Programme to sustainably manage and restore land and biodiversity in the Guadalquivir Basin

Part I: Project Information

GEF ID
10627

Project Type
MSP

Type of Trust Fund
GET

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

Project Title
Programme to sustainably manage and restore land and biodiversity in the Guadalquivir Basin

Countries
Bolivia

Agency(ies)
FAO

Other Executing Partner(s)
Vice-Ministry of the Environment, Biodiversity, Climate Change and Forestry Management and Development

Executing Partner Type
Government

GEF Focal Area
Land Degradation

Taxonomy

Drylands, Forest, Focal Areas, Conservation Trust Funds, Financial and Accounting, Biodiversity, Terrestrial Protected Areas, Protected Areas and Landscapes, Productive Landscapes, Agriculture and agrobiodiversity, Mainstreaming, River Basin, Freshwater, International Waters, Climate resilience, Climate Change Adaptation, Climate Change, Community-based adaptation, Nationally Determined Contribution, United Nations Framework Convention on Climate Change, Sustainable Agriculture, Sustainable Land Management, Land Degradation, Restoration and Rehabilitation of Degraded Lands, Sustainable Forest, Sustainable Livelihoods, Sustainable Pasture Management, Land Degradation Neutrality, Land Productivity, Carbon stocks above or below ground, Land Cover and Land cover change, Food Security, Education, Communications, Stakeholders, Awareness Raising, Community Based Organization, Civil Society, Non-Governmental Organization, Academia, Individuals/Entrepreneurs, Private Sector, Project Reflow, Capital providers, Beneficiaries, Local Communities, Gender results areas, Gender Equality, Access to benefits and services, Participation and leadership, Capacity Development, Access and control over natural resources, Knowledge Generation and Exchange, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Knowledge Generation, Capacity, Knowledge and Research, Indicators to measure change, Learning, Knowledge Exchange, Innovation

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

6/24/2020

Expected Implementation Start

4/1/2022

Expected Completion Date

3/31/2027

Duration

60In Months

Agency Fee($)

147,726.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
LD-1-1	Maintain or enhance the flow of agroecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	1,555,012.00	21,272,618.00
		Total Project Cost($)	**1,555,012.00**	**21,272,618.00**

B. Project description summary

Project Objective

To develop and implement an inclusive territorial planning and governance strategy as a model for the conservation, restoration and sustainable management of land, water, biodiversity and integrated production systems to achieve Land Degradation Neutrality (LDN) in the Guadalquivir River Basin (GRB).

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.Strategic framework for stronger governance with a gender approach and integrated territorial management to enable the restoration of land, environmental functions and biodiversity, and sustainable socioeconomic development in the Guadalquivir River Basin (GRB).	Technical Assistance	1.1 Stronger governance for the management of sustainable production systems, water, soil and vegetation in the landscapes of the Guadalquivir basin, thereby contributing to integrated territorial management and the LDN goals. *Indicators:* *At least 130 stakeholders (including 39 women and 13 youth) representing the target groups as permanent members of the governance structure at the IPGRB level and the local level per microbasin, with participation from the LMMPs* *At least five LMMPs that include*	1.1.1. Platform for water, soil and vegetation governance in the Guadalquivir Basin, strengthened and institutionalized as a multi-level and interinstitutional framework with a gender approach. 1.1.2. Local Microbasin Management Plans (LMMP) developed to improve the achievement of sustainable production systems through SLM / SBM[1] as a contribution to LDN [1] Sustainable Land Management (SLM) and Sustainable biodiversity Management (SBM). 1.1.3. Capacity-building program developed and implemented for government, civil society and academia on: (i) LDN monitoring and evaluation (ii) monitoring and evaluation of environmental functions, biodiversity and livelihood, and (iii) inclusive governance mechanisms for community-led integrated territorial development with a gender-responsive approach.	GET	109,215.00	2,014,699.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2. Demonstrating sustainable land, water and biodiversity management practices in the Guadalquivir River Basin	Investment	2.1. Stronger sustainable production processes and technological innovations implemented as part of the LMMPs. *Indicators:* *Core indicator 3: 2,500 ha of valleys with agriculture, restored slopes and forest areas (core indicator 3.1: 200 ha of farmlands; core indicator 3.2: 460 ha of forests and woodlands and core indicator 3.3: 1840 ha of shrubland and/or pasturelan d (including silvopastor al manageme nt).* *Core indicator 4.3: At least 40,200 ha in landscapes*	2.1.1. The practices undertaken as part of the LMMPs in the target microbasins are carried out by project beneficiaries, leading to increased productivity, reduced land degradation and improved biodiversity conservation in the GRB. 2.1.2. Integrated technical support and outreach services with a gender approach are strengthened as part of the implementation of LMMPs in the target microbasins (in 2.1.1) to contribute to achieving LDN and thereby generate environmental and socioeconomic benefits. 2.1.3. Database and reporting for the target microbasins with a gender and participatory approach and use of robust practical tools to monitor SLM and SBM actions (as a contribution to Output 4.1.1).	GET	645,690.00	9,489,929.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3. Financial mechanism for the conservation and integrated management of water, soil and vegetation, as well as the establishment of productive entrepreneurship involving family farmers in association with one another.	Investment	3.1 The Tarija Regional Water Fund supports the adoption of good practices predicated on soil management and restoration, efficient water use, vegetation conservation and the preservation of environmental functions, as well as the establishment of production undertakings involving family farmers in association with one another. Indicators: *Tarija Regional Water Fund for the conservation and integrated management of water, soil and vegetation is implemented and operational*	3.1.1. Tarija Regional Water Fund ? in the GRB region ?for Sustainable Management of Water, Soil, Vegetation and the adoption of good SLM and SWM practices capitalized. 3.1.2. Family production entrepreneurship strategy led by a Steering Committee headed first and foremost by women, financed and technically supported to ensure viability and sustainability.	GET	402,150.00	6,113,571.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
4. Management of project reporting, communication strategy, and M&E	Technical Assistance	4.1. Improved mechanisms for participation, sustainable territorial management and LDN monitoring at the river basin level. *LDN indicators have been defined, monitored and integrated into the SIIHTA (net primary productivity, land cover and carbon stock), and other environmental functions, biodiversity and socioeconomic indicators for the relevant microbasins.* 4.2. Managing and disseminating knowledge enable greater adoption of SLM/SBM, contributin	4.1.1. The Tarija Departmental Water Information System integrates the LDN approach and indicators to monitor LDN at the GRB level, as well as environmental functions, biodiversity and socioeconomic indicators for the target micro-basins. 4.2.1. Gender-sensitive communication strategy developed and implemented to contribute to project objectives and the national LDN strategy (lessons learned, sharing of experiences, training, outreach products and materials). 4.3.1. M&E Plan developed and approved by the Steering Committee	GET	256,592.00	1,715,555.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
				Sub Total ($)	**1,413,647.00**	**19,333,754.00**
Project Management Cost (PMC)						
			GET	141,365.00	1,938,864.00	
			Sub Total($)	**141,365.00**	**1,938,864.00**	
			Total Project Cost($)	**1,555,012.00**	**21,272,618.00**	

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Tarija Departmental Autonomous Government	In-kind	Recurrent expenditures	12,192,468.00
Recipient Country Government	Tarija Autonomous Municipal Government	In-kind	Recurrent expenditures	7,936,383.00
Recipient Country Government	San Lorenzo Autonomous Municipal Government	In-kind	Recurrent expenditures	877,835.00
Recipient Country Government	Uriondo Autonomous Municipal Government	In-kind	Recurrent expenditures	48,790.00
Private Sector	COSAALT	Other	Recurrent expenditures	217,142.00
			Total Co-Financing($)	**21,272,618.00**

Describe how any "Investment Mobilized" was identified

The investment mobilized in the Guadalquivir river basin was identified in response to the growing problem of land degradation resulting from the implementation of practices and/or activities that have been deteriorating biodiversity and soil while also affecting water resources, which, when coupled with climate change, are causing forest fires, longer periods of drought and thus significant restrictions for water availability. This situation is common in basins across the country. As a result, the investment was primarily secured through the support of the Vice-Ministry of Water Resources and Irrigation, which is responsible for coordinating and implementing programs and projects in the central valley of Tarija in the Guadalquivir basin. As part of the national program "Mi Riego," which aims to increase the agricultural area under irrigation, most of the investments are earmarked for irrigation systems, with counterparts focusing on coordination, general administration, execution and follow-up. The Vice-Ministry of Water Resources and Irrigation is implementing irrigation systems in the valley with concurrent investments from the Government of the Department of Tarija and the Municipal Governments of Tarija, Padcaya, San Lorenzo and Uriondo. Additionally, there are investments from the PROCUENCA program (implemented by GIZ, with the German government as the donor and in coordination with the Vice-Ministry of Water Resources and Irrigation), the Land Rehabilitation Program-Tarija (PERTT), NGOs working in the region such as PROMETA, among others. In the case of the Tarija Autonomous Departmental Government, it also has the Production Diversification Program, centered on the protection and development of water

sources, integral and efficient management of dams and irrigation systems, and high-value agricultural and agro-industrial production, which has provided significant counterpart resources. Likewise, the Production Development Bank and microfinancing institutions present in the project intervention area are internalizing in their investment practices the reimbursable financial development, conditional on sound management of natural resources and the development of climate-resilient practices. This clearly translates into financial resources that the program is tapping into in order to reach more beneficiaries, but above all technical and financial sustainability strategies housed in private financial entities. Finally, as part of their integrated territorial development plans and institutional strategic plans, and on account of the situation in the Central Valley of Tarija and the importance of integrated sustainable water management following implementation of the GRB's Master Plan, the autonomous municipal governments of Padcaya, Uriondo, San Lorenzo and Cercado have allocated investments for sustainable production systems, governance, irrigation systems and integrated sustainable management of soil, forests and biodiversity. The purpose of all of this is to strengthen agri-food production systems as part of climate change mitigation and adaptation.

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	Bolivia	Land Degradation	LD STAR Allocation	1,555,012	147,726
				Total Grant Resources($)	**1,555,012.00**	**147,726.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

43,162

PPG Agency Fee ($)

4,100

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
FAO	GET	Bolivia	Land Degradation	LD STAR Allocation	43,162	4,100
				Total Project Costs($)	**43,162.00**	**4,100.00**

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)
2500.00	2500.00	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)
200.00	200.00		

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
460.00	460.00		

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)
1,840.00	1,840.00		

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)
40200.00	40200.00	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)
40,200.00	40,200.00		

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

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

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

Title	Submitted

Indicator 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	918	918		
Male	918	918		
Total	1836	1836	0	0

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

Part II. Project Justification

1a. Project Description

1) Global environmental and/or adaptation problems, main causes and barriers to be taken into account (description of systems)

National context of land, water and biodiversity degradation

1. The Plurinational State of Bolivia is among the fifteen most biodiverse countries in the world, home to around 4% of the world's biological diversity. It hosts an abundant biogeographic variety, owing to its location and topography, as well as it a complex evolutionary history. Bolivia is therefore one of the countries with the greatest diversity of ecoregions (12 ecoregions subdivided into 23 sub-ecoregions) (Ibisch and M?rida, 2003). As a result of the permanent interaction of complex socio-cultural systems with this diversity of natural systems, Bolivia has a complex and multi-diverse mosaic of Life Systems[1][1] (understood as territorial management systems) (MMAyA, 2018a). It is among a group of eleven countries with the greatest richness of plant species, among ten countries with the greatest diversity of birds and mammals, ranks fourth in butterfly species, is among thirteen countries with the greatest wealth of amphibian species and among eleven countries with the greatest diversity of freshwater fish (UNDP, 2008; Ribera, 2008). Alongside 15 other countries, Bolivia is part of a group of States that host 70% of the planet?s biodiversity (MMAyA, 2014).

2. In terms of water resources, Bolivia is among the countries with the greatest availability of water on the planet, as it is located at the headwaters of two significant continental basins: the La Plata Basin and the Amazon Basin, and in the lower part of the Titicaca endorheic basin. The country's water system includes snow-capped mountains, rivers, lakes, lagoons, wetlands and underground aquifers. A very dense network of different types of rivers wind across Bolivia forming large international basins, with different characteristics in terms of orography, natural resources and environmental impacts. As Bolivia's large watersheds are transboundary it is important to consider the "shared" nature of their waters. Other auspicious experiences are the Bi and Tri national basin of the Bermejo and Pilcomayo rivers. Their spatial and temporal distribution is not homogeneous, and they contain areas with superior water availability and others experiencing deficit. Accordingly, they are considered a non-renewable

resource, since climate change, deforestation, watershed degradation, erosion and sedimentation, flood and drought risks, pollution and inefficient water use tend to bring about scarcity and depletion of freshwater sources in the country. This situation has made it possible to identify and target the concept of Watershed Management and Integrated Water Management, although not always in the most appropriate way. Currently, there is growing competition in the country for the multiple use of water, due to increased demand for population, energy and agricultural uses, in addition to pollution problems arising from urban, industrial and agrochemical (mining) wastewater and the existence of natural phenomena such as floods and drought (VRHR, 2007).

3. Bolivian forests constitute one of the most diverse biomes in the country. In fact, Bolivia is ranked sixth in the world for having the largest amount of natural tropical forests, with an area that covers 40% of its national territory, and one of the ten richest in fresh water per inhabitant (MMAyA, 2015). There are forests in Bolivia that are highly valued as "centers of biological diversity and endemism," which represent priority areas for the development of sustainable use activities (MMAyA, 2018a).

4. Agrobiodiversity (biological diversity associated with agriculture) in Bolivia coincides with biogeographic zones with a high diversity of species. It is strongly linked to family subsistence and is sustained by cultural processes rooted in traditional societies. It contributes significantly to food security in the country, although historically it has not been properly valued. There are at least 152 species of crop wild relatives under some degree of threat, all of which are priorities due to their value as a source of genetic resources for food and other priority uses (VMABCCGDF-Biodiversity, 2009; MMAyA, 2014 and Bellon et al., 2015). Bolivia is one of three countries in the world with the greatest abundance of local maize varieties, which are grown in every region across the country, from the lowlands (starting at 150 m above sea level) to the highlands (above 3800 m above sea level). That is why it is important to keep germplasm banks for crops with high nutritional value, such as potato and maize, which have undergone a drastic reduction in their genetic diversity (CIPCA, 2012).

5. Bolivia hosts a great biodiversity of flora and fauna and high rates of endemism; this biodiversity however is increasingly threatened, considering that habitat loss in forest ecosystems constitutes the primary threat to biodiversity, given that deforestation trends between 1985 and 2018 led to the loss of 3,670 million hectares of forest. These trends are on the rise, and reached an extreme in 2019 when 852,000 hectares of forest cover were lost in huge fires that ravaged 6,435,226 hectares, including more than two million hectares of forest, with an unusually high impact on forest areas, protected areas, TIOCs and Ramsar sites marked by high levels of biodiversity.[2][2]

6. In Bolivia there is an increasing amount of land degradation and biodiversity loss. About 35% of Bolivia's agricultural soils are degraded, and more than 60% of its population lives and produces in such an environment, revealing major vulnerability to food insecurity. The main causes giving rise to both processes are associated with the expansion of the agricultural frontier, overexploitation of natural resources (e.g., mining and hydrocarbons), deforestation, inappropriate use of soils regardless of their suitability, unplanned urban growth, fires, and the effects of climate change (MMAyA, 2014 and 2018b). In this regard, country-level estimates point to deforestation as being accountable for 95% of loss of biodiversity, while climate change is responsible for the remaining 5% (Valencia and Andersen, 2009). Furthermore, worth noting is that 80% of the country's carbon dioxide emissions are associated with the advance of the agricultural frontier (Hoffman and Torres-Heuchel, 2014).

7. Bolivia is highly vulnerable to various impacts of climate change, despite having limited responsibility for its underlying causes. In the last 10 years, climate change is evidenced by shorter and more intense rainfall periods, high evapotranspiration and marked water deficit (UNEP-REGATTA, 2017). In the western region, a retraction of the glacier bodies of the Cordillera Real over the period between 1963 and 2006 was observed, with an even more striking reduction from 1975 onwards, with a loss of 48% of its glaciers (Soruco et al., 2009). Hoffmann and Torres (2014) state that by 2010 some 30% to 50% of the country's glacier surface had been lost. Likewise, higher temperatures and heavier precipitation events are expected during the rainy season, which expose the country?s different regions to longer dry seasons and increasingly more frequent and sizeable floods, flash floods, hailstorms, river overflows, landslides, and frost (European Commission, 2008).

8. The National Plan to Combat Desertification (PAN-LCD) provides that erosion (water and wind erosion) causes substantial losses of agricultural lands, according to studies, and estimates that approximately 1,800,000 tons of arable land are lost annually in the country, thereby compromising the productivity and biodiversity of approximately 1,500,000 ha. Generally speaking, it can be said that desertification processes in the country are strongly related to production activities that have a negative impact on the economic and social development of the affected populations. In the case of the Central Valley of Tarija, according to the PERTT, the loss of production lands due to the effect of water and wind erosion adds up to approximately 600 ha/year (PROMETA, 2021).

9. ***The environmental situation of the Guadalquivir Basin: land and water degradation and biodiversity loss in the context of climate change.***

10. The Guadalquivir River Basin (GRB), also known as the Central Valley of Tarija, is located in southern Bolivia in the department of Tarija and covers an area of 3,342 km2, representing 9% of the department's territory. It is part of the Bermejo River basin and the hydrographic region of the La Plata

River basin. It is made up of five sub-basins of the Alto Guadalquivir, Santa Ana, Tolomosa, Camacho and direct tributaries of the Guadalquivir River. Its climate fluctuates according to altitude ranges that vary from 1,635 to 4,616 meters above sea level; the average annual temperature is 18.1?C; and average rainfall is 684 mm/year, which together condition the behavior of the vegetation and biodiversity existing in the area as well as the life systems and humans occupying the territory. According to the political-administrative distribution, the GRB includes the Autonomous Municipal Governments of San Lorenzo, Tarija, Uriondo and Padcaya. Likewise, the approximate population of the GRB for the year 2020 was 293,750 inhabitants, representing 51% of the total population in the department of Tarija, and home to 156 rural communities and three towns.

11. The GRB is divided into 78 hydrological units, of which 30, 34 and 14 correspond to the lower, middle and upper parts, respectively. Forty communities reside in the lower part, with an 83.5% poverty rate; 55 communities live in the middle part with a 10.3% poverty rate; while 6.2% of the 72 communities occupying the lower part are poor (MMAyA, 2021).

12. The basin?s problems are largely related to: (i) gaps in governance, institutional arrangements and enforcement of environmental water regulations; (ii) a decline in the ecosystem/environmental functions; (iii) water availability in the basin affected by water pollution, overexploitation and the impact of climate change; (iv) unmet demand (deficit) and low efficiency in water use for human consumption and basic sanitation; and (v) unmet demand (deficit) and low efficiency in water use in agricultural production and other uses (e.g., industry, energy) (MMAyA, 2021).

-

13. As a territory it is marked by various population groups settled in the mountains and the valley, living in both rural areas and urban centers where water is their primary area of common interest. In this setting, the communities carry out many types of exchanges, yet mostly notably commercial due to their high degree of cultural, economic and, of course, environmental impact (PEA, 2003). The region has weaved a complex social fabric where rural and urban settings merge and overlap. The rural communities are the largest consumers of water and use this resource as their primary input for food production, and they mostly practice traditional flood irrigation which consumes 89% of the water budget (Caba, 2018).

14. Agriculture constitutes the main economic activity in the GRB, and wine has the highest commercial value. The city of Tarija and small urban centers throughout the basin make up the main markets in the GRB. Due to its agroclimatic conditions, the Central Valley of Tarija is one of the areas with the greatest agricultural potential, with 40,500 ha suitable for intensive agriculture.

15. The availability of water for irrigation, which is limited especially during the dry season, is a serious constraint to the area?s agricultural production. The lack of an efficient irrigation system infrastructure does not allow for either expanding or diversifying agricultural production and productivity, especially on the hillside and high terrace areas. The alluvial terraces along the Guadalquivir River stop irrigating during periods in which water levels are low, and the high cost of rehabilitation and maintenance required each year does prevents the farmers from making use of all available arable land. In addition, there are agro-ecological restrictions such as the presence of pests and diseases, soils susceptible to erosion and loss of fertility, lack of irrigation. The traditional and rudimentary production system yields low production and low productivity of the crops currently farmed. There are also limitations in terms of the scarce amount of irrigated farmland, i.e., the widespread presence of smallholdings is a hindrance to the socioeconomic development of the valley's population.

16. Generally speaking, most of the municipalities in the GRB have sufficient volumes of potable water to meet the demands of their mainly urban population. The biggest problem is in the rural areas, where drinking water coverage is very low. As a result, a large percentage of the population relies on underground sources with low or intermittent flows, making water supply for irrigation a more critical matter due to fluctuations in supply and demand. Regarding drinking water, according to studies conducted by the MMAyA (2016) from 1980 to 2010, municipal demand in the case of Tarija was estimated at 16.4 Hm3 for the year 2010, while for San Lorenzo, Uriondo and Padcaya it was 0.14 Hm3, 0.07 Hm3 and less than 0.07 Hm3, respectively. These data show that there is no water deficit when you consider the installed water supply capacity in the last two municipalities. In the case of Tarija, a 2006 decision to stop using water from the San Jacinto dam resulted in a deficit of up to 1.33 Hm3, which was further aggravated mainly by losses during water conveyance and distribution, for an estimate deficit of 45% (MMAyA, 2017).

17. In the Guadalquivir river basin, environmental pollution of water bodies is one of the main problems caused by domestic or partially treated wastewater discharges, industrial wastewater discharges, and aggregate mining. The rising demand for water for human consumption in the city of Tarija and other urban centers calls for continually bringing in new reserves to meet current and projected demand, resulting from a fast-growing population driven largely by rural-urban migration. This implies the need to tap into several microbasins whose volumes are already allocated to activities required by the rural areas, including some agro-industrial activities with high water demand. Once the water is used for industrial?but mainly domestic?purposes, effluents highly charged with chemical-biological pollutants are discharged into the main flow of the Guadalquivir River, which further downstream becomes a source of water for domestic use and food production by local communities. Coming full circle, the agricultural products produced in this region of the basin are brought to the market in the city of Tarija and eventually consumed by the same city dwellers who polluted the water in the first place (PROMETA, 2021).

18. Most of the water conflicts occurring in the Guadalquivir river basin take place in rural areas during the dry season, where the largest and most important agricultural and livestock production systems are located, compared to urban areas where problems related to access to water for human consumption are less significant. These conflicts are due to general factors such as: population growth, expansion of the agricultural frontier, water scarcity, contamination of water sources, climate change, and families? survival. The specific problems related to water are predominantly due to property rights, use and access to water between neighbors and/or neighboring communities. The combined effects of the abovementioned problems place more the pressure on water resources, which would imply greater water scarcity in the future (MMAyA, 2017).

19. The GRB is affected by various adverse weather-related events such as floods, hailstorms, flash floods, strong winds, frost, drought, storms, landslides, forest fires, and others (MMAyA, 2021). Under the climate change scenarios, temperature in the GRB will increase by 1.28?C until 2050 under a stable Greenhouse Gas (GHG) emissions scenario (MIROC RCP 6.0) and rises by 1.78?C under a high GHG emissions scenario (IPSL RCP 8.5). The mean annual temperature varies from 5?C in the upper part, at 4,750 masl, to 19?C in the lower part of the basin, at 1,595 masl, with an average thermal gradient of 4.4?C/km. Historical average precipitation is 684 mm/year and will vary according to GHG scenarios until 2050 from a -4.1% drop (MIROC, RCP 8.5) to a 2.1% rise (IPSL, RCP 6.0). Spatial projections to 2050 show decreasing precipitation trends, especially in the northeast. The temporal distribution of rainfall governs the agricultural calendar, marked by greater activity in the wet season and where agricultural activity during the dry season is only possible with irrigation (PROMETA, 2021).

20. It is important to mention that there are different tools available to preserve water resources and their recharge zones. For instance, various natural resource conservation strategies in the GRB are centered around a national protected area, the Cordillera de Sama Biological Reserve (RBCS), and other municipal protected areas such as Las Barrancas National Park and the Cerro Huacanqui Pine Protection Area?which do not have management plans?and the Cuenca de Tajzara, a wetland of International Importance known as a Ramsar Site.

-

21. The RBCS is a protected area covering 108,500 ha and is home to 12 rural communities. It is part of the Eastern Cordillera and has a fairly extensive altitudinal range, which constitutes the environmental framework of four different ecoregions (Puna, Prepuna, Inter-Andean Dry Forests, and Tucumano-Bolivian Forest). Its management category is National Wildlife Reserve, which is equivalent to a category IV under the IUCN. It was created to conserve the watersheds supplying drinking water to the city of Tarija and its nearby communities, preserve the different ecosystems and protect the diversity of endangered flora and fauna present in the protected area, while guaranteeing the sustainable use of its natural resources. It is important to note that the reserve is part of the Tarija Central Valley and houses the richest areas of biological diversity in the Tarija altiplano and the valleys in between. It encompasses two types of watersheds: a closed (endorheic) one in Tajzara in the

altiplano?the only RAMSAR site in the department of Tarija?and open ones such as those in the Guadalquivir, Camacho, and Tolomosa rivers that feed the Central Valley of Tarija with water for different consumption uses. In this regard, it is important to note that the Sama Mountain Range plays a fundamental role in providing water to the city of Tarija (the department's capital and seat of the region's economic and political activity) and to smaller rural populations (SERNAP, 2007). The area is particularly beautiful due to its steep altitudinal gradient and the presence of high Andean lagoons. There are also sites of archeological value (Inca ruins and cave paintings) that are important to understanding the region's past.

22. Although the area is protected, there are degradation processes underway inside the reserve, such as impacts on water recharge zones in the watershed, and the occurrence of seasonal fires related largely to efforts to expand the agricultural frontier for crop and pasture areas for livestock, overgrazing, and the effects of climate change. The GRB is not spared by these pressures or primary degradation factors either, including changes in land use, soil erosion, reduced water availability, oil industry activity, aggregate extraction, unplanned growth of urbanized areas and, as in the RBCS, logging (MMAyA, FUNDECO, GIZ & PROCUENCA, 2021).

23. At the ecoregional level, the conservation status of 77% of the Tucum?n-Bolivian Forest is "Very Good" while 14% of it is categorized as "Good"; followed by the Northern Puna with 41% as "Very Good" and 39% as "Good"; the Inter-Andean Dry Forest with 14 % as "Very Good" and 32 % as "Good"; and finally, the Inter-Andean Dry Forest, which represents 3.5 % of the protected area, is the ecoregion with the highest percentage of area categorized under critical status (35%) (RBCS Management Plan, 2017). In this context, the so-called External Buffer Zones play a key role in reducing outside impacts affecting the conservation area. They are also essential in protecting recharge areas that usually do not coincide with the RBCS.

24. Land tenure is defined as the set of rules applied by societies to regulate the behavior of land markets, among other activities. Land tenure systems determine who can use a given resource, and the term and conditions of said use. Data from the most recent national agricultural census in Bolivia show that out of a total of 34.6 million ha declared under ownership or usufruct by the agricultural production units surveyed (2013), 29.1 million ha (84.1%), are agrarian property and have title deeds or are in the process of being processed. The remaining 5.4 million ha (15.9%) are categorized under different forms of private usufruct such as: ceded by the community, rented, ceded for care and to the party (when the owner gives his land for someone else to work it) (PROMETA, 2021). In connection with this, it is particularly important to mention that in Bolivia there is no registry of land market information (purchase, sale or rentals).

25. In the Autonomous Statute of Tarija, the concepts of Land and Territory fall under shared jurisdiction with the central government. As such, all aspects related to this subject are enshrined in the new Constitution and national legislation governing the regularization and fine-tuning of agrarian property rights, the distribution of fiscal lands, sustainable use of the land, the implementation of production systems suited to the productive purpose (vocation) of the land, verification of the social or socio-economic function, among other actions that are also part of indigenous or peasant community territory management, as well as one of the levels of State administration.

26. There are 3.7 million ha in the department of Tarija, and approximately 3.5 million are under the jurisdiction of the National Institute for Agrarian Reform (INRA), which has so far regulated 80% of the land and has allowed for granting enforceable titles to individual or collective owners. The types of agrarian properties[3][3] existing in Tarija are classified as peasant plots, small- and medium-sized agricultural undertakings, communal and Community Lands of Origin (TOC). The size of these small properties varies depending on the zone and they are the predominant property type throughout the entire department and the central valley, and by default in the Guadalquivir River basin. A small property is defined as ranging in size from 0 to 12 ha.

27. Land tenure in the study area, as in most rural municipalities, is the result of the land endowment or parceling process that began with the Agrarian Reform (1953) under which each family was given a plot of land where they either farmed or settled; however, this process was compounded through land transfers and hereditary successions to the point of exacerbating the problem of smallholdings. The surface area of agricultural properties varies according to where they are located (area features). For example, in the Valles Altos area, the average size per family is 5.95 ha, while in the lowlands it is 2.25 ha, which is an example of the presence of smallholdings. In some regions across the basin there are even properties smaller than 2.00 ha, which is mainly the case in the poorest strata of the population, while the average size of properties in the basin is 2.52 ha.

28. As far as land use is concerned, it is important to note that as a result of indiscriminate logging of native forests, overgrazing, excessive livestock grazing during periods of drought, the development of new crop areas, the instability of geological formations and the mountainous relief, the central valley is experiencing a serious soil degradation problem that is leading to the systematic loss of regional ecosystems, natural resources and ongoing environmental deterioration.

29. The Central Valley and part of the Guadalquivir River Basin are made up of piedmont areas, plains and alluvial plains with significant sedimentary-rock soil sediment deposits, which are generally

well-drained, low in organic matter and marked by low natural fertility. Texture is variable with a predominance of loam to silty soils. According to the Land Use Plan (PLUS, 2002) of the Department of Tarija, a large portion of the Guadalquivir watershed is located on protected lands with restricted use and, to a lesser extent, with extensive agricultural and livestock use, limited extensive agricultural and livestock use, and intensive agricultural and livestock use.

30. In summary, land in the basin is primarily used for small-scale agriculture and cattle ranching. However, this does not imply that these activities comply with current regulations that recommend rules for land use and soil protection. Other economic activities include forestry, industry, tourism, and the service sector. The last three can be regarded as emerging activities with great potential, especially tourism, which is carried out in both urban and rural areas. At present, there is a widespread process of ongoing unauthorized changes in land use, a process that violates current regulations (departmental PLUS). This invasive process can be seen in both urban and rural settings, yet the highest rate of urban sprawl has occurred most notably in the municipalities of Tarija and San Lorenzo on potentially productive land. This process has resulted in low-density settlements with low coverage of basic services and communication.

31. Land and water degradation and biodiversity loss in the GRB are the combined result of natural processes and unsustainable anthropogenic actions such as water scarcity in the dry season, intense erosion and desertification processes, floods and other natural disasters coupled with habitat destruction and biodiversity loss, water pollution and poverty, among others (PROMETA, 2021). Recurrent drought, in combination with intense and accelerated land use and land cover changes, increasing demand for irrigation, groundwater salinity problems and the consequences of climate change in the region, lead to increasingly worse quality of water resources, a decline in water resources, and even the disappearance of water sources traditionally used by peasant communities and local producers (MMAyA, 2017). It is therefore essential to promote integrated watershed and micro-watershed management and increase water use efficiency, by strengthening social water management actions (Saavedra, 2018) and technical assistance aimed at developing sustainable production systems under irrigation.

32. The symptoms and effects of soil degradation, as a result of intense erosion and desertification processes, are manifested in the loss of the soil's natural production capacity, a drop in the quality and quantity of agricultural production, loss of production areas, degradation of water quality, loss of soil organic matter and nutrients as a consequence of a reduction in or loss of vegetation cover, and soil compaction, all of which are triggering a decline in water storage capacity and greater erodibility (MMAyA, FUNDECO, GIZ & PROCUENCA, 2021).

33. According to the LADA land degradation assessment (MMAyA, 2017) in the project area, there is moderate to severe water erosion, loss of vegetation cover due to overgrazing, firewood extraction and agricultural use, and presence of salinization, with the most degraded sectors located in the alluvial terraces of the central valley. Comparative studies show a growing trend of strong-to-very-severe erosion processes in the Eastern Cordillera or Valleys Macroregion. In the GRB, the severe erosion processes reported in the last two decades are due to the removal of natural vegetation caused by overgrazing, land clearing and intentional fires. These have sparked an increase in runoff and subsequent clogging of the microbasins, which in turn has led to a drop in river flow rates, thereby constituting a negative cycle that further accelerates the decline in water availability. The presence of sediment in streams also has a negative impact on their production capacity. The amount of sediment transported by the basin was estimated at 24,000,000 t/year (3.5 kg/m?) up to the Juntas de San Antonio, corresponding to approximately 15,500,000 t/year in the Grande de Tarija river and 8,500,000 t/year in the Bermejo river. When expressed in units of basin surface area, the result is 1,400 t/km?/year and 1,700 t/km?/year, respectively (PEA, 1999).

34. Another cause of the degradation processes underway in the GBR is the lack of land use and occupation management instruments (zoning) or guidelines. The Land Management Plan and the Land Use Plan have represented significant advances in this area and show how important it is to use these tools in conjunction with others such as the GRB Master Plan (PDCGR), PTDI, LMMP, among others.

35. In the Central Valley of Tarija there are signs of laminar and rill erosion, as well as badlands, while organic matter content is low and nutrient availability is low to very low (*Zonificaci?n Agroecol?gica del Departamento de Tarija*, 2000). Moreover, in mountain landscapes, animal stocking is generally uncontrolled and grazing takes place in native fields with or without secondary successional forage vegetation (fallow agricultural fields). Generally speaking, the Creole and mixed breeds have adapted to these conditions. Animal production and animal health infrastructure is scarce or nonexistent. Any type of management practice employed, such as the use of feed supplements and reproductive and sanitary management measures, depends on user knowledge of how to apply the technologies and available capital. Production is earmarked for both self-consumption and the market. New management practices should be introduced for sheep, goats and cattle, such as rotational grazing, which in some areas may involve perimeter fencing and pasture divisions. These techniques should ensure that the different sources of natural forage complete their growth cycle, so that populations of all species can be maintained (Project Identification Form PIF *Programa de Gesti?n y Restauraci?n sostenible de la tierra y la Biodiversidad en la Cuenca del Guadalquivir*, MMAYA, 2020).

36. There are examples of very intense erosion processes underway in the Central Valley of Tarija. It is common to observe critical erosion situations on riverbanks, especially in the Upper Basin. Although there are multiple causes to this problem, it is largely due to livestock, agriculture, and others. The combination of these activities over time has broken the balance of the plant cover replenishment cycle,

leaving the soil exposed to physical and mechanical agents that have caused water and wind erosion that have gradually deteriorated the soils. Livestock activity is one of the main factors accelerating erosion processes due to inadequate grazing practices that subject the scarce and already-stressed vegetation to animal grazing, which, as an intensive practice, gradually eradicates the vegetation. Inadequate agricultural practices speed up the erosion process: crops grown on slopes lead to strong runoffs that drag all the organic matter from the soil; stubble burning leads to soil impoverishment and prevents the incorporation of organic matter; and the *chaqueos* (burning to clear land) have become a culturally-accepted practice in the farmer technological stock that recurrently causes large-scale fires and affects the vegetation cover that naturally protects the soil from erosion agents. The entire 334,000 ha comprising the Central Valley of Tarija are located either in the valley (113,426 ha) or in the mountains (220,574 ha), and 35% (117,702 ha) of these are eroded (PEA, 1999)?75% corresponds to the valleys and the remaining 25% to the mountainous zone. There is a considerable presence of badlands in the Central Valley of Tarija as well as erosion of riverbanks throughout the entire basin. The location of all these critical areas speaks to the linkages between climatic and edaphic restrictions. A total of 13.35% of the GRB?s surface area is affected by severe or very severe mass removal processes.

Remaining barriers

37. Despite efforts made by the Government of Bolivia to address the problems related to biodiversity, land degradation in the GRB, territorial planning and integrated management of water resources, it is still necessary to come up with solutions to various conflicts surrounding the barriers described below:

Barrier 1: Weak interinstitutional mechanisms to develop a planning and management system for the GRB, integrating Sustainable Biodiversity Management (SBM) and Sustainable Land Management (SLM) as a strategy to achieve LDN at the microbasin level.

38. There are insufficient inter-institutional mechanisms to develop an integrated and sustainable GRB planning and management system from the national to the local level, due to significant sectorization, especially at the national and departmental levels. Government interventions in natural resources and socioeconomic aspects are duplicated because the watershed has not been regulated as a single territorial area in terms of adopting integrated landscape or ecosystem approaches. In addition, there is a lack oflocal governance mechanisms that promote effective participation and consensus around actions among all public-private sector actors. Weak local governance is due to the lack of tools and processes for participatory territorial planning at the municipal level under a watershed approach and an inclusive gender and generational approach (age and youth) that would strengthen development in the Central Valley of Tarija.

39. The lack of institutional capacity (regulatory, jurisdictional and executive) at the various levels of local government constitutes an obstacle to defining policies, programs and concrete local actions in favor of incorporating the LDN approach into integrated watershed planning and management and scaling up SLM and SBM. Frequent turnover of technical personnel means that, even with training and

financing efforts, results are not achieved and solid and sustainable development actions are not observed. There is also a not enough capacity to develop a baseline of degraded lands and track LDN at the sub-national level (departmental, municipal, watershed, micro-watershed, etc.) and identify the successes and failures of interventions to prevent and reduce degradation and restore land use systems to increase productivity and adapt to climate events.

40. Likewise, fragile institutional arrangements are related to weak capacities on the ground to implement public policies aimed at addressing land degradation, water resources and biodiversity, in particular to empower communities and local actors in sustainable land management and to coordinate and add to country-level and local interventions. Harmonized public policies and integrated activities are required to promote integrated sustainable management of watersheds, sub-basins and microbasins, sustainable and climate change resilient production systems, efficient irrigation systems, conservation of water sources and, above all, financial support to develop actions on the ground. At the same time, there is weak monitoring of the actions carried out in the field in relation to sustainable and resilient land use, as well as their contribution to the corresponding national objectives (LDN, NDC, Aichi, etc.). This makes it difficult to identify in a timely fashion problems or constraints that need to be addressed or even positive changes that could be leveraged to advance LDN efforts.

Barrier 2: Limited knowledge and weak technical capacity for the implementation of sustainable production systems that employ the efficient use of water resources, SLM, and SBM for the maintenance of environmental functions and attainment of LDN.

-

41. The lack of institutional and local capacity to incorporate and implement SLM, SBM and restoration practices under the LDN approach is reflected in their inadequate internalization in different areas, for example, in territorial planning processes at the basin, sub-basin and microbasin levels. A lack of clear guidelines in various territorial management instruments for shaping the incorporation of good practices leads to a lack of capacity in the integrated approach to sustainable production systems. Frequently, the implementation of practices is reduced to isolated experiences, which respond to particular initiatives or disjointed projects. Often, SBM and SLM are understood as the simple application of a series of techniques aimed at improving soil fertility, controlling erosion, increasing productivity through the use of synthetic inputs focused on obtaining short-term productivity, without considering the integrated development of sustainable livelihood systems, the restoration of degraded lands and ecosystems and their real contribution to national LDN goals.

42. Technical weakness existing at different levels (central, subnational government, and local at the producer level) is the result a series of factors such as: staff turnover, lack of technical capacities and financial resources to identify and expand good practices, lack of monitoring and evaluation processes to identify the successes and failures of interventions, lack of innovative methodologies and technologies (remote sensing, cell phone applications, etc.) to understand and promote sustainable natural resource management (vegetation, soil, water) and restoration of environmental functions.

43. In addition, subnational policies are often uncoordinated or even incompatible with each other, leading to the implementation of policies that are not beneficial to ecosystems or their environmental functions.

Barrier 3: Lack of economic incentives and technical assistance for sustainable production undertakings led by women.

44. The role of women in rural areas throughout of the Central Valley of Tarija is important considering that most male "Heads of Household" at one point throughout the year migrate to look for other sources of income, leaving women in charge of the crops and households. Rural women are key players in seasonal food production, using ecological approaches with very few inputs, on 0.5- to 2.5-hectare plots, which are often smaller due to limited access to water for irrigation. The women are members of at least 15 organic producer associations in the four Central Valley municipalities, and they are leaders in organic farming, preparing organic fertilizers and other bio-inputs for their plots. They are in charge of deciding what to plant at different times of the year and the husbands, if they are not absent, can help with the heavy work such as tilling and harvesting.

45. Agricultural production generated by the women provides them with means to generate income because there are markets in the city of Tarija and nearby towns where they can sell their products. The region?s products are also certified organic under the national "Bio Tarija" seal. However, women in the GRB who have not acquired agroecological production skills are more vulnerable to climate factors affecting agricultural production. There is a large sector of peasant women who migrated to the city.

46. As far as water resource management is concerned, it is not "Gender Neutral" which is why understanding gender roles in the GRB is essential to planning water interventions and policies that will meet daily needs and gender constraints, such as lack of pay for women in agriculture and inadequate involvement in decision making.

47. The GRB lacks technical assistance and outreach programs that comprehensively address and support the creation and consolidation of production undertakings, especially those led by women. Given the role that women play in the production sphere in the GRB, providing them with opportunities to access training and technical assistance would exponentially improve production and the economic situation of women in the GRB.

48. The integrated and sustainable management of land and biodiversity with a basin approach requires the investment of significant financial resources. Following the experience of the Quito Ecuador Water

Fund (FONAG)[4][4], the Costa Rica National Forestry Financing Fund (FONAFIFO) Although the Bolivian State has been implementing the Mi Riego and Mi Agua programs, authorities at the sub-national and national level have mentioned that the investment has been insufficient to advance in the modernization and coverage of irrigation, allocating most of the resources the to the design and construction of physical infrastructure, with a centralized (top-down) approach, insufficient to achieve other relevant objectives to the long-term priorities of the territory as: the local operation and maintenance capacities of investments, the conservation of water sources and their catchment areas and water regulation (green infrastructure), the strengthening of local management, the adoption of technology, productive reconversion and innovation, and various non-structural initiatives (research, monitoring, modeling).

49. On the other hand, to promote the implementation and development of sustainable productive systems, the Plurinational State of Bolivia has constituted and launched the Productive Development Bank, as the first reimbursable financing entity to strengthen production at all levels and sectors under unconventional guarantees. However, to date the efforts of this financing entity and other micro-financial entities have not contributed as expected in the strengthening of the different production systems.

50. FONABOSQUE, as a non-reimbursable financial entity of the State, has been financing practices of recovery and restoration of vegetation cover and watershed management, however, these actions are isolated and little articulated to the existing territorial planning and dynamics.

51. Two preliminary studies have been carried out between 2017 and 2018 (one promoted by PROMETA and the other financed by CAF and carried out by AquaNature). Both studies coincided in highlighting the importance of designing, creating and operating a Water Fund for the region of the central Valley of Tarija / Guadalquivir River Basin, and concluded that it can be feasible and sustainable, in addition to pointing out that there is an enabling environment in Tarija for the development of the financials mechanisms.

Barrier 4: Weak institutional technical capacity, lack of incorporation of local producer input into LD monitoring, and disjointed information and monitoring systems.

52. The Plurinational State of Bolivia has a set of initiatives to monitor biodiversity, forest and land conservation and degradation, land cover and land use, forest fires, biodiversity loss, deforestation,

among others. However, Reporting and Monitoring Systems are dispersed and disjointed, with data, particularly at the subnational level, that are often incomplete, fragmented, outdated or out of reach of local stakeholders and the various sectors involved in the implementation of field practices that contribute to the achievement of national LDN goals. This limitation is largely due to the overlapping institutional functions described above and to the lack of technical capacity for the implementation and sustainability of a comprehensive monitoring system that lasts over time, transcending the different governments' terms of office.

53. The existence of information gaps between the sectors implementing SLM and SBM in the field and those responsible for designing policies and incentive programs, curtails the possibilities for adopting and replicating the approach, since the impacts on environmental functions, livelihoods and the concrete contribution of restoration practices and measures to the achievement of LDN are not recorded or monitored. In this sense, there is no LDN monitoring system at the subnational level that integrates information under standardized protocols, nor one that entails the systematization of practices to facilitate their dissemination. Currently, there is no clear mechanism for monitoring LDN and environmental functions at the subnational level, in addition to the lack of information required to adjust LDN indicators, mainly regarding soil organic carbon, land cover and uses and net primary productivity, and evaluated at the landscape level.

54. Including the LDN approach in integrated territorial planning and integrated water resource management implies having updated and operational reporting systems that allow for decision-making based on an in-depth knowledge of the status of socio-ecosystems and the impact of SBM and SLM actions taken in them. They also have repercussions at the national and international level where Bolivia must report the contributions it makes to international commitments, such as the 2030 LDN Strategy under the UNCCD, the CBD Aichi Targets[5][5] and the NDCs under the UNFCCC. These reports call for collecting and systematically and periodically presenting information, a process that is sectoral at present, with little interaction, resulting in overlapping data and duplication of efforts. In this sense, having an integrated monitoring system for LDN, environmental functions and supplementary indicators at the GRB level would contribute to national efforts and lay the methodological foundations for coordinating the different reporting systems while also incorporating information collected at the local level by producers in relation to the follow-up of restoration, SLM and SBM practices implemented in the field. In this regard, there is limited capacity for systematized and standardized data collection with respect to biophysical and socioeconomic indicators and variables. Likewise, there is no online platform for periodic reporting.

55. With respect to the availability of systematized water resources information, relevant inputs for comprehensive water management planning in the country are very limited. The inadequate communication and dissemination of water resources policy drafting processes has prevented water users from providing feedback and making these proposals, plans and projects their own, so that they would meet their needs. As for generating information, the country does not have a National Water Resource Information System that would allow for adequate planning. To date, access to and availability of information on water resources is wanting and incomplete.

56. There is no strategy aimed at disseminating or sharing LDN-framed initiatives, which would facilitate the incorporation of results and lessons learned from different experiences in SBM and SLM

and integrated territorial planning. This hinders their inclusion in decision-making and replicating practices.

Barrier 5: Nascent development of public, private or mixed intersectoral financial mechanisms for the integrated and sustainable management of the GRB.

57. The governance policies and processes developed in the GRB are undermined by the lack of economic and financial resources to support these processes. There are no efficient co-financing mechanisms for conservation activities, water source protection or actions in sustainable agriculture and/or sustainable production systems that would allow farmers to embed the protection and restoration of the basin's natural resources in their production practices. Local governance mechanisms will have to plan their territory at different levels and make informed decisions to protect and manage land and water resources, including surface and groundwater, in an integrated fashion, in order to supplement national and department-level planning. Local communities do not have financial support mechanisms to cope with the effects of climate change, which hinders the development of strategies to adapt to and mitigate the risk of drought and other climate change effects. This weakens the sustainability of their livelihoods and lowers their resilience to these environmental problems.

58. The sustainability and scaling up of sustainable and diverse production systems requires continuous technical and financial resources over time. The lack of investment in this regard makes it impossible to adopt SLM and SBM practices and to design intersectoral and local plans that would contribute to ensuring environmental, economic and social sustainability, as well as governance through an inclusive approach to developing activities with multiple stakeholders, in accordance with their capacities and clearly assigned roles and responsibilities that take into account gender issues and intergenerational aspects.

2) Baseline scenario and associated projects

Institutional framework:

59. The importance of biodiversity for the Plurinational State of Bolivia is reflected in the Political Constitution of the State (PCS), a hierarchically superior instrument that defines biodiversity as natural heritage of public and strategic interest for sustainable development. The significance and transcendence of the concept at the political and institutional level for the Government of Bolivia are both reflected in Law No. 300/2012 ?Framework Law of Mother Earth and Integrated Development for Living Well." This law underscores the value of complementarity, harmony and balance with Mother Earth and societies, in terms of equity and solidarity, in order to achieve the well-being of all inhabitants country wide. In this sense, it upholds "Living Well" not only at the individual level, but also collectively and in profound harmony with everything that surrounds us (Art.5, Num.2). It also

stresses the importance of the culture of community life, as opposed to the individualism on which the irrational exploitation of nature is based. In this sense, the concept of Living Well is fully compatible with the main objectives set out for this project, since these, in accordance with what is stated in this Framework Law of Mother Earth, are aimed at building, through stronger governance for territorial planning and natural resource management (water, soil and vegetation), a harmonious relationship between the communities living in the GRB and the ecosystems, with the goal of achieving balance and complementarity, thereby respecting individual, collective and Mother Earth's rights.

60. It is important to point out that the project seeks to strengthen participatory processes of territorial planning and integrated water management, with a view to achieving LDN, by strengthening life systems, which are established as part of the complementary concept of the rights of Mother Earth, of fundamental civil, political, social, economic and cultural rights, of the rights of the native indigenous and peasant peoples, and of the rights of the population to live free of material, social and spiritual poverty. Life systems are defined as *"Organized and dynamic communities of plants, animals, microorganisms and other beings and their environment, where human communities and the rest of nature interact as a functional unit, under the influence of climate, physiographic and geological factors, as well as production practices, the cultural diversity of Bolivians, including the cosmovisions of the native indigenous peasant nations and peoples, intercultural and Afro-Bolivian communities"* (Art.4, No. 12, Law No. 300).

61. Likewise, the Law conceives environmental functions as *"The result of the interactions between the species of flora and fauna of the ecosystems, of their own dynamics, of the physical (or abiotic) space or environment, and of solar energy. Examples of environmental functions are the following: hydrological cycle, nutrient cycles, sediment retention, pollination (provision of pollinators for reproduction of plant populations and seed dispersal), filtration, purification and detoxification (air, water and soil), biological control (regulation of population dynamics, pest and disease control), nutrient recycling (nitrogen, phosphorus, potassium uptake), soil formation (weathering of rocks and accumulation of organic matter), regulation of greenhouse gases (reduction of carbon emissions, carbon sequestration or uptake), provision of scenic beauty (landscape)"* (Art.5, Num. 8). Thus, the concept of environmental functions is equivalent to that of ecosystem functions, which the project seeks to improve and strengthen through its own development. It should be noted that Bolivia's NDCs commit to restoring and conserving environmental functions in at least 29 million hectares of its territory, a goal to which the implementation of the project will contribute.

62. It should be noted that Bolivia has its aptly named 2025 Patriotic Agenda, a guideline document outlining a set of pillars based on a series of action areas set out to achieve the basic goals of national harmonious development. This Agenda constitutes the General Plan for Economic and Social Development (PGDES), under the purview of the Ministry of Planning for Development (MPD), which is the basis of the 2016-2020 Economic and Social Development Plan (PDES) that lays out the country level general actions. It is important to mention that each of the pillars defined correlate with the SDGs

(UN, 2015). For instance, pillars 6 and 8 (based on the pursuit of *Food Sovereignty* and *Production Sovereignty with diversification*, respectively) are consistent with SDG No. 2, which is aimed at eradicating hunger, achieving food security, improving nutrition and promoting sustainable agriculture; as well as SDG No. 6, which seeks to ensure the water availability and sustainable management; whilst SDG No. 15, which aims to promote the sustainable use of terrestrial ecosystems, combat desertification, halt and reverse land degradation and slow the loss of biodiversity, is congruous with pillars 9 and 10, based on the achievement of *Environmental Sovereignty with integral development* and the *complementary Integration of peoples with sovereignty*, respectively.

63. PDES 2016 ? 2020, the Patriotic Agenda 2025 and the 2030 Nationally Determined Contributions constitute the public policy framework documents for integrated and sustainable water management. Likewise, these public policy documents are being applied at the territorial level so that they can meet their goals. PDES includes a comprehensive national vision of well-being and supports natural resource conservation and sustainable use of biodiversity and forests, value-added activities and the strengthening of environmental functions, among other actions, while Bolivia?s Integrated State Planning System (SPIE) prioritizes activities by macro-regions and regions, where valleys constitute a key area for implementing agroecological approaches, agroforestry and silvopastoral systems as part of Sustainable Land Management (SLM), in addition to contributing to socio-ecological resilience to climate change and a plural economy. This is made possible through the Sectoral Plan for Integral Development of the Ministry of Environment and Water, the Policy and Strategy for Integrated and Sustainable Management of Biodiversity, the Multiannual Program for Integrated Water Resource Management and Integrated Watershed Management 2017 - 2020 and the territorial plans for integrated development, all designed and implemented by governorships, municipalities and native indigenous and peasant autonomous entities in their capacity as Autonomous Territorial Entities (ETAs).

64. According to the guidelines of the Forum on "Governance of Natural Resources and Industrialization" held within the framework of the G77+China, goals were set under the PDES 2016 - 2020 (short term), the Patriotic Agenda 2025 (medium term), the Nationally Determined Contributions, and the Sustainable Development Goals 2030 (long term). In this regard, with respect to governance and integrated and sustainable water management, the priority is to promote actions focusing on climate change adaptation and integrated risk management to advance food and water security based on the achievement of the following results (Table 1):

2016 ? 2020 SDP	2025 Patriotic Agenda	2030 NDC	2030 SDG

Pillar 2. Universalization of Basic Services (2.1. Water, Sewerage and Basic Sanitation). Goal 1. 100% of Bolivians have water and sewerage services.	Pillar 2. Universalization of Basic Services with Sovereignty for Living Well. Dimension 1. To provide potable water and sanitary sewerage services to all (100%)	WATER: Water storage capacity has tripled (3,779 million m3) by 2030, compared to 596 million m3 in 2010. 100% drinking water coverage has been achieved by 2025, with resilient service delivery systems.	CLEAN WATER AND SANITATION: 6.1. Ensure universal access to safe and affordable drinking water for all by 2030; 6.2. Improve water quality; 6.4. Increase efficient use of water resources; 6.5. Implement integrated water resource management; 6.6. protect and restore water-related ecosystems; 6.b. Involve local communities in improving water and sanitation management.
Pillar 6. Production Sovereignty with Diversification (6.3. Irrigation). Goal 3. 4.7 MM ha of 3.5 MM ha have been reached; Goal 4. Optimal Production Systems. A. 700 thousand ha under irrigation up from 338 thousand ha as of 2015.	Pillar 6. Production Sovereignty with Diversification and Integral Development. Dimension 2 and 4: To be a food producing and processing country under optimal irrigation systems.	WATER. Irrigated surface area has tripled, exceeding one million hectares by 2030 compared to 296,368 hectares in 2010, doubling food production under irrigation by 2020 and tripling it by 2030, compared to 1.69 million MT in 2010. This will lead to resilient agricultural systems.	
Pillar 9. Environmental Sovereignty with Integral Development. (9.6. HR). Goal 7. Water and climate change risk prevention: integrated management. At least 14 watersheds and 225 microbasins implement integrated management plans and actions.	Pillar 9. Environmental Sovereignty with Integral Development. Dimension 7. No water scarcity and prevent risks caused by climate change.		

Table 1. Integrated and Sustainable Water Management Policies. Source: PROMETA based on 2016 ? 2020 PDES, 2015 NDC and SDGs.

65. Specifically, the "Sectoral Plan for Integrated Development for Living Well? (PSDI) of the Ministry of Environment and Water is the country-level guideline instrument governing the sustainable management of soil, water and vegetation. Headed up by the MMAyA, this is an operational plan designed to achieve the territorialization of the proposed actions, making it possible to incorporate in

the mid-term guidelines for public and private sector actions. The goals and objectives set out under the PSDI are aimed at responding to the actions, commitments and agreements established within the framework of the CBD, the UNCCD and the UNFCCC. It is also important to note that the report on the actions implemented under the PSDI takes into account the activities carried out by departmental governments, indigenous regional governments and municipal governments.

66. The Territorial Plans for Integrated Development (PTDI) are the medium-term territorial planning instrument for integrated development of the autonomous departmental, regional, and municipal governments, under the command of the Ministry of Planning and Development. Environmental actions and initiatives set forth under the PSDI and the PTDIs are consistent with the jurisdictions set forth by the Constitution concerning the environment, land use and other matters that correspond to the actions within the autonomous framework. PTDI preparation involves a process of local consultations coordinated by technical teams from the municipalities, departmental governments and/or indigenous regional governments, to include socioeconomic and environmental demands.

67. Protected areas were defined in 2009 by the Constitution as a common good forming part of the country's natural and cultural heritage, as they fulfill environmental, cultural, social and economic functions for sustainable development. Likewise, the Framework Law of Mother Earth defines them as one of the main instruments of Mother Earth. The National Protected Areas Service (SERNAP) is in charge of safeguarding the country's national protected areas under the National Protected Areas System (SNAP), which includes national, departmental and municipal protected areas. The national protected areas hold not only the country's greatest biodiversity, but also representative samples of its cultural, historical and archeological heritage. They are home to more than 200,000 people and span out over some 100 municipalities and 14 TIOCs (SERNAP, 2008).

International scenario: the country's progress toward international commitments concerning integrated management of biodiversity and water for the achievement of LDN

68. Land degradation is defined as "the reduction or loss of biological or economic productivity and complexity of rainfed cropland, irrigated cropland, grassland, forest and wooded land, caused by land use systems or by a process or combination of processes, including those resulting from human activities," such as soil erosion caused by wind or water, deterioration of the physical, chemical and biological properties or economic properties of the soil, and the lasting loss of natural vegetation (Article 1, UNCCD, 1992). It is also defined as the long-term loss of ecosystem functions and productivity caused by disturbances from which the land cannot recover unaided (Bai et al., 2008).

69. The origin of this problem is multifactorial (human activities, climate variations, changes/evolution of nature) and at the same time multifaceted (environmental, production, economic, social, etc.),

combining in different order and magnitude: public policies and private actions (governance), the culture of use, management and protection of natural resources, the environment, the biophysical characteristics of the territory and climate variability (Grainger, 2015; Gnacadja, 2015; UNCCD, 2015). Land degradation is a global process occurring in more than 150 countries worldwide, covering 23% of the planetary surface (Stavi and Lal, 2015). It is estimated that it currently affects more than 1.5 billion people (Gnacadja, 2012), affecting mainly the most impoverished sectors (UNDP-UNCCD, 2011; Middleton et al., 2011).

70. The *drivers* of land degradation are classified as direct and underlying (Geist and Lambin, 2002). The former can be summarized as anthropogenic impacts such as unsustainable agricultural and livestock management practices, deforestation and forest degradation, land cover and land use changes, among others, which are usually combined with underlying *drivers* largely associated with political-institutional, economic and socio-cultural factors (UNCCD/UNEP, 1995; Cowie et al. 2018; Olsson et al., 2019). Its consequences include loss of biodiversity, reduction of ecosystem functions, increased vulnerability to climate change, among others.

71. Currently, within the framework of the 2030 Agenda for Sustainable Development (UN, 2015), by decision 7/COP.13, the Conference of the Parties (COP) of the UNCCD adopted the 2018-2030 strategic framework. Within Goal 15 "Life of terrestrial ecosystems," Target 15.3.1 is stated: "By 2030, combat desertification, rehabilitate degraded land and soils, including land affected by desertification, drought and floods, and aim for a land degradation-neutral world." Thus, Land Degradation Neutrality (LDN) appears as an integral approach that transcends soil resource conservation and expresses a global aspirational objective and a goal to be achieved by national governments to counteract the advance of land degradation by 2030. Its main purpose is to halt or reverse the trend of declining physical-biotic quality that sustains the functioning of ecosystems, so as to achieve a state of equilibrium sufficient to maintain a level of ecosystem health and guarantee of food security for future generations (UNCCD, 2014). Cowie et al. (2018) highlight the importance of achieving this objective, as it would have a positive impact on the future well-being of humanity, by maintaining and improving the provision of the associated flows of ecosystem services.

72. LDN focuses on achieving a balance between land degradation and measures that can be implemented to improve degraded land. In this sense, actions should be taken to achieve LDN by avoiding land degradation, improving Sustainable Land Management (SLM), Sustainable Biodiversity Management (SBM) practices (which include Sustainable Forest Management) and integrated land planning, and adopting restoration and rehabilitation measures, with a view to achieving the healthy and production land necessary for sustainable and equitable development. LDN provides numerous environmental and social benefits, contributing to the achievement of food security, well-being, resource availability (including water resources), in addition to contributing to climate change mitigation and adaptation (UNCCD, 2016). The objective of LDN is to balance (in an anticipatory

manner) losses with gains in terms of ecosystem services and functions provided by land resources such as soil, water and biodiversity, and to strengthen the resilience of the land and the populations that depend on it (UNCCD, 2016).

73. The Plurinational State of Bolivia is a signatory to different multilateral environmental agreements related to the conservation and sustainable use of biodiversity, forest restoration and restoration of degraded lands. Regarding the focal areas described for this project, i.e., land degradation (LD) and biodiversity (BD), the country has committed to working toward LDN through the adoption and achievement of voluntary targets in accordance with the provisions of the UNCCD; it has adopted the Aichi Targets under the CBD and is committed to establishing measures for the implementation of the NDCs in regards to forests, the agricultural sector, water and irrigation for food production, within the framework of the UNFCCC.

74. Adoption of the LDN approach implies the implementation of SLM and SBM practices, with the aim of consolidating sustainable and mutually-compatible production systems, maintaining environmental functions, and recognizing the socio-economic development of stakeholders, their traditional knowledge and know-how. Through comprehensive territorial planning, the LDN approach seeks to organize and standardize production processes by promoting SBM and SLM, where access rights, and the benefits of exploitation, reach as a priority those social groups that live on permanent forest production lands, protection lands, rehabilitation lands, lands suitable for various uses, among others established by departmental land use plans and rules, all this with the aim of reducing poverty levels and advancing food security with sovereignty (MMAyA, 2018a).

75. It is important to clarify that the concept of integral territorial planning, as addressed in the project, has been incorporated on the basis of what is defined by the Law of the State Integral Planning System No. 777 in relation to the Integrated Territorial Development Planning. Article 10 of this legislation provides that the intent of the State's Integral Planning System is to construct a context of ?Living Well? through integral development in harmony with Mother Earth, integrating the social, cultural, political, economic, ecological and affective dimensions, in a harmonious and metabolic coming together of all beings, components and resources of Mother Earth to Live Well with oneself, with others and with nature. Within the framework of integrated territorial development planning, it seeks to promote life system management, to achieve sustainable production systems, the eradication of extreme poverty and the protection and conservation of environmental functions and the components of Mother Earth, simultaneously and additionally in different territorial and jurisdictional spheres as appropriate. The SPIE also entails risk management, climate change management and life systems management in an integrated manner, thereby boosting society?s and nature?s capacities to be resilient. Against this background, Article 5 of the aforementioned Law establishes that Integrated Territorial Development Planning combines development planning with territorial organization, thus intertwining, in the long, medium and short term, integral human development, plural economy and territorial organization in the organizational structures of the State, and includes investment programming, financing and multiannual budgeting.

76. The country has various technical and regulatory instruments related to Integrated and Sustainable Biodiversity Management (ISBM), which aim to promote the Aichi Targets, the achievement of LDN and the NDCs. As part of its international commitments, Bolivia has two national instruments that are particularly noteworthy: the Plurinational Policy and Strategy for the Integrated and Sustainable Management of Biodiversity (2019-2030) and the National Strategy for Achieving Land Degradation Neutrality by 2030.

77. As a signatory party to the CBD, in 2018 Bolivia developed the Plurinational Policy and Strategy for the Integrated and Sustainable Management of Biodiversity (2019-2030), framed within Law No. 777 of the Integrated State Planning System (SPIE) and Law No. 300, in conjunction with sectoral planning specified through the PSDI, led by the MMAyA. The purpose of the strategy is to *"Promote the Integrated and Sustainable Management of Biodiversity, prioritizing strategic ecosystems that contribute to maintaining the integrity of Life Systems, overcoming poverty and encouraging Integrated Development for Living Well, within a territorial framework and respect for the rights of Mother Earth."* The following four areas of work (or scopes) have been put forward to achieve this objective: 1) Political - Regulatory, 2) Institutional arrangements and territorial governance, 3) Use, conservation and sustainable use of biodiversity, 4) Integrated environmental management for biodiversity conservation and knowledge management and mobilization. These match up to the Aichi targets, as follows: scope 1) Political - Regulatory is related to goal 1; scope 2) is related to goals 11 and 14; scope 3) to goals 4, 7, 9, 13, 15 and 16; scope 4) to goals 4, 7 and 9; and finally scope 5) is related to goals 18 and 19.

78. Similarly, Bolivia drafted its National Strategy for Achieving Land Degradation Neutrality by 2030 with a view to *"identify and motivate the necessary actions at the national, departmental and local levels so that the Plurinational State of Bolivia will have established by 2030 a situation of negative or Zero Net Land Degradation (degraded area-recovered area, which can be quantified both in terms of area and non-tangible products.?* To this end, it suggests preventative actions in favor of land degradation in conservation ecosystems, and recovery actions for areas in the process of degradation and/or degraded. As part of this, it prioritizes human resource training, promoting research, developing protocols and systematizing knowledge. The strategy is outlined under pillar 6 (*Production sovereignty with diversification)* and pillar 9 (*Environmental sovereignty with integrated development)* of the 2025 Patriotic Agenda, and in terms of the SDGs, it is framed within SDG 15: Protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss; Target 15.3: By 2030, combat desertification, rehabilitate degraded land and soils, including land affected by desertification, drought and floods, and aim for a land degradation-neutral world. In connection with the Aichi targets in overall terms, the strategy contributes to targets 7 and 15, areas under sustainable management and resilience and restoration.

79. This strategy contains seven areas of action addressing five main indicators (land cover change, primary productivity, soil carbon stock, soil erosion on sloping land and salinization). At the country level, Bolivia has set a series of targets to achieve LDN by 2028, among which the following can be highlighted: *(i) strengthening sustainable management of at least 400,000 ha in arid flat or reduced-slope areas; (ii) reducing the problem of laminar erosion in sloping areas including the management of 200,000 ha (2,000 km2); iii) 300,000 ha of new agricultural land in the southeastern area of the country enabled with agro-ecological management principles, sustainable irrigation and promotion and support of agro-silvopastoral systems; iv) attaining adequate regulation of forest soil management that could prevent the degradation of more than 800,000 ha of forest land,* among others. As set out, these targets are aimed at reducing soil erosion, contamination, compaction, and runoff, among other phenomena.

80. At the operational level, the country?s numerous national strategies are implemented through management instruments linked to various programs, and these in turn are promoted by specific projects. At the programmatic level, the 2016-2020 PDES aims to, by 2020, have 500,000 ha of recovered land area; secure integrated management of livestock production in approximately one million ha; increase forest cover by 750,000 ha; achieve integrated and sustainable management of 13 million ha of forests; and strengthen environmentally-friendly production systems. The PSDI-MMAyA for forest and biodiversity management contains six programs designed to develop direct actions and initiatives in this area, as follows: Integrated Forest Management Program (PGIB); National Forestation and Reforestation Program (PNFR); National Program to Combat Illegal Deforestation (PRONADEF-0); Plurinational System of Protected Areas and Strategic Ecosystems Program (SPAP-ECOS); National Program for Integrated Biodiversity Management; and the Program for the Development of the Joint Mitigation and Adaptation Mechanism for the Integrated and Sustainable Management of Forests and Mother Earth's Life Systems.

81. It bears mention that for the recovery of degraded agricultural production systems, Supreme Decree No. 2453 created the National Soil Recovery Program (PRORESU), under the Vice-Ministry of Land, belonging to the MDRyT, which should be coordinated with the LDN Strategy.

82. As part of the Plurinational State of Bolivia?s NDCs, under the UNFCCC, the country is committed to achieving a series of goals by 2030, including: *zero illegal deforestation by 2020; increasing the surface area of forested and reforested areas to 4.5 million hectares by 2030; increasing the areas of forests under integrated and sustainable management with a community approach to 16.9 million hectares by 2030, compared to 3.1 million hectares in 2010; strengthening environmental functions (carbon capture and storage, organic matter and soil fertility, biodiversity conservation and water availability) by approximately 29 million hectares by 2030,* among others.

83. Worthy of noting is the country-level target of applying integrated watershed management for LDN to 200 basins and micro-basins, through the implementation of integrated water resource management plans. Along these lines, Integrated Water Resource Management - Integrated Watershed Management (IWRM-IWM) includes the 2014-2020 National Watershed Plan (NWP) multi-year program, pursuant to the strategic guidelines contained in the Constitution. The NWP is comprised of seven sections: (1) Promotion and development of River Basin Master Plans; (2) Implementation of IWRM-IWM projects; (3) Hydrological and climate change risk management; (4) Water quality management; (5) Implementation of pedagogical watersheds; (6) Water resource and basin knowledge management and reporting; (7) Institutional development and capacity building for IWRM and IWM. The NWP will build an inter-institutional network for IWRM promotion and strengthening on the basis of the implementation and development of a myriad of actions and, in particular, locally-driven projects involving the participation of platforms, stakeholders, sectors, municipalities, grassroots organizations and the support of international cooperation, for the promotion and strengthening of social water management in basins, and the development of institutional and personal capacities.

84. Within the framework of the NWP and the National LDN Strategy, the IWM program is zooming in on reducing degraded areas and increasing vegetation cover. It prioritizes 14 strategic hydrographic basins for conservation and management actions to facilitate water availability for downstream basins. It also includes identifying and acting on all types of active degradation processes. Additionally, the IWRM-IWM has drawn up integrated management plans for at least 225 microbasins showing various types of degradation (PDES 2016-2020). The aforementioned instruments contribute to strengthening water governance processes underway as part of national commitments before the UNCCD, CBD and UNFCCC (Figure 1).

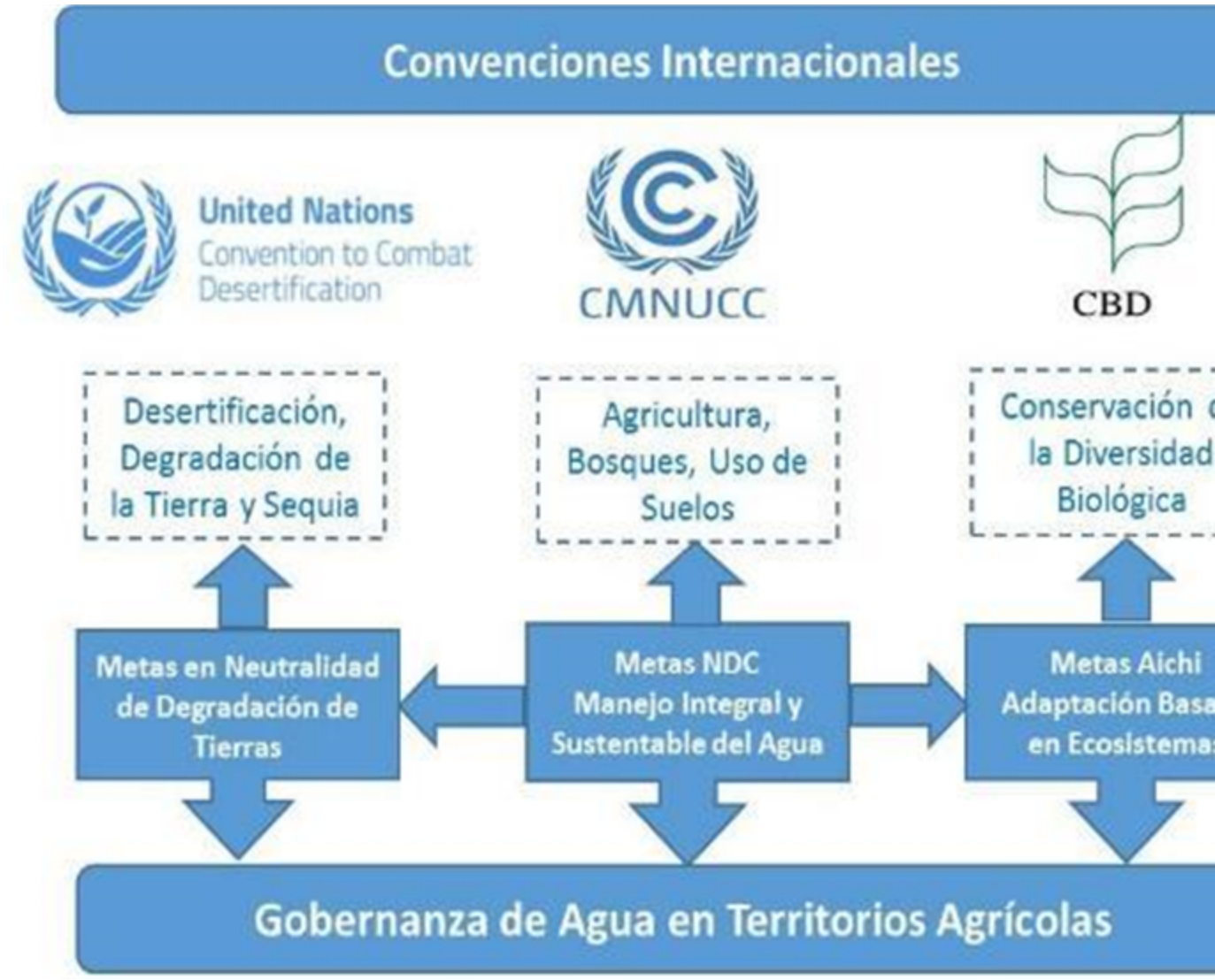


Figure 1. International Conventions for Water Governance Source: Prepared by FAO Bolivia, Year - 2021

85. Regarding the implementation of SLM and SBM practices, they improve land management to meet the needs and well-being of communities in a sustainable manner and thus improve livelihoods, thereby contributing to the achievement of LDN goals (Akhtar-Schuster et al., 2016). However, it is worth mentioning that many SLM and SBM initiatives developed at the local level remain off the radar of policymakers and institutions linked to the issue and, therefore, by not being recognized, their adoption in institutional frameworks, which provide economic incentives and technical support necessary for their development and replicability, is hindered (van Haren et al., 2019). In this regard, in 2014 the UNCCD recognized WOCAT (World Overview of Conservation Approaches and Technologies) as the recommended leading database for reporting SLM practices (UNCCD, 2015; Wunder et al., 2018). WOCAT (www.wocat.net), constitutes a platform where numerous local

practices from around the world have been recorded, using standardized methods and tools that are developed and refined through their application in various projects, initiatives, countries and institutions (Schwilch et al., 2014) since 1992. Countries can contribute to the systematization of SLM and SBM practices on this platform, or simply adopt the WOCAT approach, adapt it to their national context and include it in their monitoring systems.

86. Locally developed community-based SLM and SBM initiatives are often deeply rooted and linked to their livelihoods and cultural traditions. They have great potential to contribute to LDN by boosting environmental functions and sustainable development. According to the study by van Haren et al. (2019), the implementation of SLM practices can lead to substantial positive impacts with few resources, as they contribute considerably to the achievement of LDN, particularly by improving land productivity and soil carbon stock, and sometimes net primary productivity. Importantly, according to this study, agroforestry practices led to substantially greater improvements in all three LDN-related indicators compared to the other land use types.

87. Presently, there are numerous projects in place and completed between 2019 and 2023 in the GRB. Below are the national plans and programs supporting the 2030 LDN process and the 2019-2030 Biodiversity Action Plan (MMAyA, 2018b):

(i) 2016-2020 PDES: aimed to achieve by 2020, 500,000 ha of recovered soil surface, accomplish integrated management of livestock production on approximately 1,000,000 ha of land, increase forest cover by 750,000 ha, achieve integrated and sustainable management of 13,000,000 ha of forests, and strengthen environmentally-friendly production systems with priority given to ecological and organic production. This plan is currently undergoing a mid-term evaluation and remains in effect until it is updated by the Government of the Plurinational State of Bolivia.

(ii) Mi Riego and Mi Agua Programs: these consist of actions to reduce sediment transport and reduce degraded areas through an arrangement to provide water for human consumption and for irrigation of priority crops, thereby increasing agricultural production and reducing the number of new areas opened for production.

(iii) Multi-Year Integrated Water Resource Management and Integrated Watershed Management (IWRM-IWM) Program: 2014-2020 Multi-Year Program under the National Watershed Plan (NWP), as per strategic guidelines enshrined in the Constitution. It includes Integrated Watershed Management (IWM) focused on reducing degraded areas and increasing vegetation cover. IWM prioritizes 14 strategic watersheds for conservation and management actions in order to generate greater water availability for lower watersheds.

(iv) National Soil Reclamation Program (PRORESU): currently in the implementation phase, this program includes actions carried out as part of the 2030 LDN Strategy.

(v) Mi ?rbol Program: involved in reforestation processes supporting the recovery of degraded soils and areas, including social actions for the afforestation and reforestation of basin headwaters.

(vi) MMAyA's Institutional Strategic Plan and Nationally Determined Contributions (NDC), Plurinational Authority of Mother Earth (APMT): consists of actions intended to reduce deforestation to zero, prevent illegal deforestation of 100,000 ha per year and promote reforestation of 4.5 million hectares by 2030.

(vii) MMAyA's National Afforestation and Reforestation Program: under the command of the General Directorate of Forestry Management and Development with support from the SUSTENTAR Deconcentrated Unit and the National Forestry Development Fund (FONABOSQUE).

(viii) National Register of Agricultural Varieties: managed by the National Institute of Agricultural, Livestock and Forestry Research (INIAF), the register is a communal roster of native plant varieties used in agriculture. This has the potential to contribute to the project by way of protecting and registering native varieties for the benefit of indigenous peoples.

(ix) The Conservation and sustainable use of agrobiodiversity to improve human nutrition in five macro-regions Project: executed by MMAyA and FAO with the aim of recovering and promoting the consumption of native species and varieties to improve nutritional security. The project is being implemented in five macro-regions across the country, in the departments of Chuquisaca and Tarija, through five municipalities and five captainships.

88. Regarding government initiatives addressing issues related to LDN, biodiversity and environmental functions, there are a series of studies and reports worth highlighting which in many cases constitute the baseline for the project. In 2018, Bolivia prepared the PRAIS Report, reporting the status of land degradation under the LDN approach for the first time. Also, in 2017, the VRHR Special Studies Unit produced the "Land Degradation Assessment in Drylands (LADA)" (2017). Another important antecedent in relation to this at the national level, is the map of soil organic carbon stock prepared by the MMAyA in 2018. In terms of environmental functions, there is the map of the country-wide Composite Index of Environmental Functions which takes as parameters the INFO-SPIE data related to soil organic matter, carbon capture and storage, water availability, habitat conservation and biodiversity. Another example, yet this time at the regional scale, is the study for the identification of ecosystem functions carried out as part of the PAS Chaco project (2012).

Governance scenario for participatory territorial planning and integrated water resource management in the GRB

89. According to the Water Forum of the Americas (2011), the following key factors need to be considered in order to achieve strengthened water governance: (i) integrated and sustainable water management is the most appropriate model to conserve and sustainably use water and other natural resources existing in the basin; (ii) promote a coordinated approach, rather than a sectoral one, in order to integrate agriculture, industry, human consumption, energy, environmental and other activities; iii) harmonize and integrate the hydrological cycle (surface-groundwater, quality-quantity, freshwater-

coastal) with the forms of use, development and appropriation of the resource (integration-cross-sectoral, planning-decision, upstream-downstream users). Meanwhile, the IPCC Special Report on Climate Change and Land states that integrated governance is needed in all sectors and scales to reduce pressure on land and water in order to meet the needs of people and biodiversity to alleviate the growing pressures caused by climate change. In that sense, integrated governance makes it more likely that the benefits of development and climate change adaptation and/or mitigation will be maximized. Integrated governance is especially important at the national, basin and ecosystem levels (IPCC, 2020).

90. Rocha and Lee (2020), under the Study of Water Governance in Agricultural Territories of the Guadalquivir River Basin, hypothesize that in order to achieve water governance in agricultural territories, four elements are required: i) citizen participation and guarantee of transparency "Reciprocal Trust"; ii) implementation of coordinated policies and regulations "Efficiency"; iii) stronger institutions "Accountability"; and iv) Water Budget Allocation "Complementarity and Concurrence."

91. The Interinstitutional Platform of the Guadalquivir River Basin (IPGRB) is a system of governance in force, formed through interinstitutional coordination and cooperation within the framework of the basin's water and environmental governance. In this regard, it has become an integrated multi-stakeholder, multi-level and multi-sectoral network made up of various national and sub-national public sector entities, the private sector, communities, producer associations, irrigators and civil society that are directly linked to integrated and sustainable water management associated with production systems, economic dynamics, access for human consumption, conservation of natural resources and threats due to climate change, as well as forest fires, contamination of water bodies and the threat of urban encroachment on water recharge areas (Figure 2).

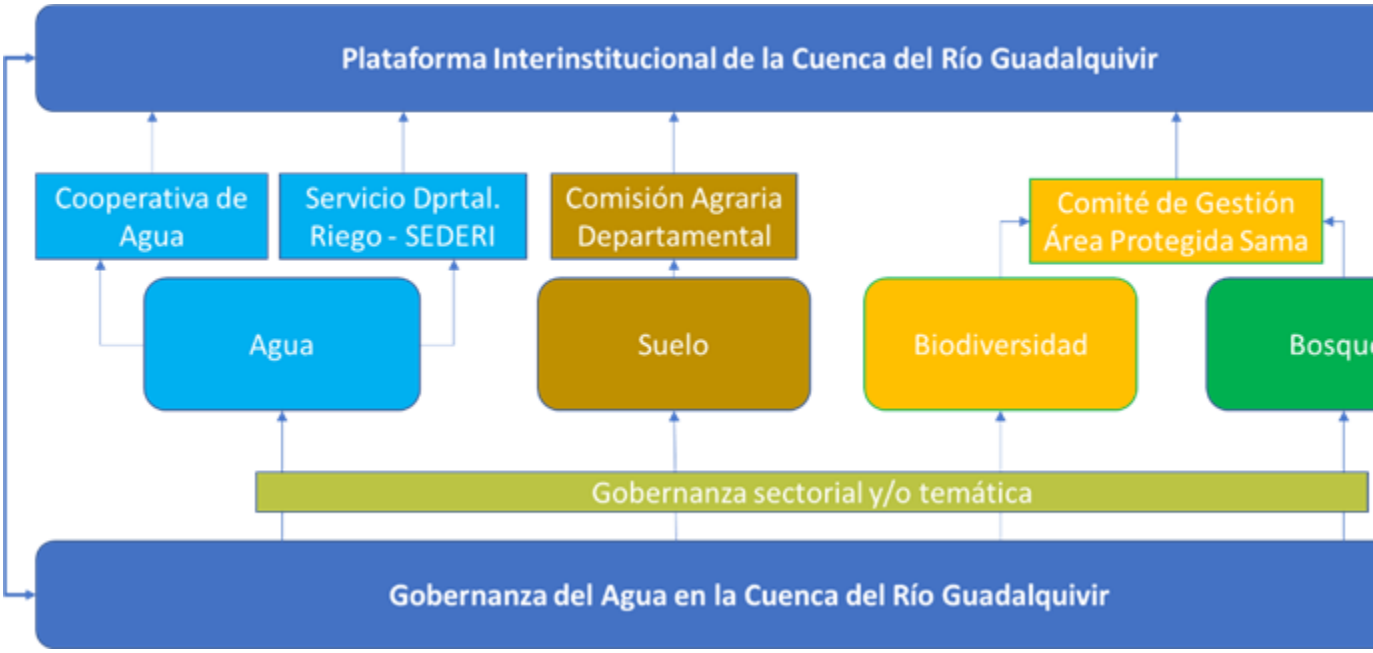


Figure 2. Water Governance in the Guadalquivir River Basin

Source: Based on *Estudio de Gobernanza de Agua en Territorios Agr?colas*, FAO Bolivia, Year - 2020.

92. It is worth mentioning that the IPGRB was formed in 2019, inspired at first by the Audit Report on the Results of Environmental Management in the Guadalquivir River Basin. The platform is made up of a Board of Directors, a Technical Council and a Social Council. The Board of Directors is the highest decision-making body and is comprised of the Autonomous Departmental Government of Tarija, the Vice-Ministry of Water Resources and Irrigation, and the autonomous municipal governments of Cercado, Uriondo, Padcaya and San Lorenzo. The Technical Council is a technical body set up to advise and monitor the implementation of actions taken to protect the basin, while the Social Council is made up of men and women representing water users, basin boards and service providers. Finally, the Basin Management Unit provides technical support and social control for the development and implementation of the Basin Master Plan.

93. The GRB Master Plan (PDCG) sets forth the implementation of activities aimed at achieving water security. These are linked to production systems and their impact on water recharge areas, responsible water use, conservation of ecological easements, and land use planning, as part of integrated sustainable water management. The PDCG has been led since 2016 by the Ministry of the Environment and Water (MMAyA), through the Vice Ministry of Water Resources and Irrigation (VRHR), the Autonomous Departmental Government of Tarija, within the framework of the National Basin Plan (PNC) and technical support from the German Cooperation through GIZ and its Comprehensive Management with Basin Approach (PROCUENCA) project.

94. Given the territorial nature of the GRB and the presence of protected areas and priority biodiversity conservation sites, we must refer to the existence and functioning of the Cordillera de Sama Protected Area Management Committee, a social control and monitoring body for the protected area's preservation and conservation actions, as well as those of its buffer zones. The Management Committee is made up of representatives from communities, producer organizations, municipal governments, the Governor's Office, and the National Protected Areas Service, among other entities with an interest in the protected area's planning and conservation. The Protected Areas Management Committees are established in accordance with articles 47 and 48 of the General Protected Areas Regulations, which were approved by Supreme Decree No. 24781 of July 31, 1997.

95. Regarding territorial planning at the basin level, two instruments stand out that will enable incorporating the LDN approach into integrated water resource management as well as the guidelines for the implementation of restoration practices, SLM and SBM. These are the Local Microbasin Management Plans (LMMPs) and Local Water Use Plans (LWUPs). LMMPs are participatory planning instruments for the adequate management of water and natural resources, prepared and implemented by the Watershed Management Organization (OCG), communities, peasant families and water users in general, with support of the municipality. Their purpose is to achieve the sustainable use of water; promote greater water availability and quality; improve soil fertility and production capacity; increase vegetation cover in the microbasins; and improve the quality of life of families. These actions contribute to the reduction of poverty rates and migratory movements to peri-urban and urban areas. The purpose of LWUPs is to encourage planning processes based on the water potential of the selected sub-basin/micro-basin in a specific municipal territory, thereby guiding local and national investments based on processed and systematized information on water supply and demand. These plans contribute

to the development and management of the National Basin Plans. Since launched in 2013, 50 LWUPs have been drawn up.

96. Additionally, with respect to the regularization and finetuning of agrarian property rights and sustainable land use, Departmental Agrarian Commissions (DACs) were constituted by the National Agrarian Reform Service Law No. 1715, as amended by Community Redirection Law No. 3545, and granted the authority to primarily supervise < Irrigation Service (SENARI) and Departmental Irrigation Services (SEDERIs) were created under Law No. 2878. The Department of Tarija has another governance body with purview over irrigation water resource management called SEDERI Tarija. The governor of the department, or his representative, sits on SEDARI?s Board of Directors alongside three government representatives with jurisdiction over irrigation, seven representatives of the Departmental Association of Irrigators and Community Drinking Water Systems, and two representatives of agriculture-sector social and economic organizations. SEDERI's responsibilities include proposing irrigation policies, strategies and standards, approving the Departmental Irrigation Plan, submitting to SENARI public investment projects for irrigation development in the region, promoting technical assistance, human resources training, applied research for irrigation management, updating the Departmental Irrigation Information System, preparing and updating the Departmental Irrigation Systems Register (PDSR), among others.

97. The mobilization of financial resources for sustainable land and water management (including soil, forests and biodiversity) is a key barrier. There is a clear demand and emerging initiatives at different levels and from both government and private sectors, including initiatives promoted by community-based actors and sub-national authorities to undertake the creation of an innovative financing mechanism or *Watershed Fund* that encompasses the entire Central Valley of Tarija. The *momentum* for creating an innovative financing mechanism is in place. For instance, a trust fund has been envisaged in regulatory instruments, it is worth mentioning that at the initiative of the Autonomous Municipal Government of Tarija, Municipal Law No. 146 was enacted and put into effect, in which Article 15, promises the creation of a Trust Fund with management autonomy (Law of Preservation, Conservation and Protection of Natural Resource Water, 2017) to have a greater call to other levels of government, public and private entities through the signing of contracts and cooperation agreements, however, this policy has not implemented in a concrete manner. The private sector is also involved in emerging initiatives for mobilizing resources in Guadalquivir (i.e. Production Development Bank). Nevertheless, a comprehensive, structured and sustainable mechanism such as a watershed fund, creating synergies amongst instruments and stakeholders and facilitating the conservation, sustainable management and restoration of land and water resources is needed. The envisaged watershed fund shall imply strengthening and / or creating a new governance scheme that articulates various levels of government and different interests that share a common goal towards mobilizing a blend of resources for the the conservation of water sources and the implementation of sustainable land management practices to achieve LDN, watershed restoration and biodiversity conservation.

98. On the other hand, the Autonomous Departmental Government of Tarija (GADT) created the Tarija Departmental Economic Promotion Fund (FOPEDT), with the Departmental Law No. 151 of September 16, 2016, establishing a Trust Fund managed by Union Bank. A Board of Directors of the

FOPEDT was constituted in charge of ensuring the application of the Operating Regulations, establishing the credit policies and carrying out the Supervision and Inspection of the (FOPEDT), with mixed participation of the Public and Private Sector. In this case, the beneficiaries are micro and small companies, small producers, retail union workers, transporters, artisans, self-employed workers, small sole proprietorships (Art. 22).

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

Project Strategy

99. The project seeks to contribute to the reduction of land degradation and loss of biodiversity caused by illegal land clearing for agriculture, livestock and agricultural advancement, unsustainable land and biodiversity management practices, forest and natural grassland fires, social conflicts over land and water use, and weak incorporation of the LDN approach in integrated watershed planning and management, among other factors. It is expected that, through the implementation of participatory territorial management strategies and sustainable production systems in the Guadalquivir River Basin (agro) ecosystems, the project will be able to contribute to strengthening the governance and expanding the capacity of basin institutions and stakeholders in SLM and SBM. Likewise, having non-reimbursable financial mechanisms (grants) and the strengthening of existing reimbursable ones (credits) that support the implementation of sustainable production systems will favor the development of production undertakings in SLM and SBM under women's leadership. The integrated and multi scaling framework proposed herein seeks to encourage the adoption of the LDN approach in integrated territorial planning at the basin and micro-basin level as a contribution to the achievement of national goals. This will be possible by analyzing existing financial mechanisms in Latin America under the same characteristics, and developing technical, economic, social, environmental and regulatory feasibility studies. The SLM and SFM practices to be implemented are aimed at achieving sustainable production systems at the farm scale, which as a whole will contribute to halting degradation (including land clearing processes) and improving environmental conditions in the GRB. The integrated approach promoted by the project will seek to improve awareness of the importance of preserving environmental functions as well as their integration into the different instruments of integrated territorial planning. Through capacity building and its communication strategy, the project will seek to raise awareness and involve the population in the sustainable management of land, biodiversity and forests.

100. This GEF Project projected within the framework of the IPGRB, will constitute an inter-institutional consultative body, with a multi-level, participatory, gender focus (involving government representatives, producers (including family farmers), marketers, financial sector and academia), to address the land degradation processes currently exacerbated by climate change. The intended environmental benefits are related to the restoration of ecosystems and an ensuing increase in carbon stocks, land productivity and the recovery of water resources in the Guadalquivir river basin.

101. Throughout the 42-month project implementation period, the project will seek to overcome the five barriers that negatively impact the integrated and sustainable management of the watershed with an LDN approach and biodiversity conservation. The project strategy sets out to link the effective participation of watershed stakeholders in governance and territorial management, with the sustainable management of land, water and biodiversity. It will promote the implementation of SLM and SBM practices, in a participatory fashion, under a gender focus along with capacity building through technical assistance and the creation of field schools, based on the sharing of knowledge and experiences among different size producers. These practices will improve environmental functions, the livelihoods of local communities and biodiversity, thus contributing to the achievement of national LDN goals, as established by the UNCCD. Field practices will be rolled out in five micro-watersheds prioritized according to socioeconomic conditions and degradation (see point 1.b), vegetation cover and priority areas for the conservation of biodiversity. In this context, the project seeks to contribute to these national efforts by promoting capacity building for monitoring SLM and SBM practices through the integration of information collected at the local level by producers in the LDN system, environmental functions and supplementary indicators (component 4). The sustainability and scaling up of restoration, SLM and SBM practices will be enhanced through the creation of a Regional Water Fund in Tarija, which will enable the creation of sustainable production undertakings, under women's leadership and the involvement of numerous production sectors in the basin, starting from the non-reimbursable financial promotion that will integrate resources from entities such as FONABOSQUE, GADT and GAMT, complemented by strategic actions linked to donations and reimbursable financial promotion initiatives led by the BDP, microfinance institutions, among other entities. The Fund will be maintained with grant and in kind contributions made by private and public entities that, due to corporate social responsibility and investment priorities, will allocate resources based on the first investment carried out by the project. The entities that have shown interest to the date are: COSAALT, FONABOSQUE, BDP, GADT, and the GAMT.

102. Within the project strategy, special attention will be given to the development of the planned actions with consideration for ways to minimize risks amidst the Covid-19 global pandemic. In this regard, the project?s adaptive management should, if necessary, adapt the activities to protocols and measures in effect while considering how the pandemic is evolving and where it is headed at the local level. The project will adopt appropriate safety measures and protocols to safeguard the health of both direct participants (including project personnel) and local communities.

103. The Banco de Desarrollo Productivo, the producers' associations and the wine growers' business sector are interested in strengthening the capacities of the producers in their production systems, since they are interested in buying high quality products in the volumes demanded, whether for processing grapes, singani, among others, or for selling jams and table fruits (strawberries, blueberries, grapes, etc.). On the other hand, as part of the project implementation process and the start-up of the financial mechanism, an analysis should be made of the Supreme Decrees that mandate the use of 6% of profits in CSR practices, within which conservation and financing for productive systems of family farmers for food production, with a focus on climate change, could be an important window to explore and enable financial lending institutions to allocate a good percentage of their CSR resources in the components, results and actions of the project.

104. The Project will contribute to the implementation of the Water Fund of the Guadalquivir Basin. The Water and Sanitation Cooperative (COSAALT) has agreed to contribute Bs. 0.50 cents per month for each member of the Water and Sanitation Cooperative (COSALT) during 4 years of project. This amount is equivalent to a contribution to the Water Fund of USD 217,000

105. Monitoring and evaluation (M&E) of progress toward achieving the project's results and objectives will be based on the goals and indicators as established. Ongoing monitoring of project progress will make it possible to periodically assess the attainment of project goals and targets and, depending on the project's adaptive capacity, to redirect actions if necessary and thus achieve the expected changes.

106. Figure 3 shows the project's Theory of Change.

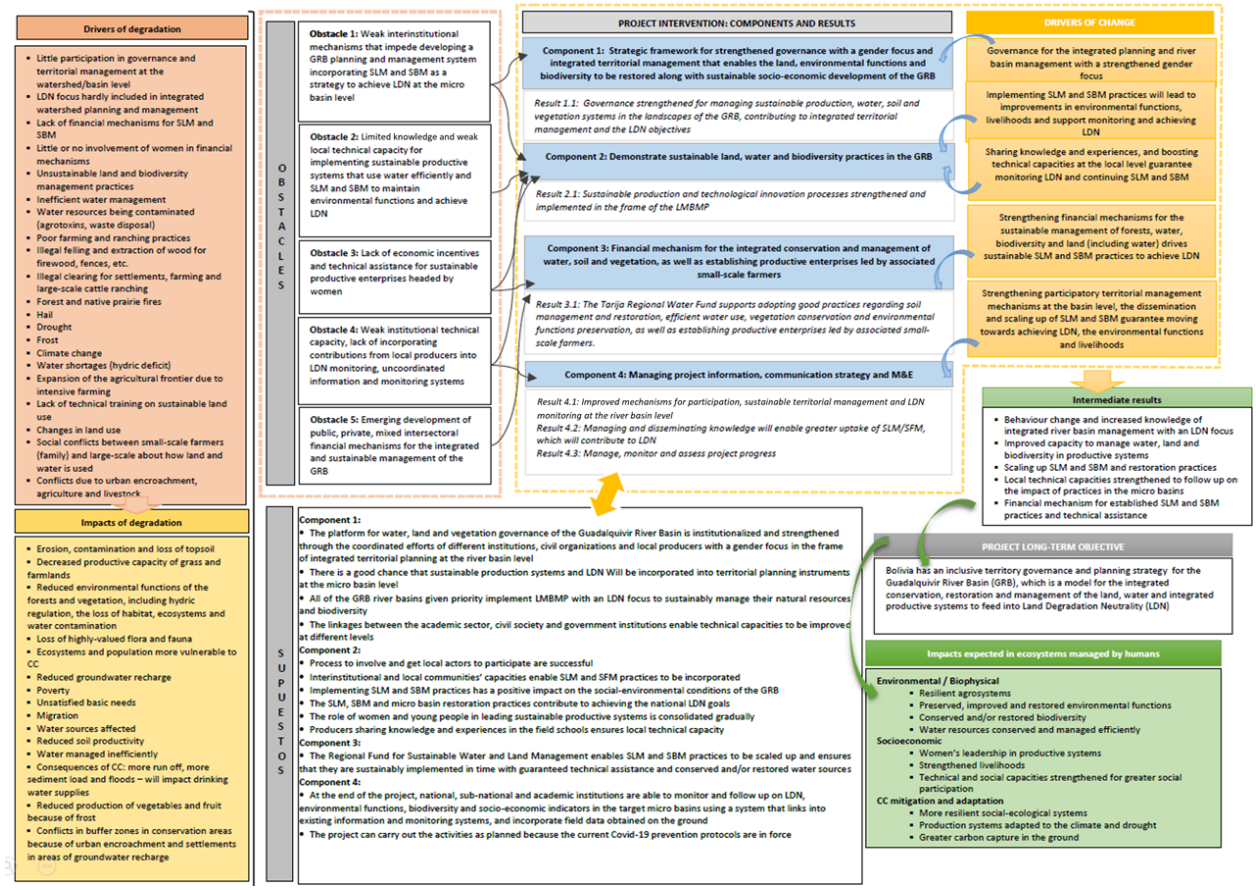


Figure 3. Project Theory of Change

Project Objective, Components, Outcomes, and Outputs

-

107. The main objective of the project is to develop and implement an inclusive territorial governance and planning strategy as a model for the sustainable conservation, restoration, and management of the land, water, biodiversity, and integrated production systems that will make it possible to achieve Land Degradation Neutrality (LDN) in the Guadalquivir River Basin (GRB). In so doing, the aim is to recover and restore degraded areas and improve environmental functions via training in SLM, SBM, monitoring of environmental functions, LDN, participatory planning, and the implementation of biodiverse and resilient production systems using SLM and SBM practices predicated on the existing cultural scaffolding and scientific knowledge. Likewise, the creation of the Tarija Water Fund will enable the actions in the field to become sustainable and ensure the scalability and replicability of sustainable production practices and undertakings once the project is complete.

108. To achieve the proposed objective, the project is organized into four components:

1. Strategic framework for stronger governance with a gender approach and integrated territorial management to enable the restoration of land, environmental functions, biodiversity, and sustainable socioeconomic development in the Guadalquivir Basin (GRB).

2. Demonstration of sustainable land, water, and biodiversity management practices in the Guadalquivir River Basin.

3. Financial mechanism for the conservation and integrated management of the water, soil, and vegetation, as well as the establishment of productive entrepreneurship involving family farmers in association with one another.

4. Management of project reporting, the communication strategy, and M&E

Component 1: Strategic framework for stronger governance with a gender approach and integrated territorial management to enable the restoration of land, environmental functions, biodiversity, and sustainable socioeconomic development in the Guadalquivir Basin (GRB).

109. Component 1 will strengthen governance of territorial management and integrated water resource management to enable the restoration of the land, environmental functions, and biodiversity of the GRB, with a gender and intergenerational approach, and with the active participation and involvement of local farmers and communities, as well as governmental agencies and scholarly institutions. Interinstitutional coordination in conjunction with the different stakeholders involved in territorial planning and integrated water resource management will contribute to overcoming the barriers identified in the project framework by integrating the LDN approach into current participatory territorial planning instruments at the basin and microbasin level. Accordingly, the project will overcome the sectoral and compartmentalized implementation nature of natural resource planning and management, including community processes geared toward SLM and SBM, with the ultimate goal of LDN.

110. Moreover, capacity-building in monitoring of LDN, environmental functions, biodiversity, livelihoods, and inclusive governance mechanisms for integrated territorial development, targeted at the government, academia, and local stakeholders will be essential to both achieving the targets provided for in the project framework and to ensuring the replicability and sustainability of the results over time.

111. Special emphasis should be placed on ensuring the participation of women in capacity-building and territorial planning processes. To do so, the information contained in the Gender Plan in the attachments should be considered.

112. To develop this component, the incremental GEF funding is USD 109,215, while the co-financing amounts to USD 2,014,699. This funding will be allocated to: 1) strengthening the IPGRB[6][6]; 2) developing the LMMP in five priority sub-basins; 3) designing and implementing the capacity-building program.

113. To implement the Basin Management Unit, close work will be done with the GADT?s SEDEGIA, as well as the IPGRB. The following institutions will receive capacity-building in this component: MMAyA-VRHR, GAMS (Autonomous Municipal Governments), OGCs, farmer associations, and more.

<u>Outcome 1.1:</u> Stronger governance for the management of sustainable production systems, water, soil, and vegetation in the landscapes of the Guadalquivir basin, thereby contributing to integrated territorial management and LDN goals.

Output 1.1.1. Platform for water, soil, and vegetation governance in the Guadalquivir Basin, strengthened and institutionalized as a multi-level and interinstitutional framework with a gender approach.

114. This output will enable strengthening the current IPGRB, in place since 2019 in the GRB, in order to foster interinstitutional, intersectoral, and multilevel participation. The platform will prioritize engaging women and youth, representatives of the target groups, as permanent members of the platform governance structure and at the local level by priority microbasin.

115. Among the activities planned for this output are the following actions:

? Hold participatory workshops to strengthen IPGRB, the PDCG, and LMMPs with key stakeholders from the Tarija Central Valley.

? Establish agreements and strategic partnerships.

? Perform institutional capacity-building with members of the IPGRM via the following:

i) Design a road map (action plan, define priorities, identify benefits provided by each of the different entities belonging to the platform) in the framework of the PDCG.

ii) Review the regulatory framework and set up binding decisions to undertake actions in the realm of each of the member institutions of the IPGRB.

iii) Convene and run the Basin Management Unit (BMU) as the technical secretariat charged with organizing, coordinating, and advising other IPGRB entities.

? Support and implement Civil Organizations (OGCs) to coordinate territorial governance at the level of the priority microbasins as part of the process to implement the IPGRB and bolster institutional governance at the GRB level. To do so, the following shall be done:

i) Identify OGCs working in the priority sub-basins.

i) Design and implement the IPGRB for each OGC in the priority sub-basins.

ii) Keep records of initiatives and lessons learned as part of the IPGRB implemented with the BMU of the PDCG.

? Identify strategic actions to boost water and soil governance.

i) Identify the problems and causes involved in prioritizing actions related to water, soil, and vegetation in the microbasin.

i) Identify local stakeholders (farmer associations, irrigation associations, NGOs, universities, corporate private sector, and more) in the microbasin.

? Offer technical assistance to the IPGRM board to draft reports and track agreements entered into.

1.1.2. Local Microbasin Management Plans (LMMP) developed improve the achievement of sustainable production systems through SLM / SBM as a contribution to LDN

116. In order to develop this output, the following actions shall be carried out:

? Design, with participation by others, the LMMPs that will contribute to the implementation of the PTDIs, the LWUPs, and the PDCG, including a governance strategy for Integrated Soil, Water, and Vegetation Management, both designed and implemented, including an LDN approach and biodiversity management in the GRB, with a gender approach. The process to develop the LMMPs shall motivate and raise awareness among the population, demonstrating the benefits yielded by integrated microbasin management. As part of the process, it shall be important to engage women and other vulnerable groups in territorial planning and decision-making to manage the microbasin. The five main steps involved in microbasin planning and management are as follows: during the plan formulation stage, i) coordination and organizational meetings; ii) kick-off workshop for the microbasin; iii) workshop to evaluate, identify, and plan actions and practices by zone and microbasin community; iv) a summit workshop for the microbasin: approve and establish partnerships for the LMMP (MMAyA, 2018).

? Identify the guidelines to implement the LMMPs as part of Territorial Planning.

? Hold workshops to advance on participatory diagnoses, policies and regulations and fostering collaboration among sectors and stakeholders as the foundation to implement the LMMPs. Enter into governance agreements (like common tenure, local regulations and ordinances, mechanisms for collaboration and intersectoral interaction between farmers and institutions). Define roles, responsibilities, competencies.

? Develop and implement the LMMPs and generate multiple benefits in terms of sustainable land use, restored ecosystem services, improved productivity and livelihoods, and climate resilience.

? The LMMPs shall lay out the guidelines to implement restoration, SLM, and SBM practices in the field.

? Analyze the results of the LMMPs in order to review the process and evaluate the feasibility of implementing them at the sub-basin level, with a management model that contributes to LDN and which can be replicated in other territories and at other scales.

? Perform additional studies on environmental aspects that support implementing the LMMPs. For example: studies to assess vulnerability to climate change and other environmental risks like drought, frost, and hail. Likewise, enter into agreements with academic institutions and government agencies to develop thematic reports for early warnings about drought, weather reports, hydrology, and other topics.

Output 1.1.3. Capacity-building program developed and implemented for government, civil society and academia on: (i) LDN monitoring and evaluation (ii) monitoring and evaluation of environmental functions, biodiversity and livelihood and (iii) inclusive governance mechanisms for community-led integrated territorial development with a gender-responsive approach.

117. The capacity-building program will be implemented via the following actions:

? Conduct a needs assessment to determine existing capacities and gaps to be addressed by the program.

? Design the capacity-building program for the government, civil society, and academia on the following topics: (i) LDN monitoring and evaluation; (ii) monitoring and evaluation of environmental functions, biodiversity, and livelihoods; and (iii) inclusive governance mechanisms for community-led integrated territorial development with a gender-responsive approach (the connection will be highlighted in outputs 2.1.3 and 4.1.1). Program design will include the main aspects required to monitor reporting systems for water resources, the SIARH (MMAyA), and the SIHITA (Tarija Department).

? Develop and validate a capacity-building strategy to incorporate the LDN approach for the Guadalquivir basin, in line with national efforts.

? Raise awareness among stakeholders about the scope and benefits of LDN.

? Hold a distance training course in LDN and develop information by sharing materials with universities, in coordination with the UNCCD Knowledge Hub.

? Hold training courses in (i) LDN monitoring and evaluation; (ii) monitoring and evaluation of environmental functions, biodiversity, and livelihoods; and (iii) inclusive governance mechanisms for community-led integrated territorial development with a gender-responsive approach.

Component 2: Demonstration of sustainable land, water, and biodiversity management practices in the Guadalquivir River Basin.

118. This component aims to establish SBM and SLM practices to advance in achieving national LDN targets. This will be done via capacity-building for local farmers at the microbasin level. It is important to note that strengthening sustainable production systems will enable consolidating local food sovereignty with a gender and intergenerational approach, as well as the recovery, use, and enjoyment of degraded soils. To do this training and enable participants to share experiences, the plan is to implement field schools that will provide for collaborative and intercultural learning related to efficient water use, restoration practices, and other topics, as well as capacity-building to track actions in the field. In view of the fact that implementing restoration, SLM, and SBM practices contributes to improving environmental functions and livelihoods and to achieving national LDN targets, an application will be designed for local farmers to monitor the practices implemented and their benefits.

119. The incremental GEF funding earmarked for developing this program is USD 645,690, while the co-financing amounts to USD 9,489,929. This funding will be allocated to: 1) implementing practices as part of the LMMPs in the target microbasins; 2) offer integrated technical support and outreach services with a gender approach to implement the LMMPs; 3) develop an informational database for the target microbasins, making it possible to engage robust practical tools to track SLM and SBM actions:

120. This component will be implemented in conjunction with the GAMS, the GADT, the UAJMS, the OGC, and the PROCUENCA program. The outcome will be to strengthen farmer associations, local grassroots organizations, universities, and the corporate private sector.

<u>Outcome 2.1.</u> Stronger sustainable production processes and technological innovations implemented as part of the LMMPs

<u>Output 2.1.1.</u> The practices undertaken as part of the LMMPs in the target microbasins are carried out by project beneficiaries, leading to increased productivity, reduced land degradation and improved biodiversity conservation in the GRB.

121. The aim of this output is to implement SLM and SBM practices at the local level in the target microbasins to contribute to achieving LDN, the integrated management of water resources, sustainable agrobiodiversity management, restoration of degraded areas, support for the reestablishment of the environmental functions of biodiversity and forests, and stronger local systems of life. It is important to note that the practices to be establishes shall be selected and prioritized during participatory processes as part of the LMMPs, in which the different GRB stakeholders, having gone through capacity-building, shall work in conjunction with the technical teams. Interinstitutional coordination as part of the IPGRB with other institutions involved in the project will be relevant to completing this output and outcome. Accordingly, rural outreach, assistance, and technical support will be essential to achieving the planned results. This engagement will boost adoption of the practices and their sustainability, once the project is complete.

122. The first step to completing this output entails developing a detailed production-environmental study as part of the LMMPs in order to prioritize, in a participatory way, the implementation sites and the SLM and SBM practices. On this basis, and depending on the interests, needs, and priorities of the local communities, the sites to implement the practices will be agreed upon. In parallel, the communities will select those practices that are of interest to improve environmental conditions and which support strengthening local ways of life.

123. The workshops will serve as opportunities to promote equitable participation of men and women with an intergenerational approach. The project must take into account when women are working, in order to make sure that they can actively participate, and foster their leadership in different phases of the project. The idea is also to encourage youth participation, in both the training workshops and in informal sharing of the project.

124. On the basis of an evaluation conducted in the project preparation phase, a series of practices at the national level were identified. This evaluation was done by systematizing and analyzing the

practices developed as part of other initiatives. Accordingly, of note is the GEF Project ?Sustainable Forest Management in the Cross-Border Ecosystem of the Great American Chaco? (2011-2017), which can be referred to as a significant experience in implementing SLM and SBM practices at the macroregional level. The Guide to the Sustainable Management of Land and Forests of the Great American Chaco, as well as videos to raise awareness, available online, offer a clear and systematic description (including costs) of the most relevant SLM and SBM practices implemented in the aforementioned project.

125. Based on this information, a suggested list of possible practices that could be implemented has been compiled, to then undergo a participatory selection and prioritization process.

Improving water efficiency:

? Implement and improve management systems to increase water use efficiency (support and improvement of technified irrigation, micro-irrigation, water harvest in ferroconcrete tanks, waterproof harvest reservoirs with a geomembrane to improve water efficiency, retention trenches, infiltration trenches, contour trenches).

? Build water impoundment areas known as *atajados* (reservoirs to store water taking advantage of topography)

? Biosand filter for domestic use of water resources

? Protect riverbanks in the water basin with a special emphasis on recharge zones with enclosures and revegetation.

? Environmental education for land users and children, based on communicating the importance of integrated basin protection and the issues around contaminating the water resource.

Reforestation, revegetation, and other:

? Build family and/or municipal nurseries (encourage schools to participate) to grow native forest species (timber and non-timber) and fruit species

? Install and produce agroforestry nurseries with native species

? Reforestation and revegetation of degraded areas, with, for example, enrichment of lands with species such as polilepsis sp, buddleja sp.

? Production of honey and byproducts (transformation and commercialization, including honey extraction, hives)

Soil management and other agricultural/production practices:

? Protection and natural regeneration on degraded slopes and hillsides (including areas affected by fires)

? Implement soil management and conservation practices to grow agricultural crops (maize, potato, peanut, among others) (green fertilizer, level planting, minimal tillage)

? Direct planting, conservation agriculture, crop intensification

? Implement crop practices for grapevines (natural vegetation between lines, for vineyards with posts, replace wood posts with recycled plastic posts, improve irrigation efficiency, organic fertilizer, create biological corridors via adequate vineyard management, plant native grape varieties, reuse byproducts from the winery such as marc, skins and stems, and stalks as fertilizer to boost the nutrient cycle, sprinkling and spreading the remains of pruning and other slow-degradation, carbon-rich and nitrogen-poor material, as the contribution of their organic matter and vegetation cover with legumes favors their decomposition and in turn slows down erosion by conserving soil humidity).

? Implement soil recarbonization practices with local capacity-building as an alternative to mitigating GHG and carbon sequestration (RECSOIL initiative: http://www.fao.org/global-soil-partnership/areas-of-work/recarbonization-of-global- soils/en/).

? Management of the technique to let lands rest during rainy season

? Bovine and goat management via the implementation of modules with enclosures for this purpose (electric fences, living fences)

? Support for livestock management as part of a system adapted to climate change, taking as a basis examples of climate-smart husbandry (ref.: http://www.ganaderiaclimaticamenteinteligente.com/)

? Livestock and ranching management with pasture rotation and other practices

? Production of native seeds (potato, maize, peanut)

? Maize production for feed and silage with machinery

? Border cultivation practices to control erosion

? Stabilization of gullies with revegetation and stone dams

? Revegetation of potentially degraded slopes

? Improved seed production (vegetables, peanut)

? Organic fertilizer production (biofertilizer and Bocachi)

? Establish agroecological practices at the family level

? Establish fish farms

? Agroecotourism and community tourism (e.g., wine/vineyard routes)

? Recovery and strengthening of knowledge and ancestral practices and native species (for example, community seed banks, medicinal gardens, and small animal husbandry).

? Establish spaces and processes for community learning (for example, field schools, participation in local and regional fairs, knowledge-sharing events).

Fire management practices

? Identify and implement alternatives to using fire in slash and burn practices

? Techniques to manage and fight fires

125. Once the sites and practices are chosen, the next step is implementation and technical follow-up. Then, depending on the degree of success, key practices will be selected to compile into guides and catalogues about conservation agriculture, organic farming, and agrobiodiversity.

Output 2.1.2. Integrated technical support and outreach services with a gender approach are strengthened as part of the implementation of the LMMPs in the target microbasins (in 2.1.1) to contribute to achieving LDN and thereby generate environmental and socioeconomic benefits.

126. To develop this output, the project will support establishing at least 12 field schools for farmers, which will contribute to training community-based technicians (50% women and 30% youth) to have knowledge in conservation agriculture, organic farming, pasture management, efficient irrigation systems, and product marketing and diversification. To do so, the plan is to come up with a conceptual design containing the fundamental concepts to teach at the field schools and develop an academic curriculum. Agreements and partnerships will be established with universities and with the IPGRB to implement the field schools to educate community-based professionals and technicians.

127. Technical support will be offered to improve irrigation systems (micro-irrigation) in an efficient way and to increase crop and fruit tree yields. The Soil Doctors Program, from the World Soil Alliance, will be promoted to achieve local capacities in this area and to contribute to the sustainability and

scaling-up of good practices thanks to technical assistance promoted in the local realm (Soil Doctors: /http://www.fao.org/global-soil-partnership/pillars-action/2-awareness-raising/soil-doctor/es).

128. Protocols will be developed for efficient and resilient irrigation systems (meaning systems that take into account soil and water conservation, water use efficiency, renewable energy, ecological inputs) to produce various crops.

129. To develop the field schools, initially, the plan is to share knowledge and experiences regarding the implementation of SLM and SBM practices via the ?farmer to farmer? model, with special emphasis on holding exchanges between farmers from different microbasins. The technical assistance will moreover contribute to capacity-building in order to track the key physical, biological, and socioeconomic aspects resulting from implementing the practices, with an impact on national LDN targets.

Output 2.1.3. Database and reporting for the target microbasins with a gender and participatory approach and use of robust practical tools to monitor SLM and SBM actions (as a contribution to Output 4.1.1).

130. This output will support monitoring and feeding data into a reporting system that makes it possible to understand the results of the monitoring done by local farmers with respect to the impact of the SLM and SBM practices implemented on the ground. To do so, the plan is to develop a database and smart phone application that enable periodic reporting of key variables and indicators in a simple and agile fashion. As a supplement to that, capacity-building and technical assistance will be provided to local farmers, as well as a minimum tool kit for gathering data related to the physical and biological subsystem (e.g., physical and chemical water quality testing). Likewise, tools for rapid collection and evaluation will be provided, including the LADA-L Manual (FAO) and other robust, low-cost, and easy-to-adopt tools.

131. This database will make it possible to liaise with the Tarija Departmental Water Information System, which will conduct monitoring of LDN, environmental functions, biodiversity, and other additional indicators at the GRB level. The inclusion of local-level data in this system will make it possible to advance in tracking the real contributions from the land level to achieving national LDN targets.

Component 3: Financial mechanism for the conservation and integrated management of water, soil, and vegetation, as well as the establishment of productive entrepreneurship involving family farmers in association with one another.

132. This component aims to create a non-reimbursable financial mechanism (grant) for the constitution of the Tarija Regional Water Fund and integrate SLM and SBM practices into sustainable production systems for soil, water, and vegetation in the GRB. In turn, this fund will support the implementation of productive entrepreneurship involving family farmers in association with each other and led first and foremost by women, based on an agroecological approach and integrating good production practices and aspects of restoration, as well as biodiversity, soil, and environmental function conservation. The regional Fund will be complemented with reimbursable financial development practices (credits) with unconventional guarantees for small farmers. This will allow the complementarity of financial resources existing in the GRB, but at the same time it will allow access to credits for investment in capital goods and operational aspects that promote the development of productive systems with added value, with a focus on mitigation and adaptation to climate change and conditioned to the SLM and SFM. CAF has carried out a Feasibility Analysis of the Water Fund, foreseeing as the next step the development of an action plan for the Fund to land priority technical issues; Based on this information, FAO, together with the VMA and the departmental and municipal governments, must update the information, adapting the progress to the realities of the most vulnerable local actors and users.

133. The incremental GEF funding earmarked to develop this program is USD 402,150, and the co-financing amounts to USD 6,113,571. This funding will be allocated to: 1) generating a seed to create and capitalize on the financial mechanism for sustainable water, soil, and biodiversity management; 2) establishing productive family entrepreneurship led by a steering committee headed first and foremost by women. These actions will be preceded by technical and financial feasibility studies that will enable the institutionalization and implementation of non-reimbursable financial mechanisms, which will also seek to be complemented by the reimbursable financial mechanisms managed by the BDP, among other microcredit entities for producers.

134. Implementing this component will support the technical capacities of the GADT, the GAMT, and the IPGRM. Farmer associations, private sector, small productive entrepreneurship, and others will also benefit. Coordination will be done among the BDP, FONABOSQUE, COSAALT, and the private sector to financially manage the financial mechanism, which will catalyze funds and scale up financing to other sub-basins and microbasins of importance to implementing the PDCG. The Project will contribute to the implementation of the Water Fund of the Guadalquivir Basin. The Water and Sanitation Cooperative (COSAALT) has agreed to contribute Bs. 0.50 cents per month for each member of the Water and Sanitation Cooperative (COSALT) during 4 years of project. This amount is equivalent to a contribution to the Water Fund of USD 217,000

Outcome 3.1. The Tarija Regional Water Fund supports the adoption of good practices predicated on soil management and restoration, efficient water use, vegetation conservation and the preservation of environmental functions, as well as the establishment of production undertakings involving family farmers in association with one another.

Output 3.1.1. The Tarija Regional Water Fund - in the GRB region - for Sustainable Management of Water, Soil, Vegetation and the adoption of good SLM and SBM practices capitalized.

135. In order to develop this output, the following actions shall be carried out:

? Develop the conceptual and technical document, as well as feasibility studies outlining the social and economic importance of setting up a Tarija Central Valley Regional Fund that would finance SLM and SBM practices and efficient water management practices in the GRB.

? Develop rules for managing and running the Tarija Regional Water Fund which should detail aspects of economic, financial and environmental feasibility that guarantees sustainability over time

? As part of the strategy to invite private-sector stakeholders, the project aims to endow the Regional Fund with financial and economic sustainability via the creation of a seed fund, which will be fed, increased, and capitalized on an ongoing basis starting with contributions from the strategic financing partners, including international cooperation, public and private actors, and others. This seed investment will make it possible to support the generation of sustainable and diverse agricultural systems and productive entrepreneurship at the family and/or association level that integrate or strongly adopt SLM and SBM practices with an LDN approach, thereby laying the groundwork for initial development and ensuring the fund can be maintained even after the project is complete.

? Design a simple system for families in rural areas and/or farmer associations to access the fund.

? Establish an information system for users seeking to access the fund.

? Support the technical and legal requirements needed to develop the Tarija Regional Water Fund.

? Develop dialogs and agreements at the national and international level to capitalize and feed the seed capital for the Tarija Regional Water Fund.

? Encourage sharing of experiences with other Regional Water Funds. For example, the Ecuador National Water Protection Fund (http;//www.fonag.org.ec/web/).

136. The leveraging of co-financing resources for the financial management of the Regional Water, Soil and Forest Fund will be part of the technical, financial and social feasibility of the implementation strategy of the aforementioned financial mechanism. The resources to be linked to the basic financial resources range from donations and/or counterparts from private sector entities, international cooperation and programs, as well as projects of the European Union, the GIZ and other credit entities whose area of work and management is the Guadalquivir Basin and the strengthening of agri-food systems, which dynamize the local economy. On the other hand, the management of financing to strengthen the fund will also be linked to the development and presentation of projects for watershed restoration and vegetation cover that FONABOSQUE finances, as well as the development of a guarantee fund to generate reimbursable financial support in strategic alliance with the Banco de Desarrollo Productivo, among other entities of the financial sector (See table 2). It is also important to mention that negotiations will be carried out with private actors, such as the National Bolivian Brewery

and the wine and singanis winery companies, with whom, through their Corporate Social Responsibility initiatives, the project will seek to complement the technical and financial assistance actions that the Fund of Water will finance in the area of influence of the Project; This action will also make possible to provide financial sustainability to the actions programmed within the framework of the Guadalquivir PDC.

stakeholder	type	Role in the financial mechanism
Banco de Desarrollo Productivo (BDP)	Government Institution G	The BDP is a key institution for the implementation of result 3.1. ?Financial Mechanisms? will share its experience and lessons learned and will benefit from capacity building activities. Likewise, it will be in charge of implementing reimbursable financial promotion actions through unconventional guarantees, which would undoubtedly complete the actions of donation or non-reimbursable financial comment. This institution will be an active part of the feasibility process of the Tarija Water Fund.
Fondo de Desarrollo Forestal - FONABOSQUE	Government Institution	FONABOSQUE will actively participate in the implementation of the project and the operationalization of the financial mechanism destined to sponsor afforestation and reforestation processes in water recharge areas with a comprehensive and sustainable watershed management approach.
Civil Society Organizations	Non-Governmental	There are a number of CSOs and NGOs that support climate actions related to the integrated management of water and forests, playing an important role in consultations for the development of guidelines, project ideas / concept notes and grant resources managed before the cooperation international.
COSAALT	Private sector	It is the private entity that will directly invest a seed capital of at least USD 217,000 approximately to start operations of the Regional Water Fund. To which will be added the seed capital of the project, as well as the resources of the other entities interested in participating in the implementation of the project and in the operation of the Regional Water Fund.
Associations of private winemakers entrepreneurs	Private sector	For reasons of corporate social responsibility, the vine-producing wineries sector have expressed their express willingness to join the financial mechanism with monetizable resources in technical assistance to improve production processes and open fair markets.

stakeholder	type	Role in the financial mechanism
Associations of irrigators and producers of the Central Valley of Tarija	Private sector	Beneficiaries of the project, but who have expressed their willingness to establish up to 20% of counterpart resources for the actions to be developed in their municipalities or areas of influence, which will be linked to the seed capital of the Regional Water Fund.

Table 2. Strategic stakeholders of the financial mechanism.

Output 3.1.2. Family production entrepreneurship strategy led by a Steering Committee headed first and foremost by women, financed and technically supported to ensure viability and sustainability.

137. The actions planned to develop this output are:

? Identify target communities.

? Develop terms of reference for electing and training members of the Steering Committee for family productive entrepreneurship.

? Participatory analysis of potential investments, include market evaluations, using tools like the FAO Rural Invest tool.

? Detailed financial analysis of selected investment activities.

? Develop an incubator for entrepreneurial projects to encourage proposals for funding by the Tarija Regional Water Fund (50% led by women).

? Training in financial management and development of entrepreneurship.

? Manage reimbursable and non-reimbursable financial development for direct transfers to local farmers who carry out conservation agriculture, organic farming, pasture management, reforestation, and product marketing and diversification activities.

? Funding for community-based productive entrepreneurial projects and support with other incentives identified.

? Search for strategic alliances to ensure fund sustainability (public and private sector).

<u>Component 4:</u> Management of project reporting, the communication strategy, and M&E

138. The incremental funding of USD 256,592 from the GEF, together with the co-financing amounting to USD 1,715,555, will be allocated to managing information, M&E, and understanding the monitoring of project progress and indicator completion, as well as mid-term supervision mission and external final assessment (Terminal Evaluation) and the development of a communication strategy.

139. Implementing this component will boost the technical capacities of the MDRYT, GADT, GAMS, UCBT, the ?San Pablo? Catholic University, the Tarija Academic Unit, and the MMAYA-VMA-VRHR.

Outcome 4.1. Improved mechanisms for participation, sustainable territorial management and LDN monitoring at the river basin level.

140. Project implementation will result in strengthened capacities at the institutional level and in civil society in general, with regard to the inclusion of the SLM and SBM approach in integrated territorial planning. Strengthened governance will allow the involvement of society in participatory mechanisms at the local level, such as irrigation associations, assemblies, among other areas of social participation.

141. It is important to emphasize that the strengthening of capacities for monitoring LDN, environmental functions, biodiversity and complementary indicators will make possible to coordinate monitoring actions at the basin and micro-basin levels with existing initiatives in the country. For this, it will be necessary to establish inter-institutional agreements and mechanisms for information exchange in order to strengthen the Departmental Water Information System of Tarija.

Output 4.1.1. The Tarija Departmental Water Information System integrates the LDN approach and indicators to monitor LDN at the GRB level, as well as environmental functions, biodiversity, and socioeconomic indicators for the target microbasins.

142. The Autonomous Government of the Department of Tarija has created the Tarija Departmental Water Information System - SIHITA - via Departmental Decree 023/2017 of 31 July 2017, under the responsibility of the Departmental Integrated Water Management Service - SEDEGIA - in order to promote free and unrestricted access to studies, research, projects, and all types of information pertaining to the integrated management of water resources in the Department of Tarija.

143. The SIHITA has been implemented as part of an agreement with the GAD-T, the ?San Pablo? Bolivian Catholic University - Tarija Academic Unit, and PROMETA, with the technical assistance provided by the Dutch Development Cooperation Agency (SNV), and support from Swiss Cooperation to the Tarija Government via SEDEGIA.

144. With the development of this output, the LDN approach and monitoring will be integrated at the level of the GRB, as well as environmental functions, biodiversity, and socioeconomic indicators from the target microbasins. In this way, progress will be made in LDN monitoring at the subnational level by adjusting the methods and techniques needed to measure the three sub indicators:: carbon stock in the soil, net primary productivity, and land use and coverage. Accordingly, it is important to highlight how novel and nascent the experiences in monitoring LDN at the national and global level are; therefore, any contribution that can be made as part of the project in the target sub-basins will be fundamental.

145. Likewise, the SIHITA shall be connected and linked up to other information systems at the national and subnational level. For example: the Forest Monitoring and Information System (SIMB), under the auspices of the General Directorate for Forest Development Management, which is fed by information processed by the ABT, the National Institute for Agrarian Reform (INRA), and SERNAP, which monitor deforestation, burned areas, heat foci, and other aspects related to the topic, the Environmental Information System for Water Resources (SIARH), and more.

146. In order to develop this output, the following actions shall be carried out:

? Feasibility analysis on linking the LDN monitoring system to existing monitoring systems.

? Design a LDN monitoring system that integrates local information from Output 2.1.3.

? Implement the system and get it up and running.

<u>Outcome 4.2:</u> Managing and disseminating knowledge enable greater adoption of SLM/SBM, contributing to LDN.

Output 4.2.1. Gender-sensitive communication strategy developed and implemented to contribute to project objectives and the national LDN strategy (lessons learned, sharing of experiences, training, outreach products and materials).

147. The project will develop and implement a communication strategy to support positioning SLM, SBM, and LDN in the region. This will be done in order to disseminate these approaches and ensure buy-in to them at different levels and by different stakeholders. The aim is to share and replicate the experience with other municipalities in the region and/or projects that may overlap.

? Develop and share materials tailored to different stakeholders and audiences.

? Develop a project website to share experiences, disseminate information, and encourage replication of the outputs on an ongoing basis.

? Systematize and publish the LMMPs.

? Systematize the capacity-building processes and lessons learned throughout the project design and implementation.

? Knowledge and learning evaluated to create field guides.

? Draft an informational document containing policies that systematize the project experience.

? Create informative and educational materials related to SLM, SBM, and LDN to be distributed at schools throughout the GRB.

? Create multimedia materials and videos with the main lessons learned to help raise awareness around the project.

148. This output will be done by the PCU technical team in conjunction with a communications consultant and the gender consultant.

Outcome 4.3. Management, monitoring, and evaluation of project progress

Output 4.3.1. M&E plan developed and approved by the Steering Committee

149. The aim of the project management is to ensure that the appropriate institutional, management, and administrative structures are in place to implement the project in a timely and effective manner as a function of cost, which includes the project Steering Committee, recruitment of project staff, facilities, equipment, and support services. The PCU will be in charge of coordinating and managing the project on a day-to-day basis and will be equipped with a Project Coordinator, an Administration/Finance Assistant, a Secretary, and specific technical specialists in the areas of gender, GIS, and communication (see more details in Section 9).

150. The PCU will be in charge of implementing the M&E plan (see Section 9). The goal of M&E is to provide accurate and timely information and feedback about project implementation and results in order to enable the project management to make decisions to address issues as they arise. M&E is to be done on three levels: project results and impact with respect to the logical framework; delivery of project outputs in accordance with annual work plans; and monitoring project implementation and results.

151. The PCU will develop the M&E system and train project staff and staff from the executing agencies (National Focal Points and counterpart staff) to facilitate accurate data gathering and writing of reports.

152. The project shall adhere to standard FAO processes and procedures for monitoring, reporting, and evaluation. The project M&E plan will be outlined in accordance with the GEF Monitoring and Evaluation policy. The project results framework presented in Appendix A1 contains the SMART indicators for each of the expected outcomes and medium-term targets, as well as those to reach at the end of the project.

153. The M&E plan will be revised if necessary, during the project Kickoff Workshop to ensure that the stakeholders all understand their roles and responsibilities in project Monitoring and Evaluation. The indicators and the means to verify them can also be adjusted in detail during the kickoff workshop. The project management team shall be charged with monitoring the project on an ongoing basis, while other partners will be charged with gathering specific information to track indicators. The Project Manager shall be responsible for reporting to the FAO any delays or difficulties that arise during implementation so that support can be provided or corrective measures taken in a timely fashion.

154. The Project Results Framework includes indicators for each expected outcome and will include appropriate means of verification. The indicators (results) and outputs to be delivered and the key reference points (Appendix A1) shall serve as the main tools to evaluate progress made in implementing the project and check whether outcomes are being achieved. If necessary, additional indicators (socioeconomic, environmental, and gender) can be developed for the project area at the Kickoff Workshop and throughout the first months of project implementation.

155. The Mid-Term supervision mission and Final Evaluation will be conducted to identify the strengths of the project and document lessons. These assessments will include field visits to sites of interest, consultations and interviews with local and institutional stakeholders, a review of project reports and the website created, in order to determine if there is any need to revise the project as a function of the planned results.

156. This output is led by the PCU technical team, the Steering Committee, the executing entity, and the implementing entity.

4) Alignment with the GEF Focal Area and/or Impact Program Strategies

157. This project is aligned with the Land Degradation Focal Area (Objectives 1: Support implementation of SLM in the field to achieve LDN; and 2: Foster an environment conducive to supporting voluntary implementation of the LDN target) of GEF-7. Specifically, the project aims to introduce the Land Degradation Neutrality approach to existing planning instruments at the basin and microbasin levels, as well as the participatory planning processes supported by the local rural and urban governments for such purpose. Likewise, via technical assistance and the implementation of sustainable land and biodiversity management practices in the priority microbasins, the aim is to contribute to achieving LDN targets as outlined in the national sphere. Under this integrated approach, the project strives to generate production alternatives predicated on the sustainable management of natural resources, mitigating the effects of the interaction of protracted drought and climate change, which ails the region, and thereby boosting the resilience of local communities and improving livelihoods.

158. The objective of this project is to create a national context and governance system favorable to LDN (prevent, reduce, reverse land degradation and the set of indicators: land coverage, land production, organic carbon in the soil); sustainable water use and conservation, as well as improve natural resource management in a sustainable and integrated fashion via: (i) the creation of synergies and mechanisms of interinstitutional coordination; (ii) development of technical capacities focused on sustainable land management practices as a way to implement land degradation neutrality and resilience and improve livelihoods; (iii) promotion of holistic livestock and ranching management systems, conservation agriculture and organic farming, management of hydrographic basins and efficient water management, including that of wastewater; and (iv) an effective tracking system to identify progress made and limitations on actions to achieve LDN in the project areas.

159. It is worth noting that in order to achieve the planned objectives, the project has been designed using a gender approach cutting across all of the components. Accordingly, the hope is to promote participation with women playing leading roles in governance processes (encouraging them to join in and ensuring their representation on different decision-making bodies) and improve the conditions for women via access to resources, services, and opportunities.

160. Likewise, it is important to note that through this project, the Plurinational State of Bolivia will contribute to the 2018-2030 UNCCD Strategic Framework in all of its objectives, as well as the 2030 National Land Degradation Neutrality Strategy (LDN). By adopting this approach, recognized as acceleratory and integratory, the country is aligned with Sustainable Development Goals 2, 6, and 15, and moreover contributes to the commitments entered into in the Paris Agreement.

161. In particular, component 2 of the project, centered on implementing SLM and SBM under the LDN approach at the microbasin level, is aligned with focal area LD-1-1: Maintain or improve the flow of agroecosystem services to sustain food production and livelihoods via SLM. Accordingly, the project will strengthen organizational, institutional, and knowledge-related capacities to implement sustainable production systems and diversify the activities that sustain livelihoods, with special emphasis on fostering the participation of women. By implementing SLM and SBM practices under the LDN approach, the project will contribute to improving environmental functions, achieving national LDN targets, and strengthening local livelihoods.

5) Rationale for Incremental/Additional Costs and Expected Contributions from the Baseline, GEFTF, LDCF, SCCF, and Co-Financing

162. The Plurinational State of Bolivia, via the incremental GEF contribution, will advance in removing the barriers identified by developing and implementing an inclusive territorial planning and governance strategy as the model for conservation, restoration, and sustainable management of land, water, and integrated production systems in order to achieve LDN in the Guadalquivir Basin. The project will begin to operate starting at a baseline in which the GRB is characterized by a burgeoning problem with land degradation and ongoing concerns around availability and access to water. Against that background, this project is designed to use an integrated approach to these environmental issues and supplement ongoing efforts undertaken by the Vice-Ministry of Water Resources and Irrigation. Accordingly, it bears mention that via the MI RIEGO program, in conjunction with the government of the Department of Tarija and the Municipal Governments of Tarija, Padcaya, San Lorenzo, and Uriondo, the agricultural surface area under irrigation is increasing. Moreover, the PROCUENCA program is doing capacity-building among stakeholders at the basin level to improve the integrated management of water resources.

163. The implementation and tracking of SLM and SBM practices at the local scale is still very nascent in terms of their contribution to achieving LDN targets. These practices are not yet comprehensively integrated with the Bolivia 2030 LDN Strategy. As such, tracking AICHI and LDN targets is done in a compartmentalized fashion, and this fragmentation makes it difficult to understand the magnitude of the true contributions and impacts of implementing these sorts of practices in sustainable production systems at the physical, biological, and socioeconomic level. With that said, the project serves as an opportunity, given that by incorporating the LDN approach into integrated planning and management at the basin and microbasin level, the Plurinational State of Bolivia is responding to the guidelines outlined in the national policy, in accordance with the international commitments entered into before the UNCCD, the CDB, and the UNMCCF.

164. Starting at the aforementioned baseline, the GEF project proposed will address remaining barriers via the following components: 1) strategic framework for stronger governance with a gender approach and integrated territorial management that enables land restoration and restoration of environmental functions and biodiversity, as well as sustainable socioeconomic development in the GRB; 2) demonstration and implementation of sustainable land, water, and biodiversity practices in the GRB; 3) creation of a financial mechanism for the conservation and integrated management of water, soil, and vegetation, as well as the establishment of productive entrepreneurship involving family farmers in association with one another; and 4) management of information, monitoring, and evaluation of the project, alongside a communication strategy tailored to different project stakeholders. It is worth noting that the gender approach cuts across the entire project strategy, promoting active participation and women in leadership roles.

165. The development of component 1 in the project is meant to break down barrier 1 as identified (and explained in *Section 2 - Project Justification*) via the design, implementation, and validation of effective governance mechanisms for water, soil, and vegetation management in the Guadalquivir landscapes, contributing to LDN goals and sustainable production systems. Stronger governance for integrated planning and management in the GRB will be solidified via participation and work coordinated among different institutions, farmers, traders, the financial sector, and the academic world, by doing capacity-building and setting up the GRB Consultation Platform. This will make it possible to advance towards internalizing the LDN approach at different institutional and intersectoral levels, with an eye to monitoring and consolidating the governance model for integrated management in the GRB.

166. Component 2 is meant to remove barriers 1, 2, 3, and 4. The resources from the GEF Trust Fund will be used to carry out sustainable production and technology innovation, made stronger and implemented as part of the LMMPs (e.g., integrating technology into production activities, implementing SLM/SBM practices, developing efficient marketing systems).

167. Component 3 will respond to any challenges that arise from barriers 3 and 5, supporting the creation of the regional financing mechanism for the sustainable management of water, soil, and vegetation, as well as the adoption of SLM and SBM practices, predicated on soil management and restoration, efficient water use, vegetation conservation and preservation, and enhancement of environmental functions. Likewise, support will be lent to creating and boosting women-led entrepreneurship, thereby contributing to food security and access to markets.

168. Finally, as part of component 4, GEF resources will be allocated to overcoming barrier 3, given that throughout the project management process, the idea is to create an exit strategy at the same time, laying out the interinstitutional agreements that will enable LDN goals to continue to undergo monitoring. Moreover, via the Communication Strategy, the aim is to disseminate project results at lots of different levels, with a gender approach, in order to ensure the replicability and scalability of SBM and SLM as part of integrated basin and microbasin management. This component will also deal with project M&E. Co-financing for this component amounts to USD 10,857,084.

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

169. In accordance with the priorities set at the national level by the Plurinational State of Bolivia, the project will yield a set of overall environmental benefits. These benefits are obtained by implementing and developing an inclusive territorial governance and planning strategy as a model for the sustainable conservation, restoration, and management of the land, water, biodiversity, and integrated production systems that will make it possible to achieve LDN in the Guadalquivir Basin. Along these lines, support will be given to participatory governance at different levels and in different spheres, developing integrated territorial and water management processes, through which it will be possible to encourage scaling up SLM and SBM practices at the landscape level, do capacity-building to implement these practices, and monitor their contribution at the local level to national LDN targets. Likewise, the establishment of a Regional Fund for Sustainable Water, Soil, and Vegetation Management and the adoption of SLM and SBM practices will lay the groundwork to scale up good practices and ensure the project is sustainable over time.

170. The main benefits expected for the global environment based on the project are as follows:

* Core indicator 3: Surface of valleys with agriculture, slopes, and restored forest areas of 2,500 ha. These area refers to restoration activities, as follows:

- Subindicator 3.1: 200 hectares of degraded farmlands undergoing restoration

- Subindicator 3.2: 460 hectares of forests and forestlands

- Subindicator 3.3: 1,840 hectares of shrub and/or pasture (including livestock and ranch management)

At a global level, the implementation these practices and the generation of sustainable production systems will have a positive impact on the increase of carbon sequestration, erosion control, environmental functions, biodiversity conservation and sustainable food production.

Core indicator 4: Area of landscape under improved practices (hectares; excluding protected areas) measuring in at 40,200 ha

- Subindicator 4.3: At least 40,200 hectares benefiting in terms of ecosystem functions, biodiversity, productivity, livelihoods, and climate resilience. This indicator includes the surface area of two priority microbasins (Yesera and Pinos), which will benefit from the development of the LMMPs and SLM and SBM practices with an LDN approach. It will contribute to increase the resilience of communities to climate change, reduce vulnerability to desertification and drought, and strengthen food security with sovereignty, among others.

171. NOTE: It bears clarifying that the Plurinational State of Bolivia is implementing its programs, projects, and activities from the standpoint of the joint climate change mitigation and adaptation mechanism, including an integrated approach and non-market approaches with the participation of indigenous peoples, local communities, peasants, and small-scale farmers. This approach is consistent with Article 6.8 of the Paris Agreement and the national regulatory framework, including Framework Law No. 300 for Mother Earth and Integrated Development for Living Well. Moreover, Bolivia?s NDCs do not include any reduction in carbon emissions, but the country has committed to undergoing a transformative change based on climate justice and a Mother Earth Rights approach in three key sectors: water, energy, and forests.

? Core indicator 11: At least 1,836 direct beneficiaries, disaggregated by gender, as a co-benefit of GEF investment.

Core indicator 11: At least 1,836 direct beneficiaries engaged in GRB governance who receive capacity-building in territorial planning at the microbasin level and in the efficient management of water resources, and who can implement SLM and SBM practices as part of integrated water resource management (918 male and 918 female).

- At least 130 stakeholders (of whom 30% are women and 10% youth) representing the target groups as permanent members of the governance structure at the IPGRB level and local level per microbasin, and participation in the LMMPs (include the public and private sector, for example, trader and farmer organizations).
- 200 stakeholders from the government, civil society, and academia who have completed capacity-building (66 women and 20 youth)
- 259 families (considering all family members: 50% women and at least 30% youth) and 10 associations of farmers/traders benefiting from innovative, sustainable, and diversified production systems in at least two sub-basins.

- 200 families who gain access to technical assistance services in irrigation systems, supplementing conservation agriculture and holistic management.

- Capacity-building for 60 farmers with tracking of SBM and SLM actions (20 women and 6 men).

172. In addition, the GEF will make it possible for people residing in the five priority microbasins to benefit from the development of the LMMPs.

173. The project will moreover contribute to achieving SDGs 2, 6, and 15. SDG 2 is to: End hunger, achieve food security and improved nutrition and promote sustainable agriculture. Target 2.4 is to: 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. On another note, SDG 6 sets out to ensure the availability and sustainable management of water and its targets are closely tied to the purposes of the project, by promoting universal and equitable access to drinking water for all inhabitants of the GRB, fostering improved water quality by reducing contamination and fostering the efficient use of water resources in all sectors, and ensuring the sustainability of fresh water extraction and supply to confront water scarcity and considerably reduce the number of people who suffer lack of water, protecting and reestablishing water-related ecosystems as water recharge zones for the GRB, principally, by implementing the integrated management of water resources at all levels. Finally, SDG 15 is to: Sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. Its target 15.3 stipulates: 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 (UN, 2015).

174.

7) Innovation, Sustainability, Scaling-Up Potential, and Capacity-Building

Innovation

175. The project offers an innovative approach fundamentally predicated on participatory and inclusive planning and management of the GRB and of its strategic natural resources, such as water, soil, and biodiversity, in which intersectoral dialogue (national and subnational governments, business sector, medium-scale farmers, family farmers, academic realm), and interinstitutional and multilevel involvement of the different stakeholders involved will enable stronger governance and breathe new life into the creation of sustainable and diverse production systems resilient to climate change, thereby contributing to achieving LDN locally. This integrated and holistic approach is even more valuable considering that the territorial and water resource management model, which includes, since the beginning, plural SLM and SBM practices, may serve as an important experience in confronting the environmental problems resulting from climate change and land coverage in fragile environments and key ecosystems, loss of biodiversity, and increase in CO2 emissions. Accordingly, the project aims to serve as an integrated action model, with a strong component pertaining to technology innovation and

training, permitting the creation of an environment conducive to the implementation of governance mechanisms; in which the stakeholders from the GRB itself identify the environmental and production problems tied to land degradation in the basin and come up with alternatives oriented toward SLM and SBM with a participatory and LDN approach.

176. The project is especially innovative in the following areas: i) a stronger platform for water, soil, and biodiversity governance with a gender approach; ii) capacity-building and strengthening of the current mechanisms for participatory decision-making via the development of LMMPs from a plural and gender approach; iii) design and implementation of SLM and SBM practices predicated on using practical and robust technology tools; iv) capacity-building oriented towards formulation, implementation, and M&E of LDN and environmental functions at the local scale through, for example, field schools; v) contribution at the basin scale to achieving national SBM and SLM objectives via territorial planning and integrated water resource management; and v) support for adopting and scaling up SLM and SBM practices for the sustainable management of water, soil, and biodiversity, and the establishment of entrepreneurship involving family farmers in association with one another (Tarija Departmental Regional Water Fund).

177. It bears mention that technology innovation implemented to develop SLM and SBM practices at the microbasin and landscape level will be supplemented by the integrated planning carried out in the Sama Biological Reserve area of influence, thereby contributing to the conservation of important water recharge zones in the GRB and national LDN targets. This will entail a major step forward for the region overall by paving the way toward more widespread implementation via national policies and territorial agreements and establishing and strengthening the capacities needed for implementation, evaluation, and monitoring of LDN and environmental functions, using integrated planning and holistic territorial management. This capacity-building will be done via the local use and adaptation of validated methodologies, including, for example, designing a smart phone application to track SLM and SBM practices locally. Likewise, tools?many of which are open code?and appropriate technology networks developed and supported by the FAO will be used, such as:

? Databases, LADA-WOCAT network and tools to support decision-making (from local to national level) to expand and integrate technologies and sustainable management approaches to land resources.

? ASIS (drought risk management), EX-ACT (evaluating the carbon balance based on activities), SHARP (self-assessment of climate resilience for farmers and shepherds), and VCA (value chain analysis) tools.

? Spatial data gathering and analysis tools like Trends.Earth, Collect Earth, Open Foris, and EarthMap.

? The action plans and instruments from the Global Soil Partnership and its regional partner (World Soil Alliance -WSA - and the Latin America and Caribbean Soil Partnership - LACS) to promote sustainable soil management, including voluntary guidelines for sustainable soil management (VGSSM) and voluntary guidelines for responsible land tenure, fishing, and forests (VGGT). Example: the Soil Doctors program has an innovative approach to do local capacity-building among project beneficiaries.

178. Implementing SLM and SBM practices as part of participatory territorial planning and the integrated management of water resources in the GRB will contribute to achieving the LDN strategy

targets in Bolivia, with the project area serving as a pilot site to expand into other national territories, as it will be developed under UNCCD standards and in line with the NDCs set by the Plurinational State of Bolivia. This will moreover enable replicability, adjustments, verification, and sharing of the approach based on integrated territorial governance in the region and in other countries.

Sustainability

Environmental Sustainability

179. In the realm of environmental sustainability, the project will integrate SLM and SBM practices into territorial planning and integrated water resource management, at the same time fostering implementation in the different priority microbasins. It will also motivate the restoration of the degraded ecosystems identified in the different GRB landscapes, as well as the slopes of mountains and valleys, which exhibit varying degrees of degradation. On another note, support for generating and strengthening production systems will enable adoption of SLM and SBM practices in the long term, boosting sustainability and diversification, as well as increasing carbon soil stocks, vegetation cover, agrobiodiversity, and productivity. It bears mention that monitoring these practices will make it possible to evaluate the contributions of project-related SBM and SLM to national LDN, Aichi, and NDC targets, given that they help maintain and improve environmental functions, climate regulation, restoration of degraded ecosystems, and diversified production. These actions will contribute directly and indirectly to achieving sustainable and resilient production systems in view of climate change happening at the local, regional, and global scale.

Social Sustainability

180. In the realm of social sustainability, one of the main purposes of the project is to strengthen local governance in managing natural resources and integrated territorial planning (including capacities and institutions belonging to the public, private, and academic sectors, as well as small- and medium-sized farmers and family farmers involved in territorial planning with an LDN approach). It is worth mentioning that the project includes and ensures a cross-cutting role for women and youth in the sphere of decision-making pertaining to the maintenance, improvement, and transfer of knowledge, innovations, and traditional practices related to SBM and SLM and supports inclusion of these groups in project activities. Likewise, the project offers strong support for including women via a solid financing mechanism to boost the founding of sustainable entrepreneurial endeavors led by women.

181. Strengthening the role of women as provided for in the project framework also aims to boost empowerment at different levels of decision-making related to governance in the GRB, reversing the migration of young women to cities in search of higher education and job opportunities, which is a very frequent situation in the Department of Tarija. As such, the idea is to strengthen inclusion so that rural women join production initiatives in sustainable agri-production systems, which partner men and women, enabling them greater access to markets and income via value aggregation, capacity-building, and bolstering livelihoods for peasant women and their families.

182. Social sustainability is not only guaranteed thanks to the financial assistance the project will offer, but also thanks to the technical assistance necessary for all of the local stakeholders involved in different aspects of the project. Accordingly, the project aims to ensure effective and plural participation of different stakeholder groups in the GRB in governance processes. With that said, it is important to highlight the role that field schools will play in the training to implement and monitor SBM and SLM practices in the different microbasins. The project action framework recognizes the importance of traditional knowledge, innovations, practices, and the experiences of farmers from the basin, as well as the importance of sharing the environmental laws (especially those related to land degradation, biodiversity, and water resource management) governing these matters at the national and subnational level.

Financial and Economic Sustainability

183. The project foresees the creation of a financial sustainability mechanism to endow the Tarija Regional Water Fund with economic resources so that the Water Fund can serve to support the sustainable adoption, over time, of SLM, SBM, and degraded ecosystem restoration practices on the part of small-, medium-, and large-scale farmers, as well as the establishment of entrepreneurship involving family farmers in association with one another in the GRB. It will be a public-private partnership, initially with strong support by the GEF, built on the foundation of interinstitutional agreements and strategic partners (public and private), with sustained and ongoing growth. The institutions and resources that may constitute the designed mixed partnership include: financial resources from the Direct Hydrocarbons Tax (IDH); royalties from hydrocarbons; intergovernmental transfers in accordance with agreements signed with the Autonomous Municipal Governments, the Regional Autonomous Government of Gran Chaco, or the Central State Level; funding and/or donations from national and international, bilateral, or multilateral sources to the Autonomous Departmental Government of Tarija, specifically for the preservation, conservation, and protection of water sources, in the framework of the Water Resources Protection Fund (FODAGUA); and other public or private funding resources.

184. As part of the strategy to invite private-sector stakeholders, the project aims to endow the Regional Fund with financial and economic sustainability via the creation of a seed fund, which will be created, increased, and capitalized on an ongoing basis starting with contributions from the strategic financing partners, including international cooperation, public and private actors, and more. This seed investment will make it possible to support the generation of sustainable and diverse agricultural systems and productive entrepreneurship at the family and/or association level that integrate or strongly adopt SLM and SBM practices with an LDN approach, thereby laying the groundwork for initial development and ensuring the fund can be maintained even after the project is complete. In this sense, it is important to note that this family entrepreneurship will be guided by a Steering Committee led primarily by women and will not only receive financial support but also technical support for aspects pertaining to agroecological production, increasing added value, marketing channels, opening markets, and promoting agroecological products of high nutritional value.

185. To ensure the sustainability of the financial mechanism that is being proposed (Tarija Regional Water Fund), the project will build on the national policy and the Financial Services Law No. 393 to generate credit with non-conventional guarantees (financial services) and provide technical support (non-financial services) so that the credit granted, especially to producers, generates surpluses and basic resources to meet the main needs of the families that own the agrifood systems in the Guadalquivir Basin. In this sense, the Productive Development Bank, COSALT and the National Forestry Development Fund, in the first instance, have expressed interest in developing a financing management strategy for the fund, which can be financed with local stakeholders' own resources, the resources of the municipalities and the Government, without neglecting the support of the private sector at the national, subnational and international levels. These stakeholders are expected to participate in the Water Fund after the project is over, so that their participation and appropriation of the Regional Water Fund will contribute to the sustainability of the fund after the project finishes.

Scale Up/Scale Out

186. Under the leadership of the Ministry of Environment and Water, the project will foster the development and implementation of SLM and SBM practices and ecosystem restoration measures in order to contribute locally to national LDN targets. In this way, in line with national efforts in this regard, the project aims to mitigate and reduce the severe land degradation the country faces and, at the same time, improve the climate resilience of the production systems located in the microbasins. As such, an inclusive territorial planning and governance strategy will be developed in which the aforementioned practices and measures play a central role. This strategy will serve as a model to implement and expand participatory territorial planning and integrated water resource management under an LDN approach. As the model is implemented, adjusted based on the experiences in the microbasin, validated, and consolidated, the intersectoral and interinstitutional processes involved in it can be replicated in other sectors of the GRB in order to ensure it spreads and is scaled up to other areas across the country. Moreover, it will channel support from national programs related to sustainable agri-food systems and strengthen natural resource preservation and/or conservation via a mixed public-private funding mechanism. This work will be guided by a Steering Committee through which local institutions can present proposals for water and soil conservation and integration, or found entrepreneurship, bringing small-scale farmers led by women in the Tarija Central Valley into the fold.

187. The project approach will make it possible to scale up efforts to improve environmental functions to a much broader geographical scale with the consequent benefits of climate adaptation and mitigation, yielding benefits in resilience for rural communities and farmers, improving national and subnational capacities to effectively implement integrated planning of land use, and boosting the integration of environmental benefits attained via SBM, SLM, and restoration of ecosystems and their environmental functions, as part of an LDN approach to counteract losses with equal or greater gains, applying the LDN response hierarchy to prevent, reduce, and/or reverse land degradation with the participation of farmers at different scales, as well as family farmers. Likewise, the monitoring system proposed in the project framework and its contributions to already-existing national monitoring systems is essential to verifying the environmental benefits sought and the changes in the landscapes where the project is active.

8) Summary of Changes in Alignment with the Project Design vs. the Original PIF

188. To draft the project document, changes were made to the way the text was written to make the logic designed for the project intervention more coherent and consistent. The changes made do not entail any alteration to the project objective or scope (Table 3).

CHANGES BETWEEN THE PIF AND THE PROJECT DOCUMENT		
Project Objective	Develop and implement an inclusive territorial governance and planning strategy as a model for the sustainable conservation, restoration, and management of the soil, water, and integrated production systems that will make it possible to achieve Land Degradation Neutrality (LDN) in the Guadalquivir Basin (GRB).	Develop and implement an inclusive territorial governance and planning strategy as a model for the sustainable conservation, restoration, and management of the land, water, biodiversity, and integrated production systems that will make it possible to achieve Land Degradation Neutrality (LDN) in the Guadalquivir River Basin (GRB).
COMPONENTS	**NAME OF PIF COMPONENT**	**NAME OF PRODOC COMPONENT**
Component 1	Strategic framework for stronger governance with a gender approach and integrated territorial management to enable the restoration of the vegetation and environmental functions, and sustainable socioeconomic development in the Guadalquivir Basin (GRB).	Strategic framework for stronger governance with a gender approach and integrated territorial management to enable the restoration of land, environmental functions, biodiversity, and sustainable socioeconomic development in the Guadalquivir Basin (GRB).

Component 2	Demonstration of sustainable land and forest management practices in the Tarija Central Valley.	Demonstration of sustainable land, water, and biodiversity management practices in the Guadalquivir River Basin.
Component 4	Management of projects, tracking, evaluation, and sharing of experiences.	Management of project reporting, the communication strategy, and M&E.
-	**PIF OUTCOMES AND OUTPUTS**	**PROJECT DOCUMENT OUTCOMES AND OUTPUTS**

Component 1	1.1. Effective governance mechanisms to manage the water, soil, and vegetation in the landscapes of the Guadalquivir basin have been designed, validated, and implemented, contributing to LDN goals in sustainable production systems.	1.1. Stronger governance for the management of sustainable production systems, water, soil, and vegetation in the landscapes of the Guadalquivir basin, contributing to integrated territorial management and LDN goals.
	1.1.1. Platform for water, soil, and vegetation governance in the Guadalquivir Basin, running in a stronger and institutionalized way as a multi-level and interinstitutional sphere sensitive to gender, with actions implemented by the government, farmers, traders, the financial sector, and academia.	1.1.1. Platform for water, soil, and vegetation governance in the Guadalquivir Basin, strengthened and institutionalized as a multi-level and interinstitutional sphere with a gender approach.
	1.1.2. Two Integrated Territorial Plans (PTDI-SC) (Yesera and Los Pinos) including aspects of governance developed with integrated tools for diagnosis, analysis, and water balance (component 1), piloted and evaluated (component 2), and validated as a model to achieve LDN and sustainable production systems.	1.1.2. Local Microbasin Management Plans (LMMP) developed improve the achievement of sustainable production systems through SLM / SBM as a contribution to LDN
	1.1.3. Capacity-building strategy developed and under way for the government, civil society, and the academic world on the following topics: (I) baseline, design, and application of LDN with a gender approach; (ii) inclusive governance mechanisms for community-led	1.1.3. Capacity-building program developed and implemented for the government, civil society, and the academic world on the following topics (i) LDN monitoring and evaluation; (ii) monitoring and evaluation of environmental functions, biodiversity, and livelihoods; and (iii) inclusive governance mechanisms for community-led integrated territorial development with a gender-responsive approach.

Component 2	2.1. Technology innovations are implemented with an eye to sustainable and resilient production, under an integrated approach for the basin management plans, LDN indicators, and the introduction and validation of technologies in production tasks, as well as the development of new business models and efficient marketing systems. 2.1.1 The activities chosen in the PTDI-SC (see 1.1.2) framework are executed by the project beneficiaries, which leads to higher productivity, reduced land degradation, and enhanced biodiversity conservation in the Tarija Central Valley. 2.1.2. Stronger integrated technical support and outreach services to support implementing the PTDI-SC (in 2.1.1) to implement LDN with a gender approach and thereby generate environmental and socioeconomic benefits. 2.1.3. Data and information system compiled for the target sub-basins using a participatory approach and robust practical tools to evaluate the ecosystem functions/services (biophysical and socioeconomic), disaggregated by gender.	2.1. Stronger sustainable production processes and technological innovations implemented as part of the LMMPs. 2.1.1. The practices undertaken as part of the LMMPs in the target microbasins are carried out by project beneficiaries, leading to increased productivity, reduced land degradation and improved biodiversity conservation in the GRB. 2.1.2. Integrated technical support and outreach services with a gender approach all strengthened as part of the implementation of the LMMPs in the target microbasins (in 2.1.1) to contribute to achieving LDN and thereby generate environmental and socioeconomic benefits. 2.1.3. Database and reporting for the target microbasins with a gender and participatory approach and use of robust practical tools to track SLM and SBM actions (as a contribution to Output 4.1.1).

Component 3	3.1 Regional financial mechanism to support the adoption of best practices predicated on soil management and restoration, efficient water use, vegetation conservation, and the preservation of environmental functions.	3.1 The Tarija Regional Water Fund supports the adoption of best practices predicated on soil management and restoration, efficient water use, vegetation conservation, and the preservation of environmental functions, as well as the establishment of productive entrepreneurship involving family farmers in association with one another.
		3.1.1. Tarija Regional Water Fund - in the GRB region - for Sustainable Management of Water, Soil, and Vegetation and the adoption of SLM and SBM good practices capitalized.
		Deleted
	3.1.1. Regional Fund for Sustainable Water and Soil Management and adoption of best practices in the Tarija Central Valley capitalized.	3.1.2. Family productive entrepreneurship strategy guided by a Steering Committee led first and foremost by women, funded and technically supported to ensure viability and sustainability.
	3.1.2. Effective management of funding and investment in production endeavors (based on land, vegetation, and water management/restoration) at the family or association level.	
	3.1.3. Family productive entrepreneurship strategy guided by a Steering Committee led by women, funded and technically supported to ensure viability and sustainability.	

Component 4	4.1. Management of knowledge, tracking, and evaluation, and effective communication mechanisms.	4.1. Improved mechanisms for participation, sustainable territorial management and LDN monitoring at the river basin level.
	4.1.1. Integrated tracking and evaluation (T&E) system for the project, applied in the framework of national LDN commitments.	4.1.1. The Tarija Departmental Water Information System integrates the LDN approach and indicators to monitor LDN at the GRB level, as well as environmental functions, biodiversity, and socioeconomic indicators for the target microbasins.
		4.2. Managing and disseminating knowledge will enable greater adoption of SLM/SBM, contributing to LDN.
	N/A	Output 4.2.1. Gender-sensitive communication strategy developed and implemented to contribute to project objectives and the national LDN strategy (lessons learned, sharing of experiences, training, outreach products and materials).
	4.1.3. Communication strategy developed and implemented to contribute to project objectives and the national LDN strategy (lessons, experiences, tools).	4.3. Management, monitoring, and evaluation of project progress
		4.3.1. M&E plan developed and approved by the Steering Committee
	4.1.4. Reporting knowledge, tools, and information developed, validated, and distributed among the relevant stakeholders for greater buy-in.	
	4.1.2. Intermediate and final evaluations completed, reporting on strategies for replication.	

	PIF BARRIERS	PRODOC BARRIERS

	Barrier 1: Institutional fragility and nascent coordination in implementing policies, programs, and projects.	Barrier 1: Weak interinstitutional mechanisms to develop a planning and management system for the GRB, integrating SBM and SLM as a strategy to achieve LDN at the microbasin level.
	Barrier 2: Inefficient use of water in production systems and lack of technified irrigation and support for viable food chains and female empowerment.	Barrier 2: Limited knowledge and weak technical capacity for the implementation of sustainable production systems that employ the efficient use of water resources, SLM, and SBM for the maintenance of environmental functions and attainment of LDN.
		Barrier 3: Lack of economic incentives and technical assistance for women-led sustainable productive entrepreneurship.
	Barrier 3: Low productivity in the land of the Tarija Central Valley.	Barrier 4: Weak institutional technical capacity, lack of incorporation of the contributions of local farmers to land degradation monitoring, and uncoordinated reporting and monitoring systems.
	Barrier 4: Insufficient attention is paid to the importance of the sustainable use and conservation of ecosystems in production systems for the maintenance of environmental functions and climate change adaptation.	Barrier 5: Nascent development of public, private, or mixed intersectoral and financial mechanisms for the integrated and sustainable management of the GRB.
	Barrier 5: Lack of territorial planning instruments and management plans for using natural resources to prevent and reduce degradation, desertification, and drought.	
	Barrier 6: Absence of	

	PIF INDICATORS	PROJECT DOCUMENT INDICATORS

Component 1	Number of stakeholders (tracked by gender and youth) participating in the Territorial Consultation Platform (public sector institutions, private sector, for example, traders and farmers? organizations).	At least 130 stakeholders (including 39 are women and 13 youth) representing the target groups as permanent members of the governance structure at the IPGRB level and local level per microbasin, with participation from the LMMPs.
		Indicator deleted
	A Territorial Plan and Governance Strategy for Integrated Soil, Water, and Vegetation Management and LDN indicators has been designed and piloted in the Guadalquivir Basin Agricultural Territories, with a gender approach.	
		Indicator deleted
	Number and scale (beneficiaries and hectares) of the governmental program interventions that make up the LDN hierarchy (prevent, reduce, invest, and other SDG targets).	
		Combined with first indicator
	Percentage of women and young people representing the target groups as permanent members of the PTDI-SC governance structure.	
		At least 200 stakeholders from the government, civil society, and academia who have completed capacity-building (66 women and 20 youth)
	N/A	
		The indicator was modified and Core indicator 4.3: At least 40,200 ha in landscapes under sustainable land management for production systems was moved to component 2

Component 2	2,300 ha of degraded slopes restored under livestock and ranching management (Core indicator 3.2: 460 hectares and core indicator 3.3: 1840 hectares)	Core indicator- 3: 2,500 ha of valleys with agriculture, restored slopes and forest areas (core indicator 3.1: 200 hectares of farmlands; core indicator 3.2: 460 hectares of forests and forestlands; and core indicator 3.3: 1840 hectares of shrub and/or pasture (including silvopastoral management)
		At least 5% increase in annual productivity in current crops and diversified agricultural products
	Percentage increase in annual productivity in current crops and diversified agricultural products	
		At least 259 families (considering an average family unit of four people: 50% women and at least 30% youth) and 10 associations of farmers/traders benefiting from innovative, sustainable, and diversified production systems.
	259 families (50% women and at least 30% youth) and 10 associations of farmers/traders benefiting from innovative, sustainable, and diversified production systems in two model sub-basins.	
		At least 200 farmers who gain access to technical assistance services in irrigation systems, supplementing conservation agriculture and holistic management.
	200 families in 200 ha who gain access to technical assistance services in irrigation systems, supplementing conservation agriculture and holistic management (Core Indicator 3.1).	

Component 3	N/A	The Tarija Regional Water Fund for the conservation and integrated management of water, soil, and vegetation is implemented and operational.
	Total funds allocated to the financial mechanism and number of funding partners (followed by the private sector) that support production for the farmers and the adoption of sustainable agricultural systems (soil, water, and vegetation).	At least USD 364,000 has been raised as a seed fund (total money allocated to the financial mechanism) and the funding partners contribute to and support farmer production and the adoption of sustainable agricultural systems (soil, water, and vegetation) and community-based production entrepreneurship emanating from SLM and SBM.
	At least 20 production companies (50% women-led) have sustainable financing/investment and technical assistance (for example, via field schools or business training) to support their development and implementation.	At least 20 productive entrepreneurial endeavors (50% women-led) have the funding and technical assistance in organic production, increased added value, and marketing channels they need (for example, financial education, opening markets, advertising agroecological products with high nutritional value) for their development and implementation.

Component 4	Tracking and analysis of environmental impacts and the social and economic benefits disaggregated by gender. N/A Mid-term evaluation complete and supporting implementation. Final evaluation complete with lessons learned and best practices identified.	LDN indicators have been defined, monitored, and integrated into the SIIHTA (net primary productivity, land coverage, and carbon stock), and other environmental functions, biodiversity, and socioeconomic indicators for the relevant microbasins. The communication strategy with a gender approach has been developed and implemented to contribute to project objectives and the national LDN strategy. The M&E plan for the project is implemented.
Co-financing	USD 12,250,000	USD 21,272,618

Table 3. Main changes made between the PIF and PRODOC

[1] Life systems: are organized and dynamic communities of plants, animals, microorganisms and other beings and their environment, where human communities and the rest of nature interact as a functional unit, under the influence of climate, physiographic and geological factors, as well as production practices, the cultural diversity of Bolivians, including the cosmovisions of the indigenous native peasant nations and peoples, intercultural and Afro-Bolivian communities. Operationally, the life systems are established on the basis of the interaction between the life zones and the prevailing socio-cultural units that inhabit each life zone and identify the most optimal management systems that have developed or can be developed as a result of this interrelation (Law 300).

[2] *Biodiversidad en Bolivia: Impactos e implicaciones de la apuesta por el agronegocio*; CIPCA, Year 2020.

[3] Solar Campesino is the place of residence of the farmer and his family. It is indivisible and characterized as unseizable family property; Small Property is the source of subsistence resources for the owner and his family. It is indivisible and characterized as unseizable family property; Medium Property is that which belongs to individuals or legal entities and is exploited with the assistance of its owner, salaried, temporary or permanent workers and using technical-mechanical means, in such a way that its main volume of production is meant for the market. It may be transferred, pledged or mortgaged in accordance with civil law; an Agricultural Business is one that belongs to individuals or legal entities and is operated with additional capital, salaried workers and the use of modern technical means. It may be transferred, pledged or mortgaged in accordance with civil law; Community Lands of Origin are the geographic spaces that constitute the habitat of the indigenous and native peoples and communities, to which they have traditionally had access and where they maintain and develop their own forms of economic, social and cultural organization, in such a way as to ensure their survival and development. They are inalienable, indivisible, irreversible, collective, made up of communities or commonwealths, unseizable and imprescriptible; and Communal Properties are titled collectively to peasant communities and former haciendas and constitute their owners? source of subsistence. They are inalienable, indivisible, irreversible, collective, unseizable and imprescriptible. Law No. 1715, Amended by Law No. 3545; 2006.

[4] Currently, there are more than 24 water funds in Latin America and the Caribbean, 15 funds in the feasibility / design phase, 227,671 has conserved, $ US 213 million of capital and more than 530 public and private partners. The oldest and most emblematic of them all is the Fund for Water Protection "FONAG" in the city of Quito, created in 2000. The activities that are the object of attention of these financial mechanisms are diverse, and respond to particular needs. each place. They take into consideration both environmental aspects and the social conditions of the affected populations, among which we can point out the following: i) Care and restoration of ecosystems, with activities such as reforestation and others; ii) Watershed governance, understood as governance associated with watershed management; iii) Research; iv) Uses of water, and more specifically registries of rights of use and exploitation of water; iv) Sustainable economic alternatives to alleviate poverty. (FONAQ and Fondo de P?ramos de Tungurahua, Ecuador); v) Protection of Water for Urban, Rural or Hydroelectric Use (FONAFIFO); vi) Protection of biodiversity for its conservation and sustainable use, scientific and pharmaceutical, research and genetic improvement, as well as for the protection of ecosystems and forms of life. Study of financial mechanism for the conservation and integrated management of water, soil and vegetation; PROMETA, August 2021.

[5] As established at COP-14 (2018), through decision 14/34, the Parties decide to establish the Post-2020 Global Biodiversity Framework Process, which will be adopted during COP 15 to be held in China in 2020. This framework will replace the Strategic Plan 2011-2020: 20 Aichi Targets.

[6] Interinstitutional Platform of the Guadalquivir River Basin

Bai, ZG, Dent, DL, Olsson, L. and Schaepman, ME (2008), Indirect global assessment of land degradation. Land Use and Management, 24: 223-234. https://doi.org/10.1111/j.1475-2743.2008.00169.x

Bellon, M., Gotor E. & Caracciolo F. (2015). Assessing the effectiveness of projects supporting on-farm conservation of native crops: evidence from the high Andes of South America. World Development 70:162-176 pp.

Caba, J. (2018). Thematic Mapping of the Supply, Current Use and Availability of Water Resources in the Central Valley of Tarija. SEDEGIA, PROMETA - Aguilar, R. Tarija Bolivia.

Centro de Investigaci?n y Promoci?n al Campesinado (CIPCA) (2012). Maize in food security in Bolivia. Ortiz, A. (Comp.). La Paz, Bolivia. 202 p.

European Commission (2008). Hydrological and hydraulic study in order to delimit flood zones in the lower basin of the Grande river. Department of Santa Cruz, Bolivia.

Cowie, A., Orr, B., Sanchez, V., Chasek, P., Crossman, N., Erlewein, A., et al. (2018) Land in balance. The scientific conceptual framework for land degradation neutrality. Environmental Science and Policy 26:25-35.

Geist, H.J. and Lambin, E.F. (2002). A meta-analysis of proximate and underlying causes of deforestation based on subnational case study evidence. LUCC Report Series, 4.

Gnacadja, L. (2012). Moving to zero-net rate of land degradation. Statement by Executive Secretary. UN convention to combat desertification, Rio de Janeiro. http://www.unccd.int/Lists/ SiteDocumentLibrary/secretariat/2012/UNCCD%20ES%20 Statement%20at%20PR%20in%20NY%20on%2026%20 March%202012.pdf.

Gnacadja, L. (2015). New challenges in science and policies to combat desertification. J. Arid Environ. 112: 1-4.

Grainger, A. (2015). Island degradation neutrality feasible in dry areas. J. Arid Environ. 112: 14-24.

Ibisch, P.L. & G. M?rida (2003.) Biodiversidad: La Riqueza de Bolivia. Editorial Fundaci?n Amigos de la Naturaleza (FAN), Santa Cruz. 564 p.

IPCC (2020) IPCC Special Report on Climate Change and Land, Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security and Greenhouse Gas Fluxes in Terrestrial Ecosystems. Summary for policy makers. 40 p.

Geist & Eric F. Lambin (2002). Proximate causes and underlying driving forces of tropical deforestation: tropical forests are disappearing as a result of many pressures, both local and regional, acting in various combinations in different geographic locations, BioScience, Volume 52, Number 2, pp. 143-150, https://doi.org/10.1641/0006-3568(2002)052[0143:PCAUDF]2.0.CO;2

Hoffmann, D. & T. Torres-Heuchel (2014). Climate change in Bolivia. Best of the Klimablog 2011-2013. 134 p.

Key Biodiversity Areas Partnership (2020) World Database of Key Biodiversity Areas. Developed by the Key Biodiversity Areas Partnership: BirdLife International, IUCN, American Bird Conservancy, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Global Wildlife Conservation, NatureServe, Rainforest Trust, Royal Society for the Protection of Birds, World Wildlife Fund and Wildlife Conservation Society.

Middleton, N., Stringer, L., Goudie, A., DSG Thomas. (2011). The forgotten billion: achieving the MDGs in the drylands. UNCCD-UNDP, New York and Nairobi.

Ministry of Environment and Water (MMAyA) (2014). Fourth National Report: United Nations Convention on Biological Diversity. La Paz, Bolivia.

Ministry of Environment and Water (MMAyA) (2015). V National Report of the Plurinational State of Bolivia for the United Nations Convention on Biological Diversity. La Paz, Bolivia. 106 p.

Ministry of Environment and Water (MMAyA) (2016). Plurinational Climate Change Policy. La Paz: Plurinational Authority of Mother Earth.

Ministry of Environment and Water. (2017). Programa Plurianual de Gesti?n integrada de Recursos H?dricos y Manejo Integral de Cuencas 2017 - 2020. La Paz: bibliotecadelagua.sirh.gob.bo.

Ministry of Environment and Water. (2017). Comprehensive diagnosis of the Guadalquivir river basin, La Paz, Bolivia. Ministry of Environment and Water - Vice de Recursos Hidricos y Agua. 2017. Comprehensive Diagnosis and Strategic and Institutional Guidelines of the Guadalquivir River Basin Master Plan.

Ministry of Environment and Water (2017). Assessment of Dryland Degradation in Bolivia (Arid, Semiarid and Dry Subhumid Lands) and Design of the Dryland Degradation Monitoring System Scheme based on the LADA Approach. Chapi Si?ani, N. and P. Sullcata Cruz (Coord.). Centro de Investigaciones y Servicios en Teledetecci?n (CISTEL) and Universidad Mayor de San Sim?n (UMSS). La Paz, Bolivia. 81 p.

Ministry of Environment and Water (MMAyAa). (2018a). Plurinational Policy and Strategy for Integral and Sustainable Management of Biodiversity, Plurinational State of Bolivia 120 pages.

Ministry of Environment and Water (MMAyA) (2018b). Estrategia Nacional Neutralidad en la Degradaci?n de las Tierras (NDT) Hacia el 2030 (National Strategy for Land Degradation Neutrality (LDN) Towards 2030). Vice-Ministry of Water Resources and Irrigation. La Paz, Bolivia. 69p.

Ministry of Environment and Water (MMAyA) (2021). Climate risk assessment in the Guadalquivir basin, Tarija, Bolivia. La Paz, 106 p.

Ministry of Environment and Water (MMAyA), the Foundation for the Development of Ecology (FUNDECO) and the support of the German Cooperation through the Deutsche Gesellschaft f?r Internationale Zusammenarbeit (GIZ) GmbH and the Integrated Management with Watershed Approach project (PROCUENCA, 2021).

Olsson, L., Barbosa, H., Bhadwal, S., Cowie, A., Delusca, K., Flores-Renteria, D., Hermans, K., Jobbagy, E., Kurz, W., Li, D., Sonwa, D.J. and Stringer, L. (2019) Land Degradation. In: Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems, Lund University Centre for Sustainability Studies, 184 p.

PEA (1999). PROGRAMA ESTRATEGICO DE ACCION PARA LA CUENCA BINACIONAL DEL RIO BERMEJO, Estudio de Saneamiento Ambiental del r?o Guadalquivir, Tarija, Bolivia.

PEA (2003) PROGRAMA ESTRATEGICO DE ACCION PARA LA CUENCA BINACIONAL DEL RIO BERMEJO. Environmental diagnosis of the upper Bermejo river basin - Bolivian territory. Tarija, Bolivia.

United Nations Environment Programme (UNDP) (2008). The other frontier: alternative uses of natural resources in Bolivia. Thematic Report on Human Development. 509 pp.

United Nations Environment Programme and Regional Gateway for Technology Transfer Action on Climate Change in Latin America and the Caribbean (UNDP-REGATTA) (2017). Vulnerability and impact assessment of climate change in the Gran Chaco Americano. Research for Development. Climate and Natural Resources Series 1. 246 p.

PROMETA (2021). Socioeconomic and Environmental Baseline Study of the "Program for the sustainable management and restoration of soils and biodiversity in the Guadalquivir Basin". FAO Bolivia. Tarija.

Ribera, M. O. (2008). Ecoregions and ecosystems. In: de Morales, C. & M.O. Ribera (eds). Informe del Estado Ambiental de Bolivia 2007-2008. LIDEMA, La Paz. pp. 157-231.

Rocha, W. and Lee, D. (2021). Water governance in agricultural territories - A case study in Bolivia. Guadalquivir river basin. La Paz, FAO.

Saavedra, C. (2018). Sustainable watersheds: Fundamentals and recommendations. Swiss Cooperation integrated water management project in Bolivia. HELVETAS Swiss Intercooperation. 44 p.

National Protected Areas Service (SERNAP) (2007). Report on the National System of Protected Areas "A shared work between the public sector and social stakeholders of protected areas". Prepared for the II Latin American Congress on National Parks and Other Protected Areas. Bariloche, Argentina. 89 pp.

Stavi, I. & R. Lal (2015). Achieving zero net land degradation: Challenges and opportunities. J. Arid Environ. 112: 44-51.

Soruco et al. (2009). Glacier decline between 1963 and 2006 in the Cordillera Real, Bolivia. Geophysical Research Letters, Vol. 36, L03502, doi: 10.1029/2008GL036238.

UN (United Nations) (2015) Transforming our world: the 2030 Agenda for Sustainable Development General Assembly Res 70/1. 40 pp.

United Nations Convention to Combat Desertification (UNCCD) - United Nations Environment Program (UNEP) (1995). United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification.

United Nations Convention to Combat Desertification (UNCCD) - United Nations Environment Programme (UNEP) (2014). Land degradation neutrality resilience at local, national and regional levels. United Nations Convention to Combat Desertification. UN Campus, Platz der Vereinten Nationen 1, 53113 Bonn, Germany.

United Nations Convention to Combat Desertification (UNCCD) - United Nations Environment Programme (UNEP) (2016). Report of the Conference of the Parties on its twelfth session, held in Ankara from 12 to 23 October 2015. Part two: Actions. ICCD/COP (12)/20/Add.1. United Nations Convention to Combat Desertification (UNCCD), Bonn: Integration of the Sustainable Development Goals and targets into the implementation of the United Nations Convention to Combat Desertification and the Intergovernmental Working Group report on land degradation neutrality.

United Nations Convention to Combat Desertification (UNCCD) - United Nations Environment Programme (UNEP) (2011). The Forgotten Billion: MDG Achievement in the Drylands. Available: www.unccd.int/Lists/SiteDocumentLibrary/Publications/Forgotten%20Billion.pdf.

United Nations Convention to Combat Desertification (UNCCD) (2015). Climate change and desertification: Anticipating, assessing & adapting to future change in drylands. Impulse report for 3rd SC-UNCCD. Ed. UNCCD co-edition of Agropolis International. ISBN: 978-2-35682-379-3 Montpellier, France.

Valencia, H. and L. Andersen (2009). Climate Change in Bolivia until 2100: Analysis of the Impacts on the Agricultural Sector. Regional project "Economics of Climate Change in South America" coordinated by ECLAC and sponsored by the Inter-American Development Bank, the British Cooperation and the Danish Cooperation.

VRHR (2007) Plan nacional de cuencas: marco conceptual y estrat?gico. La Paz, Bolivia: Ministerio del Agua, Viceministerio de Cuencas y Recursos H?dricos.

VMABCC-Biodiversity (2009). Libro Rojo de Parientes Silvestres de Cultivos de Bolivia. PLURAL Editores. La Paz. 344 p.

1b. Project Map and Coordinates

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

189. The project intervention area is the Guadalquivir River Basin located in the southern area of the Tarija department. With a surface area of 3,342 km2, it represents 9% of the territory in the department. It consists of five sub-basins of the Alto Guadalquivir, Santa Ana, Tolomosa, Camacho rivers and other

direct affluents of the Guadalquivir River and 25 microbasins. From the political and administrative standpoint, the GRB includes the Autonomous Municipal Governments of San Lorenzo, Tarija, Uriondo, and Padcaya. Likewise, the approximate population of the basin as of 2020 reached 293,750 inhabitants, representing 51% of the total population of the department of Tarija, as well as 156 rural communities and three population centers.

190. The five microbasins were prioritized based on an analysis of a series of variables supported by geographic information systems, as well as agreements made during the consultation processes carried out while this project document was being developed. Aspects pertaining to the status of land degradation, landscape units, socioeconomic indicators, and climate risks, among others, were considered (Table 3 and Figure 4).

191. Table 3 contains a summary of the main features of the Yesera, Alizos, La Victoria, Camacho Alto, and Pinos microbasins, prioritized for the LMMPs and implementing SLM and SBM practices.

192. It bears mention that the microbasins were prioritized as a guiding consideration, in view of the fact that the project aims to strengthen governance and collective knowledge-building. As such, the definition of these basins at the local/land level will be done through participatory processes guided by the institutions and technical teams involved.

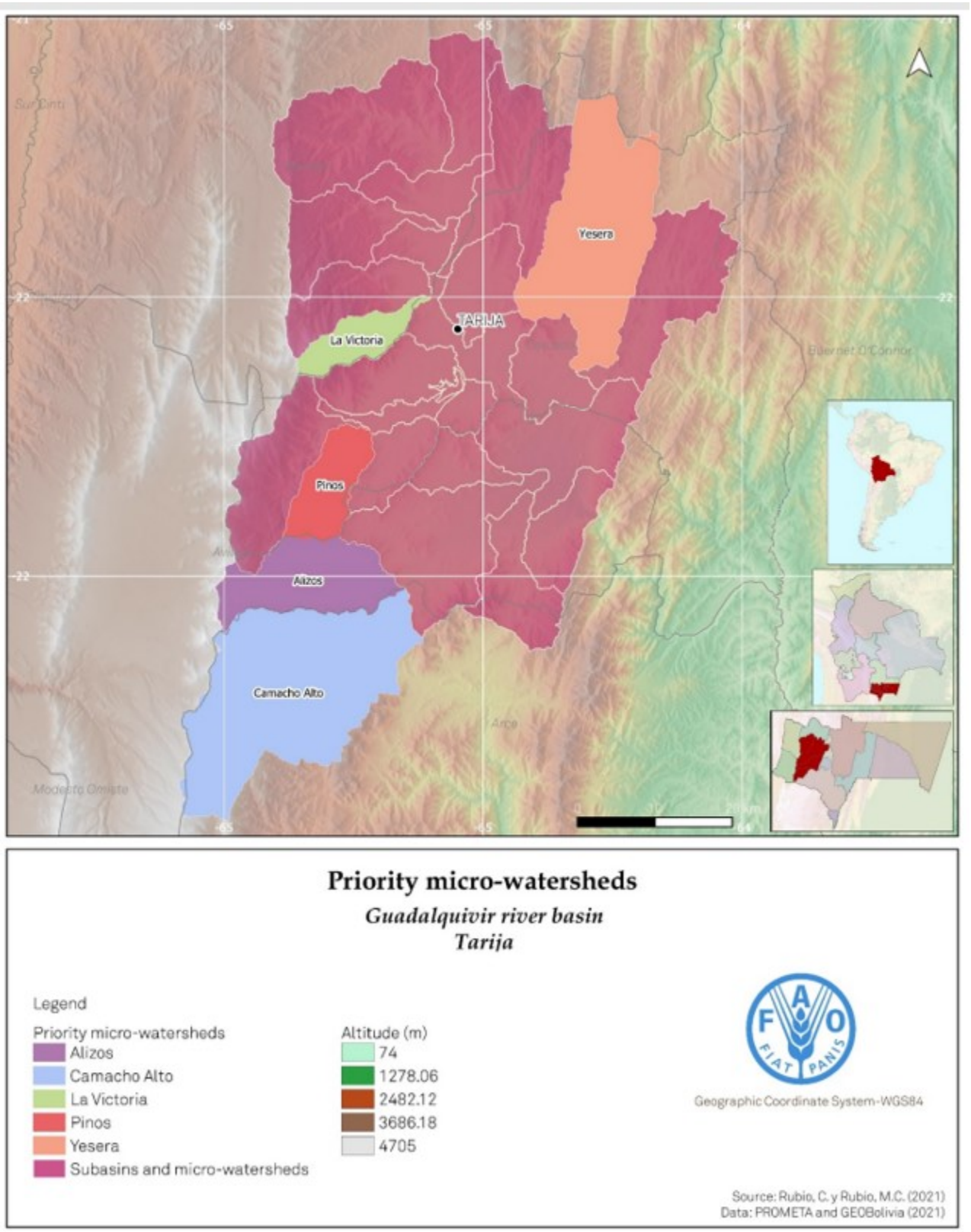


Figure 4. Priority Microbasins

- GRB coordinates: North-West: -65.0521115657025462, -22.0624037028865949; South-East: -64.4026660269889248; -21.2144178651301942

Table 3. General Features of the Priority Microbasins

Microbasin	Alizos	Camacho Alto	La Victoria	Pinos	Yesera
Surface Area (Km?)	149.45	432.95	60.75	84.37	318.00
Estimated Population 2020	1756	4496	1451	1778	2714
Runoff (Hm?)	55,164	131,238	19,897	38,611	30,855
Basin Delimitation	Cuenca Alta	Cuenca Alta	Cuenca Alta	Cuenca Alta	Cuenca Alta
Biodiversity	High	High	High	High	Low
Water Scarcity Risk	Medium	Low	Medium-high	Medium-low	High-medium
Number of UPAs per Sub-Basin	342	1,134	199	400	755
Family Farming Surface Area based on UPAs (ha)	789	2,158	255	928	2,392
Coverage Type	Forest-grassland	Forest-grassland	Forest-grassland	Forest-grassland	Bush-grassland
Average Degree Land Degradation (LADA)	Extreme in the upper parts, slight and moderate on the floodplains	Extreme in the upper parts, strong in the foothills, slight on the floodplains	Extreme in the upper parts	Strong and very strong in the high sectors, slight and moderate in the foothills	Predominantly slight and moderate
Soil Carbon (T/ha)	62.94	63.22	71.91	64.11	45.58
Crop Surface 2020 (ha)	801.07	1,751.84	245.37	912.71	1,793.33
Water Human Consumption 2018 (Hm?)	0.062	0.165	7.628	0.062	0.095
Irrigation Water 2018 (Hm?)	5.39	11.79	1.65	6.14	12.07

Water Animal Consumption 2018 (Hm?/year)	0.123	0.352	0.027	0.088	0.209
Protected Area	Cordillera de Sama Biological Reserve	Cordillera de Sama Biological Reserve	Cordillera de Sama Biological Reserve	Cordillera de Sama Biological Reserve	No protected area
Surface Water Resources	No	No	Tarija	San Jacinto	No
NBI (%)	72.23	56.05	68.93	81.73	63,49
Frost	10-20%	20-30%	10-20%	10-20%	5-10%
Hail	10-20%	10-20%	10-20%	20-35%	20-35%

193. The Alizos, Camacho Alto, La Victoria, Pinos, and Yesera microbasins constitute direct affluents of the GRB and are priority zones for biodiversity conservation.

194. Another key aspect to keep in mind is that the priority microbasins are home to a significant number of community-led Agricultural Production Units (UPA), given that among Alizos (342), Camacho Alto (1,134), La Victoria (199), Pinos (400), and Yesera (765), there are at least 2,480 UPAs to be found. These UPAs contribute to food security and sovereignty. The challenge they face is to conserve water sources, perform management practices and soil restoration, and conserve biodiversity, all in a context of climate change mitigation and adaptation, poverty, and the threat of crop pests and diseases, on top of the COVID-19 pandemic.

195. In terms of family farming in the Tarija Central Valley, 80% of the surface area belongs to small-scale farmers (FAO, 2021), which undoubtedly enables prioritizing technical assistance for those microbasins where small-scale family farming plays a significant role to boost socioeconomic and environmental development throughout the entire GRB.

196. On another note, it bears mention that at the Kickoff Workshop for the participatory process to build the PRODOC, local stakeholders asked to include microbasins that contribute above all to water regulation and which have a high impact on creating dynamic local economies that foster soil and management and restoration and biodiversity in the GRB.

197. For more information about the project intervention area, visit the following link: https://projectgeffao.users.earthengine.app/view/guadalquivir

1c. Child Project?

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

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Stakeholder Engagement Matrix

1) Stakeholder Consultation in project formulation[1]

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Government stakeholders						
Ministry of the Environment and Water (MMAyA)	Governing body	Develops and implements national policies on environmental and water management (drinking water and irrigation, forests, biodiversity and agrodiversity).	Face-to-face and online executive meetings	Arrangements, procedures and requirements for presenting the project.	June 2020 to September 2021	Followed up on project formulation.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Vice-Ministry of the Environment, Biodiversity, Climate Change and Forest Management and Development (VMABCCGDF)	Co-implementing partner	Formulates and defines policies on conservation and sustainable use of biodiversity and forests; implements related strategies, programmes and plans. Focal Point for the CBD and its Protocols. GEF Focal Point	Face-to-face and online technical meetings	Coordination of the project?s contribution to the Plurinational Policy and Strategy for the Integrated and Sustainable Management of Biodiversity - 2019-2030 Action Plan.	June 2020 to June 2021	Followed up on project formulation as part of the technical committee.
Vice-Ministry of Water Resources and Irrigation (VRHR)	Strategic ally	Implements Integrated Watershed Management and Integrated Management of Water Resources for the efficient and equitable use of multiple water resources. UNCCD Focal Point.	Face-to-face and online technical meetings	Coordination of the project?s contribution to the 2030 National Land Degradation Neutrality Strategy.	June 2020 to May 2021	Technical questions on LDN reports and strategy.
Plurinational Authority for Mother Earth (APMT)	Strategic ally	Implements the Joint Mechanism for Climate Change Mitigation and Adaptation. UNFCCC Focal Point.	Face-to-face and online technical meetings	Guidance on project implementation in the light of the Joint Mechanism for Climate Change Mitigation and Adaptation and NDC.	February to May 2021	Technical questions on environmental functions and NDC reports

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Ministry of Development Planning (MPD)	Strategic ally	Establishes strategic guidelines for integrated planning in the Plurinational State, as the SPIE governing body. Draws up the Economic and Social Development Plan and supervises alignment with PTDIs.	Face-to-face and online technical meetings	Guidance on the main components of the five-year plan currently being drawn up	December 2020 to May 2021	Questions regarding the new five-year plan
Ministry of Rural Development and Lands (MDRyT)	Strategic ally	Contributes to the integrated and sustainable management of agrobiodiversity, forests and land, and the mainstreaming of this in rural areas and productive development strategies.	Face-to-face technical meeting	Coordination of capacity development and implementation activities for LDN monitoring.	February to May 2021	Technical questions on LDN reports and strategy
Autonomous Departmental Government of Tarija	Strategic ally	Designs and implements local policies related to the project?s thematic areas, in keeping with its established powers	Face-to-face and online technical meetings	Recommendations for choosing practices in the sub-basins selected for the FAO-LDN project.	December 2020 to July 2021	Technical questions on local needs, request for information and role in the project related to integrated territorial planning and management of the GRB, land restoration, and biodiversity in a LDN context.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Autonomous Municipal Governments of Tarija, Padcaya, San Lorenzo and Uriondo	Strategic allies	Design and implement local policies related to the project?s thematic areas, in keeping with their established powers	Face-to-face and online technical meetings	Guidelines for potential actions to be implemented, taking into account the work done by the four municipal governments	December 2020 to May 2021	Technical questions on local needs, request for information and role in the project related to integrated territorial planning and management of the GRB, land restoration, and biodiversity in a LDN context.
Tarija Executive Land Rehabilitation Programme (PERTT)	Strategic ally	Carries out the planning and implementation of specific land rehabilitation projects, programmes on land conservation, integrated management of micro-basins and other activities that benefit rural communities.	Face-to-face and online technical meetings	Description of the actions currently being carried out in the basin and recommendations for including new sub-basins in the project.	July 2021	The PERTT?s expertise is closely related to the project?s requirements. The information it provided was used to fine-tune technical details in the baseline and issue recommendations for project design.
Civil society stakeholders						

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Guadalquivir River Basin Inter-Institutional Platform	Strategic ally	As an organization that covers the whole basin, the Guadalquivir River Basin Inter-Institutional Platform enables multilevel and cross-sectoral decision-making to solve the problems posing a threat to water security in the basin, set against the demands of the basin?s inhabitants. The Platform?s work is based on participatory, inclusive and transparent consensus-building and coordination processes.	Face-to-face and online technical meetings	Meetings were held with the Technical Council and various members of the Platform to consolidate information for the project?s environmental and socioeconomic baseline, as well as several technical presentations of the GRB Master Plan with different stakeholders.	June - August 2021	The Inter-Institutional Platform is the lead organization for environmental management in the GRB. It brings together all the stakeholders and water users, enabling it to act as a forum for comprehensive cross-sectoral and multi-stakeholder analysis.
Chamber of Agriculture	Strategic ally	Organization that brings together the farming sector in the department and works to contribute to the sector?s development.	Face-to-face meetings	Recommendations on the priority interventions, bearing in mind that the sector is currently in a state of ?crisis?.	July 2021	The Chamber of Agriculture has technical information from the point of view of the farming sector, which complements the information from the government.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Individual producers and producer associations	Beneficiaries	Participate in all the project?s activities in its three components, particularly participatory planning, implementation and information about ISMBF, M&E and other areas.	Workshops and technical meetings	Description of the nature of the problem situation and recommendations on priority interventions.	June-July 2021	Consultation and detailed participatory design of projects; definition of the specific communities where component 2 of the project will be implemented.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Community-level unions in Lazareto and Yesera	Beneficiaries	Grassroots civil society organizations that bring together the communities in their jurisdiction. Their mission is to defend the interests of the rural working class, in areas related to land tenure, fair prices, production, resource use, injustice and abuses by the authorities. They also address problems between small-scale farmers and conflicts inside and outside their organizations and their members in an impartial manner to dispense justice.	Face-to-face workshops and technical meetings	Analysis of the project?s characteristics and suggestions that take into account local priorities. They also suggested practices and technologies based on the biophysical conditions of their local areas and their specific potential.	June - August 2021	Ongoing consultations and interviews helped to determine SLM practices and technologies.
Grassroots Territorial Organizations (OTB) and small-scale rural producers as a family unit	Beneficiaries	Local stakeholders with land ownership and use rights and the right to use natural resources.	Workshops and technical meetings	They convened the meetings in keeping with their usages and customs and recommended that their community protocols should be followed.	June - August 2021	Participation in workshops and gathering of information on good practices in agriculture, livestock farming and environmental conservation

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Association of Economic Organizations in the Municipality of Padcaya (AOEM.MP)	Beneficiaries	The Association of Women Producers in the Municipality of Padcaya brings together 8 local businesses which organized to be able to work together and unite their efforts to improve production and marketing conditions for their different products. The organization works with products such as honey, vegetables, dairy products and eggs under an ecological-organic production approach. They also have appropriate, sustainable and affordable technologies in the form of rainwater harvesting systems (RHS).	Workshops and meetings	Recommendations on how to improve their current production systems.	June - August 2021	These groups of women are key members of the Guadalquivir Inter-Institutional Platform. They are involved in the Community Council and participate actively.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Tomatas Grande Mothers Club	Beneficiaries	Group of women involved in craft production. They make woven and knitted crafts for the Bolivian market.	Workshops and meetings	Consultation on how to strengthen this product category which complements traditional farming activities in the Basin.	June - August 2021	It is important to strengthen products of this sort which are a key part of local economies, contributing to income generation that complements traditional activities.
Academic stakeholders						
Juan Misael Saracho Autonomous University - UAJMS	Beneficiary and strategic ally	UAJMS is part of the Bolivian University System. Its mission is to train competent, well-rounded professionals who adopt and transfer scientific and technological advances that meet local requirements, abiding by the criteria of equity, social responsibility, cultural diversity and respect for the environment.	Workshops and technical meetings	Recommendations for implementing SLM practices. UAJMS is currently running an education project in the Basin.	June - August 2021	The UAJM Faculty of Agricultural and Forestry Sciences and the Environmental Engineering Degree are participating in the current education project on watersheds, whose practices complement those proposed in the project.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
San Pablo Bolivian Catholic University ? Tarija ? UCB	Beneficiary and strategic ally	The Catholic University is part of the National University System in Bolivia. Its research work includes nature protection, the quest for peace and political stability, and more equal resource distribution.	Workshops and technical meetings	Mainly focused on the SIHITA, it keeps a repository of social and environmental information on the Guadalquivir River Basin.	June - August 2021	UCB Tarija conducts research on the whole Guadalquivir River Basin, and contributes to research work.
Domingo Savio Private University ? UPDS	Beneficiary and strategic ally	The Domingo Savio Private University forms part of the Domingo Savio Education Corporation, with 30 years of experience and involvement in the National Education System. The education model developed by the Domingo Savio Private University seeks to provide a comprehensive professional education that is relevant to the social and labour market context.	Workshops and technical meetings	UPDS has prioritized the Guadalquivir River Basin as a focus of study and is currently running the graduation exam programme with the basin as the key thematic area. It provided its facilities and the support of its academic team for the gender workshops.	June - August 2021	The university?s authorities state that it is committed to continue contributing to the work done in the Guadalquivir River Basin.

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments

Universities, institutes and research centres:

•Juan Misael Saracho Autonomous University
•Domingo Savio Private University
•?San Pablo? Catholic University ? Tarija Region

Producer associations:

Municipality	Local Organizations
Tarija	? APROSUR-Southern Processed Foods ? Tarija Association of Ecological Producers ? National Wine Industry Association (ANIV) National Wine Industry Association - Tarija (ANAVIT)
San Lorenzo	? M?ndez Beekeepers Association ? San Lorenzo Dairy Farmers Association ? Tomatas Grande Mothers Club
Uriondo	? ASOPRU - Uriondo Producers and Irrigators Association
Padcaya	? Padcaya Municipal Organization of Women?s Associations ? Padcaya Cattle Farmers Association - ASOGAPA ? Arce Province Dairy Farmers Association - APROLPA ? Women Honey Producers Association ? Women Bakers Association - AMEMPA ? NUEVA ESPERANZA Women Producers Association ? Vegetable Growers Association ? Cabilto Women Producers and Processors Association

[1] See FAO Operational Guidelines for Stakeholder Engagement

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

198. To identify the project stakeholders, consideration was given to the existing governance in the Guadalquivir River Basin around water resources with respect to activities relevant to the project framework. These activities involve public and private stakeholders, as well as the different social groups living in the GRB. Likewise, a rationale was thought through with respect to the needs for

institutional strengthening at the local and national level and other needs that might boost implementation and the likelihood of project matches and co-funding management.

199. The following groups arose out of the identification of the different social and institutional stakeholders in the area: a) stakeholders who develop the project; b) subnational governmental institutions interested in territorial planning and other relevant project items; c) community and local beneficiaries; d) other interested local institutions.

200. The project developers are concentrated in governmental entities from the central government (MMAyA, MDRyT, SERNAP, APMT, Vice-Ministries, and other decentralized bodies), who aim to implement public policy around integrated and sustainable management of water, forests, biodiversity, and soil at the local level. The project will benefit and support actions outlined in the Sectoral Plans for the Environment and Rural Development, as part of the PDES 2021-2025. Experiences resulting from the project will provide practices and lessons learned in the sphere of sustainable and integrated management of water, forests, biodiversity, and soil, based on the implementation of the LMMPs in the PDCG framework and the PTDIs, which will be reinforced by territorial planning directives in the Tarija Central Valley.

201. The local governments, Autonomous Government of the Department of Tarija, universities, farmers? and irrigators? associations, the MMAYA-VRHR, and civil society [1]entities participating actively in the Interinstitutional Platform of the Guadalquivir River Basin (IPGRB) will benefit from the technical assistance, capacity-building, sharing of experiences in SLM, SBM, and plant coverage, biodiversity conservation and restoration, and environmental functions work. The Autonomous Territorial Entities (ETAs) (municipal and departmental governments) will receive capacity-building and SLM and SBM guidelines to enable implementing the PDCG, LMMPs, and PTDIs.

202. The beneficiaries will be the families of small-scale farmers and the communities in the priority microbasins. The organizational systems and local organic social structure (farmer associations, communities, OGC, etc.), as well as other local stakeholders of importance in managing natural resources or who are involved in priority production complexes in the zone will be brought into the fold. All will receive training with the aim of improving the agri-food production systems by implementing sustainable land, forest, and biodiversity management practices in the framework of the LMMPs and PTDIs. To drive adoption and internalization of the LDN approach, the project will aim to establish initiatives to strengthen management schemes, exploitation, training, marketing, and other areas that may contribute to sustainable natural resource management, striving to progress toward conservation and land and biodiversity restoration in the GRB, thereby contributing to LDN, NDC, and AICHI commitments entered into internationally.

203. Efforts will also be made to include stakeholders relevant to the process like local civil society institutions, which will support the land, forest, and biodiversity conservation with a basin approach in the local territorial planning and water management bodies. Other strategic project partners include the universities, which will play an essential role as trainers, technical advisors for initiatives currently under way, and the leads for the Tarija departmental water information system, which will be run with an LDN approach and monitoring of LDN indicators at the GRB level, as well as of environmental

functions and additional indicators, and will in turn receive capacity-building in SLM, SBM, and LDN (Table 5).

Name	Stakeholder Type	Profile	Project Roles
Ministry of the Environment and Water (MMAyA)	Executing body	The MMAyA is responsible for developing and implementing the public policy, standards, plans, programs, and projects related to environmental management and water management (drinking water and irrigation, forests, biodiversity, and agrobiodiversity). Its main role is to manage the implementation of actions that enable forest and biodiversity management, as well as capacity-building with decentralized and subnational bodies in collaboration with other institutions that are also involved in these areas.	The MMAyA project lead will coordinate the implementation and tracking of the project components alongside the executing entity.

The Vice-Ministry of the Environment, Biodiversity, Climate Change, and Forestry Management and Development (VMABCCGDF)	Co-executer	In charge of formulating and defining policies for conservation and the sustainable use of biodiversity and forests; implementation of related strategies, programs, and plans. CBD Focal Point and its protocols GEF Focal Point.	The Vice-Ministry project lead will act to coordinate the project, and as a technical operational body charged with formulating and designing the technical and regulatory guidelines for the project, to contribute to the Plurinational Strategy and Policy for Integrated and Sustainable Biodiversity Management - Action Plan 2019-2030. Coordinate actions to design and implement forest fire prevention and control strategies.
Vice-Ministry of Water Resources and Irrigation (VRHR)	Co-executer	In charge of implementing the integrated management of hydrographic basins and integrated management of water resources (IWRM/IWM) for the efficient and equitable use of multiple water sources. UNCCD Focal Point In charge of the 2030 LDN National Strategy	Coordination the contribution of the project to the 2030 National Strategy for Land Degradation Neutrality and the implementation of local water planning practices.

SERNAP Cordillera de Sama Biological Reserve	Strategic partner/project beneficiary	Highest decision-making body in the territorial jurisdiction of the area, in the frame of its competency	Implement actions as part of territorial co-management of protected areas and their zones of influence, to enable forest and biodiversity management. Coordinate among national and subnational agencies to do co-management capacity-building oriented toward LDN, protection, conservation, and restoration of biodiversity. Relationships with local stakeholders.
Plurinational Authority of Mother Earth (APMT)	Strategic Partner	Has the role of implementing the Joint Mitigation and Adaptation Mechanism for integrated management of forests and Mother Earth, and the Adaptation Mechanism for Living Well. UNCCD Focal Point	Bringing the project under the umbrella of the Joint Climate Change Mitigation and Adaptation Mechanism and the NDC.
Ministry of Rural Development and Land (MDRyT)	Strategic Partner	The MDRyT is responsible for: 1) Running the process of organizing, titling, and distributing land; d) Production capacity-building for agro-livestock, fishing, and forestry producers; 3) Promoting the sustainable use and management of soil for agricultural and livestock production. Contribute to the integrated and sustainable management of agrobiodiversity and lands, ensuring these topics are cross-cutting through rural areas and in production development strategies.	Coordinate activities to develop and implement capacities in SLM and SBM practices.

Ministry of Planning and Development (MPD)	Strategic Partner	The MPD is in charge of establishing the strategic guidelines for Integrated Planning for the Plurinational State, working to achieve the Integrated Development objectives for Living Well in Harmony with Mother Earth, in the framework of the Patriotic Agenda 2025. It develops the Economic and Social Development Plan and oversee accordance with the PTDIs as the governing body of the State Integrated Planning System.	Support for processes related to integrated planning in the project framework.
Implementing/Executing Agency FAO	Implementing Agency	Provides technical assistance for tracking systems and setting LDN goals and SLM/SBM practices. Provide support for methodologies in accordance with international standards in different thematic areas related to the project (EXACT, WOCAT, LADA, Collect Earth, AQUA STAT, and more). Support identification and declarations in the Globally Important Agricultural Heritage Systems (GIAHS, or SIPAM, in Spanish). Support implementation and supervision of the project as the implementing agency as per the Project and Program Cycle Policy.	Support execution, tracking, and monitoring of the project. Support transfer and application of international methodologies in different thematic areas related to the project (EXACT, WOCAT, LADA, Collect Earth, AQUA STAT, and more). Identify possible sites that could be declared as GIAHS.

Tarija Departmental Autonomous Government	Strategic Partner	The role of the government is to support and implement local policies related to the topic in the frame of its established competencies.	Assist in governance and territorial management processes. Provide support for ongoing initiatives related to the integrated management of basins and sub-basins, management of forests and conservation and restoration of land and biodiversity, in an LDN context.
Autonomous Municipal Governments Tarija, Padcaya, San Lorenzo, and Uriondo	Beneficiaries, Coordinators with local stakeholders	The role of the autonomous municipal governments is to support the implementation of local actions related to the topic in the frame of their established competencies.	Incorporate integrated basin, sub-basin, microbasin, forest, and biodiversity management actions with an approach to conserve and restore environmental functions in the municipality planning mechanisms. Assist in governance and integrated territorial management processes. Provide support with ongoing initiatives related to local water management, forests, and biodiversity.

Universities, state institutions, and research centers. Juan Misael Saracho Autonomous University (UAJMS), Bolivian Catholic University, Domingo Savio University	Strategic Partners	UAJMS is interested in being a project partner to develop, consolidate, and replicate the actions being carried out in the Pedagogical Basin Project - Yesera.	Support for research initiatives and others related to the project. Design, implementation, and monitoring of SLM practices to contribute to LDN in the Guadalquivir River Basin. The plan is for the university to join the Technical Committee.
Production Development Bank (BDP)	Strategic Partner	The BDP - a Mixed Limited Liability Company, is a first- and second-tier financial brokerage entity oriented toward developing and funding national production development, combining financing with technical assistance, in the belief that it is essential to achieving impact financing by raising productivity, boosting production, and reducing risks.	Co-financer and supplier of technical assistance to the project in designing and implementing financial and financial inclusion mechanisms for small-scale farmers and communities via non-conventional guarantees.
National Forestry Development Fund (FONABOSQUE)	Strategic Partner	The role of FONABOSQUE is to review, evaluate, and finance forest conservation, protection, and sustainable management projects and programs with an integrated basin management approach, forestation and reforestation actions, recovery of degraded soils in forestry areas and integrated fire management, and actions related to research, technical assistance, and technology transfer.	Co-financer and support for designing financial mechanisms to foster sustainable land and biodiversity conservation and restoration practices.
Tarija Water and Sewage Sanitation Cooperative (COSAALT)	Strategic Partner	COSAALT is a cooperative in charge of supplying the drinking water and basic sanitation to the city of Tarija.	Co-financer and developer of the Water, Soil, and Vegetation Fund.

Civil society organizations and private sector partnerships	Beneficiaries and strategic partners	Organizations/NGOs/foundations interested in participating the land, forest, and biodiversity management, conservation, and restoration process via technical assistance and transfer, as well as sharing of knowledge of local practices for sustainable natural resource development.	Support convergent actions aiming at environmental conservation in the effort to achieve sustainable natural resource management, generating development alternatives and prioritizing economically underprivileged areas.

Beneficiaries: Families and/or farmers? and irrigators? associations on the project, local government agencies Universities	Beneficiaries	Families and/or associations: the interest of this beneficiary group is related to developing SLM and SBM practices initiatives. Local government agencies and partner institutions: this group of beneficiaries is interested in institutional capacity-building related to SLM and SBM. The universities are interested in linking their research projects up to local institutions and communities and doing technical capacity-building.	Implement actions and initiatives related to management and restoration of basins, forests, biodiversity, land use, and other items related to the project. Integrate MIC and IWRM-related issues and the sustainable use of land, forests, and biodiversity into local integrated planning. The universities will gain stronger capacities and play the role of gathering data and information to monitor the degree of conservation and other indicators related to the project in order to integrate new areas of study into their work with similar characteristics.

Table 5. Institutional Framework

[1] Sociedad civil comprende los actores que no son partes interesadas, con inclusi?n de organizaciones no gubernamentales (ONG) sin fines de lucro, agricultores, mujeres, la comunidad cient?fica y tecnol?gica, j?venes y ni?os, pueblos ind?genas y sus comunidades, empresas e industrias, trabajadores y sindicatos.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier; Yes

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

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

204. Recent evaluations in Bolivia reveal that gender roles are very well defined and that women play a major role in managing natural resources in the country (Ashwin et al., 2011). Nationwide, men have traditionally controlled resources and decision-making, whereas women have been responsible for domestic, reproductive, and care activities, agriculture, and other small-scale income-generating entrepreneurship, as well as providing support to the men in the productive sector.

205. Although the country has made significant strides forward toward gender parity in education, other sorts of disparities persist, especially in terms of access to production resources (ONU, 2018) and recognition and support for agricultural activities and natural resources management. Among the main advances achieved nationally it is important to note that Bolivian women enjoy a high rate of workforce participation as compared to other countries in the region. Another observation is that women are gradually taking on decision-making roles traditionally allocated to men, who are often away in temporary migration in search of wage work in other parts of Bolivia or even in other countries. Although these changes are increasing women?s workload, they also offer the opportunity for women to participate in community decision-making mechanisms, development projects, training, and other production activities.

206. The role of women in the rural area of the Tarija Central Valley is important, considering that most of the male ?heads of household" migrate during at least some time period in the year in search of other income sources, leaving women behind in charge of the crops and households. Likewise, female migration occurs principally among youth (generally starting at around 16 years of age), who migrate to the cities in search of higher education and job opportunities. The women who remain in the rural environment are key stakeholders in seasonal food production using ecological approaches. They are members of the organic farmer associations in four municipalities of the GRB, using fertilizers and other bio-inputs on their plots of land. The women are in charge of deciding what to plant and the husbands, if they are not absent, may help with the heavy labor like ploughing and harvesting. The women of the central valley who do not have capacities yet in ecological production are more vulnerable to climate-related factors that affect agricultural production (PROMETA, 2021).

207. In a context dominated by the effects of land degradation and climate change, it is essential to incorporate a gender perspective from the initial stages of the project, including consultations and decision-making to design and implement SLM and SBM practices, aiming to improve livelihoods and achieve food security and sovereignty for family groups.

208. Having said that, the project strives to strengthen the participation of women in a cross-cutting way, including leadership roles and decision-making. Moreover, the project aims to get youth involved in the activities. In this way, a gender approach will be used to ensure that 50% of the beneficiaries of the project are women. If necessary, special arrangements can be made to ensure equitable and effective participation for all stakeholders.

209. As part of component 1, the project will implement actions to strengthen governance of water, soil, and vegetation in the GRB, with a gender approach and implementation actions coming from the government, farmers, traders, the financial sector, and academia. The aim is to do capacity-building at multiple levels of LDN monitoring and evaluation, environmental functions, biodiversity, and livelihoods and design inclusive governance mechanisms for integrated territorial development led by the community with a gender-responsive approach. The LMMPs shall be developed in such a way that ensures the effective participation of women in the design and implementation processes.

210. Under component 2, the project will develop and implement training programs that include women and youth to ensure their participation in decision-making processes to implement SLM and SBM practices at the local level. The plan is for women and youth to participate actively in selecting, implementing, and upkeeping the practices. This will make it possible to manage production resources, value chains, and other monetary and non-monetary activities. In addition, local capacity-building will be done under a gender approach to create and input information into a reporting system and database for the target microbasins, using robust practical tools to track SLM and SBM actions.

211. Under component 3, a financial mechanism will be created for the conservation and integrated management of water, soil, and vegetation, as well as the establishment of productive entrepreneurship involving family farmers in association with one another. In this framework, a strategy for productive family entrepreneurship guided by a Steering Committee led primarily by women will be developed. In this sense, in Tarija, there is a need to strengthen inclusion for rural women to join production initiatives under agro-production systems that bring women and men together, in order to achieve greater access to markets and income via value aggregation and capacity-building with gender equity and governance.

212. Under component 4, the project will plan for women to participate in designing a gender-sensitive communication strategy that will contribute to project objectives and the national LDN strategy (lessons learned, experiences in dissemination, training, outputs, and outreach materials).

213. The project is aligned with the FAO gender equality policy to achieve equality between men and women in sustainable agricultural production and rural development to end hunger and poverty. Women should participate from the very beginning on an equal level with men as people responsible for decision-making in rural zones, in institutions, and in developing laws, policies, and programs. Moreover, both should have the same access to and control over land and other production resources, jobs and decent income, goods and services for sustainable agricultural development, and markets.

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.

216. The project will create the conditions for small-scale farmers to integrate an agroecological approach into their work while at the same time fostering their participation in local and national processes. Partnerships will be encouraged among farmer associations and local suppliers, community-based enterprise, storage hubs, and farmers and livestock workers.

217. The project will foster the involvement of private entities through regional and local consultation processes regarding the technical directives for the integrated management of forests and soil. In this way, the directives established via the regulatory frameworks for the municipalities and the farmer associations will enable them to be adopted by the private entities. Here, it will be a good idea for topics such as good sustainable land and biodiversity management practices to be integrated into the local regulatory frameworks to prevent contingencies emanating from forest fires, degradation, and desertification, to name a few.

218. Another important aspect of territorial planning are the definitions related to property rights and resource management. Agreements need to be reached regarding the management of microbasins, forest management, and other topics currently managed on a community basis in the zone. In terms of setting up and consolidating productive family entrepreneurship, engaging private entities that will foster and generate markets for products related to land management, forests, and biodiversity is necessary.

219. The plan is to work in coordination with public-private partnerships to provide incentives for sustainable and resilient agricultural production. These processes will include agroecology, gender, and intergenerational equity approaches. Some of the private stakeholders involved in the project include: *C?mara Agropecuaria de Tarija* (Tarija Agriculture and Livestock Chamber), *C?mara Departamental de Empresarios Privados de Tarija* (Tarija Departmental Chamber of Private Business Owners), *C?mara Hotelera de Tarija* (Tarija Hotel Chamber), *Asociaci?n de Transporte Interdepartamental* (Interdepartmental Transportation Association), and more.

220. The creation of the Tarija Regional Water Fund for the GRB region, for sustainable management of water, soil, and vegetation and the adoption of good SLM and SBM practices will require the incremental involvement of strategic public and private partners who will make contributions and enable the sustainability of the mechanism once the project is complete.

221. COSAALT, in its role as a drinking water and sanitation cooperative, and as part of its corporate social responsibility actions and strategies to fight climate change, has planned to allocate financial resources that guarantee the regulation of the water cycle of the forests and wetlands that are the source of water to the Tarija Central Valley. The entity will be included in the process to develop the reimbursable and non-reimbursable financial mechanisms in order to catalyze funding and provide the technical and financial sustainability needed for soil and biodiversity management and restoration actions in the GRB.

222. The Production Development Bank and microfinance entities present in the Tarija Central Valley have shown an interest in contributing directly and indirectly to implementing the financial mechanism, by virtue of the fact that by regulatory mandate, these financing entities must manage financial resources via credit with non-conventional collateral to strengthen the production capacities of the farmers. Likewise, in the framework of corporate social responsibility actions, these financial entities should provide non-financial services that make it possible to prepare and identify farmers with payment capacity to access credit, as well as strengthen production systems and processes to bring products to market.

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

Description of risk	Impact	Probability of occurrence[3]	Mitigation actions	Responsible party

Environmental: The influence and interaction of climate change and drought impact the environmental conditions modeled and considered for the project area.? A complete climate risk screening is attached to the submission of this project under the Documentation section of the GEF Portal.	M	M	Strengthen the ties between the MMAyA and different projects and programs in place, such as the National Soil Recovery Program, Mi Riego, (My Irrigation), integrated water resource management, and others, via the consolidation of the Interinstitutional Platform of the GRB (Component 1). By setting up a technical committee for the project, the aim is to foster the transfer of knowledge from the academic realm and other technical bodies toward the project, striving to boost the climate change resilience of SLM and SBM practices. This interaction will make it possible to adapt livelihood strategies for indigenous peoples, peasant communities, and other stakeholders in the intervention area.	PCU National Watershed Program Vice-Ministry of Water Resources and Irrigation National Soil Program (PROSUELOS) Vice-Ministry of Land Vice-Ministry of the Environment, Biodiversity, Climate Change, and Forestry Management and Development Agro-environmental and Production Observatory, from the Ministry of Rural Development and Land Catholic Universities, Misael Saracho and Domingo Savio. Among other academic institutions.

Environmental: Intense and in some cases unauthorized changes in land use. Forest fires brought on by uncontrolled burning in drought seasons constitute potential risk, due to their magnitude and fallout. Short, medium, and long term.	M	H	Integrated participatory planning, included in the LMMPs, will help to mitigate changes in land use and coverage and foster the participation of the community in fire control, saving water, etc. SLM and SBM practices will help reduce the risk of fire and restore degraded zones.	PCU MMAyA Executing agency
Environmental: Extreme climate conditions negatively affect ecosystem conditions, jeopardizing the chance to implement sustainable production systems and upkeep environmental functions	M	A	Sustainable management practices to conserve land and water systems and design diversified production systems specifically for climate resilience, in particular, drought and water scarcity. Implementing practices in a participatory fashion to reduce the vulnerability of systems and livelihoods.	PCU MMAyA Executing agency

Economic/Financial: The COVID-19 pandemic has led to a drop in tourism and shrinking demand for local products. The change in the priority and destination of the Water Cooperative's CSR resources could lead to a decapitalization of the Regional Water Fund.	M	A	Develop strategic partnerships with private entities in order to ensure the sale of products obtained from SLM, SBM, and water source conservation. Address strategies to strengthen socioeconomic aspects via the development of the LMMPs and the PTDIs. Develop a Technical-Financial Feasibility Study that contributes to the design of a Financial Sustainability Strategy to meet the supply and demand of water for human consumption in the Central Valley of Tarija. In addition, contribute to increase the seed capital of the Water Fund to achieve scaling up and sustainability of activities including the implementation of SLM and SBM practices.	PCU MMAyA Executing agency MMAyA Cooperativa de Agua.

Political/Institutional: Political changes can lead to discontinuities in the agreements achieved as part of the project, affecting their continuity and decision-making, as well as labor instability and limitations on human resources.	M	M	Strengthen governance from the bottom up, the committees, and different social organizations, by creating agreements in the framework of project execution, to earn the buy-in of all of the stakeholders involved in SLM and SBM, as well as water source conservation. Strengthen interinstitutional agreements and channels to transfer information, financial resources, and other aspects, in order to ensure the project develops on time and properly.	PCU MMAyA Executing agency
Political/Institutional: Low technical capacity at different levels in LDN, SLM, and SBM themes, and integrated water resource planning and management.	L	L	The project will pay special attention to maintaining ongoing development and capacity-building via experience-sharing at the local level. SLM and SBM practices will be implemented in a participatory manner to harness local knowledge and heritage pertaining to managing sustainable land systems, as well as modern scientific knowledge and technologies to fight degradation and climate change.	PCU MMAyA Executing agency

Social: Project development is subject to the health protocols and measures resulting from the COVID-19 pandemic. The participation of local inhabitants in the project activities will be diminished.	M	A	Develop communication and participation strategies to overcome limitations. Set up strategic agreements and partnerships among the national, subnational, and local governments to facilitate execution of project activities at the local level, while complying with health measures and social distancing.	PCU MMAyA Executing agency Ministry of Health, through municipalities, governments, and their headquarters.

<u>Social:</u> Cultural differences, pre-existing conflicts, a patriarchal culture, low desire among stakeholders to adopt sustainable management practices, among other factors, can be hurtful to the exchange and transfer of knowledge, in light of the inclusive nature of the project.	M	M	Strengthen institutional capacities via training and awareness-raising to the technical teams on a gender, multicultural, and intergenerational approach. Foster equitable participation from women, youth, and senior citizens in the Tarija Central Valley and from all of the other stakeholders involved in SLM and SBM with a basin approach, in both generating and transferring knowledge and implementing sustainable production practices. In the framework of free, prior, and informed consent, create a registry and systematization system to attend to and rapidly respond to conflict situations. Set up a direct communication channel with the appropriate authority. Adapt the project communication strategy with a gender approach to ensure the active participation of project beneficiaries. Include lines of action as outlined in the Gender Plan.	PCU MMAyA Agency to Implement Municipal Governments (Human Development Office) Farmer associations and/or Departmental Peasant Federation Universities

Social: Issues around regulating land tenure and challenges in access to incentives and other schemes that promote the adoption of sustainable practices.	M	M	The aim is to improve the security of land tenure via the development of LMMPs and other governance arrangements and agreements that can be entered into as part of the Interinstitutional Platform. This will include, among other things, raising awareness around the application of Voluntary Guidelines on responsible governance of Land Tenure, integrating land tenure security into different microbasin strategies. It is important to note that adopting an LDN approach will enable recognition and protection of customary systems of land governance. (see Decision 16/COP 14, paragraph 9 of the UNCCD framework).	PCU MMAyA Agency to Implement

Social: Conflicts derived from the competition for use of the territory and natural resources, especially forests, among different stakeholders and policies converging in the same territory	M	M	The development of the LMMPs and the participatory governance principles at different levels will enable integrating the LDN approach into the integrated planning and management of water resources, facilitating reaching consensus to address common problems related to degradation and, at the same time, improve the socioeconomic benefits of improving land productivity, water use efficiency, and conservation measures.	PCU MMAyA Agency to Implement
Social: Lack of governance structure and implementation in the management of the Guadalquivir river basin and conflicts over access to water for human consumption versus water for irrigation.	M	M	Analysis of the supply and demand of water resources with climate change scenarios contributes to establishing and strengthening local microbasin management committees to monitor water sources and reservoirs, differentiating between sources for human consumption and irrigation. Raising stakeholder awareness on the proper use and management of the watershed, including SLM and SWM practices, contributes to and strengthens resource management (watershed).	MMAyAMuniciplaties

Table 5. Project Risks

COVID-19 and risk analysis:

223. Although the COVID-19 pandemic does entail a risk to project execution, at the same time it may provide opportunities to restore value to local-level initiatives with significant potential for generating Global Environmental Benefits. Accordingly, the environmental benefits foreseen from restoration, SLM, and SBM may, on the one hand, contribute to reducing the risk of emerging infectious diseases in the future in the area and, on the other, boost the resilience of local socioecological systems in response to these threats.

224. This project will contribute to land and biodiversity management and restoration in the Guadalquivir River Basin, by implementing SLM and SBM practices with a basin approach to advance toward achieving national LDN targets. In terms of sustainable management of water resources, the project will support already-existing initiatives in the project area related to integrated management of the resource. Likewise, by incorporating SLM and SBM practices at the landscape level, the aim is to strengthen sustainable and resilient production systems to advance in food security with sovereignty, boosting the resilience of local communities in view of climate change and drought. The insertion of SLM and SBM products in markets and economic circuits at the local and regional level will improve local livelihoods and boost resilience in view of the health crisis and the economic fallout from it. It is important to note that under Component 4 of the project, as part of project management, budget has been set aside for COVID-19 prevention materials (basic hygiene and sanitization elements), in order to minimize the risk of contagion in the different activities proposed to develop the project.

225. The COVID-19 pandemic affects the dynamics of participation and knowledge co-construction, with the gender and intergenerational approach on which the project is based. Differing degrees of access to technology and lack of connectivity may limit the effective participation of all of the stakeholders involved in the project. In light of national government and subnational government restrictions to stop the spread of the virus, the participation of local inhabitants in the project activities will be diminished, especially among risk groups. Having said that, if the project conditions allow it, one of the ways to minimize this risk will be via the work of facilitators on the ground who adhere to all biosafety protocols, as well as the involvement of local governments as strategic partners.

226. Some of the main mitigation measures planned include designing a work strategy via focal groups that make it possible to disseminate the project?s progress among the stakeholders; also, design and implement a communication strategy that will include usage of community radios and the development of dissemination materials and other materials to ensure that all stakeholders have the chance to participate in the project. Moreover, priority will be placed on holding virtual meetings, supplemented by disseminating information in the territory. Strategic agreements and partnerships will be entered into with the national, subnational, and local governments to facilitate project execution in the framework of compliance with health measures required at the national level and by the FAO. A biosafety protocol will be designed for all stakeholders in the project. With the aid of health agents and representatives of the local communities, the evolution of the impact on the population in the intervention area will be evaluated. In that sense, if any situations of alarm arise, GEF will be receive immediate communication about them, in order to take any measures necessary to make adjustments to project activities.

227. The project development will lay the groundwork and do capacity-building in the field to keep the logistics channels active, ensure the provision of food to the population, establish decentralized mobile devices, set up markets with fair prices avoiding intermediaries, and develop the logistics for supplying inputs like seeds, fuel, and more. The project will take into account the lessons learned during the months of the pandemic in terms of how activities are designed and awareness among stakeholders around actions to mitigate this risk (including future pandemics).

228. In addition to that, in order to support breathing momentum into the local economy, which is being affected by the COVID-19 pandemic, work will be done to set up productive family entrepreneurship supported by the Tarija Regional Water Fund, which will enable bringing local products to market, principally in nearby markets.

Section B: Environmental and Social Risks of the Project

229. The project was classified as moderate-risk. Table 6 describes the project?s environmental and social risks identified In the first year of project implementation, the ESSP will be prepared alongside the Free, Prior, and Informed Consent (FPIC) process, as per the requirements of FAO?s Environmental and Social Management Unit (ESM Unit).??

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions
1.5.- Does this project aim to improve the irrigation scheme (without expansion), as one of its objectives?	Moderate	Given the sector of the basin where the work is being done, by improving the irrigation scheme to boost water use efficiency, there could be negative impacts at other points of the basin. In terms of potential impacts, there could be receding erosion, salinization, changes in water dynamics, reduced water availability downstream, and more.	The project will adapt the planning methodologies and capacity-building in a participatory fashion to restore irrigation systems, minimizing the potential adverse effects that may result in the basin. Likewise, it will be essential to conduct tracking in terms of the amounts of water resources periodically at different points in the basin. On another note, protocols will be developed for resilient and efficient irrigation systems for food production, aiming to increase production and yields.	The flowrate baseline and physical-chemical quality of the surface water resources measured at different points of the basin and periodic monitoring. Monitoring of potential negative impacts derived from improving irrigation systems.	Number of families who gain access to technical assistance services in irrigation systems, supplementing conservation agriculture and holistic management. The Tarija information system includes water resource monitoring data from the GRB.

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions
1.10 - Could this project give rise to changes to the existing *tenure rights* ? (*formal and informal* ?) of individuals, communities, or others over land, fish, and forest resources? ?Tenure rights are ownership, use, or benefit rights to natural resources, like land, bodies of water, or forests. ?Socially or traditionally recognized tenure rights not yet defined in the law can be considered as legitimate tenure rights. 1.10.1 - Could this project lead to any negative change to the existing legitimate tenure rights?	Moderate	The project will not lead to any negative change to the existing legitimate tenure rights.	The expectation is for the territorial plans at the community level for the microbasins (LMMP) to contribute to reducing degradation and improving the adaptative capacity, while also ensuring governance of resources for local communities and farmers. In the framework of the voluntary guidelines for the responsible governance of Land, Fish, and Forest Tenure in the context of national food security (food sovereignty in the context of Bolivia), the project is aligned with the following: 1) Improve tenure governance by providing guidance and information about internationally accepted practices for the systems through which the rights to use, management, and control of land, fish, and forests are managed; 3) Increase transparency and improve the functioning of tenure systems; 4) Strengthen capacities and the functioning of the executing bodies, judicial authorities, local governments, farmers? and small-scale producers? organizations, fishermen, forest users, shepherds, indigenous peoples and other communities, civil society, the private sector, academic institutions, and anyone else interested in tenure governance, as well as foster cooperation among the aforementioned stakeholders. The aim is to improve the security of land tenure via	LMMPs designed and implemented Strategic agreements and partnerships in the framework of the IPGRB	LMMPs designed and implemented

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions
9.4 - Might the project be located in an area where there are any cultural resources?	Moderate	There is a risk of physical cultural resources coming up during the project execution as well as potential harm or disappearance of them. In addition, if Free, Prior, and Informed Consent is not granted and the project is not widely shared, it will not earn the buy-in of local stakeholders and the credibility of and interest in the benefits that could be expected from the project will wane.	To preserve cultural resources (where they may exist in the project area) and prevent their destruction or damage, special attention should be paid to the following aspects: A) verify the provisions of the regulatory framework, which is generally under the supervision of a national institution responsible for protecting historical and archaeological sites/intangible cultural heritage; and b) via collaboration and communication with the institutions of governance/leadership of the indigenous peoples, verifying the likelihood that these sites/intangible cultural heritage significant to the indigenous peoples may exist. In cases where there is a high likelihood of finding physical cultural resources, the tender and contract documents for any civil work must include language around the need to include recovery of ?fortuitous findings? in accordance with national procedures and rules. By consolidating the governance for planning and management of sustainable production systems and the implementation of SLM and SBM practices, the project aims to include the cultural wealth of the local communities, taking into consideration their ancestral knowledge, ways of life, and more.	Participatory territorial planning and integrated water management planning and implementation of SLM and SBM with an eye to reaching consensus around the use of the territory and its resources, strengthening the ways of life of local communities. Ensure free, prior, and informed consent. Promote effective participation among all of the stakeholders in the GRB in decision-making in the framework of the IPGRB. In the framework of free, prior, and informed consent, create a registry and systematization system to attend to and rapidly respond to conflict situations. Set up a direct communication channel with the appropriate authority.	Number of actions that support the free, prior, and informed consent process. System to record and systematize grievances and concerns from the community Number of communication actions tailored to diverse stakeholders The designed and implemented LMMPs include the preservation of physical cultural resources

Table 6. Socioenvironmental Project Risks

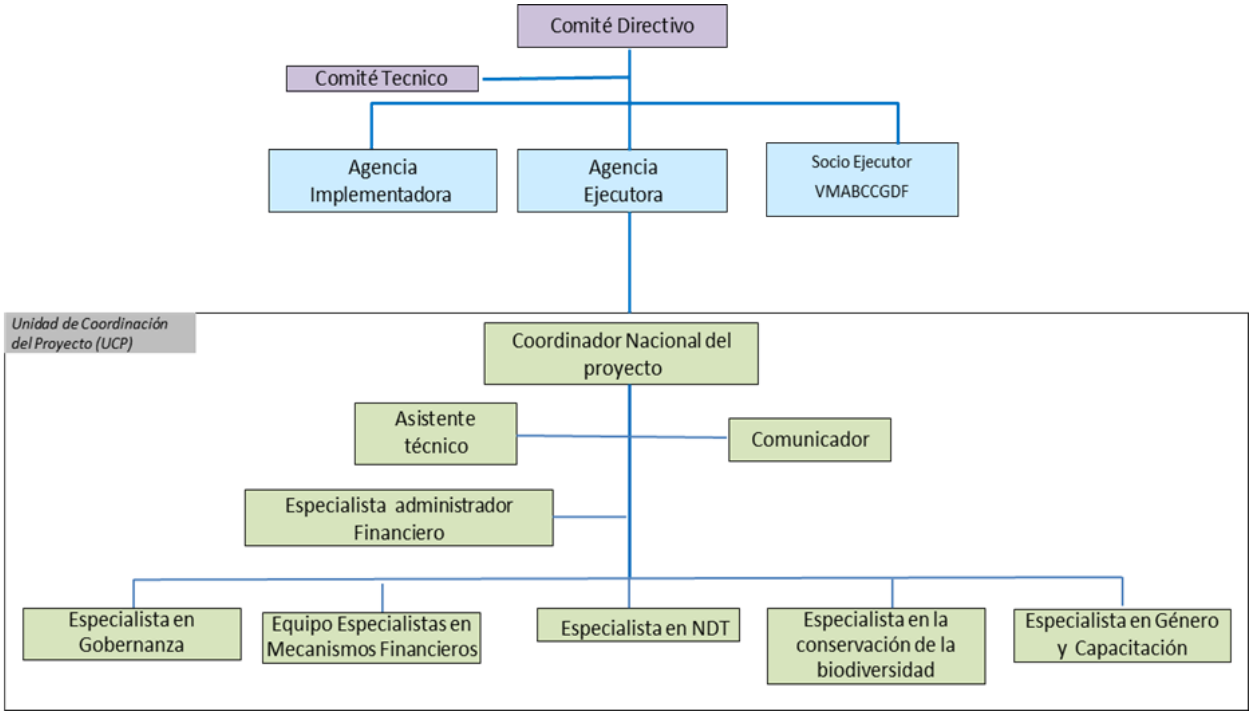
6. Institutional Arrangement and Coordination

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

230. The Vice-Ministry of the Environment, Biodiversity, Climate Change, and Forestry Management and Development (VMABCCGDF) will be the executing agency for the project. The project will have a Steering Committee (PSC), led by the VMABCCGDF, with the participation of other ministries and municipalities. The Project Coordinating Unit (PCU, funded in part by GEF resources under the PMC and in part with co-financing) will be led by a project coordinator in charge of executing the day-to-day activities for the project.

231. Considering the characteristics of the project, the organizational structure proposed is as follows:



Implementing Agency

232. The Food and Agriculture Organization (FAO) will be the **Implementing Agency** for the GEF project. FAO will provide supervision and technical guidance services during project execution. Management of the GEF donation will be done in accordance with FAO rules and procedures and in adherence to the agreement between the FAO and the GEF Trust. As the implementing agency, FAO has the following responsibilities:

? Manage and disburse GEF funds in accordance with FAO rules and procedures;

? Oversee project execution in accordance with the project document, work plans, budgets, agreements with co-financers, and FAO rules and procedures.

? Provide technical guidance to ensure that the proper technical quality is applied to all project activities.

? Carry out at least one supervision mission and one technical advising mission a year.

? Report to the GEF Secretariat and Evaluation Office on project progress and submit financial reports to the GEF Trust.

Executing Agency

233. The project Executing Agency will provide support and project management services as per the GEF policy. As the executing body, it will be responsible for general accountability to the GEF for results obtained. In the role of Executing Agency, it will coordinate and articulate activities among different stakeholders involved in the project structure (see Appendix J). Other responsibilities shall include:

? Executing the budget.

? Overseeing the technical execution of the project.

? The Principal Technical Officer(s) from the executing agency shall oversee/support the technical work on the project in coordination with governmental representatives on the project Steering Committee.

? The Funding Liaison Officer at the Executing Agency shall monitor and support the project cycle to ensure execution and the reports are written in accordance with agreed-upon rules and requirements.

? Providing technical assistance.

? Coordinating the project with local stakeholders via capacity-building.

? Ensuring that the expected project impacts and results come about.

? Offering administrative and operational support for the project.

? Submitting technical reports to the monitoring committees, as per established rules.

Co-executing Partners

234. The **co-executing partners**, in coordination with the Executing Agency, will be responsible for project execution and integrating all of the diverse components together. The VMABCCGDF, via its DBGAP/DGGDF offices, will be responsible for the following: (i) Plan and oversee technical aspects of the project, including regular visits to project intervention areas and tracking progress in achieving outcomes and outputs; (ii) Assist in drafting periodic progress and technical reports and carrying out periodic consultations with the beneficiaries; (iii) Assist in developing the POA with contributions from local stakeholders participating in project implementation; (iv) Participate in developing the ToR and the selection and hiring processes; (v) Mobilize grassroots resources and co-financing as outlined in the project

document; and (vii) Coordinate with governmental entities on topics related to Soil Degradation and others relevant to territorial planning. FAO will transfer funds to the executing partners via letters of agreement (LoA).

Steering Committee

235. The Project Steering Committee (PSC) shall consist of the Vice-Ministry of the Environment, Biodiversity, Climate Change, and Forestry Management and Development (VMABCCGDF), the Vice-Ministry of Water Resources and Irrigation (VRHR), the FAO representative in Bolivia, and the representative of the executing agency.

236. The Project Steering Committee (PSC) shall be the body setting project policies and strategies and providing guidance and supervision to activities funded by the GEF and other co-financing sources. The PSC is a high-level decision-making body involved in overall project management and shall ensure coordination among different stakeholders. The PSC shall meet at least twice a year to oversee project implementation and monitor progress. The Project Coordinator shall serve as Secretary at the meetings. Other activities of the PSC shall include: (I) general supervision of project progress and whether planned results are achieved, presented in the form of semester and annual progress reports; (ii) offer strategic guidance for decision-making; (iii) review and agree on the project strategy and methodology, as well as any changes or modifications derived from implementation; (iv) hold and organize meetings with different national, regional, and local stakeholders; (v) review and approve operating plans, annual budgets, and progress reports (on a semester and annual basis). The Steering Committee may seek out the support and/or aid of a **Technical Committee** to help track project results, which may consist of diverse bodies including local and academic institutions/organizations, such as the Vice-Ministry of the Environment, Biodiversity, Climate Change, and Forestry Management and Development (VMABCCGDF), the Vice-Ministry of Water Resources and Irrigation (VRHR), the General Directorate for Biodiversity and Protected Areas and the General Directorate for Forestry Management and Development, the FAO representative in Bolivia, and the representative of the executing body. The PSC shall meet twice a year; however, if its members so deem it necessary, the PSC shall be entitled to call extraordinary meetings. Its powers and duties shall be detailed in the project procedures manual or guidelines to be developed by the Project Coordinating Unit (PCU).

Project Coordinating Unit (PCU)

237. The PCU shall physically set up at one of the regional offices of the MMAyA within the first three months after activities kick off. The specific place shall be defined at the Kickoff Workshop. The

PCU shall be under the supervision of the Project Coordinator. The PCU shall be in charge of daily coordinating and management of the project via work plans and appropriate Terms of Reference, as well as for carefully designed administrative arrangements that meet the requirements of the Implementing Agency. The VMABCCGDF shall undertake appropriate efforts to help the PCU set up in its offices and provide proper assistance.

238. The PCU shall consist of the right professionals and support staff who can provide the technical assistance required for project execution. The PCU staff shall consist of the following roles:

239. **Project Coordinator**: A professional with significant direct experience with regard to the project scope, as well as evident management skills. This person shall provide leadership to the project and a general technical direction, working in close collaboration with the Executing Agency and key stakeholders.

240. **Technical Assistant**: This person will work at the PCU and provide technical support to the Project Coordinator, as well administrative support for project implementation.

? Lead the technical planning, coordinate and monitor the technical delivery of project outcomes, outputs and activities;

- ? Provide technical guidance to the executing partner(s) and experts to ensure that the activities are implemented using relevant approaches, tools and methodologies and best practices.
- ? Provide technical guidance, assess, review and approve the deliverables of the GEF-financed national technical specialists, and the technical outputs of the executing partner(s), short-time consultants, and other technical teams financed by projects funds, in close consultation with FAO and the Operational Partner.
- ? Ensure a high level of collaboration between participating institutions and organizations at the national and local levels;
- ? Supervise the project?s M&E and communications plans.

241. **Technical Specialists (LDN, Financial Mechanisms, Platform Advisor, Conservation and Biodiversity, Communication, Gender/Training)**: These people shall be responsible for providing due technical assistance in their areas of competency to achieve project results. They will serve as the technical support for the project coordination.

242. The responsibilities of the PCU shall include the following:

- Work to achieve project outcomes and the objective.

- Manage project implementation, coordinating activities as per FAO/GEF rules and procedures and on the basis of the general guidelines issued by the Project Steering Committee (PSC), in accordance with the work plan and budgets approved by the Steering Committee.

- Carry out general project and M&E coordination.

- Provide the technical inputs for the outcomes, as needed.

- Coordinate with project stakeholders and other relevant programs/projects.

- Hold periodic meetings to review progress in implementing the work plans.

- Ensure, alongside FAO and the Executing Agency, that certain tasks are outsourced to suitable Technical Assistance Service suppliers, which shall be subcontracted, or to national and international consultants via tenders or bids. In this realm, the PCU shall be responsible for drafting the tender documents and other terms of reference.

- Organize project meetings and workshops, e.g., the kickoff workshop, Project Steering Committee (PSC) meetings, IPGRB meetings, etc.

- Work in close collaboration with the Executing Agency and FAO to organize and provide technical and logistical support and coordinate all of the missions for the national and international consultants.

- Draft general project reports.

243. The VMABCCGDF shall designate counterpart staff to provide assistance on managing the project at the local level, including technical support, compliance with the administrative procedures of public institutions, FAO, the Executing Agency, and support for the M&E plan. Co-financing will be used to cover counterpart staff pay.

244. **Project coordinator**: the National Project Coordinator is responsible for the PCU, project execution, activity planning, and the technical and operational implementation and tracking of the project. Their responsibilities shall include:

- Overseeing daily implementation, management, administration, and technical progress of the project;

- Ensuring a high level of collaboration between participating institutions and organizations at the national and local level;

- Coordinating and closely monitoring implementation of project activities;

- Overseeing the activities of the PCU staff;

- Working toward developing the Annual Operating Plan (AOP);

- Overseeing drafting of the Terms of Reference for project activities, and analyzing and approving technical reports;

- Tracking project progress and ensuring timely delivery of inputs and outputs;

- Providing technical support and evaluating the outputs of the national consultants hired for the project with GEF funds, as well as outputs generated during project implementation;

- Approving and managing requests for provision of financial resources as per established forms;

- Monitoring financial resources and accounting to ensure the accuracy and reliability of financial reports;

- Overseeing and guaranteeing the adequate implementation of the project M&E system with an adaptative management approach;

- Guaranteeing that funding requests, and FAO progress and financial reports are prepared and submitted in a timely fashion;

- Keeping documentation and evidence describing the appropriate and prudent use of project resources, and making sure this supporting documentation is available to FAO and designated auditors upon request;

- Implementing and managing project monitoring and communication plans;

- Organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan;

- Submitting semesterly reports on project progress (PPR) with the AWP/B to the PSC and to FAO;

- Preparing the first draft of the Project Implementation Review (PIR);

- Supporting the organization of the mid-term supervision mission and final evaluation in close coordination with the FAO Budget Lead and the FAO Office of Independent Evaluation (OED);

- Submitting semesterly technical and financial reports from the PO to FAO and facilitate information-sharing between the PO and FAO if needed;

- Informing the PSC and FAO of any delay or difficulty that arises during implementation to ensuring timely corrective and supportive measures;

- Acting as Secretary at Steering Committee meetings.

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

245. Project activities will be coordinated with other initiatives under development by establishing joint actions with other parties. The GEF-funded projects the project plans to collaborate with are as follows:

246. GEFID 10393 - Strengthening integrated and sustainable management of biodiversity and forests by indigenous peoples and local communities in the fragile ecosystems of the dry forests of the Bolivian Chaco. The proposed project shall coordinate via sharing intervention experiences and how it is possible to recover the National Land Degradation Neutrality Strategy from the local level, as well as development of tools and approaches to implement the community-based planning and monitoring of land use. FAO is expected to provide technical supervision and specific technical support. Both projects will support the execution of activities to achieve LDN, so there will be a significant opportunity to share knowledge and experiences farmer to farmer (and community to community).

247. GEF ID 4577 - Sustainable Conservation and Use of Agrobiodiversity to improve human nutrition in five macro eco-regions. The objective of this project is in situ conservation and sustainable use of agrobiodiversity in five macro eco-regions to improve the livelihoods of the local population via value integration, conservation, and sustainable use of agrobiodiversity in national policies, regulatory frameworks, and programs (health, education, rural development, and food security). It also entails delivering market incentives and a process to raise awareness and provide training in the sustainable use of native species.

248. GEF ID 10030 (UNEP) - Support the process to submit national UNCCD reports for 2018: this project is centered on helping countries set up solid national systems to submit reports and tracking for the effective submission of reports (PRAIS) to the UNCCD. The project will do capacity-building for the MMAyA.

249. GEF 9993 - AVACLIM: An agroecology project designed to guarantee food security and sustainable livelihoods while also mitigating climate change and restoring the drylands in landscapes. The objective of the AVACLIM project is to contribute to mainstreaming agroecology in drylands as a tool to fight food insecurity, mitigate climate impacts, and change and restore degraded lands. The project targets policymakers, the OSC, and farmers from select countries, and will support efforts to (i) improve practical knowledge of agroecology, (ii) develop scientifically harmonious protocols to measure impacts and success factors in agroecological systems, (iii) support evidence-based decision-making around

agroecology at the landscape level, and (iv) raise awareness of impacts and success factors of agroecology. This is a global project that will also entail work in the Caatinga-Cerrado in Brazil. The GEF project proposed for Bolivia will explore synergies and share experiences related to best practices in agroecology.

250. Impact Program on Drylands from GEF-7 SBM The Impact Program in the Sustainable Management of Dryland Sustainable Landscapes (SBM-IP) is designed to prevent, reduce, and reverse severe degradation, desertification, and deforestation of the lands and ecosystems of the drylands via the sustainable management of production landscapes. The IP will achieve this objective via: (i) strengthening an environment conducive to the sustainable and inclusive management of drylands and (ii) implementing and expanding the sustainable management of drylands and allow resource administrators to implement sustainable management practices, thereby strengthening value chains and the availability of financial resources for resource administrators, among other actions. The project proposed for Bolivia is aligned with the SBM-IP as it will strengthen governance and the capacity of local communities to act as resource administrators so that they can implement SLM and SBM practices and ensure adequate management of knowledge and awareness. Given that the tools and approaches to be developed/implemented by the project are similar to those that will be used in the SBM-IP, both projects will benefit from knowledge sharing. Finally, this will build greater capacity in Bolivia for the achievement of its commitments under the UNCCD.

251. GCF - GCP/BOL/055/GCR Capacity-building to monitor the agricultural, forestry, and other land use (AFOLU) sectors in the nationally determined contribution and improve access to climate funding in the Plurinational State of Bolivia. The objective of the project is to do capacity-building in APMT to strengthen the monitoring and reporting processes for international commitments in the climate change arena, improving access to climate funding with evidence-based proposals in line with the Country National Program. The results are: i) institutional capacity-building in climate change management. Strengthen capacities and awareness-raising procedures among governmental institutions about how to access climate funding. Define technical guidelines and a coordinating mechanism platform as well as a procedure to evaluate needs in climate funding management. Compile a list of national entities to be accredited with the GCF; ii) Develop strategic frameworks on climate change topics and public-private financing strategies. Evaluate and complete the Country Program and strengthen Information and Monitoring systems for forests, water use rights, and protected areas, and coordinate with the integrated monitoring and information system called Big Data - Forests, Water, Soil, Biodiversity, and Environmental Functions, as part of the Integrated State Planning System (SPIE). Likewise, develop a strategy for public-private funding for the technical and financial sustainability of forest, water, soil, and biodiversity management activities; iii) share experiences and the knowledge/learning process to implement climate actions. Share experiences and knowledge in designing public policies, standards, and methodologies related to carbon neutrality in forest areas and management of climate financing with public and private funds.

252. GF4SL: Green Finance for Sustainable Landscapes. The Green Finance for Sustainable Landscapes (GF4SL) project is a Joint Initiative of the Collaborative Partnership on Forest (CPF), a broad-based platform of international organizations to share experiences and to build on them to produce additional benefits for SFM and their respective constituencies. The GF4SL aims at influencing the enabling conditions for commitments toward deforestation-free, sustainable commodity production and other forms of sustainable land use . The overall objective of the project is boosting bank and investor interest to increase capital flows towards restoration and deforestation-free agriculture. More specifically, UNEP aims to work towards ?standardizing? the way environmental & social impact can be identified for private capital flowing to land use sectors (particularly forests and agriculture) by using a standard set of Key Performance Indicators (e.g. ha of forests protected, restored, amount of greenhouse gas emissions reduced, improvement of income for smallholder farmers, etc.). A second outcome of this project is to

develop a ?standardized? framing, measurement and monitoring of environmental and social impact related to agri/forestry loans/investments.

253. GCF Increasing Climate Resilience based on vulnerable rural community ecosystems in the macro region of the valleys in the Plurinational State of Bolivia. The objective of the project is to increase climate change resilience among communities and small-scale farmers in the valleys macro region via capacity-building and development of better agricultural practices to boost productivity and the sustainability of their agroecosystems through efficient irrigation, in order to adapt to the growing variability of temperatures and precipitation.

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.

254. The project is consistent with the following national strategies, plans, reports, and evaluations under the Rio Convention:

- Bolivia 2030 National LDN Strategy (2018)

- UNCCD National Report (2018)

- Plurinational Policy and Strategy for the integrated and sustainable management of biodiversity. National Action Plan 2019-2030 of the CBD

- National Biostrategy Action Plan (28 March 2019)

- CBD National Report (31 December 2018)

- Cartagena Protocol National Report (31 December 2018)

- Nationally Determined Contribution - NDC - before the UNFCCC (12 October 2015)

- Nagoya Protocol National Report

- National Communications (NC) from the UNFCCC NC2 2 December 2009

- Biennial Update Report (BUR) of the UNFCCC

- UNFCCC evaluation of technology needs (April 2002)

- Others

255. The project will contribute to meeting PDES targets for 2016-2020 in relation to the following pillars: integrated production scenarios and transformation of food resources and biodiversity in the forests (Pillar 6); production diversification, protection of local varieties, and promotion of food cultures and traditions (Pillar 8); and development of sustainable production systems in the framework of territorial planning, as well as increased forest cover (Pillar 9). The project will also contribute to achieving the departmental and municipal targets described in the Integrated Territorial Development Plans, related to SLM and SBM, and the conservation and regeneration of environmental functions (Law No. 300). Likewise, SLM in the GRB will contribute to and improve food security with sovereignty (Law No. 144); the production of organic, bio-healthy, and healthy foods (Law No. 3525 and Law No. 775); socioeconomically, it will contribute to developing peasant organization (Law No. 338), and reduce poverty, strengthen food security with sovereignty, promote gender equity, and advance toward integrated developing in the Living Well framework.

256. The objectives set for the project will directly contribute to the 2030 National Strategy for Land Degradation Neutrality in the UNCCD framework, centered on SLM and SBM. In particular, it will contribute directly to the following objectives: i) zero illegal deforestation by 2020; ii) 16.9 million ha of forest under integrated and sustainable management plans with a community approach by 2030; iii) no extreme poverty among people dependent on the forests by 2025 (baseline: 350,000 people in 2010); iv) 6 percent growth in the forest gross domestic product (GDP) by 2030; v) 4.5 million ha of land forested and reforested by 2030; vi) 29 million ha with improved environmental functions by 2030; and vii) one million hectares of systems with resilient irrigation for food production by 2030.

257. With regard to the Plurinational Policy and Strategy for the Integrated and Sustainable Management of Biodiversity - Action Plan 2019-2030 under the CBD, the project is aligned with the biodiversity targets agreed on worldwide to foster actions to develop, promote, and strengthen biodiversity conservation, sustainable use, and inter-scientific dialogue. The project is entirely compatible with the five strategy areas defined in the strategy, which will serve as the basis for strengthening biodiversity nationally.

258. Finally, the project will contribute to government efforts to address climate change in the context of integrated development. In particular, in the 2021-2030 period, the Bolivian government has pledged to increase the joint climate change adaptation and mitigation capacity via sustainable forest planning. Government objectives include the following: (i) increase forest areas (3.1 million hectares in 2010 to 16.9 million hectares in 2030) with integrated and sustainable community management, (ii) strengthen environmental functions (biodiversity conservation, availability of water, carbon matter, capture, and storage) by approximately 29 million hectares by 2030, (iii) reduce extreme poverty to zero in the forest-dependent population, (iv) increased net forest cover, (v) increase the joint mitigation and adaptation capacity in forest-covered areas, (vi) conservation of areas with high environmental functions,

and (vii) capacity-building and consolidation of the regenerative capacities of forests and forest systems, to name a few.

259. In terms of national policies geared toward integrated water resource management, of note are potential synergies with the National Watershed Program, the National Irrigation, Water Resource Management Programs, and more, to carry out joint actions oriented toward improving water management in climate change scenarios. In terms of the NDC, two of the three national efforts for 2030 are inherent to this proposal: in the arena of water, i) holistically increase the adaptation capacity and systematically reduce water vulnerability in the country; and, in the arena of forests and agriculture, ii) increase joint adaptation and mitigation capacity via integrated and sustainable forest management.

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.

260. Knowledge management is a central activity that cuts across the entire project because it is through participatory knowledge building and the sharing of knowledge related to the participatory governance of soil, water, and vegetation, the integrated management of water resources, the implementation and tracking of sustainable production practices, that governance will grow stronger at both the institutional level and in the sphere of local inhabitants benefiting from the project. In line with principles defined in the FAO Knowledge Management Strategy, the knowledge management process designed will be oriented toward both governmental stakeholders and project beneficiaries and their partners (whether that be communities, producers, family farmers, or other local stakeholders in the GRB). To do so, ongoing learning will be fostered, with an eye to capacity-building around achieving sustainable production systems in line with the profile of the different social groups that make up the project, with a special emphasis on encouraging the active participation of women and youth. With that said, it will be essential to develop the activities outlined in the communication strategy with a gender approach to support the scaling up of SLM and SBM as contributions to LDN (Component 4). The strategy includes, for example, production of audiovisual material, designing and upkeeping a website for the project, creating materials to distribute at schools, and other visibility-raising tactics for capacity-building and policy influence.

261. Stronger governance for the management of sustainable production systems, water, soil, and vegetation in the GRB, contributing to integrated territorial management and LDN national objectives. This will serve as an opportunity to strengthen mechanisms to collectively construct knowledge, share experiences, and disseminate information to different project stakeholders. The flow of information will link together the different stakeholders involved in the project, encouraging their plural involvement, and enabling the design, implementation, and management of sustainable production systems that contribute to achieving LDN (Component 2). In relation to that, it is important to highlight that it is through knowledge management that it will become possible to restore the value of and earn social buy-in and dissemination of knowledge contributed to SLM and SBM, and on another note, the tracking of institutional and community processes already under way, in order to find alternatives or solutions to difficulties that could arise at different scales of project intervention. These tracking mechanisms will moreover make it possible to evaluate the results and impacts of the capacity-building for LDN monitoring and evaluation,

environmental functions, biodiversity, and livelihoods and design inclusive governance mechanisms for integrated territorial development led by the community with a gender-responsive approach (Component 1). It is important to note that the governance processes developed in the project framework will be systematized to aid in consolidating sustainable production systems, which will integrate the practices developed in the SLM and SBM framework, in order to foster their replicability and scaling up to other zones in the region. These shall be monitored thanks to local capacity-building, which will enable farmers on the ground to track practices using the application designed for data collection. These data, likewise, will be added to the Tarija Departmental Water Information System, evaluating their impact as a function of national LDN targets (Components 2 and 4).

262. The project plans on developing and disseminating different types of outputs that organize the knowledge, experience, and lessons learned as a result of the design, implementation, and monitoring of SLM and SBM practices, with the aim of contributing to the LDN scope and sustainable biodiversity management. These outputs include brochures and other types of digital materials, with graphic design supported by images that will share innovative practices and technologies in a simple way; didactic materials to promote SLM and SBM at schools throughout the region; audiovisual and multimedia materials pertaining to lessons learned during the governance building process for sustainable production systems; and the compilation of an informative policy brief that systematizes the project experience and contributions to the National LDN Strategy entered into by the Plurinational State of Bolivia. The project will have a website linked to the platforms of the MMAyA, FAO, and other partner institutions on the project, which will be periodically updated with project progress.

263. Actions related to knowledge management will also be carried out with respect to existing financial mechanisms that contribute to guaranteeing water of sufficient quality and quantity for human consumption, ecological flow and productive systems. In this sense, information, knowledge and capacity exchange processes will be carried out between financial mechanisms such as the Quito Water Fund, the Lima Water Fund - AQUA Fund, the Productive Development Bank, the experience on financial mechanisms of the GEF - LDN project in Panama, among others that could contribute to strengthen the financial sustainability scheme of the Regional Water Fund. However, it is important to mention that in the design phase of the project the technical, financial and environmental feasibility study of the Fund has not yet been carried out; however, progress has been made in the process of sensitizing the civil society in general and the institutions that carry out various productive activities in the Central Valley of Tarija, so that they can guarantee water for their productive systems, but above all for the human consumption of the local population 365 days a year, in sufficient quality and quantity, to avoid shortages and any possibility of social conflict. All this associated to the implementation of SLM and SWM practices with NDT approach.. It is important to mention that Agua Capital is part of the group of Water Funds supported by the Latin American Alliance of Water Funds, an agreement between the Inter-American Development Bank (IDB), the FEMSA Foundation, the Global Environment Facility (GEF- GEF) and The Nature Conservancy (TNC) in order to contribute to water security in Latin America and the Caribbean through the creation and strengthening of Water Funds. We currently have 23 Water Funds in 8 countries of the

region, a space in which the dialogue of the bodies that direct and manage the water funds will also be sought.

264. The following is the timeline and budget for the knowledge management plan (Table 5):

Activity	Responsible	Budget Line	Total Budget (USD)	Timeline
Development of a communication and information strategy aimed at different actors, with criteria of gender and generational equity	Project Coordinator / Communication Consultant / Gender Consultant	Coordinator (Fraction Output 4.2.1)	3,000	Project Year (PY) 1
Preparation of virtual and printed materials for dissemination, adapted to the different actors and audiences and with gender and generational sensitivity	Communications consultant	?Dise?o de estrategia de comunicaci?n? ?Dise?ador de materiales de comunicaci?n/ difusi?n? ?Materiales de Difusi?n?	3,000 5,000 23,639	PY 2 PY 1 ? PY 2 ? PY 3 PY 2 ? PY 3

Activity	Responsible	Budget Line	Total Budget (USD)	Timeline
Development of a project website to continuously share experiences, disseminate information and motivate the replication of the project	Communications consultant	?Dise?o y mantenimiento de la p?gina Web?	5,000	PY 1 - PY 2 ? PY 3 ? PY 4
Systematization and dissemination of capacity building processes, knowledge and lessons learned	Communications consultant	?Elaboraci?n y Difusi?n de Video con lecciones aprendidas del proyecto?	15,000	PY 2 ? PY 3
Communications consultant (Cross-cutting all activities above and responsible for the implementation of the communication strategy)				
		Total	54,639	

Table 7. Knowledge Management Plan

265. The project's communication strategy seeks to ensure the effective participation of watershed stakeholders in governance and territorial management, and in the sustainable management of land, water and biodiversity. These stakeholders include representatives of the national government, departmental government, municipal governments, producers, family farmers, marketers, the financial sector and academia, in a territory that includes five prioritized micro-watersheds. It seeks to use Strategic Communication and Communication for Development as tools to contribute to the achievement of the project's objectives, reaching the social actors involved; feeding back on their knowledge, practices, needs and experiences, and from this holistic interaction, making use of traditional media, new technologies and others that can contribute to the communication processes.

266. The aim is to provide communication support for the project's actions aimed at developing and implementing an inclusive territorial planning and governance strategy as a model for the conservation, restoration and sustainable management of land, water, biodiversity and integral productive systems; progress towards Land Degradation Neutrality (LDN) in the Guadalquivir River Basin and the generation of information on project activities, creating and making use of spaces already created to make visible the

different phases of the work (progress, achievements, lessons learned), both among counterparts (international level and national decision makers), as well as among social actors (local level) and society in general (national level).

267. The strategy places special emphasis on the different levels of the State and on producers/family farmers, with a strong gender component, and therefore proposes tools for Strategic Communication and Communication for Development. Within this framework, it identifies the following target audiences: project stakeholders, including implementers (Ministry of Environment and Water; GEF Fund), authorities at different levels of government (government, municipalities, communities); and interest groups, including civil society organizations and NGOs, academia, research and learning centers, United Nations agencies and other development partners, and national and international media.

268. Agreements will be reached with the local media to provide content related to the project's objectives. It is proposed to enter into a working agreement with two local media outlets to broadcast radio spots and a fortnightly slot to disseminate concepts worked on with the project's central stakeholders. Subsequently, once there is a working basis for the recovery of knowledge, reflections, concerns and potential of the project's objectives, informative capsules will be made, involving the communication promoters. Among the priority activities are the design of a communication plan and the visual identity of the project; the organization of the launching and start-up workshop and the dissemination in the media.

269. The implementation of the project's communication strategy will strengthen capacities at different levels in aspects related to integrated territorial planning, SLM and SFM. It is expected that these concepts will be internalized by the project's target stakeholders, as well as the dissemination from producer to producer of practices that can be replicated in the field. In this way, a multiplier effect will be achieved at the territorial level, impacting both the territories prioritized by the project and their areas of influence. Favorable conditions of involvement and ownership of the project will be generated, laying the foundations that will ensure the sustainability of the activities developed by the project over time, once the financing is finalized.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

270. The project will guarantee transparency in the preparation, completion, and submission of reports and evaluation of project activities. This includes full disclosure of all non-confidential information and consultation with the main groups and representatives of local communities. The disclosure of information will be guaranteed through publication on the project website and the dissemination of results via outputs and knowledge events. Project reports will be shared widely and freely, and the results and lessons learned will be made available.

271. Monitoring and evaluation (M&A) of progress made toward achieving project outcomes and objectives will be carried out based on the targets and indicators outlined in the Project Results Framework (Appendix A1) and the description of the results in Section 1.a. The project Monitoring and Evaluation plan is shown in Table 7.

i.The M&E design for the project shall be based on FAO processes and standard procedures for monitoring, reporting, and evaluation, which shall be in line with the GEF Monitoring and Evaluation policy. The project results framework presented in Appendix A1 contains the SMART indicators for each of the expected outcomes, as well as the project?s mid-term and endline targets.

ii.The M&E plan will be revised if necessary, during the project Kickoff Workshop to ensure that the stakeholders all understand their roles and responsibilities in project Monitoring and Evaluation. The indicators and the means to verify them can also be adjusted in detail during the kickoff workshop. The Project Coordinating Unit (PCU) shall be charged with monitoring the project on an ongoing basis, while other partners will be charged with gathering specific information to track indicators. The Project Executive Director shall be responsible for reporting to FAO any delays or difficulties arising during implementation so that support can be provided or corrective measures taken in a timely fashion.

iii.Monitoring and Evaluation will be implemented by the PCU and FAO office. Monitoring is to be done on three levels: i) project results and impact with respect to the Logical Framework; ii) delivery of project outputs in accordance with annual work plans; and iii) monitoring project implementation and performance. The PCU will develop the M&E system, implement the M&E plan, and train project and counterpart staff to facilitate accurate data gathering and writing of reports. The baseline will be reviewed at the start of the project to close any potential gaps and contribute to measuring indicators during the first year of project execution.

iv.FAO will support oversight and tracking for the project by ensuring quality of reports and outputs and applying procedures in line with the required standards pertaining to, for example, financial governance. Likewise, FAO will periodically review the project risks and hypotheses, considering that an important tool for execution is the adaptative management approach.

v.The Mid-Term supervision mission and Final Evaluation will be conducted to identify the strengths of the project, document lessons, and offer the chance to correct weaknesses. The PCU will develop and implement a plan to raise project visibility and regularly share information among the different agencies, institutions, and beneficiaries involved in the project, include project reports and results, a project website, and dissemination materials.

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

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

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

ix.Below is a summary of the M&E plan for the project (Table 7):

Activity Type	**Responsible Party**	**Budget**	**Timeline**
Inception Workshop	Project Coordinator FAO	1,583	In the first two months of the project
Inception Report	Project Coordinator FAO	None	One month after the Kickoff Workshop
Measuring baseline and indicators	Project Coordinator Project Team, PCU Studies/consultants to be hired by the PCU	5,000 (Part of M&E Consultant budget)	In the first two months of the project
Measure project indicators (indicators on objectives, progress, and performance, tracking tools)	Project Coordinator Project Team, PCU Studies/consultants to be hired by the PCU	47,500 (Part of M&E Consultant budget)	Indicators on objectives: project start, mid-term, and end. Indicators on progress/performance: annually
Biannual report PPR Annual report PIR	Project Coordinator FAO	None	Every six months Annually

Project progress reports and other reports (monthly, quarterly, Tracking Tools...)	Project Coordinator and team	None	As appropriate (monthly, quarterly, FAO or counterpart requirements)
Meetings of the Project Steering Committee	Project Coordinator FAO	None	After the Kickoff Workshop and then ONCE a year
Meetings of the Project Technical Committee	Project Coordinator FAO	None	At least twice a year
External Mid-Term Evaluation (MTR)	Project Coordinator FAO/GEF External consultant(s)	7,000	At the mid-term of project implementation
Terminal Evaluation (TE)	The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED.	30,000	To be launched 6 months prior to terminal review meeting
Final project report	Project Coordinator Project team	6,550	2 months after the project is complete
Field visits Total	FAO Counterparts	Paid with IA fees and the operating budget **81,083**	Annually

Table 7. Project M&E Plan and Budget

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)?

272. The direct beneficiaries of the project are 1,836 people, of whom 918 are women and 918 are men. These people will benefit from the combined development of several project actions: stronger governance for sustainable production systems, water, soil, and vegetation in the GRB, improvement of territorial planning capacities at the microbasin level and the efficient management of water resources; the implementation of SLM and SBM practices, and participation in productive entrepreneurship through the Tarija Regional Water Fund, among others.

273. The basin management approach, set into motion in an integrated and multi-scale way, will contribute to strengthening governance and doing capacity-building in sustainable production system management and the scaling up of SLM and SBM, and will enable building a common vision of contributions from the local level to national LDN targets. The project framework will contribute to reducing land degradation and to restoring diverse production systems via the implementation of local water management plans at the microbasin level that incorporate into their design and execution guidelines to develop SLM and SBM at the landscape level, in the LDN approach framework. The participating institutions shall coordinate implementation of SLM and SBM practices which are most appropriate to addressing the loss of environmental functions and land degradation in the project intervention area. Restoration, SBM, and SLM will all contribute to reducing food and nutritional insecurity, strengthening and diversifying livelihoods with gender and generational equity, and increasing socioecological resilience to climate change. Actions will be carried out in a participatory manner, promoting the involvement of producers, local communities, small-scale farmers, livestock farmers, local authorities, and more, at different stages of the project.

274. Another contribution at the institutional level is related to generating and strengthening knowledge around tracking LDN targets.

275. By developing the project components and doing capacity-building among beneficiaries, benefits will be yielded at the local, regional, and national level in the areas of livelihoods, environmental sustainability, progress toward LDN in the GRB, and more. From the environmental standpoint, there will be a positive impact on the conservation and maintenance of environmental functions; improvement of cultural and identity values; benefits for the local economy through the strengthening of the Tarija Regional Water Fund, and the sale of products obtained using SLM and SBM by strengthening and setting up production undertakings, especially led by women, which in turn will enable job creation, production diversification, the endowment of added value to agrobiodiversity products, improved income, and more.

276. The project will foster Decent Rural Employment by way of actions taken in the framework of the four decent employment pillars established by FAO (Table 8).

Pillars	Topics under the pillars related to the project intervention	Specific project actions
1. **1. Job Creation and Business Development**	? Increasing the productivity of rural labor via better access to training, outreach, services, and technology. ? Promoting sustainable productive entrepreneurship in rural areas via support for bringing products to market for microenterprises, access to markets, training, and more. ? Support for national institutions in gathering and analyzing data disaggregated by age and gender in rural labor markets. ? Job creation programs piloted in rural zones, in particular for youth and women.	? Capacity-building program (Output 1.1.3) ? Implementation of SLM and SBM practices in the framework of the LMMPs (Output 2.1.1) ? Technical support and setting up field schools (Output 2.1.2) ? Database and reporting for the target microbasins with a gender and participatory approach to track SLM and SBM actions (Output 2.1.3). ? Setting up productive entrepreneurship (50% women-led) (Output 3.1.2)
1. Social Protection	? Improving working conditions in rural areas, including effective protection for maternity and income	? Capacity-building program (Output 1.1.3) ? Implementation of SLM and SBM practices in the framework of the LMMPs (Output 2.1.1) ? Technical support and setting up field schools (Output 2.1.2) ? Setting up productive entrepreneurship (50% women-led) (Output 3.1.2)
2. Labor Standards and Rights	? Support for freedom of association, setting up producer associations ? Eliminating discrimination and promoting equality. The aim is to reduce/eliminate gender and age discrimination	? LMMPs developed (Output 1.1.2) ? Setting up productive entrepreneurship (50% women-led) (Output 3.1.2) ? Capacity-building program (Output 1.1.3) ? Technical support and setting up field schools (Output 2.1.2) ? Implementation of SLM and SBM practices in the framework of the LMMPs (Output 2.1.1)

3. Governance and Social Dialogue	? Empowerment and greater participation from the rural population in social and political dialogue via their organizations, especially women and youth. ? Support participation of the impoverished rural population, especially underprivileged groups, in local decision-making and governance mechanisms. ? Synergies built between organizations and opportunities created for farmer-to-farmer learning	? Stronger platform for water, soil, and vegetation governance (Output 1.1.1) ? LMMPs developed (Output 1.1.2) ? Technical support and setting up field schools (Output 2.1.2)

Table 8. Project?s Contribution to the Decent Employment Pillars

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate		

Measures to address identified risks and impacts

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

Section B: Environmental and Social Risks of the Project

165. The project was classified as moderate-risk. Table 6 describes the project?s environmental and social risks as identified and Appendix 11 includes the certification of the project risk. In the first year of project implementation, the ESSP will be prepared alongside the Free, Prior, and Informed Consent (FPIC) process, as per the requirements of FAO?s Environmental and Social Management Unit (ESM Unit).??

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions
1.5.- Does this project aim to improve the irrigation scheme (without expansion), as one of its objectives?	Moderate	Given the sector of the basin where the work is being done, by improving the irrigation scheme to boost water use efficiency, there could be negative impacts at other points of the basin. In terms of potential impacts, there could be receding erosion, salinization, changes in water dynamics, reduced water availability downstream, and more.	The project will adapt the planning methodologies and capacity-building in a participatory fashion to restore irrigation systems, minimizing the potential adverse effects that may result in the basin. Likewise, it will be essential to conduct tracking in terms of the amounts of water resources periodically at different points in the basin. On another note, protocols will be developed for resilient and efficient irrigation systems for food production, aiming to increase production and yields.	The flowrate baseline and physical-chemical quality of the surface water resources measured at different points of the basin and periodic monitoring. Monitoring of potential negative impacts derived from improving irrigation systems.	Number of families who gain access to technical assistance services in irrigation systems, supplementing conservation agriculture and holistic management. The Tarija information system includes water resource monitoring data from the GRB.

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions
1.10 - Could this project give rise to changes to the existing *tenure rights* ? (*formal and informal* ?) of individuals, communities, or others over land, fish, and forest resources? ?Tenure rights are ownership, use, or benefit rights to natural resources, like land, bodies of water, or forests. ?Socially or traditionally recognized tenure rights not yet defined in the law can be considered as legitimate tenure rights. 1.10.1 - Could this project lead to any negative change to the existing legitimate tenure rights?	Moderate	The project will not lead to any negative change to the existing legitimate tenure rights.	The expectation is for the territorial plans at the community level for the microbasins (LMMP) to contribute to reducing degradation and improving the adaptative capacity, while also ensuring governance of resources for local communities and farmers. In the framework of the voluntary guidelines for the responsible governance of Land, Fish, and Forest Tenure in the context of national food security (food sovereignty in the context of Bolivia), the project is aligned with the following: 1) Improve tenure governance by providing guidance and information about internationally accepted practices for the systems through which the rights to use, management, and control of land, fish, and forests are managed; 3) Increase transparency and improve the functioning of tenure systems; 4) Strengthen capacities and the functioning of the executing bodies, judicial authorities, local governments, farmers? and small-scale producers? organizations, fishermen, forest users, shepherds, indigenous peoples and other communities, civil society, the private sector, academic institutions, and anyone else interested in tenure governance, as well as foster cooperation among the aforementioned stakeholders. The aim is to improve the	LMMPs designed and implemented Strategic agreements and partnerships in the framework of the IPGRB	LMMPs designed and implemented

Risk Identified	Risk Category	Potential Impacts	Mitigation Measure(s)	Indicator / Verification Means	Progress in Mitigation Actions
9.4 - Might the project be located in an area where there are any cultural resources?	Moderate	There is a risk of physical cultural resources coming up during the project execution as well as potential harm or disappearance of them. In addition, if Free, Prior, and Informed Consent is not granted and the project is not widely shared, it will not earn the buy-in of local stakeholders and the credibility of and interest in the benefits that could be expected from the project will wane.	To preserve cultural resources (where they may exist in the project area) and prevent their destruction or damage, special attention should be paid to the following aspects: A) verify the provisions of the regulatory framework, which is generally under the supervision of a national institution responsible for protecting historical and archaeological sites/intangible cultural heritage; and b) via collaboration and communication with the institutions of governance/leadership of the indigenous peoples, verifying the likelihood that these sites/intangible cultural heritage significant to the indigenous peoples may exist. In cases where there is a high likelihood of finding physical cultural resources, the tender and contract documents for any civil work must include language around the need to include recovery of ?fortuitous findings? in accordance with national procedures and rules. By consolidating the governance for planning and management of sustainable production systems and the implementation of SLM and SBM practices, the project aims to include the cultural wealth of the local communities, taking into consideration their ancestral knowledge, ways of life, and more.	Participatory territorial planning and integrated water management planning and implementation of SLM and SBM with an eye to reaching consensus around the use of the territory and its resources, strengthening the ways of life of local communities. Ensure free, prior, and informed consent. Promote effective participation among all of the stakeholders in the GRB in decision-making in the framework of the IPGRB. In the framework of free, prior, and informed consent, create a registry and systematization system to attend to and rapidly respond to conflict situations. Set up a direct communication channel with the appropriate authority.	Number of actions that support the free, prior, and informed consent process. System to record and systematize grievances and concerns from the community Number of communication actions tailored to diverse stakeholders The designed and implemented LMMPs include the preservation of physical cultural resources

Table 6. Socioenvironmental Project Risks

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Bolivia Guadalquivir ESS Screening Checklist	**CEO Endorsement ESS**	
Climate Risk Screening Bolivia Guadalquivir	**CEO Endorsement ESS**	
ESSSupportingDocument_PIF Guadalquivir Climate Risk Screening SummaryESS risk certification	**Project PIF ESS**	

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

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Objective: To develop and implement an inclusive territorial planning and governance strategy as a model for the conservation, restoration and sustainable management of land, water, biodiversity and integrated production systems to achieve Land Degradation Neutrality (LDN) in the Guadalquivir River Basin (GRB).							
Component 1: Strategic framework for stronger governance with a gender approach and integrated territorial management to enable the restoration of land, environmental functions, biodiversity, and sustainable socioeconomic development in the Guadalquivir Basin (GRB).							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Outcome 1.1</u> Strengthened governance for the management of sustainable production, water, soil and vegetation systems in the landscapes of the Guadalquivir basin, thereby contributing to integrated territorial management and LDN goals. -	*Number of stakeholders (30% women and 10% youth) representing the target groups as permanent members of the governance structure at the IPGRB level and at the local level per micro-basin with participation of the LMMPs (public sector institutions, private sector, e.g., traders, and producer organizations).*	The lack of participatory and gender-sensitive governance mechanisms and systems that comprehensively address territorial and production systems management processes is an obstacle to achieving LDN at the GRB level. 0	At least 80 stakeholders (including 24 women and eight youth) representing the target groups as permanent members of the governance structure at the IPGRB level and at the local level per micro-basin with participation of the LMMPs.	At least 130 stakeholders (including 39 women and 13 youth) representing the target groups as permanent members of the governance structure at the IPGRB level and at the local microbasin level with participation of the LMMPs.	Inter-institutional cooperation and coordination agreements Minutes of coordination meetings Institutional reports Project progress reports Project M&E reports Project progress reports	Governance is consolidated and strengthened thanks to the willingness to work in coordination between the different institutions and social organizations through the GRB	Project Coordination Unit (PCU) MMAyA/ GADT Platform Consultant Executing Agency

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 1.1.1.</u> Platform for water, soil and vegetation governance in the Guadalquivir Basin, strengthened and institutionalized as a multilevel and interinstitutional framework with a gender approach.	*Number of face-to-face and virtual meetings of the platform (Board of Directors and members of the Technical, Social and Private Council, to be constituted and include farmer associations, wine sector, among others).*	GRB platform formally constituted and in the initial process of implementing the Basin Management Unit (BMU).	At least four face-to-face and virtual meetings of the platform (Board of Directors and members of the Technical, Social and Private Council, to be constituted and include farmer associations, wine sector, among others).	At least wight face-to-face and virtual meetings of the platform (Board of Directors and members of the Technical, Social and Private Council, to be constituted and include farmer associations, wine sector, among others).	Minutes of coordination meetings Meeting reports, with follow-up on the number of participants disaggregated by gender and age. Project M&E reports	The consolidation of the GRB Platform strengthens governance and contributes to SLM and SBM and the integrated management of water and soil resources.	Project Coordination Unit (PCU) MMAyA/ GADT Platform Consultant Executing Agency

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.1.2. Local Microbasin Management Plans (LMMP) developed improve the achievement of sustainable production systems through SLM / SBM as a contribution to LDN	*Number of LMMPs that include governance aspects implemented, evaluated and validated to achieve sustainable production systems and advance in the achievement of the LDN in the GRB.*	Existing LMMPs in the GRB do not incorporate guidelines for SLM, SBM and achievement of LDN	At least five LMMPs that include governance aspects designed in a participatory manner, to achieve sustainable production systems and advance in the achievement of the LDN in the GRB, framed in the IPGRB.	At least five LMMPs that include governance aspects implemented and validated in a participatory manner to achieve sustainable production systems and advance in the achievement of the LDN in the GRB, framed in the IPGRB.	LMMP carried out and validated Event accounts and reports and participant lists Minutes of validation of the LMMPs	There is a strong potential for the adoption of sustainable production systems and LDN in land-use planning instruments at the micro-basin level.	PCU LMMP Consulting Team Gender specialist consultant GAMS/GAMT

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.1.3. Capacity building program developed and implemented for government, civil society and academia on: (i) LDN monitoring and evaluation (ii) monitoring and evaluation of environmental functions, biodiversity and livelihood and (iii) inclusive governance mechanisms for community-led integrated territorial development with a gender-responsive approach.	*Number of government, civil society and academia stakeholders with monitoring capacities and inclusive governance mechanisms (30% women and 10% youth)*	0	At least 100 stakeholders from government, civil society and academia with stronger capacities (33 women and 10 young people)	At least 200 stakeholders from government, civil society and academia with stronger capacities (66 women and 20 youth)	Technical follow-up reports Training accounts, reports and participant lists	The coordination between the academic, civil society and government sectors makes it possible to improve technical capacities at different levels.	PCU Training program consultant Gender consultant Municipal governments and grassroots organizations MMAyA/ GADT/GAMS

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Component 2: Demonstration of sustainable land, water and biodiversity management practices in the Guadalquivir River Basin.							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 2.1 Stronger sustainable production processes and technological innovations implemented as part of the LMMPs -	*Core indicator 3: 2,500 ha of valleys with agriculture, slopes and forest areas restored (Core indicator 3.1: 200 ha of agricultural land; Core indicator 3.2: 460 ha of forests and woodlands and Core indicator 3.3: 1,840 ha of shrubland, and/or pastureland (includes silvopastoral management).*	0	At least 100 hectares of degraded agricultural land in the process of restoration At least 230 hectares of forest and forest land and/or land suitable for various uses undergoing restoration At least 700 hectares of vegetation cover, pastures and/or silvopastures in the process of restoration.	2,500 ha of valleys with agriculture, slopes and degraded forest areas restored At least 200 hectares of degraded agricultural land restored At least 460 hectares of forest and forest land and/or land suitable for various uses, restored At least 1840 hectares of vegetation cover, pastures and/or silvopastures restored	Project progress reports Project M&E reports SLM and SBM practices implemented and systematized LMMP developed	The local stakeholder involvement and engagement processes have been successful. The micro-basin level LMMPs have allowed the incorporation of SLM and SBM as input to LDN. The systematization of data at the local level enriches the monitoring system for LDN, environmental functions, biodiversity and complementary indicators of the GRB and contribute	PCU MMAyA/ GADT Universities, NGOs Executing Agency GAMS

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	<u>*Core Indicator 11:*</u> *At least 1,836 direct beneficiaries actively participate in governance in the GRB, have built more capacity in territorial planning at the micro-basin level and in efficient water resource management, and implement SLM and SBM practices (918 men and 918 women).* <u>*Core indicator 4.3*</u>*: At least 40,200 ha in landscapes under sustainable land management in production systems.*	0 0	At least 900 direct beneficiaries who actively participate in the GRB governance have built more capacity in territorial planning at the micro-basin level and in efficient water resource management; and implement SLM and SBM practices. At least 20,000 ha in landscapes under sustainable land management in production systems.	At least 1,836 direct beneficiaries who actively participate in the governance of the GRB, have the necessary capacities in territorial planning at the micro-basin level and in efficient water resource management; and implement SLM and SBM practices. At least 40,200 ha in landscapes under sustainable land management in production systems.	Project progress reports Project M&E reports List of participants in training and planning processes SLM and SBM practices implemented and systematized LMMP developed Project M&E reports SLM and SBM practices implemented and systematized LMMP developed	s to the follow-up of country-level LDN achievement.	

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	At least 5% annual productivity increase in current crops and diversified agricultural products.	0		At least 5% annual productivity increase in current crops and diversified agricultural products.	Project progress reports Project M&E reports Consultant team reports List of training participants by age and gender Mobile application developed		

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 2.1.1.</u> The practices undertaken as part of the LMMPs in the target microbasins are carried out by project beneficiaries, leading to increased productivity, reduced land degradation and improved biodiversity conservation in the GRB. -	*Number of families (considering an average family unit of four people: 50% women and at least 30% youth) and producer/trader associations benefiting from innovative, sustainable and diversified production systems.*	Existing SLM and SBM practices in the GRB are not integrated into land use planning and water management.	At least 150 families (considering an average family unit of four people: 50% women and at least 30% youth) and five producer/trader associations benefit from innovative, sustainable and diversified production systems.	At least 259 families (considering an average family unit of four people: 50% women and at least 30% youth) and 10 producer/trader associations benefit from innovative, sustainable and diversified production systems.	Project progress reports Project M&E reports Reports on systematization of SLM and SBM practices List of family members and participating associations, disaggregated by age and sex	SLM and SBM practices implemented at the micro-basin level contribute to the achievement of national LDN targets.	PCU MMAyA/GADT/GAMS Technical assistance consulting team and outreach consultants Gender consultant Executing Agency

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 2.1.2:</u> Integrated technical support and outreach services with a gender approach are strengthened as part of the implementation of the LMMPs in the target microbasins (in 2.1.1) to contribute to the achievement of LDN and thus generate environmental and socioeconomic benefits.	*Number of established field schools contributing to the training of community technicians (considering the total number of field school participants: 50 % women and 30 % youth)* *Number of producers who have access to technical assistance services in irrigation systems that complement conservation agriculture and holistic management.*	0 0	At least six field schools established and share experiences among GRB producers (considering the total number of participants in the field schools: 50% women and 30% young people). At least 100 producers have access to technical assistance services in irrigation systems that complement conservation agriculture and holistic management.	At least 12 field schools established and share experiences among GRB producers (considering the total number of field school participants: 50% women and 30% young people). At least 200 producers have access to technical assistance services in irrigation systems that complement conservation agriculture and holistic management.	Project progress reports Project M&E reports Consultant team reports	Local stakeholders have strengthened their capacities to implement SLM, SBM and irrigation practices by sharing experiences. The role of women and youth in the implementation and follow-up of SLM and SBM is consolidated.	PCU Gender consultant MMAyA/GADT/GAMS Technical assistance consulting team and outreach consultants

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 2.1.3 Database and reporting for target microbasins with a gender and participatory approach and use of robust practical tools to monitor SLM and SBM actions (as a contribution to Output 4.1.1).	*Number of producers who have access and relevant knowledge for using appropriate monitoring systems (30% women and 10% youth).*	Weak local knowledge and technical capacity to survey and systematize biophysical and socioeconomic information and lack of integration of local experiences into national monitoring systems. Low agricultural productivity.	At least 30 producers who have strengthened capacities for the follow-up of SLM and SBM actions (nine women and three youth).	At least 60 producers who have strengthened capacities to follow up SLM and SBM actions (20 women and six youth).	Project progress reports Project M&E reports Consultant team reports List of training participants by age and gender Mobile application developed	The systematization of data at the local level enriches the monitoring system for LDN, environmental functions, biodiversity and complementary indicators of the GRB and contributes to the follow-up of country-level LDN achievement.	PCU MMAyA/GADT/GAMS Technical assistance consulting team and outreach consultants Gender consultant
Component 3: Financial mechanism for the conservation and integrated management of water, soil, and vegetation, as well as the establishment of productive entrepreneurship involving family farmers in association with one another.							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 3.1. The Tarija Regional Water Fund supports the adoption of good	*Financial mechanism for the conservation and integrated management of water, soil and vegetation designed and*	There are no financial mechanisms to support sustainable production systems in the	The Tarija Regional Water Fund for the conservation and integrated management of	The Tarija Regional Water Fund for the conservation and integrated management of	Project progress reports Project M&E reports	The Tarija Regional Water Fund strengthens the implementation of SLM and SBM practices and their	PCU Consulting Team Financial Mechanism (GADT, GAMS, COSAAT,

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
practices predicated on soil management and restoration, efficient water use, vegetation conservation and the preservation of environmental functions, as well as the establishment of production undertakings involving family farmers in association with one another.	*implemented.* *Number of SLM and SBM practices implemented with support from the Tarija Regional Water Fund.*	GRB. N/A	water, soil and vegetation designed and linked to the IPGRB for GRB governance. Inter-institutional agreements and strategic partners (private and public) incorporated N/A	water, soil and vegetation implemented and operational Number of private and public strategic partners and their contributions, growing steadily At least 40 SLM and SBM practices implemented with Regional Fund support	Administrative and operating regulations for the Tarija Regional Water Fund Fund-financed SLM and SBM practices implemented and systematized	adoption by small, medium and large producers in the GRB in a sustainable manner over time.	among others that make up the Technical and Social Committee) IPGRB

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 3.1.1 The Tarija Regional Water Fund - in the GRB region - for Sustainable Management of Water, Soil, Vegetation and the adoption of good SLM and SBM practices capitalized. -	Total funds allocated to the financial mechanism and number of financing partners contributing and supporting farmers' production and the adoption of sustainable farming systems	There are no regional funds to support the adoption and scaling up of SLM and SBM to improve sustainable production in the GRB.	USD 364,000 as a seed fund (total funds allocated to the financial mechanism) to support farmers' production and the adoption of sustainable agricultural systems (soil, water and vegetation) and community-based production undertakings from SLM and SBM. First agreements with financing partners	At least USD 364,000 as a seed fund (total funds allocated to the financial mechanism) and financing partners that contribute to and support farmers' production and the adoption of sustainable agricultural systems (soil, water and vegetation) and community-based production undertakings from SLM and SBM.	Project progress reports Project M&E reports Administrative and operating regulations of the Tarija Regional Water Fund Agreements and partnerships Reports describing the effective management of financing and investments in production undertakings (based on land, vegetation and water management/restoration) at the family and/or association level.	The project's seed investment and the incorporation of strategic partners (international cooperation, stakeholders, private sector, among others) lay the foundations for the sustainability of production systems in the GRB and ensure the remain in place once the project is completed.	PCU Consulting Team Financial Mechanism IPGRB

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 3.1.2. Family production entrepreneurship strategy led by a Steering Committee headed first and foremost by women, financed and technically supported to ensure viability and sustainability. -	Number of production undertakings (50% led by women) have sustainable financing/investment and technical assistance for their development and implementation.	There are production undertakings with an agroecological approach led by women with budding development and lack of technical and financial support.	At least 10 productive entrepreneurial endeavors (50% women-led) have the funding and technical assistance in agroecological production, increased added value, and marketing channels they need (for example, financial education, opening markets, advertising agroecological products with high nutritional value) for their development and implementation.	At least 20 productive entrepreneurial endeavors (50% women-led) have the funding and technical assistance in agroecological production, increased added value, and marketing channels they need (for example, financial education, opening markets, advertising agroecological products with high nutritional value) for their development and implementation.	Project progress reports Project M&E reports Financial study carried out and/or agreements already established through local business partnerships Creation of incubators for sustainable production undertakings within the framework of the Regional Fund. Agreements and strategic partnerships for the creation and sustainability of production undertakings supported by the Regional Fund.	The production undertakings set up improve the socioeconomic conditions of local populations and women's leadership through the commercialization of agroecological products and those obtained from SLM and SBM, and improve resilience to possible agricultural and environmental risks.	PCU Gender consultant Consulting Team Financial Mechanism IPGRB

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Component 4: Management of project reporting, the communication strategy, and M&E							
<u>Outcome 4.1.</u> Improved mechanisms for participation, sustainable territorial management and LDN monitoring at the river basin level.	Agreements between IPGRB and SIITHA entered into for LDN monitoring as a contribution to compliance with national commitments to the UNCCD.	Weaknesses in the integrated management of the GRB and in the monitoring of compliance with national LDN goals at the subnational level.	Institutions with processes in place for the establishment of agreements that strengthen governance and facilitate the follow-up of national commitments to the UNCCD.	Institutions with agreements in place that strengthen governance and facilitate follow-up on national commitments to the UNCCD	Technical reports and progress reports LDN monitoring reports at GRB level Inter-institutional agreements for the creation of a sustainable follow-up mechanism linked to existing monitoring systems.	At the end of the project, the SIITHA will have greater capacity and will be responsible for LDN monitoring and follow-up at the microbasin level in the GRB, with the possibility of extrapolating it to the department level.	PCU MDRyT Executing Agency Academic Unit

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 4.1.1. The Tarija Departmental Water Information System integrates the approach and indicators for monitoring LDN at the GRB level, as well as environmental functions, biodiversity and socioeconomic indicators for the target microbasins.	*LDN indicators have been defined, monitored and incorporated into the SIIHTA (net primary productivity, land cover and carbon stock), and others such as environmental functions, biodiversity and socioeconomic indicators of the corresponding micro-basins.*	LDN is not monitored at the basin or microbasin level.	LDN baseline and supplementary indicators designed at the microbasin level in the GRB. At least 10 capacity-building workshop meetings (related to output 1.1.3) LDN indicators and five supplementary indicators defined and evaluated at the level of at least three micro-basins.	LDN indicators and five supplementary indicators defined and evaluated at the microbasin level in the GRB. At least five meetings to disseminate information on LDN indicator workshops at the microbasin level in the GRB (related to output 1.1.3).	Project progress reports Project M&E reports M&E system for LDN, environmental functions and supplementary indicators (including socioeconomic and gender indicators) developed at the GRB level.	Bolivian national and subnational government entities adopt the LDN approach	PCU GADT/GAMS MMAYA/MDRyT/ABT, INRA Academic unit

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 4.2. Managing and disseminating knowledge will enable greater adoption of SLM/SBM, contributing to LDN.	*Gender-sensitive communication strategy developed and implemented to contribute to project objectives and national LDN strategy.*	N/A	Local producers, members of central and subnational government, academia, business men and members of civil society in general, users of the GRB, in the process of awareness-raising on SLM, SBM and LDN.	Local producers, members of central and subnational government, academia, entrepreneurs and members of civil society in general, users of the GRB, made aware	Website operational Digital material with a gender focus ready for dissemination Information material for 20 schools Video with lessons learned from the project has been disseminated	N/A	PCU Communication strategy consultant Materials designer consultant Gender Consultant Executing Agency

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 4.2.1. Gender-sensitive communication strategy developed and implemented to contribute to project objectives and the national LDN strategy (lessons learned, sharing experiences, training, products and dissemination materials). -	*Number of gender sensitive communication strategy developed for the dissemination of information on SLM, SBM and LDN* *Number of communications products developed for the dissemination of SLM, SBM and LDN contents*	N/A	Communication strategy with a gender perspective developed and validated. Web page developed At least three gender-sensitive and culturally appropriate communication materials disseminated (e.g., guides, brochures, infographics).	Communication strategy with a gender perspective implemented. Website developed and operational At least five gender-sensitive communication materials disseminated (e.g., videos, manuals, guides, brochures, infographics, webinars).	Website operational Digital material with a gender focus for dissemination Information material for schools Video with lessons learned from the project has been disseminated	N/A	PCU Communication strategy consultant Materials designer consultant Gender Consultant Executing Agency

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 4.3. Management, monitoring and evaluation of project progress	*Project M&E plan implemented*	N/A	Supplementary baseline studies completed in project year 1 including indicators and measurements in microbasin implementing SLM and SBM practices.	Indicators are measured annually and lessons learned are added to the project database.	Project progress reports Reports with information disaggregated by sex and analyzed from a gender perspective, contrasted with the baseline. EMT and Final Evaluation Reports	N/A	PCU Executing Agency MMAYA IPGRB

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 4.3.1. M&E Plan developed and approved by the Steering Committee	*Project M&E Plan developed and approved by the Steering Committee*	N/A	Project Coordination Unit established in project year 1 and operational until project year 4 Steering Committee and Technical Committee established in project year 1 and operational through project year 4 Mid-term supervision mission during the second half of project year 2	Final evaluation in project year 4	Project progress reports Reports with information disaggregated by sex and analyzed from a gender perspective, contrasted with the baseline. EMT and Final Evaluation Reports	N/A	PCU Executing Agency MMAYA IPGRB

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).

GEF Secretariat Comments	
For the establishment of the funds, please consider possible links with and lessons learned from the relevant initiatives on sustainable landscape finance that are currently being developed, such as the GEF funded project "Green Finance for Sustainable Landscapes", among others.	We acknowledge this suggestion and have incorporated it under paragraph 254 of the project document As part of output 3.1.1 an economic, financial and environmental feasibility will be carried out for the Regional Water Fund.
Please explore in depth the engagement possibilities from the private sector.	Numerous efforts were made during project preparation to engage with the private sector. Please refer to the Private Sector section of the project document under which the possibilities for engagement are described in depth.
To elaborate the KM approach, please consider the following important aspects that are not clearly explained in the PIF: an overview of existing lessons and best practice that inform the project design, plans to learn from relevant projects, programs, initiatives & evaluations and processes to capture, assess and document the information, lessons, best practices & expertise generated during implementation. Please clarify in the Annex B how these comments where addressed.	3. The knowledge management section was developed incorporating the suggestions. A communication strategy with a gender perspective is planned for governmental actors, project beneficiaries and their partners (communities, producers and family farmers and different local actors belonging to the CrG). To this end, continuous learning processes will be promoted to strengthen capacities related to the achievement of sustainable productive systems according to the profile of the different social groups involved in the project, especially promoting the active participation of women and young people. The project foresees the elaboration and dissemination of different types of products that systematize the knowledge, experiences and lessons learned, generated from the design, implementation and monitoring of SLM and SBM practices, in order to contribute to the scope of NTD and sustainable biodiversity management.

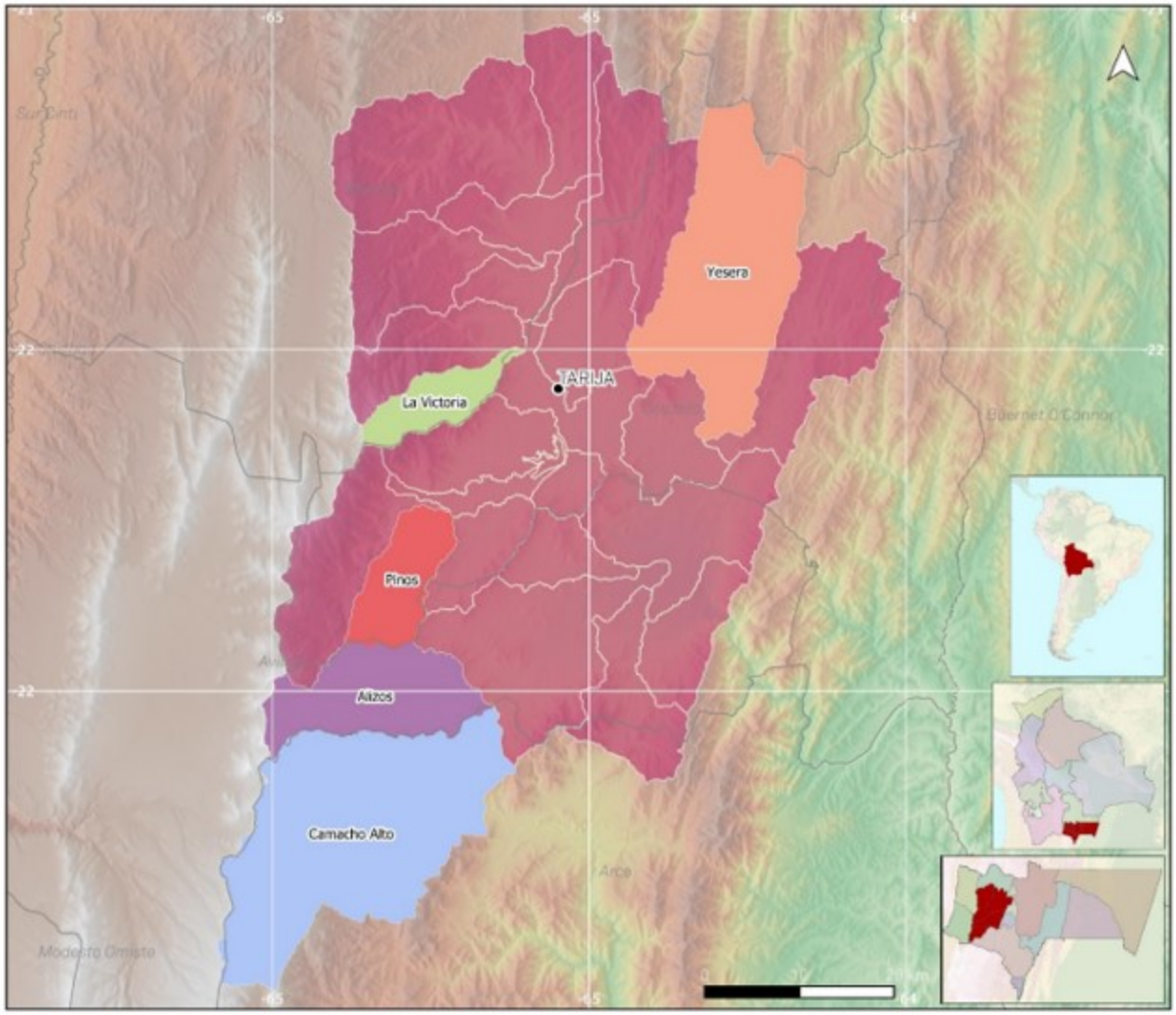
ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF**:**	
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***

	Budgeted Amount	*Amount Spent to date*	*Amount Committed*
	43,162	22,455	20,707
Baseline Survey: Focus groups, socioeconomic and environmental analysis, water and soil governance and consultation workshops including activities 1,2,4,5 mentioned above.	18,400	18,400	
PRODOC Writing, Map Design, Gender Action Plan, Climate Change Analysis. (Activity 6)	17,500		17,500
Financial Mechanism Implementation Specialist: Analysis of Institutional Framework and Fund Design (Activity 3)	2,000	2,000	
Prodoc Translation	3,207		3,207
Administrative Consultant	2,055	2,055	

ANNEX D: Project Map(s) and Coordinates

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



Priority micro-watersheds

Guadalquivir river basin
Tarija

Legend

Priority micro-watersheds
- Alizos
- Camacho Alto
- La Victoria
- Pinos
- Yesera
- Subasins and micro-watersheds

Altitude (m)
- 74
- 1278.06
- 2482.12
- 3686.18
- 4705

Geographic Coordinate System-WGS84

Source: Rubio, C. y Rubio, M.C. (2021)
Data: PROMETA and GEOBolivia (2021)

GRB coordinates: North-West: -65.0521115657025462, -22.0624037028865949; South-East: -64.4026660269889248; -21.2144178651301942

ANNEX E: Project Budget Table

Please attach a project budget table.

FAO Cost Categories	Comp 1	Comp 2	Comp 3	Comp 4	M&E	PMC	Vice-Ministry of the Environment, Biodiversity, Climate Change, and Forestry Management and Development	FAO Support Services	Total GEF
5011 Salaries professionals									
	0	0	0	0					0
5011 Sub-total salaries professionals	0	0	0	0		0	0	0	0
5012 GS Salaries									
	0		0						0
	0		0						0
5012 Sub-total GS salaries	0	0	0	0		0	0	0	0
5013 Consultants									
Coordinador de Proyecto	0	0	0	0		105,000	105,000		105,000
Asistente T?cnico de Proyecto	20365	22000	14000	12270			68,635		68,635
Administrador Financiero	0	0	0	0		36365	36,365		36,365
M&E Consultor	0	0	0	0	52500		52,500		52,500
Consultor p Dise?o de la estregaia de comunicaci?n	0	0	0	3000			3,000		3,000

Consultor para el dise?o de materiales de comunicaci?n	0	0	0	5000			5,000		5,000
Consultor especialista en g?nero	0	0	0	63000			63,000		63,000
Equipo de consultores para el dise?o e implementaci?n de mecanismos financieros	0	0	30000	0			30,000		30,000
Consultor para el dise?o de base de datos MST/MSB	0	4000	0	0			4,000		4,000
Consultor en Asistencia T?cnica p pr?cticas MST/MSB	0	72000	0	0			72,000		72,000
Promotores extensionistas	0	57600	0	0			57,600		57,600
Consultor para el dise?o del Programa y an?lisis de brechas	4000	0	0	0			4,000		4,000
Consultor capacitador en NDT	2000	0	0	0			2,000		2,000
Consultor capacitador en funciones ambientales, biodiversidad y medios de vida	2000	0	0	0			2,000		2,000
Consultor en mecanismos de gobernanza inclusiva	2000	0	0	0			2,000		2,000
Consultor Asesor de la Plataforma de planta, medio	24600	0	0	0			24,600		24,600

Consultor Plataforma para la gobernanza del agua, el suelo y la vegetaci?n	3000	0	0	0			3,000		3,000
	0	0	0	0			0		0
5013 Sub-total consultants	57,965	155,600	44,000	83,270	52,500	141,365	534,700	0	534,700
5650 Contracts									
M&E Revision de Medio T?rmino	0	0	0	0	12,000			12,000	12,000
M&E Independant Terminal Evaluation	0	0	0	0	15,000			15,000	15,000
Elaboraci?n y Difusi?n de videos	0	0	0	15000			15,000		15,000
Dise?o y mantenimiento de la p?gina WEB	0	0	0	5000			5,000		5,000
Dise?o e implementaci?n del sistema de monitoreo NDT	0	0	0	20000			20,000		20,000
Dise?o de una aplicaci?n p celular	0	5,000	0	0			5,000		5,000
Planes de Gesti?n Local de Microcuencas	30,000	0	0	0			30,000		30,000
Fondo de inversi?n	0	0	300,000	0			300,000		300,000
Empresa Fondo de Inversi?n	0	0	40,000	0			40,000		40,000
5650 Sub-total Contracts	30,000	5,000	340,000	40,000	27,000	0	415,000	27,000	442,000
5021 Travel									
pasajes intercambio de productores	0	2,000	0	0			2,000		2,000

alojamiento intercambio de productores	0	8,000	0	0			8,000		8,000
Viajes de seguimiento y acompa?amiento	0	2,000	1,200	4000			7,200		7,200
Viajes de seguimiento y acompa?amiento	3,000	3,000	2,000	2000			10,000		10,000
5021 Sub-total travel	3000	15000	3200	6000		0	27,200	0	27,200
5023 Training									
M&E Inception Workshop	0	0	0	0	1583		1,583		1,583
Intercambio de experiencias de productores	0	5,000	0	0			5,000		5,000
Talleres Participativos	0	2,400	0	0			2,400		2,400
Reuniones para planes de gesti?n local (Microcuencas)	4,000	0	0	0			4,000		4,000
Talleres con actores clave p gobernanza	4,800	0	0	0			4,800		4,800
5023 Sub-total training	8,800	7,400	0	0	1,583	0	17,783	0	17,783
5024 Expendable procurement									
Materiales de prevenci?n	0	0	2,000	0			2,000		2,000
Materiales de comunicaci?n	0	0	0	23639			23,639		23,639
Infraestructura productiva	0	219,940	0	0			219,940		219,940
Insumos en semillas, fertilizantes, plantines		90,000		0			90,000		90,000
Material de construcci?n, arreglos y otros		60,000		0			60,000		60,000
Indumentaria de trabajo		5,000		0			5,000		5,000

Insumos de campo	0	20,000	0	0			20,000		20,000
5024 Sub-total expendable procurement	0	394,940	2,000	23,639	0	0	420,579	0	420,579
6100 Non-expendable procurement									
Laptops	3,000	3,000	3,000	1000			10,000		10,000
GPSs	1,250	0	0	0			1,250		1,250
Impresora Multifunci?n	0	0	2,250	0			2,250		2,250
Datashow	0	0	1,500	0			1,500		1,500
Servidor y PC para sistema de monitoreo	0	0	0	15000			15,000		15,000
6100 Sub-total non-expendable procurement	4250	3000	6750	16000		0	30,000	0	30,000
5028 GOE budget									
Telefonia - internet	600	400	500	600			2,100		2,100
Currier	0	100	200	100			400		400
Gasolina	600	4,250	1,500	1900			8,250		8,250
Alquiler de veh?culo	4,000	60,000	4,000	4000			72,000		72,000
6300 Sub-total GOE budget	5,200	64,750	6,200	6,600		0	82,750	0	82,750
TOTAL	109,215	645,690	402,150	175,509	81,083	141,365	1,528,012	27,000	1,555,012

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).