tungurahua, and 3) Northern Highlands, covering the provinces of Imbabura and Pichincha (see Section1.b and Annex O with the description of the intervention landscapes).

110. By adopting the LDN approach and promoting its implementation, the project will integrate several principles: 1) enhance local participation (in the design of policies, implementation of practices and monitoring), 2) strengthen governance by promoting multi-actor and multi-level collaboration, and 3) promote gender equity through women opportunities. The project will have a multi-level territorial implementation model, linked to ongoing processes, aimed at working together and strengthening local governance platforms, articulating mechanisms for mutual feedback between national policy processes and the implementation of practices and incentives at the sub-national level. The implementation of SLM practices and related initiatives that strengthen the enabling environment for the attainment of LDN goals in the three intervention sites will inform the development of national policy instruments, such ad the LDN National Action Plan, and will provide valuable lessons for its implementation in other regions of Ecuador.

111. The project strategy states that fostering LDN opportunities depends on: 1) local enabling processes and conditions (e.g., systems of uses and governance), and 2) individual (or family) factors that influence decision-making (e.g., access to capital, risk, incentives, appropriate technologies and cost-benefit). The main beneficiaries of the project are smallholders with subsistence farming economies located in three areas of intervention in continental Ecuador. The investment channelled through the project will focus on demonstrative actions to promote and integrate the land degradation neutrality approach into various socio-ecological realities represented in the project's intervention sites. Figure 2 summarizes the intervention model proposed at territorial level.

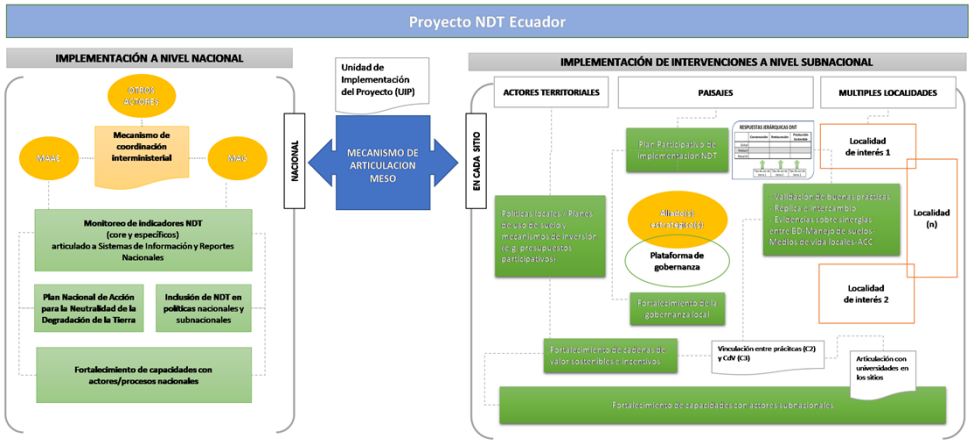

Figure 2: Territorial implementation model for the project

112. The actions to be implemented by the project will consider the evolution of the global COVID-19 pandemic and its trajectory at the local level. Given the impact on local livelihoods resulting from the health emergency, the project will channel efforts to contribute to the food security of smallholders in the short term and increase their resilience in the context of global environmental change and external shocks. The project will implement appropriate security measures and protocols to safeguard direct participants (including project staff) and rural communities? health.

Project objective, outcomes and outputs

113. The objective of the project is to prevent, reduce and reverse land degradation processes (SDG 2, 13, 15) to promote the sustainable development of rural communities, ensuring the provision of key ecosystem services and food sovereignty, within the framework of national efforts to achieve LDN in Ecuador (2.4.1; 13.2.1; 15.3.1).

114. To this end, the project has been organized into four components:

1. Strengthening the enabling environment for LDN implementation and monitoring.

2. Demonstrate the LDN approach to promote resilient livelihoods and SLM/SFM practices in prioritised landscapes.

3. Promote innovative incentive mechanisms that encourage the adoption of SLM/SFM practices in agriculture and forest landscapes.

4. Project monitoring, evaluation and lessons learned.

115. The project will contribute to developing an enabling environment for planning, implementing and monitoring the LDN approach in Ecuador, as well as mainstream LDN into national policies and planning processes; maximizing the implementation of SLM practices in three intervention sites, creating a participatory planning space and facilitating governance and participation conditions and implementing innovative incentive mechanisms that promote the adoption of medium and long term

SLM/SFM practices by smallholders. An important step in this process is the support in the definition and validation of LDN targets. The project design recognizes that, to a large extent, achieving the objective depends on the willingness, cooperation and participation of local institutions, communities and organizations, producers and civil society, which are key to overcoming the barriers identified. Likewise, the project will provide socio-cultural, environmental and economic benefits to local stakeholders, thus ensuring the sustainability and scalability of project outcomes, while providing national and global benefits. Figure 3 below shows the project?s Theory of Change to address the challenges related to the adoption of the LDN approach in Ecuador to prevent, reduce and reverse land degradation. The development of the Theory of Change has taken into account the guide ?Resilience, Adaptation Pathways and Transformation Assessment Framework? (RAPTA) (Maru et al. 2017).

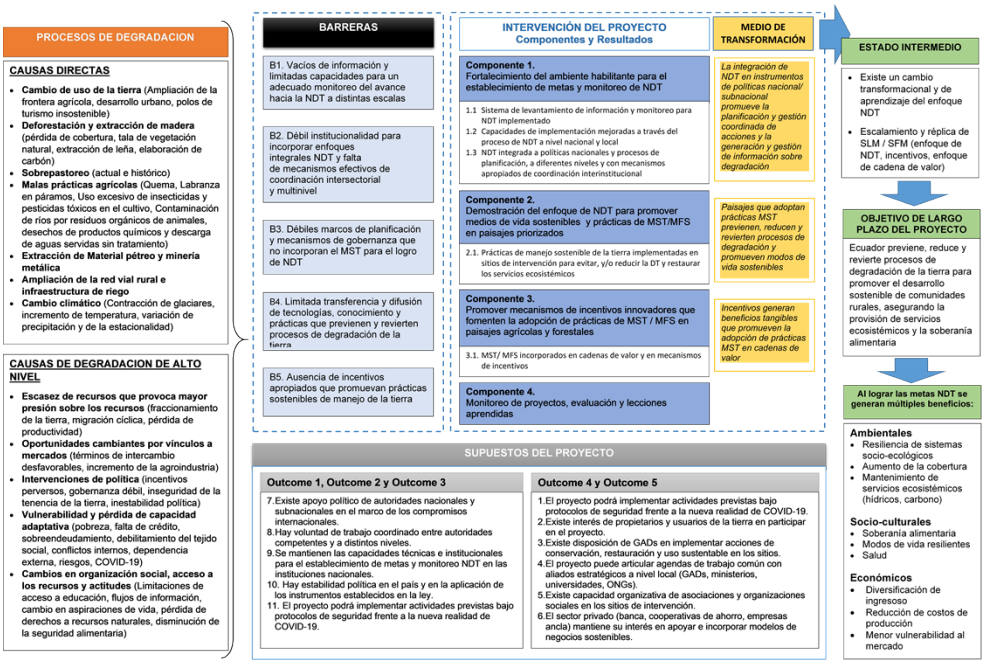

Figure 3: Project?s Theory of Change

Component 1: Strengthening the enabling environment for LDN implementation and monitoring

116. This component will support national and sub-national processes to create an enabling environment to define LDN objectives and foster the implementation of transformative LDN initiatives. The component strategy will build on the UNCCD building blocks to achieve LDN at the country level, including the definition of national LDN targets which determine country commitments to combat land degradation, including a wide range of SLM interventions to prevent, reduce or reverse land degradation.

117. In this component, the project will work in coordination with the MAAE and the MAG to support national efforts in: 1) establishing LDN objectives through methodological and operational agreements for adequate monitoring of compliance, 2) strengthening actor capacities at national and sub-national levels, and 3) integrating the LDN concept into public policy tools. Furthermore, in the context of the COVID-19 emergency, the project will identify actions in the national contingency plans that are being formulated for the agriculture and environmental sector.

118. To this end, the GEF's incremental financing of USD 1,192,815 will be used for technical assistance to: 1) assess the LDN indicators baseline at national and local levels; 2) conduct a participatory assessment of SLM practices to prevent, reduce and reverse land degradation, restore ecosystems, reduce emissions and enhance the provision of ecosystem services; 3) monitor LDN indicators at national and sub-national levels; 4) develop tools to strengthen capacities for the implementation of the LDN approach at national and sub-national levels; 5) include SLM and LDN into national policies and territorial planning instruments; and 6) design and implement a national action plan for LDN.

119. Sources of co-finance for Component 1 will support: 1) the development and incorporation of LDN monitoring protocols and indicators in the relevant national data management systems, especially within MAAE (e.g. SUIA) and MAG (SIPA), 2) the participation of technical staff and decision makers from national and subnational public agencies in knowledge exchange and capacity building activities, 3) participation of national and subnational competent authorities and public institutions in the incorporation of LDN goals and principles in national and subnational policy making and land use planning tools, and 4) the generation of base and thematic information that contribute to the monitoring of the core and complementary LDN indicators. The amount co-financed is 13,999,377 USD, composed by:

? MAAE will contribute 2,775,785 USD in kind.

? MAG will contribute 10,952,621 USD, 10,948,928 in kind and 3,693 in cash.

? GIZ will contribute 50,000 in kind.

? The REM Program will contribute 150,000 USD in kind.

? The Province DAG of Manabi will contribute 15,971 USD in kind.

? CONDESAN will contribute 55,300 USD, 7,000 USD in kind and 48,300 USD in cash.

Outcome 1.1: LDN baseline (land cover, land cover change, soil organic carbon and land productivity) assessed and monitoring system established

Project Indicator #1: LDN information gathering and monitoring system implemented in line with national LDN objectives and targets, indicators and long-term institutional arrangements.

Baseline: There are several national monitoring initiatives led by MAAE and MAG, including national progress for LUCC and SOC. In addition, MAAE and MAG have environmental (SUIA), agricultural (SIPA) and forest information systems. It is necessary to develop national LDN indicators and targets to be reported to the Convention.

Target: LDN information gathering and monitoring system working, producing and disseminting national and subnational LDN indicator reports mainstreaming gender and interculturality variables.

Output 1.1.1: LDN indicators baseline assessed at national and local level.

120. The current state of land degradation will be characterized by this output as the basis for establishing national LDN targets. The characterisation of national degradation will use the three main LDN indicators: (a) soil organic carbon (SOC), (b) net primary productivity (NPP) and (c) land-use and land-cover change (LUCC), through a methodology developed in collaboration with technical working groups. It will build on the progress made by the *Umbrella VI* Project, which supported the MAG and MAAE technical teams in the methodological and operational definition to monitor the three main LDN indicators. In addition, work is to be carried out with the Ecuadorian Institute of Statistics and Census (INEC) to formalize the methodological forms for the Soil Organic Carbon (SOC) and Net Primary Productivity (NPP) indicators, to be included in the country report for the SDG 15 goals and indicators, with emphasis on goal 15.3.

121. As regards the main LDN indicator corresponding to Land-Use and Land-Cover Change (LUCC), the institution responsible for monitoring is MAAE, which maps Lan-Use/Land-Cover patterns (LULC) every two-years. The Level 1 LULC classes used by MAAE are: 1) Forest (native forest and forest plantation), 2) shrub and herbaceous vegetation, 3) agricultural land, 4) water body, 5) anthropogenic zone and 6) other lands (INEC 2018). As regards the SOC indicator, MAAE and MAG are collaborating to identify a robust interpolation algorithm throughout the country to map tons of SOC in the first 30 cm of soil from information collected by the two ministries from more than 15,000 samples. For productivity mapping, methodologies are being explored that combine vegetation index information (e.g., NDVI) to detect changes in photosynthetic active vegetation cover in a baseline period to be defined. A field data collection methodology would be implemented to calibrate NDVI data from remote sensors. The goal for the three main indicators is to have at least a Tier 2 methodology (UNCCD 2017).

122. In the three project intervention sites, field information gathering activities will be implemented to establish a baseline methodology of the three main indicators and the baseline characterization (and subsequent monitoring) of complementary indicators at the sub-national level (e.g., water regulation). For the land cover indicator, information will be generated from high-resolution images, to characterize detailed LUCC patterns in the future. As for SOC, field information will be collected and analysed in the laboratory using the standard of the Global Soil Partnership, which are based on IPPC guidelines and standards to characterize the spatial variability of this indicator, and the impact of different land use regimes on SOC contents. Information on aerial biomass will also be gathered to calibrate the information on NPP taken from remote sensors.

123. Other sub-national indicators with information collected from the intervention site relate to the impacts of SLM practices on hydrological functionality (e.g. water quality, water regulation) using paired micro-watershed[7][7] (Ochoa-Tocachi et al. 2016), impacts on local livelihoods considering the differentiated impacts of land degradation on women, indigenous peoples and other priority groups, and maintenance of fragile ecosystems and critical habitats for biodiversity.

124. In addition, a knowledge base line will be established on direct and underlying causes of land degradation in Ecuador, and in the specific context of the project intervention sites. This requires a meta-analysis of scientific and grey information relevant to land degradation patterns and their causes. Additionally, information will be gathered and synthesised in the project intervention sites to provide a more detailed characterization of degradation patterns and causes, and their differentiated impact on women, indigenous peoples and other vulnerable groups, and on different types of fragile ecosystems. These activities will consider a broad participation of actors from the sites and will establish a reference framework of ecosystems vulnerability and lifestyles and resilience to environmental changes in the face of land degradation processes.

125. The assessment of the land degradation status will serve as the basis to set national LDN targets, which will be followed by a rigorous monitoring and reporting process with indicators at relevant scales (Output 1.1.3). The target setting will be done during the drawing up of the National LDN Action Plan drawn up (Output 1.3.2), and will require coordination mechanisms between ministries, institutes and stakeholders involved in land and information management.

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Output 1.1.2: Participatory assessment of SLM practices that prevent and reduce land degradation, restore ecosystems, reduce emissions and enhance the provision of ecosystem services.

126. This output aims at establishing methodologies to identify, systematize and assess SLM practices with potential to achieve LDN, their effectiveness, co-benefits and the enabling environmental factors that are relevant to their adoption. It will promote to gather evidence on the implementation of the LDN approach and its potential to create synergies with biodiversity, ecosystem services, carbon and local livelihoods. The contribution of SLM practices that also promote synergies with climate change mitigation and adaptation will be documented.

127. This process has two main scales of operation. At the national level, it will compile SLM practices representing the variability of ecosystems and productive systems in continental Ecuador. A characterization of their documented impacts on prioritized ecosystem services (e.g., water, carbon, biodiversity) and their ties to the adaptive capacity of local livelihoods will be carried out. A meta-analysis methodology of relevant grey and scientific literature will be used, together with interviews with experts in SML planning, implementation and monitoring.

128. In addition, a set of case studies will be prioritized in the three project implementation sites to further analyse the successful implementation of SLM practices, and their implications for the resilience of local livelihoods and their capacity to adapt to climate change. An initial mapping of individual and collective actors generated in the project design phase will be used to identify existing processes relevant to preventing, reducing and reversing land degradation. The methodology will focus on systematizing local knowledge on the economic, technological, institutional, social, environmental and cultural aspects that influence the effectiveness and adoption of SLM practices. Qualitative and quantitative methods will be used, with emphasis on systematising the differences in roles, responsibilities, access to benefits and impacts associated with SLM practices and the land degradation processes they want to reverse.

129. In keeping with the same, an analysis of technical and economic feasibility will be carried out, including the degree of effectiveness and costs of implementing systematized SLM practices in the three intervention sites. Priority will be given to practices that have greater potential for adoption by a broad base of local producers, providing multiple benefits, including positive impacts on key ecosystem services (e.g., related to water, carbon, productivity and biodiversity) and are easily linked to sustainable value chains. The analysis should apply a methodology adapted to the social, productive and environmental context of the intervention sites and to the LDN principles, considering as a general methodological guideline to: 1) define the practices to be used in the transition towards SLM and actors involved in the process, 2) identify and prioritize positive and negative impacts by primary stakeholders and ecosystem services, 3) predict the expected impacts over the time horizon of implementation of the practices analysed, 4) perform the economic analysis to establish the net present value of the practices, 5) conduct a sensitivity analysis, verify assumptions and establish recommendations for intervention in the enabling environment to promote the practices analysed, and 6) the sustainability of measures (Ding et al. 2017; Verdone 2015). Methodological alternatives such as multi-criteria decision analysis will be considered for groups of ecosystem services and practices with high sensitivity and social and environmental significance (Saarikoski et al. 2016), in a participatory and active process with local communities (including priority attention groups).

130. Towards the end of the project, the SLM practices implemented in the intervention sites during the project will be systematised. This systematization will consider critical factors that influence the adoption and maintenance of practices, including the differentiated impacts between men and women, understanding the primary role of women and indigenous peoples in maintaining local agrobiodiversity (e.g., native seeds) and the conservation of ancestral techniques and practices, and the importance of the governance perspective and organizational elements for the adoption and effectiveness of SLM practices. The main objective of the systematisation is to produce evidence of how the LDN approach contributes to strengthening synergies between biodiversity conservation, climate change mitigation

and adaptation (with emphasis on land management) and the improvement of local livelihoods. This evidence will be widely disseminated through information management platforms such as the National Observatory on Land Degradation (nodes and regional platform, Output 1.1.3) that will be implemented in the framework of the project, as well as existing platforms such as the National Climate Change Registry, and the *World Overview of Conservation Approaches and Technologies* (WOCAT) platform.

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Output 1.1.3: Monitoring of LDN indicators at national and sub-national levels, integrated with reporting mechanisms

131. This output aims at establishing the scientific, institutional and operational basis to maintain long-term monitoring of LDN targets and land degradation at national and sub-national levels. For this purpose, activities for the articulation, communication and coordination of actors operating at different levels of governance in the public, private, academic, civil society and local communities? sectors will be prioritised.

132. The project will facilitate the definition of institutional arrangements, roles and responsibilities between MAG, MAAE and sub-national actors to ensure the sustainability of the information gathered, recorded and managed, the update of the main LDN indicators at national level (i.e., LUCC, SOC, NPP) and reporting. These activities are linked to the process of strengthening institutional arrangements to promote collaboration among relevant actors to achieve LDN targets that will be implemented in Output 1.3.1. Existing arrangements such as the CICC Working Groups will be strengthened, and additional articulation needs will be identified for continuous monitoring of LDN targets.

133. Training requirements will be identified and prioritized under the LDN Capacity Strengthening Programme (Output 1.2.1) and implemented during the process of establishing the LDN baseline and targets (Output 1.1.1), complementary to the LDN indicator monitoring methodologies. A key issue is the capacity strengthening of MAG and MAAE technical teams in methodologies for the analysis of land degradation trends and their impacts on the provision of ecosystem services.

134. In line with these collaborative arrangements, the MAAE will be supported in the generation of the UNCCD PRAIS national report in 2022, and a review will be carried out towards the end of the Project in 2024. This includes the generation and validation of protocols for measuring baseline information, the definition of the periodicity and methodology for updating the main and complementary LDN indicators; the development and formalization of indicators data sheets in coordination with INEC, and LDN management mechanisms, information communication and synthesis for interested users. The generation and validation of protocols includes the definition of a minimum network of monitoring points for organic carbon and land productivity indicators. The interpretation and dissemination of project outcomes will be linked to the National Land Degradation Observatory through an online platform (to be developed under Output 1.2.1) developed to manage the information linked to official climate change platforms. For the PRAIS report indicators, a

differentiated report will be offered, mainstreaming a gender approach and social and environmental dynamics relevant to indigenous peoples and fragile ecosystems.

135. A National Land Degradation Observatory will be established as an operational mechanism, structured as a multi-actor and multilevel network that will facilitate the continuous collection of relevant information for LDN indicators. The Observatory will adapt the structure of the existing Observatory in Argentina and will focus on the generation of thematic information inputs (e.g., indicators, maps) relevant to territorial management with a LDN approach at the national level, and the generation and dissemination of knowledge on land degradation processes and trends. The Observatory will have a national coordination level linked to the working mechanism to monitor LDN indicators established between MAG and MAAE. A network of researchers and experts in SLM/LDN and climate change will be established to contribute to capacity strengthening and validation of SLM practices as part of the Observatory's operation.

136. Some additional roles of the Observatory will be to identify knowledge gaps and research needs, to promote research initiatives at different scales on land degradation and effective response mechanisms through SLM practices, and to facilitate capacity strengthening mechanisms for actors linked to sustainable territorial management in articulation with the Undersecretariat for Climate Change as UNCCD focal point, being the National Authority for Desertification, Land Degradation and Drought.

137. At the sub-national level, arrangements will be made with actors from academia, civil society, local governments, for continuous information gathering and characterization of land degradation dynamics in specific work landscapes (hereinafter referred to as Sub-national Nodes). In addition, the Project will support the articulation of these Sub-national Nodes in the three intervention sites and will promote collaborative arrangements and capacity strengthening in other landscapes, to have proper representativeness of existing ecosystems and productive systems in the country. Actors related to the Sub-national Nodes of the Observatory will participate in activities of continuous monitoring of relevant information for major and complementary LDN indicators, their synthesis and reporting, applying a comprehensive approach to the ecosystems and productive systems analysis and their links through management, conservation, restoration and provision of ES. Monitoring will include complementary social and environmental dimensions (e.g., poverty, patterns of access to land, technology and knowledge, and access to financial resources by land managers). It will be linked to output 1.2.1, where the online platform will also consider the development and application of Sub-National Nodes as part of the decision support tools.

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<u>Outcome 1.2</u>: Key actors at national and sub-national levels apply knowledge and tools for the implementation of the LDN approach to measures planning, implementation and monitoring.

Project Indicator #5: Number of people with strengthened capacities in the LDN approach to implement SLM/SFM practices and apply knowledge and tools in the three areas of intervention (disaggregated by sex, ethnicity and age).

Baseline: The LDN approach is new to most actors at national and sub-national levels. The application of knowledge and tools relevant to the LDN approach will require the development of capacities and tools that can be used by technicians and landowners/users to plan, implement and monitor LDN measures.

Targets: At least 100 technicians (national, sub-national, researchers) with solid knowledge and skills in LDN measures planning, implementation and monitoring.

At least 30 community promoters trained to promote the LDN approach (40% are women; 30% from villages and nationalities).

At least 90 people with solid capacities for the SLM practice implementation (40% are women; 30% from villages and nationalities).

Output 1.2.1. Capacity strengthening tools for LDN targets planning, implementation and monitoring, with a gender and intercultural approach, and available, operational and implemented by key actors.

138. This output is oriented to the design of a capacity strengthening programme for the implementation of the LDN approach at national and sub-national levels, mainstreaming the gender approach. The LDN concept is new to a large majority of technicians and officials, including those who promote SLM at different levels. Therefore, the capacity strengthening programme will consider the needs of three different target groups: (1) national government technicians linked to information and monitoring processes (e.g., Land-Cover Change, SOC and Land Productivity), (2) DAG technicians and local organizations providing technical assistance on SLM, and (3) landowners and users for the adoption of SLM practices with a view to improving resilience to climate change especially in areas with climate risks.

139. The design of the programme will consider the differentiated needs of each of these groups, mainstreaming gender approach and designing specific mechanisms for capacity development. As regards *national government technicians* connected to national processes of indicators generation and processing and monitoring (e.g., Land-Cover Change, SOC and Land Productivity), capacity strengthening will be part of ongoing bi-ministerial efforts and inter-institutional working groups that have been established (e.g., CIIC Workgroup 1). This will include joint spaces for the harmonization of criteria, methodologies and protocols for the generation and management of information. There will also be virtual exchange of LDN targets establishment and monitoring in the region with the National Observatory of Land Degradation and Desertification of Argentina, and the team of the Ministry of the Environment of Peru in charge of establishing LDN targets. In terms of the national policies (e.g., the Participatory Management Plan for Soil Conservation and Recovery), stakeholders involved in processes to prevent and avoid land degradation at different levels or through different inter-institutional coordination mechanisms will be considered.

140. As regards *sub-national technicians from the ministries*, DAGs and NGOs, the project will connect the capacity building programme to local territorial planning processes together with the dissemination and transfer of know-how on SLM practices in local interventions. It is proposed to design training courses so sub-national technicians in the intervention sites can get acquainted with basic concepts on LDN, SLM and climate change as well as with the use of tools for an adequate integration of SLM in development planning tools (including participatory budgets), and implementation and validation of SLM practices.

141. Finally, in the case of *landowners and users*, models and methodologies will be promoted to encourage peer-to-peer exchange, as well as leadership work to train community promoters (prioritizing women's participation) as a strategy to foster the adoption and replication of SLM practices that are adaptive to climate change. The programme will propose a mechanism for knowledge generation and management that strengthens peasant to peasant learning and the dialogue of knowledge, creating links between sub-national technicians and land users. Experiences such as those implemented by the Climate-Smart Livestock project will serve as reference.

142. The capacity strengthening programme will include the following: a) A participatory and gender approach, b) Support accepted ongoing processes and focused on finding solutions to local problems, c) Differentiated training for specific stakeholders at multiple levels, and d) Implement an evaluation and monitoring mechanism of the capacity strengthening programme?s results and impacts. The gender approach will be mainstreamed within the structure of contents and thematic modules. For example, gender modules will be included in the training courses for sub-national technicians and land users, drawing attention to the role of women in land management and land access rights. In addition, the pedagogical tools developed in the project will be tailored to the target audience and specific contexts in the intervention sites.

143. Based on a broad consultation with SLM experts[8][8], the following training priorities were identified for the capacity development programme:

? *Monitoring*: Drafting of protocols to measure variables related to net primary production, soil organic carbon and vegetative cover; skills for the evaluation of land-use and land-cover changes through geographic information systems, remote sensors and/or satellite images; and design of robust and complete monitoring, evaluation and follow-up systems including the required institutional and governance arrangements.

? *Policies, territorial planning tools and governance*: dissemination of the existing legal framework and competencies of the different government levels to promote effective public policy; training in the use of tools to identify priority areas of SLM intervention and to assess the potential of land for the provision of ecosystem services (such as water regulation or erosion control); capacity development related to tools for information gathering and processing for territorial planning; evaluation of impact of interventions and, identification of mechanisms to mobilize funding for SLM.

? *Good practices:* Dissemination of techniques and skills for the implementation of specific SLM practices; capacity strengthening to assess the impact of interventions and the effectiveness of SLM practices for LDN; lessons learned from successful implementation of practices for ecological restoration and rehabilitation of ecosystem services, including technical, social and economic aspects; training in criteria to prioritise and design concrete SLM practices and measures.

? *Incentives:* Training on the design, implementation and sustainability of financial mechanisms (e.g., micro-credits, trusts, participatory budgets, etc.); project design, management and financing; strengthening alternative marketing circuits, partnerships and sustainable value chains; promotion of incentives to encourage the adoption of good SLM practices.

144. The design of the LDN Capacity Strengthening Programme will include a diagnosis of the priorities, the design of the programme structure and the generation of pedagogical tools. The creation of a capacity building programme involves the definition of visions and objectives based on territorial needs, and to determine the need for training according to the specific problems of the localities or landscapes. In addition, the programme will consider the priorities agreed on within the project strategy for LDN knowledge management (Output 4.1.3) and will be articulated with communication mechanisms developed by the project (Output 4.1.4). The implementation of the activities of the LDN capacity strengthening programme will be done through the relevant components and outputs, ensuring that the capacity development is part of the actions to implement the LDN approach. Clear links of the project activities with the LDN capacity strengthening Programme have been added to the relevant texts, evincing their articulation.

145. The LDN Capacity Strengthening Programme will promote strategic alliances aimed at the sustainability of its actions after the project completion. Capacity development implies to build a process of linking the key stakeholders for LDN, both at the national level and in the intervention sites defined by the project. Therefore, from the design and then during its implementation, the programme will be linked to ongoing processes (e.g., water funds, DAG conservation and restoration programmes, ACSU) that can contribute with LDN's own experiences, commit their own resources and connect to guarantee sustainability. In addition, in the context of alliances with universities or training platforms of other actors (e.g., CAMAREN or CONGOPE), the project will lead the courses on LDN approach (in-person classes and/or virtual classes), to expand the project outreach to a wider audience and to capitalize on the lessons learned from the implementation of the project in different contexts.

146. Furthermore, through this output, a decision support system (DSS) will be developed for planning, implementing and monitoring SLM practices and their contribution to LDN goals. It will be an initial assessment of existing national or international information sources and platforms for collecting, managing and analysing information on SLM practices and their social, economic and environmental dimensions (e.g., WOCAT, OpenForis). Parameters of information systems associated with their capacity to provide adequate, standardized and relevant data at different scales of the territory will be assessed to make appropriate decisions.

147. At the national level, an online platform linked to the National Land Degradation Observatory will be developed (Output 1.1.3), with the aim of supporting information and knowledge on LDN, its dissemination and use in capacity strengthening for land management decisions including an LDN

approach. The platform will centralize the baseline information management and monitoring of main and complementary LDN indicators (Products 1.1.1. and 1.1.3), as well as the results of research aimed at characterizing the proximate and underlying causes of land degradation processes (Product 1.1.1), the effectiveness and social and environmental co-benefits of different SLM practices and the associated cost-benefit analyses (Product 1.1.2). Similarly, this platform will be linked to existing official platforms for environmental information management such as the SUIA and the National Climate Change Registry.

148. At the subnational level, DSSs will be developed to complement the strengthening of territorial planning tools with an SLM, LDN and climate change adaptation and mitigation approach. These systems will be part of the Observatory's Sub-National Nodes and will be fed by the information collected in each work landscape by the stakeholders connected to each Sub-National Node (i.e., specific work landscapes where continuous information gathering and characterization of land degradation dynamics will take place; Output 1.1.3). A first sub-national DSS tool will be developed within the framework of Participatory Implementation Plans (Output 2.1.1), focused on mapping synergies and trade-offs between different land-use scenarios, related to the implementation of different SLM practices in the project intervention sites.

149. At a more general level, the DSS tools should enable the identification and prioritisation of courses of action for implementing SLM practices using assessment parameters, alternatives, constraints, and decision rules for specific contexts (Malczewski 1999). These tools will focus on land management challenges at project sites, with emphasis on promoting multiple benefits for ecosystem services associated with carbon, water and biodiversity, adaptation to climate change, and resilience of local livelihoods related to measures to prevent, reduce and recover from land degradation.

Outcome 1.3: National and sub-national authorities include the LDN approach into national policies and planning processes, at different levels and with appropriate inter-agency coordination mechanisms.

Project Indicator #7: Effective inter-institutional and/or multi-level coordination mechanisms to achieve LDN.

Baseline: Inter-institutional coordination mechanisms in this area are weak and are not implemented on a regular basis

Target: At least 1 intersectoral and/or multilevel coordination mechanism activated with LDN actors.

Output 1.3.1: National policies and sub-national territorial planning instruments (new or existing) are part of the LDN approach and consider the specific priorities of women and peoples and nationalities.

150. Through this Output, the project will promote the integration of the LDN and SLM approach into national policies and planning tools at the sub-national level.

151. At the start of the project, a comprehensive diagnosis will be carried out to identify opportunities and gaps to include LDN into national and/or sub-national policies; this includes the analysis of the relevant legal and institutional environment (including established competencies) and mapping of LDN-related actors (e.g., public and private entities, academia, civil society and organizations). The exercise will mainstream the gender and intercultural approach and identify opportunities for affirmative actions for women in public policies at national or sub-national level. An analysis of structural barriers to land access that limit the adoption of SLM in the national context and in the project's intervention sites will also be carried out, considering differentiated impacts by gender, age and ethnicity.

152. A key element for the integration of SLM and LDN into national policies and territorial planning processes is the intersectoral work. The project will strengthen institutional arrangements within the framework of the competencies established to promote collaboration among actors at different levels to reduce, prevent and reverse land degradation in the implementation of national policies with effective coordination mechanisms. This effort will be part of the existing or potential inter-institutional coordination space, supporting working groups articulated to prevent and reverse land degradation within the framework of the LDN approach. The project will facilitate periodic intersectoral work meetings, promoting the implementation and follow-up of collaborative actions among actors.

153. At the national level, the project will work in coordination with MAG and MAAE to support national policymaking and implementation, including the LDN approach as a conceptual framework for planning and articulating said policies. For example, MAG will begin the formulation of the Participatory Management Plan, Soil Conservation and Recovery (PMPCRS) as a key national policy tool. The formulation and implementation of the PMPCRS will be a collaborative process with multiple stakeholders, in accordance with the provisions of The Organic Law on Rural and Ancestral Lands in its Article 48. The project will support a collaborative and coordinated work around the PMPCRS, building common views within national policy priorities and implementing pilot demonstration actions on SLM with local stakeholder networks in the intervention sites (linked to Output 2.1.2). In addition, inputs from this process (e.g., diagnosis, revision of the regulatory framework, indicators, etc.) will be considered by the project and worked together with the progress of the PMPCRS.

154. Achieving LDN requires a significant effort to avoid a greater natural capital net loss relative to a reference state or baseline (Output 1.1.1). This involves planning to define where and how to offset anticipated losses with appropriate measures to achieve equivalent gains in different land types. At the sub-national level and, in coordination with the DAGs in the intervention sites, the project will add the LDN concept to the existing territorial planning tools (e.g., PDOT, Land Use Regulations) outlining hierarchical LDN responses to promote multiple benefits and mobilise public investment towards those measures through budget allocation mechanisms (e.g., participatory budgets). In the formulation of territorial planning inputs and tools as well as in local participatory budgeting, the project will promote the gender and indigenous peoples' approach, articulating efforts at different government levels (i.e., province, canton, parish) and with local governance platforms.

155. The project will also develop guidelines to include LDN in territorial planning instruments aimed at promoting land-use decisions based on stakeholder participation, identifying and minimising potential trade-offs among different land management goals, establishing links to multiple SDG, and

promoting short- and long-term sustainability. This will also include developing methodological guidelines to map and quantify the baseline for core indicators, and to monitor gains and losses related to this baseline to assess progress towards the neutrality goal as part or existing territorial planning instruments. These guidelines can be used by DAGs as a guide for updating PDOT and is a tool that will enhance replication beyond the project area. These guidelines will address proposed mechanisms to facilitate access to land, as well as proposed public policy incentives that can promote affirmative actions for women and vulnerable groups.

156. Finally, in coordination with the capacity strengthening programme (Output 1.2.1), training will be implemented with national and subnational technicians regarding policies, territorial planning and governance. The aim is to highlight opportunities and tools for integrating the LDN approach into territorial planning and mechanisms for SLM financing and assessment. Furthermore, it will focus on how to link the LDN approach with planning tools (e.g., comprehensive land use plans and/or participatory budgets).

Output 1.3.2: National LDN Action Plan, designed and operational, including national LDN targets.

157. Through this output, the project will support the country in the development of the LDN - National Action Plan (LDN-NAP) to define a strategy to achieve land degradation neutrality in the country. The LDN National Action Plan will be developed through a participatory process with key stakeholders, both at national and sub-national levels, and with the approval of the relevant authorities.

158. As part of the LDN-NAP, the national governance model for LDN will be defined with the stakeholders, making explicit the roles and responsibilities of national authorities, local actors and beneficiaries, and a strategy for sustainability will be put forward. It is important that the Plan establishes mechanisms for the adequate coordination of LDN actions, including joint programming, planning, and monitoring among competent national authorities, within the framework of relevant national policies (Output 1.3.1) and articulated with working groups to support LDN (e.g., CICC working groups).

159. The development of the LDN-NAP will follow the methodological guidelines established by the UNCCD (2017) to asses land degradation trends, define national voluntary LDN targets, mainstream LDN in land use planning, identify measures to achieve the targets and monitor progress towards LDN measuring gains and losses in the core indicators related to the baseline established in Output 1.1.1. The national LDN targets will be validated by the working groups of the Inter-institutional Climate Change Committee (CICC) and other relevant stakeholders under the coordination of the MAAE, which in turn will submit these targets to the UNCCD.

160. An important input in the development of the LDN-NAP will be the review of relevant policies and instruments (developed in Output 1.3.1). In addition, a comprehensive economic assessment will be carried out to provide scenarios on land degradation and climate change impact at the national level, considering the costs of inaction. The LDN-NAP will identify primary programmatic and geographical areas that will enable to prevent, reduce and reverse land degradation. In the LDN-NAP, LDN targets

will be established including priority areas to implement SLM, conservation and restoration practices, and the areas under different management options (articulated with Baseline Output 1.1), and the relevant costing will be carried out as a step to facilitate access to funding opportunities under the Convention. This will require a process of dialogue, articulation of work agendas, and joint definition of priorities for action by actors related to the LDN governance model. Finally, the LDN-NAP will guide the implementation of projects and programmes in the territory to address land degradation in priority areas and on a landscape scale.

161. The LDN-NAP will be a tool to articulate other ongoing national plans (e.g., REDD Action Plan, National Forest Restoration Plan, the National Climate Change Adaptation Plan, National Drought Plan, the PMPCRS), to leverage synergies for their joint implementation and whose actions contribute to the achievement of the LDN targets in the country. The project will consider the NDC's participatory development methodology and will enhance synergies/linkage with the LDN Action Plan.

162. The LDN-NAP will mainstream the gender perspective at every stage, during the diagnosis (e.g., identifying the differentiated impacts of land degradation on women and men) and development (e.g., identifying measures to promote greater women access to decision-making processes). As inputs for the Plan, the project will support the analysis and identification of measures aimed at solving land tenure problems that hinder LDN objectives, and mechanisms to promote responsible and inclusive governance, which safeguards the rights of local land users and communities, in line with the recommendations of the LDN transformative programme checklist (UNCCD 2018).

163. Finally, as part of this Output, operational inter-institutional coordination mechanisms will be identified which, in the framework of the LDN-NAP, will: i) provide continuity to long-term indicator monitoring activities; ii) contribute to the preparation of the National Reports for the Conventions (together with Output 1.1.3), recognizing the potential to promote synergies between LDN, climate change adaptation and sustainable development goals (e.g. SDG 15.3); and iii) set up links to priority actions (both thematic and geographic) within the framework of national development priorities in order to improve national ownership of the plan and the UNCCD reporting process.

<u>Component 2</u>: Demonstration of the LDN approach to promote resilient livelihoods and sustainable land management and sustainable forest management (SLM/SFM) practices in intervention sites.

164. This component aims at maximizing the implementation of SLM practices in the three intervention sites through a participatory planning process, providing a tool at the sub-national level, facilitating governance and participation conditions for this purpose. This sub-national planning tool, coupled with a strengthened governance space, will enable the implementation of SLM practices at the local level. Learning processes will be prompted regarding the link between LDN approach tools and climate change adaptation, in line with public policies to prevent, reduce and reverse land degradation, mainstreaming a gender approach and promoting the participation of women, youth and indigenous peoples in planning, implementation and decision-making processes.

165. This component will implement actions in the territory in the context of the COVID-19 pandemic, and within the Land Degradation focal area. The project will propose territorial actions for sustainable management, in terms of agroecology, landscape restoration, and introduction of sustainable land management practices that provide global and local benefits. Given the impacts on local livelihoods resulting from the health emergency caused by the pandemic that has severely affected rural families, the project will channel efforts through this component to increase the capacity of smallholders in the intervention sites to produce food and improve food security in the short term, enhancing resilience.

166. To this end, the GEF incremental funding for Component 2 equivalent to USD 1,922,442 will be allocated to technical assistance for: 1) developing participatory LDN implementation plans mainstreaming landscape, gender and intercultural approaches, including the analysis of synergies and trade-offs between land uses, SLM practices and their benefits; 2) strengthening local governance; 3) designing and implementing gender-sensitive SLM practices; and 4) exchanging experiences to promote the adoption of SLM practices.

167. Sources of co-finance for Component 2 will support: 1) involvement of field technicians from MAG (e.g. as part of the National Project of Participative Technological Information and Agricultural Productivity) and MAAE (e.g. as part of Ecuador?s Redd Early Movers Program) in agricultural extension activities to support SLM practices, 2) implementation of sustainable productive practices, forest restoration and conservation activities, 3) sustain the participation of representatives of the DAGs in activities that seek to sustain sub-national governance processes related to the implementation of LDN in the three intervention sites. The co-finance amount in this component is 5,375,184 USD, composed by:

? MAAE will contribute 1,700,255 USD in kind.

? MAG will contribute 330,887 USD; 307,109 in kind and 23,778 in cash.

? FAO will contribute 2,500,000 USD in cash.

? GIZ will contribute 50,000 in kind.

? The REM Program will contribute 600,000 USD in kind.

? The Province DAG of Manabi will contribute 36,942 USD in kind.

? The Province DAG of Chimborazo will contribute 50,000 USD in kind.

? The Province DAG of Imbabura will contribute 100,000 USD in kind.CONDESAN will contribute 107,100 USD in cash

Outcome 2.1: Landowners and users adopt sustainable land management practices at intervention sites to prevent and/or reduce land degradation and restore ecosystem services.

Indicator GEF #3.2: Hectares of forests restored to maintain ecosystem services in 3 intervention sites

Baseline: 0

Targets: 2.000 ha

Indicator GEF #3.3: Hectares of paramo and shrub ecosystems restored to maintain ecosystem services in 3 intervention sites

Baseline: 0

Targets: 2.000 ha

Indicator GEF #4.3: Hectares of landscapes under SLM in productive systems in 3 intervention sites.

Baseline: 0

Targets: 4,750 ha

Indicator GEF #4.4: Hectares of high value forests conserved in 3 intervention sites

Baseline: 0

Targets: 20.000 ha

Indicator GEF #11: Number of direct beneficiaries disaggregated by sex as co-beneficiaries of GEF investment

Baseline: 0

Targets: At least 3,750 people (1,500 women and 1,125 from villages and nationalities) have implemented on-farm SLM practices and their full impact has been assessed

Indicator GEF #6: tCO2eq sequestered or avoided emissions due to SLM practices and avoided deforestation.

Baseline: 0

Targets: 9?596,730 tCO2e

Output 2.1.1: Ongoing participatory plans for the LDN implementation (mainstreaming gender, landscape, and intercultural approaches) in the context of the LDN National Action Plan.

168. The implementation of SLM practices with a landscape approach, and which contribute to generating synergies with climate change adaptation/mitigation, biodiversity and local livelihoods, is one of the pillars of the LDN approach. The identification of suitable practices for each territorial context, and the definition of strategies to achieve their successful implementation is critically linked to the degree of articulation of different stakeholders. The project will support the connection of these actors through a Participatory Implementation Plan (PPI), which facilitates and operationalizes the implementation of the LDN approach according to public policy instruments, enhancing the roles of each actor and providing common interests.

169. In keeping with the same, it is proposed to build Participatory Implementation Plans (PPI), which should be in line with national plans and other relevant policy instruments (Outputs 1.3.1 and 1.3.2). This planning instrument includes the analysis of existing LDN-related policy and planning instruments, an exercise that will be carried out in articulation with the analysis of policy and planning instruments at national and sub-national levels (Output 1.3.1).

170. The PPI, as a planning tool for the LDN approach at the sub-national level, will facilitate the implementation of the various SLM practices, outlining hierarchical responses under a landscape approach that also enhance resilience and adaptive capacity, especially important in local contexts under climate risks. This process starts with the delimitation of a biophysical or administrative territorial unit, as well as a mapping organized and non-organized stakeholders interested in working with the project (e.g., associations, producer networks) and their land management goals that can contribute to the attainment of LDN targets. During the design phase (PPG), producers and initiatives operating in the project intervention sites were pre-identified (e.g., agro-ecological farms, producer associations). However, given the constraints that occurred during project formulation due to the COVID-19 pandemic, it will be necessary to define the specific producers, local initiatives and governance platforms at the beginning of the project. At this point, it should be noted that the project will implement strategies to promote the participation of women and indigenous peoples. The gender strategy establishes strategies and instruments to maximize women's involvement in planning and decision-making processes, as well as in the implementation of SLM practices. Based on this mapping, an involvement strategy will be devised to maximize their participation in the intervention sites (section 1b).

171. Since the project intervenes in areas with territories inhabited by indigenous peoples or Montubios, the project will start with the implementation of consultation processes aimed at obtaining their consent. Hence, specific forms of organisation and representation will be considered, resulting in a document that clearly sets out the consent of the community/commune to act in the territory. This will include detailed project and community/commune?s responsibilities, monitoring and evaluation procedures, channels of coordination/interaction, and mechanisms for complaints established in the

project's safeguard policies. The project?s technical team, in coordination with second tier organisations at the identified sites, will analyse the feasibility of having several communities/communes actively involved in the PPI formulation and the implementation of project activities as direct participants. This analysis will be based on environmental, productive, social, organisational and cultural criteria to identify a set of communities/communes on which to concentrate project activities through technical assistance and the introduction of some technological improvements.

172. The PPI will include a tool to analyse and map synergies and trade-offs in the provision of different ecosystem services related to the SLM activities to be implemented according to the plan. The process includes mapping land types and establishing the baseline for indicators relevant to the prioritized land management goals in order to provide the basis for the monitoring gains and losses, and progress towards the attainment of LDN in the intervention area. This tool will include the generation of alternative land-use scenarios and their impacts on key ecosystem services. The comparison between the current situation and the scenarios will lead to the identification of geographical areas where conflicts between land management objectives may occur, and opportunities to create land use trajectories that provide multiple benefits (i.e., synergies) (Goldstein et al. 2012; Locatelli, Imbach, and Wunder 2014). The analysis of synergies and commitments will include the definition of measures that can be implemented under different scenarios and that contribute to specific objectives (e.g., adaptation to climate change).

173. The PPIs will include zoning to suggest measures to prevent, reduce and reverse degradation. A technical and economic feasibility analysis of SLM practices will be a tool to guide decisions in the participatory plan and will be carried out as part of the participatory assessment of successful SLM practices (activity to be carried out in Output 1.1.2). In addition, a climate risks analysis in the context of each intervention site will be included in the PPIs so that adaptation and mitigation measures to address current and future climate change impacts can be identified and promoted.

174. The participatory exercise of the PPI will have a more effective outcome to the extent that it builds on an existing governance process or space, so a priority of the project will be to identify those governance spaces with which to articulate. If the governance space is weak, the project will focus its activities and strategies on strengthening it. If there are no governance spaces, the project will create a working group to articulate stakeholders with interest in territorial management and openness to promote a land degradation neutrality approach.

175. Finally, local governance processes will be strengthened through local organizational processes, articulated with the Capacity Strengthening Programme (Output 1.2.1). The local organizations will participate in activities and decision-making processes related to project implementation, to ensure the sustainability of the processes promoted by the project. At this point, the project will identify the necessary strategies to guarantee the organisational strengthening and effective participation of organisations linked to women and indigenous peoples. The process of strengthening governance and the development of the sub-national planning instrument will allow for the articulation of actors, planning instruments, efforts and resources between different scales, to maximize the success of the co-learning process and technology transfer, sustainable knowledge and practice, which is one of the barriers and challenges faced by this project.

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Output 2.1.2: Gender and intercultural-sensitive SLM/SFM practices implemented in the project intervention areas (ecosystems and productive landscapes), which restore vegetative cover, soil organic carbon, water regime and increase productive systems sustainability.

176. Sustainable land management (SLM) practices are geared towards agricultural production, restoration and conservation of forest and non-forest ecosystems, which can be integrated at the farm level and whose benefits can be scaled up to the landscape level. The practices include the hierarchical approach of preventing, reducing and reversing the impacts of land degradation. Among the practices that can be implemented in agricultural systems are those geared to diversification, integrated pest management, soil conservation, water management and harvesting systems, among others. Restoration-oriented practices in agricultural systems are mostly based on agroforestry and similar forestry techniques, while restoration processes in natural ecosystems include natural regeneration processes and assisted or active restoration. Conservation practices will focus on important remnants to maintain ecosystem functionality, including the establishment of water source conservation areas, maintenance and recovery of habitat connectivity, conservation of riparian vegetation, among others.

177. In addition, the local context will be considered, and efforts will be made to promote that SLM practices also contribute to climate change adaptation, especially where climate risks have been identified within the PPI (Output 2.1.1). In general, the objective is to encourage productive activities that enable long-term soil fertility, preventing erosion and degradation processes, that are efficient in the use of water resources, that achieve an increase in agro-biodiversity and its coverage by avoiding impacts on the surrounding ecosystem, that promote the restoration and conservation of natural cover and its biodiversity, and that increase resilience to climate change.

178. Appropriate SLM practices and systems will be selected and adapted to the specific biophysical and socio-economic conditions of land users through the design and implementation of farm plans. The selection and implementation of SLM practices will consider the results of the systematization of practices and successful transition processes (activity to be implemented in Output 1.2.1). The implementation of farm plans and SLM practices will include agreements with landowners and/or land users clearly committed.

179. The process of implementing SLM practices will be guided by criteria and/or principles such as the landscape approach, agro-ecological principles, ancestral knowledge and traditional practices, nutrient recycling and comprehensive diversification. In the social sphere, the participation of women, young people and indigenous peoples will be maximised, fostering social organisation and partnership as a mechanism for sustainability, and promoting decent work and employment.

180. Special attention will be drawn to gender criteria that promote the sustained participation of women in the project. For this purpose, the coordination and technical team will encompass the tools and criteria identified in the gender strategy. For example, at the social level, and considering the active role played by women in rural economies, the furtherance of SLM practices will consider labour-saving technologies that result in the reduction of women's working hours. Gender criteria will also be included in the design of farm plans.

181. The sustainability and success of SLM practices implementation will be fostered by linking farm labour to the incentives to be promoted in Component 3, including better access to key value chains and complementary incentives (Outputs 3.1.1 and 3.1.2). Efforts will be made to cover as many farms and actors implementing SLM practices as possible to improve the chances of long-term adherence.

182. To maximize the adoption of SLM practices and their successful implementation and sustainability, methodologies and processes based on peasant-to-peasant co-learning system will be used, maximizing the exchange of experiences and practice. This approach is intended to overcome another of the barriers faced by the project, which is the limited success in transferring sustainable practices and their lack of sustainability. Hence, successful experiences will be identified in the various SLM practices and processes, prioritizing the agro-ecological approach, which will turn into a co-learning space, empowering producers, motivating their active participation and self-recognition as actors and agents of their own change and with equitable participation of men and women. In addition, the project will analyse the use of women's time (through focus groups in the intervention sites), in order not to over burden their working day with the new activities proposed by the project. The involvement of young people will also be encouraged in the training workshops and in their role as promoters in this co-learning process.

183. The exchange of experiences will also be used to consolidate a local assessment system of the impact that the adoption of practices has had on the quality of life of families, on their food sovereignty, on natural and agricultural vegetative cover, biodiversity and ecosystem services, and on the resilience of rural communities. The aim is to produce evidence of the productive and social impacts of this process under a comprehensive approach. In addition to recognizing the benefits and impacts of adopting SLM practices, this participatory evaluation system aims to involve local actors so that, through a capacity development process, they become community promoters who can become more structurally involved in the evaluation process. The impact of these practices on ecosystem services and local livelihoods will be assessed, monitored and documented to provide a knowledge base for ongoing support services, further scaling up and reporting on LDN achievements.

184. Finally, a systematization process of lessons learned will be carried out, together with the systematization of SLM practices by site and articulated with UNCCD WOCAT platform (Output 1.2.1).

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<u>Component 3</u>: Fostering innovative incentive mechanisms to encourage the adoption of SLM/SFM practices in agriculture and forest landscapes

185. The actions of this component are focused on establishing mechanisms in favour of smallholders to create favourable conditions to overcome critical barriers in the adoption of SLM practices (e.g., lack of credit access, land tenure uncertainty, lack of information and knowledge, limited access to market through incentives that are part of value chains. Incentives will encompass a set of different instruments (e.g., tax, credit, property rights, etc.) to promote changes in the behaviour of agents (e.g.,

landowners or users). The aim is to encompass sustainable land management, in a comprehensive manner into value chains, through incentive mechanisms that can be promoted in coordination with national authorities, DAG or supportive actors. SLM incentives will be considered within the existing institutional and regulatory framework to further enhance their feasibility and promote their institutionalization. This includes working with existing incentive mechanisms such as Programa Socio Bosque (PSB) and other payment for ecosystem services (PES) initiatives to promote synergies in the three intervention sites. This will be done in coordination with productive associations, social organizations, marketing networks, and other public and private actors with supportive roles.

186. The GEF's incremental financing for Component 3 equivalent to USD 687,913 will be used for technical assistance to: 1) perform diagnosis on existing incentives identifying opportunities to promote SLM and value chains in the intervention sites; 2) design and implement financial and non-financial incentives according to producers? needs in the intervention sites; 3) capacity strengthening for incentives and value chains to promote SLM; 4) technical assistance to improve processes and management in value chains; 5) implementation of market access mechanisms; 6) promote strategic alliances for market access; 6) analysis of selected value chains through life cycle assessment.

187. Sources of co-finance for Component 3 will support 1) capacity building activities that support value chains that integrate sustainable production and ecosystem restoration (e.g., Andean Landscapes Project by FAO and Conservation and Sustainable Use of Mountain Ecosystems by GIZ), 2) complementary investments that promote access to markets under improved conditions by local producers in the three intervention sites, 3) promote the broader participation of local producers in the three intervention sites in existing incentive mechanisms (e.g. for forest conservation and restoration). The amount co-financed is 8,508,755 USD composed by:

? MAAE Will contribute 70,174 USD in kind.

? MAG will contribute 7,375,295 USD; 7,356,655 in kind and 18,640 in cash.

? FAO will contribute 675,000 USD in cash.

? GIZ will contribute 100,000 in kind.

? The REM Program will contribute 200,000 USD in kind.

? The Province DAG of Manabi will contribute 8,186 USD in kind.

? The Province DAG of Chimborazo will contribute 50,000 USD in kind.

? The Province DAG of Imbabura will contribute 100,000 USD in kind.

? CONDESAN will contribute 30,100 USD; 7,000 in kind and 23,100 in cash.

Outcome 3.1: Actors in selected value chains include the SLM approach to enhance resilience and generate socio-economic benefits based on incentives and improvements in market access mechanisms.

GEF Indicator #11: Number of direct beneficiaries disaggregated by sex as co-beneficiaries of GEF investment.

Baseline: 0

Targets: At least 1,000 people (500 women and 500 men) have implemented on-farm SLM practices and their full impact has been assessed.

At least 480 people with strengthened capacities in LDN (disaggregated by sex and ethnicity)

Project Indicator #12: Better smallholders? income from SLM/SFM practices and incentives.

Baseline: To be defined in year 1.

Targets: At least 10% income increase of smallholders who have included SLM.

Output 3.1.1: Designed and operational mechanisms and institutional arrangements for the implementation of incentives to promote the adoption of SLM/SFM, mainstreaming gender and interculturality.

188. In order to support the adoption of SLM practices with a broader and more comprehensive approach, this output will start from the feasibility analysis of various types of incentives leading to a sustainable implementation, according to producers? needs in the intervention sites. To this end, project staff will update the diagnosis of existing incentives in the intervention sites, identifying opportunities to promote SLM and CC.

189. During the formulation phase, several incentives that create job opportunities for the project were identified. It is worth mentioning that in this output, market access incentives will not be addressed, as they will be covered from Output 3.1.2 on, with a value chain approach for SLM. The most relevant incentives to promote SLM and which implementation will depend on the findings in the intervention sites derived from the start-up diagnosis are described below:

a. *Support for the regularisation of property* in contexts where specific investments within the project's timeframe are capable of unblocking procedures for access to land (e.g., updating of the property in municipal cadastres). The information gathered during the farm plans design (Output 2.1.2)

could be articulated as an input to land tenure regularization programmes led by the DAG at the local level. Upon agreement with landowners, specific inputs will be provided to facilitate the process (e.g., property georeferentiation). In addition, the project will develop training processes aimed at increasing producers' knowledge on property rights and land tenure, and in coordination with local governments, information will be provided on property regularization procedures, with especial emphasis on women?s participation. Collaboration will be provided to relate the communities with the MAG programme for land allocation, or with financial entities which can channel resources to organisations for the procurement of productive land (such as Banco Codesarrollo).

b. *Tax benefits* for those who promote conservation and SLM activities. For example, tax exemption to rural land in farms that promote forest cover conservation. This implies submitting concrete proposals to the DAG that may have technical and, above all, political support to operationalize concrete benefits already established in the regulatory framework.

c. *Access to credit* to support the adoption of SLM/SFM practices. In the design phase (PPG), pilot experiences that can be adapted and replicated were identified (e.g., Climate-Smart Livestock Project), as well as public and private banking institutions and from the popular and solidarity financial sector that have made incursions into sustainable financing. Cooperation agreements will be sought with the institutions selected to develop financial products that can be oriented towards SLM practices mainstreaming a gender approach. For example, work opportunities have been identified with BanEcuador to design a specific financial product for LDN, taking advantage of its competitive lending rate and previous experience in designing a sustainable product with FAO. Banco Pichincha, with its product Biocr?dito Productivo (Productive Biocredit), is another alternative to be analysed. Alternatively, a financing mechanism can be promoted through second-tier financial organisations to channel funds through specific target groups or develop agricultural insurances in high climate risk contexts (taking as a reference local initiatives such as the ProCambioII project of the German Corporation for International Cooperation-GIZ). In addition, the establishment or strengthening of community savings banks will be assessed to promote investments in LDN that require smaller amounts. In all cases, once the project has started, it will be necessary to assess the partner given the existing macro-economic conditions, and the mechanism or product can best meet the needs and characteristics of the producers in the intervention sites. Whatever option is adopted, care will be taken to ensure that the products designed remain available after the project.

190. To support the implementation of this type of incentive, the project will generate guidelines, tools and inputs to promote linkages between the proposed incentives and implemented SLM practices (Output 2.1.2). For example, clear criteria will be established for the characterization of farms and guidelines for their comprehensive management, which can be a key input to facilitate the credit granting process through the definition of indicators to measure their impact. As regards tax benefits for SLM or support for land tenure regularization, the use of farm plans can be included (Output 2.2.1), as part of local sustainable management agreements that support the implementation of such incentives.

191. The project will work in coordination with relevant public entities and the DAG, promoting cooperation agreements with the private sector and other local actors to enhance incentives. Efforts will be made to articulate incentive proposals with ongoing initiatives, including water funds and local conservation areas. This, in addition to being platforms for actors interested in participating in incentive

schemes, may become a strategy to contribute to the long-term financing of actions favouring SLM/SFM and to encourage innovative mechanisms sustainability.

192. Training on LDN and SLM will be implemented as part of the Capacity Strengthening Programme designed in Output 1.2.1. This will seek to empower producers and their organizations, to facilitate access to key information and knowledge, and to encourage the implementation and replication of sustainable practices. For example, financial training on farm management will be offered to producers, so they can make a better use of credits, and the participation of women, who usually have less access to finance, will be promoted. In the same vein, work will be undertaken with MAG's Undersecretariat of Peasant Family Farming (SAFC, acronym in Spanish), which provides an alternative approach on extension and training on comprehensive farm management; this includes coordinated work through Learning Communities and training programme and the development of business plans for diversified farms.

Output 3.1.2: Designed and operational mechanisms and institutional arrangements to improve market access for smallholders (men and women) that are part of the SLM approach into the selected value chains.

193. Access to differentiated markets and improved livelihoods are critical to encourage long-term adoption of SLM practices. This product aims at strengthening existing sustainable value chains in the intervention areas so that smallholders may add more value, establish long-term business relations and contribute to providing decent rural employment opportunities, thereby promoting economic recovery at the local level, one of the priorities in the face of the health crisis caused by COVID-19.

194. During the project design, several value chains were identified directly connected with land use and management decisions at the intervention sites. For each of them, an exercise was carried out to identify those with potential to favour SLM and LDN in the project intervention sites. The criteria used were: i) number of potential beneficiaries, ii) women's participation, iii) opportunities to include SLM practices, iv) relevance to the family economy, v) value addition, vi) co-financing opportunities, vii) market potential and viii) impact of the pandemic. Based on these criteria, there are four prioritised value chains: agro-ecological fruits and vegetables (in the northern highlands, the central area and the coast), milk/dairy products (in the central highlands), honey (on the coast) and coffee (on the coast and the northern highlands). In addition, an economic feasibility analysis was carried out which demonstrates the opportunities for greater socio-economic benefits by strengthening management and promoting the four prioritised value chains. It should be noted that the agro-ecological fruit and vegetable chain is the one with the highest value due to its potential to contribute to household food security, one of the work priorities in the crisis by the COVID-19 pandemic in Ecuador. Additionally, at the beginning of the project implementation it will be necessary to explore and assess specific value chains to the intervention sites, linked to market niches and whose management is compatible with the LDN approach, such as guadua cane, legumes, agave, opuntia, alpacas, among others.

195. During this phase (PPG), initiatives/partnerships have been identified which are operating in the project intervention sites in an articulated manner with strategic local actors (e.g., MAG, DAG, support NGOs). Given the mobility constraints arising from the health emergency of COVID-19, the local project initiatives will be defined during the project start-up phase. It is recommended that the selection

of initiatives considers the following criteria: i) Stage (i.e. prioritizing work with ongoing initiatives; especially those with equipment and infrastructure); ii) Link to support processes (i.e. initiatives that are part or have been part of productive projects of ministries, DAG, or conservation projects); iii) Initiatives led by women and that promote youth participation; and iv) Initiatives that generate local linkages (e.g. which demand local raw materials and inputs).

196. In order to create synergies for the benefit of the value chains, actions will be coordinated with the ministries, local governments, NGOs, private sector, and other stakeholders working in the area, promoting spaces for collaborative work. As regards milk/dairy, coffee and honey value chains, the project will work directly with producer associations (at least two per site) to strengthen their organisation and provide technical assistance to improve the processes and management of the selected value chains. In the agro-ecological fruit and vegetable value chain, robust support programmes have been established in the last decade that have promoted alternative marketing systems, led either by the MAG's Undersecretariat of Peasant Family Farming, DAG (e.g., PDAG Santa Elena, PDAG Pichincha) or second tier organisations (e.g., Union of Peasant and Indigenous Organisations-UNORCAC in Imbabura, Union of Agroecological Producers and Associative Commercialization-PACAT in Tungurahua). As regards this chain, the project will work hand in hand with these stakeholders (at least 1 per site) aimed at strengthening marketing strategies to support the generation of socio-economic benefits aligned with the LDN approach.

197. Support will be given to strengthening community business centres as an associative business model that facilitates producers' access to better inputs (e.g., seeds, support services) through direct negotiation with suppliers. Underpinning community business centres can provide concrete benefits (e.g., lower costs) and facilitate access to inputs produced by local producers (e.g., biols, organic fertilizers) for the adoption of SLM practices. The project could collaborate with part of the seed capital to purchase inputs, strengthen management capacities, and encourage the participation of young people and women in the management process. In addition, bidding funds will be available for the procurement of minor equipment and/or the implementation of initiatives that can add value with low investment requirements.

198. The project will foster strategic partnerships to improve market access. The project will prioritise work with fair trade organisations and anchor companies, which because of their nature seek to cause triple impact. In this sense, cooperation agreements will be promoted with organizations (such as FEPP Camari, Fundaci?n Maquita and Fundaci?n COPADE), and long-term commercial links will be fostered with companies, in pursuance of high value capture for producers.

199. As part of local and national strategies to support SLM value chains trading, producers will relate to the alternative marketing circuits of MAG's SAFC, and, in localities where these spaces do not exist, they will relate to other actors. Local agro-ecological fairs and baskets will be strengthened to improve agri-food systems resilience. Promising market access mechanisms will be assessed, such as the PFF seal for agro-ecological production, existing certifications such as organic, or others under development (such as free of deforestation certification). To strengthen the initiatives promoted by the project, through business networking events of the value chains promoted by the project (1 per site), technical accompaniment and support from mentors, and the development of a products catalogue that favour LDN. Together with component 4, a campaign to position LDN and SLM will be promoted to

encourage responsible consumption and supply. In addition, export opportunities for chains with high production volumes or opportunities for outsourced processing with companies or initiatives with installed capacities will be analysed.

200. Through this output, capacity strengthening activities (linked to Output 1.2.1) will be implemented under the value chain and SLM approach. Local capacities for value chain management will mainstream gender, market and fair trade approaches. Likewise, training activities will consider the effects of COVID-19 pandemic, helping to identify opportunities for producer associations and networks in terms of changing consumption habits (e.g., distribution channels) and local preferences (e.g., products with territorial identity).

201. In addition to supporting the adoption of SLM practices (Output 2.2.1), the project can support productive organizations with sustainable production guidelines to minimize environmental impacts along the chain, such as efficient energy and water consumption, waste reduction, minimal use of packaging or use of sustainable packaging, transport optimization, etc. At the end of the project, through life cycle analysis (supported by tools such as EX-ACT VC or similar), the impact on at least one value chain with SLM practices will be assessed.

Component 4: Project monitoring, evaluation and lessons learned

202. The objective of Component 4 is to monitor and assess the project's progress, compliance with indicators, monitor risk mitigation measures and identify new measures to address unforeseen risks, and to draw lessons learned (including success and failure) resulting from the project's implementation that will be disseminated throughout Ecuador, the region and the rest of the world, and that will serve for projects to be implemented in similar regions.

203. The incremental GEF funding of USD 371,404 will be directed to M&E activities including monitoring of project progress and compliance with indicators, mid-term and final external evaluations, development of a communication strategy, project systematisation, preparation and dissemination of knowledge products actions aimed at mainstreaming the gender approach in the project.

204. Sources of co-finance for Component 4 will support M&E activities, communication of partial and final products and results with the goals of strengthening capacities of stakeholders operating at different scales and promote widespread adoption of the LDN approach and related practices implemented through the project. To this end, it is expected a co-financing amount of 245,471 USD composed by:

? GIZ will contribute 100,000 in kind.

? The REM Program will contribute 50,000 USD in kind.

? The Province DAG of Manabi will contribute 15,971 USD in kind.

? CONDESAN will contribute 79,500 USD; 53,852 USD in kind and 25,648 USD in cash.

Outcome 4.1: Knowledge management, M&E and disseminated lessons learned

Indicator: Project outcomes achieved and proving sustainability

Baseline: 0

Target: 100% of outcomes achieved. Proven sustainability.

Output 4.1.1: Mid-term review and final evaluation carried out

205. When project implementation reaches 50%, a mid-term review will be carried out by an external consultant, who will work in consultation with the project team including the FAO-GEF Coordination Unit, the Lead Technical Officer (OTL) and other partners. It will include field visits to selected sites and consultations with local stakeholders and national project partners to allow for any necessary adjustments to the results framework or planned activities. In accordance with FAO's policy on evaluation, the FAO Office of Evaluation (OED) will conduct a final evaluation of the project, which will start within six months of the project deadline (2025). Its objective will be to identify the achievements of the project, its sustainability and its real or potential effects. It will also be intended to indicate future measures necessary to ensure the continuity of the process developed through the project. The FAO Office of Evaluation will carry out the evaluation in consultation with the project stakeholders and the donor, and share with them the evaluation report, which is a public document.

Output 4.1.2: Overall environmental benefits, co-benefits and costs of SLM/SFM monitored, assessed and lessons learned from the project analysed

206. The Project Implementation Unit (PIU) (see Section 6 on implementation arrangements) will be responsible for: implementing the M&E plan including the inception workshop; annual progress review workshops and preparation of the annual work plan and budget; monitoring project activities, outputs and outcomes and indicators; risk monitoring and mitigation measures; completion of the GEF Indicator Sheet at mid-term and end of the project; monitoring of the gender action plan, and the stakeholder participation plan.

207. The National Project Coordination (NPC) will prepare the Project Progress Report (PPR) every six months. The PPR includes the project outcomes framework with the relevant outcome and output indicators, baseline and six-month targets, monitoring of the risk matrix, and will identify potential risks and mitigation measures to reduce unforeseen risks. At the end of each year, the NPC will provide inputs to the LTO-FAO to prepare the Annual Project Implementation Review (APIR). The APIR includes the project outcomes framework with the relevant outcome and output indicators, baseline and annual targets, monitoring of the risk matrix, and will identify potential risks and mitigation measures to reduce unforeseen risks.

208. The M&E System will record sex-disaggregated data, which may include, for example, the number of women trained and their satisfaction with the methodology and quality of the training; the number of women participating in the project planning, consultation and validation processes of on-site

interventions; number of women participating in the implementation of participatory plans and adopting SLM practices, who participate in experience-sharing activities; undertakings led by women beneficiaries; level of improvement in women's incomes and livelihoods; level of women acceptance of project proposals and outcomes, as well as level of compliance with activities and budget allocated for the incorporation of women.

Output 4.1.3: Knowledge management outputs, developed and disseminated.

The project will prepare a knowledge management plan focused on LDN and SLM, which will be implemented through dissemination products (audiovisual, printed materials, website) followed by knowledge and communication products in LDN and SLM practices that can be applied to achieve LDN at local and national level. Knowledge products will include technical documents on: i) Synthesis of LDN knowledge at national level (1.1.1), ii) LDN Baseline (1.1.1), iii) Synthesis of SLM practices at national level (1.1.2) including systematization of ancestral knowledge and practices, iv) Analysis of technical and economic feasibility (1.1. 2), v) Land Degradation causes (1.1.3), vi) SML policy and regulatory analysis at national and site levels (1.3.1), vii) Economic valuation scenarios for SLM (1.3.2), viii) Mapping tool for synergies and land use commitments (2.1.1), ix) Mapping of available incentives for SLM at national/subnational level (3. 1.1), x) Participatory impact assessment of SLM practices (2.1.2), xi) Systematization of lessons learned on SLM implementation at sub-national level (at least 40% of lessons include learnings that represented changes for women) (2.1. 2), xii) Update of SLM portfolio in WOCAT with emphasis on women-led practices and ancestral knowledge and know-how, xiii) Value chain analysis through life cycle assessment, xiv) Update of SLM portfolio in WOCAT, and xv) Value chain analysis through life cycle assessment. Methodological guidelines for the implementation of the LDN approach at different scales (landscape/country) will also be published, lessons learned from the project will be disseminated, and a Policy Brief on LDN in Ecuador will be prepared.

209. Knowledge outputs will be produced in appropriate formats and in a language adapted to the different project audiences, such as decision makers, technicians, and communities. The project website will be linked to FAO, MAAE, MAG and other partner organizations? web platforms with the aim of providing continuous and updated information on project progress to the various actors and partners as well as to the public. It will be regularly updated to share experiences on an ongoing basis, disseminate information, draw up policies and highlight outcomes and progress and facilitate the replication of processes throughout the entire project.

210. The gender approach will be an important part of the knowledge outputs generated by the project, covering, for example, experiences in gender mainstreaming; successful cases of women implementing gender-sensitive SLM practices (e.g., labour-saving practices), women benefiting from incentives, and women-led organisations with access to market; tools used for gender mainstreaming throughout the project cycle, and others identified during implementation.

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Output 4.1.4: Communication strategy developed and implemented to support the expansion of SLM/SFM to achieve LDN targets.

211. As this is a new issue for the country, the project will develop and implement a communication strategy that supports the positioning of the project, its outcomes and LDN activities aimed at the implementing partners and institutional and community actors at national and sub-national levels who participate in the project and are beneficiaries of the same.

212. This strategy will include a logo, emblematic images, and campaigns or events at the national and local level to position important concepts and ideas on LDN, SLM and their contribution to improving climate resilience among national and local actors, producers and consumers, especially in the project intervention areas. The strategy will include the dissemination of technologies and approaches on the WOCAT platform and in the resources available for the project, as a key tool to improve the knowledge on SLM and LDN. Likewise, the preparation and dissemination of the national PRAIS report and support to the working groups will be led by the project together with MAAE and MAG.

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

213. The project will contribute to developing an enabling environment to define LDN objectives and promoting the implementation of transformative LDN initiatives and integrating LDN into national policies and planning processes; maximizing the implementation of SLM practices in prioritized sites through a participatory planning space and facilitating governance and participation conditions for this purpose; and implementing innovative incentive mechanisms that promote medium and long-term adoption of SLM/SFM practices by small-scale producers; and generating socio-cultural, economic and environmental benefits. It is therefore consistent with the GEF criteria and is aligned with the Land Degradation Focal Area and the following objectives and entry points.

214. Component 1 *Strengthening enabling environment for LDN implementation and monitoring* and its relevant outcomes are aligned with Objective LD 2: *Create enabling environments to support field SML implementation and achieve LDN*, and its entry point LD 2-5: *Creating enabling environments to support the scaling and integration of SLM and LDN.*

215. Component 2 *Demonstration of the LDN approach to promote resilient livelihoods and SLM/SFM practices in prioritised landscapes* and its relevant outcome is aligned with Objective LD 1: *Support for field SLM implementation to achieve LDN* and its entry points: LD 1-1: *Maintain or improve the flow of agro-ecosystem services to sustain food production and livelihoods* through *Sustainable Land Management (SLM),* LD 1-2 *Maintain or improve the flow of ecosystem services including sustainable livelihoods of forest dependent populations through Sustainable Forest Management (SFM), and LD 1-3 Integrated Landscapes: Reduce pressures on natural resources from competing land uses in the wider landscape.*

216. Component 3 *Promoting innovative incentive mechanisms to encourage the adoption of SLM/SFM practices in agricultural and forest* landscapes and its relevant outcomes are aligned with

Objective LD 1: *Support for field SLM implementation to achieve LDN* and its entry points: LD 1-1: *Maintain or improve the flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM*) and LD 1-2 *Maintain or improve the flow of ecosystem services including sustainable livelihoods of forest dependent populations through Sustainable Forest Management (SFM), and LD 1-3 Integrated Landscapes: Reduce pressures on natural resources from competing land uses in the wider landscape.*

217. GEF funds under Objective LD 1 will be used to strengthen national and local capacities to scale sustainable land management practices towards crops, grazing and forest lands, supported by participatory landscape planning and monitoring of multiple socio-economic and environmental benefits in priority landscapes as a basis for replication at the national level and to create a dynamic knowledge system. GEF funds under Objective LD 2 will be used to develop policy, legal and institutional mechanisms, to improve understanding of drivers and tailored solutions to manage increasing pressures on limited resources. Also, to integrate the LDN hierarchy to (i) prevent degradation (ii) reduce degradation (iii) restore degraded land in national programmes and strategies, and to set national objectives and monitor progress.

5) Rationale for incremental/additional costs and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

218. Through the incremental GEF assistance, the project will support Ecuador in removing the identified barriers to achieve LDN through an integrated landscape approach at the policy, sustainable practice and market access levels. This will be done along the following lines: 1) strengthening enabling environment and capacities at national and sub-national levels for LDN target setting and monitoring; 2) demonstration of LDN approach to promote sustainable livelihoods and SLM/SFM practices in prioritized landscapes; and 3) promoting innovative incentive mechanisms to encourage the adoption of SLM/SFM practices in agricultural and forest landscapes.

219. The establishment of LDN targets is a new and complex objective that requires GEF support. These lines of action are not being sufficiently addressed by the baseline initiatives and will contribute to the removal of significant barriers. Without the project, MAAE and MAG actions would be dispersed and, in some cases, contradictory at the local level. The LDN requires a landscape approach that considers productive land and conservation areas to obtain adequate outcomes with local participation, SLM tools and planning schemes.

220. Component 1 will address barriers 1, 2, and 3. To remove barrier 1, GEF incremental funding will be used to generate information and apply scientific tools to assess the impacts of SLM/SFM practices on tropical ecosystems, and the generation of LDN data for the country's goal-setting process. National and local institutions will understand the synergies between biodiversity, carbon, water, climate change and how local livelihoods are affected or benefited by SLM practices. To remove barrier 2 the project will support capacity building for establishing, implementing and monitoring LDN targets and establishing a decision support system for LDN target setting. To remove barrier 3, GEF resources will support the integration of LDN into national policies and international commitments, and a National

Action Plan for LDN, which will set out the steps and activities to achieve the targets and indicators in synergy with other national commitments (e.g., NDC, biodiversity, food security, poverty reduction).

221. Component 2 will contribute to the removal of barrier 4 through the strengthening of agricultural extension services as a strategy to integrate and promote SLM and SFM practices and contribute to the transformation and sustainability of agricultural systems; and promote SLM and SFM practices in prioritized landscapes with the aim of generating global environmental benefits, in terms of improved land cover, soil carbon and productivity.

222. Component 3 will address barrier 5 being the GEF incremental funding aimed at defining incentives and mechanisms to strengthen the implementation of SLM/SFM practices among beneficiaries, local actors, financial institutions and associations; as well as improving market access for producers living in the project intervention areas.

223. In Component 4, the incremental funding will be used to conduct mid-term and final evaluations, monitoring the Global Environmental Benefits and SLM/SFM benefits and costs; develop and disseminate knowledge management products; and develop a communication, information and dissemination strategy, to share experiences and learn from successful lessons at local, regional and national levels.

224. The co-financing resources, totalling 28,128,787 USD, comprise cash and in-kind contributions. MAAE will provide co-financing through recurrent public investment within the SUIA and the NFMS. Through its programme Financial Instruments and Land Use to Reduce Emissions of the Deforestation Programme, MAAE will provide planning management tools and a forest monitoring system that is an essential source of information for the definition of LDN objectives. Co-financing will also be provided through the REDD Early Movers (REM) Programme, National, and the National Forestry Restoration Programme (NFRP), . The MAAE and INAMHI will adapt the Agricultural Stress Index System to contribute to the monitoring of drought as a land degradation factor. FAO will provide co-financing amounting to 3,175,000.

225. Similarly, MAG will provide co-finance trough the engagement of its staff in the Undersecretariat of Peasant Family Farming, the Undersecretariat of Agricultural Production, and the Coordination of Agricultural Policies Analysis and Studies and trough extension activities by staff in its District Offices. Important co-finance sources come from the projects DINAMINGA, SIGTIERRAS and SIPA.

226. Considering the significant contributions of the project's co-financing partners, the GEF resources equivalent to USD 4,416,210, will be used, as planned, to develop the enabling environment to advance towards LDN in Ecuador, thereby providing significant global environmental benefits. GEF financial resources will be added to the investments currently being made by the project partners, and therefore the project is considered fully incremental.

6) Global Environmental Benefits (GEFTF) and/or Adaptation Benefits (LDCF/SCCF)

227. The project will generate benefits for the global environment, consistent with national development priorities and long-term sustainability because of the local and regional benefits it will

generate in terms of improved livelihoods, cultural assertiveness and environmental sustainability. These multiple benefits at various levels will be achieved through enhancing capacities for LDN; strengthening inter-agency coordination, capacity development and support for LDN integration; information generation and use of scientific tools to assess the impacts of SLM/SFM practices, and generation of data on LDN; furtherance of SLM/SFM practices that contribute to the transformation and sustainability of agricultural systems; incentives and value chains that support the implementation of sustainable practices.

228. In particular, the main expected benefits for the global environment from the project are:

•2,000 hectares of forest restored to maintain ecosystem services (GEF Indicator #3.2).

•2,000 hectares of paramo and shrub ecosystems restored to maintain ecosystem services (GEF Indicator #3.3).

•4,750 hectares of landscapes under SLM in productive systems (GEF Indicator #4.3).

•20,000 hectares of high value forest conserved (GEF Indicator #4.4).

•The project activities will create global environmental benefits in the following main LDN indicators: i) Land cover and land use change, reflected in the impacts previously described and related to restoration, conservation and sustainable production practices in productive landscapes; ii) Soil organic carbon; from the implemented SLM practices monitoring, it is expected to obtain a better empirical base to estimate the project impact. The evaluation will be carried out as part of the on-site practice monitoring and validation towards the end of the project. The project's contribution in terms of avoided emissions is estimated at 9?596,730 tCO2e.

•Integration of SLM and LDN considerations into national policies and sub-national land planning instruments (e.g., MAG's PMPCRS and PDOT, Land Use Regulations, and participatory DAG budgets in intervention sites).

•Enhanced capacity of 700 people (362 men and 338 women) to implement gender sensitive SLM practices that restore vegetative cover, soil organic carbon, water regime and increase the sustainability of production systems. Also, for the implementation of value chains and market access, which improve their income by 10% over the baseline (to be established in year 1).

•4,750 people (2,000 women and 2,750 men) directly benefited from the project's actions in intervention sites (GEF Indicator #11).

229. The project will also contribute to the Sustainable Development Goals, especially Goal 15: *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss* and its target 15.3: *By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.*

230. The project will contribute to Goal 2: *End hunger, achieve food security and improved nutrition and promote sustainable agriculture* and its target 2.4: *By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.*

231. Finally, the project will contribute to Goal 13: *Take urgent action to combat climate change and its impacts* and its targets 13.1: *Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries,* and 13.2: *Integrate climate change measures into national policies, strategies and planning.*

7) Innovation, sustainability, potential for expansion and capacity development?

232. The project has been designed to remove the barriers identified by providing an enabling environment to move towards LDN. In this way, socio-cultural, environmental and economic benefits will be generated for local and regional actors, thus ensuring the sustainability of outcomes and the replication of experiences and lessons learned, while reducing and reversing land degradation in Ecuador. It is expected that, from year four of the project, the institutions, communities and actors involved will be able to give continuity to the activities undertaken by the project. The factors that will favour sustainability in its social, environmental, economic and capacity development dimensions are detailed below.

7.1 Social Sustainability

233. The social sustainability of the project outcomes will be achieved through the implementation of a landscape approach to prevent, reduce and reverse land degradation, the benefits of which will lay the foundations for social sustainability through sustainable and resilient land management. The implementation of the project will include defining factors that ensure social sustainability.

? **Capacity Development** (see 7.4 below)

? **Gender mainstreaming and cultural relevance at institutional and community level.** A gender analysis was carried out in the project preparation phase to identify the extent of women's participation and their roles in agricultural work, as well as gender gaps and barriers to participation. It was found that although women play an active role in agricultural production, they still face barriers in access to and control of land, in decision-making, in access to benefits (credit, training) and to work under decent conditions (remuneration, social security). This diagnosis served as the basis for the preparation of a Gender Action Plan, which contains the specific strategies to remove the barriers identified and will be the tool for mainstreaming gender issues in all project components (see details in Section 3 and Annex M).

The project will encourage the participation of women in all its activities, while promoting greater awareness of the problems affecting rural women farmers among national and local public institutions, social organizations and various entities that will be linked to its implementation. The project will pay special attention to: i) promoting the participation and representation of women in decision-making processes related to the project (stakeholders, community assemblies, etc.); ii) ensuring that training/dissemination and information materials developed by the project mainstream gender approach; iii) ensuring that the activities performed do not result in an increase in women's workload, which implies promoting the use of labour-saving technologies and tools, as well as taking into account the distribution of women's time; (iv) equal access for women and men to the adoption of new skills, knowledge and abilities, with at least 40% participation by women; (v) promoting direct participation of women in the development of productive activities vi) training women promoters for local capacities transfer; vii) promoting women producers and women?s led organizations access to incentives and market; viii) the collection of information disaggregated by sex, in order to monitor the participation of women and men; and ix) the process of documenting lessons learned, recording and publicizing women?s role and contribution to the implemented activities.

The indigenous peoples are present throughout the project's area of intervention and will also be beneficiaries of the project's implementation. To this end, together with the indigenous organisations representing the parishes, it will be selected where the project will concentrate its actions (cabildos, parish boards, communities or communes), areas of intervention in which the population's capacities to apply sustainable land management practices will be strengthened. In all cases, prior to the implementation of activities, free, prior and informed consent mechanisms will be put in place to guarantee respect for the collective rights of indigenous peoples and agreements for the implementation of the project (see Annex J).

The Results Framework in Annex A1 includes gender-sensitive indicators. Gender considerations and cultural relevance were reviewed in the project's Environmental and Social Analysis.

? **Food security**, considering that the proposed actions in favour of reducing land degradation such as the design of SLM practices, financial and non-financial incentive mechanisms to promote SLM, the strengthening of agro-ecological fruit and vegetable, milk/dairy, honey and coffee value chains and better market access, will improve food supply and thus contribute to local and national food security through better physical, social and economic access to secure and nutritious food and the availability of agricultural products to meet populations nutritional requirements and food preferences.

? **Ownership of the project processes by local institutions, producer associations and communities in general** (see 7.4 below)

7.2 Environmental sustainability

234. Environmental sustainability (including adaptation and resilience to the effects of climate change as a co-benefit) will be secured through the implementation of the LDN approach which is the core element to the project's intervention strategy. Achieving LDN implies acting on multiple land uses, at different scales and involving different actors under a landscape approach that allows preventing, mitigating and reversing land degradation. By adopting the LDN approach, the project will promote the integration of SLM tools and practices in different areas (e.g., conservation, restoration and sustainable use of agrobiodiversity).

235. One of the elements that will help environmental sustainability will be to build on previous success and demonstrate practices that generate greater synergies and co-benefits, which will serve to promote the adherence of actors to common objectives such as the conservation of water sources. In this way, it will be possible to promote the articulation and combination of efforts in the conservation of biodiversity, water sources, the reduction of land degradation and the mitigation of and adaptation to climate change.

236. Capacity building in terms of LDN and SLM approach will empower institutional and local actors (land users, producers, communities) to support the activities to be implemented in the intervention sites, thus providing continuity to these actions and ensuring long-term sustainability. The integration of SLM practices, incentives and value chains that enhance SLM, the improvement of management capacity by producer organizations for marketing under a LDN approach, territorial sustainability and resilience, will result in increased sustainability of ecosystem services and income stability of agricultural producers. The communication strategy will raise awareness of the importance of SLM and LDN in reducing and reversing land degradation. This will contribute to environmental sustainability, to the maintenance or improvement of livelihoods, productive means and other sources of income.

7.3 Financial and economic sustainability

237. The financial and economic sustainability of the project activities will be achieved to the extent that these activities are financially and economically feasible for the parties involved, including the producers and their families, organisations and communities. Capacity building of producers together with investments promoted by the project in participatory schemes, SLM practices, incentives and value chains will result in increased sustainability of agricultural activity and income stability for producers and families, thus ensuring sustainable livelihoods.

238. The public sector has various financial and non-financial incentive mechanisms (e.g., credits, tax exemptions) with which the project will work to strengthen and channel investments to the areas of intervention, making such incentives available to the beneficiaries to promote the adoption of SLM practices. Market access incentives (e.g., support to alternative marketing circuits) will help to eliminate barriers to the adoption of practices and generate economic benefits for producers. This will ensure the continuity of funding and its orientation towards those aspects relevant to SLM.

7.4 Sustainability of developed capacities

239. Capacity development represents one of the essential pillars for ensuring the sustainability of the project both at the level of the intervention areas and in the institutional environment. It was conceived as cross-cutting to the components of the Project, as it is part of the relevant outcomes. The project will address two dimensions of capacity development according to the approach developed by FAO with respect to sustainability: i) individuals (producers, family and community members, women and indigenous peoples); and ii) public, private, national and sub-national institutions. Interaction between local actors and national and sub-national government institutions will also be addressed.

240. The project will strengthen institutional capacities to create an enabling environment for promoting SLM and achieving LDN. Strategies include strengthening: i) capacities linked to monitoring indicators for national reporting within the framework of existing intersectoral workspaces; ii) coordinated work between institutions devoted to productive development and environmental conservation; and iii) the establishment of SLM Observatories at the sub-national level that will act as promoters of research, monitoring and capacity strengthening programmes at the sub-national level.

241. The effective connection of information systems with decision-making processes and land planning (articulated towards multi-actor/multi-level governance processes) will underpin existing co-management models, so that the capacities generated can have real possibilities of continuity within the ongoing sub-national initiatives. The linkage of LDN monitoring systems to national reporting processes and on a consensus not only on methodology but also on institutional arrangements, is a design element that anchors the monitoring process with a medium- and long-term country vision.

242. Coordinated work is essential to the implementation of an LDN strategy, both at the national level and in each intervention site. Hence, the project will propose institutional innovations that promote vertical and horizontal cooperation. Common work agendas will be developed with stakeholders and coordination instances will be established, defining roles and responsibilities to promote cooperation between sectors, both within the institutions themselves (e.g., DAGs Divisions) and among institutions.

243. At the national level, this coordination will be promoted through established intersectoral platforms. At the sub-national level, joint work will be promoted with the DAGs, local stakeholders, indigenous peoples' organizations and associations, in coordination with MAAE and MAG technicians in the territory, within multi-actor/multi-level governance platforms (e.g., Geopark or Protected Area Management Committees, Conservation and Sustainable Use Areas, or Local Government Consortia/Communities) as a strategy to leverage co-management between actors. To promote joint work schemes, the demonstration and systematisation of DAG positive experiences (e.g., Imbabura or Santa Elena) will be encouraged to facilitate the construction of joint agendas. The coordination and definition of agreed agendas are key elements for the sustainability of the project's actions, as they will project work beyond the periodical change of authorities. The strengthening of national and sub-national governance mechanisms, which will ensure that an LDN approach is maintained, is a contribution to sustainability from the institutional point of view. The integration of the LDN approach into national and sub-national public policy will result in a National LDN Action Plan that will be in place after the project's conclusion.

244. The SLM Observatories will play a key role in promoting and integrating scientific research carried out by local universities with the follow-up and monitoring processes of implemented practices

and will facilitate the systematization and dissemination of available local information and improve the implementation capacity of follow-up and monitoring practices. In addition, they will be linked to governance platforms and ongoing local initiatives (e.g., water funds, associations), so that the inputs generated can assist planning, decision making and mobilisation of investments towards SLM. This work at different levels/scales creates opportunities for scaling and replication.

245. At the beneficiary level, the project will strengthen capacities through: i) exchange of experiences under the Peasant-to-Peasant model, investing in the consolidation of local promoters, and ii) strengthening partnerships and capacities to develop/consolidate market access mechanisms for sustainable value chains.

246. The project's communication strategy will support capacity development across the entire project by raising awareness and helping to disseminate the project's key messages regarding land degradation, SLM and LDN. The systematization of lessons learned will also contribute to the sustainability of the capacities to be installed.

7.5 Appropriate and cost-efficient technology

247. The project will promote proven and cost-effective strategies. These strategies include: i) promote SLM/SFM practices (e.g. diversification, integrated pest management, soil conservation, water management and harvesting systems, agroforestry, analogous forestry, natural, assisted or active restoration) that enable long-term soil fertility by avoiding erosion and degradation processes, are efficient in the use of water resources, increase agrobiodiversity and its cover by avoiding impacts on the surrounding ecosystem, and promote the restoration and conservation of natural cover and its biodiversity; ii) tax, credit, property rights and other incentives that promote medium and long-term adoption of SLM/SFM practices, to foster behavioural changes of landowners or users; and iii) integrate SLM into value chains and foster access to markets, improving livelihoods to encourage long-term adoption of SLM practices.

248. Training and technical assistance methodologies currently used by FAO (peasant to peasant learning, exchange of experiences), methodologies that are known and accepted by technicians and producers will be implemented. Likewise, technical assistance and training will consider criteria and/or principles such as the landscape approach, agro-ecological principles, ancestral knowledge and traditional practices, nutrient recycling and comprehensive diversification. The participation of young people, peoples and nationalities and women will be maximized, social organization and associativity will be promoted as a mechanism for sustainability, and decent work and employment will be encouraged. Technical feasibility is based on the presence of entities with sufficient technical capacity for the transfer of technologies and innovations in the areas of intervention, including MAAE, MAG, NGOs, universities and local organizations.

Cost-efficiency

249. The project design is cost-efficient, as it is based on baseline initiatives, as well as national and subnational policies, competencies and infrastructure. During project preparation, several complementary and synergistic strategies and methodologies have been identified as a cost-effective

way of removing barriers and addressing threats to global environmental benefits. These strategies and methodologies are detailed below:

a. Strengthening multi-stakeholder coordination and collaboration at national and sub-national levels, through existing spaces, which will improve synergies, avoid duplication of efforts and reduce implementation costs.

b. The engagement of key stakeholders will ensure that project decision-making and implementation will be aligned with national and sub-national development priorities and planning tools.

c. Beneficiaries training and awareness, and the implementation of the LDN approach, will contribute to the sustainable use, the application of appropriate technologies, and an increase in production sustainability and income stability of beneficiaries.

d. The training of institutional technical staff and awareness of national and sub-national authorities will contribute to the integration of the LDN into decision making processes, ensuring continuity of direct assistance to beneficiaries, as well as SLM funding, ensuring long-term financial sustainability.

e. The peasant-to-peasant learning methodology that will be used in the training of the beneficiaries will contribute to the ownership of good practices as well as the field project outcomes.

f. The exchange and dissemination of experiences among intervention sites will contribute to the dissemination of good practices, incentives, and value chains, ensuring their cost-efficient scaling.

g. The systematization of experiences and lessons learned available to the project partners and the different actors will also contribute to a cost-efficient replication of the project outcomes to the entire country.

7.6 Innovation and replicability

250. The project is innovative in terms of establishing LDN objectives in Ecuador which is a new and complex objective and integrating the LDN approach. LDN requires a landscape approach that considers productive land and conservation areas to get adequate outcomes with local participation, SLM tools and planning schemes.

251. The potential for project reproducibility is high, given its complementarity with national policies, plans and programmes, as described in Section 1.a Project Description - Baseline Scenario. The areas of intervention have differences in terms of ecosystems and degradation processes, in historical trajectories of land use and occupation, in established governance mechanisms which reflect the diversity of biophysical characteristics, existing socio-economic and cultural conditions, and institutional arrangements in Ecuador. The differences provide an opportunity to draw lessons on the potentialities and challenges of implementing the LDN approach at the sub-national level in different contexts and to feed the scaling process at the national level.

252. The project's actions in terms of capacity strengthening, stakeholder?s coordination and articulation mechanisms, SLM practices, incentives, value chains and market access mechanisms will contribute to reducing threats and to the sustainability of outcomes. The three prioritized intervention

areas cover a total of 825,792 hectares, and significant land areas with mild to extreme levels of degradation have been identified (see Section 1.b with the description of intervention sites), which represent a potential area for replication of experiences and lessons from the project. Likewise, the lessons learned will serve to promote the scaling to other areas of the country.

253. The processes of integrating SLM and LDN into national policy instruments and land planning tools of the DAGs in the areas of intervention, and the relevant lessons learned, can be replicated to other relevant national policies and DAGs tools in other provinces. The joint work with institutions for the development of incentive and market access mechanisms will contribute to make the experience available for replication to other areas in the intervention zones and to the entire country.

254. The project will promote the dissemination of experiences through exchanging activities to facilitate the introduction and replication of cost-effective approaches and practices for SLM. The systematization of experiences and lessons learned will serve to promote the replication of project outcomes at the national and international levels. The FAO Representation in Ecuador will disseminate information on the outcomes and lessons learned with other FAO projects in the country, and through the Regional Office for Latin America and the Caribbean, with other countries in the region with similar characteristics and problems.

8) Summary of changes in line with the project design regarding the original PIF

Changes	PIF	Project Document
Intervention Rationale - Outcomes, Outputs and	The writing of outcomes 1.1, 1.2, 1.3, 2.1 and 3.1 was adjusted:	

Changes	PIF	Project Document
Targets To better organize the intervention rationale, clarify the writing of the text and ensure the contribution and consistency of outputs and outcomes, the following adjustments were made. These changes do not represent a change in the project objective or scope.	Outcome 1.1: LDN baseline (land cover, land cover change, soil organic carbon and land productivity) assessed and monitoring system established. Outcome 1.2: Strengthened inter-institutional coordination, decision-making and implementation capacities throughout the LDN process at national and local levels. Outcome 1.3: LDN integrated into national policy and planning processes, at different levels and with appropriate inter-agency coordination mechanisms. Outcome 2.1: Sustainable land management practices implemented in intervention sites to prevent and/or reduce land degradation and restore ecosystem services. Outcome 3.1: SLM/FSM integrated into value chains and incentive mechanisms. -	Outcome 1.1: Institutional actors make decisions with a LDN approach based on an established monitoring system that is regularly fed. Outcome 1.2: Key actors at national and sub-national levels apply knowledge and tools for the implementation of the LDN approach to measures planning, implementation and monitoring. Outcome 1.3: National and sub-national authorities include the LDN approach into national policies and planning processes, at different levels and with appropriate inter-agency coordination mechanisms. Outcome 2.1: Landowners and users adopt sustainable land management practices at intervention sites to prevent and/or reduce land degradation and restore ecosystem services. Outcome 3.1: Actors in selected value chains include the SLM approach to enhance resilience and generate socio-economic benefits based on incentives and improvements in market access mechanisms.
	Outputs 1.2.1 and 1.2.2 were merged into a new output writing:	

Changes	PIF	Project Document
	Output 1.2.1. Gender-sensitive capacity development programme for the implementation of the LDN approach at national and sub-national levels. - Output 1.2.2: LDN decision support system established. -	Output 1.2.1: Capacity strengthening tools for LDN targets planning, implementation and monitoring, with a gender and intercultural approach, and available, operational and implemented by key actors. - - -
	New writing of output 3.1.1:	
	Output 3.1.1: Strengthened incentive mechanisms and support for the implementation of SLM/SFM by women and men farmers and their associations.	Output 3.1.1: Designed and operational mechanisms and institutional arrangements for the implementation of incentives to promote the adoption of SLM/SFM, mainstreaming gender and interculturality.
	Outputs 3.1.2 and 3.1.3 were merged into a new output writing:	
	Output 3.1.2: Selected value chains analysed through life cycle assessment (EX ACT tool for value chains). Output 3.1.3: Selected value chains that support SLM, fostered by market linkages, improve resilience and socio-economic benefits.	Output 3.1.2: Designed and operational mechanisms and institutional arrangements to improve market access for small producers (men and women) that are part of the SLM approach into the selected value chains.

Changes	PIF	Project Document
An adjustment was made to the project targets based on a more detailed estimate of assumptions and auxiliary information	LD Indicator 3.2: 4,000 ha of forest and paramo restored to maintain ecosystem services LD Indicator 4.3: 8,000 ha of productive landscapes under SLM LD Indicator 4.4: 25,000 ha of high conservation value forest loss avoided Project Indicator: 1 12,170,020 tCO2e sequestered or avoided due to SLM practices and avoided deforestation Indicator 11: 6,000 direct beneficiaries with improved access to services for the adoption of SLM/SFM, with at least 40% women	GEF Indicator 3.2: 2,000 ha of forests restored to maintain ecosystem services in 3 intervention sites GEF Indicator 3.3: 2,000 ha of paramo and shrub ecosystems restored to maintain ecosystem services in 3 intervention sites GEF Indicator 4.3: 4,750 ha of landscapes under SLM in productive systems in 3 intervention sites GEF Indicator 4.4: 20,000 ha of high conservation value forests loss avoided GEF Indicator 6: 9?596,730 tCO2eq sequestered or avoided emissions due to SLM practices and avoided deforestation. GEF Indicator 11: 5,450 people (2,338 women and 3,112 men) direct beneficiaries disaggregated by sex and ethnicity as a co-benefit of GEF investment
Co-financing	USD 33,977,429	USD 28,328,787

[1]12% with active degradation processes (De Noni y Trujillo 1986b).

[2] National Evaluation Document for Land Degradation through the Lada-Wocat Methodology, 2017, DS-SLM Project.

[3] Rural land in Ecuador extends outside the urban area, which has biophysical and environmental conditions to be used in agricultural, livestock, forestry, or aquaculture production; recreational, ecotourism, conservation, or agricultural protection activities; and other productive activities subject to the National Agricultural Authority. The security reserved areas, areas of the national protected areas system; water, forest, vegetation protection and conservation areas; public, private and community protectors of the State forest heritage, and others recognized or declared by the National Environmental Authority are excluded. (Organic Law on Rural Lands and Ancestral Territories, Article 4).

[4] The set of democratic and participatory policies of the decentralized autonomous governments allowing their territorial development, as well as a conception of autonomous territorial management planning, which starts from the local to the regional interaction enabling the development of a national project, based on the recognition and appreciation of cultural diversity and the spatial projection of social, economic and environmental policies? (Art. 296)

[5] In the project's intervention sites, the UNDP Small Grants Programme (financed by the GEF) has been the main promoter of this approach, financing through bidding funds for more than 15 years a series of initiatives at local level, many of which have become references for alternative models of development and defence of the territory and have created a network of actors and support organisations operating in the territory.

[6] Cooperativa de Asistencia y Recursos al Exterior (CARE), Centro de Capacitaci?n del Campesino del Azuay (CECCA), Central Ecuatoriana de Servicios Agr?colas (CESA), *Ecuadorian Populorum Progressio* Fund(FEPP), Agronomes et V?t?rinaires Sans Fronti?res (AVSF), Universidad de Cuenca, Universidad Nacional de Loja, Fundaci?n para el Desarrollo y la Creaci?n Productiva (FUNDES), Instituto de Estudios Ecuatorianos (IEE), Ministry of the Environment and Water of Ecuador (MAAE). It is an example of the articulation of actors aimed at capacity strengthening from the *dialogue of knowledge,* an inclusive methodology that rescues the socio-cultural element and connects it with the experiences and the technical and scientific knowledge.

[7] Basic parameters (e.g., precipitation, flow) in two nearby micro-watersheds are monitored under this approach. They share climate characteristics but have different land uses or cover, what gives proof of the impact of different land use regimes on the functionality of the watershed in a relatively short time.

[8] As part of the PRODOC formulation process, a broad consultation with 57 experts linked to SLM projects was carried out to identify needs and priorities for LDN capacity strengthening. This included

national MAAE and MAG officials, DAG technicians working at the sub-national level, researchers, representatives from academia, NGOs and consultants. The report can be consulted as part of the PRODOC Supplementary Material.

1b. Project Map and Coordinates

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

255. The project will implement demonstration actions at the sub-national level in three intervention sites: 1) Coast 2) Central Highlands; and 3) Northern Highlands.

256. The selection of the intervention sites was carried out with the participation of MAAE and MAG, considering the territorial priorities established in national plans and strategies. In addition, in line with the suggested Checklist for LDN Transformative Projects and Programmes (UNCCD 2018), the three intervention areas consider: i) multiple types of land use and management units (e.g. administrative jurisdictions, governance, land tenure regimes); ii) opportunities to implement hierarchical response actions (i.e. avoid, reduce, restore); iii) contribution to achieving national LDN targets.

257. The three intervention sites of the project cover a total area of 825,792 hectares (ha), where 62% of the land area maintains natural vegetative cover made up of forests, paramos and shrub vegetation; key ecosystems for water regulation and provision. The remaining vegetation in the intervention areas has a key role in maintaining ecosystem connectivity between areas of high biological value and State protected areas. The site with the greatest remnant of natural ecosystems is that of the Coast (81% of the surface area), followed by the site in the Northern Highlands (64%) and that of the Central Highlands (42%). The three areas include a mosaic of productive and conservation uses subject to pressures and degradation processes on soil, vegetation and water. These are areas with a predominance of productive systems linked to the family and peasant economy, with presence of smallholders with different degrees of social, political and market articulation.

258. The rural population prevails in the three sites as shown in Table 1. The percentage of the population engaged in agricultural and livestock activities (including fishing) decreased significantly in all three sites in the period 2001-2010. These changes reflect wider diversification patterns of rural livelihoods into other sectors of the economy in the Andes (Bebbington 2001), and reflect the difficulties faced by rural economies in ensuring the sustainability of families. In the sites under study, a high incidence of poverty per UBN is observed, which remains above 90% in the period 2001-2010, while the incidence of the lack of access to formal education remains above 12% in the Central and Northern Highlands.

Table 1. Indicators of recent social change in the three Project intervention sites

Intervention site	Year	% Rural population	% Agricultural sector population	% poverty by UBN	% with no access to formal education
COAST: Manab? Santa Elena	2001	90.0	59.8	97.7	11.8
	2010	89.6	44.3	91.5	8.3
CENTRAL HIGHLANDS: Bol?var Chimborazo Tungurahua	2001	84.0	58.7	87.6	15.9
	2010	83.7	34.5	79.6	12.7
NORTHERN HIGHLANDS: Imbabura Pichincha	2001	70.7	40.9	79.3	17.4
	2010	67.6	26.4	69.5	13.8

Source: INEC 2010.

259. In the three intervention sites there is a prevalence of high inequality in land distribution which, according to official data, reflects a Gini coefficient of 0.81 (SENPLADES 2014). Most of the AU have 10 hectares or less, which are insufficient to meet the reproduction needs of peasant economies. On the coast, there are high levels of land concentration, while in the Highlands, particularly in the Central Highlands, there are processes of plotting in areas of less than 5 hectares (Mart?nez 2013). In many localities, mainly in the Andes, one of the structural causes that has fostered unsustainable production practices has been access to unproductive land, often located on slopes and prone to high levels of erosion, because of land allocation processes during the agrarian reforms in the 1960s and 70s. On the other hand, the absence of policies that promote land redistribution, minimising the tendency towards smallholdings, is another structural cause that encourages the use of chemicals-intensive practices with the aim of maximising production in smallholdings.

260. Additionally, the almost exclusive furtherance of a monoculture-based production and the green revolution, since the 1960s, has become another structural cause of land degradation in this context. This model works on factors related to a chronic loss of soil fertility (compensating them with external inputs); this has triggered a high dependency on the use of agrochemicals, particularly on small and medium sized producer farms. The use of agrochemicals also extends to agro-industry with the objective of increasing productivity or influencing the characteristics of the product.

261. In Ecuador, a large part of agricultural activities is carried out by women, whose participation has been gradually increasing in response to the growing proportion of rural women heads of household due to the temporary or permanent migration of men in search of paid work opportunities. In fact, according to official data, more than one million women have worked in Ecuador's rural sector by 2018 (INEC, 2018), which is a 61% of the women living in rural areas. The work of women in the field has made a great contribution to food security and sovereignty, to the protection and conservation of agrobiodiversity and of existing ecosystems and landscapes.

262. Table 2 presents a summary of the main characteristics of the prioritized intervention sites. Detailed information on each of the sites is included in Annex O.

Table 2?Characterization of Prioritized Intervention Sites

Sites / Characteristics	**Coast**	**Central Highlands**	**Northern Highlands**
Location **Provinces, Cantons and #of parishes**	Manab?*:* Jipijapa (2), Paj?n (1), Puerto L?pez (3) Santa Elena: Santa Elena (2)	Bol?var: Guaranda (3) Chimborazo: Guano (7), Riobamba (2) Tungurahua: Ambato (9), Cevallos (1), Mocha (2), Quero (3), Tisaleo (2)	Imbabura: Cotacachi (8), Otavalo (7) Pichincha: Cayambe (1), DMQ (4), Pedro Moncayo (2)
Land Area	Area: 303,240 ha Min elev: 0 Max elev: 873	Area: 313,341 ha Min elev: 361 Max elev: 6279	Area: 209,212 ha Min elev: 1000 Max elev: 4887

Sites / Characteristics	Coast	Central Highlands	Northern Highlands
General environmental characterization	Dry and moist forests (i.e., garua) and agricultural mosaics with short cycle crops (maize), fruit trees and grasslands along the Chongon Colonche coastal range from Machalilla National Park (MNP). The natural vegetation of the Chong?n Colonche mountain range is key to ensuring the absorption of humidity, and watershed regulation is important for the supply of water for human consumption, protecting the soil from direct effects of rainfall, and mitigating the risk of water erosion on steep slopes. The forests of the mountain range have been rated as national priority areas the conservation of biodiversity.	Forests, paramos and agricultural mosaics that include the area surrounding the Chimborazo Wildlife Production Reserve (RPFC) and the foothills of the Carihuairazo volcano. The ecosystems around the Chimborazo-Carihuairazo provide cultural, tourism, habitat conservation and water regulation services.	Diverse mosaic of forests, paramos and agricultural land around the Cotacachi Cayapas Ecological Reserve in Imbabura, south to the province of Pichincha where it reaches the limits of the Pululahua Geobotanical Reserve and the Areas of Conservation and Sustainable Use (ACSUs) of the Metropolitan Subsystem of Natural Protected Areas of the Quito Metropolitan District (i.e., the Oso Andino Ecological Corridor and the Yunguilla Area of Conservation and Sustainable Use). The area's ecosystems are important for the regulation and provision of water for local populations in Pichincha and Imbabura, for agricultural systems and food security of smallholders. They are key in terms of ecological connectivity.
Population:	Urban population (M): 5 085 Urban population (W): 4 785 Rural population (M): 43 801 Rural population (W): 40 545 Total population: 94 216	Urban population (M): 18 536 Urban population (W): 20 754 Rural population (M): 96 294 Rural population (W): 102 640 Total population: 238 224	Urban population (M): 23 101 Urban population (W): 25 101 Rural population (M): 49 255 Rural population (W): 50 844 Total population: 148 301

Sites / Characteristics	Coast	Central Highlands	Northern Highlands
Land cover	Native forest and shrub and herbaceous ecosystems: 247.189 ha (81%) Grasslands: 21.748 ha (7%) Farmlands: 27.852 ha (9%)	Native forest, paramo and natural vegetation: 133.160 ha (43%) Grasslands: 77.519 ha (24.7%) Farmlands: 78.249 ha (25%)	Native forest, paramo and natural vegetation: 133.462 ha (64%) Grasslands: 34.377 ha (16%) Farmlands: 35.779 ha (17%)

Sites / Characteristics	Coast	Central Highlands	Northern Highlands
Local livelihoods	It varies between the two slopes of the mountain range. On the eastern slope, land tenure is mainly individual. Main activities: coffee and maize cultivation, extensive cattle raising, logging (wood, tagua and sugar cane as cash crop). On the western slope, there are communal lands with individual production and trade activities. Maize and vegetables (tomatoes, peppers, watermelons, melons, cucumbers, citrus fruits) are grown in areas with proper irrigation. Rainfed maize, and free-range livestock in areas without irrigation. Toquilla straw (*Carludovica palmata*) crops to be sold or processed as fibre to make hats. Fine wood extraction (such as figueroa, guayacan, jigua, maria, laurel, amarillo), charcoal preparation, and incipient tourism (bird-watching ventures, tours and gastronomic services). High participation of women in agricultural activities.	Mainly agricultural activity for the domestic market, with a strong presence of peasant family farming. Little young population participation. Limited production volumes. The main activity is dairy farming. Major crops: potatoes, vegetables, fruits, maize. Small animals raising. In some areas, broccoli and artichoke crops for export. More recently alpaca breeding as a productive alternative. Off-farm employment related to temporary, cyclical or permanent migratory patterns, resulting in women assuming more and more responsibilities in agricultural tasks. The site is home to the Chimborazo Wildlife Production Reserve (RPFC, acronym in Spanish), where numerous indigenous communities live and make use of its resources.	Mainly smallholders farming and livestock activities interacting with livestock estates. In Intag there is a predominance of meat and milk production, sugar cane to produce alcohol and panela, hard maize, coffee and beans. Black beans and organic coffee have been positioned in the foreign market. Agroforestry systems for coffee, use of alternative energies and experiences in agroecology have been recorded. In the Andean zone, agriculture is centred on smallholdings and communal lands, with crops such as maize, potatoes, peas, lentils, onions, carrots, quinoa, barley, vegetables, legumes; there is also agricultural production with short-cycle irrigated crops with a predominance of broccoli, cabbage, lettuce, carrots, beetroot, etc.; and fruit trees such as avocado, cherimoya and other Andean fruits. Flower growing for export is important. The Pedro Moncayo canton produces 25% of the total national flower production. In the Andean zone there is a significant presence of indigenous population of the Kayambi and Otavalo peoples.

Sites / Characteristics	Coast	Central Highlands	Northern Highlands
Degradation levels, anthropogenic coverage of land[1] (%) (FAO, 2017)	Low: 9.4 Moderate: 4.4 High: 8.5 Extreme: 2	Low: 21.3 Moderate: 33.8 High: 3.8 Extreme: 2.9	Low: 21.7 Moderate: 20.6 High: 3.0 Extreme: 1.0
Degradation levels, natural land cover[1] (%) (FAO, 2017)	Low: 12.1 Moderate: 49.2 High: 14.4 Extreme: 0	Low: 0.1 Moderate: 37.5 High:0.6 Extreme: 0	Low: 7.5 Moderate: 44.4 High: 1.9 Extreme: 0

Sites / Characteristics	Coast	Central Highlands	Northern Highlands
Direct causes of land degradation (interviews with local actors in intervention sites)	? Deforestation and logging ? Extension of the agricultural boundary for short-cycle crops (mainly maize) and conversion to grasslands ? Overgrazing and extensive goat management ? Woodfuel removal for brick kilns and homes (Manab?) ? Coal production (Santa Helena) ? Establishment of agro-export monocultures with the introduction of invasive species ? Overexploitation of non-timber forest resources (e.g., Palo santo and toquilla straw) ? Wildfires ? Urban growth in tourist development hubs ? Unsustainable tourism in the coastal strip ? Construction of irrigation infrastructure (e.g., reservoirs)	? Extension of the agricultural boundary ? Deforestation and cutting natural vegetation ? Overgrazing (of cattle and sheep) ? Historical sheep overgrazing for guano extraction and selling ? Poor agricultural practices (e.g., tillage, burning) ? Excessive use of toxic insecticides and pesticides in potato crops ? Pollution of rivers by organic animal waste in the upper part of the watershed and use of chemicals on crops ? Extraction of aggregates and stony materials (Chimborazo) ? Expansion of cangahua areas (Chimborazo) ? Tanning-related chemical waste dumped into rivers (Chimborazo, Tungurahua) ? Extension of the rural road network and irrigation canals ? Mining concessions (Bol?var)	? Deforestation and loss of natural vegetation ? Advancing the agricultural boundary ? Overgrazing, mainly cattle ? Burning of forests and vegetation on agricultural land ? Historical human settlement zone with repeated anthropogenic disturbances (cf. Keating 2007, use of fire) ? Development of agro-industry for export since the 1980s (e.g., flowers, broccoli, asparagus, artichokes) ? Pollution of rivers with chemicals waste and untreated wastewater discharge ? Mining concessions (exploration phase) and illegal mining ? Mining and quarries operation using the stripping topsoil method ? Urban development and extension of the road network ? Expansion of cangahua areas ? Construction of infrastructure and irrigation canals mainly for the agro-industry productive use

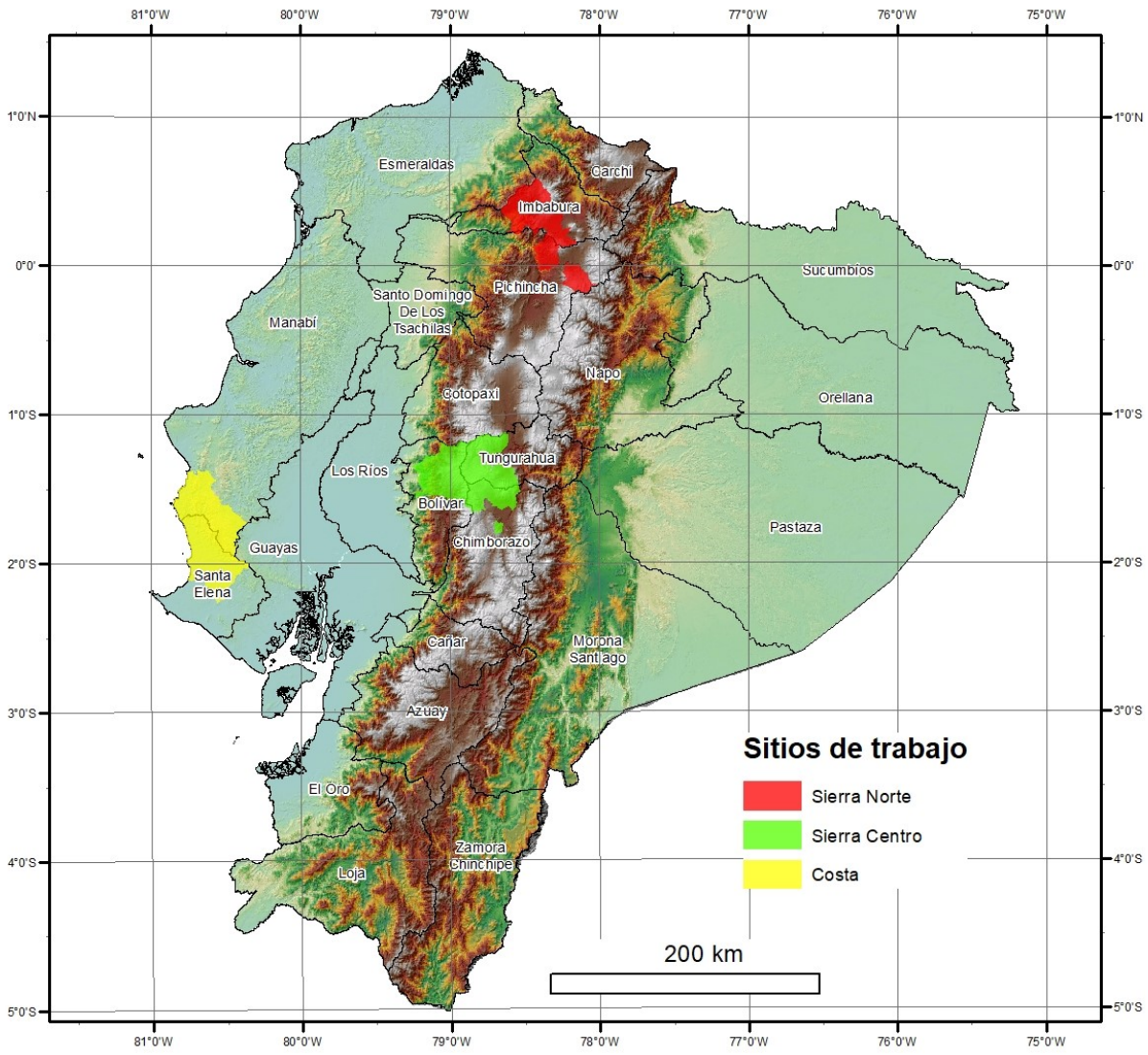

Figure 4. Location of the project intervention sites in Ecuador

Table 3. Coordinates of the project's intervention sites in Ecuador. The geographical coordinates use Datum WGS84.

Site	Top left corner	Bottom right corner

	Latitude	Longitude	Latitude	Longitude
Northern Highlands	78? 39.5? W	0? 35.4? N	77? 59.9? W	0? 11.77? S
Central Highlands	79? 15.9? W	1? 7.4? S	78? 31.3? W	1? 49.12? S
Coast	80? 51.3 W	1? 22.4? S	80? 20.5? W	2? 16.10? S

1c. Child Project?

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

N/A

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Please refer to the Documents section.

Stakeholder engagement matrix has been uploaded.

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

2.1 Stakeholders participation during the project design phase

263. During the project design phase, a stakeholder analysis was carried out to identify: 1) Institutional stakeholders in Ecuador whose competencies and responsibilities are related to the LDN approach. Central government institutions, mainly ministries, and sub-national entities at the provincial level were considered in the analysis; 2) Social organisations in the areas prioritised by the programme,

which are articulated in multi-stakeholder platforms organised to put forward proposals on water management, forest areas or paramos conservation; 3) Social organisations, are developing sustainable production initiatives linked to ancestral and agro-ecological production techniques in the areas where the project will concentrate its attention and are trying to promote commercial spaces detached from the large commercial circuits; 4) Non-governmental organisations that have worked or are working on topics similar to LDN in the cover areas defined by the programme; 5) Universities established in the areas prioritised by the programme. In addition, the main indigenous organisations in the sites where the project will implement its activities were mapped, and the outcomes are included in the strategy on free, prior and informed consultation.

264. With these stakeholders, several consultation moments were carried out, which extended from the end of 2019 to the first quarter of 2020. Initially, during the formulation of the Project Identification Form (PIF), a start-up workshop was held in November 2019 with the Ministry of the Environment, currently the Ministry of the Environment and Water (MAAE), and with MAG, and working meetings were held with representatives of these ministries to agree on the approach, scope and contents of the PIF. In addition, at this initial stage, together with the provincial divisions of these ministries, consultations were undertaken in the seven intervention provinces to identify the most representative social, institutional and organizational stakeholders in each jurisdiction.

265. From the first weeks of February to mid-March 2020, an agenda of visits to the provinces was launched to hold bilateral meetings with local authorities, social organizations, NGOs, academic institutions and other institutional and organizational stakeholders in order to socialize the scope of the project, learn about the political priorities in each province and the presence of other interventions similar or complementary to sustainable land management and the outcomes achieved, the characteristics of the social fabric and the problems in the territory. Once the health emergency caused by COVID-19 was declared, additional virtual consultations were carried out. 48 institutions from the provinces of Bol?var, Chimborazo, Imbabura, Manab?, Pichincha, Santa Elena, and Tungurahua were consulted, including local governments, decentralized public institutions, spaces for governance and consultation, NGOs, popular and solidarity economy organizations, productive associations (of non-timber products, agricultural and forestry producers), indigenous and Montubio organizations and movements, international cooperation, and academia. Annex I2 includes the FAO matrix with details about the participation during the design phase. These participatory processes served as the basis to define the stakeholder participation mechanisms in the implementation phase and are described below.

2.2 Participation during project implementation phase

266. The project will promote stakeholder?s participation to effectively engage stakeholders in the project intervention area to achieve LDN. The stakeholder?s matrix included in Table 4 below identifies the main national and sub-national stakeholders, from the public and private sectors, universities, community-based organisations, including women's and indigenous peoples' organisations and NGOs, as well as the proposed roles in project implementation.

267. Stakeholders participation in project implementation will be ensured through various organisations and mechanisms to ensure their full and effective participation and avoid negative impacts on human rights which are summarized below:

268. Project governance mechanisms: At the global level, stakeholder participation and representation will be driven by governance structures for project management, specifically the Project Steering Committee (PSC) and the Project Implementation Unit (PIU). The PSC will promote inter-institutional coordination and articulation and stakeholder participation at political and technical levels, while the IPU will be responsible for the implementation of project activities with a participatory approach. The project's technical staff will be responsible for leading and guiding the processes of stakeholder engagement and participation under the supervision of the National Project Coordination (see Section 6.a Implementation Arrangements for more details).

269. Inter-institutional and inter-sectoral coordination mechanisms: The project will promote inter-institutional and inter-sectoral coordination through various strategies, including i) strengthening institutional arrangements and facilitating inter-institutional coordination at the national level to promote collaboration among stakeholders at different levels to integrate the LDN approach into national policies and land planning tools; iii) establishing a LDN Observatory at the national level with sub-national nodes that will articulate monitoring activities with local stakeholders and the Academy in a network of sites; iv) working with existing coordination mechanisms at national and sub-national levels; v) preparing the LDN National Action Plan proposing national governance model for the LDN, explaining roles and responsibilities of national authorities, local actors and beneficiaries; vi) developing Participatory Implementation Plans for field LDN (see Section 1. a - Project Objectives, Outcomes and Outputs for a detailed description of these strategies).

270. Project communication and information strategy: At the beginning of the project's implementation, a communication strategy will be prepared with specific elements for actors and stakeholders, and for the intervention areas. The strategy will be implemented together with the communication teams of the project partners. The design of the strategy will consider criteria and actions to promote participation and dialogue, as well as considerations of cultural sensitivity, social inclusion and gender perspective (see Section 8 Knowledge Management for further details).

271. Workshops and trainings: The project will implement a capacity strengthening programme in LDN (see programme description in Section 1.a Project Description - Project Objectives, Outcomes and Products) that will be consistent across the entire intervention and includes considerations aimed at encouraging stakeholders participation: i) it will be prepared with a gender and cultural relevance approach; ii) it will be addressed to a wide audience including national and sub-national technicians, land users, producers and their organizations who will have new skills, to stimulate their ownership and participation; iii) it will have didactic tools aimed at differentiated target audiences to engage them; iv) it will include participatory learning methodologies such as field schools, exchange of experiences and participatory assessment.

272. Gender Action Plan and Indigenous Peoples' Plan: The project also has a Gender Action Plan (see Annex M) and an Indigenous Peoples' Plan (see Annex J) to ensure the appropriate participation of women and indigenous communities in the intervention areas. These plans include the definition of criteria and conditions for women?s participation in the different stages and activities of the project, so that their participation and impact can take place considering the conditions in which women and indigenous people work in the intervention areas, as well as their knowledge, needs, roles, to be recognized and addressed during the intervention.

273. M&E System: The project's M&E system will include consultation with stakeholders to gather testimonies regarding the project and their participation and contribution to it, to disseminate the outcomes and establish a knowledge transfer strategy that contributes to the replication and scaling of lessons learned (see section 9 Monitoring and Evaluation).

274. Grievance redress mechanism: Finally, the project will have a grievance redress mechanism, which will be disseminated among the project's key stakeholders to inform them of its existence and mode of operation. The National Project Coordination will be responsible for documenting all complaints and ensuring that they are addressed in a timely manner (see Annex I2).

275. Annex I2 includes FAO matrixes with details of planned participation during the implementation phase

2.3 Mapping of actors and roles during implementation[1]

Table 4 - Matrix of actors and their roles in project implementation

Actor	Role during project implementation
MAAE	Project Partner. Co-financier. Member of the Project Steering Committee. The project will be articulated through the Undersecretariat for Climate Change, which together with the provincial directorates will support the implementation of the project. As the national Authority in Desertification and Land Degradation is the focal point of the UNCCD and it is in charge of coordinating de development and validation of public policy instruments that implement the LDN approach. The MAAE will also articulate the establishment of the multilevel and multi-actor LDN monitoring system, and the development and implementation of the capacity building activities of the project.
CICC and its Working Groups	The Inter-Institutional Committee of Climate change will serve as the main governance platform for the construction and validation of the governance arrangements required to implement the LDN approach at the national level. This includes, but is not limited to, the definition and validation of LDN targets, the development of the LDN National Action Plan, and the implementation of the LDN monitoring system.
MAG	Project Partner. Co-financier. Member of the Project Steering Committee. Will support the development of the Project's field extension and technical assistance activities, particularly the promotion of sustainable land management practices, access to financial and non-financial incentives and markets. In these areas, it will be particularly important to work in coordination with the Directorate of Peasant Family Production, which has promoted good agricultural practices throughout the country and has developed training modules to develop model farms to implement these practices. In addition, MAG will provide technical and political support to integrate the LDN approach and targets into national policies and planning processes.

Actor	Role during project implementation
CONDESAN	Operating Partner. Co-financier. Member of the Project Steering Committee. It will provide its technical expertise to establish national and sub-national LDN targets and the subsequent design and definition of policies and plans; the definition of strategies for the implementation of sustainable land management and sustainable forest management practices; the promotion of value chains and incentives for the adoption of such practices; the strengthening of institutional capacities, knowledge management and project actions monitoring. As regards project implementation, CODESAN will establish partnerships with various local partners who have experience and presence in the territories where the actions will be implemented.
FAO	GEF Implementing Agency. Co-financier. Member of the Project Steering Committee. FAO will maintain close coordination with the MAAE as the national focal point to the GEF, the UNCCD, and with national partner entities to ensure that its implementation represents a priority in terms of decisions and policies to be adopted by national partners and compliance by financing partners. In addition, FAO will provide technical assistance to help strengthen the development of the activities included in the project, carry out the planned evaluation processes and provide support in methodologies in accordance with international standards.
Provincial DAGs ? Bol?var ? Chimborazo ? Imbabura ? Manab? ? Pichincha ? Santa Elena ? Tungurahua	Project partners at territorial level. Co-financiers. They will participate in the planning of actions in their territories, coordination with cantonal and parish DAGs and in project activities such as the incorporation of the LDN approach in their PDOTs and other tools, the elaboration of participatory plans for the implementation of SLM/SFM practices, interinstitutional and intersectoral coordination and articulation in the territory, the development of incentives, the promotion of value chains and market access mechanisms. The Bolivar DAG has a soil laboratory that could contribute to the generation of information on LDN, and an interactive information and monitoring system known as SIMIB Platform that stores, processes and disseminates updated information on the province related to SDGs follow-up. The Imbabura DAG operates the Water Resources and Environment Forum and the Productivity Forum which are spaces that articulate citizen participation.
Municipality of the Quito Metropolitan District - DQM	It will participate in the planning of actions in its territories, and in project activities such as the integration of the LDN approach in its PDOTs and other tools, and interinstitutional and intersectoral coordination and articulation in the territory. Since 2005 it has an Environmental Fund that finances plan and programmes for the protection, conservation and improvement of natural resources whose operation could be a reference for similar initiatives to be developed in other provinces and cantons of the country.
Municipal DAG of Guaranda	It will participate in planning actions in its territories, and in project activities such as the integration of the LDN approach in its PDOTs and other tools, and interinstitutional and intersectoral coordination and articulation in the territory.

Actor	Role during project implementation
Parish Governments	There are 52 parish DAGs in the project's area of intervention. They will participate in the development of LDN plans, contributing to improve their governance and capacities for dialogue and coordination with other institutional actors.
Universities	They are involved in rural extension processes, SLM/SFM research, in partnership with provincial DAGs, associations and producer organisations. The Universidad Estatal de Bolivar (UEB) has a laboratory for soil diagnosis that could coordinate with project activities for monitoring and assessing indicators linked to LDN. This university has two-degree courses (agronomy and agro-industry) in which the introduction of LDN content would be important. On the other hand, it should be noted that the agricultural extension work promoted by the School of Agronomy of the Universidad Estatal de la Peninsula de Santa Elena can contribute to multiplying the actions implemented by the project in the communities of the Chong?n Colonche mountain range and others in the north of the province. The installed capacities of this University and the experience of working with FAO make it a strategic partner for activities related to measuring LDN indicators.
Civil Society Organisations/Non-Governmental Organisations	
Water Board of Guaranda, Bol?var	This space is coordinated by the Municipality of Guaranda, with the participation of the Provincial DAG of Bol?var, the MAAE, MAG, and representatives of indigenous organizations. Its purpose is to promote proposals for water management and the conservation of paramos. Coordination with the project and implementation of actions aimed at strengthening its capacity to articulate with other actors and training in issues related to LDN.
Community of the South-Western Front of Tungurahua	It is made up of Cevallos, Mocha, Quero and Tisaleo cantons. It aims to recover the water reserve located in the Salasaca Pampas, adjacent to the Chimborazo Wildlife Production Reserve. It can be an important partner for the project since it has managed to position the importance of nature conservation in response to the high population density of the province and the deterioration of the paramos, with implications on the decrease of the water supply. Two additional elements which contribute to strengthening potential synergies are the geographical scope of the Community, which overlaps with that defined by the project for the province of Tungurahua and its commitment to improving the quality of farmers life.
Tungurahua Paramos Fund and Fight Against Poverty	It is made up of the three most representative indigenous movements in the province and can facilitate the implementation of agreements and the joint development of activities. In addition, the Fund can be a reference for a water management model for other provinces in the highlands.
ACSU-MIT Management Committee, Imbabura	Strategic partner of the project to promote the LDN approach as well as sustainable land management practices.

Actor	Role during project implementation
Community of Parish Governments of Northern Pichincha	Relevant actor in the Northern Highlands to articulate actions that favour local environmental governance and the dissemination and implementation of the LDN approach. They have an Intercultural Agro-ecological Training Centre and a community rural information system.
National Commission of Agroecology (CNA)	The CNA promotes agroecology and defence actions in favour of more than 600,000 peasant family farmers who belong to indigenous, mestizo and Afro-descendant communities. In addition to coordination and exchange, the project could contribute to promoting the agroecological agrarian agenda, which contains some guidelines for improving peasant production conditions.
Coordinadora Ecuatoriana de Agroecolog?a (CEA)	Since 1990 it has bolster agroecology in the country with special focus on technical and productive areas and has worked on issues of food sovereignty and security, peasant economies and trade. Their knowledge and experience will contribute to strengthening and disseminating sustainable land management practices.
Ecuadorian Populorum Progressio Fund-FEPP-	NGO with presence in the province of Bol?var. Its aim is to reduce land erosion processes through good practices. This NGO considers land erosion to be one of the main causes of poverty affecting the population. Its knowledge and experience will contribute to strengthening and disseminating sustainable land management practices.
Maquita Cusunchic? Fair Trade	It has experience in the implementation of a gender strategy and aims to advance the construction of local gender equality agendas. Coordination and exchange of experiences in the gender approach.
FIDES - Foundation for Research and Social Development	It has a wide knowledge of Manab? province, of the productive potential of some areas and the characteristics of the local social and institutional fabric. It has coordinated with several cooperation projects, making it a key player with whom to establish links in the territory.
Centre for Social Studies and Dissemination, CEDIS	NGO with presence in Chimborazo. Due to its knowledge of the province and its work with social organizations, CEDIS can be a strategic partner in Chimborazo.
Institute of Ecology and Development of Andean Communities, IEDECA	NGO that has been working for more than 20 years in Tungurahua and that in recent years has extended its coverage to Bol?var. Its experiences in conservation agreements and increasing water flows because of the agreements can be systematised and replicated. Their knowledge of the area and capacity to dialogue with local actors make them a partner in the LDN project.
Heifer Foundation	It has experience working with peasant and indigenous communities in Santa Elena, Manab?, Pichincha, Imbabura and Chimborazo in actions linked to the LDN approach. Coordination and exchange of experiences.

Actor	Role during project implementation
National, regional and local associations and organisations of agricultural and forest producers	For example, the Union of Agroecological Producers and Associative Commercialisation of Tungurahua -PACAT-, the Network for Food Sovereignty and Solidarity Economy of the Kayambi?s Territory -RESSAK- in Pichincha, and several women's and mixed associations. They are of interest to the project in terms of promoting SLM/SFM practices, technical capacity strengthening, as well as skills in the field of commercialisation. They represent an opportunity to think about and recreate the adoption of incentives of various kinds with public and private institutions and with the DAGs.
Productive associations of non-wood forest products	For example, the Simiatug Samai Women's Association in Bol?var works with cabuya, or the Noble Guad?a in Santa Elena that makes crafts from bamboo and local bamboo cane species. In general, they need to strengthen their marketing and commercialisation capacities, achieve a better market positioning, strengthen their design strategies and approach to credit and training services. As regards these initiatives, the project could concentrate some of the efforts to develop and apply incentives.
Indigenous and Montubio organizations and movements [2]	The involvement of indigenous and Montubio organizations and movements in the design and implementation of the project is important from a political-organizational point of view if it will allow for democratic and consensual decisions for the establishment of LDN goals, identification, implementation and replication of SLM/SFM practices. In keeping with the same, prior consultation processes should be carried out before the implementation of activities that may compromise indigenous peoples? community or family lands, as well as the implementation of periodic consultation processes during project implementation, to ensure that the voice and opinion of indigenous and Montubio peoples are integrated into the planning and methodologies adopted. In all cases the project will consider the representative indigenous and Montubian organisations in each territory, as well as the third level organisations to which they are linked to.
RUNACUNAPAC Peasant Federation of Bol?var - Bolivarmanta Runacunapac Riccharimui	It is an interlocutor that the project must consider due to the high number of indigenous people living in the areas where the project will concentrate its activities.
Community Tourism in Chimborazo - CORDTUCH-	It brings together 11 communities that are interested in going further into the activities they have been carrying out and articulating with organizations that in the province and in other neighbouring provinces are promoting the protection of the paramo.
Union of Peasant and Indigenous Organizations of Cotacachi, UNORCAC	It brings together 43 peasant, indigenous and mestizo communities and 32 water boards in the Andean zone of the Cotacachi canton. The Union can be the channel for convening its members and supporting their participation in the project.

Actor	Role during project implementation
Federation of Santa Elena Communes	68 communes that recognize themselves as part of the Huancavilca people. The Federation can be the channel to call its members and support their participation in the project.
Unit of Indigenous Peasant Movements of Tungurahua (UMICT))	It brings together the Tungurahua Indigenous Movement (MIT), the Atocha-based Tungurahua Indigenous Movement (IMTA) and the Association of Indigenous Evangelicals of Tungurahua (AIET).
European Committee for Training and Agriculture CEFA	It implements the Inclusive and Sustainable Value Chains project, in partnership with MAG and GIZ. For the work in the coffee chain, actions can be coordinated for the province of Manab?.
Fair Trade Organisations ? FEPP Camari ? COPADE	They are key as business links to enable smallholders? access to differentiated national and international markets. Cooperation agreements will be promoted. FEPP Camari is a potential business link for food and handicraft initiatives for domestic markets and exports. In addition, its specialized shops are an attractive point of sale for the promotion of LDN with the consumer. COPADE promotes fair trade between Ecuador and Spain (healthy processed products, organic dry grains and utilitarian items).
Private Sector	
Financial Institutions ? BanEcuador ? Banco Pichincha ? Banco Codesarrollo ? ECLOF	They have green financial products and/or are open to developing new green financial products for the project's target population.
Anchor companies	These companies include exporters, distributors for supermarkets, B Corp. companies, and specialized shops that show interest in products of sustainable origin. Linking smallholders with anchor companies for the promotion of sustainable value chains is key to maintaining the sustainability of project results.
Project Beneficiaries	
Peasant family communities and economies	Project beneficiaries. Many communities, both indigenous, Montubio and mestizo, and especially small/medium farmers and women's groups, are implementing SLM/SFM practices. They will participate in the evaluation of practices in social, economic and environmental terms to insert them into the LDN approach. They will be beneficiaries of integrated interventions (technologies, technical assistance and markets, incentives) with a gender approach.

Actor	Role during project implementation
International Cooperation	
German Cooperation - GIZ	It intervenes in Tungurahua (Pilahu?n), Chimborazo (San Andr?s) and Bol?var on issues related to the LDN approach. Coordination and exchange of experience will be promoted.

[1]The analysis in this section contains the characterization of key actors interacting with the project who will contribute to strengthening the outcomes and generating more encouraging impacts. This is not an exhaustive list of the existing social fabric in the seven provinces where the project will concentrate its actions and presents, in some cases, aggregate information given the magnitude and dispersion of some of the actors. This is the case of the parish committee (52) or the universities in the project's cover area (approximately 15).

[2] A more detailed characterisation of indigenous and Montubio organisations and movements can be found in the document ?Strategy for Addressing Prior Consultation? which forms part of the PRODOC contents.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain) Yes

276. The stakeholders matrix (Table 4 above) identifies civil society actors and their role in project implementation, specifically, national, regional and local associations and organisations of agricultural and forest producers; productive associations of non-timber forest products; indigenous and Montubio organisations and movements, local tourism organisations, peasant organisations, commune federations, fair trade organisations and NGOs.

277. In Component 1 of the project, the civil society participation can create opportunities to engage in neutral dialogue with authorities and the opportunity to contribute to policy development in

favour of LDN (FAO, 2013). On the other hand, in collaborative workspaces, the different actors can benefit from connections, creativity or expertise of other participants (GEF, 2020). These actors will participate in activities such as socio-environmental and socio-economic analyses to identify causes of LDN at national and sub-national levels, in the characterization of differentiated impacts by gender, indigenous peoples and fragile ecosystems; prioritization and validation of SLM practices, and cost-benefit analysis of practices; as well as the elaboration of the LDN National Action Plan, among others. In addition, the project will contribute to capacity strengthening through training and awareness about LDN.

278. In Component 2, according to their nature and connection with agricultural production, they will participate in the elaboration of Participatory Implementation Plans; in the design and implementation of SLM practices; they will be beneficiaries of training in SLM practices; and they will be part of participatory assessments of the impact of SLM practices. In the case of NGOs, for both Components 2 and 3, the project will coordinate actions with organisations working in the area, especially those working on a permanent basis, will generate synergies of interventions and is crucial for maintaining the proposed results. Cooperation agreements will be established with these organizations for a joint and coordinated work for the benefit of local development. Knowledge and awareness on LDN will be shared as well as lessons learned to contribute to the strengthening of their capacities. NGOs have been identified such as the German Corporation for International Cooperation, GIZ, which works on environmental projects in the inter-Andean zone, FEPP which works permanently in Bol?var and Rikolto province which works in the coffee and agro-ecology value chain, among others.

279. In Component 3, the organizations will be beneficiaries of training in incentive mechanisms, value chains and market access; they will participate in the implementation of incentives; in the diagnosis of value chains, they are part of; in the implementation of market access; and in strategic alliances for market access. Likewise, fair trade organizations will have a key role in the Component as business linkages to enable smallholders? access to national and international differentiated markets. Potential institutions have been identified such as FEPP Camari, Fundaci?n Maquita, and COPADE. Cooperation agreements will be established with these organizations to contribute to the development of value chains that promote LDN. Long-term commercial relations will be promoted with sustainable initiatives, and the project will promote the implementation of Fair Trade guidelines along value chains. Collaborative workspaces will be encouraged to identify needs for strengthening value chains and work on communication with the consumers on LDN and responsible consumption.

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

280. A gender analysis was carried out during the project design phase (see Annex M for detailed analysis). The agricultural sector is particularly important in Ecuador because it covers a 95%

of domestic food demand; it provides employment for 32% of the economically active population, or about 2.6 million people (Olmedo, 2018: 18) and represents a significant contribution to GDP, which in 2016 amounted to approximately 6.5 billion dollars, equivalent to 9.3% of total GDP (Pino, Aguilar, Apolo and Sisalema, undated: 3-5).

281. Much of the importance of the agricultural sector and its contribution to the national economy lies with women. The importance of women in the agricultural work has grown gradually, amid a macroeconomic and political context that has been devaluating the agriculture. Various studies show the increasing feminization of family farming in response to the growing proportion of rural women heads of household due to temporary or permanent migration of men in search of paid work opportunities, which has resulted in an increase in their workload. According to data from the National Time Use Survey (2007), women in the rural sector would work an average of 22 hours more per week than men.

282. At the level of the intervention areas, the total population in the selected parishes of the intervention sites is 411,481 inhabitants, with an equal distribution between women and men: 208,922 women and 202,559 men. The poverty indicators per UBN in the parishes where the project will intervene are more than 25 points above the national average of 60%, reaching average values of 87.6%, slightly higher among women than men. Other indicators that characterize the reality of these parishes are the prevalence of illiteracy, which affects a 10% of the population, especially women; the fact that a 42% of the population has only primary education; and the fact that agricultural activities are the main economic occupation. Forty% of the population of these parishes is engaged in agriculture, with a difference of almost 30 points with respect to the next most important economic activity, that is, manufacturing industries.

283. Rural employment is diversified. Agriculture is not the only source of employment. Men and women combine agricultural activities with other income generating activities such as temporary or permanent migration to other cities in the country. In recent years, a growing trend has been the migration of young people and men, with women taking over most farming activities, mainly in contexts characterized by the presence of small plots, as in the highlands.

284. Despite the active role played by women in agricultural production, they still face barriers in terms of access and control of land owned or held by men, in decision-making processes, in access to benefits (credit, training) and work in decent conditions (pay, social security). At the same time, there is little social recognition of the role that women play in food security and sovereignty or in safeguarding native seeds. In some contexts, and, because of higher levels of organisation among women, it has been possible for them to gain access to leadership positions in producers' associations. However, on a general level, their visibility remains marginal. There is limited knowledge about how land degradation affects men and women or what climate change adaptation strategies have been deployed by women and men. Women's views on food security or their training needs are also unclear.

285. With all this information, a Gender Action Plan was designed (see Annex M for a detailed analysis) which includes three sets of actions: mitigation, support for equal opportunities, and closing gaps and empowering women, which emerge from the activities defined for the intervention.

? Mitigation actions: Experience shows that the implementation of some projects or the introduction of new techniques has had some negative impacts on women, as they demand more dedication or imply a greater workload, without bringing about improvements in their quality of life. To minimize this risk, the project will pay special attention to the design of sustainable land management (SLM) practices that in all cases consider the specificities of women and their needs to reduce the workload and contribute to improving the conditions of access to services.

? Actions to ensure equal opportunities for women and men participating in and benefiting from the project: The project considers that the adoption of new skills, knowledge and abilities will be equally accessible to women and men. In this direction, both in the training processes promoted by the project and in workshops and events, it is estimated that at least 40% of the participants will be women. To comply with this goal, it will be necessary to consider the reality of women and the distribution of their time as a necessary condition to define schedules and dates of the training processes. Providing equal opportunities will additionally involve the design of training and communication materials that include the gender perspective, reassuring the importance of women and men in sustainable land management and in the implementation of the LDN approach.

? Actions that contribute to identifying gender gaps and increasing opportunities for women's empowerment: The project considers that to carry out socio-environmental and socio-economic studies it will be necessary to have sex-disaggregated data to perform gender analysis and understand how land degradation affects women and men. The information produced will feed the LDN implementation plans and the formulation of the LDN National Action Plan. These planning tools provide an opportunity to recognize, build and develop actions that contribute to gender equity and women's empowerment.

286. On the other hand, the project will emphasize the systematisation and dissemination of women's contribution to the development of SLM practices and the adoption of climate change mitigation and adaptation measures. Not only has this contribution not been properly regarded, but it often goes unnoticed, as is the case with the role played historically by women in the conservation of native seeds. Similarly, in terms of lessons learned, it will focus on systematising the project's contribution to improving gender equity and women?s empowerment.

287. Recognizing the increasing role of women in the development of agricultural production, the project will promote their direct participation in the validation process of SLM practices and co-beneficial measures in adaptation to climate change; women will be trained as promoters of skills acquired in the training processes; several integrated land use plans and market access mechanisms are led by women. Through activities such as those previously described, the project aims at strengthening the social recognition and appreciation of women, as well as the equitable participation of women in the management of practices, decisions on the location of innovations proposed by the project, the techniques used, management and maintenance.

288. The possibility of making progress in closing gender gaps involves working simultaneously with a variety of actors to increase knowledge and awareness of the constraints faced by women. In this

sense, the project will mainstream a gender training module aimed at public servants, local actors and technical teams from support organisations. This activity would also contribute to addressing one of the concerns expressed by local actors during the project design: even though an increasing number of women oversee agricultural activities, training and extension programmes have not yet succeeded in mainstreaming gender considerations.

289. An additional element to bridge some of the gaps, is the identification and implementation of women incentives for the implementation of sustainable land management and sustainable forest management practices. To this end, it will be necessary to analyse national and local policies and regulations that provide for affirmative actions in favour of women to adapt them to the project's objectives, as well as to work hand in hand with decentralised autonomous governments to generate affirmative actions in the territories under their jurisdiction.

Does the project plan to include any gender-sensitive measures to address gender gaps or promote gender equality and women's empowerment? (yes 1 /no0). If yes, please explain and attach the Gender Action Plan or equivalent.

See Annex M for the Gender Analysis and Action Plan.

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

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

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes
4. Private sector engagement

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

290. The participation of the private sector is essential to achieve the outcomes proposed by the project and to ensure its sustainability. The private sector participation is related to the project's incentive mechanisms for the adoption of SLM/SFM practices, such as access to credit and markets. In this regard, financial institutions and anchor companies are key actors.

291. To promote the engagement of the private sector, the project will enter into cooperation agreements to finance LDN as part of its corporate social responsibility. The project will contribute to the strengthening of their capacities through training and awareness of LDN and SLM/SFM and will

also contribute to the impact measurement through the indicators developed and information gathered (Component 1).

292. In Components 2 and 3, financial institutions (e.g., BanEcuador, Banco Pichincha, Banco Codesarrollo) will enable mobilization of investments for LDN to finance producers? adoption of SLM/SFM practices. Private banks, the financial sector of the Popular and Solidarity Economy, and non-profit microfinance organisations are part of the process. During the project design, institutions that made incursions into sustainable finance were identified, previous approaches have been made, and the best options for the project have been proposed in terms of openness for joint work, available financial products, presence in the intervention area, experience and credit conditions. Pilot phases will be fostered and efforts will be made to ensure that the products designed remain available after the duration of the project.

293. As regards anchor companies, linking smallholders with companies that have greater capacities but at the same time seek to generate an impact on their supply chain in Component 3, is key to maintaining the sustainability of project outcomes. Long-term relationships of mutual benefit will be encouraged as part of corporate social responsibility; companies benefit from the guarantee of constant supply while producers benefit from stable markets. These companies include exporters, supermarket distributors, B Corp. companies, and specialized shops.

294. In terms of private fair trade organisations (as mentioned above for those belonging to civil society), they will participate in Component 3 with trade links to allow smallholders access to national and international differentiated markets. Long-term business relations with sustainable initiatives will be encouraged, and the project will promote the implementation of Fair Trade guidelines along the value chains. Collaborative workspaces will be promoted to identify needs for strengthening value chains. Work will be done on communication with the consumers on LDN and responsible consumption (Component 4).

295. Work with the private sector will begin in the second year of implementation, when more accurate financial and product supply information is available. Bilateral meetings will be held and collaborative workspace will be created to report on progress and coordinate actions to strengthen organizations or initiatives promoting LDN.

5. Risks to Achieving Project Objectives

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

Section A: Project risks

296. The project risks have been identified and analysed during the project preparation phase and mitigation measures have been included into the project design (see Table 5 below). With the support and

supervision of FAO, the Project Implementation Unit (PIU) will be responsible for managing these risks as well as effectively implementing mitigation measures. The Monitoring and Evaluation (M&E) system will be used to monitor outcome and output indicators, project risks and mitigation measures. The PIU will also be responsible for monitoring the effectiveness of the mitigation measures and adjusting the mitigation strategies as required, as well as identifying and managing any new risks that have not been identified during project preparation, in collaboration with the project partners.

297. The semi-annual Project Progress Reports (PPRs) are the main tool for risk monitoring and management. The PPRs include a section for systematic risk monitoring and mitigation actions that were identified in the previous PPRs. The PPRs also include a section to identify any new risks or hazards that still need to be addressed, their rating, mitigation actions, as well as those responsible for monitoring and estimated timelines. FAO will monitor the project's risk management as necessary, providing support for the adjustment and implementation of mitigation strategies. The preparation of risk monitoring reports and their rating will also be part of the Annual Project Implementation Review (APIR) prepared by FAO and submitted to the GEF Secretariat.

Table 5 Risks and mitigation measures

Risk Description	**Impact**	**Likelihood of occurrence**	**Mitigation measures**	**Responsible unit**

Risk Description	Impact	Likelihood of occurrence	Mitigation measures	Responsible unit
Environmental: Extreme weather conditions adversely affect restoration and SLM practices. Accelerated land degradation and biodiversity loss due to severe climate change. - - - - -	Low	Low	Section 1.a Project Description - 1) global environmental problem includes projections on climate change effects in Ecuador. The project design includes considerations for mitigation and adaptation to climate change effects. The project's Theory of Change was developed considering the Guide ?Resilience, Adaptation Pathways and Transformation Assessment Framework (RAPTA)?. The project will implement existing climate change adaptation strategies by paying attention to changes affecting biodiversity, land and forest resources. The project will raise awareness and increase the knowledge of key stakeholders and other groups about the importance of moving towards SLM and LDN to prevent, reduce and reverse land degradation, including synergies between biodiversity, carbon, water, climate change and impacts on local livelihoods. The integration of LDN approach in project actions (e.g., integration of the LDN in national policies and in DAGs land planning tools, the elaboration of the LDN National Action Plan) will contribute to integrate and/or strengthen adaptation and resilience to the effects of climate variability in these instruments and their implementation. In the development of the National Action Plan, an economic assessment will be carried out to create scenarios on the impact of land degradation and climate change. Participatory Implementation Plans will include climate risk analysis to identify and promote measures that are resilient to the effects of climate change. The prioritisation and validation of SLM practices will consider their potential to create synergies with biodiversity, ecosystem services and carbon, and their contribution to enhancing climate resilience especially in contexts where climate risks are	Project Implementation Unit (PIU)

Risk Description	Impact	Likelihood of occurrence	Mitigation measures	Responsible unit
Social Problems in land tenure regularization make it difficult for landowners to access to incentives and other schemes that promote the adoption of SLM practices.	Medium	Low	The project will not condition the participation of farmers in project activities despite having no regularized land.	PIU
Social High migration rates in intervention sites affect the capacity of communities and farmers to adopt SLM practices.	Medium	Low	The project will be implemented considering information on temporary and permanent migration cycles and other local working and organisational conditions. The intervention sites will be prioritized considering migration as a local social parameter.	PIU
Social Due to the COVID-19 pandemic, local people will avoid attending training spaces for fear of contagion, reducing their participation in project activities, especially the vulnerable population. -	High	High	The project will promote the use of biosecurity measures for training development. In addition, training spaces with reduced numbers of participants and in open spaces will be privileged.	PIU

Risk Description	Impact	Likelihood of occurrence	Mitigation measures	Responsible unit
Political/Institutional: Changes in administrations and institutional organisations can affect decision-making, project continuity, as well as the appropriate scaling of experiences and lessons.	Medium	Medium	The project will give priority to capacity development processes focused on permanent staff and local community members. The interventions will also involve various organisations at each intervention site, to ensure the permanence of relevant local actors at each site. Mechanisms for inter-institutional multi-level coordination and cooperation (national and sub-national) will be strengthened, which will serve to support the process continuity in case of institutional change. To the extent that local actors are more knowledgeable, aware and trained in SLM and LDN, they will support the continuity of the actions, being the main stakeholders in the implementation. The project will promote institutional arrangements between the MAAE and MAG for the implementation of activities, which will contribute to the continuity of activities in case of changes. Likewise, the design and agreement on a governance model for the LDN with roles and responsibilities of the participating actors will also contribute to the continuity of actions. In addition, the project activities will create tools for the implementation of SLM practices that are permanently available to the relevant actors and authorities.	PIU

Risk Description	Impact	Likelihood of occurrence	Mitigation measures	Responsible unit
Political/Institutional: Low local technical capacity at different work levels leads to delays in the project activities implementation.	Medium	Medium	The project will pay special attention to maintaining a continuous capacity development process through the exchange of experiences and the training of technicians from the institutions participating in the project. The training activities will serve to promote and empower the competences, capacities and skills of technicians and beneficiaries (men and women). The project will also promote spaces for the participation of these beneficiaries in project planning, implementation, monitoring and evaluation processes to encourage ownership.	PIU
Political/Institutional: National and local development programmes that discourage the adoption of SLM practices in the project's intervention areas.	Medium	Medium	The project will work with MAG and local governments to influence the implementation of national agricultural programmes in the project intervention areas through information, tools, training and dialogue. The strengthening of inter-sectoral coordination mechanisms will contribute to the continuous dialogue on SLM in the programmes. The integration of the LDN approach in national policies (e.g., in the PCPMR to be led by MAG) and the land planning instruments of the DAGs will contribute to improving the coordination between national and local programmes regarding SLM.	PIU

Risk Description	Impact	Likelihood of occurrence	Mitigation measures	Responsible unit
Economic/Financial: Market fluctuations affect profits in the sustainable value chains promoted by the project.	Medium	Medium	A market analysis will be carried out to help companies articulate themselves in markets with advantageous conditions. The project will provide technical assistance and training to producers and sellers in prioritised value chains to meet market challenges. Long-term relationships with anchor companies and fair trade organisations will be fostered to ensure a steady supply to companies and organisations while producers benefit from stable markets. Consumer promotion opportunities on LDN and responsible consumption that can deliver benefits when trading products will also be assessed.	PIU
Economic/Financial: Lack of engagement of the private sector along the selected value chains	Medium	Medium	An important criterion in the selection of value chains in the intervention sites is the strength of engagement of private actors along the chain, and the potential to further develop incentives to support widespread adoption of SLM practices in the production link of the chain. During the PPG phase, several value chains were identified with an important engagement of private actors, such the honey and bamboo value chains in the intervention site in the Coast. Furthermore, the project will also prioritize mechanisms that improve direct access to markets by producers, through mechanisms such as short food supply chains, and participatory guarantee systems that provide incentives for agroecological production practices.	PIU

Risk Description	Impact	Likelihood of occurrence	Mitigation measures	Responsible unit
Economic/Financial: The impacts of the COVID-19 pandemic can affect the sources of co-finance for the project	Medium	Low	The conceptual basis for LDN seeks the integration of policy instruments and actions that balance social, economic and environmental goals in development and territorial planning, promote food security and the maintenance and recovery of key ecosystem functions. The implementation of the project will promote synergies of these goals, to mitigate potential changes in policy orientation at the national and subnational level that could impact the amount of co-finance that has been identified in the PPG phase. In addition, during project implementation further efforts will be made to broaden the sources of co-finance, through collaborative arrangements with stakeholders in the public sector, private sector and civil society.	PIU
Economic/Financial: The COVID-19 pandemic causes an economic downturn that constrains the demand for the products promoted by the project in the identified value chains.	Medium	Medium	The project will promote trading partnerships with the private sector for the procurement of products in the intervention areas.	PIU

Considerations in response to the COVID-19 crisis and risk analysis

298. The emergence of the COVID-19 pandemic creates a context of intervention that is different from that of previous projects and requires that the specific risks stemming from it and that affected the formulation and implementation phases of the project be considered. Some articulation activities at the local level will be developed at the beginning of the project due to the existing mobility restriction in Ecuador since March 2020, in particular the Prior and Informed Consultation process and the definition of the specific institutional arrangements in each of the intervention sites.

299. In addition, the project will develop biosecurity protocols for project staff, partners and participants in project activities at start-up. The project will use digital media as an alternative mechanism for the organization of regional fora/workshops and management and coordination meetings with national

and sub-national partners. In addition, official information on the epidemiological curve in each of the intervention sites and any restrictions imposed by the national or local authorities (in particular the opinion of the national and cantonal Emergency Operations Committee) will be continuously monitored. In keeping with the same, contingency plans will be designed at the local level, in coordination with project partners, to generate operational mechanisms to minimise the delay in the operations schedule or make planning adjustments if necessary. As regards FAO and CONDESAN, both organisations have established biosecurity procedures for the operations, including the implementation of remote work modality for technical and administrative staff in this and other projects, as well as clear guidelines for field activities that will be used at the project start-up.

300. The project staff will monitor the National Contingency and Economic Reactivation Plans together with the National Authorities. Concrete opportunities and mechanisms will be identified in which the project can participate in a coordinated manner, considering that the expected impact of the COVID-19 crisis in terms of poverty, rural migration, and a strong pressure on natural resources may imply that the project begins its operations in contexts of high local vulnerability.

301. In addition to direct impacts on human health, the COVID-19 pandemic will impact multiple dimensions of local livelihoods, the priorities and capacities of actors in the public and private sectors, and the social and economic dynamics in the sectors of the economy directly related to the LDN approach (e.g. AFOLU) at local to national scales. The direction and magnitude of these social, environmental and economic impacts, and their attributes of geographic and temporal scales are highly uncertain, and will be mediated by highly contextual factors in the intervention sites of the project and at the national scale. For example, urban to rural migration observed in the context of the crisis can generate additional pressures on land and ecosystems, but could open the opportunity for innovative arrangements that link sustainable production to access to urban markets in better conditions for local producers (e.g. through increased interest of urban consumers on food security issues.

302. To address these constantly changing dynamics, the project considers a series of adaptive management guidelines and measures, that can be summarized as:?Locally grounded interventions linked to strengthening multilevel, multi-stakeholder governance systems. This will facilitate the alignment of the fine scale programming of the project with local priorities regarding the identification of sites and SLM practices with high potential to improve local livelihoods. ? Continuous monitoring of the impacts of the pandemic and flexibility to respond to novel challenges and opportunities. For example, seasonal migration patterns might have changed as a response to the need of maintain income for rural families. This may require adapting the implementation mechanisms to reflect the local contexts of labour availability.? Emphasis on strategies that foster collective action at different levels. The project will prioritize working with collective actors such as producer associations, groups of local governments with shared needs and goals, public-private and private-local partnerships, to help pooling common resources and share cost and benefits related to the implementation of the LDN approach.

303. Also, the implementation of SLM activities under the umbrella of LDN has the potential of increasing the resilience of rural livelihoods, especially of smallholder agriculturalists, and decreasing risk of emerging infectious diseases in the future through: ? Using an LDN approach, integrated landscape planning to balance gains and losses related to land degradation opens an opportunity to generate landscape

configurations that decrease future health risks. For example, minimizing the interspersion between agricultural areas and ecosystem remnants to minimize contact between humans, wildlife and livestock can reduce the risk for the emergence of zoonotic diseases. ? Sustainable diversification of rural livelihoods can contribute to food security, diminishing reliance on wild meat as a protein source. An additional potential benefit is the recovery of local populations of game species in the intervention sites.? At the farm level, combining conservation, restoration and adoption of sustainable production practices can improve the resilience of rural families through the maintenance of water regulation services and water quality, reducing the dependence on biocides and other dangerous chemicals, reducing impacts of climate change (e.g., by incorporating drought-resistant crops), among other effects.

Section B: Environmental and social risks of the project

304. The project was rated as of moderate risk. Table 6 describes the environmental and social risks of the project and Annex I1 includes the project risk certification. During the first year of project implementation, an Environmental and Social Commitment Plan (ESCP) will be prepared together with the Free, Prior and Informed Consent (FPIC) process, in accordance with the requirements of FAO Environmental and Social Management Unit (ESM-Unit).

Table 6. Environmental and social risks of the project

Identified risk	Risk Rating	Mitigation Measure(s)	Indicator / Means of Verification	Progress on mitigation actions

Identified risk	Risk Rating	Mitigation Measure(s)	Indicator / Means of Verification	Progress on mitigation actions
2.5 ? Would this project involve access to genetic resources for use and/or access to traditional knowledge associated with genetic resources held by indigenous, local and/or producer communities?	Moderate	The project will intervene in 7 provinces through the LDN approach, promoting agricultural practices that encourage the adoption of this approach, which may include the use of native plants such as agraz and huarango, among others. These practices will be prioritised according to each area and its reality which have been selected according to different socio-economic and environmental factors.	The objective of the project is to implement practices considering the land degradation neutrality approach in various areas of the country, which may include indigenous populations. Activities will include grasslands and crop management, planting of native plants and strengthening of their value chains. The use of native plants will be promoted according to the landscape and area to be intervened according to national standards. The development of participatory LDN implementation plans will be bolstered. The operationalisation of PDOTs in each intervention area aligned with the LDN approach will be supported.	14,750 ha under improved practices # of Participatory LDN implementation plans.

Identified risk	Risk Rating	Mitigation Measure(s)	Indicator / Means of Verification	Progress on mitigation actions
3.2.1 ? Would this project consider the import of seeds and/or planting material?	Moderate	The project will provide seeds and planting material to implement measures that promote the LDN approach, which must comply with all technical and legal requirements to prevent the delivery of unsuitable seeds that could pose a phytosanitary risk to the project's beneficiary producers, as well as support the delivery of controlled native seeds.	Joint work with the Ministry of Agriculture and the Provincial Governments that manage the agroecological nurseries in each province. The planting material should be grown beforehand, in most cases belong to native agrobiodiversity. Procurement processes are carried out according to FAO standards. The terms of reference are approved by the FAO project LTO.	Technical specifications approved by the LTO. Technical specifications reviewed by the counterpart to ensure compliance with the Constitution.
3.4 ? Would this project establish or manage forest plantations?	Moderate	The Project will promote forest landscape restoration activities, which should adhere to the National Forest Restoration Programme and existing national forest policies, to avoid changes in ecosystem functions and support the conservation of landscape biodiversity.	Support the definition of plans for local instruments, such as conservation agreements that promote sustainable forest management. Activities promoting sustainable land management based on the LDN approach will be promoted. The restoration activities of 4,000 hectares of forest and paramos will be coordinated together with MAAE and MAG, as well as monitored for greater control.	4,000 ha of forest and paramo restored to maintain ecosystem services Monitoring system implemented

Identified risk	Risk Rating	Mitigation Measure(s)	Indicator / Means of Verification	Progress on mitigation actions
9.2 ? Do indigenous peoples live in the project area where activities will be implemented?	Moderate	The project has considered the presence of indigenous peoples in the intervention areas and beyond, however, during project implementation there may be disagreements from other non-intervened populations.	The project's grievance mechanism will be implemented and socialized, which can be activated by project beneficiaries and non-beneficiaries. During the first year of project implementation, an FPIC process will be carried out.	# FPIC process carried out Grievance mechanism in place
9.4 ? Would this Project be in an area where cultural resources exist?	Moderate	During the project's development process (PPG Phase), the presence of indigenous populations in the intervention areas has been identified. To this end, the active participation and contributions of each population must be considered, with the aim of including the needs, wisdom and knowledge of each population.	Carry out bilateral meetings in-situ with each indigenous people that will participate in the project activities through a prior approach and signed consent. Carry out an FPIC process once the communities where to implement the project have been identified by province and parish. Inception workshops will be held in each intervention zone that has indigenous peoples as part of the FPIC process.	FPIC process carried out and approved Monitoring and Evaluation Reports Participants list

6. Institutional Arrangement and Coordination

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

6.a Institutional arrangements for project implementation

305. The Consortium for Sustainable Development of the Andean Ecoregion (CONDESAN) will be responsible for the overall implementation of the project, with FAO providing technical assistance and supervision as the GEF implementing agency, as described below. CONDESAN will act as the Operating Partner (OP) and will be responsible for the day-to-day management and achievement of outcomes in full

compliance with all terms and conditions of the Operational Partnership Agreement (OPA) signed with FAO. As the OP for the project, CONDESAN is responsible and accountable to FAO and the MAAE for the timely implementation of the expected results of the project, the operational supervision of the implementation activities, the timely reporting and the effective use of GEF resources for the intended purposes and in line with FAO and GEF policy requirements.

306. The organisational structure of the Project is as follows:

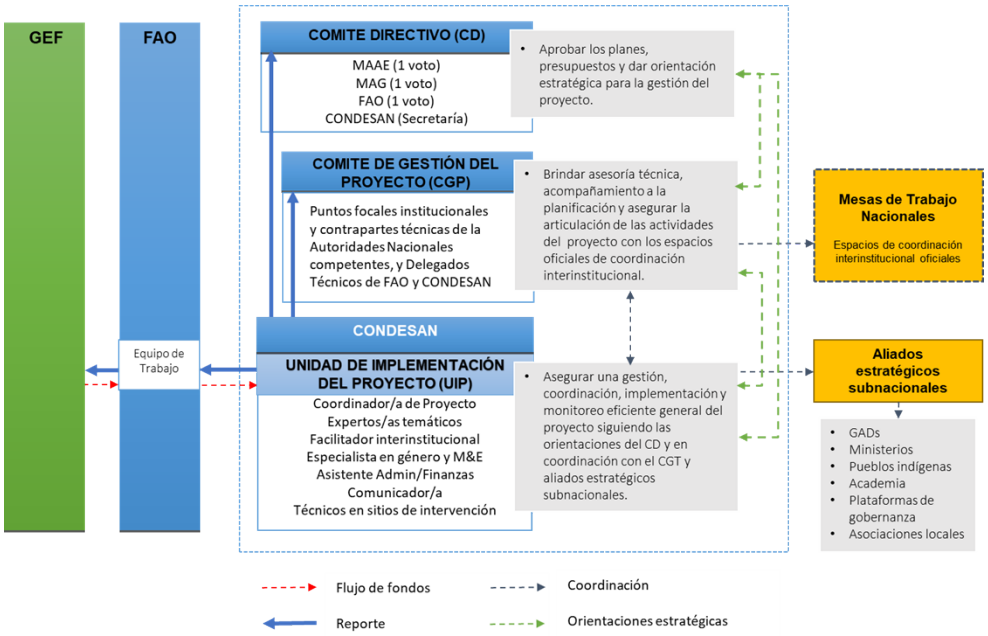

Figure 5 Organisational structure of the LDN project in Ecuador

307. FAO will be the GEF agency responsible for the supervision and provision of technical advice during project implementation. FAO's roles and responsibilities are described in Annex K.

308. A representative of the MAAE, as the country focal point to the GEF, will chair the Project Steering Committee (PSC), which will be the main governing body of the project. The PSC will approve the annual work plans and budgets and provide strategic guidance to the project management team and all implementing partners. The PSC will be composed of representatives from FAO (1 vote), MAAE (1 vote) and MAG (1 vote) and CONDESAN (with right to speak only), with the PIU Coordinator as secretariat. Each of the PSC members will ensure the role of technical and political counterpart for the project in their respective agencies. The focal points of MAG and MAAE are their respective Ministers or their delegates, which in the case of the MAAE will come from the Coordination of the National Authority of Desertification, Land Degradation and Drought. As focal points, the interested PSC members will: (i) technically supervise activities in their sector; (ii) ensure a smooth exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and linkages between project activities and their agency's work plan; and (iv) facilitate the provision of co-funding to the project. The National Project Coordinator (NPC) (see below) will act as the Secretary to the PSC. The PSC will meet at least

twice a year to ensure: (i) Monitoring and technical quality assurance of outputs; (ii) Close links between the project and other ongoing projects and programmes relevant to the project; (iii) Availability and timely effectiveness of co-financing support; (iv) Sustainability of key project outcomes, including scaling and replication; (v) Effective coordination of the work of the government partners in this project; (vi) Approval of the Bi-annual Project Progress and Financial Reports, Annual Work Plan and Budget; (vii) Making management decisions by consensus when guidance is required from the NPC.

309. The government will designate two focal points in the MAAE and two in the MAG, who will be responsible for coordinating activities with all the national bodies involved in the different components of the project, as well as with project partners. They will also be responsible for supervising and guiding the National Project Coordinator (see below) on government policies and priorities.

310. In addition, a Project Management Committee (PMC) will be established as a technical support body, which will be responsible for: (i) supporting the planning of project activities, advising and accompanying the SC; (ii) providing technical advice to the project; (iii) advising the SC on other ongoing and planned activities, facilitating cooperation between the project and other programmes, projects and initiatives. The PMC may also be involved in the technical assessment of the project's progress and outputs, and in the eventual development of an agreed adjustment plan in the project implementation approach, if required. It will be composed of the MAAE and MAG focal points, the Ecuadorian GEF Operational Focal Point, technical counterparts from the relevant National Authorities (with up to four delegates from each), and with the accompaniment of FAO (GEF Project Coordinator), the National Project Coordinator (NPC) representing the Project Implementation Unit (PIU) and the project's thematic specialists when and if additional thematic input is required. The PMC will meet at least quarterly and its members will ensure that project management is linked to national priorities and official inter-institutional coordination spaces (e.g., existing National Working Groups such as Working Group 1 of the CICC).

311. The Project Implementation Unit (PIU) will be co-financed by the GEF and established in CONDESAN. The main functions of the PIU, following the guidance of the PSC, are to ensure the overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWPB). The PIU will be composed of a National Project Coordinator (NPC) who will work full time during the life of the project. In addition, the PIU will include the following thematic specialists: Expert on Spatial Planning and Governance (TA1); Expert on SLM Practices (TA2); Expert on SLM Incentives and Value Chains (TA3); Indicator Monitoring Specialist for LDN who will act as technical advisor and inter-ministerial facilitator (IF); Gender Specialist in charge of the thematic advice of gender approach and who will be in charge of monitoring and evaluation (M&E) of the project (EG-M&E), a Reporter (part-time), and project technicians in the intervention sites and an administrative-financial assistant (part-time), (Figure 6). The PIU will work in coordination with the CGP and the national and sub-national strategic partners in the intervention sites, in line with the territorial implementation model proposed for the project (see Figure 2).

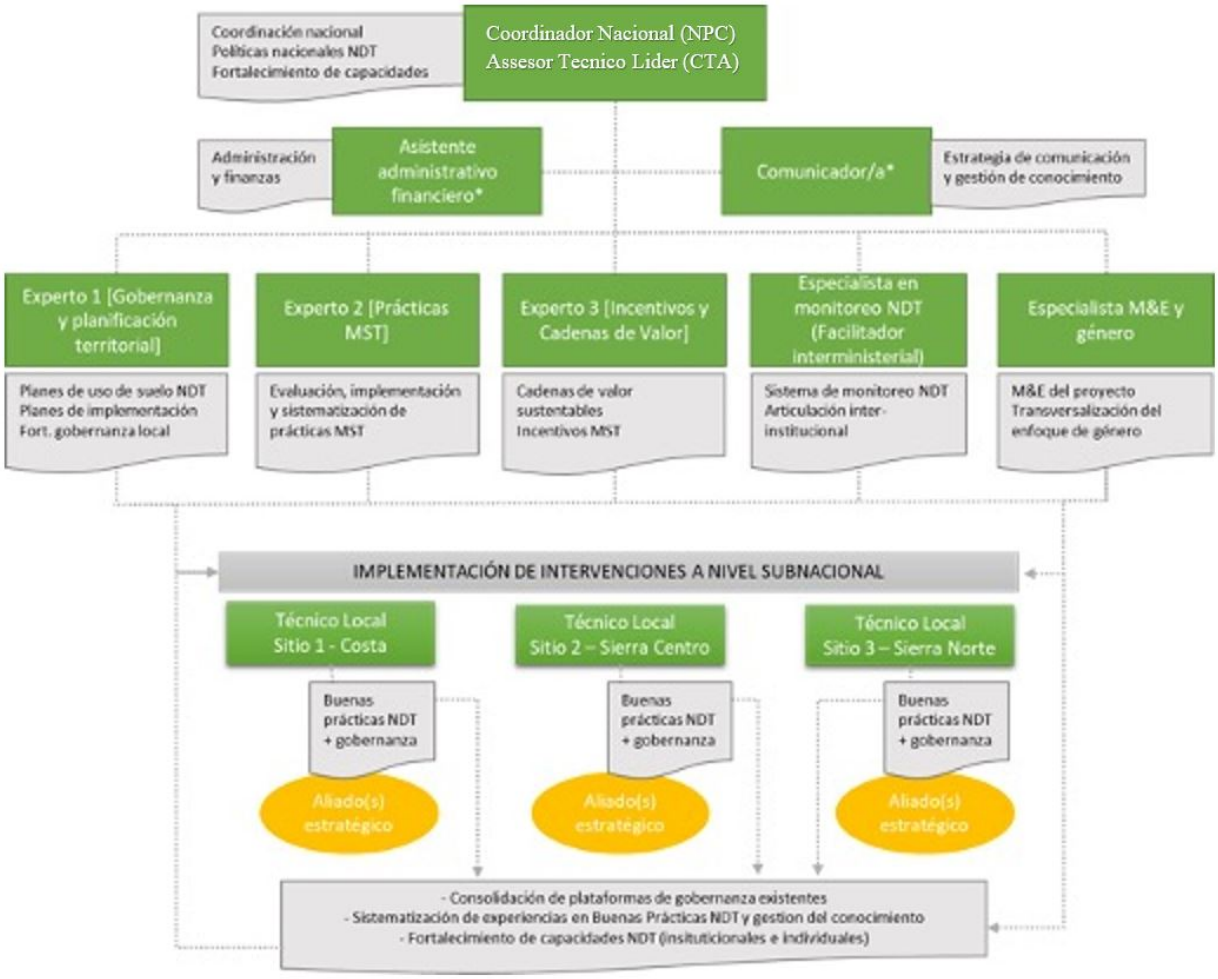

Figure 6. Composition of the Project Implementation Unit

312. The National Project Coordinator (NPC) will oversee the implementation, management, administration and daily technical supervision of the project, representing the Operating Partner (OP) and within the framework outlined by the SC. He/she will be responsible, among others, for: i) coordination with relevant initiatives; ii) ensure a high level of collaboration among participating institutions and organizations at national and local levels; iii) ensure compliance with all provisions of the OPA during implementation, including timely reporting and financial management; iv) coordinate and closely monitor the implementation of project activities; v) monitoring the progress of the project and ensuring timely delivery of inputs and outputs; (vi) provide technical support and assess the outputs of the national project consultants contracted with GEF funds, as well as the outputs generated in the implementation of the project; (vii) approve and manage requests for the provision of financial resources using the format provided in the annexes of the OPA; (viii) monitor financial resources and accounting to ensure the accuracy and reliability of financial reports; (ix) ensure the timely preparation and submission of requests for funds, financial and progress reports to FAO in accordance with the reporting requirements of the OPA; (x) maintain documentation and evidence describing the appropriate and prudent use of project resources in accordance with the provisions of the OPA, making this support documentation available to FAO and the designated auditors upon request; (xi) implement and manage project monitoring and communication

plans; (xii) organize project workshops and meetings to monitor progress and prepare the Annual Work Plan and Budget; (xiii) submit semi-annual project progress reports (PPRs) with the AWPB to the PSC and FAO; xiv) prepare the first draft of the Annual Project Implementation Review (APIR); xv) support the organization of the mid-term and final evaluations in close coordination with FAO?s budget holder and the FAO Office of Evaluation (OED); (xvi) submit the Operating Partner's (OP) semi-annual technical and financial reports to FAO and facilitate information exchange between the OP and FAO, as required; (xvii) inform the PSC and FAO of any delays and difficulties encountered during implementation to ensure timely corrective actions and support; (xviii) prepare and communicate required information regarding progress of the Project to the MAAE and MAG.

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

313. The project activities will be coordinated with other ongoing initiatives, promoting joint actions between different actors at different levels, and capitalizing on the use of tools, methodologies and measures developed and/or validated in the framework of processes related to the project's theme. CONDESAN, in collaboration with MAAE, MAG and FAO, will be responsible for the coordination of the project with other initiatives underway, in particular the cooperation projects identified. FAO will promote coordination and synergies with the activities of international partners, while the ministries will facilitate the coordination of project activities with other relevant national government partners and their own actions and initiatives at local, regional and central level.

314. The project will develop mechanisms for collaboration with the following GEF-funded projects:

? GEF ID 5384: Andes Adaptation to the Impact of Climate Change on Water Resources, AICCA. The regional project is being implemented by CONDESAN in coordination with the Ministries of Environment of Bolivia, Colombia, Ecuador and Peru. Its objective is to generate information and share relevant experiences in the region regarding adaptation to climate change and variability.

? The Project ?Fortalecimiento de las Reservas de Biosfera del Ecuador como Estrategia para la Conservaci?n y el Desarrollo Sostenible? (Strengthening Ecuador's Biosphere Reserves as a Strategy for Conservation and Sustainable Development), which has the United Nations Development Programme (UNDP) as its implementing agency, and whose execution is expected to begin in the fourth quarter of 2020. This project aims to strengthen the management of Ecuador's network of biosphere reserves in two sites: The Dry Forest Reserve in Loja and the Biosphere Reserve of the Andean Choc? in Pichincha, which is adjacent to the Northern Highlands site of the LDN project.

? The Small Grants Programme (SGP) implemented by the UNDP in Ecuador since 1994 has financed 384 projects. The SGP has promoted investments under the bio-corridor approach in several areas located within the project intervention sites and has established local stakeholder networks. In Operational Phase 7, the SGP will promote bio-enterprises (i.e., community initiatives that use and sustainably exploit wild biodiversity and agro-biodiversity) to achieve landscape management, promoting joint work of community organizations in nine landscapes of the Coast, Highlands and the Amazon.

315. During the formulation phase, different approaches have been made and agreements are being reached with other ongoing initiatives to leverage more investments and capitalize on lessons learned on SLM, in particular the Early Movers REDD Programme (REM) funded by the German and Norwegian governments with activities in Santa Elena province, and the Sustainable Land Management (SLM) Project funded by the UNCCD and the Korean Forest Service (KFS). Likewise, projects have been identified that will soon be implemented within the project's territorial scope. Approaches have been made to the institutions in charge of their implementation and common lines of action and shared priorities have been

identified: German Cooperation-GIZ with the project ?Conservaci?n y uso sostenible de ecosistemas de monta?a? (Conservation and Sustainable Use of Mountain Ecosystems) which is expected to start in 2021 in the Central Highlands; the ?Proyecto Paisajes Andinos? (Andean Landscape Project) financed by the International Union for Conservation of Nature (IUCN) and to be implemented by FAO in areas/communities bordering the project in the Northern and Central Highlands from 2021; and the Resilient Andes Project financed by the Swiss Agency for Development and Cooperation (SDC) which will intervene at the end of 2020 in the provinces of the Central Highlands. These projects were described in Section 1.a Project Description, subsection 2) Baseline scenario and associated projects.

316. Table 7 below summarises the opportunities for synergies and collaboration identified during the project design phase, as well as the resources to be required for coordination.

Table 7 ? Synergies and coordination with other GEF projects and other projects

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
GEF ID 5384 (CAF): Andes Adaptation to the Impact of Climate Change on Water Resources, AICCA.	Links between Conventions. Co-benefits related to climate change, biodiversity, ecosystem services and SLM.	Methodologies and tools designed by AICCA (determination of vulnerability, risks and threats to CC; identification of gaps in adaptation; integration of climate change measures in land management plans). Participatory land management tolls and governance models on a watershed scale. SLM/SFM experiences implemented (e.g., restoration of water services through adaptation measures based on SLM/SFM practices). Governance experiences at watershed level for land management including CC criteria. Experience of scaling local proposals on adaptation to national policies	Capacity development in SLM/LDN at local level (contents and didactic tools). Strengthening of inter-sectoral coordination and land management mechanisms. Participatory assessment of SLM practices. Incentives and market access mechanisms.	Experience sharing meetings Participation in seminars and workshops. National project coordinators meeting.	Systematization of implemented measures. Movement of stakeholders/ beneficiaries to seminars/ workshops/ exchanges to transfer practices and lessons learned. Facilitation of regional workshops on SLM practices and climate resilience. Time of the National Coordinators and/or thematic specialists to attend coordination meetings and other activities. Participation in workshops on lessons learned. Distribution of communication materials.

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
GEF (UNDP): Small Grants Programme (SGP).	Capacity strengthening at sub-national level (specially at the Coastal intervention site). Incentives and value chains.	Successful partnership experiences and products with territorial identity. Articulation with local processes in the Biocorridors for Good Living and territorial coordination initiatives. Agrobiodiversity management and conservation practices.	Capacity development in SLM/LDN at local level (contents and didactic tools). Incentives and market access mechanisms. Strengthening partnerships in sustainable value chains.	Launch a common work agenda in the project intervention sites. Information exchange meetings. National project coordinators and local partners meeting. Exchange of experience between producers and organisations.	Time of the National Coordinators and/or thematic specialists to attend coordination meetings and other activities. Movement of stakeholders/ beneficiaries to seminars/ workshops/ exchange of practices and lessons learned. Distribution of communication materials and knowledge management tools.

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
Fortalecimiento de la Red de Reservas de Biosfera del Ecuador como Estrategia para la Conservaci?n y el Desarrollo Sostenible (Strengthening Ecuador's Biosphere Reserves as a Strategy for Conservation and Sustainable Development Project (UNDP).	Participatory land management and local governance (especially in the Northern Highlands intervention site, Pichincha province) SLM Practices Sustainable value chains	Participatory land management tools. Methodologies to be developed (e.g., sustainability indicators in value chains). Evidence on SLM practices. Linkage mechanisms to value chains at the local level.	Capacity development in SLM/LDN at local level (contents and didactic tools) Strengthening inter-sectoral coordination and territorial management mechanisms Participatory assessment of SLM practices Incentives and market access mechanisms.	Information exchange meetings. National project coordinators meeting. Seminars and workshops. Exchanges of experiences between producers and organisations. Development of methodologies (e.g., participatory evaluation of practices).	Time of the National Coordinators to attend coordination meetings and other activities. Movement of stakeholders/ beneficiaries to seminars/ workshops/ exchange of practices and lessons learned. Participation in workshops on lessons learned. Distribution of communication materials.

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
Early Movers REDD Programme (REM) - Germany, Norway (For the Coastal site - Santa Elena province)	SLM Value chains and market access (For the Coastal site - Santa Elena province)	Restoration experiences. Experience in value chains and market Access.	Capacity development in SLM/LDN at local level (contents and didactic tools). Participatory Implementation Plans SLM practices. Incentives and market access mechanisms.	Information exchange meetings. Methodologies harmonisation. National project coordinators meeting. Joint seminars and workshops. Exchange of experience between producers and organisations.	Time of the National Coordinators and/or thematic specialists to attend coordination meetings and other activities. Movement of stakeholders/ beneficiaries to seminars/ workshops/ exchange of practices and lessons learned. Participation in workshops on lessons learned.

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
Projects to start in 2020/21: Conservation and sustainable use of mountain ecosystems.	Strengthening local capacities. Best SML practices. Articulation of local stakeholders. (Central and Northern Highlands sites).	Capacity development in SLM/LDN at local level (contents and didactic tools). SLM practices Articulation with other stakeholders.	Capacity development in SLM/LDN at local level (contents and didactic tools). Methodology for Participatory Implementation Plans. Strengthened local coordination mechanisms. SLM practices. Methodologies for measuring LDN indicators at local level.	Joint development of reference frameworks. Methodologies harmonisation. Information exchange meetings. National Project Coordinators meeting to validate LDN targets. Joint seminars and workshops Exchanges of experience between producers and organisations.	Time of the National Coordinators and/or thematic specialists to attend coordination meetings and other activities. Movement of stakeholders/ beneficiaries to seminars/ workshops/ exchange of practices and lessons learned. Participation in workshops on lessons learned.

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
Andean Landscape Project ? FAO/EU.	Strengthening local capacities. Best SML practices. Value chains and access to markets Articulation of local stakeholders Ecosystems restoration and conservation. (Central and Northern Highlands sites).	Capacity development in SLM/LDN at local level (contents and didactic tools). SLM practices Criteria for LDN considerations in value chains. Articulation with MAAE and MAG in relation to LDN.	Capacity development in SLM/LDN at local level (contents and didactic tools). Methodology for Participatory Implementation Plans. Strengthened local coordination mechanisms. SLM practices. Methodologies for measuring LDN indicators at local level.	Joint development of reference frameworks. Methodologies harmonisation. Information exchange meetings. National Project Coordinators meeting for LDN targets validation. Joint seminars and workshops. Joint seminars and workshops. Exchange of experience between producers and organisations.	Time of the National Coordinators and/or thematic specialists to attend coordination meetings and other activities. Movement of stakeholders/ beneficiaries to seminars/ workshops/ exchange of practices and lessons learned. Participation in workshops on lessons learned.

Projects	(Indicative) actions where there are synergies	Contributions of the project	Contributions of the GEF LDN	Coordination activities	Resources needed for coordination
Resilient Andes Project ? SDC.	Articulation of local stakeholders. (Central and Northern Highlands sites)	Capacity development in SLM/LDN at local level (contents and didactic tools).	Capacity development in SLM/LDN at local level (contents and didactic tools). Strengthened local coordination mechanisms.	Information exchange meetings. National Project Coordinators meeting for LDN targets validation.	Time of the National Coordinators and/or thematic specialists to attend coordination meetings and other activities.

[1] Operating Partner

[2] Operational Partnership Agreement

[3] Operational Partnership Agreement

[4] Operating Partner

7. Consistency with National Priorities

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

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

7.1 Consistency with national development objectives and policies

317. Through actions put forward, the project will support national and sub-national efforts to achieve LDN as a core and articulating intervention element. The project will support the adoption of the LDN approach and will contribute to: 1) implementing pilot measures for ecological restoration and recovery of degraded areas, in coordination with the different government levels; 2) strengthening participatory land planning processes under the LDN approach (including the concept of watersheds) to promote measures and uses for conservation, restoration and sustainable production that enhance synergies and minimise trade-offs between benefits, including the maintenance of water services, food security and climate resilience; 3) encouraging production under the agro-ecological approach, through the adoption of sustainable production practices and support for their commercialisation to promote smallholders sustainable value chains; 4) strengthening national LDN targets monitoring capacities, and 5) adopting a gender and intercultural approach to promote affirmative actions in favour of women and communities, communes, peoples and nationalities, many of whom inhabit fragile lands and ecosystems.

318. In that regard, the project is framed and contributes directly to the following national policies and priorities:

? National Development Plan 2017-2021: Through the implementation of ecosystems restoration and conservation practices, the project contributes to Objective 3 of Component 1: Ensuring nature rights for current and future generations. The implementation of sustainable production practices and support to sustainable value chains contributes to Objective 6 of Component 2: Develop productive and environmental capacities to achieve food sovereignty and rural Good Living.

? National Climate Change Strategy: The project promotes ecosystem-based adaptation through the recovery of degraded systems, thus contributing to Objective 5 of the NCCS's Strategic Line of Adaptation to Climate Change: Conserve and sustainably manage natural heritage and its terrestrial and marine ecosystems, to improve their response capacity to climate change impacts.

? REDD+ National Action Plan: The project has a strong convergence with the measures proposed in the REDD+NS. The project will work directly on Measure B of Strategic Component 1: Land management and zoning of the agricultural and forest boundary, through the development and local adoption of planning instruments that includes SLM and restoration objectives. The adoption of sustainable productive practices contributes to: i) agricultural productive reconversion and ii) improvement of productivity and promotion of the adoption of good agricultural, forestry and aquaculture practices; both of which are part of Component 2. The project will focus on improving forest management practices in the intervention sites, thus contributing to Strategic Component 3: Sustainable forest management. Additionally, conservation and restoration measures will be implemented in the intervention sites, contributing directly to the objectives of Strategic Component 4: Conservation and Restoration.

? Nationally Determined Contribution (2019): As regards proposed targets, the project can contribute to the Land-Use, Land-Use Change, and Forestry, Agriculture and Forestry sectors. The country has unconditionally committed to a 4% reduction in land-use and land-use change, which includes deforestation and land degradation. This includes sustainable land management actions, forest protection and conservation incentive schemes. The project support to national efforts to adapt the LDN approach seeks to underpin and strengthen cross-sectoral institutional arrangements, the design of actions to increase climate and food resilience, the mobilisation of financial investments for low emission development.

? UNCCD-PRAIS: The project will contribute to improving the state of affected ecosystems and to combat desertification/land degradation, specifically supporting the following objectives: SO1: to promote sustainable land management and contribute to land degradation neutrality; SO2: to mitigate, adapt to and manage the effects of drought; SO3: to enhance vulnerable populations and ecosystems resilience; and SO4: to improve the living conditions of affected populations and produce global benefits through project implementation. In addition, it will support the strengthening of national capacities for target reporting and monitoring of LDN indicators (LCC, SOC and productivity).

319. In addition, the project is in line with: 1) COA, which integrates conservation, sustainable soil management and climate change mitigation objectives, and encourages the implementation of measures to avoid deforestation, natural forests degradation and ecosystems degradation as part of the criteria for climate change mitigation measures 2) the Organic Law on Rural and Ancestral Lands, which provides for as a national priority, the protection and use of rural production land and its environmental function, in order to ensure its maintenance and the regeneration of its life cycles, structure and functions and, therefore, measures shall be taken to prevent degradation caused by intensive use, pollution, desertification and erosion; 3) the Law on , Use and Exploitation of Water Resources, which explicitly promotes actions at all government level for the recovery and restoration of river watersheds in order to ensure the preservation and conservation of water quality and supply; 4) the Organic Law Governing Territorial Use and Management of Land, which regulates territorial planning, stipulates to take notice of the potential use and treatment of the land in order to achieve sustainable development; and 5) the Organic Law on the Food Sovereignty Regime, which promotes sustainable food production for food security and sovereignty.

320. At the sub-national level, the project is consistent with the PDOTs of the provinces that make up the intervention sites, with the challenges identified therein and with the proposals for action that are linked to a greater or lesser extent to the LDN approach and represent opportunities for collaboration

with the project. The PDOT of the Province of Bol?var 2020 proposes models of environmental management and farm production as well as the interest of improving marketing channels through associative trade, which represents an opportunity to integrate the LDN approach. The PDOT of the Province of Chimborazo 2015 is in the process of being updated and emphasizes the need to create a more decisive environmental policy. The PDOT updating for the Province of Imbabura 2015-2035 proposes public policies that are in line with the LDN approach expanding the surface of protected areas and fostering reforestation. In terms of production, the proposal is to advance in the integrated management of hydrographic units, increase access to irrigation, improve the spaces for commercialisation of agricultural chains and promote ?sustainable productive activities to improve living conditions and local economy revitalisation?. The Manab? PDOT 2015-2024, Province of Milenio includes a productive agenda that establishes programmes, prioritizes productive chains, and contains strategies to face the environmental problems in the province, such as the reforestation programme and the sustainable livestock programme. The PDOT updating of the Provincial Government of Pichincha 2019-2025 includes peasant production and trade development projects related to the LDN approach, such as strategic objective 2 (?To promote productive development in accordance with the territorial vocation and potential, articulating the value chains, the financial system, the industrial and business sectors, the popular and solidarity-based economy with strategic public-private partnerships?); strategic objective 3 (?Fostering short alternative circuits to promote food sovereignty?) and strategic objective 7 (?Promoting research, innovation and technology transfer in support of the production of goods and services with a sustainable approach that improves territorial competitiveness?). The PDOT of Santa Elena Province 2015-2019 contains two strategic objectives in relation to the environmental and productive problems of the province and they are in line with elements of the LDN approach: To preserve water, soil and biodiversity as common goods for the population, facing at the same time the disturbance of the natural environment? and ?To contribute, promote and support the productive systems of the province: tourism, fishing-aquaculture and agriculture?. The Tungurahua Agenda 2017-2019 (being updated) highlighted the conservation of the paramos and management of irrigation (water), the development and launching of an Agricultural Strategy and the management of a Trust ?Tungurahua Paramos Fund and Fight against Poverty?.

7.2 Consistency with FAO's Strategic Framework and Objectives

321. This project is in line with the FAO Medium Term Plan 2018-2021, in particular, Strategic Objective 2 (SO2): Make agriculture, forestry and fisheries more productive and more sustainable and its Strategic Programme (SP2) which focuses on increasing production and productivity in a sustainable manner, as well as the fight against climate change and environmental degradation in the areas of agriculture, forestry and fisheries, through: 1) supporting producers, with emphasis on gender equality, to become agents of change and innovators and achieve higher production and productivity in a sustainable manner; 2) supporting governments in creating enabling environments through policies, investment plans, programmes and governance mechanisms for sustainable agriculture, forestry and fisheries and fighting against climate change and environmental degradation in a cross-sectoral, integrated and more participatory manner; and 3) supporting governments in strengthening policy implementation, especially through international and regional instruments relevant to sustainable agriculture, forestry and fisheries.

322. The project is also consistent with the FAO Regional Initiative 3 Sustainable Use of Natural Resources, Climate Change Adaptation and Risk Management for Latin America and the Caribbean, which

seeks, among other things: 1) to strengthen the institutional framework to implement policies on the sustainable use of natural resources, climate change adaptation and disaster risk management, with a food and nutritional security approach; and 2) to reduce natural resources degradation necessary for food production.

323. Finally, the project is aligned with the Country Programming Framework 2018-2021 with Ecuador, in particular with Priority 3 Sustainable management of natural resources and resilience to risk, through the consolidation of environmental policy related to the conservation and sustainable management of biodiversity, ensuring ecosystem services and in the development of strategies for mitigation and adaptation to climate change, and their respective expected achievements: 3.1: Technical assistance in the design of policies and strategies for the management, conservation and sustainable use of natural resources and biodiversity, including climate change management and risk and disaster prevention, and considering multisectoral integration with a territorial and gender approach, and the application of the principles and rights of indigenous peoples and nationalities; 3.2: Capacity strengthening for data analysis and reporting, through monitoring and information systems for the conservation and sustainable management of natural resources; and 3.3: Technical assistance for the implementation of integrated and multisectoral strategies for the conservation and management of natural resources (landscapes, forests, lands, water and ecosystem services), including approaches to climate change mitigation and adaptation that reduce GHG emissions and the vulnerability of the population.

8. Knowledge Management

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

8.1 Knowledge Management

324. Knowledge management will be a cross-cutting activity throughout the project, to draw up an institutional report, promote continuous learning, produce documentation to support the scaling of project outcomes and visibility strategies for capacity development and advocacy.

325. Knowledge management will be aligned with the principles defined in the FAO Knowledge Management Strategy aimed at government actors, project beneficiaries and partners, taking into account cultural perceptions and including the following guidelines in its design and implementation: a) Take a participatory and gender approach, b) Underpin ongoing processes of high acceptance and focused on finding solutions to local problems, c) Differentiated training for the type of actor at multiple scales, and d) Implement a mechanism for the monitoring and evaluation of outcomes and impact of the capacity strengthening programme.

326. The project will prepare a knowledge management plan focused on LDN and SLM that will include knowledge and communication outputs in LDN and SLM practices that can be applied to achieve LDN at local and national levels. The knowledge products will include technical documents on: i) LDN baseline; ii) causes of land degradation; iii) SLM practices; iv) LDN policy and regulatory analysis; v) economic valuation scenarios and territorial strategies for LDN; vi) participatory impact assessment of

SLM practices. A national LDN guide will also be published describing how LDN should be measured at different scales and how gains and losses could be balanced from the micro-watershed, watershed, landscape and up to the national scale. Finally, lessons learned will be published, as well as a Policy Brief on LDN in Ecuador.

327. Knowledge outputs will be produced in appropriate formats and in a language adapted to the different project audiences, such as authorities, technicians, and communities. The project website will be linked to FAO, MAAE, MAG and other partner organizations? web platforms with the aim of providing continuous and updated information on project progress to the various actors and partners as well as to the public. It will be regularly updated to share experiences on an ongoing basis, disseminate information, draw up policies and highlight outcomes and progress and facilitate the replication of processes throughout the entire project.

Table 8. Indicative knowledge management products

Knowledge management deliverables	**Budgeted Cost (USD)**	**Timeframe /periodicity**
1. Knowledge management plan with a gender perspective and an intercultural approach implemented	National Project Coordinator, Gender Specialist and Communications specialist time covered by project budget	To be prepared by Q2 Y1.
2.Website of the project developed	PIU and Communications specialist time covered by the project budget	To be started by Q3 Y1.
3. Publication of SLM/LDN documents		
Synthesis of knowledge about LDN at national level *Document on LDN baseline*	90,000	Halfway through project implementation.
National Synthesis of SLM Practices including the systematization of ancestral knowledge and practices *Analysis of technical and economic feasibility*	10,000	Halfway through project implementation.
Document on Causes of Land Degradation	20,000	Halfway through project implementation.
Analysis of policy and regulations about LDN, national and local	50,000	Halfway through project implementation.

Economic valuation scenarios for LDN	National Project Coordinator, M&E Specialist, Governance specialist, SLM specialist, Incentives specialist time covered by project	Halfway through project implementation.
Land use synergies and commitments mapping tool	50,000	Halfway through project implementation.
Systematization of lessons learned about LDN implementation at the subnational level (at least 40% of the lessons include learning that represented changes for women)	National Project Coordinator, M&E Specialist, Governance specialist, SLM specialist time covered by the project	Halfway through project implementation.
Mapping of incentives available for LDN at the national level	50,000	Halfway through project implementation.
Updating the portfolio of SLM practices at WOCAT with an emphasis on practices led by women and ancestral knowledge	PIU and Governance specialist time covered by the project	At the end of project implementation.
Value chain analysis through life cycle assessment	PIU, Incentives specialist and local technicians time covered by project budget	At the end of project implementation.
Update of the portfolio of SLM practices at WOCAT	PIU and SLM specialist time covered by the project	At the end of project implementation.
Results and materials disseminated through the project website.	PIU and communications specialist time covered by the project	At the end of project implementation.
Total Budget	**270,000**	

328. The gender approach will be an important part of the knowledge outputs generated by the project, covering, for example, experiences in gender mainstreaming; successful cases of women implementing gender-sensitive SLM practices (e.g., labour-saving practices), women benefiting from

incentives, and women-led organisations with access to market; tools used for gender mainstreaming throughout the project cycle, and others identified during implementation.

8.2 Communication Strategy

329. The project will also implement a communication strategy that supports the positioning of the project, its outcomes and LDN activities aimed at the implementing partners and institutional and community actors at national and sub-national levels who participate in the project and are beneficiaries of the same. This strategy will include a logo, emblematic images, and campaigns or events at the national and local level to position important concepts and ideas on LDN, SLM among national and local actors, producers and consumers, especially in the project intervention areas. The strategy will include the dissemination of technologies and approaches on the WOCAT platform and in the resources available for the project, as a key tool to improve the knowledge on SLM and LDN. Likewise, the preparation and dissemination of the national PRAIS report and support to the working groups will be led by the project together with MAAE and MAG.

330. Many of the project activities will address the high visibility of the project, and the communication strategy will ensure that the project activities and messages are effective and contribute to this visibility. In Component 1 the capacity development programme for the implementation of the LDN approach will be implemented across all components. The project's capacity development programme will consider the needs of three distinct target groups: (1) national government technicians linked to information generation and monitoring processes, (2) local DAG technicians and support organizations providing technical assistance on SLM to producers, and (3) landowners and users for the adoption of SLM practices will widely disseminate the project at national and sub-national levels. This component will also promote stakeholder?s participation in LDN baseline evaluation and validation processes, SML indicators and practices, as well as in the integration of the LDN approach into national policies and sub-national planning tools. The participation in the various activities will contribute to the visibility of the project. The key messages under this component include the importance of the LDN approach to promote the coordinated planning and management of actions at the national and sub-national levels that Ecuador must carry out to address the land degradation problem, and the establishment of LDN targets for the fulfilment of the commitments made by Ecuador to the international community.

331. In Component 2, the capacity development programme will promote the adoption of SLM practices and for a successful implementation will use methodologies and processes based on the principles of the peasant to peasant co-learning system, field schools, promoting the exchange of experiences, lessons learned and practice at the farm level. In this way, capacities will be developed for the beneficiaries to support the project's interventions, in addition to expanding the capacities of their peers and other local actors to reproduce and multiply them, which will give visibility to the project. The participatory coordination mechanisms under this component will engage stakeholders from the public, private, community, academic and civil society sectors, who will disseminate the project widely. The elaboration of participatory implementation plans will be widely disseminated among local actors contributing to the visibility of the project. Information and training materials will support the communication of key project messages in this component, including among others, the importance of SLM/SFM practices to prevent, reduce and reverse the effects of land degradation and climate change.

332. In Component 3, the capacity development will also contribute to the visibility of the project, fostering producer?s empowerment and their organisations, and facilitating and encouraging the implementation and replication of sustainable practices, as well as improving local capacities for value chain management. The availability of incentive mechanisms to promote the adoption of and access to SLM practices by beneficiaries, as well as the projected increase in beneficiaries' income through improved market access for their products will contribute to high visibility.

333. In Component 4 the project's M&E System will serve to measure its progress and impacts in terms of multiple global environmental benefits, social and economic benefits, which will be made known through the systematization of experiences and lessons learned and published and disseminated. The project will ensure the mechanisms for a maximum dissemination of the documents produced by the project and the Final Report, the technical reports and the mid-term and final evaluation reports. The project website and the partner institutions will serve to disseminate information to a wide audience to raise awareness about the importance of moving towards the achievement of the LDN. The project also shares information with relevant platforms such as WOCAT and the PRAIS national reports for the UNCCD.

8.3 Lessons Learned

334. During the preparation phase of the project, some initiatives have been identified that provide information, knowledge and experiences considered in the design. The project Capacity Development in Soil Information for Sustainable Natural Resource Management in Countries of South America is a regional FAO project supported by the Global Soil Partnership, in which Ecuador participates through MAG. The project aims to enhance national capacities on soil information and in the framework of this project FAO and the countries developed the Global Soil Organic Carbon map. This previous mapping will provide the basis for the LDN indicators baseline assessment in Ecuador.

335. The project Integrated Management to Combat Desertification, Land Degradation and Adaptation to Climate Change ? GIDDACC, was implemented in the period 2014-2018, with funding from the Ministry of the Environment of Ecuador, to promote the use of ancestral practices and innovative sustainable production initiatives for the conservation of biological resources and water. The project also promoted the sustainable use of land as part of the productive landscapes improvement. The project has achieved 85 SLM practices, especially in the provinces of Tungurahua, Manab?, El Oro, Napo, Pichincha and Azuay.

336. The GEF/FAO project Apoyo en el proceso de toma de decisiones para la ampliaci?n e integraci?n de la gesti?n sostenible de la tierra (Support to the decision-making process for the expansion and integration of sustainable land management) implemented by MAAE and MAG, supported the first National Land Degradation Assessment in 2018, which identified the main causes of degradation in agricultural areas as being related to overgrazing, poor crops and grasslands management, urban development and overexploitation of forests. This first assessment shows qualitative information at the national level and was the first analysis of this type conducted on land degradation. The best SLM practices identified in this project and the local assessments serve as a reference to be scaled to other areas of the country. The GEF/FAO Climate-smart Livestock Management Integrating Reversion of Land Degradation

and Reduction of Desertification Risks in Vulnerable Provinces project implemented by MAAE and MAG has developed experiences in capacity strengthening and access to credit that will serve as a basis for the design of activities to be implemented. The M&E System developed by this project will be considered in the development of the M&E System for the LDN project. The GEF ID 4922 project Apoyo en el proceso de toma de decisiones para la ampliaci?n e integraci?n de la gesti?n sostenible de la tierra (Support to the decision-making process for the expansion and integration of sustainable land management) carried out the National Assessment of Land Degradation in Ecuador, which identified the main causes of degradation in agricultural areas (e.g. overgrazing, poor management of crops and pastures, urban development and overexploitation of forests) providing background information for project design and implementation.

337. In addition, MAG carried out an analysis of soil degradation in Ecuador through the project Rehabilitaci?n Sostenible de Suelos con Cangahua como Mecanismo de Resiliencia frente al Cambio Clim?tico en el Ecuador (Sustainable Soil Rehabilitation with Cangahua as a Mechanism of Climate Change Resilience in Ecuador). This analysis established areas in which degradation has reached high levels, identifying the presence of cangahua (i.e., hardened volcanic soils located in the Inter-Andean corridor that have lost their fertility). CONDESAN implemented the UNEP/GEF project #4750 Multiplying environmental and carbon benefits in high Andean ecosystems, through which the lessons learned regarding the validation of SLM practices, the formulation of integrated land use plans with DAGs and the development of local monitoring systems, contribute to the design of this project. The project's intervention strategy articulated with ongoing processes through agreed agendas with local actors and the strengthening of local governance platforms. Hence, the sub-national partners give continuity to several actions undertaken by the project, including the subsequent replication and scaling of designed tools, which have allowed to sustain positive project results.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

338. Monitoring and evaluation (M&E) of progress in achieving project outcomes and objectives will be based on the targets and indicators set out in the Project Results Framework (Annex A1) and their description in section 1.a. Project monitoring and evaluation activities have been budgeted at USD 193,850 (see Table 9 below). Monitoring and evaluation activities will follow FAO and GEF monitoring and evaluation policies and guidelines. The M&E system will also facilitate learning and replication of project outcomes and lessons related to comprehensive natural resource management.

9.1 Surveillance and monitoring responsibilities

339. The duties and responsibilities for monitoring and evaluation specifically described in the monitoring and evaluation table (see Table 9 Section 9.4) will be carried out through: (i) day-to-day monitoring and surveillance missions by the Project Implementation Unit (PIU); (ii) technical follow-up of indicators to measure reduction in land degradation (PIU and LTO in coordination with partners); (iii) mid-term review and final evaluation (independent consultants and FAO-OED); and (v) monitoring and surveillance missions (FAO).

340. At the beginning of the GEF project implementation, the PIU will establish a system to monitor the project progress. Participatory mechanisms and methodologies will be developed to support the monitoring and evaluation of performance indicators and outputs. During the project kick-off workshop (see section 9.3 below), monitoring and evaluation tasks will include (i) presentation and explanation (if necessary) of the project's Results Framework with all project stakeholders; (ii) review of monitoring and evaluation indicators and their baselines; (iii) development of draft clauses to be included in consultancy contracts, to ensure compliance with monitoring and evaluation reporting functions (if applicable); and (iv) clarification of the division of monitoring and evaluation tasks between different project stakeholders. The technical assistant together with the PIU will prepare a draft monitoring and evaluation matrix to be implemented during project implementation. The M&E matrix will be a management tool for the Project Coordinator (PC) and Project Partners to: i) monitor the achievement of output indicators on a bi-annual basis; ii) monitor the achievement of outcome indicators on an annual basis; iii) clearly define responsibilities and means of verification; iv) select a method to process indicators and data.

341. The M&E Plan will be prepared by the NPC and the Technical Assistant together with the project partners in the first three months of year 1 and validated by the PSC. The M&E Plan will be based on the M&E Table 9 and the M&E Matrix and will include: (i) the updated results framework, with clear indicators by year; (ii) updated baseline, if necessary, and selected tools for data collection; (iii) description of the monitoring strategy, including roles and responsibilities for data collection and processing, reporting flows, the monitoring matrix and a brief analysis of who, when and how each indicator will be measured. Responsibility for project activities may or may not overlap with responsibility for data collection; (iv) updated implementation arrangements, if necessary; (v) integration of the monitoring tool indicators, data collection and monitoring strategy to be included in the mid-term review and final evaluation; (vi) schedule of evaluation workshops, including self-evaluation techniques.

342. The NPC will be responsible for the daily monitoring of the project implementation what will be driven by the preparation and implementation of an AWPB followed-up through semi-annual PPR reports. The preparation of the AWPB and the bi-annual PPRs will represent the product of a unified planning process among the main stakeholders of the project. As results-based management (RBM) tools, the AWPB will identify the proposed actions for the next project year and provide the necessary details on the outputs and outcomes to be achieved, and the PPRs will report on the monitoring of actions implementation and achievement of output and outcome targets. Specific inputs to the AWPB and the PPRs will be prepared based on participatory planning and review of progress with all stakeholders and will be coordinated and facilitated through project planning workshops and progress review in management committees. These contributions will be consolidated by the NPC in the AWPB and PPR drafts.

343. An annual project progress review and planning meeting will be held with the participation of the project partners to finalise the AWPB and the PPRs. Upon completion, the AWPB and the PPRs will be sent to FAO?s LTO for technical approval and to the Project Steering Committee for review and approval. The AWPB will be developed in a manner consistent with the Project Results Framework to ensure adequate compliance and monitoring of project outputs and outcomes. Following Project approval, the Year 1 AWPB will be adjusted (either reduced or extended in time) to synchronise it with the annual

reporting schedule. In subsequent years, AWPBs will follow an annual cycle of preparation and reporting as specified in section 9.3 below.

9.2 Indicators and Sources of Information

344. To monitor project outputs and outcomes, including contributions to global environmental benefits, a set of indicators is established in the Results Framework (Annex A1). The indicators and means of verification in the Results Framework will be applied to monitor both project performance and impact. Following FAO's monitoring procedures and progress report formats, the data collected should be sufficiently detailed to allow monitoring of specific outputs and outcomes and to identify risks to the project in advance. Indicators of output targets will be monitored every six months and indicators of outcome targets will be monitored every year where possible or at least in the mid-term and final evaluations.

345. The main information sources to support the M&E plan include i) participatory workshops to review progress with actors and beneficiaries; ii) on-site monitoring of the implementation of field interventions; iii) progress reports prepared by the NPC with inputs from partners, project specialists and other actors; iv) consultancy reports; v) training reports; vi) mid-term review and final evaluation; vii) financial reports and budget reviews; viii) Project Implementation Reports prepared by FAO?s LTO with the support of the FAO Representation in Ecuador; and ix) reports of FAO monitoring missions.

9.3 Reporting plan

346. The reports that will be specifically prepared within the monitoring and evaluation programme framework are: (i) the Project Start-up Report, (ii) the Annual Work Plans and Budget (AWPB), (iii) the Project Progress Reports (PPR), (iv) the Annual Project Implementation Review (APIR), (v) the technical reports, (vi) the Co-financing Reports, and (vii) the Final Report. In addition, in relation to the project Mid-Term Review and Final Evaluation, the GEF Core Indicator Worksheet will be completed so that progress can be compared with the baseline established during project preparation.

347. Project start-up report. After project approval by FAO, a project start-up workshop will be held at the national level. Immediately after the workshop, the NPC will prepare a project start-up report in consultation with the PSC and the FAO Representation in Ecuador. The report will include a description of the institutional duties and responsibilities and coordination of the project stakeholders, the progress made in its establishment and start-up activities, as well as an update on any changes in external conditions that may affect project implementation. It will also include a detailed AWPB for the first year and the Monitoring Matrix, a detailed monitoring plan based on the M&E plan presented below. The draft Start-up Report will be circulated to FAO and the PSC for review and comments prior to its completion, no later than three months after the start of the project. The report will need to be approved by the BH, LTO and FAO-GEF Coordination Unit. The BH will integrate the report into FPMIS.

348. Annual Work Plans and Budget (AWPB). The Project Coordinator shall submit a draft AWPB to the PSC by 10 December each year. This shall include monthly detailed activities to be carried out for each output and outcome and the dates by which output and outcome targets and milestones will be achieved during the year. A detailed budget of the project activities to be carried out during the year shall

also be included, together with all monitoring and supervision activities required during the year. The FAO Representation in Ecuador will distribute the draft AWPB to the FAO Project Task Force (PTF) and consolidate and submit FAO comments. The PSC will review the AWPB and the PIU will include any comments. The final AWPB will be sent to the PSC for approval and to FAO for final non-objection. The BH will integrate the AWPB into FPMIS.

349. Project Progress Reports (PPRs). PPRs are used to identify constraints, problems or bottlenecks that prevent timely implementation and take corrective actions accordingly. The PPRs will be developed according to systematic monitoring of output and outcome indicators identified in the Project Results Framework (Annex A1), the AWPB and Monitoring Plan. Each semester, the NPC will prepare a draft PPR, and will compile and consolidate FAO PTF comments. The NPC will submit the final PPRs to the FAO Representative in Ecuador every six months, prior 10 July (ranging from January to June) and prior 15 December (ranging from July to December). The report ranging from July to December should be accompanied by the updated AWPB for the following year for review and no objection by the FAO PTF. The BH shall coordinate the PPR preparation and completion, in consultation with the Project Implementation Unit, LTO and Donor Liaison Officer (FLO). After approval by the LTO, BH and FLO, the FLO will ensure that project progress reports are uploaded to the FPMIS in a timely manner.

350. Annual Project Implementation Review (PIR). The NPC, under the supervision of the LTO and the BH and in coordination with the national project partners, will prepare a draft APIR for the July (previous year) and June (current year) period by 15 June each year. The LTO will finalise the APIR and submit it to the FAO-GEF Coordination Unit for review by 2 July . The FAO-GEF Coordination Unit, the LTO and the BH will discuss the APIR and the qualifications . The LTO is responsible for the final review of the APIR and provide technical approval. The BH will submit the final version of the APIR to the FAO-GEF Coordination Unit for final approval. The FAO-GEF Coordination Unit will submit the APIR to the GEF Secretariat and the GEF Independent Evaluation Office as part of the Annual Monitoring Review of the FAO-GEF Portfolio. The APIR will be uploaded to the FPMIS by the FAO-GEF Coordination Unit.

351. Technical reports. Technical reports will be prepared as part of the project outputs and will serve to document and disseminate lessons learned. The NPC must submit the drafts of all technical reports to the PSC and the FAO Representation in Ecuador, which will in turn share them with the LTO for review and approval and with the FAO-GEF Coordination Unit for information and comments, before their completion and publication. Copies of the technical reports will be distributed to the PSC and other project stakeholders, as appropriate. These reports will be uploaded to the FPMIS by the BH.

352. Co-financing Reports. The NPC will be responsible for collecting the necessary information about in kind and in cash co-financing provided by all the co-financiers, that is, those referred to in this document and new co-financiers. Each year, the NPC will submit these reports to the FAO Representation in Ecuador prior 15 June, ranging from July of the previous year to June of the year of the report. This information will be included in the APIR.

353. GEF Core Indicator Worksheet. In accordance with GEF policies and procedures, the GEF Core Indicator Worksheet will be submitted to the GEF Secretariat in three moments: (i) together with the Project Document for approval by the GEF Executive Director; (ii) together with the mid-term review of

the project; and (iii) together with the final evaluation of the project. It will be completed by the project NPC.

354. Final Report. Within two months prior to the project completion date, the NPC will submit a draft Final Report to the PSC and the FAO Representation in Ecuador. The main purpose of the Final Report is to assist the authorities on the policy decisions necessary for the monitoring of the project, and to submit information to the donor on the use of the funds. The Final Report will therefore consist of a summary of the main outputs, outcomes, conclusions and recommendations of the Project. The report will focus on people who are not necessarily technical specialists and who need to understand the policy implications of the findings and technical needs to ensure the sustainability of the project outcomes. The Final Report will assess the activities, summarize the lessons learned and express the recommendations in terms of their application to sustainable land management and LDN in the areas of intervention, in the context of development priorities at national and provincial levels, as well as in terms of practical implementation. This report will specifically include the findings of the final evaluation as described below in section 9.5. A project assessment meeting should be held to discuss the draft Final Report with the PSC before its finalisation by the Coordinator and approval by the BH, LTO and FAO-GEF Coordination Unit.

9.4 Monitoring and Evaluation Plan

355. Table 9 shows a summary of the main monitoring and evaluation reports, managers and deadlines.

Table 9. Summary of the main monitoring and evaluation activities.

M&E Activity	Managers	Time frame / Periodicity	Budgeted costs (USD)
Inception workshop.	NPC; FAO-Ecuador (with support from the LTO, and the FAO-GEF Unit).	Two months after project inception.	USD 600
Project start-up report.	NPC, M&E expert and FAO-Ecuador with approval of the LTO, BH and FAO-GEF Unit.	Immediately after workshop start-up.	
?On site? impact monitoring.	M&E expert, NPC; project partners, local organisations.	Continuous.	USD 95,500
Supervision and Assessment of PPR and PIR progress assessment.	NPC; FAO (FAO-Ecuador, LTO). The FAO-GEF Unit can participate in the visits if necessary.	Annually, or as required.	FAO visits will be paid for by the GEF Fee. Project coordination visits will be covered by the project's travel budget.

M&E Activity	Managers	Time frame / Periodicity	Budgeted costs (USD)
Project Progress Reports (PPRs).	NPC, with contributions from stakeholders and other participating institutions.	Biannual.	Covered by the project's budget.
Annual Project Implementation Review (PIR).	Drafted by the NPC, with the supervision of the LTO and BH. Approved and submitted to the GEF by the FAO-GEF Coordination Unit.	Annually.	The time of FAO staff is financed by the GEF agencies fees. PIU time covered by the project budget.
National Steering Committee and the Project Management Committee meetings.	NPC with contributions from other co-financiers.	Annually or more.	Covered by the project budget and partners budget.
Co-financing Reports	NPC, FAO (LTO, FAO-Ecuador)	Annually.	Covered by the project budget and GEF Fee of FAO.
Technical reports	FAO-Ecuador, External Consultant, consultations with the project team, including the FAO-GEF Unit and others.	As appropriate.	PIU time covered by the project budget.
Mid-term review	FAO-Ecuador in consultation with the project team, including the FAO-GEF Unit and others.	Halfway through project implementation.	USD 35,000 for an external consultancy, managed by the BH in FAO Ecuador.
Independent Final Evaluation (EFI)	NPC; FAO (FAO-Ecuador, LTO, FAO-GEF Unit, TCS Reporting Unit).	At the end of project implementation.	USD 45,000 managed by OED with an external evaluation team. FAO staff time and travel costs will be financed by GEF agency fees.
Final Report	NPC; FAO-Ecuador (with support from the LTO, and the FAO-GEF Unit).	Two months before the end of the Project.	USD 11,500
Total budget			**USD 187,600**

9.5 Evaluation Procedure

356. When project implementation reaches 50%, an external consultant will carry out a Mid-Term Review (MTR). The BH will organize the MTR in consultation with the PSC, the PIU, the LTO and the FAO GEF Coordination Unit. The MTR will focus on the progress and effectiveness of project implementation in terms of achievement of objectives, outputs and outcomes. The MTR will allow for the implementation of corrective actions, if necessary. The MTR will provide a systematic analysis of the information included in the Monitoring Plan (see above), with emphasis on progress in achieving the targets of the expected outcomes and outputs against expenditures. The MTR will refer to the Project Budget (see Annex A2) and the approved AWPB for years 1 and 2. The MTR will contribute to highlighting replicable good practices and major problems faced during project implementation and suggest mitigation measures to be discussed by the PSC, the LTO and the FAO-GEF Coordination Unit.357. In line with FAO's evaluation policy, the FAO Office of Evaluation (OED) will conduct a final evaluation of the project, which will start within six months before the project's deadline (NTE). It will aim at identifying the project's achievements, its sustainability and its actual or potential impact. It will also aim at indicating future measures needed to ensure the continuity of the process developed through the project. OED-FAO will conduct the evaluation in consultation with project stakeholders and the donor, and will share the evaluation report, which is a public document, with them. Both the MTR and the FE will pay particular attention to performance indicators and will be aligned with the GEF Core Indicator Worksheet.

9.6 Disclosure of information

358. The project will ensure transparency in the preparation, management, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and local community representatives. Information disclosure will be ensured through publication on websites and dissemination of findings through knowledge products and events. Project reports will be widely and freely disseminated, and findings and lessons learned will be made available.

10. Benefits

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

359. The direct beneficiaries of the Project are 5,450 people, of whom 2,338 are women and 3,112 are men, who live in the intervention sites and who will benefit from all the actions of the project (on-farm activities, value chain and capacity strengthening).

360. The core benefit of the project will be the enhancement of local actors? capacities in the project intervention areas, in the intervention landscapes, in the northern and central highlands and on the

Ecuadorian coast, to cope with the pressures and impacts caused by climate change and land degradation. The peasant economies, indigenous peoples and rural communities are highly vulnerable to problems arising from abrupt changes in rainfall patterns, more frequent frosts, sudden changes in temperature and pests and diseases that affect their crops and animals, and who operate in a context of marginalization due to poor market integration and limited access to technology, credit and training.

361. In response to this reality, communities themselves have been forced to develop resilient practices or that exist as part of their ancestral knowledge. The project will collect and systematise these practices, which often include the conservation of native agrobiodiversity, crop rotation and diversification, and the application of soil management techniques, while working together with farmers, men and women, indigenous peoples and rural communities in the dissemination of technologies and the exchange of experiences to improve their sustainable land management strategies.

362. A greater adaptation capacity will also be possible by working in coordination with local institutions and organizations to strengthen local spaces for discussion and decision making to efficiently manage the resources of a given territory, improve the living conditions of its inhabitants, and implement actions to reduce risks. This benefit implies, therefore, the strengthening of governance mechanisms where multiple actors converge in the implementation of intersectoral policies.

363. In this regard, it is expected that 2,250 men and 1,500 women will adopt SLM practices that will help reduce the pressures identified and recover and increase agricultural production and productivity contributing to the betterment of livelihoods.

364. Through the project interventions and enhanced capacities of the beneficiaries, local and regional benefits will be seen in terms of improved livelihoods, cultural assertiveness and environmental sustainability and will help support the long-term maintenance of global environmental benefits (described in section 1.a Project Description - 6) Global Environmental Benefits). These benefits will be:

? Conservation and maintenance of ecosystem services (e.g., water regulation).

? Maintenance of cultural, aesthetic and spiritual benefits, scenic beauty, preservation of places of cultural significance, territorial identity, and appreciation of natural heritage.

? Benefits to the local economy through strengthened value chains and improved access to markets that help create new sources of diversification, income and better livelihoods and social benefits in terms of strengthened partnerships. The skills acquired in the implementation of sustainable value chains and market access will contribute to the improvement of incomes and livelihoods of 500 men and 500 women who take part in fruit and vegetables, milk and dairy products, honey and coffee value chains, who will see their incomes increased by 10% (the income baseline will be measured in year 1).

? Social benefits in terms of fostering strategic partnerships and empowering local actors (including women and indigenous peoples).

? Improvement of food security and quality of life and well-being of the population through long-term agricultural production sustainability, increased yields and availability of food products for local population.

? Furtherance of Decent Rural Employment through project actions embedded in the four pillars of decent employment, namely:

Table 10. Project contribution to the Decent Rural Employment pillars

Pillar	Pillar themes related to the project intervention	Project-specific actions
Pillar 1 ***Employment creation and enterprise development***	? Support to women and men smallholders to access markets and value chains ? Employment creation in rural areas, specifically for youth and women ? Vocational and educational programmes for rural population technical and entrepreneurial skills.	? Capacity development programme (Output 1.2.1). ? Incentive mechanisms (Output 3.1.1). ? Value chains and market access (Output 3.1.2).
Pillar 2 ***Social protection***	? Improving working conditions in rural areas, including effective maternity and income protection.	? Capacity development (Output 1.2.1). ? SLM/SFM practices (Output 2.1.2). ? Incentive mechanisms (Output 3.1.1). ? Beneficiaries income increase, reducing the income gap between men and women (Output 3.1.2).
Pillar 3 ***Standards and right to work***	? Socially responsible production, specifically to reduce gender and age discrimination	? SLM/SFM practices (Output 2.1.2). ? Incentive mechanisms (Output 3.1.1). ? Sustainable value chains and market access (Output 3.1.2).
Pillar 4 ***Governance and social dialogue***	? Participation of the rural poor in decision-making and governance mechanisms. ? Rural women and youth empowered to participate in these processes from the beginning.	? Sub-national systems to support decision-making (Output 1.2.2). ? Integrating the LDN approach (Outputs 1.3.1 and 1.3.2). ? Participatory implementation plans (Output 2.1.1).

365. At the national level, this work scheme is a concerted effort between MAAE and MAG which will design and implement a public policy on land degradation neutrality. This working approach facilitates dissemination of local benefits to other geographical areas of the country, improving the conditions for the country to plan and promote changes in the productive sectors, in food security and sovereignty, in its capacity to adapt to climate change and in the recovery of ecosystems and biodiversity.

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[1] According to FAO?s definition Decent rural employment refers to any activity, occupation, work, business or service performed for pay or pro?fit by women and men, adults and youth, in rural areas that: 1) respects the core labour standards as defi?ned in ILO conventions; 2) provides an adequate living income; 3) entails an adequate degree of employment security and stability; 4) adopts sector-speci?fic minimum occupational safety and health measures; 5) avoids excessive working hours and allows sufficient time for rest; 6) promotes access to adapted technical and vocational training.

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

Measures to address identified risks and impacts

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

Please refer to the uploaded project risk certification

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Project Risk Certification_Annex I1	**CEO Endorsement ESS**	

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

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Objective: Prevent, reduce and reverse land degradation processes (SDG 2, 13, 15) to promote the sustainable development of rural communities, ensuring the provision of key ecosystem services and food sovereignty, within the framework of national efforts to achieve the LDN in Ecuador (2.4.1; 13.2.1; 15.3.1)							
Component and 1: Strengthening enabling environment for LDN implementation and monitoring							

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Outcome 1.1: Institutional actors make decisions with a LDN approach based on an established monitoring system that is regularly fed	Project Indicator # 1: LDN information gathering and monitoring system working and producing LDN national indicator reports mainstreaming gender and interculturality variables.	There are several national monitoring initiatives led by the MAAE and the MAG, this includes national progress for LUCC and COS. In addition, MAAE and MAG have environmental (SUIA), agricultural (SIPA) and forest information systems. Progress is needed in the development of national LDN indicators and targets that are reported to the Convention.	Information system gathering and monitoring the LDN established, defining national LDN targets, protocols for monitoring indicators and institutional arrangements, sensitive to gender and multiculturalism, for long - term monitoring agreed among key actors (including MAAE and MAG).	System survey information and monitoring of LDN running and generating national LDN indicators, reports, integrating variables related to gender and multiculturalism.	PRAIS National Reports years 2022 and 2024. Technical reports of LDN indicators at the national and subnational level Annual Project Execution Review Report (PIR) Reports of Mid-Term Review (MTR) and Final Evaluation (FE)	The MAAE, the MAG and other key actors linked to the LDN work in a coordinated and collaborative manner to implement the actions leading to the preparation of national reports.	Project Implementation Unit (PIU) National Project Coordination (NPC) Interinstitutional Facilitator - Monitoring Specialist (FI) Gender Specialist - M&E (EG-M & E)

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output.1.1.1: LDN indicators baseline assessed at national and local level.	Project Indicator # 2: Number of LDN base line indicators established	The country has made some progress in defining certain indicators (e.g. LUCC), but it is necessary to establish the methodology to characterize and monitor the main LDN indicators.	3 base line indicators of LDN established at national level: a) soil organic carbon (SOC), b) net primary productivity (NPP) and c) change in coverage and land use (LUCC). At the least 1 complementary base line indicator of LDN established at the subnational level. 1 policy instrument containing the national LDN targets agreed and validated with key stakeholders.	3 national indicators and at least 1 complementary sub-national baseline indicator of LDN institutionalized and integrating the gender and intercultural approach.	Databases on LDN indicators (land cover, productivity, soil organic carbon) Base line report of LDN disaggregated by gender. Project Progress Report (PPR). Annual Project Execution Review Report (PIR)	Operational arrangements between MAAE and MAG to define LDN goals and methodology to establish baseline reached.	PIU - FI Monitoring Specialist

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output.1.1.2: Participatory assessment of SLM practices that prevent and reduce land degradation, restore ecosystems, reduce emissions and enhance the provision of ecosystem services.	Project Indicator # 3: Methodologies to systematize and evaluateSLM practices aligned with LDN targets and land degradation trends at the national and sub-national level that are implemented with a gender and intercultural approach.	There is little validated information on effective SLM practices and their benefit/cost ratio, which synthesizes the available knowledge on SLM practices and assists in the design of the practices to be implemented in the intervention sites. Nor are data differentiated by gender and/or with an intercultural approach. There is weak social recognition of the role of peoples and nationalities and of women in the SLM. There are successful experienc	5 SLM practices evaluated and systematized based on methodologies designed. The gender and intercultural approach has been integrated into the socio-environmental and socio-economic analyzes to find out what the SLM practices are implemented by women, men and indigenous populations and to identify the most effective SLM towards the LDN targets.	At least 10 SLM practices evaluated and systematized integrated the gender and intercultural approach based on previous experiences.	Participatory Evaluation Report of SLM practices with a gender and intercultural approach. Technical reports of studies on LDN and SLM practices integrate the gender and intercultural approach to know which are the SLM practices implemented by women, men and indigenous populations and to identify the most effective SLM towards the LDN targets. Analysis of technical and economic feasibility of SLM practices Portfolio of practices systematized in the WOCAT platform	Participants in the implementation of practices at the intervention sites provide access and base information for the evaluation of practices.	PIU-Specialist in SLM Practices (AT2)

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output 1.1.3: Monitoring of LDN indicators at national and sub-national levels, integrated with reporting mechanisms.	Project Indicator # 4: Methodologies and institutional-operational arrangements to monitor long-term progress and fulfillment of LDN targets that facilitate the participation and representation of women and men in decision-making on SFM/SLM	There are no validated methodologies and long-term institutional arrangements to monitor LDN targets.	1 Working agreement established between the relevant national actors to define the activities of gathering, recording and managing information, updating indicators and reporting.	LDN base indicator monitoring protocols implemented and generating periodic reports (every two years) and integrating the gender and intercultural perspective. 1 National Observatory of Land Degradation established at the national level. 3 sub-national articulation nodes between actors in the intervention sites with established implementation agreements and arrangements.	Working agreement between key stakeholders for monitoring Agreements and arrangements for the establishment of the National Land Degradation Observatory Agreements and arrangements for the establishment of sub-national nodes Databases, maps and other inputs generated for LDN indicators	The MAAE, MAG, and other relevant stakeholders have the will and disposition to agree and maintain operational arrangements to implement long-term LDN monitoring and reporting activities.	PIU - FI

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Outcome 1.2: Key actors at national and sub-national levels apply knowledge and tools for the implementation of the LDN approach to measures planning, implementation and monitoring.	<u>Project Indicator # 5 :</u> Number of people with capacities strengthened in the LDN approach for the implementation of SLM/SFM practices and that apply knowledge and tools in the three intervention areas (disaggregated by sex, ethnicity and age).	The LDN approach is new to most actors at the national and sub-national level. The application of knowledge and tools relevant to the LDN approach will require the development of capacities and tools that allow their use by technicians and landowners / users to plan, execute and monitor LDN measures.	A less 30 Technical (national, subnational, researchers) with capacities strengthened in planning the LDN approach to the monitoring of the LDN. At least 10 community promoters with training to promote the LDN approach (40% are women; 30% belong to peoples and nationalities). At least 30 people with strengthened capacities to implement SLM practices (40% are women; 30% belong to peoples and nationalities).	At the least 100 technical (national, subnational, researchers) with knowledge and capabilities strengthened in the LDN approach planning, implementation of measures and the monitoring of the LDN. At least 30 community promoters with training to promote the LDN approach (40% are women; 30% belong to towns and nationalities). At least 90 people with strengthened capacities to implement SLM practices (40% are women; 30% belong to peoples and nationalities).	Annual Project Execution Review Report (PIR) Reports of Mid-Term Review and Final Evaluation	Actors from the public sector, academia, civil society, and local communities participate in setting priorities and validating the design of the capacity development program.	PIU - NPC, EG-M & E

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output 1.2.1. Capacity strengthening tools for LDN targets planning, implementation and monitoring, with a gender and intercultural approach, and available, operational and implemented by key actors.	Project Indicator # 6: Number and type of capacity building tools for planning, implementing and monitoring the LDN targets, SLM and SFM with a gender and intercultural approach, available, operational and applied by key stakeholders	Academic (or similar) institutions have not yet adopted LDN as a conceptual framework for capacity building of professionals and researchers to prevent and reverse land degradation. There are no formal courses with a LDN approach, and there is a need to generate pedagogical and information management tools aimed at differentiated target audiences, considering the gender and intercultural approach.	Capacity development program for the planning, implementation and monitoring of LDN at the national and subnational level designed with a gender and intercultural approach. At least 1 exchange of experiences with regional experts and LDN technicians face-to-face or virtual national/regional.	Capacity development program for the planning, implementation and monitoring of LDN designed, implemented and evaluated with a gender and intercultural approach. At least 2 exchanges of experiences with regional experts and LDN technicians face-to-face or national / regional virtual. At least 1 alliance between research institutions to implement a capacity building course for the application of the LDN approach including gender and intercultural ity. Online	LDN Capacity Building Program document with tools and modules Memories of training events and lists of participants Reports of exchanges of experiences and lists of participants Agreement and products generated PIR/PPR Design and implementation reports for online platform and sub-national	Institutions (e.g. ministries, GADs, NGOs, universities) and their staff have an interest in developing and internalizing the LDN approach. There are institutional arrangements to maintain and update the DSS system.	PIU - NPC, EG, FI, AT1, AT2, AT3

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Outcome 1.3: National and sub-national authorities include the LDN approach into national policies and planning processes, at different levels and with appropriate inter-agency coordination mechanisms.	Project Indicator # 7 : Effective inter-institutional and / or multilevel coordination mechanisms to achieve LDN	Inter-institutional coordination mechanisms on this issue are weak, and are not implemented on a regular basis.	At least 1 intersectoral and / or multilevel coordination mechanism activated with LDN actors.	At least 1 intersectoral and / or multilevel coordination mechanism activated with LDN actors.	Coordination / cooperation agreements PPR/PIR	There is a will for coordinated work between the competent authorities and other relevant actors to prevent and reverse processes of land degradation	PIU - NPC, EG-M & E, AT1

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output 1.3.1: National policies and sub-national territorial planning instruments (new or existing) are part of the LDN approach and consider the specific priorities of women and peoples and nationalities.	Project Indicator # 8: Number and type of policy instruments national and territorial planning tools that incorporate LDN and SLM and capacities, priorities and territorial conditions for women, men and indigenous populations	MAG is leading the formulation of the Soil Management Plan, which constitutes an opportunity to incorporate LDN and SLM into national public policy. The GADs must update their Development and Land Management Plans (PDOT) every four years, and use participatory budgets as a tool for allocating funds.	At least 3 territorial planning tools of the GADs in the intervention sites incorporate SLM and LDN measures, including the specific priorities of women and peoples and nationalities (e.g.: PDOT, Land Use Ordinances, participatory budgets).	At least 1 national policy instrument incorporates LDN / SLM with a gender and intercultural approach, formulated or in implementation. At least 6 territorial planning instruments of the GADs (e.g. PDOT, Land Use Ordinances, participatory budgets) implemented in the intervention sites incorporate the LDN approach, including the specific demands and interests of women and peoples and nationalities.	Technical report on LDN guidelines for territorial planning instruments Territorial planning tools (PDOT, Land Use Ordinances, participatory budgets)	Ecuador will give continuity to its current regulatory framework, and the policy and planning instruments established in the laws will be generated accordingly.	PIU - NPC, AT1

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output: 1.3.2 National LDN Action Plan designed and operational including national LDN targets.	Project Indicator # 9: National action plan for LDN with a gender perspective	The country does not have a National LDN Action Plan that articulates the efforts of all relevant actors.	1 National Action Plan for LDN with a gender perspective formulated in a participatory manner and agreed with the key actors.	1 National Action Plan for LDN with d ifferentiated actions for women, men and indigenous populations implemente d and monitored.	Document l National Action Plan LDN	The Ecuadorian State will comply with its commitme nts to the Convention , and will make efforts to adopt the LDN approach.	PIU-NPC, AT1, AT2, AT3, FI, EG
Component 2: Demonstration of LDN approach to promote resilient livelihoods and SLM/SFM practices in prioritized landscapes.							
Outcome 2.1: Landowners and users adopt sustainable land management practices at intervention sites to prevent and/or reduce	GEF Indicator # 3.2: Area in hectares (ha) of forest areas restored to maintain ecosystem services in 3 intervention sites	0	0	2,000 ha	Operating partner reports PPR/PIR Reports of MTR and FE	The processes of involvement and participation of local actors have been successful.	PIU - NPC, EG-M & E, AT2

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
land degradation and restore ecosystem services.	GEF indicator # 3. 3 : Area in hectares of p?ramo areas and shrub ecosystems restored to maintain ecosystem services in 3 intervention sites	0	0	2,000 ha	Executing partner reports PPR/PIR Reports of MTR and FE		
	GEF indicator # 4. 3 : Area in hectares of landscapes under SLM in productive systems in 3 intervention sites	0	0	4,750 ha	Operating partner reports PPR/PIR Reports of MTR and FE		
	GEF indicator # 4. 4 : Area in hectares of high-value forests conserved in 3 intervention sites	0	0	20,000 ha	Operating partner reports PPR/PIR Reports of MTR and FE		

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
	GEF Indicator # 11: Number of direct beneficiaries disaggregated by sex and ethnicity as a co-benefit of the GEF investment	0	At least 1,250 people (500 women and 375 belonging to peoples and nationalities) have implemented SLM practices on the farm and their comprehensive impact has been evaluated.	At least 3,750 people (1,500 women and 1,125 belonging to peoples and nationalities) have implemented SLM practices on the farm and their comprehensive impact has been evaluated.	Report on the implementation of farm plans Participatory Evaluation Report PPR/PIR Reports of MTR and FE	The participation of landowners in the SLM practices implementation processes has been achieved.	
	GEF Indicator # 6: tCO2e sequestered or emissions avoided due to SLM practices and avoided deforestation	0	0	9?596,730 tCO2e q	Estimated emissions avoided report PPR/PIR Reports of RMT and EF	Monitoring activities for SLM activities are implemented throughout the project implementation.	PIU - FI

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output.2.1.1: Ongoing participatory plans for the LDN implementation (mainstreaming gender, landscape, and intercultural approaches) in the context of the LDN National Action Plan.	Project Indicator # 10: N umber of plans designed for the implementation of LDN level subnational, in coordination with governance processes and local consultation, and focusing s landscape , gender and intercultural	There are no territorial planning tools that incorporate the LDN approach articulated to governance processes at the local level, and with prior informed consultation processes. Existing subnational governance spaces require incorporating the LDN approach for sustainable territorial management and ensuring the provision of ecosystem services.	At least 3 participatory plans for the implementation of LDN designed in consultation processes and safeguarding the active participation of women and men in each of the sites.	At least 3 participatory plans for the implementation of LDN implemented and monitored, designed in consultation processes and safeguarding the active participation of women and men in each of the sites.	Conceptualization and methodological design document for the elaboration of participatory implementation plans Participatory LDN implementation plans with a landscape approach, sensitive to gender and interculturality Lists of attendance of the workshops for the construction of the participatory plans. Prior, informed, consent (FPIC) agreement documents	Local actors linked to the process of formulating and implementing the plans actively participate. Interest and participation of actors linked to local governance platforms for the design of LDN implementation plans.	PIU - AT1

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output 2.1.2: Gender and intercultural-sensitive SLM/SFM practices implemented in the project intervention areas (ecosystems and productive landscapes), which restore vegetative cover, soil organic carbon, water regime and increase productive systems sustainability.	Project Indicator # 11: Number and type of SLM / SFM practices promoted, with a gender and intercultural approach in the three areas of intervention	There is little validated information on effective SLM practices and their benefit / cost ratio at the intervention sites. The state of degradation of agricultural production units (UPAs) disaggregated by sex and based on land tenure, is unknown. It has not been measured how gender gaps in access to land and technical assistance services have a direct impact on land degradation and UPAs.	At least 5 SLM / SFM practices implemented and monitored with a gender perspective in the three intervention areas. At least 2 spaces for the exchange of experiences between intervention sites to facilitate the adoption of implemented SLM practices.	At least 10 SLM / SFM practices implemented and monitored with a gender focus in the three intervention areas (e.g. diversification, comprehensive pest management, soil conservation, water harvesting and management systems, agroforestry and analog forestry). 6 spaces for exchanging experiences between intervention sites to facilitate the adoption of implemented SLM practices.	List of participants in the implementation of SLM practices disaggregated by gender Training plans and transfer of practices SLMR, MFS with an LDN approach Field logs	Successful process of convening and participating of subnational technicians and land users in capacity-building workshops. Strategic alliances with successful agroecological experiences, individuals or organizations, with whom to articulate for the execution of the exchange of experiences.	PIU - AT2

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Component and 3: Promoting innovative incentive mechanisms to encourage the adoption of SLM/SFM practices in agricultural and forest landscapes.							
Outcome 3.1 Actors in selected value chains include the SLM approach to enhance resilience and generate socio-economic benefits based on incentives and improvements in market access mechanisms.	GEF Indicator # 11 : Number of direct beneficiaries disaggregated by sex and ethnicity as a co-benefit of the GEF investment	0	At the least 300 beneficiaries access SLM incentives and mechanisms that promote SLM in value chains. At least 360 people with strengthened capacities in LDN (disaggregated by sex and ethnicity).	At the least 1000 beneficiaries / as access SLM incentives and mechanisms to strengthen the SLM in value chains. At least 480 people with strengthened capacities in LDN (disaggregated by sex and ethnicity).	Project records Incentive implementation reports with evidence Memories and participation lists. PPR/PIR		PIU - NPC, EG-M & E, AT3
	Project Indicator # 12: On-farm generated smallholder income improved through SLM / SFM practices and incentives	To be defined in year 1.	0	At least 10% increase in the income generated in the farm of small owners who have incorporated the SLM.			

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output 3.1.1 Mechanisms and institutional arrangements designed and operational for the implementation of incentives that promote the adoption of SLM / SFM, integrating the gender and intercultural approach	Project Indicator # 13: Number and type of mechanisms of incentives and institutional arrangements that facilitate the adoption of SLM / SFM practices by small producers (men and women) in each area of ??intervention	Several incentives have been identified with opportunities for the project: a) support for land regularization; b) strengthening community business centers; c) tax benefits; d) sustainable financing.	At least 1 mechanism - institutional incentive arrangement implemented in one of the three intervention sites with a gender and intercultural approach.	At least 3 incentive mechanisms implemented (1 in each area of ??intervention) with a gender and intercultural approach.	Incentive implementation documents and products generated. PPR/PIR	There is interest from financial institutions to promote green finance and from GADs to implement tax benefits and incentives.	PIU - Specialist in Incentives and Value Chains (AT3)

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output 3.1.2: Designed and operational mechanisms and institutional arrangements to improve market access for smallholders (men and women) that are part of the SLM approach into the selected value chains.	Project Indicator # 14: Number and type of mechanisms and institutional arrangements to improve market access at local and national level of the products generated by small producers partners (men and women) that integrate the SLM approach in value chains prioritized in each area intervention	In several localities, there are alternative marketing circuits. Four priority value chains have been identified: agro-ecological fruits and vegetables (in the northern, central and coastal highlands), milk / dairy products (in the central highlands), honey (coast) and coffee (in the northern, central highlands). There are companies and marketing organizations predisposed to promote alliances in niche markets (e.g. fair trade, organic).	At least 1 market access mechanism implemented in each intervention area (e.g.: direct sales, local agroecological fairs and baskets, AFC (Family Farming) agroecological production seal, MAE deforestation-free certification, business rounds, others). At least 2 alliances established to support value chains with LDN / SLM practices. At least 3 producer organizations connected to the market (at least 1 led by women and 1 by indigenous peoples).	At least 3 market access mechanisms implemented in each intervention area (e.g.: direct sales, local agro-ecological fairs and baskets, AFC (Family Farming) seal of agro-ecological production, MAE deforestation-free certification, business rounds, others). At least 4 alliances established to support value chains with LDN / SLM practices. At least 6 producer organizations connected to the market (at least 3 organizations led by women or indigenous peoples).	Project records, organization sales records. PPR/PIR Memories and participation lists. Products generated. Delivery certificates. Sales records of initiatives / organizations	There is interest from the private sector in promoting products of sustainable origin. There is a growing consumer demand for sustainably sourced products. The producers implement SLM / SFM practices encouraged by access to differentiated markets.	PIU - AT3

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Component and 4: Project monitoring and evaluation and lessons learned							
Outcome 4.1: Knowledge management, M&E and disseminated lessons learned from the project.	Project Indicator 15: Project results achieved and demonstrating sustainability	N/A	10 0% of goals fulfilled medium term.	100% scope in achieving results . Proven sustainability.	PIR /PPR Mid-term and final evaluations Final Project Report		PIU - FAO-OED
Output.4.1.1: Mid-term review and final evaluation carried out.	Project Indicator # 16: Number and type of evaluation reports	N/A	1 Mid-term Review Report.	1 Final Evaluation Report.	Mid-Term Review Report Final Evaluation Report	The results of the Mid-Term Review and the Final Evaluation are used to review the progress of the project and define corrective actions to achieve the results and objective.	FAO-OED-PIU

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output: 4.1.2: Overall environmental benefits, co-benefits and costs of SLM/SFM monitored, assessed and lessons learned from the project analyzed.	Project Indicator # 17: Project results framework with outcome and output indicators, baseline and targets Gender perspective incorporated in project management and actions	N/A	8 semiannual progress reports (4 PPR and 4 PIR) including an alysis on the situation of women and peoples and nationalities in connection with the project.	16 semiannual progress reports (8 and 8 IRAEP IPP) include do a nalysis on the situation of women and peoples and nationalities in connection with the project.	IPP / IRAEP	M&E system designed for the project, including the monitoring of activities, the verification mechanisms for compliance with results and product indicators, and M&E responsibilities, deadlines and budgets , plus disaggregation of information by sex and ethnicity.	PIU-EG, AT1, AT2, A T3

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output: 4.1.3: Knowledge management outputs, developed and disseminated.	Project Indicator # 18: Number and type of products knowledge about the causes of land degradation, best practices SLM and lessons learned about LDN published and disseminated (including the impact differentiated in women and men, and the way it has been integrated I do gender approach in project implementation) and cultural / ethnic relevance.	N/A	Knowledge management plan with a gender perspective and an intercultural approach developed and validated. 1 WEB of the project developed. 9 documents published and disseminated (100% of the publications incorporate the gender perspective) : i) Synthesis of knowledge about LDN at the national level (1.1.1) ii) Baseline LDN (1.1.1) iii) National Synthesis of SLM Practices (1.1.2) including the systematization of ancestral knowledge	Knowledge management plan with a gender perspective and an intercultural approach implemented. 1 WEB of the project developed. 15 documents published and disseminated (100% of the publications incorporate the gender perspective) : IBID mid term plus: x) Participatory evaluation of the comprehensive impact of SLM practices (2.1.2) xi) Systematization of lessons learned about LDN implementat	Knowledge Management Plan Document Website in operation Policy brief PPR/PIR Published documents	The project partners are open to the challenges, successes and lessons learned from the project so that these can be identified, published and disseminated.	PIU - NPC, EG

Results Chain	Indicators	Baseline	Medium Term Goal	Finish line	Means of Verification	Hypothesis	Responsible for data collection
Output: 4.1.4: Communication strategy developed and implemented to support the expansion of SLM/SFM to achieve LDN targets.	Project Indicator # 19: Number and type of communication materials about LDN gender-sensitive and culturally appropriate, disseminated	N/A	Communication strategy with a gender perspective and culturally appropriate developed and validated. At least 3 gender-sensitive and culturally appropriate communication materials disseminated (e.g., videos, manuals, guides, brochures, infographics, webinars). PRAIS Ecuador report released 2 campaigns on social networks and other media about LDN, SLM, and SFM.	Communication strategy with a gender perspective and culturally appropriate implemented. At least 3 gender-sensitive and culturally appropriate communication materials disseminated (e.g., videos, manuals, guides, brochures, infographics, webinars). 2 campaigns on social networks and other media about LDN, SLM, and MFS. SLM / SLM practices of the project included in the WOCAT platform with an emphasis on traditional knowledge and ancestral knowledge.	Communication strategy document with a gender perspective and culturally appropriate. Published communication materials (videos, manuals, guides, brochures, infographics, webinars). Press reports PPR/PIR	The communication strategy is suitable for three target audiences with a gender perspective and culturally appropriate.	PIU - COM

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

Council Comments	FAO response
Germany kindly asks to include a section on alternative financing strategies, or other risk mitigating measures, in the risk section of the document. Co-financing of the Ecuadorian government is a high risk due to the very critical financial situation of the country. The risk of depending too much on the co-financing of the government should therefore be addressed.	In addition to working with the Central State and the decentralized autonomous governments in the intervention sites , the project will design and apply innovative financing mechanisms, which once they are operational will serve to ensure long-term financing from various sources and provide sustainability to the projects. Actions undertaken (Result 3.1) (e.g. microfinance, productive loans that promote the adoption of SLM / SPS practices under the LDN approach). This will decrease dependence on government co-financing. Several of these innovative mechanisms have different sources of domestic, private and international funding and some operate with the support of and through partnerships with Private actors, to establish long-term relationships, particularly from the value chain approach. . Table 5 incorporates this type of risk mitigation strategy and actions.

Council Comments	FAO response
Germany recommends to involve local governments more strongly in the development of LDN targets and restoration strategies (bottom-up approach) to improve project sustainability. The proposal is very much focused on national level, the involvement and the role of decentralized governments, where the practical implementation takes place, is not very clear, they are just mentioned as stakeholders.	Yes, the project will also work at sub national in coordination with local governments. The m conceptual arc for decision - making LDN (planning, implementation and monitoring) in the Ecuador (Figure 2), which adapts elements of LDN Conceptual Framework proposed by Orr et to the. 201 7 and territorial model for the project implementation (Figure 2), incorporating n explicitly national and subnational levels for intervention of the project. The project will work on integrating the LDN approach into land use planning plans (Outcome 1.3) that are developed by local governments at a decentralized level. The project indicates (Products 1.2.1 and 1.3.1) that the GADs (Decentralized Autonomous Government) will be developed and trained at various levels (provincial, cantonal and parochial GADs). As described in the baseline scenario, the GADs exercise their competencies in environmental management within their territories and have various functions, depending on their level of intervention. Its functions include promoting sustainable development, preparing and executing development plans and land use planning, promoting productive activities and environmental management. All this is done under intersectoral planning and in coordination with the various institutions of the territory. In addition, the project will promote the development of Participatory Investment Plans, where not only local producers but also local governments will be involved in the framework of planning practices and participatory budget planning. At the subnational level, a demonstrative approach will be adopted on the use of complementary tools, which are applicable at different levels (parcels, UPA, landscapes, micro-watersheds and political-administrative units). This will be implemented in three prioritized landscapes: 1) Coast, covering the provinces of Manab? and Santa Elena, 2) Sierra Centro, covering the provinces of Bol?var, Chimborazo and Tungurahua, and 3) Sierra Norte, covering the provinces of Imbabura and Pichincha. In coordination with the autonomous governments and other local stakeholders, the project will support: 1) the incorporation of LDN and n plans land use and investment mechanisms of local governments (e.g. participatory budgets) , 2) the construction of participatory LDN implementation plans, 3) the design of hierarchical responses by types of land use , 4) the implementation of SLM practices that generate synergies with biodiversity, SOC, ways of life and that contribute to improving climate resilience , 5) the strengthening local governance and capacity building for planning, 6) monitoring LDN indicators at the subnational level , and 7) promoting incentives for sustainable value chains that address critical barriers to the adoption of SLM.

Council Comments	FAO response
Germany recommends to coordinate further planning and implementation closely with the offices of German cooperation (GIZ, KfW) to create synergies and improve the efficiency of the international cooperation in Ecuador. The proposal is complementary to various projects of the German technical and financial cooperation operating in the same ecosystems in terms of climate adaptation and mitigation, restoration, sustainable land use, forest and water management, protected area management in the Andes and coastal areas, as well as livelihood improvement of smallholders, etc.	E l project has coordinated actions with projects German cooperation in Ecuador, particularly with the project Conservation and sustainable use of mountain ecosystems (to be implemented by GIZ in 2021) and **REM-REDD Early Movers Program** (funded by the KfW Development Bank and the Norwegian International Climate and Forest Initiative) . The synergies and coordination mechanisms between both projects are detailed in table 7 .

STAP Comments	FAO response

STAP Comments		FAO response
STAP Overall Assessment	a) STAP encourages the project developers also **to apply components of the LDN framework (or similar approaches that include analysis of trade-offs between current and proposed land uses and land management practices), to assess trade-offs of expected benefits, and for early identification, and minimization, of potential negative interactions, including climate risk** . The STAP emphasizes the need for planned LDN interventions to occur at land-type level, and it further encourages the project team **to apply the checklist on Land Degradation Neutrality (LDN) Transformative Projects and Programs (TPP)** designed to help country-level project developers and their technical and financial partners to design effective interventions.	a) The design of the project has incorporated expl icitly the conceptual framework of LDN (Orr et to the. 2017) and LDN principles for projects and programs transformers (TPP). Please see Figure 1 of the Intervention Strategy (Section 3 of the Project Document) that uses both references as input to propose a conceptual fra mework for the planning, implementation and monitoring of LDN in Ecuador, a scheme that guides the intervention strategy of the project. Furthermore, we recognize the importance of planning LDN interventions at the level of land use type, and the need to identify synergies and trade-offs between current and future land use practices. The pr oject will generate a tool / analysis of synergies and commitments (trade - offs) that will be incorporated into the territorial

STAP Comments		FAO response
	b) In **the theory of change, STAP recommends that FAO defines the assumptions** underlying the envisaged outcomes. It would also be useful to **add the project objective to the theory of change** , **map the impact pathways** (sequence of outcomes), and option pathways required to achieve the project's objective.	b) The Theory of Change was reviewed in PRODOC and the assumptions were explicitly incorporated in it (Figure 3), as well as in the Results Framework (Annex A1).

STAP Comments		FAO response
	c) For the outcomes focused on **demonstration, STAP recommends testing the assumptions by restoring them as questions** . Doing so will facilitate the generation of evidence, foster adaptive learning, strengthen the project's ability to be innovative, and accommodate unforeseen changes of internal / external factors (e.g. climate change, change in partnerships as the project progresses, etc). One topic the project could generate **evidence on is the application of LDN and its ability (contribution) to strengthen synergies between biodiversity conservation, soil carbon management, and livelihoods** .	c) The STAP suggestion to test the assumptions by expressing them as questions was inc orporated. A conscious effort has been made for the project to contribute to the generation of evidence and to promote adaptive learning; for example, by including peer-to-peer exchange as a capacity-building mechanism, which is reflected in the description of Component 2. Regarding the possibility of contributing with evidence on synergies between biodiversity conservation, SOC and livelihoods, in the intervention sites the project will support the monitoring of LDN indicators, including at least one subnational, that allows addressing the ecosystem functionality promoting synergies between biodiversity, carbon, water and local livelihoods. In addition, the project will carry out the

STAP Comments		FAO response
	d) In addition, STAP welcomes the project's recognition that **governance** will be fundamental to scaling. When developing, implementing, and **revisiting (as needed) the theory of change, STAP recommends working with multi-stakeholders and establishing governance arrangements to manage the diverse interests** at stake, as well as existing knowledge. Working **across environmental sectors and spatial scales** increases the chances that knowledge and governance differences will exist. Managing cross-sectorial and cross-scale aspects is important for transformational change and sustainability. The **Resilience, Adaptation Pathway and Transformation Assessment (RAPTA) i**dentified in the theory of change is a useful approach to apply **when developing multi-stakeholder interventions** and governance plans.	d) In accordance with STAP's reflection on governance and the need to approach it from an intersectoral and multilevel perspective. The RAPTA was used as one of the frameworks / approaches to understand and propose transformative changes through the strengthening of governance. The project will have a multi-level territorial implementation model, articulated with ongoing processes, aimed at working together and strengthening local governance platforms, and generating articulation mechanisms that allow mutual feedback between national policy processes and the implementation of practices and incentives at the subnational level (see Section 3 propos ed alternative scenario and Figure 3 on the territorial implementation model). During the PPG, governance mechanisms

STAP Comments		FAO response
	e) Lastly, STAP recommends **the establishment of a project steering committee** to provide strategic guidance to navigate **inter-institutional and cross-sectoral** challenges that may arise given the large amount of baseline initiatives that are to be coordinated, and a **variety of stakeholders** that are crucial to the successful outcomes of this project. This is of relevance for component # 1 as LDN will be applied at the national level, while interventions will occur in selected sub-national areas. Below, STAP provides further recommendations on how to strengthen the project design	e) Granted, the Steering Committee (PSC) of the project includes represen tatives of the two authorities at national level: MAAE and MAG. The PSC, in addition to approving the work plans and annual budgets , will provide strategic guidance to the project management team and all the executing partners , and a complementary technical instance called the Management Committee (MC) has also been proposed with technical delegates from Each Ministry, as a technical support entity, which will be responsible for: (i) supporting the planning of project activities, advising and accompanying the PSC; (ii) provide technical advice to the project; (iii) advise the PSC on other ongoing and planned activities, facilitate cooperation between the project and other programs, projects, and initiatives.

STAP Comments		FAO response
A description of the expected short-term and medium-term effects of an intervention.	The benefits are likely to be generated if the theory of change is monitored and the assumptions are addressed during the project implementation. f) The **maps and description of the State of Land degradation are not clear** in mentioning **how the team arrives** to **the estimation of the expected outputs** (Ie **indicators LD 3.2, 4.3, 4.4. and CC6.1**) in terms of **amounts of hectares** of land that will be **restored,** the hectares of **production landscapes** that are not at present under SLM and that by this project will be put under SLM, neither the amount of hectares of **high conservation value** where **forest** loss will be avoided.	f) This comment has been addressed in Annex P, which details the assumptions used to estimate goals of GEF indicators No. 3, # 4, # 6 and # 11. Based on the official information available in the intervention sites such as coverage, change of coverage and land use, area under different levels of degradation, prio rity areas for the conservation of biodiversity in Ecuador, size of the Agricultural Production Unit) were the original goals of the project revised, and set or the goal of area under improved practices landscapes (hectares) and beneficiaries. In addition, Annex P also justifies forest areas of high conservation value (Cuesta et al. 2017).

	STAP Comments	FAO response
	g) At minimum a **baseline map of land use** , at a **scale of detail of the project area** , is needed to back up the claims of these expected benefits / outputs.	g) Okay, and l Annex E has now cover maps and land use in the intervention sites. This information was used as input for the review of project goals (Annex P).
What is the theory of change?	Through the three components, the project will strengthen a wider adoption of SLM and integration across sectors. The LDN's hierarchy approach will be promoted - avoid, reduce, recover - to improve agricultural productivity, strengthen and sustain ecosystem functions. STAP acknowledges the figure on the **theory of change** . h) **STAP recommends for FAO to define the assumptions underlying the outcomes** . It also would be valuable **to add the project objective to the figure,** and map the impact pathways (**sequence of outcomes**), and **option pathways** required to achieve project objective.	h) In accordance with the STAP recommendation. Now the theory of change defines and integrates the assumptions and the sequence of results proposed to achieve the project objective (see Figure 3, Intervention Strategy).

STAP Comments		FAO response
GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	The incremental activities are likely to lead to global environmental benefits. i) STAP suggests **revisiting the theory of change** to ensure progress is being made in reaching the project objective.	i) The Theory of Change was revisited, and adjustments were incorporated into it (see Figure 3). The objective of the project was also modified, and now it is expressed in the following way: *?Prevent, reduce and reverse processes of land degradation (SDG 2, 13, 15) to promote the sustainable development of rural communities, ensuring the provision of key ecosystem services and food sovereignty, within the framework of national efforts to achieve the LDN in Ecuador (2.4.1; 13.2.1; 15.3.1). "*

STAP Comments		FAO response
Are the benefits truly global environmental benefits, and are they measurable?	And it is. The incremental reasoning and global environment benefits are defined for each component. j) STAP suggests **describing the methods that will be used to measure and monitor the core indicators** .	j) For the measurement of GEF indicator s of the project , the meth odology used to estimate the goals of the different indicators related to vegetation cover and land use change has been described in Annex P, and will be used for subsequent monitoring. For the measurement of indicators CORE LDN (nationally), the methodological approach is described as part of the P roduct 1.1.1 : Evaluation and base line of LDN.

STAP Comments		FAO response
	J2) In addition, STAP **recommends integrating climate resilience throughout the components to identify and manage climate risks** .	j2) Agree, the analysis of climate risks and the contribution of the project to improve climate resilience was incorporated in a transversal way. For example, product 1.2.1 contemplates that the LDN implementation capacity building program considers the needs of land owners and users for the adoption of SLM practices , seekin g to improve resilience to climate change, especially in local contexts with risks. climatic. In C2, the Participatory Implementation Plans incorporate analysis of climate risks, and practices SLM also consider the contribution to improve climate resilience to ethic s and adaptation to climate change. Participa tory Plans Implementation, as a planning tool for the LDN approach at the subnational level to facilitate implementation of the various practices MST, designed h ierarchical responses LDN. I t will be sought

STAP Comments		FAO response
	k) **Soil carbon management** embraces multi-scale approaches linking micro-processes in the soil with global chemical and water cycles; thereby, offers opportunities to address multiple objectives. In this regard, **STAP recommends describing the dynamics between soil carbon management, land use, and global benefits** . STAP's report, ?Managing Soil Organic Carbon for Global Benefits?, highlights how soil carbon supports the GEF's objectives: http://www.stapgef.org/sites/default/files/stap/wp?content/uplo ads / 2013/08 /STAP?SOC?Report?lowres.pdf	k) During PPG a literature review about organic carbon dynamic, changi ng land use and benefits was done. A brief description of it has been incorporated and n section 1.A (global problem), on the impact of the degradatio n it or of the land on SOC and potential of differ ent practices of SLM for recovery.

STAP Comments		FAO response
	l) In addition to value chains as an incentive-based mechanism for sustainable land management and biodiversity conservation, the proje**ct proponents may wish to consider payment for ecosystem services in the Chimborazo region,** especially to influence behavioral change on **collectively managed lands.** While doing so, the project also can build on the evidence base on the impact of PES on environmental services. The following paper is useful in understanding the impact of PES in certain regions of Ecuador: Hayes, T., Murtinho, F., & Wolff, H. (2017). The impact of payments for environmental services on communal lands: an analysis of the factors driving household land ? use behavior in Ecuador. World Development, 93, 427-446.	l) We recognize the importance and relevance of the compensation schemes for Environmental Services (PES type) promoted in Ecuador, including the Socio Bosque Program, the REM-REDD Program and local water funds (e.g. Fondo de P?ramos de Tungurahua, Guayaquil Water Fund, Quito Water Fund). These inc entive mechanisms have been documented as part of the baseline, and from component # 3 (output 3.1.1) the project will explore links at the local level to work together with various mechanisms and on the basis of a series of experiences of PES, including that of Chimborazo, con sidering that PES schemes can be integrated into the innovative mechanisms to be developed, promoting the sustainability of actions.

STAP Comments		FAO response
Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	m) The project will focus on **technology, finance and policy innovation.** STAP encourages **FAO to identify the assumption required to meet the outcome** s. For the outcomes focused on demonstration, STAP recommends restating the assumptions into formative questions. Doing so will facilitate the generating of evidence and learning, and strengthen the project's ability to be innovative. One topic the project could generate evidence on is on the **application of LDN and its ability (contribution) to strengthen synergies between biodiversity conservation, soil carbon management, and livelihoods.**	Agree. The assumptions required to achieve the results have been identified. In addition, the project design has tried to mainstream in each of the components the possibility of generating synergies between biodiversity, SOC and ways of life. In relation to the innovations that the project is proposing, it is worth highlighting: 1) the innovations with a value chain approach that are promoted in component # 3 that include the design / strengthening of market access mechanisms and financial incentives that help to overcome barriers to adoption of SLM, and 2) the technological innovations that the project will promote through the dissemination and adoption of practices, generating evidence and promoting learning through peer exchange. In addition, it is necessary to consider that the project will be

STAP Comments		FAO response
	n) STAP welcomes the project's recognition that intersectoral governance will be fundamental to scaling. When developing, implementing, and **revisiting (as needed) the theory of change, STAP recommends engaging multi-stakeholders and establishing governance arrangements to manage diverse interests, and knowledge** . Working across sectors and scales increases the chances that knowledge and governance differences will exist. Managing these aspects are important for transformational change and sustainability.	Agree. The *weak institutional framework for incorporating comprehensive LDN approaches and the lack of effective mechanisms for intersectoral and multilevel coordination* is one of the barriers that the project addresses (see barrier # 2). In the implementation of the project and intersectoral coordination mechanisms (e.g. environment and agriculture) and between scales will be generated. See answer to comment d) to complement the answer.
1 B. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.	o) **A map** is included in the PIF depicting the project sites and land uses, though **the scale is too coarse** for it to justify how the amount of hectares of degraded land was established, where current land use / land cover will benefit from avoided land degradation	o) Annex E incorporates maps of the intervention sites with finer information on coverage and land use.

STAP Comments		FAO response
Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	Yes, gender risks have been identified. However, they can be refined during the project design. p) **STAP recommends consulting a gender specialist during the development of the theory of change** .	p) A gender and indigenous peoples specialist was integrated into the PPG within the formulation team. With her support, the Gender Analysis and Gender Action Plan (Annex M) was generated, and she participated in the workshop to review the project's theory of change.

STAP Comments		FAO response
Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control?	And it is. The PIF describes risks to agricultural productivity, ecosystem services and functions, and biodiversity conservation. Climate projections to 2040 are provided along with a description of temperature and precipitation trends. q) To further strengthen a **climate risk analysis** , **STAP recommends addressing the following questions** during the development of the project: Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control? Are there social and environmental risks which could affect the project? For climate risk and climate resilience measures: ? How will the project?s objectives or outputs be affected b y climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? ? Has the sensitivity to climate change, and its impacts, been assessed? ? Have resilience practices and measures to address projected climate risks and impacts been considered ? How will these be dealt with ? What technical and institutional capacity, and information, will b e needed to address climate risks and resilience enhancement measures?	q) In accordance with the recommendat ion. The climate risk analysis has been incorporated (Table 5). In the execution of the project, the following will be developed: 1) the analysis of climate risks in the elaboration of the Participatory Implementation Plans, which will serve as an information input to promote SLM practices that also contribute to improving climate resilience in the intervention sites, and 2) At the national level, as part of the formulation of the National LDN Action Plan, the potential to promote synergies between LDN, adaptation to climate change and sustainable development goals will be recognize d and promoted (SDG 15.3 , 2.4, 13.2) . In addition, there are several project experiences in Ecuador that have addressed climate risks and improved resilien ce whose

STAP Comments		FAO response
What overall approach will be taken , and what knowledge management indicators and metrics will be used?	r) STAP recommends relying on the theory of change to manage learning and knowledge. This can be done by monitoring the impact pathways and identifying options for adapting, or transforming, the social ? ecological systems being targeted. **For advice on developing the theory of change and identifying option pathways** , STAP recommends applying the Resilience, Adaptation Pathway Transformation Assessment: http://www.stapgef.org/rapta?guidelines	r) Agree. RAPTA was used to adjust the theory of change and was used as a frame of reference during the formulation of the project.

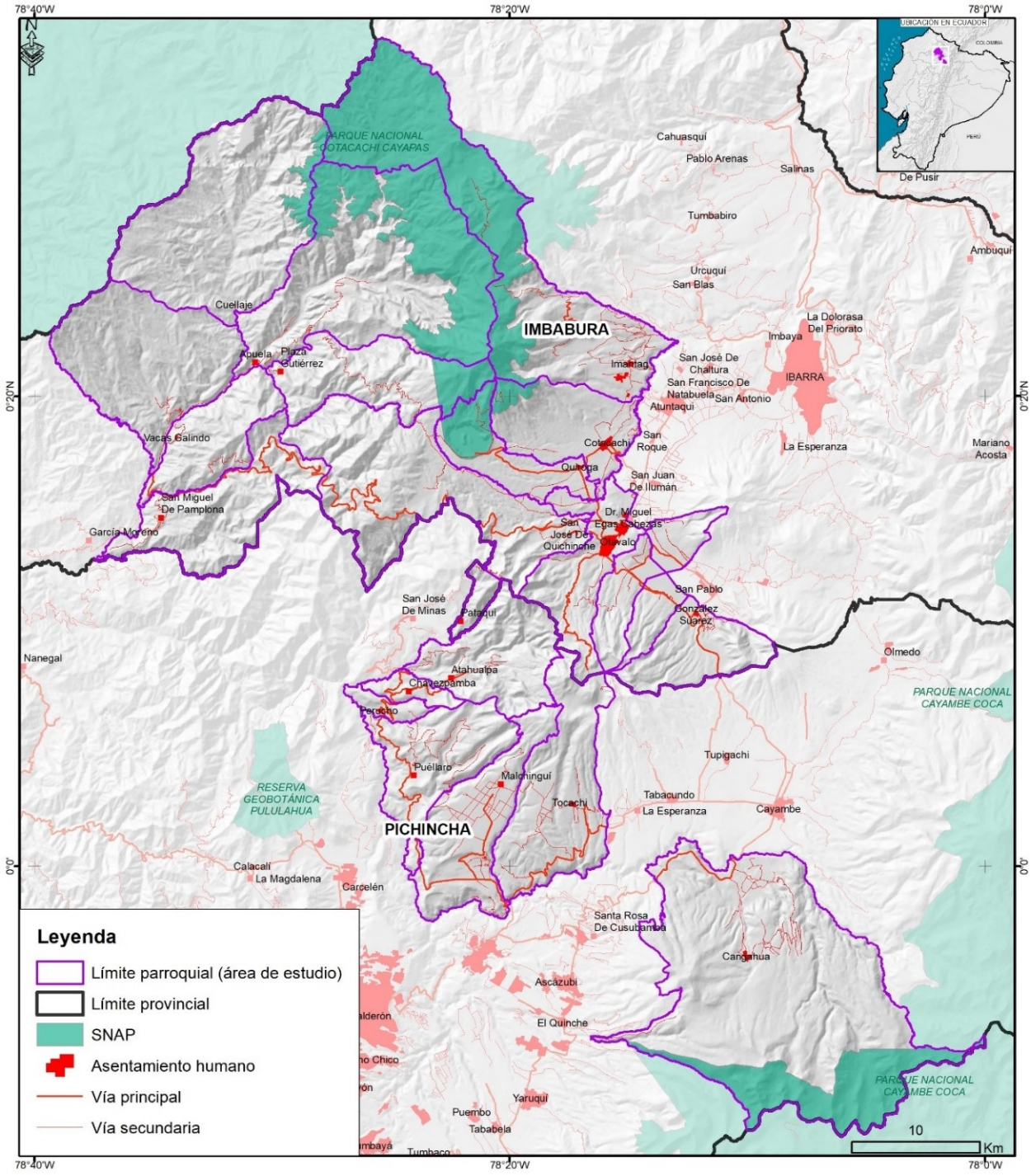
ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF:			
Project Preparation Activities Implemented	***GETF Amount ($)***		
	Budgeted Amount	***Amount Spent to date***	***Amount Committed***
5011 Salaries Professional	**7,143**	**0**	**0**
5013 Consultants	**75,800**	**68,814**	**19,766**
5014 Contracts	**27,500**	**40,300**	**0**
5021 Travel	**22,157**	**6,746**	**5,000**
5023 Training	**17,400**	**1,485**	**0**
5027 Technical Support Services	**0**	**7,068**	**0**
5028 General Operating Expenses	**0**	**821**	**0**
Total	**150,000**	**125,234**	**24,766**

ANNEX D: Project Map(s) and Coordinates

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

a)


78°40'W
78°20'W
78°0'W
0°20'N
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N
UBICACIÓN EN ECUADOR
COLOMBIA
PERÚ
PARQUE NACIONAL COTACACHI CAYAPAS
IMBABURA
PICHINCHA
RESERVA GEOBOTÁNICA PULULAHUA
PARQUE NACIONAL CAYAMBE COCA
Cahuasquí
Pablo Arenas
Salinas
De Pusir
Tumbabiro
Ambuquí
Urcuquí
San Blas
Cuellaje
La Dolorasa Del Priorato
Imbaya
Apuela
Plaza Gutiérrez
Imantag
San José De Chaltura
IBARRA
San Francisco De Natabuela
San Antonio
Atuntaqui
Vacas Galindo
Cotacachi
San Roque
La Esperanza
Mariano Acosta
Quiroga
San Juan De Ilumán
San Miguel De Pamplona
García Moreno
Dr. Miguel Egas Cabezas
San José Del Quichinche
Otavalo
San Pablo
González Suárez
San José De Minas
Pataquí
Olmedo
Nanegal
Atahualpa
Chavezpamba
Perucho
Tupigachi
Puéllaro
Malchinguí
Tocachi
Tabacundo
La Esperanza
Cayambe
Calacalí
La Magdalena
Carcelén
Santa Rosa De Cusubamba
Cangahua
Ascazubi
El Quinche
Yaruquí
Puembo
Tababela
Tumbaco
10
Km
Leyenda
Límite parroquial (área de estudio)
Límite provincial
SNAP
Asentamiento humano
Vía principal
Vía secundaria

b)

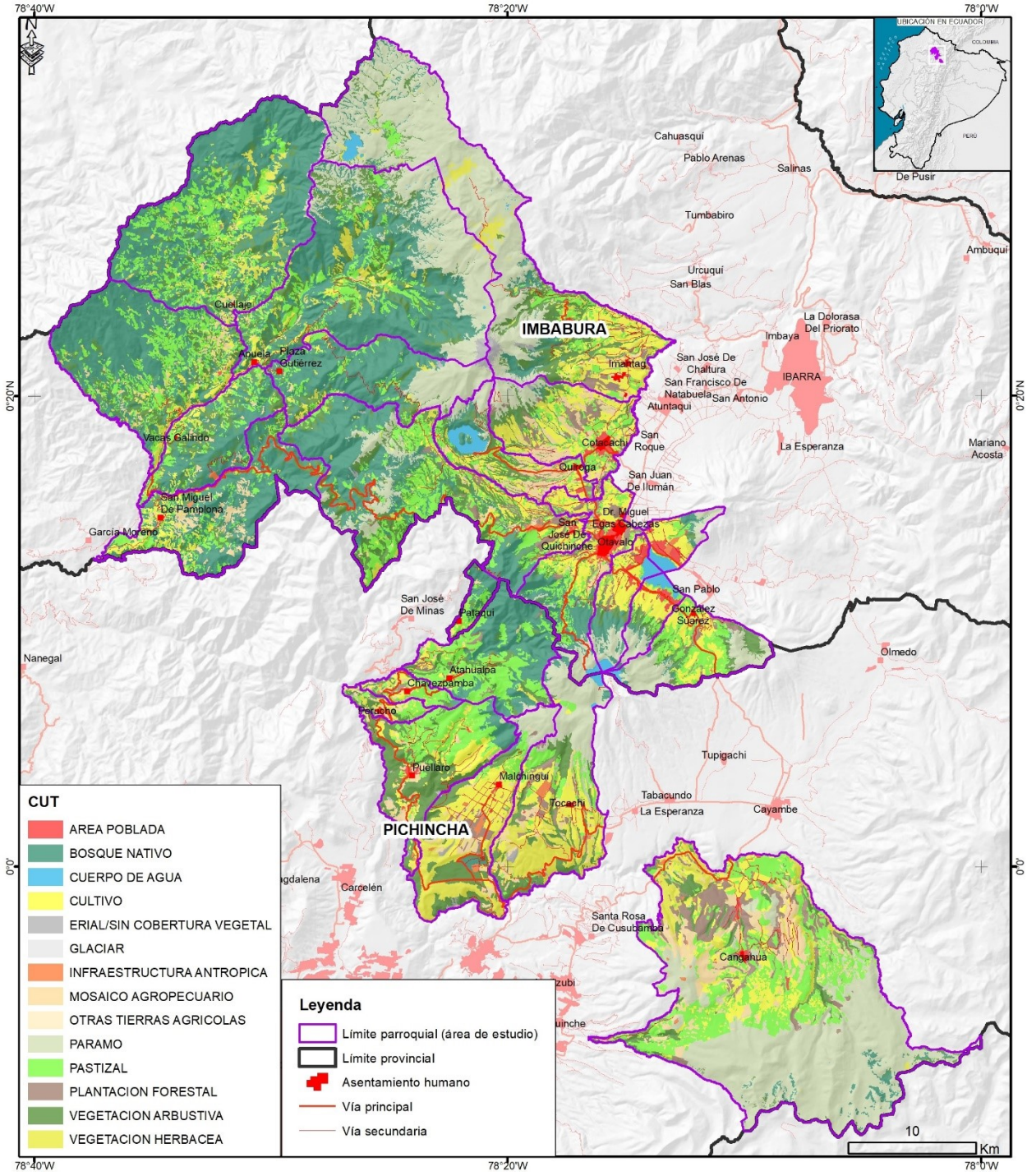
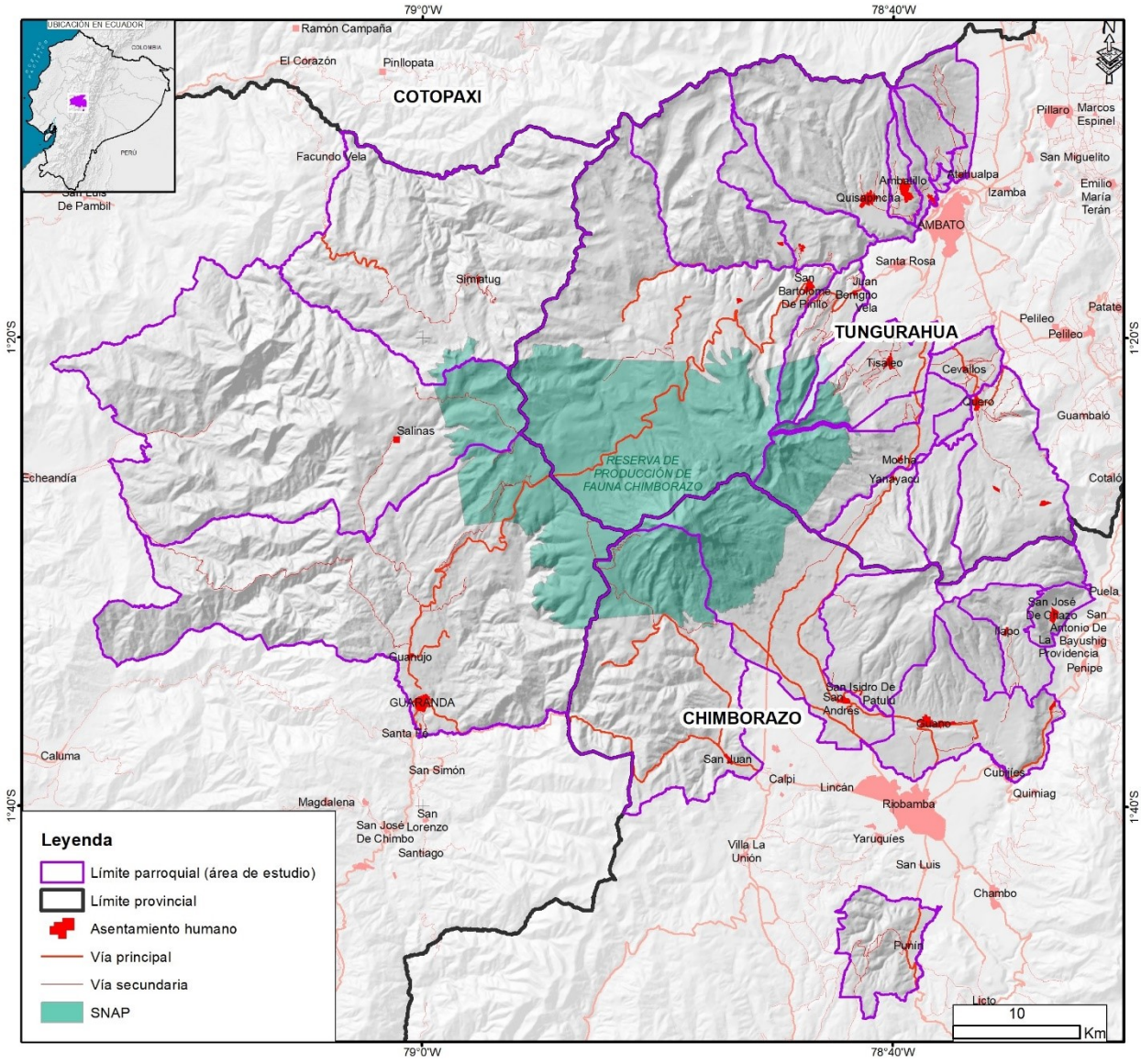


Figure E1. a) Base map and b) land cover patterns according to the thematic mapping produced by MAEE, IEE and SENPLADES (2015) of the intervention site in the Sierra Norte of Ecuador.

a)


79°0'W
78°40'W
1°20'S
1°40'S
UBICACIÓN EN ECUADOR
COLOMBIA
PERÚ
Ramón Campaña
El Corazón
Pinllopata
COTOPAXI
Facundo Vela
San Luis De Pambil
Simiatug
Salinas
Echeandía
Caluma
Magdalena
San José De Chimbo
San Lorenzo
Santiago
San Simón
Guaranda
Guanujo
Santa Fé
San Juan
Calpi
Lincán
Riobamba
Villa La Unión
Yaruquíes
San Luis
Chambo
Punín
Licto
CHIMBORAZO
TUNGURAHUA
AMBATO
Quisapincha
Ambatillo
Atahualpa
Izamba
Pillaro
Marcos Espinel
San Miguelito
Emilio María Terán
Santa Rosa
San Bartolomé De Pinllo
Juan Benigno Vela
Pelileo
Patate
Tisaleo
Cevallos
Guambaló
Mocha
Yanayacu
Cotaló
Puela
San José de Chazo
San Antonio De La Bayushig
Ilapo
Providencia
Penipe
San Isidro De Patulú
San Andrés
Cubijíes
Quimiag
RESERVA DE PRODUCCIÓN DE FAUNA CHIMBORAZO
Leyenda
Límite parroquial (área de estudio)
Límite provincial
Asentamiento humano
Vía principal
Vía secundaria
SNAP
10
Km
N

b)

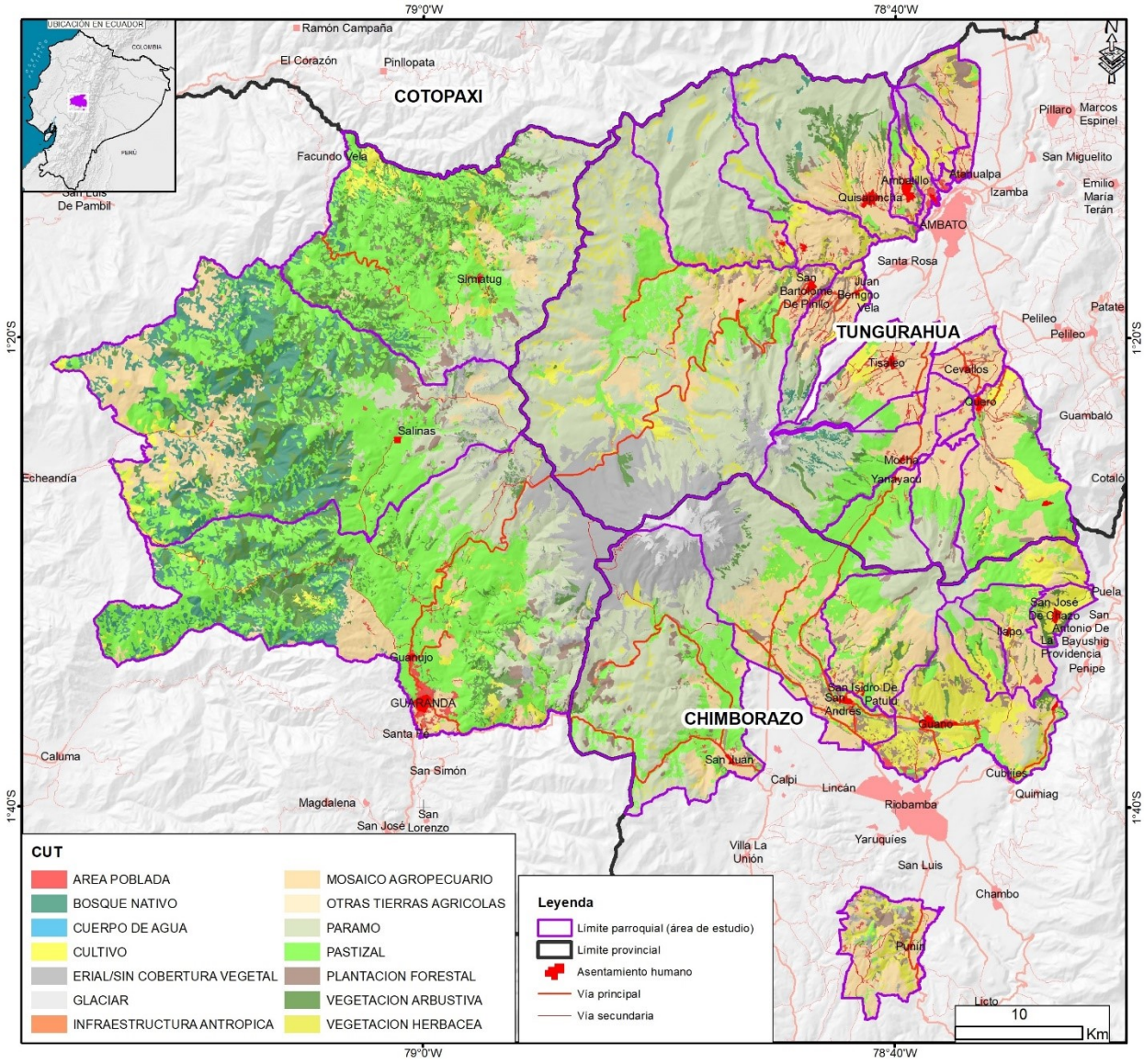
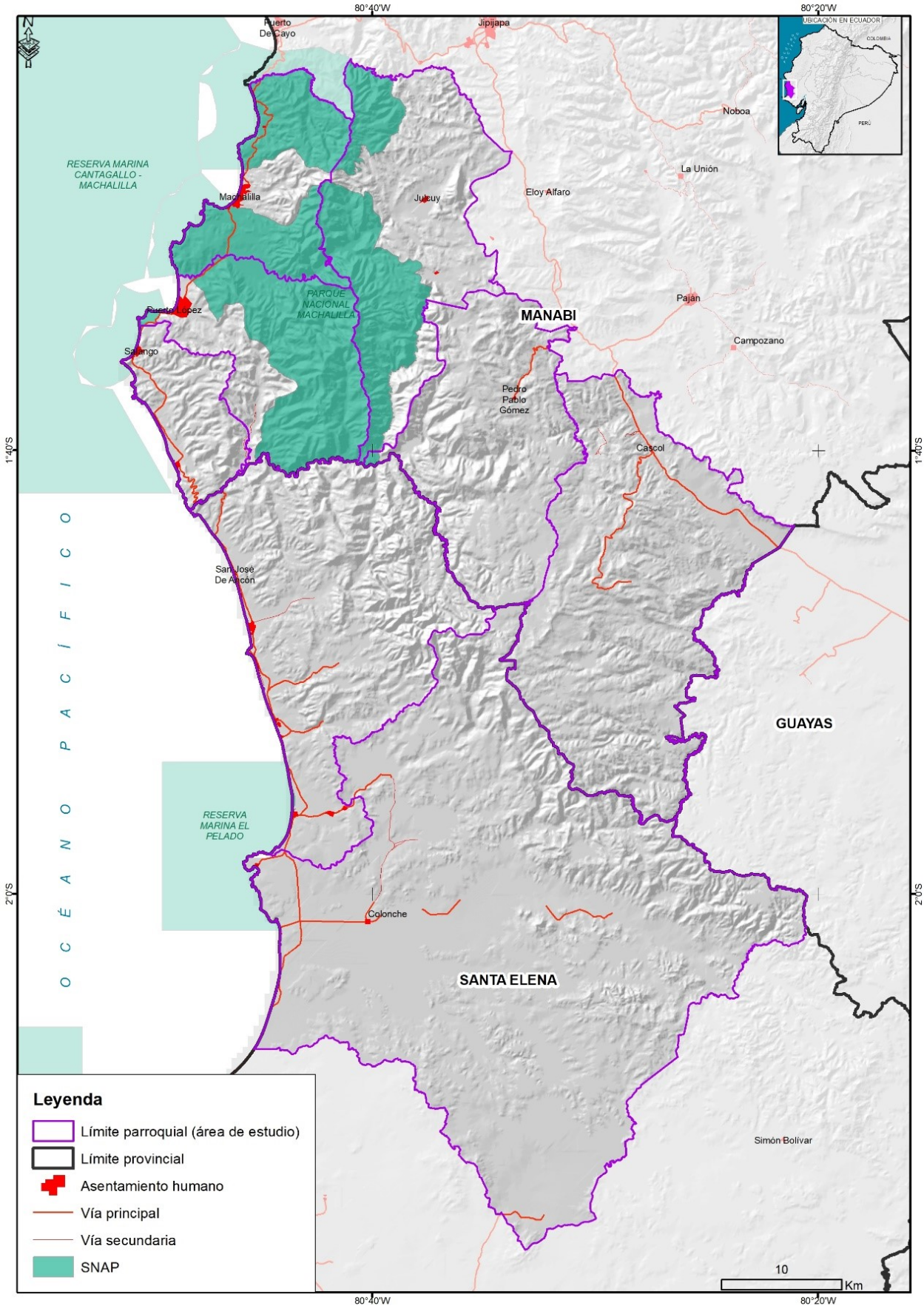


Figure E2. a) Base map and b) land cover patterns according to the thematic mapping produced by MAAE, IEE and SENPLADES (2015) of the intervention site in the Sierra Centro of Ecuador.

a)


80°40'W
80°20'W
1°40'S
2°0'S
Puerto De Cayo
Jipijapa
Noboa
La Unión
Eloy Alfaro
Julcuy
Machalilla
RESERVA MARINA CANTAGALLO - MACHALILLA
PARQUE NACIONAL MACHALILLA
Puerto López
Salango
MANABI
Paján
Campozano
Pedro Pablo Gómez
Cascol
San José De Ancón
OCÉANO PACÍFICO
RESERVA MARINA EL PELADO
Colonche
GUAYAS
SANTA ELENA
Simón Bolívar
UBICACIÓN EN ECUADOR
COLOMBIA
PERÚ
Leyenda
Límite parroquial (área de estudio)
Límite provincial
Asentamiento humano
Vía principal
Vía secundaria
SNAP
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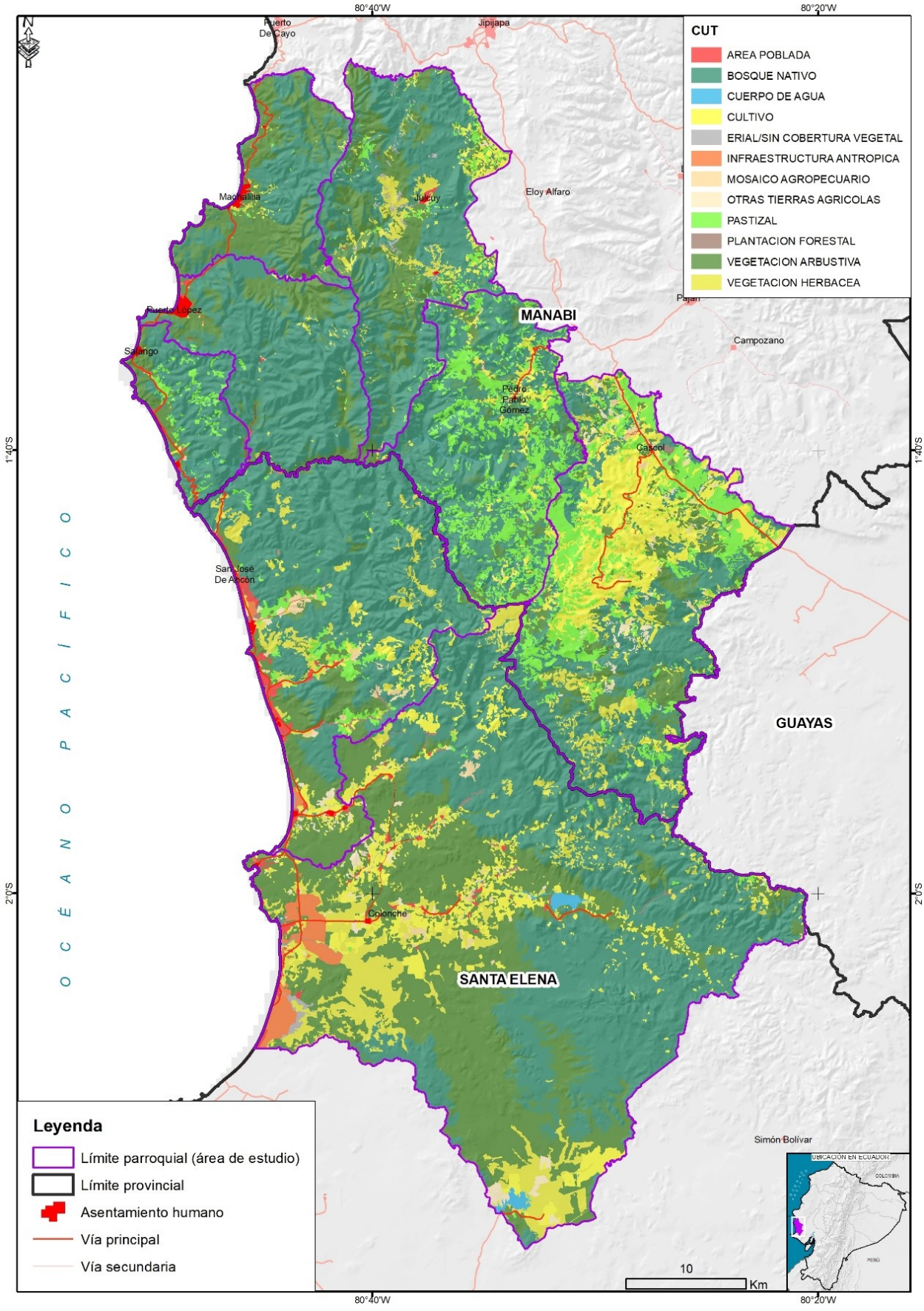
b)


80°40'W
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Puerto De Cayo
Jipijapa
Machalilla
Julcuy
Eloy Alfaro
Puerto Lopez
Salango
MANABI
Campozano
Pedro Pablo Gomez
Cascol
San Jose De Ancon
O C É A N O P A C Í F I C O
GUAYAS
Colonche
SANTA ELENA
Simón Bolívar
CUT
AREA POBLADA
BOSQUE NATIVO
CUERPO DE AGUA
CULTIVO
ERIAL/SIN COBERTURA VEGETAL
INFRAESTRUCTURA ANTROPICA
MOSAICO AGROPECUARIO
OTRAS TIERRAS AGRICOLAS
PASTIZAL
PLANTACION FORESTAL
VEGETACION ARBUSTIVA
VEGETACION HERBACEA
Leyenda
Límite parroquial (área de estudio)
Límite provincial
Asentamiento humano
Vía principal
Vía secundaria
10
Km
UBICACIÓN EN ECUADOR
COLOMBIA
PERÚ

Figure E3. a) Base map, b) land cover patterns according to the thematic cartography produced by MAAE, IEE and SENPLADES (2015) of the intervention site on the Coast of Ecuador.

ANNEX E: Project Budget Table

Please attach a project budget table.

FAO Cost Categories	Unit	Unit cost	No. Units	Component 1 Total Comp. 1	Component 2 Total Comp. 2	Component 3 Total Comp. 3	Component 4 Total Comp. 4	M&E	PMC	Total	Executing entity 1 CONDESAN	Executing entity 2 – FAO	Total GEF
5011 Salaries professionals													
Chief Technical Advisor	months	5,751	51	51,759	120,771	86,265	34,506	0	0	293,301	293,301	0	293,301
Project coordinator (cofinanced by Condesan)											0	0	0
Administrative (partial contribution)	months	2,300	51	0	0	0	0	0	117,300	117,300	117,300	0	117,300
Monitoring & Evaluation specialist (part time)	months	1,910	50	0	0	0	95,500	95,500	0	95,500	95,500	0	95,500
LDN Monitoring Specialist – Inter-institutional facilitator	months	4,087	45	183,924	0	0	0	0	0	183,924	183,924	0	183,924
Safeguards specialist (part time; including FPIC and gender)	months	1,910	48	22,920	22,920	22,920	22,920	0	0	91,680	91,680		91,680
Specialist on territorial planning and governance (AT1)	months	4,366	45	117,883	58,942	0	19,647	0	0	196,472	196,472	0	196,472
Specialist on SLM practices (AT2)	months	4,366	45	58,941	127,708	0	9,823	0	0	196,472	196,472	0	196,472
Specialist on incentives (AT3)	months	4,366	45	49,117	0	137,531	9,823	0	0	196,471	196,471	0	196,471
Local technician – COSTA	months	2,835	40	17,010	68,041	28,350	0	0	0	113,401	113,401	0	113,401
Local technician – SIERRA CENTRO	months	2,835	40	17,010	68,041	28,350	0	0	0	113,401	113,401	0	113,401
Local Technician – SIERRA NORTE	months	2,835	40	17,010	68,041	28,350	0	0	0	113,401	113,401	0	113,401
Communicator (partial contribution)	months	1,029	45	0	0	0	46,334	0	0	46,334	46,334	0	46,334
5011 Sub-total salaries professionals				535,574	534,464	331,766	238,553	95,500	117,300	1,757,657	1,757,657	0	1,757,657
5012 GS Salaries													
				0	0	0	0			0	**0**	**0**	**0**
				0	0	0	0			0	**0**	**0**	**0**
5012 Sub-total GS salaries				0	0	0	0	0	0	0			
5013 Consultants													
National consultants													
Analysis of technical and economic feasibility of SLM practices (O1.1.2)	lump sum	10,000	1	10,000	0	0	0	0	0	10,000	10,000	0	10,000
Land degradation update for degradation trends analysis (O1.1.3)	lump sum	20,000	1	20,000	0	0	0	0	0	20,000	20,000	0	20,000
Design of the capacity building program and its pedagogical tools (O1.2.1)	lump sum	15,000	1	15,000	0	0	0	0	0	15,000	15,000	0	15,000
Development of the LDN Decision Making Support System (O1.2.2)	lump sum	15,000	1	15,000	0	0	0	0	0	15,000	15,000	0	15,000
Policy analysis and normative instruments ldn national and subnational (O1.3.1)	lump sum	10,000	1	10,000	0	0	0	0	0	10,000	10,000	0	10,000
Specialized inputs for national policies and territorial planning with an LDN approach (O1.3.1)	lump sum	8,000	5	40,000	0	0	0	0	0	40,000	40,000	0	40,000
Support to mechanisms to prevent land degradation and strengthen local governance (O2.1.1)	lump sum	10,000	6	0	60,000	0	0	0	0	60,000	60,000	0	60,000
Design and implementation of incentive mechanisms (O3.1.1)	lump sum	25,000	2	0	0	50,000	0	0	0	50,000	50,000	0	50,000
Organizational strengthening of selected value chains in the intervention sites (O3.1.2)	lump sum	5,000	6	0	0	30,000	0	0	0	30,000	30,000	0	30,000
Support to market access mechanisms for QoL in the intervention sites (O3.1.2)	lump sum	5,500	12	0	0	66,000	0	0	0	66,000	66,000	0	66,000
Sub-total national Consultants				110,000	60,000	146,000	0	0	0	316,000	316,000	0	316,000
International consultants													
Mid-Term Review	lump sum	35,000	1	0	0	0	35,000	35,000	0	35,000		35,000	35,000
International consultant – Final evaluation	lump sum	45,000	1	0	0	0	45,000	45,000	0	45,000		45,000	45,000
Analysis of synergies and compromises between land uses in the intervention sites (O2.1.1)	lump sum	15,000	1	15,000	0	0	0	0	0	15,000	15,000	0	15,000
International trainers for ldn monitoring (National Working Group)	lump sum	5,000	2	10,000	0	0	0	0	0	10,000	10,000	0	10,000
Sub-total international Consultants				25,000	0	0	80,000	80,000	0	105,000	25,000	80,000	105,000
5013 Sub-total consultants				**135,000**	**60,000**	**146,000**	**80,000**	**80,000**	**0**	**421,000**	**341,000**	**80,000**	**421,000**
5650 Contracts													
Generation of ldn Baseline at national and subnational level (O1.1.1)	lump sum	45,000	2	90,000	0	0	0	0	0	90,000	90,000	0	90,000
Laboratory analysis for soil and vegetation samples (O1.1.1)	muestras	400	100	40,000	0	0	0	0	0	40,000	40,000	0	40,000
Hydrological monitoring analysis (O1.1.1)	lump sum	10,000	3	30,000	0	0	0	0	0	30,000	30,000	0	30,000
Research services and analysis of samples for monitoring (O1.1.3)	lump sum	8,000	3	24,000	0	0	0	0	0	24,000	24,000	0	24,000
ldn virtual course development (O1.2.1)	lump sum	14,350	1	14,350	0	0	0	0	0	14,350	14,350	0	14,350
Support in gathering information in the field for participatory implementation plans (O2.1.1)	lump sum	12,500	4	0	50,000	0	0	0	0	50,000	50,000	0	50,000
Support for the implementation of farm plans in the intervention sites (O2.1.2)	lump sum	7,000	12	0	84,000	0	0	0	0	84,000	84,000	0	84,000
Collection of information in the field for participatory monitoring (O2.1.2)	encuestas	25	1,500	0	37,500	0	0	0	0	37,500	37,500	0	37,500
Promotion of initiatives with SLM practices in selected QoCs (eg business rouldnables) (O3.1.2)	lump sum	20,000	3	0	0	60,000	0	0	0	60,000	60,000	0	60,000
Preparation and printing of communication and dissemination products (O4.1.4 and O1.2.1)	lump sum	50,000	1	15,000	0	15,000	20,000	0	0	50,000	50,000	0	50,000
Design of the graphic line of the project (O4.1.4)	lump sum	5,000	1	0	0	0	5,000	0	0	5,000	5,000	0	5,000
Terminal Report	lump sum	11,500	1	0	0	0	11,500	11,500	0	11,500		11,500	11,500
OPIM – Audits	lump sum	6,650	5	0	0	0	0	0	33,250	33,250		33,250	33,250
OPIM Spot-checks	Per unit	3,250	6	0	0	0	0	0	19,500	19,500		19,500	19,500
5650 Sub-total Contracts				213,350	171,500	75,000	36,500	11,500	52,750	549,100	484,850	64,250	549,100
5021 Travel													
(Lump sum) International travel	lump sum	2,750	6	11,000	5,500	0	0	0	0	16,500	16,500	0	16,500
(Lump sum) National travel	lump sum	60,621	1	21,150	19,675	16,150	3,646	0	0	60,621	60,621	0	60,621
(Lump sum) Travel for training/workshops and meetings	lump sum	25,000	1	10,000	7,500	5,000	2,500	0	0	25,000	25,000	0	25,000
5021 Sub-total travel				42,150	32,675	21,150	6,146	0	0	102,121	102,121	0	102,121
5023 Training													
Inception Workshop	workshops	600	1	0	0	0	600	600	0	600	600	0	600
Launch event	workshops	3,350	1	0	0	0	4,000	0	0	4,000	4,000	0	4,000
CD meetings	meeting	600	8	0	0	0	4,800	0	0	4,800	4,800	0	4,800
Meetings of National Working Groups for ldn	meeting	1,250	11	13,750	0	0	0	0	0	13,750	13,750	0	13,750
National workshops for ldn	workshops	1,500	8	12,000	0	0	0	0	0	12,000	12,000	0	12,000
National Observatory workshops	workshops	5,000	2	10,000	0	0	0	0	0	10,000	10,000	0	10,000
Community workshops	workshops	150	111	0	6,750	9,900	0	0	0	16,650	16,650	0	16,650
Intersectoral work meetings	meeting	600	14	8,400	0	0	0	0	0	8,400	8,400	0	8,400
Events for the exchange of experiences between territories for internships	workshops	3,600	9	0	32,400	0	0	0	0	32,400	32,400	0	32,400
Workshops at the intervention sites	workshops	300	124	8,400	18,900	8,100	1,800	0	0	37,200	37,200	0	37,200

Specialized technical training for process improvement and management in QoL (O3.1.2)	workshops	5,000	6	0	0	30,000	0	0	0	30,000	30,000	0	30,000
Instructors of the LDN Capacity Building Program	lump sum	2,500	6	5,000	5,000	5,000	0	0	0	15,000	15,000	0	15,000
5023 Sub-total training				57,550	63,050	53,000	11,200	600	0	184,800	184,800	0	184,800
5024 Expendable procurement													
Acquisition of high resolution satellite images (intervention sites)	lump sum	7,000.00	3	21,000	0	0	0	0	0	21,000	21,000	0	21,000
Inputs / seeds / tools to implement SLM practices	lump sum	1,200.00	736	0	883,200	0	0	0	0	883,200	883,200	0	883,200
Materials / inputs / seeds for restoration	lump sum	1,100.00	150	0	165,000	0	0	0	0	165,000	165,000	0	165,000
Supplies / kits for marketing	lump sum	500.00	150	0	0	75,000	0	0	0	75,000	75,000	0	75,000
5024 Sub-total expendable procurement				21,000	1,048,200	75,000	0	0	0	1,144,200	1,144,200	0	1,144,200
6100 Non-expendable procurement													
Semi-automatic stations and equipment for hydrological monitoring	lump sum	700	12	8,400	0	0	0	0	0	8,400	8,400	0	8,400
4x4 vehicles	unit	30,000	4	36,000	54,000	30,000	0	0	0	120,000	120,000	0	120,000
Computers and licenses	number	1,344	16	6,720	5,376	2,688	4,032	0	2,688	21,504	21,504	0	21,504
Other IT equipment and software	lump sum	10,828	1	3,403	2,700	1,350	2,700	0	675	10,828	10,828	0	10,828
6100 Sub-total non-expendable procurement				54,523	62,076	34,038	6,732	0	3,363	160,732	160,732	0	160,732
5028 GOE budget													
Vehicle maintenance	lump sum	800	54	12,960	19,440	10,800	0	0	0	43,200	43,200	0	43,200
Insurance	per year	6,000	4	7,200	10,800	6,000	0	0	0	24,000	24,000	0	24,000
Office rental (contribution)	months	500	48	0	0	0	0	0	24,000	24,000	24,000	0	24,000
Office supplies	months	100	54	0	0	0	0	0	5,400	5,400	5,400	0	5,400
6300 Sub-total GOE budget				20,160	30,240	16,800	0	0	29,400	96,600	96,600	0	96,600
TOTAL				**1,079,307**	**2,002,205**	**752,754**	**379,131**	**187,600**	**202,813**	**4,416,210**	**4,271,960**	**144,250**	**4,416,210**

ANNEX F: (For NGI only) Termsheet

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

ANNEX G: (For NGI only) Reflows

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

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

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