Strengthening the integral and sustainable management of biodiversity and forests by indigenous peoples and local communities in fragile ecosystems of the dry forests of the Bolivia Chaco

Part I: Project Information

GEF ID
10393

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
- ☐ CBIT
- ☐ NGI

Project Title
Strengthening the integral and sustainable management of biodiversity and forests by indigenous peoples and local communities in fragile ecosystems of the dry forests of the Bolivia Chaco

Countries
Bolivia

Agency(ies)
FAO

Other Executing Partner(s)
Ministry of Environment and Water

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Taxonomy
Focal Areas, Land Degradation, Sustainable Land Management, Sustainable Forest, Sustainable Agriculture, Ecosystem Approach, Income Generating Activities, Land Degradation Neutrality, Land Cover and Land cover change, Forest, Drylands, Forest and Landscape Restoration, Climate Change, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Climate Change Adaptation, Climate resilience, Ecosystem-based Adaptation, Biodiversity, Protected Areas and Landscapes, Terrestrial Protected Areas, Community Based Natural Resource Mngt, Productive Landscapes, Supplementary Protocol to the CBD, Acess to Genetic Resources Benefit Sharing, Biomes, Tropical Dry Forests, Mainstreaming, Agriculture and agrobiodiversity, Influencing models, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Stakeholders, Type of Engagement, Participation, Partnership, Consultation, Information Dissemination, Communications, Awareness Raising, Education, Beneficiaries, Local Communities, Indigenous Peoples, Private Sector, Individuals/Entrepreneurs, Civil Society, Community Based Organization, Gender Equality, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Access to benefits and services, Capacity Development, Access and control over natural resources, Participation and leadership, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Learning, Adaptive management, Innovation

Rio Markers

Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 1

Duration
60 In Months

Agency Fee($)
332,782

Submission Date

10/11/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
BD-1-1	GET	1,580,320	5,330,606
BD-2-7	GET	609,035	9,899,697
LD-1-1	GET	1,313,613	9,899,697
	Total Project Cost ($)	**3,502,968**	**25,130,000**

B. Indicative Project description summary

Project Objective

To scale up the integral and sustainable management of biodiversity and forests (ISMBF) as a strategy for sustainable forest management (SFM) and sustainable land management (SLM) to support integral territorial planning and the strengthening the life systems in fragile ecosystems of the dry forests in the Bolivian Chaco.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
1. Governance for integral territorial management implemented by indigenous peoples and local communities through Integral and Sustainable Management of Biodiversity and Forests (ISMBF)	Technical Assistance	1.1. Strengthened governance to implement the national policy and the institutional framework to ISMBF to achieve SFM, SLM and land degradation neutrality (LDN) through territorial planning, including in the process to relevant actors *Indicators:* *450 people (50% women and 20% youth under 28) from central government, subnational government and local stakeholders, trained on integrated territorial planning and local*	1.1.1. Program to strengthen capacities for integral planning and participatory governance of ISMBF at the central and local government levels, autonomous indigenous areas, and social organizations, developed with a gender and generational equity approach. 1.1.2. Territorial plans at municipal or captaincy level for ISMBF developed as a strategy to advance the SFM, SLM and LDN. 1.1.3. Community action plans for ISMBF developed and implemented in a participatory manner, in line of the territorial plans of 1.1.2. 1.1.4. ISMBF integrated into existing territorial decision-making and planning mechanisms. 1.1.5. Development of a co-management model for protected areas based on the ISMBF approach	GET	609,036	4,424,296

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
2. Implementation of the ISMBF for SFM and SLM at the landscape level in the Chaco region, to advance towards LDN	Investment	2.1. ISMBF practices implemented that generate sustainable productive systems and strengthen the local economy, the organizational systems of indigenous peoples and local communities, and restore ecosystems and their functions, in addition to avoiding and reducing degradation, reestablishing environmental functions of biodiversity and forests, and improving life systems in the Chaco region *Indicators:* *2,500 families (50% women and 20% youth)*	2.1.1. Establishment of ISMBF design and management practices at local level aimig at reducing and restoring degraded lands, support the reestablishment of environmental functions of biodiversity and forests, and strengthening local life systems (at least 50% women and 20% youth[1] participants) 2.1.2. Technical capacity building and exchange program on ISMBF with a gender and generational equity approach, to support indigenous peoples, farmer communities and other local productive actors, in the design, implementation and management of production systems under the ISMBF approach. 2.1.3. Institutional strengthening in technical aspects of the implementation and monitoring of ISMBF, targeting public entities and academic institutions to support the implementation of local processes (based on 1.1.2 and 1.1.3) 2.1.4. Establishment of Communal Economic Organizations (OECOMs, according to its name in Spanish) for commercialization of the produce (with or without processing) from the ISMBF implemented by indigenous peoples and local communities.	GET	2,097,788	15,421,831

[1] According to the National Statistics Institute of the Plurinational State of Bolivia, young people are those between 16 and 28 years of age. Source: https://www.ine.gob.bo

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
3. Monitoring, evaluation and awareness raising	Technical Assistance	3.1. Knowledge management, monitoring and evaluation, and communication *35 experiences of ISMBF whose results were integrated into the evaluation and monitoring of LDN*	3.1.1. Integrated monitoring and evaluation (M&E) system for the implementation of ISMBF within the framework of the SBM, SLM and LDN in the Chaco region 3.1.2 Environmental functions resulting from ISMBF for SFM, SLM and LDN monitored (e.g carbon capture and storage in the soil and biomass, replenish of organic matter and soil fertility, water availability, provision of diversified and healthy food, and pollination among others) 3.1.3. Midterm and final project evaluations 3.1.4. Communication strategy developed and implemented to support the realization and upscaling of ISMBF to contribute to the objectives of LDN	GET	629,336	4,550,704
			Sub Total ($)		**3,336,160**	**24,396,831**
Project Management Cost (PMC)						
				GET	166,808	733,169
				Sub Total($)	**166,808**	**733,169**
				Total Project Cost($)	**3,502,968**	**25,130,000**

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Government	Ministry of Environment and Water (MMAyA)	In-kind	Recurrent expenditures	20,000,000
Government	Autonomous Municipal Government of Monteagudo	In-kind	Recurrent expenditures	1,500,000
Government	Autonomous Municipal Government of Monteagudo	Public Investment	Investment mobilized	35,000
Government	Autonomous Municipal Government of Monteagudo	Grant	Investment mobilized	50,000
Government	Indigenous Peasant Autonomous Government (GAIOC) of Charagua Iyambae	In-kind	Recurrent expenditures	2,500,000
Government	Indigenous Peasant Autonomous Government (GAIOC) of Charagua Iyambae	Public Investment	Investment mobilized	60,000
Government	Indigenous Peasant Autonomous Government (GAIOC) of Charagua Iyambae	Grant	Investment mobilized	50,000
Government	Autonomous Municipal Government of Machareti	In-kind	Recurrent expenditures	750,000
Government	Autonomous Municipal Government of Machareti	Public Investment	Investment mobilized	20,000
Government	Autonomous Municipal Government of Huacaya	Public Investment	Investment mobilized	20,000
Government	Autonomous Municipal Government of Huacareta	Public Investment	Investment mobilized	25,000
Government	Autonomous Municipal Government of Villa Vaca Guzmán	Public Investment	Investment mobilized	25,000
Government	Autonomous Municipal Government of Cuevo	Public Investment	Investment mobilized	15,000

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Private Sector	Private sector	Grant	Investment mobilized	80,000
			Total Project Cost($)	**25,130,000**

Describe how any "Investment Mobilized" was identified

The “investment mobilized” is projected from the third year of the project and corresponds to three sources: (i) the municipal annual budgets of each of the seven municipalities included in the project, to assist the implementation and/or strengthening of ISMBF in their jurisdictions, this as one of the effects of component 1 of the project; (ii) annual purchases of at least three municipalities, of products from the ISMBF implemented by indigenous peoples and local communities, which are commercialized through their OECOMs, and included in the municipal programs of complementary food (“School breakfast”) distributed in public primary schools; and (iii) direct purchase by private retailers of products from the ISMBF implemented by indigenous peoples and local communities, according to the Supreme Decree No. 3639 that establishes that 10% of their supplied merchandise should be from OECOMs. These investments are expected from the third year of the project, after the implementation of component 1, and the establishment of OECOMs, as included in component 2.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Bolivia	Biodiversity	BD STAR Allocation	2,189,355	207,989	2,397,344
FAO	GET	Bolivia	Land Degradation	LD STAR Allocation	1,313,613	124,793	1,438,406
				Total GEF Resources($)	**3,502,968**	**332,782**	**3,835,750**

E. Project Preparation Grant (PPG)

PPG Amount ($)
150,000

PPG Agency Fee ($)
14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Bolivia	Biodiversity	BD STAR Allocation	93,750	8,906	**102,656**
FAO	GET	Bolivia	Land Degradation	LD STAR Allocation	56,250	5,344	**61,594**
				Total Project Costs($)	**150,000**	**14,250**	**164,250**

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
250,000.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

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

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
250,000.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Iñao	**125689** 342468	**Select** National Park	80,000.00						

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)	
Akula National Park Kaa Iya del Gran Chaco	**125689** 303884	**Select**National Park	150,000.00							
Akula National Park Otuquis	**125689** 303883	**Select**National Park	20,000.00							

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1200.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,200.00			

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)

Indicator 3.3 Area of natural grass and shrublands restored

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

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

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

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)
108000.00	0.00	0.00	0.00

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
100,000.00			

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

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

Type/Name of Third Party Certification

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8,000.00			

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

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

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

Title	Submitted

Indicator 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	5,225			

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Male	5,225			
Total	10450	0	0	0

Part II. Project Justification

1a. Project Description

1) The global environmental problems, root causes and barriers that need to be addressed

The "Gran Chaco Americano" is an ecoregion made up of four countries: Argentina, Bolivia, Paraguay, and a small portion of Brazil. The region's 1 million km2 is home to many indigenous people's nations and local communities, and the habitat of an abundant biodiversity: It is home to more than 3,400 plant species, approximately 500 bird species, 150 species of mammals, 120 species of reptiles, and approximately 100 species of amphibians. Bolivia is home to approximately 12 percent of the Gran Chaco Americano in the departments of Santa Cruz, Chuquisaca and Tarija, the first two of which are within the scope of the project. The Bolivian Chaco is a semi-arid to semi-humid region that covers an area of 127,755 km² and 83,150 ha of forests distributed in El Chaco, dry inter-Andean, and Bolivian Tucumán forests. Rainfall varies from 200 to 1 200 mm, (Redford et al, 1990), with a clear seasonal rainfall regime, 80 percent of which is concentrated in the summer (October to April). The temperature variation is extreme, from –10 °C to 49 ºC. The soils are mostly clay and silty, resulting from wind deposits of alluvial or sandy plains. These particular ecological conditions result in a mosaic of forests, savannas and grasslands, and biogeographic factors that result in the adaptation of many species (Bucher, 1980; 1982). The El Chaco biome is characterized by a high rate of floristic endemism, and diverse birdlife, rich in endemic bird subspecies. Due to its biogeographic condition, El Chaco shelters a great biological diversity and it is home to several protected areas: National Park (PN) and Integrated Natural Management Area (ANMI, according to its name in Spanish) Kaa Iya del Gran Chaco (34,411.15 km²); PN-ANMI Iñao (2 630.9 km²); PN-ANMI Aguaragüe (1,083.07 km²); PN-ANMI Otuquis (10,060 km2) and Area of Conservation and Ecological Importance of the Guaraní Mation "Ñembi Guasu" (12,046.35 km2). It also shelters RAMSAR sites: Bañados del Izozog and Río Parapetí (615 882 km2), and Palmar de las Islas and Salinas de San José, among other protected ecosystems at the departmental and municipal levels. Also, the Bolivian Chaco provides biocultural support to the livelihoods of indigenous peoples and local communities through multiple environmental functions,[1][1] such as the provision of food and fodder, regulation of climate and hydrological cycles, pollination, soil nutrient supply, sediment retention, biological regulation, soil formation, carbon sequestration and fixation (61 326 ton C/ha in forests and 11.5 kg/m2 in soils, approximately), habitat preservation for biodiversity, and aesthetic beauty, among many others.

Finally, the Bolivian Chaco is a zone of groundwater recharge that feeds the Pilcomayo (98,000 km2) and Parapetí (10,580 km2) basins, at the southeast of the country. Both rivers also contribute to the La Plata basin (57,268.19 km2) with an annual inflow of 1,080 m3/sec. The project targets part of the sub-national area of the Bolivian Dry Chaco, located in

seven municipalities from Chuquisaca (Monteagudo, Huacareta, Muyupampa, Huacaya, and Macharetí municipalities), and Santa Cruz (municipality of Cuevo and the Indigenous Peasant Autonomous Government – GAIOC, of Charagua Iyambae). The total surface area of the intervention zone is 9,256,647.8 ha, of which 1,023,470.4 ha corresponds to the Sub-Andean strip and 8,233,177.4 ha to the El Chaco plains.

Biodiversity loss

The Bolivian Chaco is a large region with vast biocultural richness, much of it preserved in important protected areas and forests that are sustainably managed by indigenous peoples. Yet, it faces important socio-ecological challenges that require timely attention to restore ecosystems and prevent soil degradation. These challenges include the loss of natural habitats resulting in a considerable decrease in the populations of flora and fauna. This genetic erosion results from long-standing drivers such as commercial hunting, expansion of cattle ranging and agroindustrial cropping (e.g. soybean). The latter two practices relate to deforestation and unsustainable management practices (e.g. intense application of agrochemicals), with negative impacts on biodiversity at the level of genes, species and ecosystems (mainly forests), as well as on soils. Climate change is another cause of decreasing biodiversity and rising soil degradation, and the interaction with other anthropogenic drivers intensifies the deterioration of ecological and socio-cultural dynamics. These factors mostly affect indigenous people and the biodiversity, forests and lands on which they base their life systems. In the proposed project intervention areas, local representatives of indigenous peoples indicate their concerns on the status of key species, such as tatú (*Cabassous chacoensis)*, tupesí (*Prosopis chilensis*), jaguar (*Panthera spp.*), and flora species such as mistol (*Ziziphus mistol*), and sahuinto or guabiyu (*Myrcianthes callicoma),* among others. According to global models, at the national level, deforestation and climate change together would be responsible for the decrease of 40 percent of the current biodiversity, of which 95 percent is caused by deforestation.

Land degradation in forests and agricultural systems, and its drivers in the project intervention areas

Loss of forest biomass and unsustainable agricultural management practices are the main causes of soil degradation, disappearance of water sources, reduction of wildlife and, in general, deterioration of environmental functions. Between 2010 and 2017, a total of 212,397 ha was deforested in the Bolivian Chaco through significant annual rate increases: in 2010, 22,266 ha, and in 2017 about 52,868 ha. Much of the reduction of native forests and grasslands results from the expansion of extensive livestock and intensive agricultural systems, which use large amounts of agrochemicals and do not include conservation farming practices. According to FAO, up to 35 percent of agricultural soils in Bolivia are degraded, and more than 60 percent of the Bolivian population lives and produces in that degraded environment. Moreover, the 2030 National Strategy for Land Degradation Neutrality reports that in the lowlands in eastern Bolivia, the expansion of the agricultural frontier is the main cause of deforestation. This is motivated mostly by three processes: (i) Economic pressure, mainly markets, for implementing specialized and simplified agricultural systems (such as monocrops of cash crops like soybean and maize). (ii) Land

degradation resulting from the technical management applied to those simplified systems, that derive in decreasing yields and pressure for expansion of agricultural lands as a means to secure certain volumes of production. This land degradation is associated with the drivers of biodiversity loss described above, which reduces and eventually eliminates soil cover, prompting active erosion, which is intensified by topographic and climatic factors. These processes affect more than 5,800,000 ha, being 6 percent of it located in the project intervention area. (iii) The increase of the right to accessing land in favor of small-scale peasants. This right aims at decreasing the inequality in the access and use of land, given that previously it was mostly warranted and implemented by large-scale farmers; yet, it has derived in challenges of more actors (in terms of diversity and quality) striving for agricultural land access.

The LDN evaluation in the municipalities included in the project reveals that 8.82 percent of the area between 2001 and 2015 suffered land degradation (Table 1 and Figure 1). It should be noted that the Machareti Municipality, has a high proportion of degraded land while the GAIOC Charagua Iyambae is mainly affected in the northwest and south sectors. In the area of project intervention, the "drylands" – as per the aridity categories adopted by the UNCCD – are classified as dry, semi-arid and dry sub-humid.[2][2] Based on their characteristics, drylands are particularly vulnerable to climate change and other pressures. Hence, ensuring integral and sustainable land management is essential to address production, economic, and biodiversity loss problems. Despite this, El Chaco is home to a large number of protected areas, contributing to the conservation of various ecosystems (Table 2).

Deforestation and land use change

As mentioned before, one of the main causes of land degradation in the Bolivian Chaco is deforestation, which is linked to unsustainable production systems, and the economic and regulatory drivers indicated above. The areas with more severe deforestation processes in the 2001-2015 period are located at the northwest and southwest of Charagua. In relation to this, the MMAyA (2019) based on the Biodiversity Conservation Priorities in Bolivia, indicates that Santa Cruz has a severe degree of deforestation.[3][3] Deforestation is strongly linked to land use change, particularly in agricultural and livestock activities. With regard to agriculture, the expansion of the agricultural frontier is the most impactful activity given its large area and the speed of uptake in the territory. The cultivation of soybeans has had the greatest impact, and to a smaller extent, monocrops such as cotton, peanuts, corn, sunflower, wheat, sorghum and beans. With regard to livestock activities, land cover has changed with the substitution of native vegetation for cultivated pastures for cattle. It should be noted that this type of livestock implies greater impacts than livestock activity carried out in natural vegetation, because the former leads to the total loss of forest cover, the introduction of exotic forage species, and intensive soil management.

Climate change impact

Bolivia is highly vulnerable to climate change, despite having limited responsibility for its underlying causes. In the last 10 years, climate change has caused shorter and more intense rain periods, high evapotranspiration and a water deficit. While climate change scenarios report average rainfall increases in the lowlands, the Bolivian Chaco shows unstable rainfall patterns adding to the uncertainty of water availability for agriculture and other uses. Temperature increases are projected in the area, forecasting even more vulnerable scenarios for drought, forest fires, soil moisture regulation, and soil erosion, among other effects. These negatively affect agricultural production because of crop harvest and livestock losses, which have important social effects: deepening food insecurity, poverty, and temporary migration of mostly males, which increases women's production workload . This is in line with the IPCC that identifies low-income women and men in developing countries as the groups that are most vulnerable to the effects of climate change.

Many international reports (e.g. IAASTD, iPES Food, and the latest IPBED report) indicate that biodiverse production systems – such as agroecological, agroforestry and silvopastoral, among others – are multifunctional. Thus, one of their main contributions is adaptation and mitigation to climate change and prevention of natural disasters, in addition to biodiversity conservation, ecosystem restoration, generation of economic opportunities through the sustainable use of biological diversity, and the provision of healthy and diverse food. The biocultural characteristics of the indigenous peoples of the Bolivian Chaco, particularly the Guaraní nation, and their local knowledge and practices, provide solid grounds for strengthening and scaling up/out such biodiverse and multifunctional production systems, as the project proposes.

Wildfires

Fires are frequent events in the drylands of the Bolivian Chaco, affecting the great diversity of species of fauna and flora, large areas of forests, crops, pastures, and archaeological sites of high cultural value to indigenous peoples and local communities. Among the main causes of the fires is the practice of “burning”, where farmers and peasants burn their plots to expand their farmland over forest areas. Winds and recurrent droughts induce the spread of fire from plot to plot, sometimes uncontrollably. In August and September 2019, large-scale fires affected the eastern sector of Charagua Iyambae, particularly in the sub-national protected Area of Ñembi Guasu on approximately 94,318 ha affected. These fires reached the PN-ANMI Otuquis on 8,374 ha. This situation requires urgent measures to assess and restore the damage, reverse land-use change, and promote biodiverse production systems as an alternative to the use of fire in agriculture. All these measures will contribute to protect and strengthen the life systems of indigenous populations and

peasant communities in the area and can be channeled through the instruments proposed by the ISMBF to lessen biodiversity loss and land degradation, while promoting the restoration of affected ecosystems and environmental functions.

Socioeconomic context

The total population in the project's municipalities of intervention is 94,656 inhabitants (52 percent men and 48 percent women).[4][4] This population is heterogeneous due to El Chaco's cultural diversity, and mostly composed of indigenous peoples (*Guaraní, Weenhayek* and *Tapiete*) and small-scale farmers and cattle rangers (many of them immigrants from the Bolivian highlands). The main economic activities of these groups are agriculture, animal husbandry, and collection of non-timber forest products.

In indigenous territories, land is communal. The Bolivian Constitution gives indigenous peoples the right to establish "Original Indigenous Peasant Autonomies" (AIOC, according to its name in Spanish). They consist of self-determined governments in the territories, municipalities or regions they inhabit. In the area of project intervention, the Assembly of the Guaraní Nation (APG) is composed of 550,000 inhabitants and organized in 24 captainships. In Santa Cruz are registered 137 guaraní communities and 87 in Chuquisaca. Charagua Iyambae was the first indigenous area to become an AIOC Govenerment (GAIOC) in 2009.[5][5] As for farmers, the majority practice small-scale agriculture on areas ranging from 5 ha to 10 ha, and the minority have access to production areas larger than 25 ha (mainly in El Chaco of Santa Cruz). Cattle raising is carried out on lands of up to 500 ha for small-scale rangers and from 501 ha to 2,500 ha for medium-sized operations (particularly Mennonites).

The Bolivian Chaco contains the largest reserve of fossil fuels in the country, which has spurred significant socio-ecological changes. Although fossil-fuel related activities are of great economic importance, agriculture remains the most relevant in terms of job creation and employment. Despite the richness of the area, it faces important social challenges, such as poverty, which encompasses 75 percent of the population and is characterized by a high percentage of households with unsatisfied basic needs.

Institutional context

The importance of biodiversity and forests for the Plurinational State of Bolivia is reflected in the country's Constitution, which defines them as a natural heritage of public interest and strategic for sustainable development. Bolivia's development framework (2016–2020 Economic and Social Development Plan, PDES 2016–2020) includes a national integral vision of welfare and supports the ISMBF, including soils and water. The ISMBF embraces natural resources conservation, sustainable use of biodiversity and forests, value adding activities, and strengthening environmental functions, among others. The MMAyA is one of the main governmental entities responsible for ISMBF implementation. Bolivia's Integral State Planning System (SPIE) prioritizes activities by macroregions and regions, where El Chaco is a key area to implement agroecological approaches, agroforestry and silvopastoral systems as part of the ISMBF, as well as contributing to socio-ecological climate change resilience and a plural economy.

The ISMBF is one of the core components of the Policy and Plurinational Strategy for Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030,[1] through five strategic components: Political-Normative; Institutionality and Territorial Governance; Conservation and Sustainable Use of Biodiversity; Integral Environmental Management for the Conservation of Biological Diversity; and Knowledge Management and Mobilization. Its implementation is multi-sectoral and multi-scale with a broad and adaptive approach that will contribute to integral development, strengthening of cultural diversity, gender and generational equity, and reduction of poverty. Moreover, the ISMBF aims to minimize the restore the existing biodiversity and forests deterioration through their sustainable management, in which access rights as well as sharing the benefits of utilization are prioritized to those social groups that depend on biodiversity and forests. Reducing poverty and promoting food security with sovereignty is among the foreseen outcomes of ISMBF. With all the above, it will contribute to also advancing international commitments such as mainstreaming and sustainable use of biodiversity in the production sectors, SFM, SLM, LDN and, from a broader view, to achieving the Sustainable Development Goals. Furtheremore, ISMBF strategies and actions include a territorial perspective to foster the resilience of life systems. Accordingly, the project is compatible with Bolivia's legal and policy framework.

Complementarely, Bolivia's 2030 National LDN Strategy, developed by the MMAyA has seven lines of action and addresses five main indicators (change in land cover, primary productivity, soil carbon stocks, soil erosion on sloping land, and salinization). The *Agroecological Soil Management in Drylands* line of action focuses on the El Chaco region, with the following 2028 targets: i) 200,000 ha under agro-silvo-pastoral systems; ii) 100,000 ha under conservation and increased production; iii) 200,000 ha implementing laminar erosion reduction actions; and iv) 100,000 ha protected from soil erosion, pollution, compaction, LD processes, run off, and reduced aquifer recharge, by implementing integral water resource management plans. The goal is that 200 basins and micro-watersheds to apply integral water management for LDN.

Despite the government's efforts to address biodiversity and land degradation and deforestation in El Chaco, there are some remaining barriers:

Barrier 1: Limited institutionalization of the ISMBF at the sub-national level

Despite having a solid national normative framework, as referred to in the ISMBF, the territorial planning processes at the sub-national level (departmental governments and municipalities) have little or no inclusion of it in their planning and decision-making mechanisms. This is due to the lack of institutional capacities (normative and executive) at different levels for its implementation. This is an obstacle to the definition of concrete local policies, programs and actions in favor of the ISMBF, SFM, SLM, and LDN, and, therefore, food security with sovereignty, and gender and generational equity for the inclusion of less-represented sectors, such as women, children and the elderly. Consequently, the complexity of the processes and the interactions between the social and environmental aspects that characterize drylands are not adequately addressed in the sub-central territorial planning and natural resource management processes. To address this challenge, the project proposes three interrelated components that will help overcome this barrier: (i) governance for integral territorial management; (ii) implementation of the ISMBF for SFM and SLM at the landscape level to move towards LDN; and (iii) monitoring, evaluation and dissemination. These will strengthen the inclusion of the ISMBF in the current sub-national decision-making mechanisms, such as in territorial management plans developed in a participatory fashion at the design, development, implementation, and evaluation stages, with a subsequent strengthening of capacities among the various involved actors, as well as improved sustainability of productive systems and the environmental functions resulting from biodiverse production systems and biodiversity mainstreaming, on which the ISMBF is based.

Barrier 2: Poor knowledge and institutional capacities on ISMBF implementation at the landscape level

Sub-national sectoral policies related to, or with the potential to contribute to, the ISMBF in the Bolivian Chaco, partially incorporate the socio-ecological potentialities that the El Chaco ecosystems hold, such as biodiversity, forest conservation and sustainable use, soil management from agroecological approaches, reduction of poverty, strengthening of the rights of indigenous peoples, the maintenance of environmental functions, and resilience to climate change, among others. The reduced of both institutional and grassroots capacity at the local level to incorporate and implement ISMBF practices, especially those oriented to SFM and SLM, are reflected in an inappropriate interpretation of the ISMBF concept, mostly understood as the simple application of a series of techniques to improve soil fertility, erosion control, and increased short-term productivity through the use of technologies (e.g synthetic inputs). All of these do not consider the integrality of development of life systems in harmony with Mother Earth, and ISMBF for restoration of degraded lands and ecosystems.

Moreover, it often happens that sub-national policies lack coordination, or are incompatible, resulting in the implementation of policies that are not beneficial to ecosystems and their environmental functions. These sectoral policies rarely include the participation of indigenous peoples, women, youth, elders and other community-based actors. The result is the exclusion of these groups as agents for conservation and sustainable use, which would be important to reduce vulnerability in the context of land degradation and climate change. At the same time, this leads to the loss of traditional knowledge and practices, facilitating the incorporation of foreign technologies, values, and modes of production, that are not adapted to local contexts and mainly responding to a market economies only. To address this barrier, the project proposes strengthening capacities on governance and implementation of the ISMBF for the SFM, SLM and LDN at the landscape level.

Barrier 3: Insufficient systems for generation, assessment, monitoring and dissemination of relevant information for the scaling up/out of the ISMBF

The Plurinational State of Bolivia has a set of tools for monitoring biodiversity, forest and land conservation and degradation. Some examples of the thematic lines of such inventories are biotic and abiotic ecosystem resources, land-use changes, active degradation processes such as forest fires, and loss of biodiversity, among others. However, such data, particularly at the sub-national level, are often incomplete, fragmented or inaccessible to local actors and the different sectors involved in the biodiversity conservation and use. The information gaps on ISMBF for SFM and SLM, limit its planning and implementation since they are not recorded or monitored. As a result, the outcomes and lessons learned through ISMBF implementation cannot be disseminated, replicated or included in informed decision making. Additionally, international commitments such as the Aichi Targets of the CBD, the Nationally Determined Contributions (NDCs) within the framework of the UNFCCC, and LDN in the UNCCD, require the systematic collection and reporting of information. Therefore, ISMBF integration into monitoring policies and production systems will contribute to improving national and sub-national governance and implementation of the ISMBF. The project includes a specific component in this area.

Barrier 4: Insufficient capacity to prevent and control forest fires

The Plurinational State of Bolivia has a set a body of measures for preventing and monitoring forest fires, for instance the Law No. 1174, which has the objective to regulate the rational use and management of fires. Moreover, the current regulatory framework (Supreme Decree No. 2912 and Supreme Decree No. 2914) provides the establishment of the Information and Monitoring System of Forest (SIMB, according to its name in Spanish), that monitors forest areas and deforestation, and on daily basis reports sport increases of temperature and forest fires. The latter is distributed daily to the national and departmental entities responsible for controlling forest fires, and it is intended to serve as an alert for timely responses in case of the emergence of fires. The latest events from July to October 2019 resulting in, according to SIMB official data, 4.98 million ha affected by fires indicate that the existing measures and their implementation locally are insufficient for controlling forest fires and require strengthening. From the affected area, 1.82 million ha are different types of forests, 220,957 ha are located in the Chaco region, and 107,137 ha are in the GAIOC of Charagua Iyambae, which is included in the project. Additionally, the current Plurinational Strategy for Integral Forest Fires (EPMIF, approved by Ministerial Resolution No. 340) incorporates the establishment of biodiverse production systems as an alternative to simplified production systems like monocrops, which are implemented and maintained using fire to expand their area and control weeds before a new sowing season. Although this practice is restricted, its application is still widespread. The ISMBF as proposed in the project will contribute to the implementation of the EPMIF not only in terms of implementing alternatives to use fire but readiness for monitoring, preventing and informing their occurrence mainly in forest areas. Under this perspective, the ISMBF will also contribute to the EPMIF implementation and, accordingly, to SFM and SLM.

2) The baseline scenario and any associated baseline projects

As previously indicated, the Plurinational State of Bolivia has established a political and regulatory framework for integral development, which includes goals and outcomes that establish scenarios for the ISMBF. In this context, the ISMBF itself and the community action plans are key planning instruments. Accordingly, their implementation contributes to fulfilling the objectives of Law No 777 on the Integral State Planning System (SPIE) and Law No 300 on the Framework of Mother Earth and Integral Development for Living Well. The following describes part of the national programmatic instruments in this area.

· ***International scenario: the country's progress regarding international commitments related to the ISMBF for SFM, SLM and LDN***

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 land degradation. In relation to the focal areas outlined for this project, that is on land degradation (LD) and biodiversity (BD), the country has adopted the Aichi Targets of the CBD; has committed to establish measures for the implementation of NDCs related to forests (in addition to water and energy) within the framework of the UNFCCC; and has pledged to advance in the LDN according to the UNCCD. All together, these agreements contribute to various 2030 SDGs.

· ***National baseline scenario: Institutional enabling environment, policy tools and instruments***

In Bolivia, there are numerous policies, laws and strategies related to the ISMBF, that aim to advance the NDCs, Aichi Targets and LDN, constituting an important way to achieve the SDGs. Following these international commitments, two instruments are of great importance at the national level:

(i) National Strategy for Land Degradation Neutrality 2030, and

(ii) Plurinational Strategy for the Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030

The following are among the national plans and programs that support the 2030 LDN process and the 2019-2030 Biodiversity Action Plan:

(i) 2016 – 2020 Social Economic Development Plan (PDES 2016-2020): aims by 2020, for 500,000 ha of reclaimed land area, to achieve the integral management of productive livestock on approximately 1 million ha, increase forest cover by 750,000 ha, achieve integral and sustainable management of 13 million ha of forests, and strengthen environmentally friendly production systems with priority given to organic and ecological production.

(ii) Mi Riego Program (irrigation) and Mi Agua Program (water): includes actions to reverse sediment transport and degraded areas through a scheme to provide water for human consumption and for irrigation of prioritized crops, to increase agricultural production and reduce the expansion of new productive areas.

(iii) Multi-year Integrated Management Program for Water Resources and Watersheds (GIRH-MIC): includes the multi-year program for 2014-2020 of the National Watershed Plan (PNC), under the strategic guidelines established by the Political Constitution of the State. It includes the Integral Watershed Management (MIC) focused on reducing degraded areas and increasing the vegetation cover. The MIC prioritizes 14 strategic watersheds for conservation and management actions in order to facilitate water availability for downstream watersheds. It also includes identification and action in all types of active degradation processes. Additionally, the GIRH-MIC has established integral management plans in at least 225 microbasins showing different types of degradation (PEDES 2016-2020).

(iv) National Soil Recovery Program (PRORESU): in its implementation phase, it includes the development of actions in conjunction with those of the 2030 National Strategy for LDN.

(v) Mi Árbol Program: intervenes in reforestation processes of different urban and periurban areas, including of watersheds, for varios purposes, such as restitution of environmental functions and improving the sustainability of current production systems.

(vi) *Institutional Strategic Plan of the Ministry of Environment and Water and Nationally Determined Contributions (NDC), Plurinational Authority of Mother Earth (APMT):* contemplates actions to reduce deforestation to zero, end illegal deforestation by the next decade, whith that, it aims to prevent illegal deforestation of 100,000 ha per year. It also forsees the reforestation of 4.5 million ha by 2030.

(vii) *National Forestation and Reforestation Program of the Ministry of the Environment and Water:* carried out by the General Directorate of Forest Management and Development with support from the Decentralized Unit “SUSTENTAR” and the National Forest Development Fund (FONABOSQUE).

(viii) *National Maize Program* and *National Chilli Program*: implemented by the National Institute of Agricultural and Forestry Research (INIAF, according to its name in Spanish) in the Chaco region, which aims at documenting, preserving and sustainably use key agrobiodiversity that finds its center of origin (chilli) and diversity (maize) in the Chaco.

(ix) *National Registry of Agricultural Varieties*: administrated by INIAF, which provides room for communal registration of native varieties used in agriculture. This has the potential to contribute to the project in terms of protection of native varieties and its registration in favor of indigenous peoples, and in terms of the creation of additional economic activities to these groups for the possibility of commercialization of seeds of those registered varieties.

(x)*"Conservation and sustainable use of agrobiodiversity to improve human nutrition in five macro-regions" Project*: implemented by the Ministry of Environment and Water together with FAO. As its title indicates, the project aims to recover and promote the consumption of native species and varieties to improve nutritional security. The project is implemented in five macro-regions of the country, including the Chaco, in the department of Chuquisaca and Tarija, through five municipalities and five captainships in the former.

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

The project objective is: Increase (scaling up/out) the integral and sustainable management of biodiversity and forests (ISMBF) as a strategy for SFM and SLM, to support integral territorial planning and the strengthening the life systems in fragile ecosystems of the dry forest of the Bolivian Chaco. For this purpose, the project includes three components to support the transition to resilient production systems that conserve and sustainably use biodiversity, recover degraded areas, strengthen environmental functions, and sustain the livelihoods of indigenous and local communities in the El Chaco region. This will be achieved through the application of agroecological approaches and strategies towards the integral and sustainable management of biodiversity, forests, water and land, at the field and policy level. The integral and multi-scale approach will contribute to overcoming the barriers mentioned above, and at the same time, will allow for the construction of a common vision in the ISMBF as a means for SFM, SLM and LDN in the project's intervention areas.

The project approach will contribute to decrease deforestation and land degradation by implementing territorial management strategies and sustainable production systems in the dry and sub-humid El Chaco (agro)ecosystems. The participating institutions will coordinate the implementation of ISMBF strategies that prove to be the most suitable to address

the loss of environmental functions in the broader landscape. Native pasture restoration and management, and agroecological production will contribute to reduce food and nutritional insecurity, strengthen and diversify livelihoods with gender and generational equity, and to increase socio-ecological resilience to climate change. Moreover, the project aims to provide feedback on the implementation of public policies from the experiences gained and documented in an enhanced information-sharing system. The actions will be carried out in a participatory manner through multi-stakeholder approaches (i.e. indigenous people, local communities, small-scale farmers, livestock farmers, local authorities, Mennonites, etc.) to prioritize adaptive actions and capacity building. These actions are related to the Integral State Planning System (SPIE).

Component 1: Governance for integral territorial management implemented by indigenous peoples and local communities through ISMBF

The component will be achieved through the following outcome:

Outcome 1.1. Strengthened governance to implement the national policy and the institutional framework to ISMBF to achieve SFM, SLM and LDN through territorial planning including in the process relevant actors.

Outcome 1.1 will strengthen governance for ISMBF from a territorial perspective and with the active participation and involvement of indigenous peoples and local communities in the intervention areas in El Chaco, from detailed planning to the execution, dissemination, replication and adoption of activities. This approach includes inter-institutional coordination within the current national and sub-national regulatory frameworks, which will overcome the barriers imposed by the sectoral and compartmentalized implementation of the processes related to SFM, SLM and LDN. The different actors will actively participate in the formulation of territorial action plans of the ISMBF al communal level, which will be conducive to the SFM, SLM and LDN. Therefore, the project includes a bottom-up planning process, and with it the development of a capacity building program at the level of the central government, subnational governments, indigenous autonomies and social organizations, under a gender and intergenerational equity approach (Table 3). This will also contribute to the different planning processes existing at different levels, mainly municipal and by the indigenous autonomies, and will seek to align them with the general framework of land use and territorial planning set up by the national regulation, policies and programmes. With this approach, it will be provided content for territorial plans and community action plans based on ISMBF, from its formulation process, starting from the socialization of Plans for Integral Management of Communal Territories. The indigenous captaincy that have already developed these plans can then conduct participatory assessments, plan designs, and implementation and validation thereof. Community action plans will be a central component for the design and management of the ISMBF, which will contribute to reduce and, when applicable, restore fragile and/or degraded lands, reestablish and strengthen environmental functions of biodiversity and forests, and improve life systems.

Regarding the generation of a model of protected areas under the ISMBF approach, it is necessary to highlight that within the project's area of intervention, specifically in the GAIOC of Charagua Iyambae, there are protected areas with different management categories: five national protected areas administered by the National Service of Protected Areas (SERNAP) and one administered by the GAIOC Charagua Iyambae. Together, they cover 68 percent of the territory of Charagua, with an area of over 5 million ha and 32,000 inhabitants. In all, they constitute the largest forest reserve in the Gran Chaco region. In parallel, the remaining 32 percent of the territory is home to most of the local communities and is a transition zone where ISMBF practices defined in the project framework will be implemented, from the perspective ot strengthening life systems. The implementation of co-management strategies for this territory is a direct demand of the indigenous peoples located in the project's intervention area, which is favorable for its implementation.

Outputs	Activities
1.1.1. Program to strengthen capacities for integral planning and participatory governance of ISBMF at the central and local government levels, autonomous indigenous areas, and social organizations, developed with a gender and generational equity approach.	· Development of the conceptual framework and training in ISMBF for territorial community action plans, based on the current national regulatory framework. · Workshops for the participatory construction of local ISMBF with central and sub-national governments, indigenous autonomies, social organizations and private actors. · Exchange of experiences in governance processes between different territories.
1.1.2. Territorial plans at municipal or capitaincy level for ISMBF as a strategy to advance the SFM, SLM and LDN.	· Assessment of the territory by prioritized zoning and indigenous captaincies according to their potential for ISMBF. · Mapping of actors and participatory identification of systems of life, according to the priorities of the ISMBF. · Participatory design of the territorial plans. · Development of Plans for ISMBF Integral Management of Communal Territories of the indigenous captaincies, based on the ISMBF for SFM, SLM and LDN.

1.1.3. Community action plans for ISMBF developed and implemented in a participatory manner, in line of the territorial plans of 1.1.2.	· Socialization of the Plans for ISMBF as Integral Management of Communal Territories of the indigenous captaincies. · Realization and analysis of participatory assessments. · Training in the methodology to develop ISMBF community action plans. · Conducting workshops at the community level, for the participatory development and implementation of the action plan (based on 2.1.3), including the prioritization of activities, actors, and sources of financing, among others. · Validation, monitoring of the action plans implementation, and, if necessary, participatory updating of the ISMBF communal action plans
1.1.4. ISMBF integrated into existing territorial management decision-making an d planning mechanisms.	· Integration of the ISMBF in the decision-making mechanisms ezisting and municipal level and indigenous peoples territories. · Strengthening the mechanisms for consultation with other relevant actors.
1.1.5. Development of a co-management model of protected areas based on the ISMBF approach.	· Socio-environmental assessment and analysis of protected areas. · Analysis of the regulatory and institutional framework of protected areas. · Analysis of conflicts related to use of biodiversity and lands in protected areas. · Development of a proposal for protected areas zoning. · Participatory development of the co-management models of protected areas and buffer zones.

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Indicators:

- *450 people (50 percent women and 20 percent youth under 28) from central government, subnational government and local stakeholders, trained on integrated territorial planning and local participatory governance of ISBFM.*
- *2 land use plans linked to territorial planning of the GAIOC Charagua Iyambae and municipal governments (PTDIs and other instruments from the Integral State Planning System) (i. sub-Andean: Monteagudo, Huacaya, Villa Vaca Guzman, and Huacareta; ii. Chaco plains: Charagua, Machareti and Cuevo).*
- *7 participatory processes of territorial management established, strengthened or approved to support decision-making on ISMBF (one in each municipality) allocation of funds in the municipal annual budgets.*

- *At least 15 communal action plans developed and implemented in a participatory manner, for ISMBF (one in each community included in the project.*
- *13 institutions with strengthened capacity to plan and implement ISBFM (MMAyA, MDRyT, 3 local governments, 7 municipalities).*
- *Core Indicator 1.2: 250,000 ha of protected areas managed within the Integrated Territorial Management Framework, and their contributions strengthened to avoid degradation and to restore degraded ecosystems.*

Component 2: Implementation of the ISMBF for SFM and SLM at the landscape level in the El Chaco region, to advance towards LDN

The component will be achieved through the following outcome:

Outcome 2.1. ISMBF practices implemented generate sustainable production systems and strengthen the local economies, the organizational systems of indigenous peoples and local communities, and ecosystems and their functions, in addition to reversing and/or reducing degradation, restoring the environmental functions of biodiversity and forests, and improving life systems in the El Chaco region.

Outcome 2.1. It is the core practical component of the project, whose implementation will secure the ecological and social functions of ISMBF, as well as its economic sustainability and scaling up and out of the project. The practical design and management of this component include technical capacity building (in production, logistic and administrative issues), which is considered as an investment for establishing OECOMs. These are regulated and supported by the national legislation from the perspective of plural economy and have the objective of strengthening the economic activities carried out by indigenous communities, integrating their customary procedures. Hence, OECOMs will contribute the economic sustainability of the OECOMs by acting as their value-adding and commercial body of the ISMBF implemented by indigenous peoples. The process of establishing, setting up their operation and running them (accordingly benefiting from), will follow the perspective of co-construction under gender and intergenerational equity approach, where women and youth will be the protagonists.

The ISMBF implementation will rely at a first stage on practices to be developed under the agroecology and gender and generational equity approaches (at least 50 percent of participants are expected to be women). In this sense, the strategic lines of action within the ISMBF framework will include the development of diversified sustainable agro-silvo-pastoral systems, the restoration of lands degraded by multiple factors, including forest fires, the conservation and sustainable use of agrobiodiversity, the improvement of

environmental functions linked to adaptation and mitigation to climate change and food security with sovereignty. The economic dimension of ISMBF will be implemented by the establishment and management of OECOMs by the indigenous peoples participating in the project (Table 4).

Outputs	**Activities**
2.1.1. Establishment of ISMBF design and management practices aimed at reducing and restoring degraded lands, support the reestablishment of the environmental functions of biodiversity and forests, and strengthening local life systems (with 50 percent participation of women and at least 20 percent participation of young people).	· Establishment, at family level and in community lands, of agroecological practices; SAF; SSP (including major and minor livestock); management of deferred forests; beekeeping with native species; production of native species; soil and water conservation practices; sustainable collection, hunting and fishing; agro-ecotourism; community tourism; and others that contribute to the ISMBF. · Recovery and strengthening of ancestral knowledge and practices, and native species (e.g. through community seedbeds, medicinal orchards, and production of smaller animals). · Establishment of family and/or communal nurseries of native forest species (timber and non-timber) and fruit trees. · Establishment of communal learning spaces and processes (e.g. field schools). · Implementation of participatory guarantee systems (PGS) and application to the national ecologic production seal of produce from ISMBF implemented by indigenous peoples and local communities. · Establishment of water collection/harvesting systems and others, as appropriate. · Development of local regulations for the implementation of the ISMBF, according to local customary use. · Strengthening of protection systems for genetic resources and associated traditional knowledge, ancestral practices and technologies, cultural expressions, and gastronomy, to prevent their misappropriation and misuse.
2.1.2 Technical capacity building and exchange program in ISMBF , with a gender and intergenerational approach, to support indigenous peoples, rural communities and other local productive actors, in the design, implementation and management of production systems under the ISMBF approach.	· Organization and implementation of training processes on regulatory and technical aspects of the ISMBF (e.g. exchanges), addressed to indigenous peoples, peasant communities, and other local productive actors, with special emphasis on women, youth and the elderly. · Training processes for participatory monitoring of the implementation of the ISMBF action plans.

2.1.3. Institutional strengthening in technical aspects of the implementation and monitoring of ISMBF, targeting public entities and academic institutions to support the implementation of local processes (based on 1.1.2 and 1.1.3).	· Organization and implementation of training processes in ISMBF with an agroecological, gender and generational equity approach (including regulatory framework, technical aspects, and methodologies, among others), for public officials, staff of academic institutions and other support entities relevant to the project.
2.1.4. Establishment of Communal Economic Organizations (OECOMs, according to its name in Spanish) for commercialization of the produce (with or without processing) from the ISMBF implemented by indigenous peoples and local communities.	· Information and capacity building on the relevant normative framework. · Market appraisal and demand identification. · Design of strategies for articulations to markets. · Participatory characterization and organization of the product supply according to the markets identified. · Development of capacities for processing of biodiversity products, forests and agrobiodiversity, including traditional handicrafts. · Institutional, technical, logistic, administrative and financial organization of OECOMs, in a participatory fashion, securing women and youth participation. · Registration of OECOMs in the National OECOMs Registry. · Development of and capacity building in technical, logistic and administrative operational protocols. · Market monitoring.

Indicators:

- *2,500 families (50% women and 20% youth) implement sustainable productive systems in the framework of ISMBF.*
- *350 local stakeholders trained on ISMBF (50% women and 20% youth).*
- *7 OECOMs established (one in each municipality and with the participation of women) dedicated to the commercialization of the produce (with or without processing) from the ISMBF implemented by indigenous peoples and local communities.*
- *Core Indicator 3.1.: 1 200 ha of degraded agricultural land in process of being restored (after an analysis of the level of degradation, mainly in Charagua and Machareti, but also including the other municipalities).*

- *Core Indicator 4.1: 100,000 ha of landscapes under improved management to benefit biodiversity (area 1: Sub-Andean strip and Chaco plains) (60,000 ha under SFM; 39,000 ha under agroforestry and silvopastoral systems management; 1,000 ha under agriculture focused on agroecological systems).*
- *Core Indicator 4.3: 6,000 ha of forests and other types of vegetation under ISMBF in productive landscapes.*
- *2,000 ha with strengthened environmental functions through the implementation of ISMBF.*

Component 3: Monitoring, evaluation and awareness raising

The component will be achieved through the following outcomes:

Outcome 3.1. Knowledge management, monitoring and evaluation, and communication

Outcome 3.1. The project will be disseminated at different levels during the processes of co-construction and strengthening of knowledge and experiences acquired at the local level, participatory governance, design and implementation of the ISMBF, and assessment of environmental functions. This will be done via an integrated system of evaluation and monitoring of ISMBF implementation. The participatory design of such a system will promote the involvement of stakeholders in monitoring and evaluation activities, thus supporting governance at different levels and the democratization of information. The Integrated System of the ISMBF (IS-ISMBF) will also contribute to the reporting on the responsibilities under the CBD, the UNCCD and the UNFCCC, on biodiversity, forests and land conservation, restoration and sustainable use. On this basis, the Plurinational State of Bolivia will be able to make valuable contributions in terms of ISMBF and for SFM, SLM and LDN at different levels, including the regional and global, which will make the country a pioneering example in South America. The IS-ISMBF will facilitate the identification and testing of different indicators and measurement parameters (benchmarks), allowing decision makers to analyze the different types of ISMBF uses and practices, and their link to the social-ecological resilience of ecosystems and life systems. This will be developed and validated among relevant actors (Table 5).

Outputs	**Activities**

3.1.1 Integrated monitoring and evaluation (M&E) system for the implementation of ISMBF within the framework of the SFM, SLM and LDN in the El Chaco region.	· Participatory design of the M&E system based on a typoligy of users and the intervention levels of the project, from the perspective of the ISMBF. · Definition of M&E criteria and indicators. · Design and implementation of a system for managing information, data sources, data collection protocols and data sharing. · Consolidation and systematization of information collected at the field, completing the information gaps and their homologation for its incorporation into the M&E system.
3.1.2. Environmental functions resulting from the ISMBF for the SFM, SLM and LDN monitored (e.g. capture and storage of carbon in soil and biomass, to replenish organic matter and soil fertility, water availability, provision of diversified and healthy food, and pollination, among others).	· Monitoring and generation of information on indicators alined to the Plurinational Policy and Strategy for the Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030, and for international responsibilities under the CBD, UNCCD and UNFCCC. · Capacity building in the monitoring of environmental functions of biodiversity and forests.
3.1.3 Medium-term and final project evaluations.	· Generation of a matrix of indicators and independent evaluation (midway through the project). · Final evaluation (three months before closing).
3.1.4 Communication strategy developed and implemented to support the realization and scaling up of the ISMBF to contribute to the objectives of LDN	· Development of a communication and information strategy addressed to different actors. · Development of dissemination materials, adapted to the different actors and audiences. · Development of a project website to continuously share experiences, disseminate information, and motivate the project replication.
3.1.4 Knowledge and information dissemination materials in ISMBF are developed, validated and distributed among relevant actors.	· Systematization and publication of the Plans for ISMBF as Integral Management of Communal Territories. · Systematization of capacity building processes and the knowledge and lessons learned alined to outcome 2.1.4, for the generation of field guidelines. · Preparation of a policy briefing document that systematizes the experience of the project.

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

This project is part of the strategic focal areas of Biodiversity (Objective 1: Mainstream biodiversity across sectors as well as landscapes and seascapes) and Land Degradation (Objectives 1: Support on the ground implementation of SLM to achieve LDN and 2: Creating an enabling environment to support voluntary LDN target implementation) of the GEF-7. Its main purpose is the development of a model that allows, by 2030, that the dry Chaco region of the Plurinational State of Bolivia applies the ISMBF as a strategy for SFM, SLM and LDN, and has incorporated the ISMBF into its policies at different levels mainly at sub-national, improving life systems and ensuring the restoration of environmental functions in the region. With this project, in accordance with the "Policy and Plurinational Strategy for the Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030" and with the "2030 National Strategy for Neutrality in Land Degradation (LDN)", the Plurinational State of Bolivia seeks to align to SDG 2 and SDG 15 (UN, 2015). With this, it will strengthen the sustainability of ecosystems and environmental functions, in particular in drylands, mountains, forests and wetlands, and their contributions to food security with sovereignty and the goal of zero hunger.

The proposed project is aligned with the Biodiversity focal area, Program 1 “Mainstreaming biodiversity across sectors as well as landscapes and seascapes” and Program 2 “Address direct drivers to protect habitats and species”. The proposed project is taking a landscape approach to conserve and sustainably use key biodiversity areas in El Chaco region. Within the process of mainstreaming, the project will invest in community-driven spatial and land use planning as a key stepping stone to better understand the drivers of resource degradation and to pave the way for more comprehensive mainstream investment in the production landscape. The project will work with indigenous peoples and local communities to improve management of existing protected areas, and to improve production practices in order to reduce pressures on neighboring protected areas.

Regarding land degradation, the proposed project is aligned with the GEF Land Degradation focal area:

· *LD-1-1 Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM):* the project will strengthen the local organizational capacities for the implementation of sustainable production systems and the diversification of activities that sustain livelihoods through the ISMBF, fostering the participation of women and different generations and increase socio-ecological resilience to climate change. By implementing the ISMBF for SLM through agroecology in the El Chaco region, the project will help enhance biodiversity and forest environmental functions.

· *LD-1-2 Maintain or improve flow of ecosystem services, including sustaining livelihoods of forest-dependent people through Sustainable Forest Management (SFM):* from the national perspective of "environmental functions" the project will strengthen the governance of ISMBF for SLM at the territorial level in the El Chaco region, as well as the constructive revision and implementation of public policies through the experiences gained and documented in enhanced information-sharing systems.

· *LD-2-5 Create enabling environments to support the scaling up and mainstreaming of SLM and LDN:* The project will contribute to strengthening the current political, legal and institutional mechanisms, particularly at the sub-national level, to improve the implementation of the ISMBF for SLM and LDN, to manage the land degradation trigger processes, and to mainstream ISMBF goals (SLM and LDN) into national and sub-national programs.

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

The project will build on efforts associated to activities related to the (i) PDES 2016–2020, (ii) the National Soil Recovery Program (PRORESU), (iii) Policy and Plurinational Strategy for the Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030, (iv) programs related to restoring and maintaining forest ecosystems ("Mi Arbol" program, National Forestation and Reforestation Program, and the Institutional Strategic Plan to eliminate deforestation), and water management programs ("Mi Riego" and "Mi Agua" program) described in the baseline section.

While the government of Bolivia has made significant efforts to ensure coordination among the different programs, there are instances where there is overlap of activities or coordination is not fully efficient. The proposed project seeks to enhance the potential for coordination among institutions with competences related or contributing to ISMBF, SFM, SLM and LDN, in the Chaco region.

Under component 1, the project will build on government activities carried out under the Nation Forestation and Reforestation Programme (PNFR) and those included in the Policy and Plurinational Strategy for the Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030. In particular, the project will build on government efforts

to integrate Protected Aras and Strategic Ecosystems into the integral territorial planning processes. Since these processes are based on the participation of local communities, they are expected to strengthen local economies and contribute to reduction of poverty while improving environmental functions. Within this context, GEF resources will be used to support the implementation of such activities and capacity building programs targeting women and youth, being the foreseen outcome the strengthening of the governance of life systems. In addition, GEF resources will be used to carry out 7 participatory processes of territorial management from the ISMBF perspective, leading to improved co-management of protected areas in the Chaco region.

Under component 2, GEF Trust Fund resources will be used to finance a capacity building program for El Chaco that will result in community driven action and investment plans to integrate efforts of the different environmental and development programs around the ISMBF. GEF funds will also be used to develop and showcase investment activities that will help restore environmental function of biodiversity and forestas, and improve local life systems. These activities are expected to be later upscaled up using co-financing resources.

Finally, under component 3, GEF resources will be used to support government efforts to develop an integral M&E system on the implementation of the ISBMF in El Chaco, which will feed in the national knowledge management and awareness efforts.

6) Global environmental benefits (GEFTF)

The project will provide global environmental benefits in the form of: (i) conservation of globally important biodiversity within the protected area system (250,000 hectares); (ii) improved management effectiveness of the protected areas system; (iii) reduction of the loss and degradation of natural habitats in the broader landscape, (iv) sustainable management of biodiversity and forests in production landscapes (100,000 hectares); (v) sustainable land management (6,000 hectares), (vi) strengthen environmental functions (2,000 ha) and (vii) improvement of local livelihoods. The proposed project will also have important co-benefits in terms of carbon sequestration.

- ***Core Indicator 1. Terrestrial protected areas under improved management for conservation and sustainable use***
  - *Sub indicator 1.2: 250,000 hectares of terrestrial protected areas under improved management effectiveness (measured by METT)*

- ***Core Indicator 3: Area of land restored in 1,200 ha***

  - *Sub-indicator 3.1: 1,200 hectares of degraded agricultural land in process of being restored (after an analysis of the level of degradation, mainly in Charagua and Macharetí, but also including the other municipalities).*

- ***Core indicator 4: Area of landscapes under improved practices (hectares; excluding protected areas) in 350,000 ha***

  - *Sub indicator 4.1: 100,000 hectares of landscapes under improved management to benefit biodiversity (area 1: Sub-Andean strip and Chaco plains) (60,000 ha under SFM; 39,000 ha under agroforestry and silvopastoral systems management; 1,000 ha under agriculture focused on agroecological systems).*
  - *Sub indicator 4.3: 6,000 hectares under sustainable land management in production landscapes.*
  - *Sub Indicator 4.3: 2,000 ha with strengthened environmental functions, including CO_2 mitigation.*

  NOTE: It is clarified that the Plurinational State of Bolivia implements its programs, projects and activities from the perspective of the joint adaptation and mitigation mechanism to climate change from a integral perspective, using non market approaches with participation of indigenous peoples, local communities, campesinos and small scale producers. This approach is consistent with the Paris Agreement Article 6.8, and with the national regulatory framework such as the Law 300 Framework to Mother Earth and Integral Development to Living Well. Moreover, the Bolivian NDC do not include a reduction of carbon emissions, instead is committed to undergo a transformational change based on climate justice and the Mother Earth Rights approach in three key sectors: water, energy and forests.

- ***Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investments***

  - *450 people (50% women and 20% youth under 35) from central government, subnational government and local stakeholders, trained on integrated territorial planning and local participatory governance of ISBFM.*
  - *2,500 families (50% women and 20% youth) implement sustainable productive systems in the framework of ISBMF.*
  - *350 local stakeholders trained on ISBMF (50% women and 20% youth).*

7**) Innovation, sustainability and potential for scaling up/out**

Innovation

Inter-scientific dialogues with the integration of academic and traditional knowledges for the construction of ISMBF knowledge, applied research, and inter-institutional linkages will be the basic approach for the generation of governance innovations and techniques that are adapted to the local contexts. This in turn will allow for the adaptation of knowledge and technologies to the establishment and strengthening of the ISMBF through agro-ecological systems among others that are sustainable and resilient to climate change. The project is especially innovative in four areas: i) IS-ISMBF design and implementation based on open source technological tools and software; ii) capacity development linked to the formulation, implementation, M&E of ISMBF; iii) achievement of the SFM and SLM national objectives from the ISMBF perspective; and iv) capacity building and strengthening of current mechanisms for participatory decision-making and the adoption of ISMBF in the scope of public policies particularly at sub-national levels.

The implementation of the ISMBF will contribute to the LDN initiative in Bolivia as a pilot site, which will be a great advance for the region, since it will be developed under UNCCD standards and in line with the Bolivian NDCs on forests. This will allow for replicability, adjustment, verification, and dissemination of ISMBF in other countries. In this process, differnt tools will be applied (e.g. LADA-WOCAT database, the ASIS tools, the EX-ACT VCA Tool, Collect Earth, Open Foris, Global Soil Partnership (GSP), EarthMap, and SHARP LADA local, among others).

Sustainability

The environmental, productive and social aspects of sustainability will be addressed by the project in an integrated manner. Regarding *environmental sustainability*, the project seeks to contribute directly to the design, implementation, M&E of SLM/SFM practices that promote the improvement of environmental functions, with special interest in those leading to LDN, climate regulation, restoration of degraded ecosystems, and the diversification of long-term-sustainability productive systems. Regarding *social sustainability*, one of the main purposes of the project is to strengthen local gobernance (including capacities and institutions linked to the ISMBF), strengthen the knowledge relevant to increase resilience to land degradation and climate change, and to food security with sovereignity. The incorporation of the gender and intergenerational equity perspective is a fundamental part of the project's social sutainability, given the key role of women and youth in the decision-making process linked to the ISMBF. Finally, the project seeks *economic sustainability* by promoting the consolidation of a solid strategy of "biodiversity mainstreaming" in agricultural, livestock, and forestry production systems, through biodiverse and profitable systems, such as agro-ecological. The creation of new markets in favor of small-scale farmers will contribute to the income generation.

Scale up/out

The project, under the leadership of the MMAyA, will scale up the initiative's processes, and acquired knowledge and experiences by different means: (i) Working with local governments, mainly municipalities and indigenous peoples captaincies and communities, by strengthening the ISMBF participatory governance, expressed in land use plans,

processes of integral territorial management and communal action plants to establish ISMBF. In this regard, the concrete indicators of the project scaling up will be the organizational structures of local actors and administrative processes in decision-making institutions, that work, reproduce and secure budgets, respectively, to ISMBF. (ii) Including and prioritizing women and youth along with the whole project implementation and monitoring of the project. This will allow scaling up the project among actors and generations. (iii) Establishing OECOMs and their economic dynamics to reach local and national markets, in this sense, reaching national targets with products identified as products from ISMBF implemented by indigenous peoples and local communities, is another means to scale up and out the project and its results. (iv) Channeling the support of national and sub-national programs related to sustainable agri-food systems, strengthen communal economic organizations, and foster the diversification and processing of agro-biodiverse products, among others.

The ISMBF project approach has the potential to be scaled up and out from the family farm to the communal and basin levels in terms of improved agro-ecological production systems, enhanced large-scale environmental functions and the resulting adaptation and mitigation of climate change. This is consistent with current initiatives in the El Chaco region that seek the integral management of natural resources at the tri-national level (Argentina, Bolivia, and Paraguay). Among these, it is worth highlighting the Great American Chaco Committee, the Subregional Action Program of the Great American Chaco (PAS), and the International Network of Organizations on Desertification (RIOD-Chaco and RIODLAC).

The participating institutions have links with academic and research centres that will help to scale up/out innovations among indigenous peoples, farmers, public and civil society organizations. It is expected that intersectoral ISMBF and LDN governance will generate large-scale changes through the replication of clear methodologies, policies, instruments, and practices. Finally, the institutional and normative context are positive and conductive to the foreseen results since there is political will for collaboration, participation, and implementation of the objectives of ISMBF for SFM, SLM, and LDN.

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[1] The Plurinational Government of Bolivia, according to Law No. 300 from 2012 “Framework Law of Mother Earth and Integral Development for Living Well”, considers environmental functions as: *“The result of interactions between ecosystem species of flora and fauna, of their own dynamics, of space or physical (or abiotic) environment and of solar energy. Examples of environmental functions are the following: the 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, and pest and disease control), nutrient recycling (nitrogen fixation, phosphorus, potassium), soil formation (rock weathering and accumulation of organic matter), the regulation of greenhouse gases (reduction of carbon emissions, carbon sequestration or fixation), the provision of scenic or scenic beauty (landscape)”*.

[2] Middleton, N.J. , Thomas, D.S. (eds.) (1992): World Atlas of Desertification. Arnold, London; UNCCD (1994). United Nations Convention to Combat Desertification in those countries experiencing serious drought and/or desertification. Paris; Sorensen, L. (2007). A spatial analysis approach to the global delineation of dryland areas of relevance to the CBD Programme of Work on Dry and Subhumid Lands. UNEP-WCMC, Cambridge.

[3] Araujo, N., Müller, R.,Nowicki, C. & P. Ibisch (Eds.) (2010). Prioridades de Conservación de la Biodiversidad de Bolivia. SERNAP, FAN, TROPICO, CEP, NORDECO, GEF II, CI, TNC, WCS, Eberswalde University. Editorial FAN, Santa Cruz, Bolivia.

[4] Population and Housing Census (2012). National Institute of Statistics. Plurinational State of Bolivia.

[5] Autonomía Índigena Guaraní Charagua Iyambae (2016). Communal Territory Management Plan (2016 - 2020). 210 pages.

[6] Ministry of the Environment and Water. 2018. Plurinational Policy and Strategy for Integral and Sustainable Management of Biodiversity, Plurinational State of Bolivia. 120 pages.

1b. Project Map and Coordinates

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

The project's intervention zone extends over a large part of the sub-national area of the Bolivian dry Chaco, located in a total of seven municipalities in Chuquisaca (Monteagudo, Huacareta, Muyupampa, Huacaya and Macharetí) and Santa Cruz (Cuevo and the indigenous autonomy of Charagua) (Annex A).

2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above,please explain why:

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

A sustained consultation process was undertaken as part of the PIF preparation process. Meetings took place not only to obtain consent of indigenous peoples and local communities of El Chaco, who will be involved in the project, but also to define the various interventions that should form part of the project, e.g. protected areas co-management,

fully participatory integral territorial planning, inclusion of ecoturism activities, women involvement, and others. A draft PIF was presented to representatives of the Council of Guarani Captains of Chuquisaca (CCCH) in Monteagudo in the Department of Chuquisaca, and to representatives of GAIOC of Charagua Iyambae and of protected areas responsible staff in the Department of Santa Cruz. Both groups agreeing on the participating in and fully supporting the project elaboration and implementation.

National Level Stakeholders	Role	Relationship	How will it be involed during project preparation
Ministry of Environment and Water	Governing body	Implement the national biodiversity and forest policies, as well as projects and standards for compliance.	Follow up on the project elaboration.
Vice Ministry of Environment, Biodiversity, Climate Change, Forest Management and Development	Co-executing partner	Formulate and define policies for the conservation and sustainable use of biodiversity and forest; implementation of related strategies, programs and plans. Focal Point to the CBD and its Protocols.	Coordination of the project elaboration, in light of the Plurinational Policy and Strategy for the Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030.
Vice Ministry of Water Resources and Irrigation	Strategic Partner	Implement the Integral Management of Watersheds and the Integral Management of Water Resources for the efficient and equitable use of the multiple water resources. Focal Point to the UNCCD.	Coordination of the project contribution to the 2030 National Strategy for Land Degradation Neutrality.
SERNAP, National Protected Areas Service	Strategic Partner	Operate the National System of Protected Areas, guaranteeing the integral management of protected areas of national interest, in order to conserve biological diversity, in the area of its competence.	Participatory development of co-management models of protected areas and buffer zones.
APMT, Plurinational Authority of Mother Earth	Strategic Partner	Implement the Joint Mechanism of Mitigation and Adaptation to Climate Change. Focal Point to the UNFCCC.	Guidance on the project implementation in light of the Joint Mechanism of Mitigation and Adaptation to Climate Change, and NDCs.
SENAMHI, National Meteorology and Hydrology Service	Strategic Partner	Provide official meteorological and hydrological data.	Provision and follow up of meteorological and hydrological data.
Ministry of Rural Development and Land	Strategic Partner	Contribute to the integral and sustainable management of agrobiodiversity, forests and lands, and their mainstreaming in rural areas and productive development strategies.	Coordination of capacity building and implementation activities on ISMBF.

Vice Ministry of Land	Strategic Partner	Propose policies, strategies, actions and projects of legal and regulatory norms in agricultural lands matters, as well as operational programs.	Coordination of capacity building and implementation activities on ISMBF for SLM; and coordination of actions for the production of zoning maps and the identification of areas under expansion of the agricultural frontier.
Vice Ministry of Rural and Agricultural Development	Strategic Partner	Propose policies, programmes, strategies, actions and projects in agricultural matters for rural development.	Coordination of capacity building and implementation activities on ISMBF and use of the national seal for ecological agriculture under PGS schemes.
SENASAG, National Agricultural Health and Safety Service	Strategic Partner	Administration of the agricultural health and food safety regime in the productive and processing sectors.	Coordination of the national food safety seal to be obtained for the communal enterprises processing products from (agro)biodiversity and forests; and registration of farmers with ecological production with the national seal for ecological production.
INIAF, National Institute of Agricultural and Forestry Research	Strategic Partner	Regulate and carry out research, extension, technical assistance, agricultural, aquaculture and forestry technology transfer; management of genetic resources of agrobiodiversity, and seed certification services. Focal Point to the International Treaty on Genetic Resources for Food and Agriculture.	Coordination of capacity building related to conservation; and sustainable use of agricultural genetic resources, research on ISMBF.
INRA, National Institute of Agrarian Reform	Strategic Partner	Direct, coordinate and implement the policies established by the National Agrarian Reform Institute.	Collaborate and follow up on land titulation.
INSA, National Institute of Agrarian Insurance	Strategic Partner	Contribute to the protection of agricultural production and livelihoods of agricultural producers against adverse climatic events.	Provision of feedback on regulation related to the protection of production systems under ISMBF.
Ministry of Planning and Development	Governing body	Direct the Integral Planning of the Plurinational State, towards the achievement of the objectives of Integral Development to Live Well in Harmony with Mother Earth, within the framework of the 2025 Patriotic Agenda.	Provision of data on the project contribution to achieve the 2025 Patriotic Agenda and SDGs.

Vice Ministry of Planning and Coordination General Directorate of Territorial Planning	Strategic Partner	Governing planning institution.	Provision of data on the project contribution to the territorial planning for integral development.
Ministry of Culture and Tourism	Strategic Partner	Establish national culture and tourism policies; regulate, drive and govern the sector and implement decolonization policies through programs, projects and actions.	Coordination of turism activities related to agro-ecoturims and gastromonic decolonization from the implementation of ISMBF, mainly with indigenous peoples communities.
Indigenous peoples and their organisations in Santa Cruz and Chuquisaca	Beneficiaries	Participation in all project activities according to its three components, particularly on participatory planning, ISMBF implementation and dissemination, M&E, among others.	Consultation and detailed participatory project elaboration; and definition of the specific communities for implementation of the component 2 of the project.
FAO	GEF Implementing Agency	Provision of technical assistance on LDN target setting and monitoring systems, and SLM/SFM practices. Support of methodologies according to international standards. Support project implementation and supervision as an implementing agency as established in the Project and Program Cycle Policy.	Support the elaboration of the project, including on the consultation and participatory project formulation.

Local municipalities	Local authorities	Administration of the local public order, services, and policies. In the case of the GAIOC Charagua Iyambae, management of the protected areas in its jurisdiction, according to the framework of the Guarani Statute of Autonomy and related the national regulations in force. The GAIOC Charagua Iyambae, one of the municipalities of the project intervention area, has suffered serious damage in 467,971 ha due to recent fires, of which approximately 82 percent (381,567 ha) are in the protected area of Ñembi Guasu. The central government is still in the process of quantifying damages and loss of biodiversity. A special program will be designed for the restoration and regeneration of the area.	Support in local actors mobilization during the project elaboration, as well as direct involvement through local authorities and municipal taff. In the case of the GAIOC Charagua Iyambae, participation in the regeneration and restoration plan of the affected area to be addresses in the project elaboration from the ISMBF, as well as to the design of the plans for strengthening co-management capacities, regulations and integral fire management in accordance with the national regulations in force.
Private sector	Individual and assotiated producers	Management of local agroecosystems with agricultural and livestock purposes.	Participation in ISMBF capacity building events; contribution to the ISMBF by implementing biodiverse or agroecological production systems; and participation in the monitoring of the environemntal functions and the medium term and final project evaluation.
	Retail markets	Sale of products in national markets.	Purchase and sale of products from ISMBF produced by indigenous peoples and local communities.

3. Gender Equality and Women's Empowerment

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

Recent assessments in Bolivia indicate that gender roles are well defined, and that women play an important role in natural resources management in Bolivia in general, and in El Chaco in particular.[1] While men traditionally have controlled resources and the related decision-making, women are

responsible for domestic reproductive and care activities, subsistence farming and other small-scale income generating activities, as well as supporting men in the productive sector. Generally, women's participation in decision-making processes has been limited.

Nonetheless, the region is seeing changes as women assume decision-making roles tradittinally assigned to men, given the temporal men migration processes to seek wage labor. These processes are driven by economic conditions, availability of land, and health and education services. While these changes increase women's workload – exacerbated with climate change[2] – they also provide a space to participate in community decision-making mechanisms, development projects, trainings and other productive activities.

Bolivian women have a high rate of labor participation compared to other countries in the region. Unfortunately, they are over-represented in all productivity sectors. Indigenous women are more likely to be employed in the informal sector, contributing to their income vulnerability. While the country has made significant progress towards gender parity in education,[3] other types of disparity remain, particularly in regard to access to production resources[4]. Within this context, the project will channel efforts for facilitatin women to strength with agency through the participation in project activities, including in leadership and decision-making roles. In addition, the project will place special emphasis on youth. With this, the project will pursue a gender-responsive and a generational equity approach. If needed, special arrangements will be made to ensure their participation, to ensure women, youth and elders can voice their opinion and needs.

- Under Component 1, the project will implement specific training activities targeting women and youth to ensure they strengthen their capacities to actively participate and lead territorial planning processes. Project efforts will also seek to remove gender, youth and elder discriminatory norms and attitudes. Finally, the project will ensure women and youth participation in the co-management of protected areas.

- Under component 2, the project will develop and implement target training programs for women and youth to ensure their participation in decision-making processes and design community territorial action plans. This includes participation in production resources, value chains and in other monetary, and non-monetary economic activities.

- Under component 3, the project will foster women and youth participation in the design and collection of data to key project indicators, as well as of elders to document experiences and lessons learned.

The project is fully in line with the goal of FAO's Policy on Gender Equality to achieve equality between women and men in sustainable agricultural production and rural development for the elimination of hunger and poverty. Women should be enabled to participate equally with men as decision-makers in rural institutions and in shaping laws, policies and programmes. Moreover, both should have equal access to and control over land and other productive resources, decent employment and income, goods and services for sustainable agricultural development and ISMBF, and to markets. Gender and generation related indicators will be developed fully in the project preparation phase

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[1] Ashwin, M. et al (2011): Gender Dynamics and Climate Change in Rural Bolivia. (Link) and Montero, M. (2004) Estudio Roles de Genero en el Chaco Boliviano: Programas PROAPAC, PADEP y PDR. Anexo Municipio de Lagunillas (https://www.bivica.org/files/roles-genero-chaco.pdf)

[2] World Bank (2015): Bolivia: Challenges and Constraints to Gender Equality and Women's Empowerment (http://documents.worldbank.org/curated/en/339531468190181959/pdf/103087-WP-P154195-Box394854B-OUO-8-Bolivia-Gender-Report-ENGLISH-WEB.pdf)

[3] Education is a universal right in Bolivia

[4] ONU MUJERES (2018): Enfoque territorial para el empoderamiento de las mujeres rurales: Estudio Bolivia (http://www.nu.org.bo/wp-content/uploads/2018/09/Libro-Enfoque-territorial_-ONU-Mujeres.pdf)

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

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

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

The project will create conditions for small-scale farmers to incorporate the agroecology approach, while promoting their participation in local and national markets. Partnerships will be promoted between associations of local producers and suppliers, community enterprises, collection centers and agricultural companies. Public-private partnerships will be supported to provide incentives for production from the ISMBF, and to identify production, such as through the use of the national ecological seal through the PGS. In this processes, the agroecology, and gender and intergenerational equity approacges will be included. Among the private actors included in the project, are: Ranchers Association of Monteagudo, Ranchers Association of Guacareta, Ranchers Association of Muypampa, Ranchers Association of Hucaya, Ranchers Association of Macharetí, Ranchers Association of Cuevo, Villamontes Cattleman's Association, Charagua Cattleman's Association, and Monteagudo Beekeepers Association, among others.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

The project design includes specific measures to mitigate environmental risks to achieve the environmental and development objectives. The main risks identified during project preparation are in the following:

Probability	Potential risks	Mitigation measures provided
Low	Populations that are external to the local communities affects local and regional governance, and the adoption of ISMBF practices that have been elaborated and collectively agreed upon.	The project will be implemented prioritizing local groups and local forms of territorial organization.
Low	Varying capacities relevant to ISMBF, among the different actors.	The project will pay special attention to maintaining a coherent, differentiated and continuous process of capacity building, through multiple and adapted methodologies addressed to different actors.

Medium	Problems in the regularization of land tenure of indigenous peoples, peasant communities and other local productive actors that make difficult the incentives for adoption of ISMBF.	Land tenure will not be a requirement to participate and access the benefits of the project.
Medium	Conflicts arising from competition for the use of the land and other resources – especially forests and biodiversity – between the different actors and certain policies that converge in the same territory (e.g. conflicts between Karais and Guaraníes; between gatherers, hunters and farmers; between ranchers and farmers; and between local communities and those linked to the exploration and exploitation of fossil fuels).	ISMBF planning and implementation based on principles of participatory governance at different levels, will allow exchange, coordination and reaching consensus on the use of the land and other resources, promoting the strengthening of the life systems.
Medium	The authorities and technicians trained by the project discontinue their functions.	The project will prioritized capacity building processes to permanent officials of public institutions and permanent residents of local communities. In addition, the project activities will generate tools for the implementation of ISMBF practices and for the evaluation and monitoring of the SFM, SLM and the LDN, which will be permanently available to the relevant actors and authorities.
High	Extreme weather conditions negatively affect ecosystems, their biodiversity and corresponding functions, threatening the possibilities of ISMBF implementation and social-ecological benefits.	ISMBF experiences will be implemented and/or strengthen primarily in sub-areas with less vulnerability to extreme weather conditions. This in order to secure initial successful experiencies that will serve as examples to other project participants. Since ISMBF is designed and implemented to increase the social-ecological resilience of ecosystems and life systems in relation to climate change, its successful implementation through participatory processes is also intended to reduce the weather vulnerability that may affect the project .
High	The intense and, in some cases, unauthorized changes in land use are a contributing factor to land degradation and loss of biodiversity. Due to its magnitude and consequences in the short, medium and long term, forest fires linked to land use change are of great impact.	Integral participatory planning embodied in community territorial action plans helps to reduce and mitigate changes in land use and coverage. ISMBF through SLM and SFM practices contribute to decrease the motivation to agricultural fires, as well as the ecological conditions that accumulate inflammable forest biomass. Accordingly, ISMBF decreases fire risk and increases the restoration of degraded areas.
High	Incongruence of the local development programs and regulations in relation to the national integral development policies decrease the opportunities for adoption of ISMBF.	The project will work with different national and sub-national public institutions, in order to promote the incorporation of the ISMBF particularly at local level, to minimize contradictions between local agricultural and development programs with the national regulatory framework. In this process, training and dialogue between the relevant actors will be instrumental.

6. Coordination

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

The Vice Ministry of Environment, Biodiversity, Climate Change, and Forest Management and Development (VMA, in Spanish) will be the coordinating and executing agency of the project. Additional local executing partners will be identified during the project preparation phase. The project is expected to have a Steering Committee (PSC) led by the VMA, with the participation of other ministries and relevant constituencies. The PSC will will advise on policy decisions and inter-ministerial coordination. In addition, the Project Management Unit (PMU, financed with GEF resources), led by a Project Coordinator will be established to execute the day-to-day activities of the project. If needed, Technical Working Groups will be established by the PSC. FAO will act as implementing agency.

Coordination with relevant GEF-financed projects

· GEFID 10295 – Amazon Sustainable Landscape Approach in the Plurinational System of Protected Areas and Strategic Ecosystems of Bolivia. The proposed project will share experiences related to strengthening community-based forest management efforts and promoting market integration within the context of ISMBF. Project GEFID 10295 is currently under preparation by the General Directorate for Biodiversity and Protected Areas (DGBAP) who is a key stakeholder in the proposed project.

· *GEF ID 4577 – Conservation and Sustainable Use of Agro-biodiversity to Improve Human Nutrition in Five Macro Eco-regions:* This project has the objective of in-situ conservation and sustainable use of agrobiodiversity in five macro eco-regions, to improve the livelihoods of local people by mainstreaming the value, conservation and sustainable use of agro-biodiversity in national policies, regulatory frameworks, and programs (health, education, rural development and food security). It also involves providing market incentives, and a process of awareness-raising and training in the sustainable use of native agro-biodiversity.

· GEF ID 10030 (UNEP) – Support the United Nations Convention to Combat Desertification (UNCCD) 2018 National Reporting Process - Umbrella IV: It focusses on helping countries to establish solid national reporting and monitoring systems for the effective presentation of reports (PRAIS) to the UNCCD. It will provide capacity building for the MAE and will serve as a basis for the key processes in Component 1 related to the definition of LDN targets. This project will start in 2019 and FAO will be the executing agency, thus contributing to the PPG phase. The project will create a coordination space for information generation at the national level, where multiple actors will be involved.

· *GEF ID 9248 – Sixth Operational Phase of the GEF Small Grants Programme in Bolivia:* It enables local communities in the El Chaco, Chiquitania and Pantanal eco-regions in Bolivia to enhance and sustain their livelihoods by protecting natural habitats, restoring degraded ecosytems, and improving productivity, sustainability and socio-ecological resilience of production landscapes.

· GEF BOL 99776 – Sustainable management of Amazonian forest ecosystems by indigenous and local communities to generate multiple environmental and social benefits. The objective of the project is to foster the management of the Amazonian forest ecosystems by indigenous and local communities, in such a way that they generate multiple environmental and social functions. The Component 1 focuses on developing and strengthening the institutional context for this purpose. The Component 2 focuses on developing local capacities for the implementation of the Joint Mechanism of Adaptation and Mitigation to Climate Change. Both with lead, among others, to introduce comprehensive perspectives at landscape level to integral and sustainable resource management, recognizing and promoting environmental functions, socio-ecological resilience to climate

change, conservation and sustainable use. This project is implementes by the Plurinatinal Authority of Mother Earth (APMT). The finding and knowledge to be generated will be useful to the proposed project.

• **GEF 9993 - AVACLIM : Agro-ecology, Ensuring Food Security and Sustainable Livelihoods while Mitigating Climate Change and Restoring Land in Dryland Regions**. The AVACLIM project aims to contribute to the mainstreaming of agroecology in drylands as a tool to address food insecurity, mitigate climate change, and restore degraded lands. The project will target policy-makers, CSOs and farmers in selected countries and support efforts to (i) improved actionable knowledge on agroecology, (ii) develop scientifically harmonized protocols to measure the impacts and success factors of agroecological systems, (iii) support evidence-based decision making on agroecology at the landscape level and (iv) raise awareness on the impacts and success factors of agroecology. This is a global project that will include work in the Caatinga-Cerrado in Brazil. The proposed GEF project for Bolivia will explore synergies and share experiences regarding best practices in agroecology.

• **GEF-7 SFM Dryland Impact Program** The Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes (DSL-IP) has as an objective to avoid, reduce, and reverse further degradation, desertification and deforestation of land and ecosystems in drylands through the sustainable management of production landscapes. The IP will achieve this objective by (i) strengthening the enabling environment for sustainable and inclusive management of drylands, and (ii) implementing and scaling up sustainable dryland management by enabling resource managers to apply sustainable management practices, by strengthening value chains, and by strengthening financial resource availability to resource managers, among other. The proposed project for Bolivia is aligned with the DSL-IP as it will strengthen governance and the capacity of local communities and indigenous peoples as resource managers to enable them to implement ISMBF practices and to ensure adequate knowledge management and awareness raising. Since the tools and approaches to be developed/implemented in the Bolivia Chaco project (eg. data collection, building of SOC maps, links to Global/Regional Soil Partnership and other networks, selection of base practices based on WOCAT, community-led processes) are similar to the ones that will be used in the DSL-IP, both projects will benefit from knowledge exchange. This will ultimately strengthen the country's ability to achieve it's commitments under the UNCCD.

7. Consistency with National Priorities

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

Yes

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

The project will help to fulfill the goals of PDES 2016-2020 in relation to the following Pillars: comprehensive scenarios of production and transformation of food and biodiversity resources in forests (Pillar 6); diversification of production, protection of local varieties and promotion of food cultures and traditions (Pillar 8); and development of sustainable productive systems in the framework of land management processes, and an increase in forest cover (Pillar 9).

The project will also contribute to achieve the departmental, municipal and GAOIC goals, described in the Territorial Plans of Integral Development, which relate to the ISMBF, and the conservation and regeneration of environmental functions (Law No 300). Likewise, it will contribute to SLM in the El Chaco region, to improve food security with sovereignty (Law No 144); the production of organic, bio-healthy and healthy food (Law No 3525 and Law No 775); to socio-economic development of peasant organization (Law No 338); and to reduce poverty, strengthen food security with sovereignty, promote gender equity and move towards integral development within the framework of Living Well.

The objectives formulated for the project contribute directly to the 2030 National Strategy for Land Degradation Neutrality under the UNCCD, by focusing on SLM and SFM. In particular, it contributes directly with the following objectives: i) zero illegal deforestation by 2020; ii) 16.9 million ha of forests under integrated and sustainable management plans with a community approach by 2030; iii) no extreme poverty among forest-dependent people by 2025 (baseline: 350 000 people in 2010); iv) 6 percent growth of forest gross domestic product (GDP) by 2030; v) 4.5 million ha of forested and reforested land by 2030; vi) 29 million ha with improved environmental functions by 2030; and vii) 1 million ha with resilient irrigation systems for food production by 2030.

With regard to the Policy and Plurinational Strategy for Integral and Sustainable Management of Biodiversity – Action Plan 2019-2030 under CBD, the project is aligned to globally agreed biodiversity targets that foster actions to develop, promote and strengthen biodiversity conservation, sustainable use and the development of inter-scientific dialogue. The project is fully compatible with the five strategic areas defined in the strategy, upon which the mainstreaming of biodiversity will be strengthened at the national level.

Finally, the project will also contribute to government efforts to address climate change in the context of holistic development.[1] In particular, for the period 2021-2030 the government of Bolivia commits to increase the capacity of joint adaptation and mitigation of climate change through comprehensive and sustainable management of forests. Government targets include (i) increasing forest areas (from 3.1 million hectares in 2010 to 16.9 million hectares in 2030) with integrated and sustainable community management, (ii) strengthening environmental functions (biodiversity conservation, water availability, organic matter, carbon capture and storage) in about 29 million hectares by 2030, (iii) reduce extreme poverty to zero within the population that depends on forests, (iv) increase the net forest coverage, (v) increase the joint mitigation and adaptation capacity in areas covered by forests (measured by the Index of Sustainble Forest Life), (vi) conservation of areas with high environmental functions, and (vi) consolidation and strengthening of regenerative capacities of forests and forest systems, among others.

[1] See Bolivia's INDC at https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Bolivia/1/INDC-Bolivia-english.pdf

8. Knowledge Management

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

Knowledge Management will be enhanced by the ISMBF as a mechanism for consolidation and dissemination of the project information. It is important to highlight that the whole project is based on inter-scientific dialogue processes, in which indigenous and local knowledge play a key role, as well as participatory knowledge sharing mechanisms for revaluation and democratization of knowledge and information on ISMBF.

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

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

Name	Position	Ministry	Date
Cynthia Silva Maturana	Viceminister of Environment, Biodiversity, Climate Change and Forest Management and Development	Ministry of Environment and Water	9/27/2019

ANNEX A: Project Map and Geographic Coordinates

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

National Park (PN) and Integrated Natural Management Area **Kaa Iya del Gran Chaco**: Lat/Lng : S 19° 6' 21' / W 61° 42' 2'

PN-ANMI **Iñao** : Lat/Lng : -19.425 / -63.92

PN-ANMI **Otuquis** : Lat/Lng: -19.33333, -58.75