

## PROJECT DOCUMENT

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<b>Title of the project:</b>	<b>Implementation of sustainable land management (SLM) practices and capacity building in communities affected by degradation</b>
<b>Project Code:</b>	UNJP/ECU/096/CCD
<b>Beneficiary country or countries:</b>	Ecuador
<b>Government/other counterparts:</b>	Ministry of the Environment of Ecuador (MAE). Others: Ministry of Agriculture and Livestock, local governments, farmers associations Resource Partner: United Nations Convention to Combat Desertification (UNCCD), Korea Forest Service (KFS).
<b>Scheduled entry (start date):</b>	May 2018
<b>Deadline (date of termination):</b>	May 2020
<b>Contribution to country priorities and FAO's Strategic Framework: (Indicate where applicable)</b>	<p>Ecuador has developed several strategies and policies to reduce degradation of ecosystems and improve agricultural management. The project will contribute to several results and objectives of the following instruments:</p> <ul style="list-style-type: none"> <li>- National Development Plan of Ecuador, 2017-2021</li> <li>- National Strategy of Climate Change 2012-2025</li> <li>- National Biodiversity Strategy. 2015-2030.</li> <li>- National Action Program against Desertification, Land Degradation and Drought (PAND)</li> </ul> <p>The project contributes to FAO's <u>Strategic Objective 2</u> "Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner".</p> <p>The <u>National Priorities Framework</u> (NPF) for FAO's technical assistance signed between the Government of the Republic of Ecuador and FAO is the basis of the relationship between the two for the 2013-2017 period. The current NPF establishes priority area No. 4:</p> <p><i>"Contribute to the consolidation of <b>Environmental public policy</b> through the conservation, valuation and sustainable management of biodiversity and natural resources as a strategic resource of the State, as well as to ensure ecosystem services, and develop adaptation and mitigation strategies to address climate change and ensure food sovereignty"</i></p> <p>Priority Area A: Integral management of natural resources, and mitigation and adaptation to climate change.</p>
<b>Total budget:</b>	USD \$. 375 600

## Executive Summary

Land degradation is a global problem. FAO estimates that 25% of agricultural lands show a "high degradation trend or highly degraded lands". Under these conditions, FAO has promoted Sustainable Land Management (SLM) as a strategy to stop degradation and reduce the impacts of this phenomenon on productive systems, especially the most vulnerable sectors of rural areas.

Ecuador faces significant challenges in the area of sustainable land management. According to information from the Ecuadorian Ministry of the Environment (MAE), 47.5% of the land is affected by some degradation. The areas with the highest incidence of this phenomenon are the coastal areas of the center of Esmeraldas, the coastal strip of Manabí, Guayas, Santa Elena, El Oro and the Inter-Andean valleys and Paramos of the majority of the provinces of the Highlands (Chimborazo, Imbabura, Cotopaxi, Bolívar, Loja, Azuay). High slopes, deforestation, poor agricultural practices, limited technical assistance, and high levels of poverty have contributed to land degradation in Ecuador. Climate change poses a new threat to rural production systems that already show levels of degradation in the present.

For this reason, the project seeks to integrate a landscape management perspective that makes it possible to link SLM actions to reduce or slow down local degradation processes in areas that face this problem. The project activities will focus on 4 main issues; 1) Implementation of SLM practices in degraded agricultural areas; 2) Reforestation and recovery of degraded areas located in water sources of the participating communities; 3) Incorporation of efficient use of water for agricultural systems and; 4) Capacity building of local stakeholders and participating communities on the implemented SLM. The intervention on these four key issues is expected to improve local practices linking sustainable land and water use in agricultural processes with the participation of local institutional and community stakeholders. These activities are essential to increase the areas under SLM at the local level and to improve the adaptive capacity of communities to climate change.

For the intervention, the project will receive technical assistance from FAO, coordination support in the territory from the Ministry of Environment through its GIDDACC project (*Integrated Management for Combating Desertification of Land and Adapting to Climate Change*), with the local support of the Provincial Offices of the MAE in Loja and Manabí. At the local level, the project will work with Parish, Municipal and Provincial Governments, producer associations and other institutions such as MAG and SENAGUA. For the implementation of the activities, FAO will maintain a collaboration agreement with the United Nations Convention to Combat Desertification (UNCCD), the channeling agency for financing from the Korea Forest Service (KFS) through the Changwon Initiative. On the other hand, the UNCCD Secretariat facilitates funds donated by the KFS and follows up through the Regional Coordination Unit at the local level. The project will comprise a management team composed by FAO and MAE, a national directive committee with MAE, MAG and FAO, a local committee made up by the MAE's National Climate Change Adaptation Direction, MAE's Provincial Offices and local GAD. These management spaces will allow the dissemination of outcomes and the articulation of activities with other national projects carried out by FAO, such as the DS-SLM (Decision Support for Mainstreaming and Scaling out of Sustainable Land Management (SLM) and MAE's projects GIDECC and FORECCSA.

The project activities in the selected areas will contribute to the fulfillment of the objectives of Ecuador in terms of adaptation to climate change and reduction of land degradation and desertification. The project will contribute to the fulfillment of the Ecuador's National Development Plan, National Strategy of Biodiversity, and Climate Change Strategy and the National Action Program against Desertification, Land Degradation and Drought (PAND).

The project is related to the 10-Year Strategy of the UNCCD (2008-2018) that was adopted in 2007, where parties committed to "forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas in order to support poverty reduction and environmental sustainability". This initiative is part of the KFS international cooperation and supports to desertification prevention projects.

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## ACRONYMS

DS SLM	Decision Support for Mainstreaming and Scaling out of Sustainable Land Management
FAO	Food and Agriculture Organization of the United Nations
FORECCSA	Strengthening the Resilience of Communities to the adverse effects of Climate Change with an emphasis on Food Security;
GAD	Decentralized Autonomous Government
GEF	Global Environmental Fund
GIDDACC	Integrated Management for Combating Desertification of Land and Adaptation to Climate Change
IEE	Ecuadorian Space Institute
INIAP	National Institute of Agricultural Research
KFS	Korea Forest Service
LADA	Land Degradation Assessment in Drylands
LUS	Land Use System
MAG	Ministry of Agriculture and Livestock
MAE	Ministry of the Environment of Ecuador
PAND	National Action Program against Desertification
PDOT	Territorial Development and Organization Plans
QA	App Quest (SLM approaches)
QM	Map Quest (SLM mapping)
QT	Tech Quest (SLM technology)
SDG	Sustainable Development Goals
SLM	Sustainable Land Management
USCUSS	Land Use, Land Use Change and Forestry
UNCCD	United Nations Convention to Combat Desertification
WOCAT	World Overview of Conservation Approaches and Technologies

## SECTION 1 - RELEVANCE

### 1.1 GENERAL CONTEXT

#### Background

In 2015, the Ministry of the Environment of Ecuador, through the Undersecretary for Climate Change, implemented the National Action Program against Desertification, Land Degradation and Drought (PAND), aligned with the United Nations Convention to Combat Desertification (UNCCD). Under this project, SLM actions were implemented in three rural parishes and the municipal administrative center of Nabon, in the province of Azuay. These actions were funded by the Korea Forest Service (KFS) and its GDP (Greening Drylands Partnership) programme under the Changwon Initiative launched in 2011, and the implementation was carried out by the United Nations Development Program (UNDP).

This work carried out in the Azuay province received cooperation from local partners such as the Autonomous Decentralized Municipal Government of Nabon and the Autonomous Decentralized Parish Governments of: El Progreso, Cochapata, Las Nieves and community leaders of intervened areas. The main objective of the program was to rehabilitate soils that have been degraded due to deforestation, erosion, burning, overgrazing in fragile areas, as well as unsustainable agricultural practices, among other factors.

The most specific objectives of the project were: a) rehabilitation of 50 hectares of degraded areas through reforestation, b) the implementation of conservation practices in 20 hectares used for intensive grazing in areas identified with some level of soil degradation, c) consolidating an irrigation method for forestation called rainwater harvesting and storage (water harvesting) and d) awareness and capacity building of local communities on the importance of forestation and reforestation e) sustainable forest management as a means to improve livelihoods. All of this contributed to the main beneficiaries to improve their livelihoods and living means.

Among the achievements of the program of degradation and desertification during the first phase in Nabon, Azuay province were the following:

- Six lentic wetlands and five infiltrating ditches were built in Taro, Tamboviejo and Ñamarin communities to harvest rainwater during winter seasons.
- A total of 62 hectares of native species were planted in Taro communities (14 hectares), Tamboviejo (10 hectares), Ñamarin (10 hectares), El Salado (10 hectares), Guandugloma (7 hectares), Shiña (3 hectares), Las Nieves (3 hectares), La Playa (2 hectares), Tiopamba (2 hectares), Casadel (1 hectare).
- 70 agro-ecological orchards were implemented: Taro (14 orchards), Tamboviejo (18 orchards), Cochaseca (20 orchards), Chunazana (4 orchards), Tiopamba (1 orchard) Camara (1 orchard), Tamboloma (4 orchards), La Playa 1 orchard), El Salado (2 orchards), Ñamarin (4 orchards), Casadel (1 orchard).
- Two market places were obtained in the Nabon market for all beneficiaries of the program.
- The beneficiaries of the project were included in the productive council of the municipality of Nabon.
- Project beneficiaries received 7 workshops about environmental and agricultural issues: desertification, soil degradation and drought, "soil management", "agroecology", "forestation

processes", "organic fertilizers", "integrated management of pests and diseases" and "family finances".

The direct beneficiaries of the project were 50 families from the parishes of Cochapata, Progreso, Nieves and Nabón Centro, and indirect beneficiaries were 15 892 inhabitants in Nabón, Province of Azuay. The project has helped the beneficiaries of the area under study to improve their livelihoods and living standards.

In this sense, this project is a complementary process to the first phase that was carried out in Nabón. For this, we will take into account the lessons learned in the implementation of the first phase in Nabón (Azuay province). On the other hand, this project will also complement other existing initiatives developed and implemented by the Ministry of the Environment of Ecuador, focused on reforestation, as well as the implementation of sustainable land management practices benefiting areas with a high degree of desertification and soil degradation in the provinces of Loja and Manabí, areas that have been prioritized by the results of the National Land Degradation Assessment; this is a tool that provides decision-makers, a global vision of what happens respect to land degradation, using the LADA-WOCAT1 methodology, explaining it by showing its causes, consequences, trends and impacts and locating it spatially through maps.

### 1.1.1 Justification

Globally, land degradation is considered to be one of the most important challenges for the development of agriculture. The growing need for food, and therefore for agricultural land, puts pressure on natural ecosystems and demands more water to meet the needs of agricultural production. FAO, in its "The State of the World's Land and Water Resources for Food and Agriculture" (FAO, 2011) report, recognizes that 25% of agricultural land have a "high degradation trend or highly degraded lands." That report recognizes that degradation must be looked at from a broader perspective and not only consider erosion or loss of soil fertility as the only references for degradation. It is therefore important to link degradation to the deterioration of ecosystems that provide critical environmental services and their linkage with local social and economic dynamics.

In the case of Ecuador, it is estimated that 47.5% of the national territory is threatened by land degradation (Morales *et. al.*, 2010), deforestation, soil erosion and loss of soil fertility. Soil erosion affects approximately 57% of the land. On the other hand, in the country 5.67 million hectares in 2015 are allocated for agricultural production of which 44.63% correspond to cultivated pastures and 26.15% to permanent crops, while the remaining percentage is for transitional crops and natural pastures. In economic terms, the agricultural sector accounts for 8% of the country's GDP, and in it we find 25% of the Economically Active Population (INEC, 2015). In this context, work in the agricultural sector related to sustainable land management is fundamental for the national economy.

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<sup>1 1</sup> LADA WOCAT Methodology (LADA: *Land Degradation Assessment in Drylands*; WOCAT: *World Overview of Conservation Approaches and Technologies*)

The annual rate of deforestation was approximately 0.37% between 2008 and 2014 (MAE, 2015). Among the main causes for degradation in Ecuador we find overgrazing, logging, poor management of watersheds, burning, expansion of the agricultural frontier, open-pit mining, soil compaction, unsustainable agricultural practices, construction of infrastructure, among the main ones; all of which is magnified by the periodic drought conditions that are manifested throughout the national territory and the effects of hydro-meteorological variations due to the effects of climate change.

Between 1982-2003, 14.2% of the total national area (34 686 km<sup>2</sup>) was degraded. The most susceptible areas to desertification are the ones located in the coastal areas of the center of Esmeraldas, and the coastal strip of Manabí, Guayas, Santa Elena, El Oro and the Inter-Andean valleys and Paramos of the majority of the provinces of the Highlands. Vulnerability in these areas is enhanced by natural climatic factors, including drought (Segarra, 2014). Additionally, according to Ecuador's Third National Climate Change Communication (MAE, 2017), the agriculture sector accounted for 18.17% of the country's emissions and the USCUS sector (Land Use, Land Use Change And Forestry) for 25.35% of the greenhouse gas emissions. Therefore, in terms of emissions, these are sectors of great importance to improve agricultural practices and land use.

In this context, land degradation is an issue of interest to the Ministry of the Environment, the Ministry of Agriculture and Livestock, and the Decentralized Autonomous Governments responsible for the promotion of production, especially in those territories whose agricultural production is for domestic trade, fundamental for the food security of the country. Within this framework, efforts are required towards prevention and mitigation<sup>2</sup> with the purpose of avoiding and stopping degradation in addition to properly managing resources and their functions, including agricultural production capacity.

Ecuador is taking actions to address land degradation. The Ministry of the Environment of Ecuador (MAE) is the national authority for combating desertification, land degradation and drought as a Focal Point for the UNCCD. Since 2010, the Undersecretary for Climate Change, through the National Adaptation Directorate, is the unit responsible for channeling the country's actions and promoting synergies for the implementation of the National Action Plan to Combat Degradation (PAND). The Ministry of the Environment has developed a series of initiatives and actions to strengthen the management of such problems in the country, among which are:

- The "**Support to Ecuador for the development of the National Action Plan (PAND) project** for Combating Desertification, Land Degradation and Drought – Aligned to the UNCCD Decennial Strategy", implemented by the Ministry of the Environment, with support from UNDP as executing agency and GEF's funding. Through this initiative, the PAND was updated in line with the UNCCD decennial strategy and reporting to the convention was facilitated, and implemented SLM practices with KFS funding.
- The "**Integrated Management for Combating Desertification, Land Degradation and Adaptation to Climate Change - GIDDACC** ", whose purpose is to contribute to the management of the combat

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<sup>2</sup> Mitigation is an intervention that seeks to reduce ongoing degradation. It becomes a stage once degradation has already started. The main objective is to stop continuous degradation and begin to improve the resources and their functions. Mitigation impacts tend to be visible in the short and medium term: thus providing a strong incentive for future efforts. The word "mitigation" is sometimes also used to describe the reduction of degradation impacts (FAO).

against degradation, through the implementation of local conservation and development initiatives with a focus on gender equality and inter-culturality in the provinces of Loja, Azuay, Tungurahua, Manabí, El Oro and Chimborazo.

- The "Strengthening the resilience of communities to the adverse effects of climate change with an emphasis on food security in the Jubones River basin and the Pichincha Province - **FORECCSA** " project, whose aim is to reduce vulnerability to climate change in Pichincha and the Jubones river basin by improving adaptive capacity, promoting efficient management of water resources and food security.

The Ministry of the Environment is also implementing the "Support for Decision-Making for the Integration and Expansion of Sustainable Land Management (**DS-SLM**)" project, with the support of FAO and GEF funding. The project has actions in 15 countries and aims to integrate good practices in sustainable land management into environmental plans, investment frameworks, policies and programs to address degradation, desertification and drought. In Ecuador, the project supports the design of an inter-institutional strategy and national action plan for sustainable land management, based on national, sub-national and local assessment processes using the LADA-WOCAT<sup>3</sup> methodology. At the moment, the national degradation assessment is being carried out, through which a base land use systems map (LUS) has been generated, and for each use a degradation analysis and classification form is applied (QM methodology).

The result is a map with the different LUS, with its table of degradation attributes at the national level. This evaluation has been worked together with a specialized technical team made up by the MAE, the Ecuadorian Space Institute, MAG and Universities through different national and provincial workshops; and will serve as input for the incorporation of sustainable land management (SLM) in policy decision-making bodies and local planning processes. It is also expected that the evaluation process will allow the recovery of the flow of ecosystem services and expand the area under sustainable land management in the agro-productive landscapes of the selected areas.

Despite these series of initiatives, their coverage is not sufficient and there is a clear need for continued support to expand actions to reduce degradation and improve the adaptive capacity of rural communities most vulnerable to climate change. In this context, and with reference to the first phase of the PAND program in Nabón, where successful results were achieved, such as the rehabilitation of more than 50 hectares of degraded areas with forestation, the implementation of conservation practices on 20 hectares of degraded areas, the promotion of the sustainability of ecosystems with agroecology, the increased genetic diversity for climate resilience on 30 hectares, the development of local communities on the importance of reforestation and sustainable forest management as means to improve livelihoods and the reinforcement communal and institutional capacities.

In this context, the Ministry of the Environment has requested FAO to implement this project in order to integrate a landscape management perspective that makes it possible to link SLM actions to the reduction

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<sup>3</sup> LADA-WOCAT (Land Degradation Assessment in Drylands-World Overview of Conservation Approaches and Technologies)



or to slowing down of local degradation processes in areas that face this problem, based on the experiences gained in the first phase financed by KFS and with the support of the UNCCD. Actions focused in 1) Implementation of SLM practices in degraded agricultural areas; 2) Reforestation and recovery of degraded areas located in water sources of the participating communities; 3) Incorporation of efficient use of water for agricultural systems and; 4) Capacity building of local stakeholders and participating communities on the implemented SLM. The intervention on these four key issues is expected to improve local practices linking sustainable land and water use in agricultural processes with the participation of local institutional and community stakeholders. These activities are essential to increase the areas under SLM at the local level and to improve the adaptive capacity of communities to climate change.

### **1.1.2 Methodological Approach: Sustainable Land Management**

The United Nations defines sustainable land management (SLM) as "the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions. "

The productivity and sustainability of land use systems is determined by the interaction between land resources, the climate and human activities. In a climate change and variability scenario, selecting land use for certain biophysical and socio-economic conditions, and implementing sustainable land management, is essential to minimize degradation, rehabilitate degraded lands, ensure sustainable use of resources (soil and water) and maximize their resilience.

Sustainable land management encompasses already established approaches such as soil and water conservation, natural resource management and integrated landscape management. This approach involves a holistic approach to maintaining productive and healthy ecosystems, integrating social, economic, physical and biophysical needs and values, and contributing to sustainable development.

Sustainable land management approach is based on four principles.

1. Institutional and policy support, including the development of incentive mechanisms for the adoption of SLM, and income generation at the local level.
2. Participatory and soil user-based approaches.
3. Integrated management of natural resources at the farm level, and at the ecosystem level.
4. Multilevel and *Multistakeholder* engagement (land users, technicians and policy makers).

### **1.1.3 Comparative advantage of FAO**

FAO is mandated to support its member countries and partners in the development of norms, standards and policies; and with technical advice for the implementation of national and local programs through capacity building and technical knowledge management activities. For many years, FAO has developed and makes available a range of integrated landscape and ecosystem approaches to facilitate collaboration among sectors in order to improve natural resource management and optimize productivity. There are

policy and technical guidelines available on integrated river basin management; mountain/upland management, wetlands and coastal areas; conservation and sustainable use of agricultural biodiversity, and the management, conservation and sustainable use of agricultural biodiversity; agroforestry systems; sustainable forest management and, more recently, climate-smart agriculture and the link between food, water and energy.

FAO also implements integrated land resource planning strategies through a wide range of approaches, tools and complementary SLM measures adapted to different biophysical and socio-economic contexts. Land degradation and desertification threaten the food security and livelihoods of millions of people, especially in the dry lands. After many decades of fieldwork on SLM approaches and practices, many options are available to reverse these negative trends. FAO is prioritizing the identification of affected communities and target areas to implement locally appropriate SLM options for managing land resources with the overall objective of expanding SLM in large areas (FAO, 2016).

FAO regularly advises and builds the capacities of governments and other development partners on the appropriate formulation and implementation of land use and the SLM exemplary policies, strategies, programs, tools, technologies and practices. Tools such as LADA (Land Degradation Assessment) have been developed by FAO and its partners worldwide for the assessment of land degradation in dry areas of the planet and are part of networks such as WOCAT (World Overview of Conservation Approaches and Technologies) for the implementation of appropriate practices and technologies to combat land degradation.

On the other hand, under Strategic FAO's Objective 2 to "*Make agriculture, forestry and fisheries more productive and sustainable*", activities are being developed to improve the efficiency of resource use, optimize the use of inputs and maintain the range of ecosystem functions (food supply, fiber, energy, soil health, water quality, cultural values and the conservation of biodiversity) and to improve climate change adaptation and mitigation. This work focuses on the following aspects:

- a) Increase **resource use efficiency** in order to achieve higher productivity with lower inputs, while minimizing negative external factors;
- b) Management of ecological, social and economic **risks** related to agricultural production systems, including pests, diseases and climate change;
- c) Identification and enhancement of **the role of ecosystem services**, in particular in terms of their impact on resource efficiency and response to risks, as well as their contribution to environmental conservation;
- d) Fostering access to **information and technologies and land governance**.

Finally, FAO is the United Nations agency responsible for 21 indicators of Sustainable Development Goals (SDGs) 2, 5, 6, 12, 14 and 15. The activities outlined in the project are related with SDG 6 "*Ensure availability and sustainable management of water and sanitation for all*" and with target 6.4 "*substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity.*" On the other hand, with the necessary training on SLM and the implementation of good

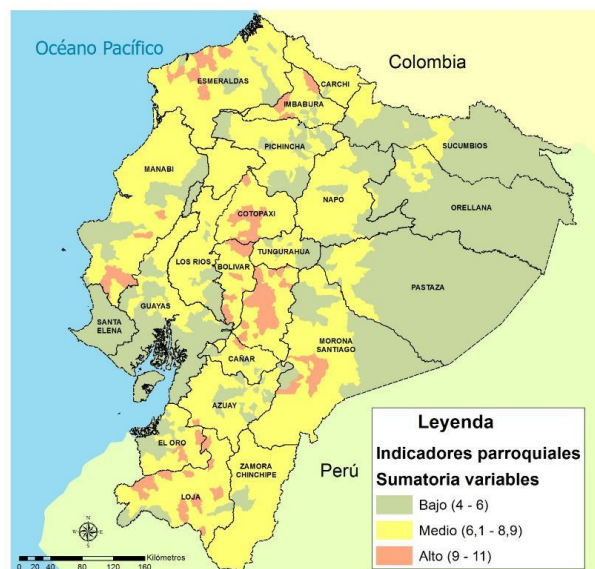
agricultural practices, both beneficiaries and local organizations will achieve alignment with SDG 2. "End hunger, achieve food security and improve nutrition and promote sustainable agriculture." In the same way, reforestation activities in localized degraded areas, contributes to SDG 15, which sets the goal to "Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss" and specifically to the goal to "Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally."

In this context, FAO has a great comparative advantage in its ability to assist countries in meeting the supervision challenge posed by SDGs. Activities are under way to collaborate at the country level in the development of land indicators; land degradation; soils; drought; forests and mountains; sustainable land management; water efficiency and scarcity; women's access to land ownership; food losses and waste; and others.

### 1.1.4 Participants and stakeholders

For the definition of the intervention sites of the project, a range of variables contributing to land degradation in Ecuador were analyzed: a) consumption-based poverty, b) remaining natural vegetation, c) slopes and d) erosion potential. These variables were evaluated per parish nationwide, the results made it possible to prioritize the intervention areas by having a potential land degradation map (Figure 1).

**Figure 1. National potential degradation of land per parish**

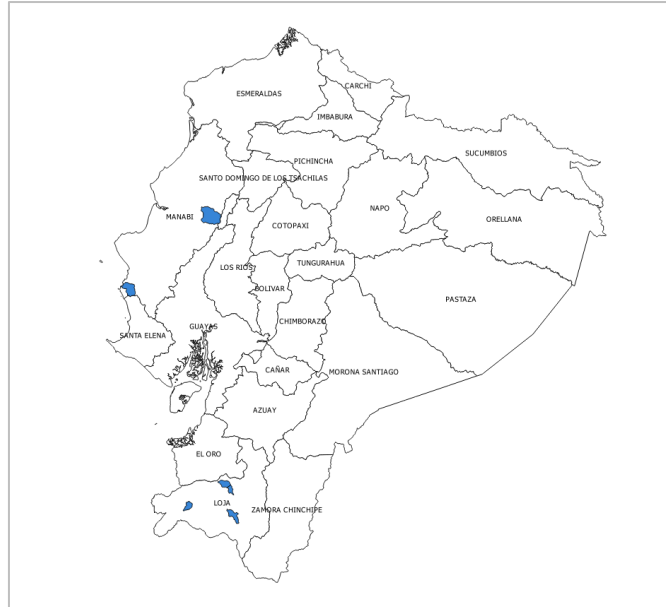


Source: MAE and FAO (2017).

The results show several provinces at the national level in which land degradation is considered high, medium and low. A complementary criterion, the synergies with projects implemented by the Ministry of Environment, Ministry of Agriculture and Livestock and FAO at the national level were also considered for the selection in order to articulate the project's intervention. As result, 6 parishes were selected, 4 located

in the province of Loja (Pozul, Chagaimaina, La Tinga and Chaguarpamba) and 2 in Manabí (Puerto López and Barraganete) (Figure 2).

**Figure 2. Location of the selected parishes in the provinces of Loja and Manabí.**



Source: MAE and FAO (2017).

The selected parishes show diverse socio-economic and environmental conditions. Table 1 presents a summary of these conditions in each of the parishes. A common factor is the high levels of poverty for the NBI (unsatisfied basic needs) indicator, varying between 98.78% and 80.16%. On the other hand, parishes have different percentage of natural remnant vegetation that indicates the degree of agricultural intervention in each place. Parishes such as Pozul possess only 5.28% of their territory with natural vegetation, while the parish of Puerto López has a 93, 90% with natural vegetation. These conditions present in the selected parishes will make it possible to define the type of intervention and SLM practices to be implemented based on the local specific conditions.

**Table 1. Summary of socio-economic and environmental conditions of intervention parishes.**

	Province of Loja				Province of Manabí	
Municipality	Celica	Gonzanamá	Olmedo	Chaguarpamba	Puerto López	Pichincha
Parish	Pozul	Chagaimaina	La Tinga	Chaguarpamba	Puerto López	Barraganete
Total population (year 2010)	3035	2751	668	3579	10928	7567
Total Men	1520	1390	360	1877	5647	4010
Total Women	1515	1361	308	1702	5281	3557
Total area of the parish (ha)	7988.83	12041.93	5149.12	10136.01	20030.97	42736.71
Poverty NBI (unsatisfied basic needs) (%)	90.28	85.62	98.20	80.16	90.76	98.78
Access to public water network (%)	42.03	52.11	20.54	54.05	60.42	10.34
Population dedicated to agricultural activities (%)	69.73	65.18	76.47	49.00	29.79	71.07
Remaining natural vegetation (%)	5.28	24.48	17.05	9.77	93.90	23.97
Average annual precipitation (mm)	1062	1226	1095	1197	1397	1807
Estimated project intervention area (ha)	40	40	40	40	40	40

Source: MAE and FAO (2017).

There are direct and indirect beneficiaries. In the case of direct beneficiaries, we find the inhabitants of the selected communities where the practices will be implemented; especially on farms that meet the conditions for the implementation. These inhabitants will receive technical support for the implementation of SLM practices, necessary inputs, and training. In the province of Loja, more than 95% of the inhabitants are *Mestizos*, while in the province of Manabí up to 30% of the population is considered to be *Montubios*. It is estimated that a total of 200 families will benefit from the practices to be implemented in the project,

this represents an approximate 1 000 direct beneficiaries. Gender criteria will be taken into account to favor an adequate representation of men and women based on their roles and responsibilities within the communities. Women will be the main beneficiaries of measures to improve family production systems because they are more related to the production and maintenance of food security crops.

Indirect beneficiaries are the technicians and specialists of public institutions linked to the project: technicians from sectorial ministries, local governments, research institutes and the inhabitants of the selected parishes. Strengthening local technicians will allow local governments and participating institutions to have a better tool for SLM and its application within local planning procedures. In addition, it will reinforce ties between local governments and producers organizations, which will facilitate local development processes. The inhabitants of the participating parishes will be indirect beneficiaries of the inclusion of the SLM criteria in local planning, making it possible to replicate the initiatives in other places.

At the institutional level, the participants in the project will play complementary roles in the implementation of the planned activities (Table). This project will be financed by the Korea Forest Service and channeled by the UNCCD. The Korea Forest Service launched in 2011 together with the UNCCD the Greening Drylands Partnership (GDP) Project under the Changwon Initiative which aims to provide support to developing countries to promote action programs for reversing desertification, land degradation and drought (DLDD), reforestation and forest rehabilitation in degraded lands. The initiative is related to the 10-Year Strategy of the UNCCD (2008-2018) that was adopted in 2007, and where parties committed to foster a global partnership to reverse and prevent desertification / land degradation and to mitigate the effects of drought in affected areas in order to support poverty reduction and environment sustainability.

The Ministry of Environment is the executing partner responsible for: (i) technical implementation of project activities; (ii) day-to-day monitoring of project progress and achievement of results; and (iii) financial planning and procurement of goods, minor works and services, which will be undertaken by the FAO Representation in Ecuador as per request of MAE and (iii) national and local interinstitutional coordination.

FAO will be the implementing agency as well as the financial and operational executing agency. As the financial and operational executing agency FAO will provide procurement and contracting services and financial management services of the resources. As implementing institution FAO will supervise and provide technical guidance for the overall implementation process to ensure that appropriate technical quality is applied to all activities concerned.

Table 2 summarize the main roles of the participants in the project.

**Table 2. Roles of the main participants in the project**

Participants	Role and in the project
KFS	Financing of the project.
UNCCD	Follow up on the fulfillment of the objectives of the project.
Ministry of Environment	Executing entity.
FAO	Project implementing agency.
Ministry of Agriculture and Livestock	Participation in training processes with technicians as instructors.
Provincial Governments	Participate with its technical team in capacity building on SLM processes.
Parish Governments	Support the implementation with a local technical team.
Associations of producers	Implement SLM practices on selected farms.
Local research institutes	Share experiences on SLM in training spaces with local producers and decision makers.

## 1.2 EXPECTED OUTCOMES

<b>IMPACT</b>	<i>Improvement of the capacities of local communities for sustainable land management through good agricultural practices, efficient use of water and reforestation processes.</i>			
<b>OUTCOME</b>	<i>The population from participating local communities have strengthened tools and capacities to apply sustainable land management practices in their productive systems and related ecosystems.</i>			
<b>Indicator</b>	<b>Reference</b>	<b>Objective</b>	<b>Means of verification</b>	<b>Assumptions</b>
1. 40 hectares incorporate good agricultural practices and efficient water and soil management in degraded areas	* Information will be generated in the initial project field evaluation.	Rehabilitate degraded areas that improve local productive systems and living conditions of the participants	Number of good agriculture practices implemented per farm (total ha).	Communities actively participate in the implementation of these practices on their farms.
			Total plotted irrigated land systems. Coverage. (Total ha).	
			Follow-up reports.	
			Monitoring field forms.	
2. 120 hectares with reforestation and natural regeneration processes in degraded areas on	* Information will be generated in the initial	Consolidate recovery processes for degraded areas through reforestation	Total number of plants planted	The climate conditions allow the establishment of the plants planted and there is willingness
			Percentage of plant survival.	

watershed related to water sources.	project field evaluation	and natural regeneration	Reforested area (planted ha). Follow-up reports. Field Cards. Photographic record.	from the owners of degraded areas to carry out these processes
3. 120 people with built capacities on Sustainable Land Management (SLM)	* Information will be generated in the initial project field evaluation	Increase local knowledge and capacities on Sustainable Land Management among local people and decision makers	Event reports. Participant registration forms. Training materials. Photographic record.	Communities, technicians and local authorities participate in training processes to be carried out
<b>OUTPUT 1</b>	<b><i>Good agricultural practices, sustainable land management and efficient use of water implemented on farms.</i></b>			
<b>ACTIVITIES to obtain the output 1</b>				
<b>Title</b>	<b>Description</b>			
1.1 Rapid assessment of the degradation status of the areas of intervention and sustainable land use planning	With the available secondary information and the field visits to intervention parishes, a participatory evaluation of degradation and existing practices of SLM at the local level will be carried out, obtaining better detailed information for the selection of the project's work areas, considering the available resources and outcomes of other projects developed in the country.			
1.2 Identification of participating farms and SLM planning.	Workshops and field visits will be held with local partners (GADs, MAE, producer associations) to define the farms/watersheds to be intervened, assessing the willingness of owners and degradation conditions set in activity 1.1. Once the farms and intervention sites have been agreed, the most appropriate practices will be planned for each social, economic and environmental condition of the selected farms with the active participation of the local beneficiaries. We will have a definition of the roles of the stakeholders involved in the project to be able to define the intervention places and farms.			
1.3 Workshop to present good practices in agriculture and efficient water management	With local partners (GADs, MAE) and farm owners, one workshop per parish will be held to evaluate the options for good practices in agriculture, sustainable land management (SLM) and efficient use of water that can be implemented locally. During the execution of the workshop, local conditions and participation levels will be evaluated and the available measures will be analyzed, including crop management practices, agroecology, agroforestry, diversified production systems, local agrobiodiversity, products with potential to improve family income, micro reservoirs, parcel irrigation, family reservoirs or water harvesting systems as part of SLM practices.			
1.4 Implementation of practices and procurement of materials	During this process, the necessary materials will be procured for the installation of efficient water use systems, fertilizers, seeds, seedlings, hoses, wire and other materials necessary for the development of practices on the farms. This process will favor procurement inside the intervention localities.			
Activity 1.5 Training and evaluation of the implementation of measures	With the help of project technicians and the support from local promoters of the project, present in the intervention areas, required training will be carried out and SLM practices will be evaluated on a permanent basis once they have been implemented in the participating farms. Basic monitoring systems and baseline assessments will be established to monitor the project.			
<b>OUTPUT 2</b>	<b><i>Degraded areas reforested or in recovery process, established.</i></b>			
<b>ACTIVITIES to obtain the output 2</b>				



Title	Description
2.1 Identification of areas of intervention	The most suitable sites will be selected for the establishment of the plants, considering land degradation processes and their contribution to the maintenance of water bodies (community water springs or water sources). This will be carried out in connection with Activity 1.1 of the project.
2.2 Selection of species and cultural practices to be used according to the landscape	According to the type of ecosystem and cultural practices present in the sites of interest, we will select the species most suitable to be used based on the experience in Nabon. The species listed in the Annex 1 shall be taken as reference.
2.3 Land preparation and seedling acquisition	Once the most suitable species for each landscape have been selected, the land will be prepared at work sites and the seedlings will be purchased at local nurseries.
2.3 Implementation of planting days	These days will conduct the planting of the selected species in the sites prioritized for this activity. Sowing will take place in the rainiest months considering the historical patterns in each parish.
2.4 Monitoring of plant survival and field maintenance	The evaluation of the survival of planted seedlings and their maintenance will be carried out with the beneficiaries of the project and the technical team of FAO and MAE. As part of the evaluation and monitoring process, the state of the reforestation and SLM processes carried out in the Nabon canton will be determined within the framework of the PAND Project, which was supported by UNCCD / KFS.
<b>OUTPUT 3</b>	<b><i>Strengthening of local organizations and decision makers on the implemented SLM.</i></b>
<b>ACTIVITIES to obtain output 3</b>	
Title	Description
3.1 Visits to key local stakeholders	The Project's technical team will hold meetings with local stakeholders to define their roles and level of participation during the implementation of the project. The meetings will be with both, the local GADs, and with the projects that MAE and FAO maintain in the intervention areas
3.2 SLM Presentation Workshops	SLM Training workshops will be organized at the parish level for key territorial and institutional stakeholders to understand the logic behind the initiative in their parishes.
3.3 Definition of local SLM agreements	Local agreements will be defined for the participation of the communities in the project and to have agreements for the implementation of SLM and conservation practices in degraded areas in which the beneficiaries of the practices support the actions of the project.
3.4 Exchange of experiences on SLM	Community and institutional participants will conduct observation tours to sites implementing SLM, forestation and efficient water use measures to learn about the progress and replication opportunities for other sectors.
3.5 Communication of outcomes and activities	The activities and outcomes of the project will be documented and presented through digital platforms and printed materials. The communication teams will develop materials to highlight the work of the project in various spaces.
<b>OUTPUT 4</b>	<b><i>Monitoring and follow-up platform</i></b>
<b>ACTIVITIES to obtain output 4</b>	
Title	Description

4.1 Design of the basic project monitoring and review system	The technical team of the project will develop a monitoring and follow-up system for the fulfillment of the activities. This process will be carried out by registering the work that is implemented in the parishes and that is part of the annual operational planning. The follow-up and monitoring processes will serve as a basis for the evaluation of the impacts of the project.
4.3 Field follow-up and evaluation reports	Mid-term and end-of-project analyzes will be conducted on the effectiveness of the practices implemented in the parishes.
4.3 Systematization reports	At the end of the project, the outcomes and lessons learned from the project will be documented and systematized to be shared among local partners, with the donor, and those interested in SLM, and there will be summary document.

*Brief description of the outputs.*

**Output 1: Good agricultural practices, sustainable land management and efficient water use implemented on farms.**

This output poses the need to carry out an assessment of the state of degradation in the areas to be intervened. To do so, we can use the methodologies available and applied in the country such as LADA-WOCAT, a tool that measures the state of degradation and validates sustainable land management practices. Together with local project partners, through field visits, the selected farms will be defined taking into account the conditions and types of degradation, and in the same way, we will assess the willingness of the owners in this regard.

Once the intervention farms/watersheds have been identified, and there is a local vision on the state of degradation and the techniques that are being applied in the field, capacity building spaces will be developed in each parish to present and evaluate options for good agricultural practices and efficient water use that can be implemented locally. Once this phase is completed, the implementation of best practices will continue with the participation of local stakeholders. During the process, the necessary materials will be procured for the installation of efficient water use systems, fertilizers, seeds necessary for the development of practices on the farms. With the participation of project technicians and the support from local promoters of the projects present in the intervention areas, required training will be implemented and SLM practices will be evaluated. Finally, monitoring systems and baseline assessments will be established to monitor the project.

Through the incorporation of good agricultural practices and efficient water management in well localized degraded areas, it will be possible to rehabilitate degraded areas that improve local productive systems and living conditions of the participants. There will be means of verification such as: follow-up reports, field records and photographic records, among others.

**Output 2: Degraded areas reforested or in recovery process, established.**

The reforestation and natural regeneration process of degraded areas will have as its main objective to consolidate the recovery process of the identified degraded areas. As a first step, the identification of the intervention area will be conducted in order to select the most suitable sites for the establishment of the forest species, considering land degradation processes and their contribution to maintaining water bodies (community water springs or water sources).

For the selection of the most suitable forest species, the type of ecosystem and cultural practices in the sites of interest will be taken into account. Once the most suitable species are selected for each landscape, the land will be prepared at the work sites and the seedlings will be purchased at local nurseries. Later, the planting days will be carried out and these will allow the planting of the selected species in the sites prioritized for this activity. Sowing will take place in the rainiest months considering the historical patterns in each parish.

The evaluation of the survival of planted seedlings and their maintenance will be carried out with the beneficiaries of the project and the technical team of FAO and MAE. Monitoring and evaluation actions of the project will include reforestation actions carried out in the Nabon canton within the framework of the

PAND Project, which had the support of the UNCCD and KFS funding. As means of verification, we will take into account the total number of plants planted (number of plants per species), the percentage of plant survival and the reforested area (planted ha). In the same way, follow-up reports, field cards and an appropriate photographic records will be taken.

### **Output 3: Strengthening of local organizations and decision makers on the implemented SLM.**

The main objective of the capacity building process is to increase local knowledge and capacities on sustainable land management, both in local technicians and authorities as well as in the communities. During the project's duration, the technical team will hold different meetings with local stakeholders, local GADS and projects implemented by the Ministry of Environment and FAO in the areas covered. These meetings will define the level of participation of these key stakeholders in the project.

Training workshops will be organized on different conservation practices in degraded areas where project beneficiaries support project actions. Community institutions and participants will visit sites implementing SLM practices in the territory In order to be able to replicate sustainable land management, forestation and efficient use of water measures established in the different areas of intervention of the project. The proposed and implemented practices will be documented and the communication teams will prepare project materials in different spaces.

### **Output 4: Monitoring and Follow-up**

The technical team of the project will design and implement a monitoring and follow-up system for the fulfillment of the activities. The follow-up and monitoring processes will serve as a basis for the evaluation of the impacts of the project. Throughout the project, the technical team will prepare follow-up reports, field cards and a complete photographic record, in order to follow-up on the different practices being implemented during the duration of the project. Monitoring and follow-up after transplantation to the field would be 6 months, and then after a year.

On the other hand, field follow-up and evaluation reports will be prepared on a semi-annual basis. In them, the effectiveness of the implementation of the practices in the different parishes will be documented. Finally, the results and lessons learned from the project will be systematized to share them among partners and stakeholders interested in sustainable land management at the national level.

## SECTION 2 - FEASIBILITY

### 2.1 RISK MANAGEMENT

The matrix below presents the risk matrix analyzed for the project

**Table 3: Risk Matrix**

Risk	Impact	Probability	Reduction
<b>1 Low participation level of local people</b>	Reduced compliance with proposed goals	Low	The project technicians will encourage the constant participation of local stakeholders and communities throughout the project's implementation process
<b>2 Participating institutions with coordination difficulties</b>	Planned activities are not carried out as planned	Low	Establish a communication process through the local committee so that field actions are coordinated between the different participating institutions
<b>3 Good practices identified are not fully accepted by participants</b>	Sustainable land management practices are not implemented in the planned locations	Low	Training workshops will explain the management practices to be used so that the participants know how they work
<b>4 Changes in national authorities of governmental institutions</b>	Delay in the implementation of activities in selected areas	Medium	The local technical team will be strengthened and the implementation details of the project will be adequately communicated to the new authorities

### 2.2 IMPLEMENTATION AND MANAGEMENT AGREEMENTS

#### 2.2.1 Implementation strategy

The execution of the project will be under the responsibility of the National Adaptation Directorate of the Undersecretary of Climate Change of the Ministry of the Environment of Ecuador, and FAO as the entity in charge of the provision of technical assistance and operational implementation of the project. The activities will be coordinated with the Provincial Directorate of the MAE in the intervention provinces. The GIDDACC project of the MAE will provide local technical support and coordination with the local beneficiary communities. At the beginning of the project, a Project Operative Manual (POM) will be generated to define responsibilities, roles and duties of MAE, and FAO for the management of all the resources involved in this project.

#### Steering Committee

The Project Steering Committee (PSC) made up of MAE (Undersecretary of Climate Change), MAG and FAO and its role is to make decisions on the overall project management and will be in charge of ensuring the project strategic approach for the operational tasks. The PSC will meet at least twice a year and its 18 responsibilities will include: (i) overall oversight of project progress and achievement of planned results as per the project document; (ii) make decisions in relation to the practical organization, coordination and

implementation of the project; (iii) facilitate cooperation between MAE, MAG, FAO and project participating partners and project support at the local level.

### **Local management committee**

The Local Committee will seek to ensure that the activities are appropriate for local realities and that there is an adequate participation of community and institutional beneficiaries. The Local Management Committee will be responsible for: (i) guiding project implementation as per the work plan; (ii) timely achievement of project outcomes and outputs; (iii) planning project activities, giving guidance and advice to the steering committee; v) advising the steering committee on other on-going and planned activities facilitating collaboration between the project and other programs, projects and initiatives. The project will be supported by the Core Group<sup>4</sup> of the National Assessment of Degradation, formed as part of the project "Decision Support for Mainstreaming and Scaling out of Sustainable Land Management (DS-SLM)", to share the outcomes and receive the inputs.

Local participation is a fundamental aspect for the success of the project; therefore, the project will seek to commit the participation of beneficiaries, associations of producers and local governments to formalize the responsibilities of the parties in the implementation. Capacity building, as a core part of the project, will be the basis for building more effective practices in the work areas and will strengthen local interinstitutional coordination. The integration of the direct beneficiaries in the exchange of experiences will pursue to promote local knowledge and replicate the practices that are selected between project technicians and local inhabitants.

The project will establish coordination mechanisms with the "Climate Smart Livestock, integrating the reversal of land degradation and reducing the risks of desertification in vulnerable provinces," project, that is carried out jointly by the Ministry of the Environment and the Ministry of Agriculture, and the "Decision Support for Mainstreaming and Scaling out of Sustainable Land Management (DS-SLM)" project, both implemented with FAO technical support.

### **Project coordination unit**

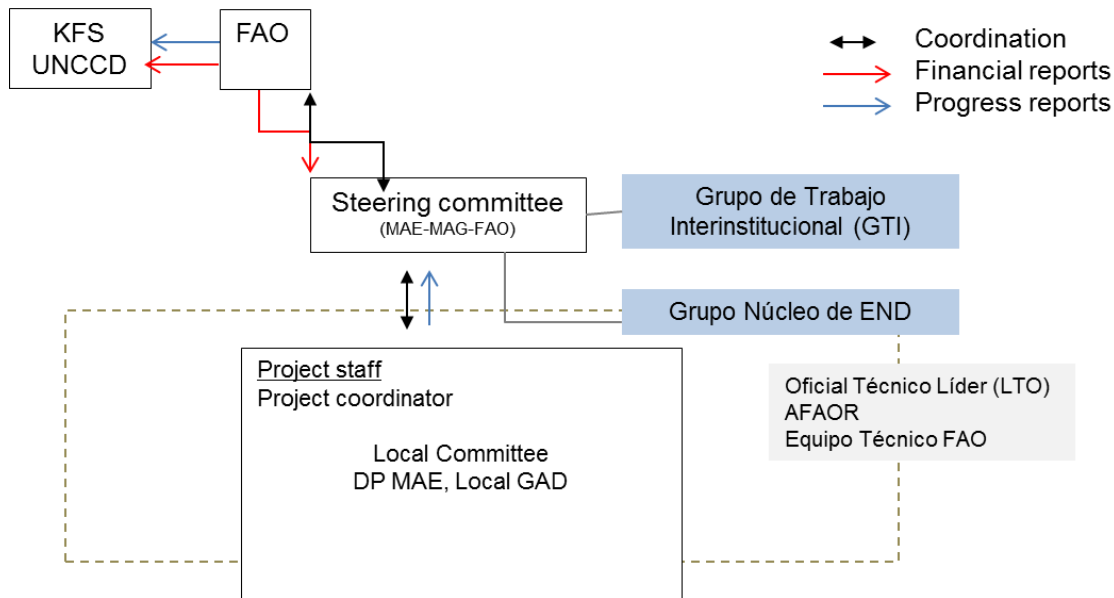
The main responsibility of the project coordination unit, following the directives and decisions of the Project Steering Committee and the Project Local, is to ensure coordination and execution of the project through the rigorous and effective implementation of the work plan. The coordination unit will be headed by the Project Coordinator who will be selected by a competitive and transparent process and will be established in MAE's local office in Loja, giving technical support and articulating actions with local governments. The project coordinator will also serve as Secretary of the Steering Committee.

The coordination will have support of MAE Province Directions and the National Direction of Climate Change Adaptation.

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<sup>4</sup> Group formed by MAE, MAG, ESPE, IEE, that carries out the National Assessment of Degradation, whose inputs will serve to define SLM public policies and planning.

**Figure 3. Project implementation strategy**



### 2.2.2 Government contributions

The Ecuadorian government, at its different levels, will make both in kind as well as logistics resources and technical assistance contributions through the support provided by technicians from the Ministry of the Environment and the participation of GAD technicians in the different planned activities. The MAE is the focal point of the UNCCD in Ecuador and is the first level responsible for the good compliance of the project under the conditions explained in the proposal.

### 2.2.3 Technical Support

FAO will provide technical guidance to the project team to ensure delivery of quality technical outputs. The Lead Technical Officer is the Land and Water Officer for the Latin America and Caribbean region who will assist with the review and provision of technical comments to products and activities during project execution. The LTO will be also supported by the technical team of FAO's Representation in Ecuador.

The project arrangements will promote adequate scenarios to strengthen participation processes, institutional planning and management, and to facilitate the exchange of national experiences regarding sustainable land management.

As for compliance, during the project cycle an adequate management of information and knowledge will be ensured in order to collect, analyze, disseminate information and lessons learnt.

#### 2.2.4 Contribution of FAO

FAO will provide the necessary technical assistance for the development of the project, as well as provide the tools, capacity building, methodologies and instruments that can be adapted to the country and transferred to the project. Likewise, FAO will provide all the administrative and technical support for the proper execution. At the administrative and operational levels, FAO will implement and monitor all travel, purchasing, contracting, monitoring and follow-up procedures through the FAO's Representation in Ecuador.

### 2.3 MONITORING AND REPORTING

The Project Coordinator and Technical Assistant by the project will be the personnel in charge of monitoring activities. The implementation will be carried out based on the annual work plans approved by the Steering Committee. Specific reports that will be prepared under the monitoring and evaluation program are:

**Annual Work Plan and Budget.** The Project Coordinator will submit to the Steering Committee a draft work plan for each year. The work plan should include detailed activities to be implemented by project outputs and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year.

**Project Progress Reports (PPR).** The Project Coordinator will prepare six-monthly PPRs and submit them to the Steering Committee and the FAO Representation in Ecuador no later than July 31 (covering the period January through June) and 31 January (covering the period July through December). The PPR are used to identify constraints, problems or bottlenecks that impede timely implementation and take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework.

**Terminal Report.** Within two months before the end date of the project, the PTC will submit to the Steering Committee and the FAO Representation in Ecuador a draft Terminal Report. The main purpose of the final report is to give guidance to authorities on the policy decisions required for the follow-up of the Project, and to provide the donor with information on how the funds were used. The terminal report is accordingly a concise account of the main products, results, conclusions and recommendations of the project.

### 2.4 COMMUNICATION

FAO's Ecuador Representation will support the project documentation and dissemination. The Direction of Communication at the Ministry of Environment will also facilitate the project visibility and mechanisms to ensure effective communication. At the local level, basic printed materials (brochures) and bulletins will



be shared with local partners and project beneficiaries. Within the framework of the activities of the project, it is proposed to have an SLM and land degradation communication strategy based on the materials that FAO and MAE have on the subject. The materials will be adapted to local audiences such as technicians, decentralized autonomous governments, local producers, etc.

The lessons learned, experiences implemented and testimonials from the beneficiaries will be identified and documented, enabling the sharing of outcomes among the direct and indirect beneficiaries of the project. The progress of the project will be published on the website of FAO's Representation in Ecuador and the website of the Ministry of Environment of Ecuador, and press releases will also be produced when required.

### **SECTION 3 - OUTCOME SUSTAINABILITY**

The sustainability of the project is based on the capacity building at the local level for the management of SLM practices with the involvement of Local Governments. Building local capacities will allow the coordination of activities that different institutions carry out in the intervention sites. Capacity building and training events will be key for local GADs to consider SLM as pillar for combating degradation, desertification and climate change in their long-term planning process.

In addition, building capacities of local institutions and people, through the implementation of SLM practices, will allow local authorities, decision-makers and inhabitants to have valid experiences that can be replicated in neighboring sites. The exchange of experiences among the beneficiaries of the project is fundamental for the sustainability of long-term practices, since local stakeholders will know the benefits of implementing these measures in their territories.

At the local level, a central theme for sustainability will be the local agreements reached at the beginning of the project with the beneficiaries of SLM practices. Local governments involved in the project will be able to use the experiences of the project to incorporate SLM recommendations in Land Use and Development Plans (PDOT), which are local planning instruments that contribute to the sustainability of initiatives such as those proposed by this project .

In addition, the participation of the MAE as the national environmental authority will be valuable in promoting the practices proposed by the project to other initiatives that the MAE develops at the national level. This will also provide data and lessons learned that will facilitate the development of new initiatives and the incorporation of new partners and stakeholders in the reduction of degradation and desertification in Ecuador and to finance new initiatives with greater coverage.

Finally, the sustainability of the project actions supported by the MAE will contribute to the implementation of the National Climate Change Strategy and the National Biodiversity Strategy.

## Annex 1 – Budget

Parent Account Description	2018	2019	2020	Total Budget
Consultants	33130	37770	4000	74900
Travel	7200	7400	0	14600
Training	6625	3875	1000	11500
Expendable Procurement	143965	82035	0	226000
Non Expendable Procurement	5476	0	0	5476
Technical Support Services	3600	0	0	3600
General Operating Expenses	8312	6626	1662	16600
Support Costs	13540	8951	433	22924
	<b>221848</b>	<b>146657</b>	<b>7095</b>	<b>375600</b>

## Detailed Budget

Main Account	Description Main Account	Description	Quantity	Unit	Unit Value	2018	2019	2020	Total Amount
5013	Consultants	Project Manager	24	Month	2.000	20.000	24.000	4.000	48.000
		Technical Assistant	20	Month	1.313	13.130	13.130		26.260
		Consultant to support systematization processes[1]	1	Month	640	0	640		640
5021	Travel	Travel of national project TA consultants in the field	125	Days	100,8	6.000	6.600		12.600
		Experience exchange trips	20	Days	100	1.200	800		2.000
5023	Training	Starting and planning workshops	6	Days	300	1.125	675		1.800
		Capacity Building Workshops on SLM Practices	24	Days	300	4.500	2.700		7.200
		Outcome Dissemination Workshops	5	Days	500	1.000	500	1.000	2.500
5024	Expendable procurement	Reforestation material	1	Lump sum	109.000	71.000	38.000		109.000
		Seeds for good agricultural practices	1	Lump sum	6.000	3.625	2.375		6.000
		Materials and implements for training in good SLM practices (fertilizers, materials, practice and physical protection tools)	1	Lump sum	40.600	24.300	16.300		40.600
		Materials for efficient use of water	1	Lump sum	45.000	29.250	15.750		45.000
		Dissemination/systematization material	1	Lump sum	5.000	3.215	1.785		5.000
		Services to prepare the land (contracting agricultural machinery)	1	Contract	7.000	4.375	2.625		7.000
		Non-professional general services hired locally (hiring of TA to forest plantations)	1	Contrat	12.000	7.500	4.500		12.000
		Office supplies	1	Lump sum	1400	700	700		1.400
5025	Non expendable procurement	Computers	3	Computer	1.825	5.476	0		5.476
5027	Technical Support Services (LTO) [2]	Technical assistance to field projects (TSS - Technical Assistance of Lead Technical Officer)	3	Days	1.200	3.600	0		3.600
5028	General operating expenses (GOE) [3]	General operating expenses Budget (5%)	1	Lump sum	16.600	8.312	6.626	1.662	16.600
5029	Support Costs (PSC) [4]	Support costs budget (6,5%)	1	lump sum	22.924	13.540	8.951	433	22.924
<b>Total general</b>						<b>221.848</b>	<b>146.657</b>	<b>7.095</b>	<b>375.600</b>

## Annex 2 - Work plan

Responsible	Months																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>OUTPUT 1. Good agricultural practices, sustainable land management and efficient water use implemented on farms</b>																									
Activity 1.1 Rapid assessment of degradation status of intervention areas	FAO and MAE																								
Activity 1.2 Identification of participating farms, implementation of practices and acquisition of materials	FAO and MAE																								
Activity 1.3 Workshops presenting conservational agriculture practices	FAO and MAE																								
Activity 1.4 Training and evaluation of the implementation of measures	FAO and MAE																								
<b>OUTPUT 2. Degraded areas reforested or in a recovery process, established</b>																									
Activity 2.1 Identification of areas of intervention	FAO and MAE																								
Activity 2.2 Selection of species and cultural practices to be used according to the landscape	FAO and MAE																								
Activity 2.3 Land preparation and seedling acquisition	FAO and MAE																								
Activity 2.3 Implementation of planting days	FAO and MAE																								
Activity 2.4 Monitoring of plant survival	FAO and MAE																								

and maintenance on the field																			
<b>OUTPUT 3. Strengthening of local organizations and decision makers on Implemented SLM</b>																			
Activity 3.1 Visits to key local stakeholders	FAO and MAE																		
Activity 3.2 SLM Presentation Workshops	FAO and MAE																		
Activity 3.3 Definition of local SLM agreements	FAO and MAE																		
Activity 3.4 Exchange of experiences on SLM	FAO and MAE																		
Activity 3.5 Communication of outcomes and activities	FAO and MAE																		
<b>OUTPUT 4. Monitoring and follow-up</b>																			
4.1 Design of the basic project monitoring and review system	FAO and MAE																		
Activity 4.3 Field follow-up and evaluation reports	FAO and MAE																		
Activity 4.3 Systematization reports	FAO and MAE																		

### Annex 3 - Staff Positions

#### Position

<b>Position Title:</b>	Project Coordinator
<b>Minimum number of years of experience required:</b>	5
<b>Scheduled start of the functions:</b>	To be defined
<b>Duration:</b>	24 months
<b>Place:</b>	Project Implementation Sites
<b>Under the supervision of:</b>	FAO Ecuador Project Officer

#### Description of the tasks and objectives to be achieved (by mission, if applicable)

- Designing of annual operating plans.
- Preparing of technical reports.
- Coordinating workshops and providing support to work meetings.
- Local technical support for initiatives.
- Local interagency coordination.
- Meetings and field visits to beneficiaries of measures.

#### Key Performance Indicators

Expected outputs (per mission, if applicable):	Expected Completion Date:
SLM measures implemented	According to the operational work plan
Activity compliance reports	
Partial and annual reports	
Final project report	

#### Estimated budget rates

Fees	Subsistence allowance	Standard cost of airline tickets
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