GEF-8 REQUEST FOR CEO ENDORSEMENT/APPROVAL

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General Project Information

Project Title Sustainable Management of Biodiversity and Natural Resources in the Bolivian Altiplano associated to the production of South American camelids	
Region Latin America and the Caribbean	GEF Project ID 11798
Country(ies) Bolivia	Type of Project GBFF
GEF Agency(ies): IFAD	GEF Agency Project ID
Project Executing Entity(s) Ministry of Rural Development and Land	Project Executing Type Government
GEF Focal Area (s) Biodiversity	Submission Date 9/4/2025
Type of Trust Fund GBFF	Project Duration (Months) 48
GEF Project Grant: (a) 4,003,673.00	GEF Project Non-Grant: (b) 0.00
Agency Fee(s) Grant: (c) 360,331.00	Agency Fee(s) Non-Grant (d) 0.00
Total GEF Financing: (a+b+c+d) 4,364,004.00	Total Co-financing 17,164,946.00
PPG Amount: (e) 150,000.00	PPG Agency Fee(s): (f) 13,500.00
Total GEF Resources: (a+b+c+d+e+f) 4,527,504.00	
Project Tags : GBF Target 1, GBF Target 2, GBF Target 5, GBF Target 6, GBF Target 3, GBF Target 4	

Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation

Significant Objective 1	Significant Objective 1	Principal Objective 2	Significant Objective 1

Project Summary

Provide a brief summary description of the project. (max. 2000 words, approximately 1/2 page)

The objective of the 'Sustainable Management of Biodiversity and Natural Resources in the Bolivian Altiplano Associated to the Production of South American Camelids' project (hereinafter the Project) is to enhance the conservation and sustainable use of biodiversity in camelid production landscapes of the Bolivian Altiplano by strengthening community-based management systems that integrate traditional knowledge and promote sustainable productivity and improved well-being in rural Andean communities. The project will strengthen the management of biodiversity and natural resources through the development of Biodiversity and Natural Resources Management Plans (BNRMP) and improved implementation of municipal Integrated Territorial Development Plans (PDTI). These efforts will be complemented by building institutional capacities, increasing stakeholder participation and appropriation of activities, and providing technical support to small-scale camelid farmers. This will ensure the long-term health of vital ecosystems, such as wetlands (bofedales), native grasslands, and other fragile landscapes.The project will be co-financed by the IFAD-funded PROCAMELIDOS 2 Programme and will integrate biodiversity conservation practices throughout camelid production, processing, and marketing systems to enhance the sector's long-term viability. It aims to address key drivers of biodiversity loss in the Bolivian Altiplano, including habitat degradation due to land-use change, human encroachment, and the over exploitation of natural resources. Additional barriers such as weak territorial governance, limited technical and extension services, and the erosion of traditional ecological knowledge further exacerbate biodiversity decline. Focusing on two critical ecosystems of the Bolivian Altiplano - the highland grasslands and bofedales - the project will promote biodiversity-friendly production and resource management practices.

Project Description Overview

Project Objective

Enhance the conservation and sustainable use of biodiversity in camelid production landscapes of the Bolivian Altiplano by strengthening community-based management systems that integrate traditional knowledge and promote sustainable productivity and improved well-being in rural Andean communities.

Project Components

1.Strengthening territorial planning and governance frameworks for biodiversity-inclusive landscape management in camelid-based production systems.

Component Type	Trust Fund
Technical Assistance	GBFF
GEF Project Financing ($)	Co-financing ($)
969,286.00	2,850,526.00

Outcome:

Outcome 1.1. Inclusive and sustainable landscape governance systems strengthened to support biodiversity and natural resource management in the Altiplano.

Output:

1.1.1 Capacities of municipalities and local communities strengthened for informed decision-making and territorial planning in Altiplano ecosystem.

1.1.2 One Health approach implemented to foster sustainable and biodiversity-positive camelid production.

2. Scaling up biodiversity-friendly production practices and incentive mechanisms for a sustainable camelid value chain.

Component Type	Trust Fund
Investment	GBFF
GEF Project Financing ($)	Co-financing ($)
2,433,143.00	10,632,373.00

Outcome:

Outcome 2.1. Natural ecosystems are restored through investments in improved biodiversity, natural resources and land management practices.
Outcome 2.2: Incentive mechanisms enhanced to promote an inclusive, BD friendly and sustainable camelid value chain.

Output:

2.1.1 Improved ecosystem carrying capacity within the Native Pasture Fields-CANAPAS

2.1.2 Camelid production is managed sustainably through investments in agrobiodiversity practices.
2.2.1 Capacities of camelid producers strengthened to enhance value addition, market access, and sustainability of camelid products.

2.2.2 Consumer awareness raised on the economic and biodiversity benefits of domestic camelid products to promote sustainable demand.

2..2.3 Territorial-branded domestic camelid products that incentivize the conservation and sustainable management of biodiversity identified and piloted.

3. Establishing and operationalizing a National Knowledge System (KMS) to support biodiversity-inclusive camelid production and landscape governance.

Component Type	Trust Fund
Technical Assistance	GBFF
GEF Project Financing ($)	Co-financing ($)
337,913.00	1,137,063.00

Outcome:

Outcome 3.1 Improved evidence-based planning, policy development, and decision-making for a biodiversity-inclusive camelid value chain

Output:

3.1.1 Knowledge and policy information on camelid production, transformation, and marketing generated and made accessible for evidence-based decision making.

3.1.2. Reliable data, ecosystem assessments and monitoring reports on the sustainable management of the Altiplano biodiversity and natural resources regularly updated and shared.

M&E

Component Type	Trust Fund
Investment	GBFF
GEF Project Financing ($)	Co-financing ($)
72,680.00	23,984.00

Outcome:

Effective project management and impact assessment.

Output:

Implementation of project M&E plan and gender action plan.
Submission of quarterly and annual reports, capturing gender-related results and lessons learned (PIRs, MTR and TE).

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
1.Strengthening territorial planning and governance frameworks for biodiversity-inclusive landscape management in camelid-based production systems.	969,286.00	2,850,526.00
2. Scaling up biodiversity-friendly production practices and incentive mechanisms for a sustainable camelid value chain.	2,433,143.00	10,632,373.00
3. Establishing and operationalizing a National Knowledge System (KMS) to support biodiversity-inclusive camelid production and landscape governance.	337,913.00	1,137,063.00
M&E	72,680.00	23,984.00
Subtotal	**3,813,022.00**	**14,643,946.00**
Project Management Cost	190,651.00	2,521,000.00
Total Project Cost ($)	**4,003,673.00**	**17,164,946.00**

Please provide Justification

PROJECT OUTLINE

A.CHANGES COMPARED TO PPG REQUEST

Please describe and justify any major changes to the project design, including to elements put forward in the PPG request to meet the following GBFF selection criteria:

a. Potential of the project to generate global environmental benefits (GEBs) (include a description of the GEBs the project will generate per the GBFF Results Indicators);

b. The alignment of the project with the National Biodiversity Strategies and Action Plans and/or National Biodiversity Finance Plans or similar instruments to identify national and/or regional priorities;

c. The level of policy coherence and coordination across multiple ministries, agencies, the private sector, and civil society that the project aims to support;

d. Whether the project will mobilize the resources of the private sector and philanthropies'; and

e. Whether and how the project will engage with and provide support to IPLCs.

a. Potential of the project to generate global environmental benefits (GEBs).

During the PPG phase, GEF Core indicator 4.2 "area of landscapes under third-party certification incorporating biodiversity considerations" was removed from the results framework and replaced with a sole focus on indicator 4.1. Specifically, it was

determined that certification and traceability pilots that incorporate biodiversity and environmental protection would be more appropriately implemented under sub-component 2.2 of PROCAMELIDOS 2. By blending with this sub-component, the project ensures that GBFF resources are fully dedicated to the development and implementation of BNRMPs, while leveraging complementary PROCAMELIDOS 2 components for greater impact. The components were also further rationalized and slightly reworded to sharpen the language without changing the essence. GEF Core Indicator 3 was added as key BD related benefit.

In addition, the core indicators have changed as follows: Core Indicator 3, on land and ecosystems under restoration, has been revised from 75,000 ha in the PPG request to 2,524 ha of direct restoration. Similarly, Core Indicator 4 has been revised from 75,000 ha to 21,786 ha of landscapes under improved practices. These changes are based on a comprehensive analysis of bofedales and grassland restoration costs in Bolivia, and are further described in the EFA, as well as in the GHG analysis in Annex K. Compared to the PPG request, there is now also an estimate for Core Indicator 6, with -375,688 tCO_2e (direct) in GHG emission reductions and carbon sequestration over 20 years. Core Indicator 11 on the number of people benefiting from GEF-financed investments changed from 12,000 to 6,500.

B. PROJECT RATIONALE

Describe the current situation including: the global biodiversity problems that the project will address; the key elements of the system to be addressed by the project; and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages).

Current situation

Biodiversity

The Bolivian Altiplano, the second largest and highest plateau in the world, is part of the Central Andean Dry Puna ecoregion. This high-altitude, arid montane ecosystem features unique flora and fauna adapted to extreme conditions, including high solar radiation, strong winds, and significant temperature fluctuations. Vegetation includes unique associations of shrubland types. Notably, the Altiplano contains three Ramsar Sites: Titicaca, Poopó and Laguna Colorada Lakes. While the Andean region is renowned for its remarkable biological diversity and as a significant center of origin for many cultivated plants, the region paradoxically has high levels of poverty and malnutrition, with the highest levels found in the Bolivian plateau [1].

Native grazing lands in the Bolivian highlands are made up of a diversity of ecosystems composed of different types of plant communities. They constitute the most important source of forage for domestic animals such as camelids, sheep, horses, and cattle. It is estimated that more than 98% of these altiplano grasslands are made up of native species and 2% are introduced species. Different plant formations make up the natural vegetation of the dry Andes, depending on the climate, geomorphology, and soils. They are also the result of traditional uses, representing different secondary stages of the original native grasslands. Scientific research carried out in 2006 identified at least five types of grasslands, collectively referred to as “CANAPAS” (“Campos Naturales de Pastoreo” - Natural Grazing Fields):

a) Bofedales (high Andean peatlands): Perennially or seasonally saturated peatlands formed by groundwater discharge and glacial meltwater. They serve as critical hydrological regulators, storing and slowly releasing water year-round, and as core grazing areas for camelids.

b) Pajonales: Grass-dominated areas, primarily consisting of Festuca orthophylla and Stipa ichu, which provide bulk forage for domestic and wild herbivores.

c) Tholares and Tolares–Pajonales: Shrub-steppe formations dominated by species of *Baccharis*, *Parastrephia*, and *Fabiana*. These areas often represent secondary succession stages from historically disturbed grasslands and provide key habitat for both avifauna and small mammals.

d) Gramadales: Low-growing herbaceous meadows that often transition into bofedales, dominated by genera such as *Carex*, *Eleocharis*, and *Distichia*. These transitional habitats have high floristic diversity and hydrological importance.

e) Rock outcrops and montane shrublands: These areas act as refugia for rare and endemic plant species and are critical for maintaining microhabitat diversity across the landscape.

Each of these ecosystems provides critical ecosystem services which underpin both biodiversity conservation and human well-being, including water regulation, soil stabilization, carbon sequestration, and the provision of forage resources that sustain camelid-based livelihoods. Bofedales, in particular, are keystone ecosystems of the high Andean landscape. They are maintained by cushion-forming and sedge species - *Distichia muscoides*, *Oxychloe andina*, *Plantago rigida*, and *Zameioscirpus muticus* - that trap sediments, accumulate peat, and regulate water flows year-round. Several threatened high-Andean plants occur in peatlands and their ecotones, underscoring their global significance. The llareta (*Azorella compacta*, VU) forms long-lived cushion mats on saturated and seasonally waterlogged substrates and is threatened by overextraction for fuel and medicinal use[2][1]. In high-Andean wetland–woodland mosaics that influence bofedal hydrology, *Polylepis pepei* (EN) persists in fragmented stands. Additional peatland-linked endemic genera, such as *Werneria* and *Gentianella*, include species listed as nationally threatened, contributing to pollinator networks and seasonal forage diversity

The unique floristic composition of the Bolivian highlands is habitat for mammals such as the vicuña (*Vicugna vicugna*), guanaco (*Lama guanicoe*), puma (*Puma concolor*) and deer (*Odocoileus spp.*), as well as a rich assemblage of local and migratory birds, reptiles, and amphibians, all key to secure a balanced interaction within these productive landscapes.[3] According to the IUCN Red List, several species endemic to or closely tied to these high-altitude grasslands and peatlands are considered critically endangered, endangered, vulnerable or near threatened,. Among vertebrates, the Andean cat (*Leopardus jacobita*, EN), one of the rarest felids in the world, occupies rocky grasslands and wetland margins of the western Cordillera (inc. Curahuara de Carangas, Turco, and Charaña[4][2]). The Royal cinclodes (*Cinclodes aricomae*, CR) and Ash-breasted tit-tyrant (*Anairetes alpinus*, EN) inhabit *Polylepis* woodlands interspersed with bofedales, making these sites critical for the survival of globally threatened Andean birds. High-Andean wetlands also host the James's flamingo (*Phoenicoparrus jamesi*, NT) and Andean flamingo (*Phoenicoparrus andinus*, VU), both species with restricted breeding colonies in saline lakes and wetlands, whose reproduction depends on intact hydrology and food webs maintained by peatland productivity[5][3]. Amphibian assemblages include Andean water frogs of the genus *Telmatobius* (several taxa EN–CR), which inhabit bofedal-fed streams and are highly sensitive to water quality and temperature fluctuations[6][4].

The region is a global center of origin for Andean domesticates, notably Lama glama (llama) and Lama pacos (alpaca), with centuries of selective breeding producing distinct local genetic lineages adapted to harsh high-altitude conditions. Genetic diversity within camelid populations remains essential not only for cultural heritage but also for resilience to disease, climate stress, and market fluctuations. Moreover, wild relatives such as the vicuña retain important genetic reservoirs that support intraspecific diversity and provide a buffer against genetic erosion in domestic stocks. Conservation of these populations is vital for maintaining genetic flow and adaptive capacity under climate change.

Bolivia has been actively involved in conservation activities and strategies since the late sixties. The population of vicuña were decimated and at risk of extinction in the middle decades of the twentieth century, due to uncontrolled and indiscriminate exploitation for trade in fiber. In 1969, Peru and Bolivia agreed to ban all hunting and sale of vicuña for a period of ten years. Later, several Andean states agreed to sign the Convention for the Conservation and Management of Vicuna (the Vicuna Convention; 1979), which remains an important framework for cooperation among range states on vicuña conservation and management. Bolivia holds almost one third of the global population of vicuña, and its population has increased steadily, from approximately 3,000 in 1969 to an estimated 163,331 in 2018.

These ecosystems also serve as living gene banks of agrobiodiversity for grassland species particularly for traditional grazing, but also for medicinal and spiritual use. Highland communities have developed sophisticated traditional knowledge systems for managing this diversity, selecting plant communities for seasonal grazing, animal nutrition, and pasture regeneration. For instance, camelid herders often recognize and manage dozens of native forage species based on palatability, phenology, and water retention capacity [7]. This dynamic use and conservation of plant and animal agrobiodiversity is not only intrinsic to the region's cultural and ecological value but is foundational to the sustainability of camelid-based livelihoods, water security, and climate resilience.

[1] Padulosi, S.; Amaya, K.; Jäger, M.; Gotor, E.; Rojas, W.; Valdivia, R. A Holistic Approach to Enhance the Use of Neglected and Underutilized Species: The Case of Andean Grains in Bolivia and Peru. Sustainability 2014, 6, 1283-1312. https://doi.org/10.3390/su6031283

[2] Poma, I., & Càceres de Baldarrago, F. (2013). Azorella compacta (Yareta): pianta endemica degli altipiani andini del Sud America / An endemic plant of the Andean plateaux in South America. Cactus & Co. – Focus: Piante e Tradizioni Andine, 14, 82 pp

[3] Genin, Didier y Alzérreca, Humberto (2006). *Campos nativos de pastoreo y producción animal en la puna semiárida y árida andina, Entre fragilidad, saberes tradicionales y marginalidad, ¿cual desarrollo duradero?.* Francia: Secheresse, Artículo científico.

[4] Villalba, M. L., Bernal, N., Nowell, K., & Macdonald, D. W. (2012). *Distribution of two Andean small cats (Leopardus jacobita and Leopardus colocolo) in Bolivia and the potential impacts of traditional beliefs on their conservation.* Endangered Species Research, 16, 85–94

[5] Association of Zoos & Aquariums (AZA). *Andean Highland Flamingo SAFE Program Plan 2021–2023.*

[6] AmphibiaWeb. "Telmatobius intermedius." *AmphibiaWeb*. https://amphibiaweb.org/species/5975https://amphibiaweb.org/species/5975?utm_source=chatgpt.com

[7] Martínez, C. et al. (2017). *Uso tradicional y manejo de pastizales altoandinos en Bolivia*. Revista Latinoamericana de Etnobiología.

Protected Areas

Social participation in the management of protected areas has been recognized in the Bolivian Political Constitution (2009). Article 385, Section II, states that 'Where there is overlap of protected areas with indigenous territories, shared management is carried out subject to the rules and procedures of the nations and indigenous peoples and respecting the objective of creation of the protected areas."

The National Service of Protected Areas (SERNAP), created in 1992 under the Environment Act, is the public operating structure responsible for planning and administering the management of national protected areas. SERNAP is under the Vice Ministry of Environment, Biodiversity, Climate Change, and Forestry Management. SERNAP operates with a mandate to establish participatory management processes for the conservation and sustainable use of biodiversity in protected areas.

Two national protected areas (PA), the Tunari and Sajama National Parks are present in 4 of the 16 prioritized municipalities. Although the proposed project is not focused on PA management but rather on productive landscape management, the existing territorial overlap calls for a level of coordination between MDRyT and SERNAP. As seen below, the objectives that support the creation of both PAs are consistent with the objectives of the proposed project in terms of protecting and conserving key elements of biodiversity relevant to the livelihoods of local communities.

The Sajama National Park and Natural Area for Integrated Management, with a total surface of 100,517 hectares, was created in 1939. The main objective is to protect queñua forests; preserve the ecosystems of the semi-arid high Andean region; conserve wildlife species such as the vicuña; and protect watershed headwaters and promote scientific research. The territory of this protected area overlaps 100% with the Municipality of Curahuara de Carangas within the Department of Oruro and a small part of the Turco municipality, one of the project target areas. The management plan establishes 4 zones ranging from strict conservation to areas where sustainable use of natural resources could take place, including grazing by domestic camelids and water management practices to enhance water recharge for wetlands. Sustainable use of the productive base which sustains livestock, specifically camelids, is one of the 20 priority action areas of the Sajama Management Plan, emphasising zoning of wild and domestic camelids to manage conflicts for natural resources.

The park's vegetation includes Polylepis tarapacana forests (vulnerable), particularly around the extinct Sajama Volcano, at hills and foothills; mixed in some areas with Azorella compacta (endangered) and others such as Festuca orthophylla, Stipa ichu, Opuntia sp., and Cardionema ramosissimum, on rocky hills. Tholar stands of Parastrephia lepidophylla (endangered) and P. quadrangularis (vulnerable), as well as tholar-grassland associations, can also be found in the plains and at the foothills. Bofedales are the most important vegetation type found in the glacial valleys and nearby lagoons, predominantly Distichia muscoides (endangered), Calamagrostis chrysantha, C. rigescens, Oxychole andina, Plantago tubulosa. Mammals include Vicugna vicugna, Hippocamelus antisensis, Chaetophractus nationi, Leopardus jacobita, Puma concolor, Licalopex culpaeus, Conepatus chinga rex and Galictis cuja. Bird species associated to wetlands and grasslands include Rhea pennata, Vultur gryphus, Phoenicoparrus jamesi, Phoenicoparrus andinus, Phoenicoparrus jamesi and P. andinus.

The Tunari National Park covers more than 300,000 hectares and was created in 1962. The main objective is to protect water sources, conserve forested areas, and promote reforestation initiatives. Its territory overlaps with three of the targeted municipalities in the Department of Cochabamba: Morochata, Tiquipaya and Quillacollo. The management plan includes 12 zones, ranging from areas dedicated to strict conservation, to areas where only controlled and authorized use of natural resources is permitted. While camelid herding is becoming increasingly common in the park, grazing is controlled, with families allowed to pasture their animals only in designated zones. There are two phytogeographic zones: the valley region, home Schinus molle, Prosopis juliflora, Acacia macracantha, Buddleja hypoleuca, and Baccharis dracunculifolia; and the mountain region, characterized by hillside grasslands and belts of trees and shrubs in the lower areas. The most representative species are Polylepis besseri and Buddleja coriacea. Among the kewiña groves, the subspecies Polylepsis besseri subtusalbida stands out, exclusive to the Tunari Mountain Range. The composition of mammals and birds is similar to the Sajama NP, except for the presence of four bird endemic species: Oreotrochilus adela, Aglaeactis pamela, Asthemes heterura and Poospiza garlepi. For more details refer to Annex F5.

Indigenous Peoples. Bolivia stands out as one of the countries with a high indigenous population among Latin America. According to the 2012 Census, approximately 41.5% (4,176,647) of Bolivians over the age of 15 have indigenous or native ancestry. Additionally, in 2017, the National Institute of Statistics (INE) suggested that this figure could have increased to 48%. A vast majority of the indigenous population resides in the Andean region (highlands and project area) and primarily identifies with two indigenous peoples and languages: Quechua, spoken by 49.5%, and Aymara, by 40.6%. Indigenous communities of the Bolivian Altiplano, including those in the project area, often maintain traditional governance systems rooted in ancestral values, spirituality, and reciprocity. These systems include grassroots territorial organizations that operate through collective decision-making and rotational leadership. Bolivia's 2009 Constitution formally recognizes the Plurinational State and Indigenous autonomy, providing a legal framework that supports the inclusion of Indigenous governance structures and customary law in national and local planning processes. These governance systems play a vital role in resource management and are essential for the co-design and long-term success of conservation strategies. The 16 selected municipalities hold about 730 communities, of which 544 correspond to domestic camelid producers. These communities represent around 110,732 Indigenous Peoples (IP), of which 6,500 will be directly targeted by the project.

While Indigenous governance systems and producer organizations are a major institutional strength of the project area, the project also recognizes that local participation spaces are not automatically equitable. Community, municipal, and producer-organization structures may be influenced by local power asymmetries, including stronger voice and decision-making power by established leaders, better-connected households, or actors with greater economic or political influence. These dynamics may limit the effective participation of women, youth, remote and dispersed communities, poorer livestock keepers, and other groups with weaker representation in formal decision-making spaces. The project will therefore approach stakeholder engagement with an explicit awareness of these risks and will combine support to existing governance systems with measures designed to prevent exclusion, concentration of benefits, and elite capture in planning and implementation processes.

Gender Equality. Women in rural areas play a triple role, spanning three interconnected dimensions: a) reproductive, which considers them mothers, caregivers of their children, responsible for domestic duties, and family food and nutrition; b) productive, as they participate in the production and primary processing of food for later marketing at markets; and c) social, which entails representing the family, either as heads of household or when they remain in charge of the family when the man migrates in seek of job opportunities. Despite these critical roles, gender inequality remains deeply entrenched. Women's contributions to agricultural production are often overlooked or undervalued, and traditional gender roles continue to place the bulk of household and caregiving responsibilities on women. During peak agricultural periods such as planting and harvesting, rural women often work up to 16 hours per day, balancing labor-intensive farm work with domestic duties. Yet, their participation in decision-making spaces is limited, as cultural norms often discourage or diminish the value of their voices.

Climate change has further exacerbated gender disparities. In the Altiplano, recurring droughts reduce agricultural productivity and increase food insecurity, intensifying migration, particularly among men and youth. As a result, women are left with a heavier workload, managing both the household and economic activities under increasingly harsh environmental conditions. In the project area, women are primarily responsible for extensive camelid herding, which involves long, physically demanding journeys that also limit their access to training and capacity-building opportunities. The growth in the number of rural households headed by women, the growing female population in the rural sector, and the increased participation of women in agriculture points to an ongoing feminization of the rural sector. Despite this participation, women lack sufficient access to credit and technical assistance.

Drivers of Biodiversity loss

Despite the important diversity and abundance of species in the Bolivian Altiplano, both its ecosystems and the species they support are increasingly under threat from direct and indirect drivers of biodiversity loss.

i. Indirect Drivers of Biodiversity loss

Weak governance. Natural resource management in the Bolivian Altiplano is hindered by overlapping governance systems and the complex interplay between state, community, and private actors. While Bolivia's 2009 Constitution recognizes state ownership of natural resources, it also grants territorial and resource rights to Indigenous communities. This duality, though intended to promote participatory management, often leads to jurisdictional conflict, limited coordination among governance levels, and inconsistent enforcement of environmental laws. National and local authorities frequently lack the technical, financial, and operational capacity to implement existing legal frameworks effectively.

Weak enforcement of policies and regulations. Bolivia faces a weak environmental enforcement mainly due to prioritize economic growth and insufficient resources, leading to high rates of deforestation, illegal mining, and unregulated land expansion. Despite the existing policy and regulatory frameworks, enforcement is hindered by legal loopholes, conflicts of interest, and effective impact assessment and monitoring systems. Despite regulations, large-scale agriculture, cattle ranching, and soy farming drive rapid deforestation, often unchecked by authorities. Property laws can indirectly promote this by defining forests as 'unproductive' land that must be developed to avoid government repossession. Illegal gold mining is widespread, often with minimal oversight or legal consequences. Limited staff, funding, and technical capacity, especially at the local governments, undermine the government's ability to enforce environmental laws. Government efforts to promote economic development often conflict with environmental protection goals.

Political turnover. Political turnover in Bolivia undermines environmental control by prioritizing rapid, state-led extractive economic growth over long-term sustainability, often reversing previous conservation policies and regulations. Frequent changes in administration create policy instability, weakening enforcement, promoting illegal activities and displacing environmental protection in favor of extractivist agendas. Reliance on resource extraction to finance development programs, leads to the expansion of industrial activities into protected areas and indigenous territory. Political instability and shifts in power also lead to inconsistent enforcement of environmental regulations and the weakening of the existing environmental framework. Social conflict and polarization also have an important impact**,** high-stakes conflicts over resources and shifting political alliances, have overshadowed environmental concerns, leading to a focus on political survival over sustainable management.

Market demand for (quinoa) and increased land use conflicts. Quinoa (Chenopodium quinoa), a drought-resistant Andean crop, has become a high-value export commodity, particularly in the arid southern Altiplano. Initially cultivated within sustainable, rotational systems combining harvesting of the crop on hillsides, and llama and alpaca herding on the plains, quinoa's global demand, especially since the 1990s, has led to large-scale mechanized monoculture, replacing this traditional mixed farming. The cultivation of quinoa is today the most important land use in this region, with a continued increase in production volume and areal extent.[1]

A drastic increase of Quinoa crop extent is observed from 2001 onward. During the first period from 1982 to 2001 the Quinoa crop area increases slightly, while it expanded drastically during the second period from 2002 to 2016, the extent of Quinoa crop was multiplied by three, passing from 43,140 to 118,910 ha. The opportunity of social economic enhancement led local people to intensify their Quinoa production. Aside from converting natural vegetation to Quinoa crops, improved yields were achieved by a transition from traditional manual to mechanized agricultural methods, shorter fallow times and irrigation.[2]

observed and explored in this study. Both livelihoods have the ability to be mutually beneficial if land-use conflicts are addressed. The need for re-establishing a balanced and integrated quinoa-llama production system with adequate forage availability in the Bolivian Altiplano is of crucial importance for ensuring long-term sustainability for rural livelihoods and the environment.A study conducted in 2018 [3] examined the challenges and constraints faced by rural, small-herd, llama (Lama glama) agropastoralists of the Bolivian Altiplano. Three different study sites with various degrees of agropastoralism were examined to describe the relationship between quinoa and llama production and the implications of land use competition between these two livelihoods. It also examined the native forage species available to free grazing llamas and their relative importance. The study found that conflict between llama breeders and quinoa producers arises because of the direct competition for land use. Value-added llama products such as manure may provide an added economic incentive for rural peoples to pursue llama husbandry. Challenges are site-specific, as in some cases access to pastureland is the greatest challenge, while access to quality forage plants throughout the year (specific deficits reported from June - August) was a common constraint across all study sites. Parallel livestock and crop systems in areas where llama and quinoa production are in direct competition were

Policy and legal framework shift. In 2012, the Bolivian Legislative Assembly adopted the Framework Law in an attempt to reaffirm and implement the goals formulated in the Bolivian Constitution and the Law of the Rights of Mother Earth. The Framework Law includes the same definition of Mother Earth as does the Law of the Rights of Mother Earth and, like that Law, it specifies that Mother Earth is the home that nurtures, sustains, and reproduces all living beings. Furthermore, the Framework Law reaffirms the rights established in the Law of the Rights of Mother Earth and in similar terms it calls for the creation of an Office of Mother Earth, although it does not provide specific procedures for its organization. It merely states that the Office has standing to bring proceedings before administrative and/or judicial authorities to enforce the rights of Mother Earth. To balance development on the one hand and the protection of nature on the other, the Framework Law establishes the notion of 'integral development'. This is defined as the implementation of integrated measures to create and reinforce social, spiritual, and material conditions, capacities, and means aimed

at facilitating and strengthening community linkages in order to achieve *Vivir Bien* in harmony with Mother Earth. In this view, integral development is not the end result, but the process leading to *Vivir Bien*.

The Framework Law legalizes rather than prohibits mining, though it calls for the use of best available technologies during extractive activities in order to reduce their impact. The Framework Law also places an obligation on the state to create conditions to ensure growth, which legitimizes and even promotes extractivist activities such as mining. While extractive practices are always harmful to the environment to the extent that they dislodge the harmony of an ecosystem, the Bolivian legislature saw fit to include provisions that promote mining in this Law, which focuses on the protection of Mother Earth, and not in a law on mining or economic development. Regarding the principle of integral *socio-economic* development, the Law is neither specific nor concrete and, like the Law of the Rights of Mother Earth, it is concerned with establishing broad guiding principles [4].

The new administration elected at the end of 2025, faces both the mandate and the responsibility to halt ecological decline, reconcile economic and environmental priorities, and restore Bolivia's standing as a global leader in biodiversity stewardship. Initial actions include the former Ministry of Environment and Water being positioned under the Ministry of Planning as the Vice-Ministry of Environment, Biodiversity, Climate Change and Forestry (Vice-ministerio de Medio Ambiente, Biodiversidad, Cambio Climático y de Gestión y Desarrollo Forestal); it es expected that a strong environmental governance is ensure under this new institutional structure.

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file:///C:/Users/a.cruciani/Desktop/GEF/GBFF/resubmission%2006.05.2026/Bolivia-GBFF-CER-TRACK%20CHANGES-23032026.docx - _ftnref1[1] Lasse Sander and Sven-Erik Jacobsen. The quinoa boom of the southern Bolivian Altiplano-Linking geomorphology, erosion and spatial production patterns. Geophysical Research Abstracts Vol. 16, EGU2014-10371, 2014.

file:///C:/Users/a.cruciani/Desktop/GEF/GBFF/resubmission%2006.05.2026/Bolivia-GBFF-CER-TRACK%20CHANGES-23032026.docx - _ftnref2[2] Frédéric Satgé, Yawar Hussain, Alvaro Xavier, Ramiro Pillco Zolá, Leandro Salles, et al.. Unraveling the impacts of droughts and agricultural intensification on the Altiplano water resources. Agricultural and Forest Meteorology, 2019, 279, pp.107710. ff10.1016/j.agrformet.2019.107710ff. ffhal-04375817f

file:///C:/Users/a.cruciani/Desktop/GEF/GBFF/resubmission%2006.05.2026/Bolivia-GBFF-CER-TRACK%20CHANGES-23032026.docx - _ftnref3[3] Sarah J. d'Apollonia, Henrik Meilby, & Marten Sørensen. 2018. Ancient Agropastoral System of the Bolivian Altiplano: a Robust Ecosystem Endangered from Changes in Land-use. Sustainable Agriculture Research; Vol. 7, No. 4; 2018 ISSN 1927-050X E-ISSN 1927-0518 Published by Canadian Center of Science and Education.

file:///C:/Users/a.cruciani/Desktop/GEF/GBFF/resubmission%2006.05.2026/Bolivia-GBFF-CER-TRACK%20CHANGES-23032026.docx - _ftnref4[4] Paola Villavicencio Calzadilla and Louis J. Kotzé. August 2018. Living in Harmony with Nature? A Critical Appraisal of the Rights of Mother Earth in Bolivia. Cambridge University Press.

Erosion of traditional management systems. For Indigenous peoples of the Bolivian Altiplano, resilience to climate change is rooted in traditional knowledge and adaptive practices. Communities diversify livelihoods and improve plant varieties and animal breeds to buffer against risks. Access to multiple resources and land-use patterns strengthens local climate management. However, declining water availability, due to reduced rainfall, is forcing changes in farming systems. This decline in water availability may be further exacerbated in the long term, once glaciers have melted and no longer recharge the water table. Traditional weather forecasting remains important, but increasing climate variability challenges its effectiveness. Community-based governance and strong social networks remain central to resilience. Yet, external pressures are eroding these systems. These include land fragmentation, weakening of territorial and communal structures, and growing competition over shared resources such as bofedales and native pastures. Additionally, a general shift toward individual or family use of common goods undermines collective management of resources, including traditional rotation and rest cycles. Similarly, outward migration and generational shifts contribute to the erosion of traditional ecological knowledge.

Lack of access to sustainable livelihood options. Limited access to land, credit, technology, and fair markets has left many rural families, especially domestic camelid producers, in a state of economic vulnerability. Prolonged droughts and erratic weather have further weakened agricultural productivity. With few viable alternatives, rural youth and men increasingly migrate to urban areas or informal labor markets, reducing the available agricultural workforce and deepening the cycle of poverty. Women often remain behind, bearing an increasing share of household and agricultural responsibilities without adequate support or training. In the central and northern Altiplano, stagnant productivity and inadequate systems for innovation and knowledge transfer continue to limit rural development and biodiversity-friendly practices. As a result, households face growing pressure to adopt short-term, extractive strategies, such as overgrazing, unsustainable land conversion, or intensified resource use, to meet immediate subsistence needs.

In addition to the direct and indirect drivers described above, the project recognizes that biodiversity outcomes in the Altiplano are subject to significant uncertainty arising from policy shifts, variable governance effectiveness, demographic change, and land and water conflicts. These factors can alter local incentives, weaken implementation continuity, affect compliance with agreed management measures, and increase pressure on wetlands, native pastures, and other biodiversity-relevant ecosystems. In particular, political turnover may affect institutional priorities and enforcement; uneven governance effectiveness may delay implementation or weaken coordination across levels; rural outmigration and generational change may reduce the labor base for collective management and erode traditional ecological knowledge; and growing competition over land and water, including in areas affected by mining or changing land uses, may intensify pressure on key ecosystem functions. The project therefore treats these dynamics not as external background conditions, but as material uncertainties that must be monitored and managed throughout implementation.

i. Direct Drivers of Biodiversity Loss (Pressures on Biodiversity)

Direct exploitation of organisms (overgrazing). In the Bolivian Altiplano, biodiversity loss and ecosystem degradation are primarily driven by overgrazing, unsustainable agricultural practices, and deforestation of native shrubs such as *thola*. These pressures are further exacerbated by climate change. High-altitude ecosystems like bofedales, Andean peatlands with exceptional water retention and carbon storage capacity, play a vital role in regulating hydrological cycles, providing forage for livestock, sustaining wildlife, and supporting rural livelihoods. However, these functions are increasingly compromised by unsustainable land use. Overgrazing, mainly by sheep and cattle, and to a lesser extent by more selective camelids, has significantly reduced plant species richness, vegetation cover, and surface water availability in both grasslands and bofedales. Studies show that increased grazing pressure has resulted in significant decreases in the number of plant species, species dominance, and percent surface water in these ecosystems [5]. The degradation of these habitats has negatively impacted the nutrition of livestock, as the availability of palatable and nutritious forage species diminishes. Furthermore, the loss of biodiversity in these ecosystems compromises their ability to provide essential ecosystem services, such as carbon sequestration and the hydrological functions provided by native pasturelands. These functions are vital to secure water availability for both local ecosystems and communities.

A 2018 study demonstrated a strong negative correlation between grazing intensity and key ecological indicators [6]. As stocking rates increased, plant diversity declined, and surface water within bofedales diminished. These changes have not only triggered soil erosion and vegetation loss but also intensified desertification risks across the Altiplano. Overgrazing disrupts wildlife habitats, alters species dynamics, and increases competition for limited natural resources, further weakening ecological resilience. The cumulative impacts of overgrazing, compounded by land fragmentation and climate variability, threaten long-term ecosystem functionality. Declining carrying capacity signals that the land is unable to sustainably support current livestock levels. This ecological stress undermines the resilience of rural communities whose subsistence depends heavily on these fragile ecosystems. Without urgent intervention to improve grazing management, restore native vegetation, and adapt land use practices, the degradation of high-Andean ecosystems is likely to continue—eroding biodiversity, worsening climate vulnerability, and compromising food and water security.

Importantly, the livestock density per hectare of grassland/pastures has risen significantly from 1.8 to 2.3 animals from 2013 to 2022 in the 16 directly targeted municipalities, and from 2.4 to 3 animals in the same period for the entire 43 municipalities, reflecting a broader trend of overstocking in the targeted high-altitude ecosystems, where the natural regeneration capacity of native grasslands is limited. The growing number of animals, particularly camelids such as llamas and alpacas, which are well-adapted to highland conditions, has exceeded the carrying capacity of many pastures, contributing to the degradation of vegetative cover, soil compaction, and erosion. Inadequate pasture rotation and limited implementation of sustainable grazing practices have further compounded these impacts.

Land use change/conversion (including habitat fragmentation, human encroachment and land degradation). During the project design phase, a Baseline Ecological Assessment (Annex I) was conducted across the selected municipalities to evaluate land cover, land use change, biodiversity status, and land degradation. The assessment aimed to provide a comprehensive understanding of: (i) key pressures and threats to biodiversity; (ii) the extent and patterns of land degradation; (iii) transitions between natural and human-modified landscapes; and (iv) specific ecological challenges within and across municipalities (Annex H5). In **Oruro**, between 1985 and 2023, natural non-forested ecosystems, mainly grasslands, declined by over 19,900 hectares, while agricultural land expanded by nearly 17,600 hectares. This shift reflects increasing pressure from agro-pastoral activity and climate-related stress. Additionally, non-vegetated areas grew by approximately 27,800 hectares, indicating land degradation or infrastructure encroachment. However, between 2000 and 2013, ecologically intact land declined by approximately 1,194 km², demonstrating intensifying human activity and ecosystem fragility.

In **Cochabamba**, natural grasslands decreased by over 10,000 hectares during the same period, while agricultural land more than quintupled. Particularly in municipalities like Cocapata and Tiquipaya, natural areas have rapidly transitioned into agricultural or barren lands, exposing the region's fragile mountain ecosystems to growing pressure. The Biodiversity Intactness Index (BII) in this cluster is low, between 30% and 40%, the most degraded among all assessed areas, signaling a major loss of native species and ecological function. Land Productivity Dynamics data confirm these findings, with Tiquipaya showing a sharp rise in grassland degradation and a decline in restoration efforts. In **La Paz**, over 51,000 hectares of grasslands were lost to agriculture or became barren land between 1985 and 2023. The BII here ranges from 50% to 65%, reflecting moderate biodiversity loss. Land Productivity

Dynamics data shows that although some municipalities showed a decrease in areas “in decline” from 2016 to 2024, degradation risks remain high. Callapa, Curahuara de Carangas, and Calacoto have significant land areas already showing early signs of ecological stress.

A notable contributor to land conversion and degradation is the expansion of quinoa cultivation, particularly in the southern Bolivian Altiplano. Over the past decades, native shrubs have been cleared extensively to create space for quinoa fields, accelerating land degradation and desertification. Many of these lands have since become abandoned or irreversibly degraded due to unsustainable cultivation methods. Research by Sander and Jacobsen (2024) examined land use trends between 1972 and 2013 using satellite imagery and field surveys. Their findings reveal that quinoa cultivation began on floodplain deposits that initially offered productive yields. However, as demand surged, production expanded rapidly into marginal lands, reducing fallow periods and increasing field density [7]. This expansion brought widespread removal of native vegetation, resulting in increased wind erosion and partial crop failures. Annual growth in quinoa production rose from 1.6% (1985–2003) to 8.4% in the following decade. Post-2003 cultivation began encroaching on areas with higher salinity and poorer soil, such as the flat shoreface topography of the late Pleistocene. This 'quinoa boom' has led to unsustainable, land-intensive farming practices on fragile soils, marked by high erosion and low resilience. Given the arid conditions and the resulting low resilience of the landscape, without urgent action, the current trends are likely to trigger widespread land degradation, accelerating biodiversity loss and jeopardizing future livelihood opportunities [8].

Climate Change (increased risk of droughts, increased variability in temperatures and precipitation).

The South American Altiplano, a vast high-elevation plateau in the central Andes (15°S to 22°S), features a complex mix of ecosystems shaped by sharp climatic gradients—from the humid regions around Lake Titicaca to the arid salt flats of Uyuni and Coipasa. At an average elevation of 3,800 meters, the region experiences a unique seasonal climate dynamic. Westerly winds dominate from March to November, bringing dry air and limiting precipitation. Conversely, during the austral summer (December to February), the Bolivian High—a high-altitude anticyclone—enables the influx of moist air, resulting in convective storms that deliver most of the region’s rainfall. However, this highly seasonal and variable climate is increasingly disrupted by climate change, posing significant risks to biodiversity and local livelihoods. Since the 1980s, near-surface air temperatures in the Altiplano have risen at an average rate of approximately 0.25°C per decade. Climate models project continued warming, with future temperatures expected to rise between 3°C and 5°C above the historical average by the end of the century, depending on global emissions trajectories. This warming is expected to increase evapotranspiration, reduce soil moisture, and intensify ecosystem stress. In contrast, precipitation trends are less clear. Historical and projected rainfall patterns show regional variation, but most climate models anticipate a long-term decline in precipitation due to enhanced westerly wind anomalies, potentially reducing water availability across much of the plateau.

Climate change is amplifying existing stresses and making the environment more unpredictable, eroding key biodiversity hotspots. A multi-temporal remote sensing analysis of indicators ***[9]*** highlights hydrological characteristics of the high Andean and possible consequences of climate change on bofedales and the water cycle. One of the strongest evidence is the recurrence and intensification of meteorological droughts, especially severe in the highlands (Puna or Altiplano), which entail a severe rainfall deficit at the beginning and/or during the rainy season (October-March) or a prolonged dry season. These events can last several months (as in 2009) or, in extreme cases, extend to the entire season, as in 1982-1983, or more recently in 2022 and 2023. Previously, the reactivation of ecosystems and productivity cycles depended on the first rains. However, significant delays or spaced-out rainfall are causing critical levels of water stress in ecosystems and increased hardships in local communities. Further, the interaction between extended droughts and intensified grazing pressure, further weakens the regenerative capacity of *bofedales*. During extreme droughts, increased solar radiation and prolonged sunlight exposure exacerbate thermal stress across the landscape. This leads to intense daytime heat, elevated temperatures, and drops in relative humidity, accelerating the desiccation of soils and vegetation. At the same time, evapotranspiration rates from remaining vegetation increase, further depleting available water and intensifying ecological decline.

The Aymara people, who have inhabited the region for centuries, possess deep knowledge of their environment and have historically adapted to climatic variability through diverse farming systems and crop domestication. However, the scale and speed of current climate changes are unprecedented. Traditional coping mechanisms are being overwhelmed, and communities are increasingly exposed to severe climate hazards. These changes affect their agricultural productivity and ability to maintain their natural resource base, as well as threatening their cultural identity and continuity of indigenous communities. These vulnerabilities are worsened by a) low investment in climate-resilient agricultural practices, ii) unequal land tenure and increasing fragmentation of landholdings, leading to overuse of soils and vegetation, iii) heavy dependence on rainfall, with limited access to irrigation infrastructure, leaving crops exposed to hailstorms, frost, and drought, iv) accelerated degradation of agro-ecosystems ***[10]***.

Pollution generated by mining activities. Gold and polymetallic mining activities also constitute a significant source of pollution. In the case of gold mining, artisanal gravity concentration processes are used to extract gold. This process requires water, which often results in high concentrations of suspended solids. In most cases, this water is not adequately treated and is discharged into surrounding water bodies. Polymetallic mining is widespread throughout the Altiplano. Discharges are characterized primarily by a low pH due

to the exposure of pyrite to weather agents, commonly known as acid mining drainage. This drainage contains a large amount of suspended solids with a high sulfate content and metals such as iron, aluminum, manganese, zinc, copper, lead, mercury, cadmium, and nickel. These pollution processes originate not only from open-pit mining activities but also from the mining liabilities generated by them.

Water use conflicts. The interaction between climate change and socio-economic development strains water availability in Bolivia. Updated Nationally Determined Contribution (NDC) indicates increased sectoral water use due to climate actions, despite efforts to enhance water efficiency. Water scarcity in Bolivia results in food insecurity and substantial socio-economic consequences. Highland communities (more than 1.25 million people, approximately 46% of Bolivia's rural population, according to the latest National Census (2001) often consume less than half of WHO's recommended water intake, leading to increased illness. Changing seasons disrupt traditional crop planting, livestock management, and decision-making. Droughts in the Bolivian Altiplano are damaging farmlands, impacting farmers' livelihoods and food access Furthermore, water insecurity, particularly affecting households led by women, induces emotional distress. As Bolivia's vulnerability to water crises intensifies, these impacts could escalate in both frequency and severity[1]. Water scarcity is a consequence of complex interactions between water access and water use. Drought induces crop production losses and far-reaching societal effects. In the Altiplano, drought is a major hazard. Here, drought leads to food shortages, malnutrition, migration, loss of biodiversity, and local conflicts. A study was conducted to address the Bolivian Altiplano water scarcity for sustainable water management [2]. It involved the analysis of the long-term austral summer precipitation variance at six locations in the Bolivian Altiplano, a hydrological study to define the soil moisture characteristics was initiated in a river basin of the Bolivian Altiplano and soil moisture estimations using soil water balance. The results showed significant negative relationship between summer precipitation and climate phenomena in the studied region, the variance of agricultural production depends largely on the precipitation and temperature variance. *Demographic dynamics*. Bolivia has the world's largest population of llamas, which are essential for transport, meat, manure (fertilizer/fuel), and wool. Bolivian Altiplano camelid herders, primarily Aymara, have managed llama and alpaca herds for over 6,000 years. Historically, they moved herds seasonally for grazing. Due to colonial, modern economic pressures, and climate change, many now engage in temporary or permanent migration to cities for wage labor, impacting traditional land management. While many families still maintain herds, the shift toward a market economy has led to a decline in traditional collective land management (the *ayllu* system) in favor of individual fencing and, in some cases, the abandonment of grazing areas. Despite challenges, many communities continue to herd, with a growing focus on the economic potential of sustainable alpaca and llama products to prevent further migration. Camelid herders employ a range of livelihood practices, some of which may appear at odds with sustainable pasture management. These include widespread temporary migration and the use of fences to demarcate family-based grazing parcels. While these practices improve productivity, they may also have negative long-term ecological consequences for the natural grazing fields (CANAPAS), that provide valuable pasture for native camelids. Management of CANAPAS and other livelihood practices are shaped by institutional contexts, including land tenure arrangements, market structures, and state policy frameworks. Of these, community-based institutions governing land tenure and rotating leadership responsibilities are of particular importance in incentivizing migrants to return to their home communities[3].

[1] Ana Cecilia Escalera. April 2024. Bolivia's Path to Economic Resilience: IWRM as Key Contributor for Sustainable Development. Alliance for Water Global Adaptation.

[2] Canedo Rosso, C. 2019. "Addressing Water Scarcity in the Bolivian Altiplano for Sustainable Water Management." Lund University, Water Resources Engineering. https://portal.research. lu.se/portal/en/publications/addressing-water-scarcity-in-the-bolivian-altiplano-for-sustainable-water-management(a000519b-9160-4423-ae30-358641967c8d)/export.html.

[3] Tom Perreault. 2025. Adaptive Livelihoods in Andean Pastoralism: Community-Based Institutions, Peatland Management, and Migration in Sajama National Park, Bolivia. Syracuse University, Department of Geography and the Environment, 144 Eggers Hall, Syracuse, New York, 13244, USA.

Barriers to the Conservation and Sustainable use of Biodiversity

Fragmented or insufficiently inclusive governance, lack of integrated territorial planning, and limited capacity among municipalities and local communities hinder effective biodiversity management. There is weak institutional capacity for territorial planning and effective management of biodiversity and natural resources. National and local governments face challenges that require important investments, institutional strengthening, and promoting the participation of all stakeholders. Natural resource management can generate conflicts between different stakeholders. The implementation of environmental legislation and policies requires the coordination of different state actors. It is necessary to strengthen the

capacities of public agencies for natural resource management, including information collection and analysis, capacity building, access to knowledge for informed decision making, conflict management, and local community engagement. Municipalities, on the other hand, face their own challenges in implementing PTDI due to: i) limited financial resources to finance planned actions and projects, as well as trained technical staff for their management and execution; ii) the involvement of local stakeholders, including social sectors and political parties, sometimes can generate tensions and disagreements, especially if there is no active and consensual participation; iii) in some municipalities, the institutional structure and management capacity are weak, making it difficult to coordinate actions and oversee PTDI implementation.

These implementation gaps are not primarily the result of insufficient planning or weak participation in planning processes, but of limited technical, financial, and operational capacity to finance, monitor, and follow up implementation at municipal and territorial levels. In this context, the project will use Biodiversity and Natural Resource Management Plans (BNRMPs) as the operational instruments that translate PTDI priorities into implementable, costed, and monitorable actions. In Bolivia, PTDIs are the legally recognized channel for municipal public investment (Lay No. 777); therefore, embedding BNRMP priorities into PTDIs is essential to secure public financing, strengthen institutional continuity, and avoid the creation of parallel planning structures.

The project will specifically address these implementation bottlenecks by strengthening both municipal and community capacities for territorial planning, implementation support, participatory monitoring, and follow-up of agreed biodiversity and natural resource management measures. This will help ensure that territorial planning is translated into effective and adequately supported field management.

Limited Incentives, Financial Access, and Institutional Support for Sustainable Camelid Production. Small-scale producers in the Bolivian Altiplano face significant economic and institutional barriers that limit their ability to adopt sustainable, biodiversity-friendly practices. These include restricted access to credit, tailored financial services, and markets, particularly for sustainably produced camelid products such as fiber and meat. High transaction costs, lack of incentives, and weak market infrastructure further reduce their motivation to engage in conservation-compatible production. The prioritization of short-term productivity over long-term sustainability, due to economic pressures, further exacerbates these challenges. At the same time, municipal governments, which are critical for supporting local development, operate with limited financial autonomy. Despite decentralization reforms, they remain heavily dependent on central government transfers, often prioritizing basic services (e.g., health, infrastructure) over investments in sustainable production or biodiversity. These financial constraints, coupled with weak institutional frameworks in the camelid sector, such as the absence of clear animal health regulations, fragmented support services, and limited producer organization, contribute to the unsustainable camelid value chains.

The project targets both camelid meat and fiber value chains, but with differentiated market trajectories. Llama meat and processed products are primarily oriented to domestic and national markets, where current production is largely absorbed internally and demand is growing, while camelid fiber has both national and international outlets. Market assessments show that access to meat markets remains constrained by sanitary and processing bottlenecks, including compliance with inocuity standards and reductions in condemnations linked to animal health issues. In the fiber chain, the main barriers are fragmented supply, uneven quality, dependence on intermediaries, weak aggregation, and limited capacity to meet the quality, traceability, and delivery requirements of formal buyers. Bolivia therefore will not compete with Peru on volume in alpaca fiber; rather, its comparative opportunity lies in differentiated quality, territorial identity, and gradual access to formal and specialty markets.

Lack of reliable data, knowledge, and monitoring systems impedes evidence-based policy, planning, and adaptive management for biodiversity and production systems. Information on the biodiversity and natural resources of the Bolivian Altiplano and sustainable management practices is dispersed and has not been systematized into a national information system, limiting its practical application in policy making. While there is no center dedicated exclusively to this topic, information on sustainable biodiversity practices in the Bolivian Altiplano can be found in various sources, including national and international NGOs work on biodiversity conservation and sustainable development in the Andean region, national and international universities and indigenous communities who have a deep understanding of local ecosystems and biodiversity-friendly practices

Limited engagement and awareness among local communities, producers, and consumers about the value of biodiversity and sustainable camelid production. The national population has limited awareness of the importance and benefits of ecologically sustainable production of domestic camelids, particularly in Andean communities where these animals play a vital role in their culture, economy, and food security. Sustainable production of camelids, such as llamas and alpacas, is recognized for its significance in conserving species and ecosystems, as well as its contributions to food security and rural poverty alleviation. However, a market niche has yet to be established for products derived from landscapes where biodiversity and natural resources are restored and conserved to ensure camelid productivity. The dissemination of information regarding the nutritional value of camelid meat and other products has had limited reach and impact, failing to achieve national recognition or to engage a significant segment of the population.

To address these barriers, the project will deliberately leverage the enabling factors already present in the territorial and institutional context. Indigenous governance systems and producer organizations will be used as the primary governance enablers to address weak

territorial coordination, limited enforcement capacity, and the erosion of traditional resource management systems, by embedding Biodiversity and Natural Resource Management Plans (BNRMPs) within locally legitimate decision-making and monitoring structures. IFAD co-financing through PROCAMÉLIDOS 2 will act as the foundational operational enabler to address financial, technical, and institutional barriers by supporting animal health, productive infrastructure, technical assistance, and value chain development, while GBFF financing will "green" these investments through biodiversity-specific planning, restoration, monitoring, and incentive mechanisms. In parallel, the Knowledge Management System will help overcome data and information gaps, and the project's territorial branding and awareness activities will address weak market incentives and low public recognition of biodiversity-friendly camelid production. In this way, the project design links each major enabling factor to a specific set of barriers that currently prevent biodiversity-compatible production systems from scaling in the Altiplano.

Institutional Stakeholders, Capacity and Governance

The Ministry of Rural Development and Land (MDRyT), the project´s executing agency, is the public institution of the Executive Branch of the Plurinational State of Bolivia, in charge of defining and implementing policies to promote, facilitate, regulate and articulate the integral rural development of the agriculture, forestry and aquaculture sectors. MDRyT also aims to ensure food security and sovereignty, while addressing land tenure and access, particularly for farmers, communities, and indigenous groups. MDRyT-APROCAM is the project implementer of the Procamelidos programme, specialising in strengthening camelid value chains while promoting climate-resilient agro-pastoral systems. MDRyT works with municipalities to implement policies and projects aimed at sustainable rural development. This collaboration focuses on enhancing food security, supporting small-scale producers, and promoting climate resilience. This Ministry also works with municipalities to improve infrastructure, access to water, and provide community services.

At the national level, the Ministry of Environment and Water (Ministerio de Medio Ambiente y Agua, MMAyA) oversees environmental policy, biodiversity conservation, and natural resource management, including the regulation and promotion of sustainable camelid rearing practices. The Ministry works closely with the National Service of Protected Areas (Servicio Nacional de Áreas Protegidas, SERNAP), responsible for the creation, management, and enforcement of Bolivia's protected areas (PAs), including national parks, reserves, and natural monuments. SERNAP plays a critical role in safeguarding biodiversity hotspots and maintaining ecological connectivity. It also plays a key role in protecting Vicuñas, or wild alpacas, with programmes intersecting with target municipalities.

At the local level, *Municipal Governments* carry out territorial planning through the Integrated Territorial Development Plans (PTDI). These instruments are formulated within the framework of two main national planning instruments; ii) the Integrated Planning System of the Bolivian State (SPIE) and ii) the Economic and Social Development Plan 2021-2025 (PDES). The PTDI establishes a set of rules, procedures, operations, technical and administrative definitions and the institutional framework for the municipal development planning process and the performance of roles and functions of the actors involved. PTDI is also a strategic framework focused on integrating social, economic, and environmental aspects within specific territorial units, aiming to achieve sustainable and equitable development and prioritize addressing local needs while aligning with national objectives, such as increasing climate and economic resilience, improving incomes, and ensuring access to quality services.

For this project, municipal governments will play a dual role: they will convene local actors and ensure that agreed BNRMP priorities are incorporated into PTDIs and related municipal investment processes. However, the day-to-day application of grazing management measures, local compliance with agreed rules, and territorial oversight will be led by producer organizations and Indigenous community structures, whose governance systems remain central to natural resource management in the Altiplano. In this way, the project combines the legal and financial mandate of municipalities with the practical legitimacy and territorial presence of community-led management systems.For this project, municipal governments will play a dual role: they will convene local actors and ensure that agreed BNRMP priorities are incorporated into PTDIs and related municipal investment processes. However, the day-to-day application of grazing management measures, local compliance with agreed rules, and territorial oversight will be led by producer organizations and Indigenous community structures, whose governance systems remain central to natural resource management in the Altiplano. In this way, the project combines the legal and financial mandate of municipalities with the practical legitimacy and territorial presence of community-led management systems.

Two key associations, the Asociación Departamental de Productores de Camélidos de Bolivia (ADEPCA) and the Asociación Nacional de Productores de Camélidos del Altiplano (ANEPCAB), represent camelid producers at departmental and national levels. These organizations support producers by promoting sustainable grazing practices, market access, technical assistance, and advocacy for policies that strengthen camelid value chains while conserving biodiversity.

Other organizations actively involved in supporting sustainable camelid production and biodiversity management include NGOs such as Fundación PROINPA (Promoción e Investigación de Productos Andinos) and IICA (Inter-American Institute for Cooperation on Agriculture). Fundación PROINPA specializes in promoting the conservation and sustainable use of agrobiodiversity, including native forage species and resilient high-Andean crops that support camelid pastoral systems. IICA plays a key technical role in rural development, sustainable agriculture, and climate resilience, and has

actively supported high-Andean communities through integrated livestock-environment initiatives. Research institutions such as the Universidad Mayor de San Andrés (UMSA) and the Universidad Técnica de Oruro (UTO) contribute applied research on rangeland ecology, camelid genetics, and sustainable livestock production.

Baseline

The IFAD financing alone will be able to promote sustainable livelihoods and address certain aspects of ecosystem resilience. However, in the absence of the GBFF intervention, the Altiplano camelid sector faces risks of stagnation or decline, as the project would lack a systemic approach to the conservation and sustainable use of biodiversity in camelid production landscapes. Ecosystem degradation, driven by climate change, pasture degradation, unsustainable agriculture, and weak governance, threatens to reduce camelid productivity, and in doing so, exacerbating biodiversity loss, poverty, and prompting youth out-migration. This, in turn, threatens the social fabric of rural communities and the further loss of traditional knowledge vital for sustainable camelid management. In this context, local camelid producers' vulnerability will continue to increase, with significant economic pressures, leading them to prioritize short-term productivity over long-term environmental sustainability. Limited access to financial resources, coupled with insufficient market access for sustainably produced goods, reduces their motivation to invest in sustainable land management or biodiversity-friendly practices. Biodiversity loss also heightens competition between domestic and wild camelids (e.g., vicuñas) and intensifies the risk of disease outbreaks.

A **Biodiversity Assessment (Annex J) was conducted for the 16 directly targeted municipalities** using FAO's Adaptation, Biodiversity and Carbon-Mapping Tool (see Annex I). The results indicated that, in the absence of the project, two key indicators of biodiversity impact—mean species abundance (MSA) and natural capital values—would decline by 15% and USD 7.01/ha/year, respectively. This shows that the project will lead to biodiversity improvements at ecosystem-level compared to a baseline scenario, and this is reflected in the results framework with a specific indicator. The main pressures driving this decline are land use change and, more significantly, human encroachment. Within the MSA framework, human encroachment refers to direct and recurring human presence in natural areas, which disrupts wildlife behavior and habitat use.

Bolivia has a positive record in implementing actions to restore highland ecosystem, however, with very scarce public allocations, these efforts completely rely on resources from international cooperation organizations and specific projects, posing a risk to the long-term sustainability of any intervention. Moreover, several initiatives focused on bofedal and grassland conservation are fragmented and limited in scale to deliver transformative change. Bolivia also has an adequate legal and policy framework for the management and conservation of biodiversity.

The National Constitution establishes the State's obligation to issue the country´s environmental policy, promote the sustainable use of natural resources, biodiversity conservation, and sustainable development. Bolivia's National Strategy for the Conservation and Sustainable Use of Biodiversity seeks to develop the economic potential of biological diversity, ensuring the conservation and sustainable use of ecosystems, species, and genetic resources. The National Strategy for the Conservation of Wetlands and Law 404 on the conservation of bofedales, provide guidelines and priority actions for the implementation of practices for the protection and conservation of these ecosystems. However, the national and local governments limited technical, financial and operational capabilities hinder the enforcement of these instruments.

Notable recent projects contributing to biodiversity-friendly camelid production and highland ecosystem restoration, but which have been limited in scale, focusing on community level interventions, or partially addressing biodiversity management, include:

a) **"Bofedal es Vida" Programme**: Led by IICA and funded by Euroclima+ and AECID, this initiative has implemented climate-smart management plans for camelid systems across eight municipalities, offering strong synergies and models for upscaling.

b) **IWRM-TDPS Project**: A transboundary GEF-funded initiative between Bolivia and Peru promoting integrated water resource management, including wetland revitalization in Charaña, which overlaps with the project's target area.

c) **Holistic Grassland Management for Camelid Production**: Implemented by ADEMA in Batallas Municipality, this project restored over 200 ha of degraded rangeland through innovative restoration techniques, supporting camelid-herding families in climate-vulnerable areas.

Lesson learned from previous interventions

The implementation of PROCAMELIDOS left key lessons upon which PROCAMÉLIDOS 2 and the proposed GBFF project have been designed, including: i) The critical importance of water harvesting and sustainable natural resource management to maintain productivity and resilience amid escalating climate impacts in the Altiplano; ii) Genetic improvement of camelids as a high-impact approach that must be complemented by scalable pasture and forage management; iii) Women's empowerment as fundamental to sustainable development, building on PROCAMELIDOS' success in exceeding gender participation targets, now expanded with a

gender-transformative strategy and iv) The necessity of tailoring interventions to the diverse social, environmental, and economic realities of camelid herding families for more effective outcomes.

Future Narratives

This project addresses the sustainable management of camelid-based production systems in the Altiplano, a socio-ecological landscape where biodiversity and ecosystem integrity are under increasing pressure from multiple direct and indirect drivers. The Altiplano's native peatlands and grasslands, critical habitats for camelids and key providers of ecosystem services, are being degraded primarily due to land use change and conversion, including habitat fragmentation driven by unsustainable grazing practices and expansion of agricultural and infrastructural activities.

Direct pressures impacting the system include:

a) Direct exploitation of organisms, notably overgrazing by camelids, which compromises vegetation cover and soil stability.

b) Land use changes and habitat fragmentation, resulting from intensified pastoralism and land conversion.

c) The accelerating impacts of climate change, manifesting as altered precipitation patterns, increased temperature, and more frequent extreme weather events, which exacerbate ecosystem vulnerability and affect camelid health and productivity.

These direct pressures are driven by indirect drivers such as economic development, policy incoherence, and market demands for camelid products. These socioeconomic factors influence land-use decisions, resource exploitation intensity, and governance effectiveness, thereby shaping the trajectory of biodiversity and ecosystem service outcomes.

The project's interventions are designed to address these pressures by strengthening territorial governance frameworks, promoting biodiversity-friendly production practices, and enhancing incentive mechanisms that support sustainable camelid value chains. Additionally, the establishment of a National Knowledge Management System will improve monitoring and evidence-based decision-making, enabling adaptive management in response to ongoing environmental and socioeconomic changes.

Two key factors of uncertainty will influence future scenarios and overall project resilience:

a) The extent and severity of climate change impacts on ecosystem structure and function.

b) The dynamics of economic growth and market development, including demand for commodities (quinoa).

By explicitly addressing these indirect drivers, the project aims to halt and reverse biodiversity loss, restore ecosystem services, and improve the well-being of local communities in the Altiplano, contributing to global biodiversity targets and sustainable development.

1) **Slower climate change, lower commodity demand**: Slower climate change leads to relatively stable temperature and precipitation patterns, allowing Altiplano ecosystems to gradually adapt. Lower demand for camelid products and quinoa limits agricultural expansion and grazing intensity, reducing pressure on native peatlands and grasslands and keeping overgrazing at sustainable levels. This stability creates an opportunity to strengthen territorial governance and promote biodiversity-friendly practices, supported by improved knowledge systems. However, limited economic growth restricts alternative livelihoods, which may increase dependence on camelid production and risk localized overexploitation if market conditions change.

2) **Slower climate change, higher commodity demand**: Despite manageable climate impacts, rising demand for camelid products and quinoa drives expanded agricultural lands and intensified grazing, increasing habitat fragmentation and overexploitation. While ecosystems remain somewhat resilient, governance struggles to keep pace with rapid land use changes, and biodiversity-friendly practices are insufficiently scaled. This scenario risks gradual ecosystem degradation and threatens long-term livelihoods despite short-term economic gains.

3) **Faster climate change, lower commodity demand**: Rapid climate change brings severe droughts and temperature extremes that stress ecosystems and reduce forage availability. However, lower market demand limits agricultural expansion and grazing pressure, allowing some areas to retain ecological function. Climate stress challenges production and livelihoods, requiring adaptive governance and innovative knowledge management to support community resilience amid increasing vulnerability.

4) **Faster climate change, higher commodity demand**: Severe climate impacts combined with high demand for camelid products and quinoa drive extensive land conversion, habitat fragmentation, and critical overexploitation. Ecosystems degrade rapidly, livestock health declines, and livelihoods become precarious. Governance systems are overwhelmed, and without transformative interventions, this scenario risks irreversible biodiversity loss and collapse of sustainable production systems.

Project Approach

The primary objective of the project is to strengthen the management of biodiversity and natural resources through the development of Biodiversity and Natural Resources Management Plans (BNRMP) and improved implementation of municipal Integrated Territorial Development Plans (PTDI). These efforts will be complemented by building institutional capacities, increasing stakeholder participation and appropriation of activities, and providing technical support to small-scale camelid farmers. This will ensure the long-term health of vital ecosystems, such as wetlands (bofedales), native grasslands, and other fragile landscapes.

The Government of Bolivia (GoB) will implement PROCAMELIDOS 2 Programme, with a total investment of USD 26.94 million. The GBFF intervention will build on PROCAMELIDOS 2 by embedding biodiversity conservation and climate-resilient practices across camelid production, processing, and marketing systems to ensure the sector's sustainability. The project addresses key barriers of habitat loss and natural resources degradation, including weak territorial governance, limited technical expertise and extension services, and the erosion of traditional ecological knowledge. The project will focus on implementing biodiversity-friendly production and resource management practices to maintain and increase, where possible, the diversity within species, between species and of ecosystems in two critical ecosystems of the Bolivian Altiplano—the highland grasslands and bofedales (high-Andean wetlands).

The project's integrated approach will address the complex and interlinked drivers of biodiversity loss in the Bolivian Altiplano. The development of biodiversity management plans provides a strategic blueprint for reversing ecosystem degradation in target camelid-producing regions, which are increasingly threatened by natural resource depletion. By anchoring these plans to local territorial planning tools, the project strengthens institutional coordination and governance, ensuring that conservation and sustainable use are embedded in long-term development frameworks. This integrated planning approach, grounded in both scientific data and traditional ecological knowledge, forms the foundation for project activities. By blending with the activities of PROCAMELIDOS 2, the project can maximise the efforts to improve biodiversity within the GBFF grant, while ensuring the development of camelid value chains in Bolivia is not only economically viable but also ecologically sustainable. By integrating conservation of this diversity into territorial planning and production systems, the project directly supports the preservation of unique species, habitats, and traditional knowledge systems.

Compared to the baseline scenario, the project will help alleviate the land use and human encroachment pressures on biodiversity identified in the biodiversity assessment (Annex J) by promoting better-managed grazing practices and reducing intrusion into ecologically sensitive zones, and contributing to the conservation of biodiversity.

Through this approach, the project aims to deliver the following GEF Global Biodiversity benefits:

Conservation of globally significant biodiversity and Sustainable use of the components of globally significant biodiversity through the improvement of productive practices in the camelid value chain and biodiversity management in IP&LC territories, covering 23,310 ha of the Altiplano landscape. The project will directly benefit an estimated number of 6,500 indigenous peoples, of which 3,900 (60%) men and 2,600 (40%) women.

Co-Benefits

Climate Change Mitigation. Conservation and enhanced carbon stocks in agriculture, forest, and other land use, by mitigating Greenhouse Gas (GHG) emissions and sequestering carbon of an estimated

-357,600 t/CO2e (over 20 years) as a co-benefit of the improved productive landscape management,

Land Degradation. Conservation and sustainable use of biodiversity in productive landscapes by recovering native peatlands and grasslands through nature-based solutions and practices in 23,310 ha of the Altiplano landscape and reestablishing hydrological functions and reduce soil erosion and degradation.

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[1] Padulosi, S.; Amaya, K.; Jäger, M.; Gotor, E.; Rojas, W.; Valdivia, R. A Holistic Approach to Enhance the Use of Neglected and Underutilized Species: The Case of Andean Grains in Bolivia and Peru. Sustainability 2014, 6, 1283-1312. https://doi.org/10.3390/su6031283

[2] Genin, Didier y Alzérreca, Humberto (2006). *Campos nativos de pastoreo y producción animal en la puna semiárida y árida andina, Entre fragilidad, saberes tradicionales y marginalidad, ¿cual desarrollo duradero?.* Francia: Secheresse, Artículo científico.

[3] Martínez, C. et al. (2017). *Uso tradicional y manejo de pastizales altoandinos en Bolivia*. Revista Latinoamericana de Etnobiología.

[4] Lasse Sander and Sven-Erik Jacobsen. The quinoa boom of the southern Bolivian Altiplano-Linking geomorphology, erosion and spatial production patterns. Geophysical Research Abstracts Vol. 16, EGU2014-10371, 2014.

[5] Osorio, D., McCune, J. L., & Anthelme, F. (2021). Plant community assembly is predicted by an environmental gradient in high-altitude wetlands in the semiarid western Bolivian Andes. Ecology and Evolution, 11(2), 1042–1054.

[6] N. Cochi Machaca , B. Condori , A. Rojas Pardo , F. Anthelme , R.I. Meneses, C.E. Weeda and H.L. Perotto-Baldivieso. 2018. Effects of grazing pressure on plant species composition and water presence on bofedales in the Andes mountain range of Bolivia. Mires and Peat, Volume 21 (2018), Article 15, 1–15, http://www.mires-and-peat.net/, ISSN 1819-754X © 2018 International Mire Conservation Group and International Peatland Society, DOI: 10.19189/MaP.2017.OMB.303

[7] Drynet. (n.d.). *Native windbreaks in the Bolivian Altiplano: Control of desertification caused by quinoa*.

[8] Ibid.

[9] Jeanne Fernandez, Bart (A.J.) Wickel and Marisa Escobar. 2021. Hydro-ecological monitoring of high-elevation wetlands in the Katari watershed, Bolivia. Stockholm Environment Institute. SEI Fact Sheet, October 2021.

[10] Ximena Flores-Palacios. 2021. Climate Hazards in the Northern Bolivian Altiplano. 2021. Available in: https://blogs.ucl.ac.uk/irdr/2021/07/14/climate-bolivia/#:~:text=The%20region%20is%20already%20experiencing,more%20than%20two%20million%20people.

C. PROJECT DESCRIPTION

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section E). This section should be a cohesive narrative and not separate responses to the guiding questions in the guidance document. (Approximately 3-5 pages).

Objective: The objective is to enhance the conservation and sustainable use of biodiversity in camelid production landscapes of the Bolivian Altiplano, by strengthening community-based management systems that support the well-being and traditional knowledge of rural Andean communities.

Project Target Areas

The Project has adopted the following targeting criteria: i) municipalities with high numbers of camelid livestock that represent supply corridors for the meat and fibre value chains, ii) municipalities with high levels of poverty according to the Unsatisfied Basic Needs Indicator (NBI, 2012), and iii) municipalities vulnerable to climate change and environmental risks. Using these criteria, 43 municipalities were identified:13 in Oruro, 11 in Potosí, 10 in La Paz, 6 in Cochabamba, 2 in Chuquisaca and 1 in Tarija.

Additional criteria was applied to select the municipalities to be targeted by the GBFF financing:: i) municipalities with key biodiversity areas (KBA) and other priority biodiversity conservation areas; ii) municipalities with degraded ecosystems and natural resources, based on analysis with Land Productivity Dynamics (LPD) and iii) groups of municipalities holding watersheds or micro-watersheds favoring the territorial management of biodiversity and natural resources. This process resulted in the selection of ***16 municipalities*** (out of the 43 from PROCAMELIDOS 2) located in the Departments of La Paz (5), Oruro (6), Cochabamba (4) and Potosí (1):

1) **La Paz:** Santiago de Machaca, Catacora, Santiago de Callapa, Calacoto, Charaña and Caquiaviri,

2) **Oruro:** Curahuara de Carangas, Turco, Santiago de Andamarca, Pampa Aullagas and Quillacas,

3) **Potosí:** Uyuni

4) **Cochabamba**: Cocapata, Quillacollo, Morochata and Tiquipaya.

Municipalities with key biodiversity areas (KBA) and other priority biodiversity conservation areas.	Pampa Aullagas, Quillacas, Cocapata, Quillacollo, Morochata and Tiquipaya
Municipalities with degraded ecosystems and natural resources	Pampa Aullagas, Quillacas, Caquiaviri, Calacoto, Santiago de Callapa, Cocapata, Quillacollo, Morochata and Tiquipaya

Groups of municipalities holding watersheds or micro-watersheds favouring the territorial management of biodiversity and natural resources.	**Desaguadero Alto:** Santiago de Machaca, Catacora, Santiago de Callapa, Calacoto, Charaña and Caquiaviri **Lago Poopó:** Santiago de Andamarca, Pampa Aullagas and Quillacas **Salar de Coipasa:** Curahuara de Carangas, Turco **Río Mizque**: Quillacollo and Tiquipaya **Río Cotacajes-Sta.Elena**: Cocapata and Morochata

Theory of Change

IF: Municipalities and camelid producers acquire knowledge and develop skills for biodiversity conservation through inclusive and sustainable landscape governance systems.

THEN: degradation of the Altiplano ecosystems will be reduced, biodiversity will be restored, and local camelid producers will improve their productivity, income and livelihoods.

BECAUSE: Providing alternatives to improve the health of the Altiplano ecosystems and giving access to participatory planning, will reduce unsustainable practices, and restored ecosystem functions leading to a sustainable camelid value chain.

IF: BNRMP are prepared and implemented through a collaborative approach between municipalities, camelid producers and other relevant stakeholders.

THEN: Improved biodiversity, natural resources and land management practices are adopted to recover the Altiplano biodiversity.

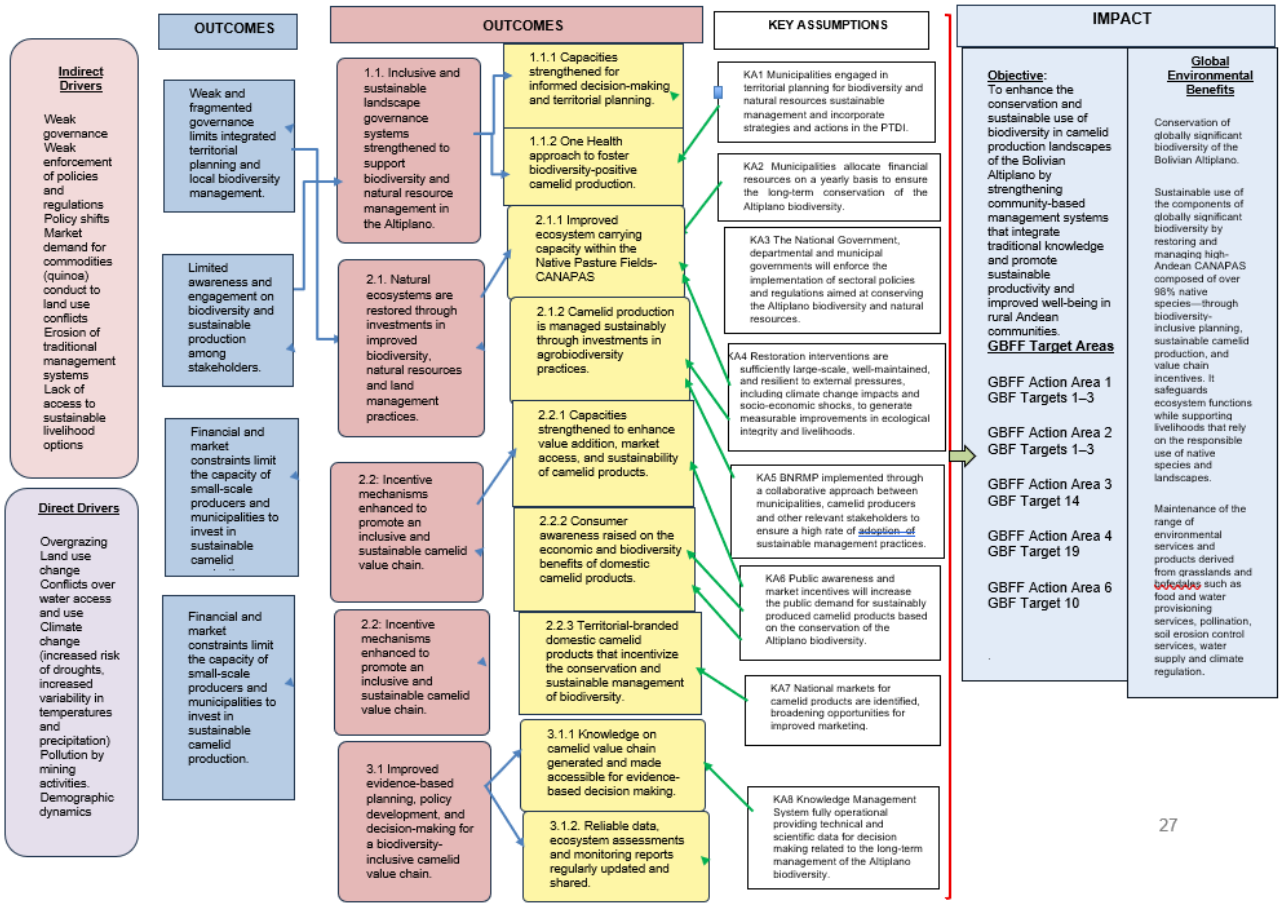
BECAUSE: Restoration interventions are sufficiently large-scale, well-maintained, and resilient to external pressures, including climate change impacts and socio-economic shocks, to generate measurable improvements in ecological integrity and livelihoods.

IF: the Knowledge Management System is fully operational to provide reliable technical and scientific data on the domestic camelid value chain and the associated ecosystems.

THEN: institutional decision makers will rely on data to support national and local governments in developing comprehensive regulations and public policies that favor the sustainability of the camelid sector, including sustainable management of ecosystems:

BECAUSE: decision making based on reliable data will lead to development of management strategies that will directly and efficiently address the drivers of biodiversity loss.

Figure 1. Theory of Change Diagram



The Theory of Change assumes that the project will operate in a context where policy orientation, local governance performance, demographic dynamics, and competition over land and water may evolve over time. These uncertainties may affect adoption rates, the continuity of collective action, the effectiveness of local enforcement, and the allocation of public and community resources. To address this, the project will regularly review how these contextual factors affect the causal pathways between territorial planning, restoration, incentives, and biodiversity outcomes. Where significant changes are identified, the project will adjust implementation priorities, technical assistance packages, sequencing of interventions, and stakeholder engagement approaches in order to maintain the viability of biodiversity outcomes under changing socio-political and territorial conditions.

The proposed project will be closely integrated with, and build on, the IFAD-financed Procamélidos 2 Programme, covering the additional costs associated to scaling-up participatory and sustainable management of biodiversity and natural resources related to the production of domestic camelids. The project interventions will specifically focus on strengthening both municipal and community capacities to bridge the resource gap, ensuring that territorial planning translates into effective, well-funded field management.

Component 1. Strengthening territorial planning and governance frameworks for biodiversity-inclusive landscape management in camelid-based production systems.

The component aims to strengthen municipal and community capacities to sustainably manage biodiversity and natural resources, particularly peatlands and native grasslands, while promoting climate-resilient domestic camelid production across the Bolivian Altiplano. By embedding environmental considerations into municipal territorial planning and fostering inclusive, community-based governance, the project will enable integrated ecosystem management, improve local adaptive capacity to climate risks, and protect ecosystem services that support rural livelihoods. The GBFF financing will strengthen the capacities of municipalities and local communities for informed decision-making and territorial planning in the Altiplano. However, these investments alone will not be sufficient to reduce pressures on natural ecosystems. Without complementary IFAD support adopting a One Health perspective—through investments in operational mechanisms for formulating and monitoring production and technical assistance projects, strengthening veterinary services for camelid health systems, and developing genetic improvement systems for domestic camelids—the herd size would likely continue to increase at an accelerated pace. In other words, without addressing the interconnections between human, animal, and environmental health, where the camelid herd size is stabilised, territorial planning efforts are unlikely to lead to meaningful improvements in the ecological condition of the bofedales and native grasslands. Hence, the GBFF and IFAD investments are mutually reinforcing, with each addressing complementary aspects of ecosystem management and productive systems in the Altiplano.

Under this component, BNRMPs will function as the operational bridge between territorial planning and on-the-ground implementation. While PTDIs provide the formal public planning and investment framework, BNRMPs will define the concrete biodiversity and natural resource management measures to be applied at territorial level, including agreed grazing management practices, restoration priorities, water management measures, community roles, and local monitoring arrangements.

The project will not rely on municipal control alone. Rather, implementation will be anchored in community-led grazing management and territorial oversight through producer organizations and Indigenous community structures, which are best placed to define and apply locally legitimate rules on stocking levels, pasture rotation, water use, and restoration commitments. Municipal governments will support this process by incorporating agreed priorities into PTDIs and investment programming, while formal enforcement of public regulations will remain within the jurisdiction of the competent state authorities.

Given the dynamic governance context of the Altiplano, the project will not assume static implementation conditions. Component 1 will therefore incorporate periodic territorial reviews to assess whether changes in local governance effectiveness, policy priorities, migration patterns, or land and water disputes are affecting the feasibility of agreed BNRMP measures, and will inform corresponding adjustments in facilitation, capacity building, and implementation support.

Under Component 1, the enabling factors will be mobilized to overcome specific governance and implementation barriers. Indigenous community governance systems and producer organizations will provide the institutional foundation for community engagement, local rule-setting, social oversight, and participatory monitoring, thereby addressing barriers related to weak territorial enforcement, fragmented governance, and low adoption of sustainable management practices. At the same time, the integration of BNRMPs into municipal planning instruments will help address the barrier of weak institutional coordination by connecting local management priorities with formal public planning and budgeting processes. This component therefore combines locally legitimate governance mechanisms with municipal and national institutional mandates, rather than relying on either one in isolation.

Outcome 1.1. Inclusive and sustainable landscape governance systems strengthened to support biodiversity and natural resource management in the Altiplano (GBFF and IFAD financed)

Through this outcome, the project will support municipalities and domestic camelid producers in developing territorial scale management instruments and set up the enabling conditions to improve the productivity of domestic camelids in order to achieve an integrated management of the Altiplano ecosystems.

1.1.1 Capacities of municipalities and local communities strengthened for informed decision-making and territorial planning in Altiplano ecosystem (USD 969,286 GBFF financing and USD 36,984 IFAD financing)

1.1.1.1 Knowledge about biodiversity, natural resources, and their links to local livelihoods improved and used for sustainable productive landscape management.

Territorial diagnoses and knowledge generation:

Comprehensive diagnoses will be conducted for each of the 16 target municipalities. These will integrate biophysical, socio-economic, and climate data, building on initial design-phase analysis which gathered data on biodiversity and degradation baseline using remote sensing tools such as Map Biomas Bolivia, a national platform providing high-resolution data, NDVI data and ABC-Map using the Mean Species Abundance Indicator. MSA will remain a baseline indicator, it will be complemented by species richness indicators and other biodiversity-specific methods to measure evenness (relative abundance), and composition, for key high-altitude taxa. This aspect will be determined during the baseline assessment in Year 1.MSA will remain a baseline indicator, it will be complemented by species richness indicators and other biodiversity-specific methods to measure evenness (relative abundance), and composition, for key high-altitude taxa. This aspect will be determined during the baseline assessment in Year 1.

They will also address the environmental, social and climate risks as described in the SECAP Review Note and the Environmental, Social and Climate Management Plan- ESCMP (Annex F).To prepare situational diagnoses, initial fieldwork will include meetings with municipal authorities, community representatives, and producer organizations to explain objectives and gather data through interviews and field surveys (including site observations, photos, and georeferencing). Office work will complement this with secondary data from government, academia, NGOs, and international projects, supporting territorial analysis and thematic mapping of biodiversity and natural resources. Advanced geospatial and remote sensing tools, including IFAD's GIS systems. will be complemented by targeted field studies, including:

Floristic Characterization and Botanical Composition of Peatlands and Native Grasslands: This study will characterize the floristic composition and botanical diversity of peatlands and native grasslands at project sites. It aims to collect quantitative data (abundance, basal area, volume), evaluate populations of key forage species, and monitor germination, regeneration, growth, and longevity. The

study will analyze vegetation dynamics, including succession and restoration processes, and compare floristic diversity across time and space. It will also assess the impacts of climate change and human activities by comparing well-preserved and altered sites. Findings will inform sustainable land management strategies.

Carrying Capacity: Based on a pilot study funded by PROCAMÉLIDOS 1, this activity involves assessing the productive potential of peatlands and native pastures to provide food for livestock, measured by the quantity of dry matter and biomass production. assess the carrying capacity of grazing lands through detailed analysis of dry matter and biomass production, alongside botanical composition, acknowledging selective feeding patterns of camelids. Soil profile analyses will examine soil structure and fertility, providing essential inputs for erosion control and land-use planning. The ecosystem's carrying capacity can be utilized as a proxy indicator for biodiversity conservation, establishing ecological thresholds that ensure land-use intensity remains compatible with the long-term integrity of high-altitude wetlands (bofedales) and the maintenance of native vegetation formations.

Measurement of Water Flow. Measurement of water flow will address declining rainfall and water scarcity by estimating streamflow and recharge levels at key sites, supporting integrated water resource management. All studies will employ standard scientific protocols and be carried out in collaboration with local communities. The data will inform municipal diagnoses and guide the design of landscape-level sustainable water management activities across target municipalities.

Once the data has been systematized and analyzed, 16 diagnoses will be prepared, which will include: i) detailed description of the status of biodiversity and natural resources, specifying priority territories for biodiversity and natural resources management ; ii) local capacity at the municipal and community levels to address climate and environmental threats; iii) recommendations for priority actions to be considered in the design of the BRNMP, based on the alternatives outlined in Component 2; iv) an evaluation of capacity-building needs, including areas that will require training and technical assistance; and v) identification of other ongoing government and private initiatives in the territory and potential strategic alliances. Based on these diagnoses, each BNRMP will include: (i) a prioritized set of biodiversity and natural resource management measures; (ii) community-level agreements for grazing and water management; (iii) indicative implementation responsibilities for municipalities, producer organizations, and communities; and (iv) simple participatory monitoring arrangements to track compliance and ecosystem response over time. This will allow BNRMP priorities to be translated into municipal investment decisions and annual implementation processes, while maintaining strong territorial ownership by local communities.

1.1.1.2 Municipalities and local communities involved in the design and having access to operational tools to implement practices oriented to the sustainable management of the Altiplano ecosystems. Based on diagnosis findings, each municipality will formulate a Biodiversity and Natural Resources Management Plan (BNRMP) to be integrated into the Natural Resources Management of their PTDI. Plans will emphasize integrated watershed-level approaches, promoting the adoption of management practices that minimize the effects of climate change and other identified threats, thereby contributing to the sustainability of domestic camelid production. BNRMPs will outline: i) sustainable management strategies and practices to address the risks identified in the municipal diagnoses; ii) operational arrangements for monitoring and assessing the quality and impact of the prioritized practices; iii) training and technical assistance gaps and needs for implementing prioritized practices; iv) capacity building on integrated management of wider Altiplano ecosystems, native flora and fauna, and human-wildlife conflicts with wildlife species; v) stakeholder engagement mechanisms to ensure participation of municipalities and local communities; vi) potential alliances with strategic partners to support the development of long-term conservation strategies. BNRMP will also consider the environmental, social and climate mitigation measures described in the project´s ESCMP.

Decision-making authority over resource use is rooted in communal governance and producer organizations, utilizing the **Biodiversity and Natural Resource Management Plans (BNRMPs)** as the regulatory and operational framework for water and stocking. The project will ensure inclusive participation of women, youth, and Indigenous Peoples throughout diagnosis and planning processes. Through FPIC protocols, a Gender Action Plan (GAP), and a Stakeholder Engagement Plan (SEP), the project will identify and remove participation barriers, promote affirmative action, and embed social equity in decision-making. Training for municipal officials and beneficiaries will foster shared understanding of gender and inclusion and provide tools for equitable intervention design.

1.1.1.3 Municipalities and local communities acquire the technical skills to adopt, monitor and assess the impact of practices to improve the health of peatland and native grasslands.

Using findings from the diagnoses and in preparation for the implementation of the BNRMP (Activity 2.1.1.), the project will strengthen institutional and community capacity to implement practices that improve biodiversity and natural resource management. This includes defining investment priorities, implementation responsibilities, and technical assistance needs under each BNRMP. Key actions will include: i) priority learning themes defined by producers (e.g. improved breeding, rangeland restoration, animal-wildlife coexistence); ii) learning modalities chosen by the communities – farmer-to-farmer exchanges, field schools, producer-led demonstration plots, short courses, digital micro-learning, and mentoring by experienced herders; iii) joint workplan that fixes responsibilities, milestones and feedback loops for continuous adjustment; iv) transparent, shared budget that recognizes in-kind contributions from producer groups and ensures equitable access for women and young herders. To ensure uptake and sustainability,

participatory approaches will be key. Territorial Coordination and Evaluation Committees (TCEC) will be established in each municipality to approve and oversee BNRMP implementation. These bodies will include representatives from municipal governments, producer organizations, and technical experts, and will provide guidance, ensure accountability, and monitor impacts.

To reduce the risk that stakeholder engagement and approval processes are dominated by a narrow set of actors, the project will apply minimum inclusion and transparency standards to the functioning of the TCECs and related territorial decision-making spaces. These standards will include balanced representation of municipal authorities, producer organizations, Indigenous territorial actors, and women's organizations; transparent documentation of decisions; and community-level validation of key planning and approval decisions where relevant. The project will also rely on grievance and redress mechanisms under the SEP so that concerns related to exclusion, undue influence, or unfair decision-making can be raised and addressed in a timely manner.

During BNRMP implementation, the project will complement these governance measures with targeted social agency actions to prevent elite capture and sustain meaningful participation by less visible groups. These actions will include leadership strengthening and targeted participation measures for women and youth, decentralized consultation at communal level so that priorities are not defined only through municipal or association leadership structures, and transparent, publicly accessible criteria for selecting beneficiaries for business plans, infrastructure, and technical assistance. Together, these measures are intended to ensure that vulnerable and underrepresented producers can influence implementation priorities, participate in monitoring, and access project-supported opportunities on an equitable basis.

1.1.2 One Health approach implemented to foster sustainable and biodiversity-positive camelid production (USD 2,813,542 IFAD financing).

1.1.2.1 Operational mechanisms established for formulating and monitoring resilient production and technical assistance projects. To support the implementation of the BNRMPs and the broader climate-resilient camelid production system in PROCAMÉLIDOS 2, the project will deploy 117 Territorial Facilitators to assist with the identification, preparation, and monitoring of Resilient Productive Projects (PPR) and Technical Assistance Projects (PAT) established in PROCAMÉLIDOS 2. After project approval, an additional 77 facilitators will support project execution. TCECs, composed of municipal and community representatives, will be responsible for reviewing, validating, and approving project proposals, as well as supervising their implementation and ensuring alignment with territorial plans.

1.1.2.2 Veterinary services strengthened for resilient camelid health systems. Under PROCAMÉLIDOS 2, the project will deliver specialized technical training to improve the quality and timeliness of services provided by veterinarians and para-veterinarians for camelid health. Laboratory infrastructure and health alert systems will be upgraded across six departments, with four overlapping the project's 16 prioritized municipalities. These enhancements will strengthen Bolivia's capacity for disease surveillance, diagnosis, and rapid response, particularly in detecting zoonoses affecting both domestic and wild camelids. Aligning with the One Health approach, biosecurity protocols in laboratories will be updated, ensuring that disease control measures consider ecosystem health and the prevention of negative impacts on native species. Strategic vaccination campaigns will be implemented in partnership with SENASAG and local authorities, targeting high-impact diseases and minimizing risks to wild camelid populations and other high-altitude fauna.

1.1.2.3 *Genetic Improvement Systems for Domestic Camelids Developed*.Under PROCAMÉLIDOS 2, community projects will be supported to develop genetic management hubs. These hubs will serve as strategic centers focused on preserving, enhancing, and multiplying the genetic potential of llamas and alpacas in the Altiplano. The emphasis will be on productive traits such as fiber quality, meat yield, and environmental adaptability. Community projects may focus on developing specialized infrastructure for genetic evaluation, breeder selection, assisted reproduction, or technical training for local producers and technicians. Participatory genetic improvement processes will be promoted from the hubs, incorporating territorial strategies, such as increasing genetic dissemination and preventing inbreeding and facilitating access to high-quality reproductive materials.

Component 2. Scaling up biodiversity-friendly production practices and incentive mechanisms for a sustainable camelid value chain.

Component 2 of the project focuses on the implementation of sustainable practices and incentive systems that strengthen the conservation and productive management of peatlands and native grasslands in Bolivia's Altiplano. These efforts build on foundational diagnostics and capacities established under Component 1 and will complement activities under Component 2 of PROCAMÉLIDOS 2. The aim is to improve the ecological integrity and functionality of these high-Andean ecosystems while generating livelihood benefits for local communities. Similarly to Component 1, the GBFF and IFAD investments under Component 2 are interdependent and mutually reinforcing. While both the GBFF and IFAD will finance investments in sustainable land management practices to restore the hydrological functions of peatlands and reduce habitat fragmentation under Outcome 2.1, IFAD will furthermore complement this by investing in agrobiodiversity practices, which integrate native species and traditional knowledge into production systems, improving livelihoods while maintaining the ecological integrity of peatlands and grasslands. This will be further reinforced through incentive mechanisms that promote an inclusive and sustainable camelid value chain, focusing on value addition, market access, and raising consumer awareness of the economic and biodiversity benefits of domestic camelid products,

including Territorial-branded products. By making camelid production more sustainable along the entire value chain, these interventions multiply the positive impact on ecosystem restoration and maintenance.

Outcome 2.1. Natural ecosystems are restored through investments in improved biodiversity, natural resources and land management practices (GBFF and IFAD financed)

2.1.1 Improved ecosystem carrying capacity within the Native Pasture Fields-CANAPAS . (USD 2,122,650 GBFF financing and USD 588,401 IFAD financing).

BNRMPs will guide investments in sustainable land management practices that promote the recovery and resilience of fragile ecosystems. Interventions include small-scale water management systems compatible with ecosystem dynamics, such as the rehabilitation of ancestral water-harvesting infrastructure. These interventions are designed to restore the hydrological balance of peatlands and improve connectivity among native vegetation fragments. Soil and water conservation measures will be implemented alongside the revegetation of pastures and peatlands, enhanced through targeted manure application. A key element consists of the revival of traditional ecological knowledge, particularly in pasture cultivation and rotational grazing, ensuring restoration aligns with cultural practices. Capacity-building at the community and municipal levels will support the development of site-specific land-use practices and investments with biodiversity conservation outcomes. Practices will prioritize low-cost, evidence-based approaches, drawing on proven experiences. In order to directly support municipalities and beneficiaries with capacity building, technical assistance and monitoring of the implementation of the BNRMPs, the project will hire 32 (2 per selected municipality) field technicians.

Additionally, the tailored activities outlined below will be designed to create strong synergies with the implementation of the PPRs in PROCAMÉLIDOS 2 across target municipalities (Activity 2.1.2). For instance, Kochas can complement rainwater harvesting systems and drinking troughs by increasing water infiltration into the soil, enhancing groundwater recharge, and supporting the growth of forage vegetation, enhancing productivity for PPR participating families.

Supplementary forage and water-related productive infrastructure are financed under PROCAMÉLIDOS 2 as climate-resilience measures within the Resilient Productive Projects (PPRs). Their biodiversity rationale is to reduce emergency grazing pressure on native pastures and bofedales during droughts, cold waves, and other climate shocks, while improving water availability and management through ponds, solar-powered pumping systems, and related infrastructure designed to support wetland persistence and a more sustainable spatial distribution of grazing pressure. The economic justification of these measures is assessed as part of the integrated IFAD-financed investment package, rather than through stand-alone cost-benefit estimates for each individual measure. The project's EFA shows that the combined package is economically viable and that avoided degradation of bofedales secures substantial ecosystem service values.

Low-cost alternatives to provide biodiversity, production and resilience benefits have been proposed as follows:

Water capture and distribution systems.

Hose Level and A-Frame Level for Water Conduction. The A-frame level and hose techniques ensure even irrigation distribution, improving water access and conserving peatlands and grasslands. Easily applied in areas with poor water flow, they prevent runoff and erosion by guiding water away from steep or unprotected slopes, making them effective for restoring degraded landscapes and enhancing soil stability.

Kochas and Half-Moon Holes. Kochas collect surface runoff and channel it to reservoirs or tanks, storing rainwater for pasture irrigation during dry periods. Half-Moon Holes are crescent-shaped depressions that trap rainwater, allowing gradual soil absorption. These structures improve soil structure, promote root and microorganism development, control erosion, and support the growth of forage and cushion-forming plants, enhancing pasture regeneration and ecosystem resilience in highland landscapes.

Infiltration Trenches. Hillside areas often experience significant rainwater runoff, which can adversely affect a large portion of the soil surface. Therefore, when working on slopes to manage water distribution for soil moisture and to enhance areas with forage vegetation, it is advisable to construct infiltration trenches in specific locations above the channels. These trenches will help retain water and sediment that flow down during the rainy season, acting as reservoirs that prolong water availability. This process facilitates soil infiltration and provides moisture to the roots through capillary action.

Expansion and regeneration of peatlands and pastures.

Growing, transplanting, and utilizing manure for peatland and pasture restoration involves several stages: i) Assessment of the floristic characteristics and composition of the existing vegetation by analyzing data from sampling to identify predominant species (forage), degree of selectivity, nutritional value, palatability, and maximum productive potential (activity 1.1.1.1); ii) identifying water capture and distribution practices, as previously described; iii) recognizing contaminated or salinized peatland areas to avoid; iv)

determining the type of vegetation to be cultivated or propagated; v) fertilizing the area with manure collected from grazing fields; and vi) planting directly or transplanting the selected species, partnering with local nurseries or community seedbeds, where possible.

Enclosures and Pasture Rotation. This practice promotes the natural recovery of pastures. The primary objective is to mitigate threats that hinder this recovery, such as overgrazing. The most commonly employed technique is the establishment of enclosures to prevent grazing by domestic animals. Enclosures involve erecting fences to restrict livestock access for a designated period, thereby providing resting intervals and facilitating natural recovery.

2.1.2 Camelid production is managed sustainably through investments in agrobiodiversity practices (USD 7,177,986 IFAD financing). PROCAMÉLIDOS 2 will support clusters of at least 15 camelid-producing families with investments to boost productivity and climate resilience. Through the PPRs, activities will include rainwater harvesting in ponds, solar-powered pumping systems, and improved shelters to protect livestock from extreme weather and predators. Forage conservation through the establishment of pens and rotational grazing systems will reduce pressure on ecosystems. The activity will also strengthen technical capacity, community governance, and coordination with municipalities, promoting sustainable system operation and long-term institutional support through internal regulations and leadership training. GBFF funded investments mentioned above will seek synergies, where applicable, with PPR investments to enhance impact.

Outcome 2.2: Incentive mechanisms enhanced to promote an inclusive and sustainable camelid value chain (GBFF and IFAD financed)

Outcome 2.2 is specifically designed to convert existing enabling factors into responses to financial and market barriers. IFAD-supported investments in value chain development, productive services, and producer capacities will reduce structural constraints that currently prevent small-scale camelid producers from accessing higher-value markets. GBFF financing will complement these investments by adding biodiversity-linked incentives, including awareness raising, territorial branding, and traceability-related approaches that reward sustainable management of bofedales and native grasslands. Together, these measures will address the current lack of market differentiation, weak incentives for biodiversity-friendly production, and limited public recognition of the ecological value embedded in camelid products from the Altiplano.

2.2.1 Capacities of camelid producers strengthened to enhance value addition, market access, and sustainability of camelid products (USD 2,515,131 IFAD financing). Under PROCAMÉLIDOS 2, producer organizations will receive support to develop Business Plans (BP) to add value to camelid products such as meat and fiber. These demand-driven BPs will integrate production, finance, logistics, and marketing elements tailored to local and international markets. Productive partnerships with market actors, both state-owned (e.g., YACANA) and private (e.g., Altifiber and others), will allow beneficiaries to improve their technical and organizational capacities. Specific interventions include the improvement of production and processing systems, enhancement of product quality, and the incorporation of clean technologies. Investments will include minor civil works, specialized equipment, and improved waste management systems. Upgrades to slaughterhouses will ensure compliance with sanitary standards and increase access to high-value markets. For fiber and meat chains, investments will be made in infrastructure, tools, and training for processes like shearing, dyeing, spinning, packaging, and branding. Marketing efforts will be expanded through participation in local and national camelid fairs and business roundtables. Together, these interventions ensure enhanced value addition through improved processing and product quality, strengthen market access by aligning production with market demands and commercial platforms, and promote sustainability of camelid products. Local capacities will be developed, and productive partnerships will be fostered with public and private companies and beneficiaries of the processing of camellids for fiber and meat for market development.

Market access will follow a sequenced approach. For meat, the project will prioritize domestic and national formal markets, where demand already exists but access is constrained by quality, sanitary compliance, and processing bottlenecks. For fiber, the project will support both national and international market access, while recognizing that Bolivia cannot compete with Peru on volume and must instead strengthen quality, traceability, aggregation, and differentiated positioning. Because the size of biodiversity-linked preferential markets is not yet fully quantified, the project does not assume a large established premium segment. Instead, it will test this opportunity through one pilot territorial brand, willingness-to-pay work, buyer engagement, and preliminary traceability arrangements, while continuing to prioritize more immediate market gains in existing domestic and formal channels.

2.2.2 Consumer awareness raised on the economic and biodiversity benefits of domestic camelid products to promote sustainable demand (USD 35,623 GBFF financing and USD 350,855 IFAD financing). The project will implement communication strategies to promote the health, cultural, and ecological value of camelid products. Campaigns will target both rural and urban consumers and emphasize camelid meat and fiber as sustainable, nutritious products with Andean heritage. Messaging will be coordinated with public health institutions and agricultural agencies to ensure technical accuracy and consistency. The awareness strategy will use various platforms, including social media, print materials, food fairs, and gastronomic events. It will include nutrition education, cultural promotion, and information on the environmental benefits of camelid-based production. These actions aim to shift public perception and increase domestic demand for camelid products, further reinforcing sustainable production incentives.

2.2.3 Territorial-branded domestic camelid products that incentivize the conservation and sustainable management of biodiversity identified and piloted (USD 274,870 GBFF financing). Territorial brands will be piloted in one municipality to assess how locally sourced, sustainably produced camelid products can generate incentives for biodiversity conservation. Territorial branded labels can reinforce the value of provisioning ecosystem services while differentiating products based on cultural identity and ecological stewardship.

Specifically, the activity will examine: (i) the feasibility of territorial labels for sustainable camelid production among producer organizations (POs); (ii) preliminary approaches to traceability systems that could help track origin and environmental sustainability of camelid products; and (iii) training and capacity-building for producers to access funding opportunities tied to sustainable practices and long-term biodiversity and resource management objectives. This work will be carried out in coordination with the National Intellectual Property Service (SENAPI), with whom a preliminary work plan will be drawn up. Branding efforts will emphasize the relationship between product quality (e.g., fiber texture or meat flavor) and the natural conditions of the Altiplano. Fieldwork will document this linkage and develop the technical dossiers required for collective indication registration. The process will involve participatory research, such as contingent valuation "willingness-to-pay" surveys, focus groups, and community mapping, to estimate consumer demand and ecosystem service value.

A branding strategy will be developed, including brand name, quality standards, traceability protocols, and governance arrangements through a Producer Regulatory Council. This structure will ensure accountability and protect the brand's reputation. The territorial brand initiative will aim to be integrated with the broader business plans of producer associations, enhancing their market positioning and income potential. Partnerships with regional and international stakeholders will be established to exchange experiences, develop methodologies, and access sustainable financing mechanisms.

Component 3. Establishing and operationalizing a National Knowledge System (KMS) to support biodiversity-inclusive camelid production and landscape governance.

This component will support the implementation of a knowledge management system (KMS) for the camelid sector, to generate technical information to enable local communities, municipalities, and national authorities to make informed choices about camelid production, land use planning, and ecosystem management, linking the knowledge generated directly to interventions financed under Components 1 and 2. By providing reliable data on herd dynamics, ecosystem health, production practices, and the socio-economic performance of camelid value chains, this component ensures that GBFF-financed investments in ecosystem restoration, sustainable land management, and habitat conservation are strategically guided, targeted, and reinforced. The IFAD investment support enables the KMS to function as a strategic bridge, connecting territorial planning, sustainable production practices, and market-oriented interventions into a cohesive, evidence-based approach that amplifies the ecological and socio-economic benefits of GBFF investments.

All this information will be centralized at and disseminated through the Camelids and Natural Resources Observatory. It is expected that the information gathered for the KMS will further support the development of regulations and public policies.

Component 3 directly addresses the barrier of fragmented, inaccessible, and insufficiently systematized information on biodiversity, ecosystem condition, and camelid production systems in the Altiplano. The KMS is therefore conceived not only as a monitoring tool, but as a strategic enabling factor that allows communities, producer organizations, municipalities, and national institutions to make better-informed decisions, improve adaptive management, and align production support with biodiversity objectives. By linking knowledge generation to Components 1 and 2, the project ensures that planning, restoration, and market interventions are guided by evidence rather than implemented in isolation.

Outcome 3.1 Improved evidence-based planning, policy development, and decision-making for a biodiversity-inclusive camelid value chain (GBFF and IFAD financed)

3.1.1 Knowledge and policy information on camelid production, transformation, and marketing generated and made accessible for evidence-based decision making (USD 30,998 GBFF financing USD 452,350 IFAD financing). PROCAMÉLIDOS 2 will support the design and implementation of a Knowledge Management System (KMS) for the camelid sector, aimed at consolidating, analyzing, and disseminating relevant technical, productive, social, and environmental information for decision-making. The KMS will centralize and analyze technical, social, environmental, and productive information about the camelid sector. Initial steps include conducting baseline studies and situational assessments to characterize the sector's current state. Findings will support the creation of a Camelids and Natural Resources Observatory and a broader management information system for continuous monitoring and evaluation. The KMS is expected to facilitate the tracking of conservation practices and the assessment of their effectiveness in terms of restoring peatlands and grasslands. This initiative will provide technical data to support national and local governments in developing regulations and public policies that favor the sustainability of the camelid sector, including sustainable management of ecosystems.

3.1.2. Reliable data, ecosystem assessments and monitoring reports on the sustainable management of the Altiplano biodiversity and natural resources regularly updated and shared (USD 146,923 f GBFF financing and USD 684,713IFAD financing). This activity

will be conducted within the framework of the PROCAMÉLIDOS 2 Knowledge Management System-KMS (Activity 3.1.1). Specifically, the GBFF will assist in the development of a module on biodiversity and natural resources of the Altiplano. This module will consist of an online platform designed for collecting, analyzing, and sharing best practices, success stories, and lessons learned from local initiatives in biodiversity and natural resource management. Additionally, it will support policy development efforts by providing essential knowledge products for national policymakers to incorporate evidence-based strategies into integrated land management. The knowledge system will be designed with several features: i) central repository for accessing and storing best practices, tools, and materials; ii) user-friendly documentation for various stakeholders; iii) platforms like intranets, collaborative tools, or wikis for information sharing; iv) structured workshops, presentations, and online content to enable learning; v) producer-to-producer mentoring and community-based knowledge transfer initiatives and vi) inter-municipal collaboration to share innovations and strategies.

3.1.3 Project activities documented and monitored to track progress and assess the impact of interventions on biodiversity and livelihoods (USD 159,992 of GBFF financing)). The project will be monitored and evaluated under the Results-Based Management System (RBMS) of PROCAMÉLIDOS 2. The RBMS will be based on the lessons learned, capacities, resources, and tools already developed under PROCAMÉLIDOS 1. The Project Results Framework outlines GEF core and project-specific indicators at both outcome and output. It will include baseline data, targets, responsible entities, and data collection timelines. These indicators will monitor performance throughout the project's lifecycle, including tracking gender equity, and assess whether the strategies are producing the intended impacts.

Planning and oversight will be guided by the Annual Work Program and Budget (AWPB), which includes physical and financial projections, implementation risks, and feedback from prior years. This planning tool is reviewed and approved annually by IFAD. The GBFF-specific reporting requirements will include: i) project midterm review (MTR) will take place after the 30th month of project execution and ii) project Final Evaluation. All reports will capture gender-related results and lessons learned.

To effectively track the progress and performance of the project, a comprehensive monitoring system will be established based on the Results Framework Guidelines of the Global Biodiversity Framework Fund (GBFF). This system will rely on a set of clearly defined indicators aligned with the project's outcomes and outputs, ensuring consistency with PROCAMÉLIDOS 2 design as well as GBFF's strategic objectives.

The Project's objective is to "Enhance the conservation and sustainable use of biodiversity in camelid production landscapes of the Bolivian Altiplano, by strengthening community-based management systems that support the well-being and traditional knowledge of rural Andean communities." This is going to be measured through the following four core indicators:

- 3. Area of land and ecosystems under restoration (hectare)
- 4. Area of landscapes under improved practices (hectare)
- 6. Greenhouse Gas emissions mitigated
- 11. People benefiting from GEF-financed investments (disaggregated for both male and female)

Similarly, a set of outcome indicators has been established for each of the three Components. Thus, metrics for "Component 1 Strengthening territorial planning and governance frameworks for biodiversity-inclusive landscape management in camelid-based production systems" include "Number of Municipalities capable of improving the management of altiplano ecosystems through informed decision-making and territorial planning approaches" and "Number of direct beneficiaries receiving capacity building and training on sustainable management of biodiversity and natural resources". Component 2: "Scaling up biodiversity-friendly production practices and incentive mechanisms for a sustainable camelid value chain" will be measured with "Number of direct beneficiaries adopting biodiversity and natural resources sustainable practices" as well as "Number of sensibilization and awareness products (dissemination materials) that inform the benefits of consuming environmentally friendly domestic camelid products". Finally, "Component 3: Establishing and operationalizing a National Knowledge System (KMS) to support biodiversity-inclusive camelid production and landscape governance", will be measured though "Number of communication and knowledge management products relevant for policymaking concluded and disseminated" and "Number of Planning, M&E products". All indicators referring to People or Beneficiaries will be disaggregated by sex.

Targets have been set for both mid-term and final year, in line with PROCAMÉLIDOS 2 goals and the specific contribution of GBFF. Additionally, a Monitoring Information System will be developed, nested in the current UEP (APROCAM)'s system (Monitoring and Evaluation Information System, SISME, for its acronym in Spanish), to adequately store the data. Territorial teams will collect the data frequently on the field; particularly, the outreach -number of direct beneficiaries- will be updated on the Results Framework on a yearly basis.

The Project will elaborate an Annual Monitoring Report to analyze its performance based on the Results Framework, tracking its progress in key areas of operational effectiveness. Mid-Term Review and Impact/Terminal Evaluation will provide the source of data on results achievements, allowing them to reflect on the extent to which the project has achieved its development objective.

The Results Framework will enable the measurement of achievements over time, support adaptive management, and provide evidence for accountability and learning throughout the implementation period.

To operationalize adaptive management, the project will establish a simple adaptive management protocol linked to its monitoring system. This protocol will combine annual performance reviews, targeted technical assessments, and stakeholder consultations to identify whether key contextual uncertainties are affecting implementation and outcomes. These reviews will consider, among others, changes in policy orientation, governance effectiveness at municipal and territorial levels, demographic trends affecting collective action and labor availability, and emerging land and water conflicts. Where these factors materially affect implementation conditions, the project will adjust intervention sequencing, the territorial focus of technical support, stakeholder engagement strategies, and the allocation of selected field resources, while preserving the project's biodiversity objectives and overall theory of change.

Gender and Social Inclusion.

The project will ensure inclusive participation of women, youth, and Indigenous Peoples. Through FPIC protocols, a Gender Action Plan (GAP), and a Stakeholder Engagement Plan (SEP), the project will identify and remove participation barriers, promote affirmative action, and embed social equity in decision-making. Training for municipal officials and beneficiaries will foster shared understanding of gender and inclusion and provide tools for equitable intervention design.

The project also recognizes that participation barriers are shaped not only by gender and cultural exclusion, but also by local power dynamics and vested interests that may affect who speaks, who decides, and who benefits from project-supported processes. For this reason, inclusive participation will not be treated as a one-off consultation requirement, but as a continuous implementation principle. The project will monitor participation and benefit allocation with attention to women, youth, Indigenous households, and remote communities, and will use the SEP, FPIC processes, and grievance mechanisms to identify and address situations where participation is restricted, mediated, or captured by more influential actors.

The objective of the project´s Gender Action Plan (GAP) is to contribute to the effective and transformative social inclusion of women, youth, and indigenous peoples, by mainstreaming several activities throughout the project´s components as follows:

1) Train project´s technical staff on the following key topics: national regulations in favor of women, women's participation in decision-making spaces, women's economic empowerment, women's rights over land and their access to resources, women's access to better knowledge and information technologies.

2) Carry out a situational assessment, including territorial governance systems, productive activities and their degree of diversification, social inequality, participation in collective decision-making in primary camelid production and biodiversity and natural resources management.

3) Integrate gender perspective in all assessments according to the characteristics of each territory.

4) Establish the conditions to facilitate the participation of women and youth in the design of the BNRMPs and ensure the incorporation of women´s traditional knowledge associated to the recovery of native pastures, rotational grazing, restoration of wetlands and adaptation to climate change practices.
5) Identify technological options to alleviate women's workload.

6) Prioritize the participation of women and indigenous peoples living in remote and dispersed communities so that they can benefit from the project's services.

7) Ensure the presence of women in training processes related to investment priorities, implementation responsibilities and technical assistance identified under each BNRMP.

8) Integrate the participation of women leaders in the creation of the territorial brand and the requirements for traceability.

The goal for women participation has been established as 40% (2,600) of the project´s total beneficiaries (6,500). The cost associated with the implementation of the GAP has been included under the budget allocated to each component. For more details refer to Annex F2-Gender Action Plan.

Women are central to the project's gender-transformative approach across production, value addition, branding, traceability, and local governance. The project will therefore treat women not only as beneficiaries, but as economic actors whose participation is necessary to improve the performance and inclusiveness of camelid value chains. In practical terms, this includes ensuring women's participation in technical training linked to BNRMP implementation, prioritizing women and remote communities in access to services, and integrating women leaders into the development of territorial branding and traceability systems. In parallel, business support under PROCAMÉLIDOS 2 will prioritize proposals that generate economic opportunities and leadership roles for women and youth in processing, commercialization, and service provision.

Policy Support

This project is closely aligned with Bolivia's existing policy frameworks, particularly SPIE and the PDES, by embedding biodiversity and natural resource management into municipal PTDIs and ensuring that local plans advance national development and resilience objectives. Component 3's Knowledge and Monitoring System can serve as a catalytic interface between grassroots experience and national decision-making by:

a) Consolidating Evidence for Policy Review: By aggregating real-time monitoring data on pasture and wetland health, species occurrences, and carbon sequestration outcomes, the KMS will provide relevant ministries with scientifically robust, geo-referenced evidence needed to inform policy decisions and refine agro-pastoral regulations.

b) Facilitating Cross-Sectoral Dialogue: The online platform will host thematic dashboards and policy briefs that highlight successful interventions, such as bofedal restoration or biodiversity-friendly fiber marketing.

Innovations

A key innovation of the project is that it will use a One Health approach, recognizing that efforts to improve the ecological condition of native grasslands and *bofedales* (peatlands) will fail unless the pressures resulting from domestic camelid production are addressed. This approach explicitly addresses the necessary interconnections between human, animal, and environmental health, ensuring that the stabilization of the camelid herd size is achieved alongside territorial planning efforts. The implementation of the One Health approach is supported by strengthening veterinary services for resilient camelid health systems, which includes upgrading laboratory infrastructure and health alert systems across six departments to enhance disease surveillance, diagnosis, and rapid response, particularly for zoonoses affecting both domestic and wild camelids. Crucially, biosecurity protocols will be updated to align with the One Health perspective by considering ecosystem health and preventing negative impacts on native species.

Another key innovation promoted by the project and with significant potential for scaling up are non-financial incentive mechanisms, such as the use of a holistic value chain approach including Territorial-branded domestic camelid products as well as other strong conservation incentives. By making camelid production more sustainable along the entire value chain, these interventions multiply the positive impact on ecosystem restoration and maintenance. Territorial brands will be piloted for camelid products in one municipality to test their feasibility in generating incentives for biodiversity conservation. These branded labels are innovative because they reinforce the value of provisioning ecosystem services while differentiating products based on cultural identity and ecological stewardship. The approach involves developing preliminary traceability systems to track the origin and environmental sustainability of the products, training producers, and coordinating with the National Intellectual Property Service (SENAPI). The branding strategy will emphasize the relationship between product quality (like fiber texture or meat flavor) and the natural conditions of the Altiplano and will integrate with the broader business plans of producer associations to enhance market positioning and income potential.

These key innovations will be documented and monitored in the KMS to provide best practices, success stories, and lessons learned for scaling up. In addition, the project includes project outcome indicators that are closely aligned or complementary to GBF indicators A.2, 1.b, 18.1 and 21.1 and will help Bolivia report on progress towards the GBF in its National Biodiversity Strategy and Action Plan (NBSAP).

Expected results

The impact level result of this project will be enhanced biodiversity conservation and sustainable resource management in the Bolivian Highlands, leading to improved livelihoods for Indigenous Peoples and Local Communities (IPLCs). The key results will be: i) 21,786 hectares of native pasturelands in the Bolivian altiplanos are under sustainable management practices; ii) 2,524 ha of bofedales (peatlands) under restoration ii) -357,688 tCO_2-eq over 20 years mitigated and/or sequestered due to improved grassland management, peatland restoration, as well as improved livestock management practices (improved breeding and feeding); and iii) Livelihoods of 6,500 indigenous peoples across key landscapes improved and diversified.

Overarching Socio-economic Benefits. The proposed GBFF project will generate a wide range of socio-economic benefits for local communities, camelid producers, and national institutions engaged in sustainable landscape management in the Altiplano. These

benefits will be achieved through integrated actions that improve livelihoods, foster inclusive value chains, and strengthen institutional and knowledge systems to support long-term biodiversity outcomes. The project will directly benefit 6,500 individuals, including women, youth, and Indigenous Peoples. By improving the management of 21,786 hectares, restoring an additional 2,524 hectares, and sequestering or avoiding greenhouse gas emissions amounting to -357,688 tCO_2-eq over 20 years, the project will enhance the ecological integrity of productive landscapes while securing nature-based livelihoods and reinforcing the role of biodiversity as a foundation for sustainable rural development.

In addition to this, the project will also indirectly benefit an additional 13,765 individuals, improve the management of 59,281 ha, restoring an additional 20,293 ha, and sequestering/avoiding GHG emissions for a total of -1,513,317 tCO2-eq. over 20 years.

The Economic and Financial Analysis (EFA) to assess its contribution to Project beneficiaries and society. The aim of the EFA is to compare the costs and benefits of the Project and assess its viability, both from the point of view of the beneficiaries (financial analysis) and from that of the economy (economic analysis). It also follows an incremental rationale to evaluate additional benefits and costs generated by the Project, in contrast with inaction. The project's Theory of Change (ToC) informs the EFA methodology, addressing key challenges such as climate risks, governance of resources, and institutional capacity gaps to enhance resilience and sustainability in agrifood systems.

The EFA focuses on the quantitative assessment of cost and benefits from investment models, which represent the main project activities and expected results. The EFA follows an incremental assessment of the investment models, comparing the with-project (WP) situation with the without-project (WOP) situation to determine the additional benefits, while considering the additional costs. The models analyzed generate positive financial benefits for Project beneficiaries, compared to the WOP situation. The improvements from the WOP to the WP relate mainly to increased efficiency and reduced losses in the context of climate change, as well as improved conditions for access to markets and capitalization. The restoration and conservation of ecosystem services is at the base of increased and sustained productivity.

The project expects to deliver direct financial benefits generating an average **USD 459 in incremental income per household annually (a 17% increase in net earnings)** through improved herd productivity, strengthened camelid value chains, and access to formal markets. These income gains serve as a key incentive for households to adopt sustainable pasture and wetland management practices, alleviating grazing pressures on fragile ecosystems and preserving the biodiversity of the high Andean landscape.

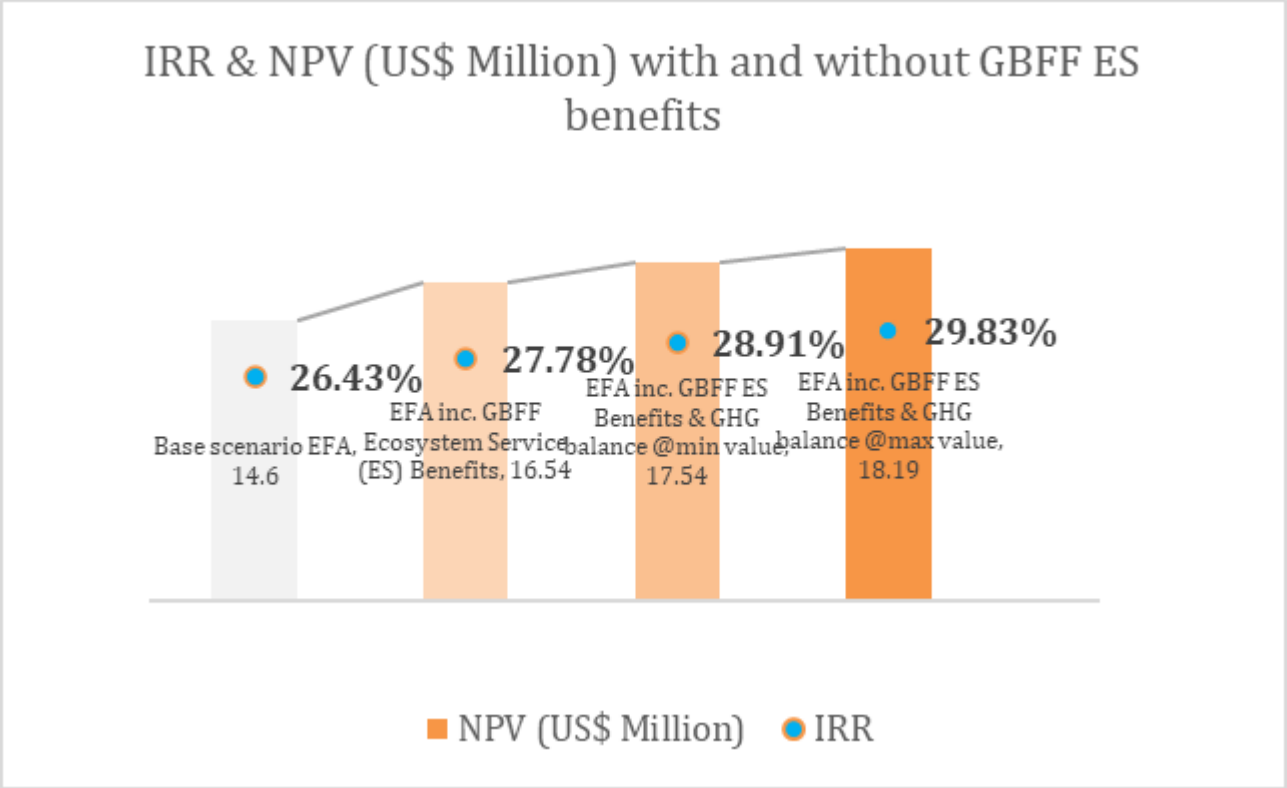
Beyond household incomes, the GBFF financing allows the program to capture the broader economic value of **ecosystem services from 2,500 hectares of conserved and restored bofedales**. As estimated by Gandarillas et al. (2016), these high-altitude wetlands generate approximately USD 614/ha/year on the following services: i. **USD 323/ha/year from livestock forage**, ii. **USD 210/ha/year from biodiversity support** iii. **USD 55/ha/year in cultural and aesthetic services**, and smaller but relevant contributions from **water supply (USD 9/ha/year) and recreation (USD 17/ha/year).** Tackling degradation also conserves the ecosystem service value generation, thus investments would secure at least an **aggregate service value of over USD 0.45 million annually** (assuming 50% efficacy on avoided degradation). Literature[11][5] indicates that degradation of Andean wetlands — primarily through overgrazing, drainage, and climate-driven desiccation — results in declines in forage productivity exceeding 30%, a near-total collapse of water regulation capacity, and accelerated greenhouse gas emissions due to peat and soil carbon release, all of which erode rural livelihoods and increase vulnerability to droughts. In addition, with the carbon sequestrations and GHG emission reductions of the project, the project also has a positive social value of carbon using the shadow price of carbon by Stiglitz and Stern[12][6].

The analysis shows that the project is an economically viable investment for society. The project is economically viable, with incremental NPVs of $14.6 million at a 12.67% social discount rate in the baseline scenario – without including ecosystem service or climate change mitigation benefits – over a period of 12 years. When accounting for the projected ecosystem service benefits related to livestock forage, cultural and aesthetic services, water supply, etc. in the 2,500 ha of bofedales, the IRR rises from 26.43% to 27.78%, with an NPV of $16.54 million. When also taking into account the net reduction of greenhouse gas emissions and increases in carbon sequestration, the IRR rises to between 28.91% (lower value) and 29.83%, with an NPV between $17.54 million (lower value) and $18.19 million (higher value).

These results confirm that GBFF's incremental financing not only amplifies community income and long-term financial sustainability but also offsets the substantial socio-economic costs of wetland degradation, supporting climate resilience and biodiversity conservation across the Altiplano.

The project does not yet assume a quantified, established biodiversity premium market as the sole basis for economic viability. Instead, the economic case combines demonstrated improvements in productivity, reduced losses, and better market access with the value of avoided wetland degradation and ecosystem services. Biodiversity-linked market differentiation is therefore introduced as a pilot incentive mechanism to be tested and refined during implementation through territorial branding, traceability, and consumer and buyer engagement, rather than treated as an already confirmed large-scale market opportunity.

Figure 2. Economic Analysis main results with and without factoring GBFF benefits



Other benefits. Beyond accounting for the additional gain of avoiding emissions of an extra tonne of CO_2e, there are other important, though unquantified, benefits for biodiversity—and, by extension, for society—that are worth noting. The increased availability of soil carbon means that grasslands will also have higher levels of soil organic matter (SOM), as 50–60% of SOM consists of soil organic carbon (SOC). SOC enhances soil health due to the multiple co-benefits of SOM, including improved soil drainage, nutrient retention, and reduced compaction. Soil macrofauna can influence hydrological properties across different spatial scales and through sometimes opposing processes. At a small scale, changes in clay content, SOM, and soil porosity are likely to affect water-holding capacity. At a medium scale, the creation of dense networks of foraging galleries that connect to the soil surface generally improves water infiltration.[13]

Strengthening local governance and territorial planning capacities will enable municipalities and indigenous communities to participate more effectively in decisions that shape their territories. This will lead to improved access to land-use planning processes, enhanced recognition of traditional knowledge systems, and better alignment of local development priorities with biodiversity conservation objectives. By embedding a One Health approach within camelid production systems, the project will also deliver co-benefits for human, animal, and ecosystem health - reducing disease risks and improving overall well-being.

Strengthening the camelid value chain through tailored incentive mechanisms will create inclusive economic opportunities for producers, women, and youth. Enhanced capacities in value addition, sustainable production standards, and marketing will enable producers to access higher-value markets. The promotion of territorial branding and increased consumer awareness will stimulate demand for biodiversity-positive camelid products, contributing to income diversification and rural development.

Stakeholders

The Project acknowledges the vital roles of Indigenous Peoples and Local Communities (IP&LCs) as custodians of biodiversity and partners in sustainable environmental management. It aims to ensure gender equality by empowering women and youth while enhancing the capacities of IP&LCs for meaningful participation and leadership in territorial governance related to biodiversity conservation. These efforts will align with GEF and IFAD policies on Gender, IP&LCs, and Stakeholder Participation. The target

group includes approximately 6,500 small-scale producers from rural Indigenous (Aymara and Quechua), 'pueblos originarios,' and 'campesino' communities. These producers are represented by two main organizations: i) “Consejo Nacional de Ayllus y Markas del Qullasuyu” (CONAMAQ) and ii) the National Confederation of Indigenous Peasant Women “Bartolina Sisa” (CNMCIOB “BS”).

Producer organizations and Indigenous territorial structures are not only stakeholders in implementation; they are core enabling factors in the project design. Their organizational presence, local legitimacy, and territorial knowledge will be used to address barriers related to weak collective organization, limited community uptake of technical measures, and insufficient continuity in local biodiversity management. Through their participation in BNRMP preparation, implementation, and monitoring, these organizations will help translate biodiversity objectives into locally enforceable and socially accepted management arrangements, while also serving as platforms for capacity building, dissemination of technical practices, and long-term stewardship.

Other key stakeholders include the Ministry of Rural Development and Land, Ministry (MDRyT), La Paz, Oruro and Cochabamba Departmental Governments (“Gobernaciones”), Municipalities (16 prioritized), National Service of Protected Areas (SERNAP) from the Ministry of the Environment and Water, National Service of Agricultural Health and Food Safety (SENASAG), National Institute of Agricultural and Forestry Innovation (INIAF), National Institute of Agricultural Insurance (INSA), National Association of Camelid Producers (ANAPCA), and the Departmental Associations of Camelid Producers (ADEPCAS).

The project´s Stakeholder Engagement Plan-SEP (Annex H4), includes specific strategies to ensure participation, commitment and ownership by stakeholders, where PROCAMELIDOS 2 will develop the following actions:

a) Establish a culturally adapted communication strategy for the various public and private stakeholders throughout implementation. This strategy will analyze the stakeholder groups involved as well as the gender, intercultural, and intergenerational approaches. This strategy will be designed by a communications specialist, who will work strategically with the PEU, UOLs, and UE. It will be aligned with the institutional communication guidelines established by APROCAM, MDRyT, and IFAD.

b) Combine various platforms to reach more stakeholders who lack easy access to information and will use culturally relevant reach out tools such as posters in municipal governments and local radio stations; brochures; and summary leaflets in local languages relevant to the Indigenous population that constitutes the target population. The Program will also include means to regularly consult with stakeholders monitor potential significant changes that may result in additional risks and impacts.

c) The SEP will be implemented along the Program cycle. Comments, opinions, complaints, and/or claims related to the Program will be registered, processed and resolved. The PMU will document all activities through minutes, reports, photographs, surveys, and other available means.

The roles of the identified stakeholders have been defined as follows:

Category	Parts Interested	Link with the Program	Responsibilities in the implementation of the GBFF Project
1. Central Government	Ministry of Development Planning (MPD)	Responsible for harmonizing economic and financial policy.	Will integrate the Program's contribution to the indicators and goals of the PDES 2021-2025, PSDI 2021-2025, and the CND, through the MDRyT via the program's Management Information System (MIS).
	Ministry of Rural Development and Land (MDRyT) and APROCAM (Support for Agricultural Production in the Face of Climate Change)	Project´s executing entity	The interested party will coordinate through the General Directorate of Planning (DGP) with APROCAM and PR4OCAMELIDOS 2
	APROCAM PROCAMELIDS 2	It will ensure the efficient and effective management and implementation of the Program, establishing the PEU with technical, administrative, and financial staff, supported by local operating units (LOUs) for implementation and monitoring.	APROCAM – PROCAMÉLIDOS 2 as the Executing Agency of the Program on behalf of the MDRyT , shall: (i) maintain formal communication with the funders; (ii) submit disbursement requests and accountability to the funder, (iii) manage the external audit; (iv) coordinate monitoring and evaluation

			activities; (v) submit the annual operational planning (POA), the Annual Procurement Plan (PAC), the Multi-annual Execution Plan (PEP) and progress reports (semiannual and annual); (vi) coordinate with MDRyT bodies the execution of activities; (vii) coordinate with other relevant ministries and relevant institutions.
	MDRyT -SENASAG (National Service of Agricultural Health and Food Safety)	SENASAG is a decentralized entity responsible for regulating and supervising agricultural health, food safety, and the quality of agricultural products in the country.	Strategic alliance to develop specific policies and procedures for camelids in animal health and food safety.
	MDRyT -INSA (National Institute of Agricultural Insurance)	The entity offers livestock insurance for camelid livestock to protect producers against risks such as weather damage, including lightning, heavy snowfall, and attacks by pumas and foxes.	Strategic alliance for component 1, as part of the support services.
	MDRyT -INIAF (National Institute of Agricultural and Forestry Innovation)	Responsible for the National Agricultural and Forestry Innovation System, which regulates and implements research, extension, technical assistance, transfer of agricultural, aquaculture, and forestry technology, management of agrobiodiversity genetic resources, and seed certification services.	Strategic Alliance for innovations.
	National Service of Protected Areas (SERNAP)	Responsible for the administration of National Protected Areas (PA).	Coordination to develop and implement the BNRMPs in municipalities overlapping with national PA territories.
2. Autonomous territorial entities	Municipal Autonomous Governments	There are 16 municipal territories focused on implementing the GBFF Project actions with the target group.	The GAMs have the capacity to convene communities and territorial organizations of camelid producers, with the potential to attract investment.
	Territorial Coordination and Evaluation Committees (TCEC).	These spaces play a strategic role in the Program's actions. This body will promote the participation of stakeholders from Indigenous peoples' producer organizations and territorial actors to ensure FPIC and stakeholder participation.	This body will facilitate strategic decision-making and the approval of BNRMPs.
3. Producer organizations and indigenous peoples	ANAPCA and ADEPCA	They are indigenous territorial organizations of camelid producers at the national and departmental level (La Paz, Oruro, Cochabamba)	They are the main stakeholders at the territorial level for improving the organization of primary production and support services, in coordination with public and private actors. The GBFF Project will coordinate strategic actions with both the national and departmental levels of actors.
	CONAMAQ	National organization of highland indigenous peoples, whose purpose is to defend the interests of indigenous communities and is present in camelid production territories.	They are interested parties who can be part of the Territorial Qualification Committees.
	Bartolina Sisa	National Confederation of Indigenous Peasant Women “Bartolina Sisa” (CNMCIOB “BS”) whose purpose is the fight for the rights of peasant and indigenous women.	They are interested parties who can be part of the Territorial Qualification Committees.

Action Areas

The project advances the following GBFF Action Areas:

Action Area	Project´s Contribution
GBFF Action Area 1 GBF Targets 1–3	By integrating Biodiversity and Natural Resource Management Plans (BNRMPs) into 16 municipal PTDIs and improving the management of native grasslands and bofedales, the project expands the footprint of effectively managed ecosystems and strengthens connectivity for key species
GBFF Action Area 2 GBF Targets 1–3	By strengthening the role of municipalities and local communities in managing Altiplano ecosystems, building their capacity for territorial planning, notably the BNRMPs and biodiversity-inclusive governance. These efforts support Indigenous Peoples and Local Communities (IPLCs) as stewards of biodiversity-rich landscapes.
GBFF Action Area 3 GBF Target 14	By establishing a national knowledge management system (KMS) that informs evidence-based policy development and planning for sustainable camelid production. This enables mainstreaming biodiversity into national development agendas and production systems and supports institutional learning and improved decision-making processes.
GBFF Action Area 4 GBF Target 19	By strengthening incentive mechanisms to enhance value chains for camelid products that promote conservation and sustainable use of biodiversity. These include territorial branding and consumer awareness activities that can attract public and private investment, contributing to resource mobilization for biodiversity.
GBFF Action Area 5 GBF Target 5	By applying a One Health approach to strengthen sustainable, biodiversity-positive camelid production. This includes disease surveillance, veterinary capacity, and biosecurity to protect both domestic and wild camelids, while community-based genetic hubs conserve and enhance local breeds.
GBFF Action Area 6 GBF Target 10	Through agrobiodiversity practices, sustainable rangeland management, and biodiversity-sensitive value chain development, biodiversity is mainstreamed into production sectors.

[11 Ross et al. (2023), Alzérreca et al (2006), Cuesta et al. (2012)

[12] World Bank (2024). The Shadow Price of Carbon in Economic Analysis

[13] Food and Agriculture Organization of the United Nations. 2020. State of Knowledge of Soil Biodiversity.

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

The management of domestic and wild camelid species relies in two state institutions with clearly differentiated mandates. The Ministry of Environment (MOE) has the primary mandate for the management, conservation, and regulation of vicuñas through the General Directorate of Biodiversity and Protected Areas (DGBAP). While the State controls regulations, management is executed by registered Vicuña Manager Communities (CMVs) in coordination with the 11 Regional Associations of Managers of Vicuña (ARMV) and under governmental authorization.

The Ministry of Rural Development and Land, ***the project´s executing agency***, is the national authority for rural, agricultural, and productive development. This mandate includes the management and development of domestic camelids (llamas and alpacas) by bolstering the sector, focusing on sustainable development and the marketing of their products, as well as developing and implementing policies to improve production and the economic well-being of small-scale camelid producers in the Altiplano. Land-use and resource-management decisions require coordinated efforts between the two line Ministries, departmental and municipal

governments and local camelid producer organizations with specific mandates and roles as described in the project´s Stakeholder Engagement Plan (Annex F3).

As the Project will be co-financed by PROCAMÉLIDOS 2, the institutional arrangements will fall under the same structure. PROCAMELIDOS 2 will be implemented by the Ministry of Rural Development and Lands (MDRyT) through the Executing Unit for Support to Agricultural Production in the Face of Climate Change (APROCAM), a deconcentrated entity under the Directorate of Planning (DGP), with proven experience in the management of the IFAD-funded ACCESOS RURAL investment programme, specialized technical capacities and consolidated territorial presence. Its technical and operational capacity is essential to ensure the efficient and sustainable management of the programme. APROCAM has accumulated experience in the administration of rural development programmes, such as ACCESOS RURAL and the upcoming implementation of another IFAD-funded operation, AGROSUSTENTAR, which strengthens its management capacity. To optimize its functioning, a minimum structure has been designed to enable the PROCAMELIDOS 2 Executing Unit (PEU) to operate with a degree of operational and administrative autonomy, while remaining under the overall coordination of APROCAM.

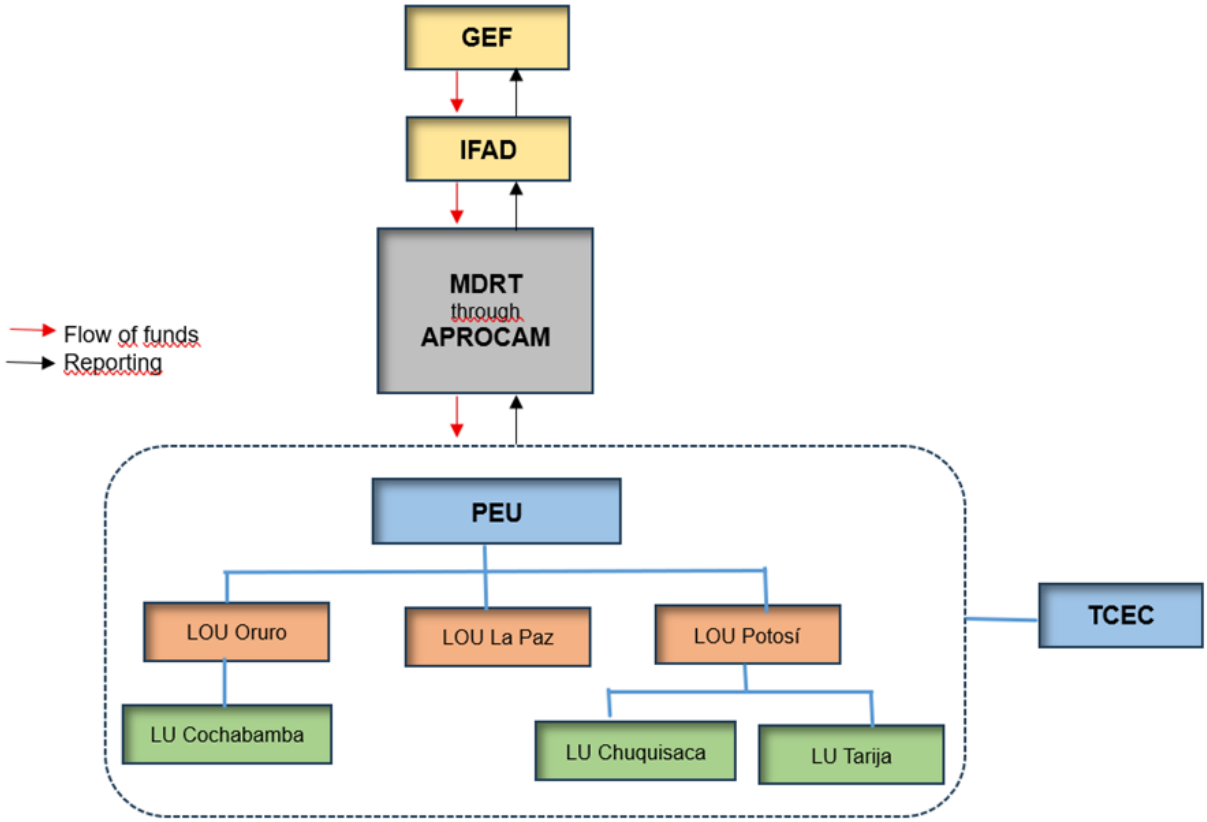
The PEU will operate at the national level with headquarters in La Paz and will have three Local Operational Units (LOU) in La Paz, Oruro and Potosi, as well as two Liaison Units (LU) in Cochabamba Chuquisaca and Tarija. The objective of this structure is to ensure adequate operability at both central and territorial levels. In addition, the project will include Territorial Coordination and Evaluation Committees (TCEC), comprising representatives of 41 institutions and organizations, which will act as key mechanisms for social oversight and community participation. These committees will be responsible for prioritizing and approving the PPR and PAT proposals submitted by the communities, as well as the 16 BNRMPs, ensuring the transparency, relevance, and alignment of interventions with local needs and priorities.

The PEU will comprise the following technical specialist: i) Primary Production and Environmental Specialist (Coordinator for Component 1 of P2), ii) Gender and Social Inclusion Specialist; iii) Planning, Monitoring, Evaluation and KM Specialist; iv) Transformation and Marketing Specialist and v) Communication Specialist. The LOUs will include: i) 3 Departmental Technical Coordinators; ii) 3 technicians on primary production and environment; iii) 3 technicians on transformation and marketing. The implementation of the GBFF project will be under the supervision of the Primary Production and Environmental Specialist. In addition, 32 field specialists (local consultants) will be contracted to provide technical assistance and monitor the implementation of the BNRMPs, they will closely work and coordinate with the technical staff, both at the PEU and the LOUs.

The operational specificity will be fine-tuned by integrating detailed technical criteria into the Manual of Operations (MOP), which is currently in draft form and will be finalized and approved during the first year of implementation. For Components 1 and 2, prioritization criteria and technical standards for restoration will be defined within the Biodiversity and Natural Resource Management Plans (BNRMPs), ensuring that interventions are aligned with ecosystem carrying capacity and include long-term maintenance and compliance agreements with producer organizations.

Regarding Component 3, the national knowledge and monitoring system will be institutionally hosted within the Project Operating Unit of PRO-CAMÉLIDOS (APROCAM), leveraging existing technical and administrative capacities. The system architecture will prioritize interoperability with national biodiversity platforms and adhere to strict data quality standards. Critically, the management of Indigenous data will be governed by the Indigenous Peoples Plan (Annex 4) and Free, Prior, and Informed Consent (FPIC) processes, ensuring full respect for traditional knowledge and intellectual property rights. Long-term resourcing for this system is secured through its integration into the national program’s permanent budgetary structure, ensuring operational continuity beyond the GEF investment cycle.

Figure 3. Implementation Arrangements Diagram



Will the GEF Agency play an execution role on this project?

If so, please describe that role here and the justification.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

The project will seek coordination with the following projects, contributing to biodiversity-friendly camelid production and highland ecosystem restoration, focusing on community level interventions, these include:

a) "Bofedal es Vida" Programme: Led by IICA and funded by Euroclima+ and AECID, this initiative has implemented climate-smart management plans for camelid systems across eight municipalities, offering strong synergies and models for upscaling.

b) IWRM-TDPS Project: A transboundary GEF-funded initiative between Bolivia and Peru promoting integrated water resource management, including wetland revitalization in Charaña, which overlaps with the project's target area.

c) Holistic Grassland Management for Camelid Production: Implemented by ADEMA in Batallas Municipality, this project restored over 200 ha of degraded rangeland through innovative restoration techniques, supporting camelid-herding families in climate-vulnerable areas.

Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines.

As per the GBFF Programming Directions, the GBFF performance will be monitored using the GEF Trust Fund Core Indicators 1, 2, 3, 4, 5, 6, 8, 11 and all their sub indicators as well as 9 and sub-indicators 9.4 and 9.5 (see Annex 3 of the Programming Directions). Projects are encouraged to capture any co-benefits from the project in other GEF core indicators.

Additional indicators will be introduced to monitor policy elements of projects supported by the GBF Fund. They may draw on the monitoring framework for the Kunming-Montreal Global Biodiversity Framework once it is agreed.

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0	5048	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

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

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	2,524.00		

Indicator 3.3 Area of natural grass and woodland under restoration

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

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	2,524.00		

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)
150000	21786	0	0

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)
75,000.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
75,000.00			

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)
	21,786.00		

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

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

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Document(s) that justifies the HCVF)

Title

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	0	357688	0	0
Expected metric tons of CO_2e (indirect)	0	1155629	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)		357,688		
Expected metric tons of CO_2e (indirect)		1,155,629		
Anticipated start year of accounting		2026		
Duration of accounting		20		

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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

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

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

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

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	4,800	2,600		
Male	7,200	3,900		
Total	**12,000**	**6,500**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Core Indicator 3: The project will directly restore 2,524 hectares of highland peatlands to benefit biodiversity. This logic assumes that the BNRMP will benefit landscapes which camelid producers depend upon across the landscape. To arrive at the final figure, land-use data, validated through participatory mapping, was used to determine the target landscape, bearing in mind that municipalities contain multiple ecosystem types and land use systems.

Core Indicator 4: An estimated 21,786 ha of grassland will come under improved practices and those practices will ensure that currently non-degraded grasslands remain as such and won't be converted to high-intensity grazing pastures as will be the case in the without project scenario.

Core Indicator 6: The project is projected to mitigate a total of -357,688 tCO2e over a 20-year period. The improvements in grasslands will be the main contributor to the project's carbon sequestrations, while the avoided degradation of highland peatlands and reduced number of llama/alpaca heads will reduce GHG emissions compared to the baseline situation. If only the project implementation period is considered, the direct carbon benefits amount to -56,491 tCO2e., meaning that most of the carbon benefits will occur during the capitalization phase (20 years minus the implementation phase).

For more details on the methodology to obtain the area of direct intervention for CI 3, 4, and 6, please refer to Annex J.

Both the land under improved practices and the land restored will create a number of Global Environmental Benefits:

Biodiversity:

i. Conservation of globally significant biodiversity through the conservation of Bolivia's protected and key biodiversity areas,

iii. Sustainable use of the components of globally significant biodiversity by restoring and managing high-Andean bofedales—composed of over 98% native species—through biodiversity-inclusive planning, sustainable camelid production, and value chain incentives. It safeguards ecosystem functions while supporting livelihoods that rely on the responsible use of native species and landscapes.

iv. Maintenance of the range of environmental services and products derived from grasslands and bofedales such as food and water provisioning services, pollination, soil erosion control services, water supply, climate regulation, etc.

v. Enhanced sustainable livelihoods for local communities by increasing income-generating opportunities that strengthen food security and environmental sustainability, while reducing the vulnerability of these communities

Land degradation:

i. Improved provision of agro-ecosystem and grassland and peatland ecosystem goods and services such as pollination, nutrient cycling and water retention through diversified agroforestry systems;

ii. Mitigated/avoided greenhouse gas emissions and increased carbon sequestration in production landscapes, which amount to -340,686 tCO2e. over 20 years, representing approximately 95% of the overall carbon sequestrations of the project.

iii. Conservation and sustainable use of biodiversity in productive landscapes by increasing habitat connectivity, and reducing pressures from land use, human encroachment, and habitat fragmentation.

Climate change mitigation:

i. Mitigated GHG emissions, which are estimated at -357,688 tCO2e. over 20 years

ii. Increased adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration through the adoption of climate smart agricultural practices and ecosystem-based approaches, such as diversified multistrata agroforestry systems, drip irrigation, or assisted natural regeneration

iii. Conservation and enhanced carbon stocks in agriculture, forest, and other land use, of which -332,285 tCO2e. can be associated to changes in carbon stocks related to shifts in grassland management practices, -17,002 tCO2e. can be attributed to Peatland management and

-8,401 tCO2e. can be attributed to reduced emissions from livestock through improved breeding and feeding practices (all over 20 years)

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Assessment: Climate change is amplifying existing stresses in the Altiplano region and making the environment more unpredictable. One of the strongest types of evidence is the recurrence of meteorological droughts, especially severe in this region, which entail a severe rainfall deficit at the beginning and/or during the rainy season (October-March) or a prolonged dry season. These events can last several months (as in 2009) or, in extreme cases, extend to the entire season, as in 1982-1983, or more recently in 2022 and 2023. It is uncertain how extreme weather events will manifest and the impacts on local livelihoods and ecosystems during the project execution period and beyond. Mitigation Measures: The data gathering and preparation of diagnoses will

		allow to understand the scale of the impacts of climate change in the ecosystems of the selected intervention sites and will provide key information to identify the most suitable practices to strengthen local communities´ resilience to climate change. Furthermore, the productive infrastructure and the nature-based practices to be implemented through PPRs and BNRMPs, will provide specific strategies for improved adaptation to climate change.
Environmental and Social	Moderate	Assessment: The loss of biodiversity and degradation of natural resources in the project area are primarily linked to overgrazing, inappropriate agricultural practices and deforestation. The adoption of practices for the sustainable management of local ecosystems could lead to significant changes in livelihoods initially perceived as negative by small scale camelid producers if not properly informed and involved in the design of the BNRMP. Biodiversity management practices to be implemented through the BNRMP could also lead to social conflicts if they are not implemented with full stakeholder engagement and consideration for local needs and rights. The project intervention sites are not directly located in gold and polymetallic mining areas, however, polluted water might eventually affect these areas. Mitigation Measures: The screening for the project has considered the environmental and social risks and will be used to inform development of relevant safeguard plans for all identified issues, notably those focused on gender, stakeholder consultation processes and Indigenous peoples. Implementation and monitoring of safeguards will be done through the project´s ESCMP. In the particular case of mining polluted areas, the research activities to be developed within the frame of the territorial diagnoses, will include water quality testing to assess the status. If areas with high levels of contamination are detected, these will be excluded form the project intervention sites. The project will ensure inclusive participation of women, youth, and Indigenous Peoples throughout diagnosis and planning processes. Through FPIC protocols, a Gender Action Plan (GAP), and a Stakeholder Engagement Plan (SEP), the project will identify and remove participation barriers, promote affirmative action, and embed social equity in decision-making. Training for municipal officials and beneficiaries will foster shared understanding of gender and inclusion and provide tools for equitable intervention design.
Political and Governance	Moderate	Assessment: At the national context level, moderate risks related to macroeconomic stability and institutional fragility are identified. Although the project is solidly aligned with public policies and enjoys broad social and political support, the country's economic situation, including the decline in international reserves and the downgrade of its credit rating, could affect the pace of legislative approval and the capacity for national co-financing. Natural resource management in the Bolivian Altiplano is hindered by overlapping governance systems and the complex interplay between state, community, and private actors. While Bolivia’s 2009 Constitution recognizes state ownership of natural resources, it also grants territorial and resource rights to Indigenous communities. This duality, though intended to promote participatory management, often leads to jurisdictional conflict, limited coordination among

		governance levels, and inconsistent enforcement of environmental laws. National and local authorities frequently lack the technical, financial, and operational capacity to implement existing legal frameworks effectively Within the framework of political risk, the project has been publicly endorsed as a successor to PROCAMELIDOS 1, which reinforces its strategic priority. However, the need for legislative approval and the 2025 electoral context could lead to delays in its launch. Mitigation Measures: Ongoing communication with key stakeholders, particularly municipalities, as well as sustained support from the domestic camelid sector (National and Departmental Association of Camelid Producers) has been planned to ensure a stable political commitment and accelerate decision-making processes. The project will strengthen the management of biodiversity and natural resources through the development of Biodiversity and Natural Resources Management Plans (BNRMP) and improved implementation of municipal Integrated Territorial Development Plans (PTDI). These efforts will be complemented by building institutional capacities, increasing stakeholder participation and appropriation of activities, and providing technical support to small-scale camelid farmers.
INNOVATION		
Institutional and Policy	Moderate	Assessment: Bolivia's National Strategy for the Conservation and Sustainable Use of Biodiversity seeks to develop the economic potential of biological diversity, ensuring the conservation and sustainable use of ecosystems, species, and genetic resources. The National Strategy for the Conservation of Wetlands and Law 404 on the conservation of bofedales, provide guidelines and priority actions for the implementation of practices for the protection and conservation of these ecosystems. However, the national and local governments limited technical, financial and operational capabilities hinder the enforcement of these instruments. Bolivia faces a weak environmental enforcement mainly due to prioritize economic growth and insufficient resources, leading to high rates of deforestation, illegal mining, and unregulated land expansion. Despite the existing policy and regulatory frameworks, enforcement is hindered by legal loopholes, conflicts of interest, and effective impact assessment and monitoring systems. Municipalities face challenges in implementing PTDI due to: i) limited financial resources to finance planned actions and projects, as well as trained technical staff for their management and execution; ii) the involvement of local stakeholders, including social sectors and political parties, sometimes can generate tensions and disagreements, especially if there is no active and consensual participation; iii) in some municipalities, the institutional structure and management capacity are weak, making it difficult to coordinate actions and oversee PTDI implementation. Mitigation Measures: To mitigate institutional and policy risks, the project will align outcomes and activities closely with the indicated national-level laws and strategies, priorities and policies, notably the National Strategy for the Conservation and Sustainable Use of Biodiversity. The project´s outcomes will not only align to the national policies but will also support and strengthen their implementation. The

		project's integrated approach will address the complex and interlinked drivers of biodiversity loss in the Bolivian Altiplano. The development of biodiversity management plans provides a strategic blueprint for reversing ecosystem degradation in target camelid-producing regions, which are increasingly threatened by natural resource depletion. By anchoring these plans to local territorial planning tools, the project strengthens institutional coordination and governance, ensuring that conservation and sustainable use are embedded in long-term development frameworks. This integrated planning approach, grounded in both scientific data and traditional ecological knowledge, forms the foundation for project activities.
Technological	Low	N/A
Financial and Business Model	Moderate	Assessment: Municipalities heavily rely on allocations from the central government due to a combination of factors including historical centralization, limited own-source revenue generation, and the structure of revenue-sharing agreements. While decentralization efforts have increased local government responsibilities, their financial autonomy remains restricted. On the other hand, small-scale producers in the Bolivian Altiplano face significant financial barriers, hindering their ability to thrive. These barriers include limited access to credit and financial services, high transaction costs in accessing markets, and a lack of suitable financial products tailored to their specific needs. Mitigation Measures: The outcomes and activities financed by IFAD (improved productivity, value added, commercialization, sanitation services) will substantially reduce the existing financial gap and through this support, it is expected that in conjunction with the GBFF activities, local communities, in particular small-scale producers, will understand the linkage between biodiversity conservation and the improvement of their livelihoods.
EXECUTION		
Capacity	Low	Assessment: PROCAMELIDOS 2 will be implemented by APROCAM, a deconcentrated entity under the oversight of the Ministry of Rural Development and Lands (MDRyT), with proven experience in the management of the IFAD-funded ACCESOS RURAL investment programme, specialized technical capacities and consolidated territorial presence. Its technical and operational capacity is essential to ensure the efficient and sustainable management of the programme. APROCAM has accumulated experience in the administration of rural development programmes, such as ACCESOS RURAL and the upcoming implementation of another IFAD-funded operation, AGROSUSTENTAR, which strengthens its management capacity. Mitigation Measures: To optimize its functioning, a minimum structure has been designed to enable the Programme Management Unit (PMU) to operate with a degree of operational and administrative autonomy, while remaining under the overall coordination of APROCAM. The program team will be supported with experienced personnel, contracted through a human resources agency, and additional training will be provided as needed. Furthermore, the operational continuity of the PMU is guaranteed by its

		hosting at APROCAM, which reduces the costs and risks associated with the dismantling of technical and institutional capacities.
Fiduciary	Low	Assessment: Risks are linked to the organizational complexity of the MDRyT, the limited capacity of municipal governments to commit resources, and the mandatory annual rotation of external auditors. Mitigation Measures: Clear municipal commitments in the costing tool (COSTAB), strengthening PIU-MDRyT ties, and compliance with IFAD procurement guidelines. Internal control will be ensured through segregation of duties, procedure manuals, and the active participation of the MDRyT's Internal Audit Unit (IAU), in accordance with Law 1178. It is recommended to formally request that the IAU include specific project reviews in its annual plan, and that these reports be shared with IFAD. Given the IAU's limited operational scope, hiring external auditors with field visits and review of IFRs is considered critical. These auditors should be selected in accordance with the IFAD Manual, following no-objection processes and specific TORs to assess expenditure eligibility. PROCAMÉLIDOS 2 project is based on existing structures with proven experience, strengthened by specific measures to mitigate governance risks, ensure transparency, and guarantee accountability. However, the success of fiduciary execution will depend on the timely implementation of these measures, the strengthening of local capacities, and ongoing monitoring during the execution and supervision phases.
Stakeholder	Low	Assessment: In addition to risks of unintended exclusion, stakeholder engagement processes may be affected by local power asymmetries, vested interests, and elite capture. These risks may arise where municipal authorities, association leaders, or better-connected community actors exert disproportionate influence over consultation processes, priority setting, or access to project-supported benefits. Such dynamics may reduce the effective participation of women, youth, poorer households, and remote communities, and may undermine the legitimacy and durability of agreed biodiversity management measures. Mitigation Measures: The project will address these risks through the combined implementation of the SEP, IPP, FPIC procedures, GAP, and grievance redress mechanism. Additional safeguards will include transparent and publicly communicated eligibility criteria for investments and technical assistance, inclusive representation in TCECs and related territorial decision-making spaces, community-level validation of key planning decisions where relevant, targeted outreach and leadership support for women and youth, and periodic monitoring of participation and benefit distribution. A more detailed power dynamics and vested interests review will be refined during the initial stage of implementation to inform adaptive stakeholder engagement measures. .

Other		

Overall Risk Rating	Moderate	The risks related to project implementation are mostly low, with some points of attention monitored during project execution. Overall risk is Moderate due to contextual issues like legal and policy enforcement and institutional capacity that might affect overall project implementation. Mitigation measures have been designed to reduce the likelihood of potential negative project impacts.

D. ALIGNMENT WITH PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Identify the specific GBFF Action Area(s) that the project is aligned with and how the project will support the achievement of the specific Action Area objective(s).

Explain how the proposed interventions are aligned with the National Biodiversity Strategies and Action Plans and/or National Biodiversity Finance Plans or similar instruments to identify national and/or regional priorities.

Please identify in the project tags which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how in this section.

For Multi-Trust Fund projects, please explain alignment with the GEF-8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

The GBFF Project is aligned with national public policies that promote the productivity and sustainability of the camelid sector in Bolivia. It contributes to the Economic and Social Development Plan (PDES) 2021-2025, which promotes food security, sovereignty, and value-added economic development. It is also aligned with the Multisectoral Policy and Strategy for the Integrated and Sustainable Management of Camelids-2024 as indicated in the table below:

Strategic Ambit/Objective	**Project Activities**
Strategic Ambit 2. Institutions and Governance	
Strategic Objective 2.3: Strengthen institutional capacities at the central, departmental, municipal, and IP levels for the camelid sector.	The project will build capacities at the national, municipal and community level (domestic camelid producers) in developing territorial scale biodiversity and natural resources management planning processes, to set up the enabling conditions to improve the productivity of domestic camelids to achieve an integrated management of the Bolivian Altiplano ecosystems.
Strategic Ambit 3. Environment in Harmony with Mother Earth	
Strategic Objective 3.1. Implement the Integrated Management of representative ecosystems associated with wild and domestic camelids.	BNRMP will emphasize integrated watershed-level approaches, promoting the adoption of management practices that minimize the effects of climate change and other identified threats, thereby contributing to the sustainability of domestic camelid production.
Strategic Objective 3.2. Consolidate and strengthen the sustainable management of biodiversity that coexists in Camelid areas.	
Strategic Objective 3.4. Restoration of degraded areas and native grasslands in ecosystems associated with wild and domestic camelids.	
Strategic Ambit 5. Sustainable Integrated Management and Development of Camelids.	
Strategic Objective 5.6. Improve the efficiency and sustainability of natural pastures by implementing and promoting good management	16 municipalities have been selected for improved ecosystem management practices based on the level of environmental threats and degradation. BNRMP to be

practices and contributing to the environmentally responsible management of natural resources.	implemented under Component 2 will entail investments in sustainable land management practices that promote the recovery and resilience of fragile ecosystems, including the recovery of peatlands and grasslands. These interventions are designed to restore the hydrological balance of peatlands and improve connectivity among native vegetation fragments.
Strategic Ambit 7. Knowledge management and mobilization	
Strategic Objective 7.5. Establishment of the Camelid Information System of the Plurinational State of Bolivia.	The Project will support the creation of a Camelids and Natural Resources Observatory as a broader management information system for continuous monitoring and evaluation.

Specifically, the project will lay the grounds for sustainable camelid production while enhancing socio-environmental services and climate change adaptation. The Project promotes practices that sustainably utilize biodiversity, tailored to local conditions, thus reducing poverty and enhancing food security.

Additionally, it aligns with Bolivia's Nationally Determined Contribution (NDC) 2021-2030 by improving access to natural resources and pastures, promoting sustainable practices in camelid production, recovering degraded areas, enhancing land use through territorial planning, and ultimately reducing poverty and food insecurity.

The Project aligns with Bolivia's National Biodiversity Strategy 2019-2030 by addressing strategic objectives such as ***SO2: Institutionality and Territorial Governance***, which focuses on supporting territorial planning for integrated and sustainable biodiversity management. It also targets ***SO3: Sustainable Use and Conservation of Biodiversity***, facilitating sustainable camelid production while enhancing socio-environmental services and climate change adaptation. The Project promotes practices that sustainably utilize biodiversity, tailored to local conditions, thus reducing poverty and enhancing food security.

The project advances twelve Kunming–Montreal Global Biodiversity Framework targets:

Target 1 – Biodiversity inclusive spatial planning: Participatory mapping and high-resolution diagnostics of bofedales and native pastures are embedded into 16 municipal PTDIs, ensuring informed land-use decisions safeguard critical habitats while guiding sustainable development.

Target 2 - Ecosystem restoration: The project directly contributes to restoring degraded grasslands and bofedales through nature-based solutions, native species revegetation, and land use management planning.

Target 3 – 30 by 30: Recovery of grasslands and wetlands enhances ecological integrity within and around protected landscapes, enhancing Bolivia's conservation footprint.

Target 4 – Halt human induced extinction of threatened species: Actions to manage threatened endemic flora (e.g., Polylepis pepei) and promote the conservation and sustainable use of wild camelids camelids (e.g., Vicugna vicugna) are integrated into BNRMPs. Biodiversity mapping and habitat protection reduce extinction risk, and stakeholders are trained on how to manage threatened species and reduce conflicts with local wildlife.

Target 8 – Minimizing risks of climate change: Investments in sustainable land and water management such as drought-tolerant forage species, and rotational grazing support bofedal recharge and soil moisture retention, buffering communities and ecosystems against droughts, frosts, and erratic rainfall.

Target 10 – Sustainable use of biodiversity: The project will train herders in sustainable, multi-species pasture management, agroecological forage diversification, and low-intensity rotational grazing.

Target 11 – Ecosystem connectivity and integrity: Landscape management activities and planning tools will emphasize maintaining ecological corridors, buffer zones, and steppingstones for species movement, enhancing connectivity across production and conservation areas.

Target 14 – Integration into economic sectors: Biodiversity conservation will be encouraged in domestic camelid value chains through enhanced capacity building, biodiversity-friendly management of herds, inclusive value added and marketing strategies and development of territorial label to generate economic benefits while reducing pressure on the Altiplano ecosystems.

Target 19(b) – Resource mobilization: The project will catalyze blended finance approaches, leveraging government co-financing and aligning with national programs (Procamelidos 2) to mobilize sustained resources for biodiversity-friendly land management.

Target 19(f) – Innovation and tools: Local and Indigenous knowledge will be combined with geospatial tools, remote sensing, and participatory diagnostics to generate decision-making tools and inform biodiversity planning across territories.

Target 21 – Data and knowledge: The project will strengthen biodiversity-related knowledge systems at the municipal and landscape levels by generating ecosystem diagnostics, biodiversity maps, and land-use assessments. This information will be consolidated into accessible, user-friendly formats for use by local governments, producer organizations, and community stakeholders. Participatory mapping and planning processes will ensure that knowledge is co-produced with Indigenous Peoples.

Target 23 – Gender equality: Gender-sensitive approaches will be mainstreamed throughout project activities, specifically through the implementation of a Gender Action Plan, ensuring women's participation in sustainable management activities and decision-making related to land-use, biodiversity and territorial governance.

The Project aligns with Bolivia's National Biodiversity Strategy and Action Plan 2019-2030, which operates under the framework of the National Integrated and Sustainable Biodiversity Management Policy. This policy is based on coordinated and integrated planning for conservation and sustainable use of biodiversity, in a way that contributes to the generation and development of sustainable production systems, preserving environmental functions, recognizing the principles of economic and social development of stakeholders and their ancestral knowledge, while ensuring the functionality of natural systems and their components. Specifically, the Project will contribute to the implementation of the Strategy and Action Plan as follows:

Strategic Ambit /Areas/Objectives	Project´s strategic interventions
Strategic ambit 1: Institutionality and Territorial Governance	
Strategic Area 2: Institutional framework and territorial governance. Strategic Objective 2.1: Strengthen plurinational institutions for the Comprehensive and Sustainable Management of Biodiversity through multisectoral, subnational and national coordination, based on mechanisms of high social participation	Through Component 1, the project will build capacities at the national, municipal and community level (domestic camelid producers) in developing territorial scale biodiversity and natural resources management planning processes, to set up the enabling conditions to improve the productivity of domestic camelids to achieve an integrated management of the Bolivian Altiplano ecosystems. The project will ensure inclusive participation of women, youth, and Indigenous Peoples throughout diagnosis and planning processes. Through FPIC protocols, a Gender Action Plan (GAP), and a Stakeholder Engagement Plan (SEP), the project will identify and remove participation barriers, promote affirmative action, and embed social equity in decision-making. Training for municipal officials and beneficiaries will foster shared understanding of gender and inclusion and provide tools for equitable intervention design.

Strategic Objective 2.2: Strengthen territorial management instruments for biodiversity in protected areas, forests, wetlands and others, as mechanisms for articulating State priorities, the rights of Mother Earth and the Bolivian population.	In order to successfully achieve territorial planning and management, Project´s Component 1 will finance the development of diagnoses in 16 prioritized municipalities to better understand the current status of biodiversity, natural resources, environmental and climate risks and other relevant aspects, as the main technical inputs to further develop municipal Biodiversity and Natural Resources Management Plans (BNRMP) to implement nature-based solutions and practices to improve the health of local ecosystems.
Strategic Objective 2.3: Develop a framework for integrates biodiversity management in the new autonomous context, strengthening indigenous and peasant territorial processes.	The BNRMP to be developed under Component 1 and implemented through Component 2, are envisioned as the main operational tools to provide the framework for integrated biodiversity management at the municipal level. Furthermore, the BNRMP will be inserted into the municipal Integrated Territorial Development Plans (PTDI). BNRMP will emphasize integrated watershed-level approaches, promoting the adoption of management practices that minimize the effects of climate change and other identified threats, thereby contributing to the sustainability of domestic camelid production. BNRMPs will outline: i) sustainable management strategies and practices to address the risks identified in the municipal diagnoses; ii) operational arrangements for monitoring and assessing the quality and impact of the prioritized practices; iii) training and technical assistance gaps and needs for implementing prioritized practices; iv) capacity building on integrated management of wider Altiplano ecosystems, native flora and fauna, and human-wildlife conflicts with wildlife species; v) stakeholder engagement mechanisms to ensure participation of municipalities and local communities; vi) potential alliances with strategic partners to support the development of long-term conservation strategies.
Strategic Ambit 3: Sustainable Use and Conservation of Biodiversity	
Strategic Area 3: Use, conservation and sustainable use of biodiversity, Strategic Objective 3.1: Promote the use, conservation and sustainable use of biodiversity, contributing to the strengthening and diversification of food,	BNRMP to be implemented under Component 2 will entail investments in sustainable land management practices that promote the recovery and resilience of fragile ecosystems. Interventions include small-scale water

productive and environmental sovereignty in Living Systems under the paradigm of Living Well.	management systems compatible with ecosystem dynamics, such as the rehabilitation of ancestral water-harvesting infrastructure, as well as restoring of peatlands and grasslands. These interventions are designed to restore the hydrological balance of peatlands and improve connectivity among native vegetation fragments. A key element consists of the revival of traditional ecological knowledge, particularly in pasture cultivation and rotational grazing, ensuring restoration aligns with cultural practices.
Strategic Ambit 4: Integrated Environmental Management for Biodiversity Conservation.	
Strategic Objective 4.1: Guide and promote the implementation of actions to maintain biodiversity in the development of economic and productive activities and strategic projects, within the framework of the Rights of Mother Earth and Living Well.	Under the BNRMP, soil and water conservation measures will be implemented alongside the revegetation of pastures and peatlands. Some practices, for example, will include the collection of surface runoffs to secure water for pasture irrigation during dry periods and improve soil structure, promote root and microorganism development, control erosion, and support the growth of forage and cushion-forming plants, enhancing pasture regeneration and ecosystem resilience in highland landscapes. Territorial branding will be piloted in one municipality to assess how locally sourced, sustainably produced camelid products can generate incentives for biodiversity conservation. Territorial branded labels can reinforce the value of provisioning ecosystem services while differentiating products based on cultural identity and ecological stewardship.
Strategic Ambit 5: Knowledge management and mobilization	
Strategic Objective 5.1: Contribute to the generation, mobilization, dissemination, and social appropriation of knowledge that contributes to the use, conservation, and sustainable use of biodiversity.	Through the implementation of the BNRMP the project will strengthen institutional and community capacity to implement practices that improve biodiversity and natural resource management. Key actions will include: i) priority learning themes defined by producers (e.g. improved breeding, rangeland restoration, animal-wildlife coexistence); ii) learning modalities chosen by the communities – farmer-to-farmer exchanges, field schools, producer-led demonstration plots, short courses, digital micro-learning, and mentoring by experienced herders; iii) joint workplan that fixes responsibilities, milestones and feedback loops

	for continuous adjustment; iv) transparent, shared budget that recognizes in-kind contributions from producer groups and ensures equitable access for women and young herders. Through Component 3, The Project will support the design and implementation of a Knowledge Management System (KMS) for the camelid sector, aimed at consolidating, analyzing, and disseminating relevant technical, productive, social, and environmental information for decision-making. The KMS will analyze technical, social, environmental, and productive information about the camelid sector. Initial steps include conducting baseline studies and situational assessments to characterize the sector's current state. This information will support the creation of a Camelids and Natural Resources Observatory as a broader management information system for continuous monitoring and evaluation. The KMS is expected to facilitate the tracking of conservation practices and the assessment of their effectiveness in terms of restoring peatlands and grasslands.

The level of policy coherence and coordination across multiple ministries, agencies, the private sector and civil society that the project aims to support.

The successful implementation of the project will require different levels of coordination across the central government agencies, local governments, indigenous organizations and the private sector. At the central government, the Ministry of Development Planning (MPD) will be responsible for harmonizing economic and financial policy and will support the direct Project contributions into the indicators and goals of the National Economic and Social Development Plan (PDES 2021-2025), through the Integrated Planning System of the Bolivian State (SPIE).

The Ministry of Rural Development and Land (MDRyT) through APROCAM (Support for Agricultural Production in the Face of Climate Change), will be the Project´s execiting agency and will all the implementation aspects with MPD, local governments, indigenous organizations and beneficiaries. MDRyT is deirectly responsible and accountable for the implementation of the Multisectoral Policy and Strategy for the Integrated and Sustainable Management of Camelids and ensuring that the Project is fully aligned with this policy instrument.

APROCAM on the other hand, will ensure efficient and effective management and implementation of the Project, establishing the PEU with technical, administrative, and financial staff, supported by local operating units (LOUs) for implementation and monitoring.

MDRyT and APROCAM will directly coordinate with SENASAG (National Service of Agricultural Health and Food Safety), a decentralized entity responsible for regulating and supervising agricultural health, food safety, and the quality of agricultural products in the country, to develop specific policies and procedures for camelids in animal health and food safety. Close coordination will also be required with INSA (National Institute of Agricultural Insurance), to support services under Component 2 and with INIAF (National Institute of Agricultural and Forestry Innovation), a strategic alliance to integrate innovations.

Municipal Autonomous Governments (16 to be served by the Project), will be fully involved in the design and implementation of the BNRMP, will ensure that BNRMP are inserted into the PTDI and will convene communities and territorial organizations of camelid

producers, with the potential to carry out territorial planning and management and attract investment for upscaling the Project´s activities.

Two key associations, the Asociación Departamental de Productores de Camélidos de Bolivia (ADEPCA) and the Asociación Nacional de Productores de Camélidos del Altiplano (ANEPCA), represent camelid producers at departmental and national levels. These organizations support producers by promoting sustainable grazing practices, market access, technical assistance, and advocacy for policies that strengthen camelid value chains while conserving biodiversity. These organizations will be fully integrated into the planning and implementation of the BNRMPs. They are the main stakeholders at the territorial level for improving the organization of primary production and support services, in coordination with public and private actors. The GBFF Project will coordinate strategic actions with both the national and departmental levels of actors.

In terms of the intervention in municipalities overlapping with national protected areas, MDRyT and APROCAM will coordinate actions with the National Service of Protected Areas (SERNAP), to ensure that the activities planned under the Project particularly investments and practices under Component 2, are developed according to the zoning and regulations established in the protected areas management plans.

Regarding the participation of the private sector, under Activity 2.2.1, producer organizations will receive support to develop Business Plans (BP) to add value to camelid products such as meat and fiber. These demand-driven BPs will integrate production, finance, logistics, and marketing elements tailored to local and international markets. Productive partnerships with market actors, both state-owned (e.g., YACANA) and private (e.g., Altifiber and others), will allow beneficiaries to improve their technical and organizational capacities.

E. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment

We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

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

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

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

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

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes have been clearly articulated in the Project Description (Section B), and a Stakeholder Engagement Plan has been developed before CEO endorsement.

Yes

Select what role civil society will play in the Project

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor; Yes

Other (Please explain)

Amount of resource allocated to support actions by IPLCs for the conservation, restoration, sustainable use and management of biodiversity:

Amount ($) of GBFF project financing to support actions by IPLCs	PIF Stage	CEO endorsement stage
	800,000.00	2,308,368.00

If resources have been identified here, please provide a short justification for why they were included, with cross-reference to relevant project components and/or outputs:

The achievement of the Project's objective will depend in large part on the participation of Project direct beneficiaries and them having the necessary knowledge and skills to fully adopt and implement the territorial planning tools, namely, the Biodiversity and Natural Resources Management Plans, to be developed for the improved management of the Altiplano ecosystems in the selected sites. To achieve and guarantee the equitable distribution of benefits, the Project will implement an approach based on the full and effective participation of domestic camelid producers, as described under the Stakeholder Engagement Plan. In addition, IP involvement will be secured through the direct coordination with the national and departmental camelid organizations (ANAPCA and ADEPCAs). Project´s direct beneficiaries (6,500 individuals), belong 100% to two of the largest indigenous peoples in the Bolivian Andean Region: the Aymara and Quechua. To ensure effective management that delivers sustainable benefits for these IP, the Project will allocate GBFF financing as follows:

Component	Actions by Indigenous Peoples	GBFF Funds Allocation
Component 1	➢ Consultation workshops to present the results of the municipal diagnoses. ➢ Workshops and meetings to engage IP in an inclusive participatory process to develop the BNRMP	

		100,000
Component 2	➢ Capacity-building and technical assistance to IP in sustainable land management, conservation and restoration practices. ➢ Support IP to implement BNRMP (grants). ➢ Design and pilot implementation of territorial branding.	307,470 1,600,898 100,000
Component 3	Production of knowledge products related to the sustainable management of biodiversity and natural resources for decision making and access to Camelid Observatory platform.	200,000
	TOTAL	**2,308,368**

Are IPLCs to receive and manage resources for the execution of project components/activities?

No

Are IPLCs leading the design and management of some project activities but do not manage financial resources?

Yes

Does the project provide in-kind support to actions by IPLCs for biodiversity?

Yes

Are IPLCs part of the project steering committee or equivalent decision-making body?

Yes

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in section C project description?

Yes

Environmental and Social Safeguards

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

F. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted and an anticipated timeline for delivery of relevant outputs has been provided.

Yes

Socio-economic Benefits

We confirm that the project design has considered socio-economic benefits to be delivered by the project, these have been clearly described in the Project Description, and they will be monitored and reported on during project implementation (at MTR and TER).

yes

ANNEX A: FINANCING TABLES

Total GEF Financing Table

Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds. All GEF sources of funds should be included here.

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
IFAD	GBFF	Bolivia	Biodiversity	GBFF Action Area 1	Grant	2,000,000.00	180,000.00	2,180,000.00
IFAD	GBFF	Bolivia	Biodiversity	GBFF Action Area 2	Grant	500,000.00	45,000.00	545,000.00
IFAD	GBFF	Bolivia	Biodiversity	GBFF Action Area 3	Grant	278,543.00	25,069.00	303,612.00

IFAD	GBFF	Bolivia	Biodiversity	GBFF Action Area 4	Grant	225,130.00	20,262.00	245,392.00
IFAD	GBFF	Bolivia	Biodiversity	GBFF Action Area 6	Grant	1,000,000.00	90,000.00	1,090,000.00
Total GEF Resources ($)						**4,003,673.00**	**360,331.00**	**4,364,004.00**

Project Preparation Grant (PPG)

Was a Project Preparation Grant requested?

true

PPG Amount ($)

150,000.00

PPG Agency Fee ($)

13,500.00

GEF Agency	Trust Fund	Country/ Regional / Global	Focal Area	Programming of Funds	PPG($)	Agency Fee($)	Total PPG Funding($)
IFAD	GBFF	Bolivia	Biodiversity	GBFF Action Area 6	150,000.00	13,500.00	163,500.00
Total PPG Amount ($)					**150,000.00**	**13,500.00**	**163,500.00**

Please provide justification

Sources of Funds for non-GBFF GEF resources (only for Multi-Trust Fund projects)

GEF Agency	Trust Fund	Country/ Regional/ Global	Actual Focal Area Programming	Sources of Funds	Total($)
Total GEF Resources					**0.00**

Action Area Elements (and Focal Area Elements for Multi-Trust Fund projects)

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
GBFF Action Area 1	GBFF	2,000,000.00	690,828.00
GBFF Action Area 2	GBFF	500,000.00	43,422.00
GBFF Action Area 3	GBFF	278,543.00	1,334,999.00
GBFF Action Area 4	GBFF	225,130.00	411,930.00
GBFF Action Area 5	GBFF		11,730,812.00
GBFF Action Area 6	GBFF	1,000,000.00	2,952,955.00
Total Project Cost		**1,000,000.00**	**17,164,946.00**

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	IFAD	Grant	Investment mobilized	16,696,314.00
GEF Agency	IFAD	In-kind	Investment mobilized	468,632.00
Total Co-financing				**17,164,946.00**

Please describe the investment mobilized portion of the co-financing

The investment mobilized is coming from the IFAD's investment project "National Programme to Promote the Productivity of Domestic South American Camelids in Bolivia 2 (PROCAMELI2)" (2025-2032).

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification :

GEF Agency Type	Date	Project Contact Person	Phone	Email
	9/1/2025	Pierre Yves Guedez		p.guedez@ifad.org
	9/1/2025	Paola Palestini		p.palestini@ifad.org
	9/1/2025	Rima Alcadi		r.alcadi@ifad.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Please attach the Operational Focal Point endorsement letter(s) with this template.

Name of GEF OFP	Position	Ministry	Date (MM/DD/YYYY)
Carlos David Guachalla Terrazas	Viceminister of Planning and Coordination	Ministero de Planificacion del desarrollo	9/27/2024

ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also copy and paste the Project Results Framework from the project document below.

Project Objective: Enhance the conservation and sustainable use of biodiversity in camelid production landscapes of the Bolivian Altiplano, by strengthening community-based management systems that support the well-being and traditional knowledge of rural Andean communities.								
GEF Core Indicator 11: Number of direct beneficiaries disaggregated by gender (40% are women) **Target:** 6,500 (2600 women)								
GEF Core Indicator 4: Number of ha with improved management practices **Target:** 21,786								
GEF Core Indicator 3: Number of ha restored **Target:** 2,524								
GEF Core Indicator 6: Number of tons CO2eq sequestered **Target:** -357,688 tCO2-eq. over 20 years								
Project Objective Indicator								
	Objectively Verifiable Indicators				**Means of Verification**			
	Indicator	**BL**	**Mid-Term**	**End Target**	**Sources**	**Frequency**	**Responsibility**	**Risks and assumptions**
Project objective indicator 1	Biodiversity improvements at ecosystem-level (0 = no improvement, 1 = improvement)	0	1	1	Project monitoring reports, and FAO's Adaptation, Biodiversity and Carbon Mapping Tool (ABC-Map)	Mid Term and End	PEU	All risks and assumptions described in indicators below. Monitoring and Updating of the biodiversity assessment in Annex J. Use of the methodology of IFAD Biodiversity Core Indicator: https://www.ifad.org/en/w/publications/biodiversity-core-indicator-comprehensive-guidance
Project objective indicator 2	Average increase in household income for beneficiary households (%)	0	5	17	Household survey	Mid Term and End	PEU	All risks and assumptions described in indicators below.
Component 1: Strengthening territorial planning and governance frameworks for biodiversity-inclusive landscape management in camelid-based production systems.								
	Objectively Verifiable Indicators				**Means of Verification**			
	Indicator	**BL**	**Mid-Term**	**End Target**	**Sources**	**Frequency**	**Responsibility**	**Risks and assumptions**
Outcome 1.1. Inclusive and sustainable landscape governance systems strengthened to support biodiversity and natural resource	GBF indicator 1.b Project municipalities using participatory, integrated and biodiversity-inclusive spatial planning and/or effective management processes addressing land-use change to reduce biodiversity loss	No	Partially	Fully developed	Project monitoring reports	Yearly	PEU	Municipalities are fully engaged in improving territorial planning for biodiversity and natural resources sustainable management and incorporate strategies and actions in the PTDI. Assumption: Use of the methodology of GBF indicator 1.b. https://www.gbf-

management in the Altiplano								indicators.org/metadata/headline/1-B
	Number of camelid producers who receive targeted support or assistance from the project to improve productive landscapes.	0	3,000 (1,200 women 40%)	6,500 (2,600 women 40%)	Project monitoring reports	Yearly	PEU	Assuming that all 16 BNRMP will be implemented through a collaborative approach between municipalities, camelid producers and other relevant stakeholders.
	Number of Municipalities capable of improving the management of altiplano ecosystems through informed decision-making and territorial planning approaches	0	7	16	Project monitoring reports	Yearly	PEU	Municipalities are fully engaged in improving territorial planning for biodiversity and natural resources sustainable management and incorporate strategies and actions in the PTDI.
Output 1.1.1 Capacities of municipalities and local communities strengthened for informed decision-making and territorial planning in Altiplano ecosystem.	Number of direct beneficiaries receiving capacity building and training on sustainable management of biodiversity and natural resources. (80% of direct beneficiaries)	0	3,000 (1,200 women 40%)	6,500 (2,600 women 40%)	Project monitoring reports	Yearly	PEU	Capacity building activities will enable camelid producers to successfully implement inclusive environmentally and economically sustainable practices compatible with the Altiplano ecosystems.
1.1.1.1 Knowledge about biodiversity, natural resources, and their links to local livelihoods improved and used for sustainable productive landscape management	Number of diagnoses on the status of biodiversity and natural resources at the municipal level, including assessment of environmental and climate risks	0	7	16	Project monitoring reports	Yearly	PEU	Secondary information is available, and field assessments are developed.
1.1.1.2 Municipalities and local communities involved in the design and having access to operational tools to implement practices oriented towards the sustainable management of the Altiplano ecosystems.	Number of workshops to review diagnoses and develop BNRMP.	0	7	16	Project monitoring reports	Yearly	PEU	16 targeted municipalities and representatives of domestic camelid producers participate on the design of BNRMP.
1.1.1.3 Municipalities and local communities acquire the technical skills to adopt, monitor and assess the impact of practices to improve the health of peatland and native grasslands	Training events to build capacity on sustainable practices to restore and conserve biodiversity (bofedales and native pastures) and natural resources	0	20	32	Project monitoring reports	Yearly	PEU	Two workshop will be held at each municipality, through a combination of workshops and field practices.
Component 2: Scaling up biodiversity-friendly production practices and incentive mechanisms for a sustainable camelid value chain.								
	Objectively Verifiable Indicators				**Means of Verification**			
	Indicator	**BL**	**Mid-Term**	**End Target**	**Sources**	**Frequency**	**Responsibility**	**Risks and assumptions**
Outcome 2.1. Natural ecosystems are restored through investments in improved biodiversity, natural resources and land management practices.	GBF Indicator A.2 Extent (%) of natural ecosystems in selected municipalities	98.45	98.47	98.51	Project monitoring reports	Yearly	PEU	Restoration interventions are sufficiently large-scale, well-maintained, and resilient to external pressures, including climate change impacts and socio-economic shocks, to generate measurable improvements in ecological integrity and livelihoods within the project timeframe. Assumption: Use of the methodology of GBF indicator A.2 Extent of natural ecosystems https://www.gbf-indicators.org/metadata/headline/A-2 Note on the baseline, mid term and end target values: From the biodiversity assessment in Annex J, and following the methodology of GBF indicator A.2, the current area with anthropogenic land uses (intensive land-use systems and artificial fresh
	Number of BNRMP developed and approved through participatory approaches, with prioritized practices to restore and conserve biodiversity and natural resources	0	7	16	Project monitoring reports	Yearly	PEU	

								waters) is 1.49% of the total area of the 16 municipalities. In other words, the extent of natural ecosystems currently corresponds to 98.51%. In the absence of the project, 21,786 ha of natural grassland would be converted to high intensity pastures representing a loss of 0.06% compared to the project situation, which aims to preserve the natural ecosystems.
Output 2.1.1 Investment in improved biodiversity, natural resources and land management practices adopted to recover the Altiplano ecosystems	Number of direct beneficiaries adopting biodiversity and natural resources sustainable practices. (80% of direct beneficiaries),	0	3,000 (1,200 women 40%)	6,500 (2,600 women 40%)	Project monitoring reports	Yearly	PEU	At least 80% of project beneficiaries will adopt the practices prioritized in the BNRMP.
Outcome 2.2: Incentive mechanisms enhanced to promote an inclusive and sustainable camelid value chain.	Number of positive non-monetary incentives in place to promote biodiversity conservation and sustainable use.	0	1	2	Project monitoring reports	Yearly	PEU	Public awareness will increase the public demand for sustainably produced camelid products. Note: GBF indicator 18.1 measures the positive monetary/financial incentives in place to promote biodiversity conservation and sustainable use. This Outcome indicator is complementary to GBF indicator 18.1 as it focuses on the positive non-monetary incentives in place to promote biodiversity conservation and sustainable use. The CBD refers to non-monetary incentives as an indirect approach that supports activities that promote the conservation and sustainable use of biodiversity, such as the removal of barriers to trade; public procurement policies; education and research; or the provision of consumer information through certification and eco-labelling (CBD. 2011. Incentive
Output 2.2.1 Consumer awareness raised on the economic and biodiversity benefits of domestic camelid products to promote sustainable demand.	Number of sensibilization and awareness products (dissemination materials) that inform about the benefits of consuming environmentally friendly domestic camelid products	0	2	5	Project monitoring reports	Yearly	PEU	

								measures for the conservation and sustainable use of biological diversity). The CBDs definition will be used for this indicator.
Output 2.2.2 Territorial-branded domestic camelid products	One pilot of territorial-branded domestic camelid products that incentivize the conservation and sustainable management of biodiversity	0	0	1	Project monitoring reports	Yearly	PEU	National markets for sustainable camelid products are identified, broadening opportunities for improved marketing.
Component 3: Establishing and operationalizing a National Knowledge System (KMS) to support biodiversity-inclusive camelid production and landscape governance								
	Objectively Verifiable Indicators				**Means of Verification**			
	Indicator	**BL**	**Mid-Term**	**End Target**	**Sources**	**Frequency**	**Responsibility**	**Risks and assumptions**
Outcome 3.1 Improved evidence-based planning, policy development, and decision-making for a biodiversity-inclusive camelid value chain	Number of information and knowledge products on participatory management of biodiversity and/or traditional knowledge of indigenous peoples developed and disseminated to strengthen awareness-raising, monitoring and knowledge management	0	1	2	Project monitoring reports	Yearly	PEU	Institutional stakeholders use the information generated for decision-making and planning. Note: This indicator closely aligns with GBF Target 21 and GBF indicator 21.1 on biodiversity information for monitoring the global biodiversity framework Reference to Indicator 21.1: https://www.gbf-indicators.org/metadata/headline/21-1
Output 3.1.1 Knowledge and policy information on camelid production, transformation, and marketing generated and made accessible	Number of communication and KM products relevant for policymaking concluded and disseminated	0	9	20	Project monitoring reports	Yearly	PEU	Products generated incentivize beneficiaries and consumers towards valuing an inclusive and sustainable camelid value chain

for evidence-based decision making								
Output 3.1.2. Reliable data, ecosystem assessments and monitoring reports on the sustainable management of the Altiplano biodiversity and natural resources regularly updated and shared	Biodiversity and Natural Resources Platform of the Camelid Observatory designed and operational.	0	0	1	Project monitoring reports	Yearly	PEU	Data generated through the implementation of BRMP is properly registered, analyzed and assessed.

BNRMP: Biodiversity and Natural Resources Management Plans
KM: Knowledge management
PEU: Project Execution Unit

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount ($)		
	Budgeted Amount	Amount Spent To date	Amount Committed
Local consultants: - Finance Specialist, Social Inclusion Specialist, Policy and Rural Development Specialist	40,490.00	24,908.31	
International consultants: Biodiversity Specialist, GEF design Specialist,- Environment and Natural Resources Specialist ,M&E specialist	34,534.03	51,769.42	
Travel: - Travel to 3 project sites for data collection and consultations (La Paz, Oruru, Cochabamba) - 2 international flights to Bolivia for the Project Design team (Biodiversity Specialist and Regional Experts)	23,975.97	30,579.23	
Consultation Workshops and meetings: - PPG Inception/validation workshops - Field data collection and stakeholders consultation workshops	46,000.00		
Translation	5,000.00		2,743.75
Gender and Environmental and Social Safeguards analysis			40,000.00
Total	**150,000.00**	**107,256.96**	**42,743.75**

ANNEX E: PROJECT MAP AND COORDINATES

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

Location Name	Latitude	Longitude	GeoName ID
Santiago de Machaca	-17.0662	-69.1946	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Calacoto	-16.5000	-68.1194	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Charaña	-17.0000	-68.0000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Catacora	-17.5000	-68.5000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Caquiaviri	-17.7500	-68.7500	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Callapa	-16.5000	-68.5000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID

Turco	-17.0000	-67.5000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Curahuara de Carangas	-17.8433	-68.4086	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Santiago de Andamarca	-17.5000	-68.0000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Pampa Aullagas	-20.0000	-67.0000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Quillacas	-19.5000	-68.5000	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Uyuni	-20.3000	-66.8500	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Cocapata	-17.5817	-65.3108	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Quillacollo	-17.3333	-66.2500	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Morochata	-17.3200	-66.4500	

Location Description:

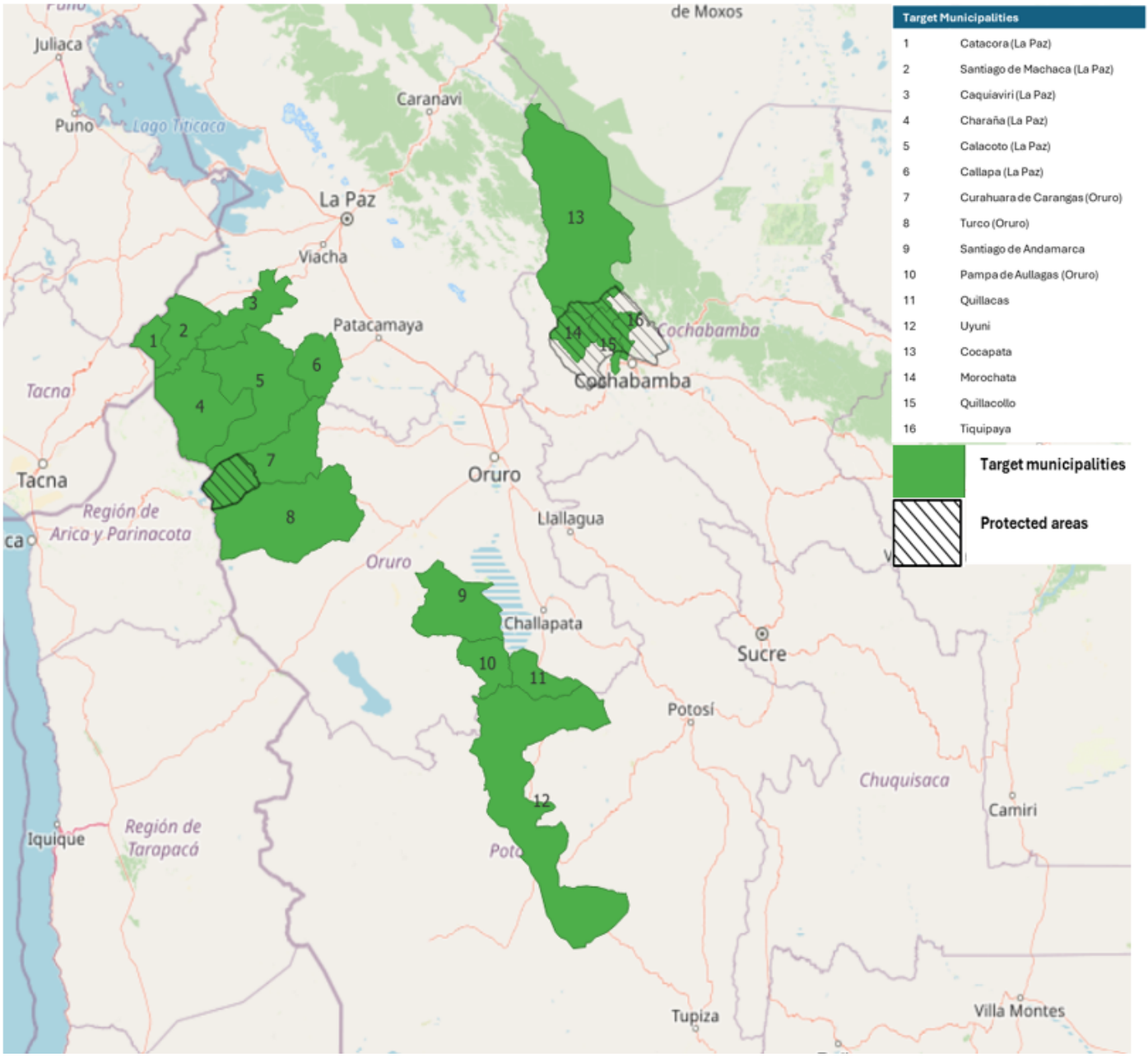
Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Tiquipaya	-17.3833	-66.2000	

Location Description:

Activity Description:

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.



ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS DOCUMENTS INCLUDING RATING

Attach agency safeguard datasheet/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts (as applicable).

Title

Annex F-SECAP REVIEW NOTE 26072025

SECAP ESC Screening GBFF-FINAL 26082025

Annex F1-ESCMP 25082025

ANNEX G: BUDGET TABLE

Please upload the budget table here.

Appendix A: Indicative Project Budget Template

Expenditure Category	Detailed Description		Component (USDeq.)				Sub-Total	M&E	PMC	Total (USDeq.)	Responsible Entity
			Component 1. Building Capacity for sustainable management of biodiversity, natural resources and domestic camelids through territorial planning.	Component 2. Implementation of Practices and Incentives for biodiversity and natural resources sustainable management.		Component 3. National Knowledge System (KMS) in operation to provide information to build capacity and upscale the project´s interventions.					
			Outcome 1.1. Planning for the Altiplano integrated ecosystem management.	Outcome 2.1. Peatlands and native grasslands in the selected territories under sustainable management and providing environmental services associated with local livelihoods.	Outcome 2.2: Enhanced Incentives for the adoption of sustainable biodiversity management practices	Outcome 3.1 Inclusive KMS established for more effective integration of biodiversity, natural resources and domestic camelid production, transformation and marketing information into planning, policy development, and decision-making processes.					
Contractual Services – Company			**$ 969 286**	**$ 307 470**	**$ 274 870**	**$ -**	**$ 1 551 626**	**$ 57 680**	**$ -**	**$ 1 609 306**	
Contractual Services- Preparation of 16 diagnoses (including thematic cartography) on status of		**1**	*$ 511 967*				**$ 511 967**			**$ 511 967**	**MRDL**

biodiversity and natural resources and sampling and analysis related to botanical composition, soil profile, water quality and water flow.										
Contractual Services- Preparation of 16 Biodiversity and Natural Resources Management Plans.	**2**	*$ 239 755*				**$ 239 755**			**$ 239 755**	
Contractual Services - Specialized technical assistance contracts to support complementary innovations for enhancing BNRMP implementation	**3**		*$ 307 470*			**$ 307 470**			**$ 307 470**	
contractual services for development and implementation of a regional level territorial branding strategy for sustainable production camelid products at national market level	**4**			$ 274 870		**$ 274 870**			**$ 274 870**	
Joint Programme Baseline including production of Biodiversity and NR management indicators	**5**					**$ -**	$ 25 701		**$ 25 701**	
Joint Programme FINAL evaluation including production of Biodiversity and NR management indicators evaluation	**6**					**$ -**	$ 31 979		**$ 31 979**	
Grants/ Sub-grants		**$ -**	**$ 1 573 770**	**$ -**	**$ 159 992**	**$ 1 733 762**	**$ -**	**$ -**	**$ 1 733 762**	
Implementation of 16 Municipal BNRMP. funds for local Interventions at small-scale communal infrastructures for water, soil conservation and bofedales rehabilitation	**7**		$ 1 573 770			**$ 1 573 770**			**$ 1 573 770**	**MRDL**
Specific support on tracking Knowledge Development of experiences on sustainable management of biodiversity and natural resources to improve camelid production, through the KM virtual platform.	**8**				$ 159 992	**$ 159 992**			**$ 159 992**	
Local Consultants		**$ -**	**$ 241 410**	**$ -**	**$ 30 998**	**$ 272 408**	**$ 15 000**	**$ -**	**$ 287 408**	
Natural Resources and Biodiversity Coordination Specialist	**9**	$ 135 829				**$ 135 829**			**$ 135 829**	**MRDL**
Primary Production and Environment Specialist	**10**	$ 41 313				**$ 41 313**			**$ 41 313**	
3 Departmental Primary production and environment specialists	**11**	$ 40 422				**$ 40 422**			**$ 40 422**	
Local Consultants. 32 field specialists to provide technical assistance, monitor and report on the implementation of the BNRMP.	**12**		$ 241 410			**$ 241 410**			**$ 241 410**	
Local Consultants. Project´s Mid Term Evaluation	**13**					**$ -**	$ 15 000		**$ 15 000**	

4 Local Consultant contracts for the development, design and implementation of the Camelid Observatory and Natural Resources, and the Program Management Information System.		**14**				$ 30 998	**$ 30 998**			**$ 30 998**	
Training, Workshops, Meetings			**$ -**	**$ -**	**$ 35 623**	**$ 146 923**	**$ 182 546**	**$ -**	**$ -**	**$ 182 546**	
Dissemination materials related to sustainable biodiversity and natural resources management practices.		**15**			$ 15 623		**$ 15 623**			**$ 15 623**	**MRD L**
Production of communication and outreach materials for the program		**16**				$ 46 887	**$ 46 887**			**$ 46 887**	
workshops - Support the development of communication strategies to promote the health, cultural, and ecological value of camelid products		**17**			$ 20 000		**$ 20 000**			**$ 20 000**	
Dissemination material of systematized experiences Knowledge Management products.		**18**				$ 35 165	**$ 35 165**			**$ 35 165**	
Dissemination of experiences on sustainable management of biodiversity and natural resources to improve camelid production, This activity includes implementing workshops and production of communication materials (digital and printed)		**19**				$ 64 871	**$ 64 871**			**$ 64 871**	
Salary and benefits / Staff costs			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 32 539**	**$ 32 539**	
Procurement officer		**20**					**$ -**		$ 14 917.00	**$ 14 917**	**MRD L**
1 Local inter departmental coordination support staff 3		**21**					**$ -**		$ 17 622.00	**$ 17 622**	
Other Operating Costs			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 158 112**	**$ 158 112**	
Operating Costs	Communications	**22**					**$ -**		$ 64 363	**$ 64 363**	**MRD L**
	Energy						**$ -**		$ 5 305	**$ 5 305**	
	Travel						**$ -**		$ 51 999	**$ 51 999**	
	Insurance						**$ -**		$ 2 791	**$ 2 791**	
	Mantainance						**$ -**		$ 29 731	**$ 29 731**	
	stationary						**$ -**		$ 3 923	**$ 3 923**	

Grand Total	**$ 969 286**	**$ 2 122 650**	**$ 310 493**	**$ 337 913**	**$ 3 740 342**	**$ 72 680**	**$ 190 651**	**$ 4 003 673**

Footnotes to budget lines

1	For participatory assessments at least 16 workshops at municipal level to socially validate and present the portfolio of NBS proposed to improve Baseline Conditions on Biodiversity conservation .
2	Including training beneficiaries and municipalities on practices of sustainable management of biodiversity and natural resources, safeguards and gender. (2 workshops per Municipality per BNRMP)
3	field studies to enhance BNRMP design and implementation: floristic characterization and botanical composition of peatlands and grasslands
4	Contractual services are needed to create and launch a national branding strategy for sustainable camelid products
5	Baseline study costs as a lump-sum
6	Final evaluation is co-financed between GBFF and IFAD
7	The NRM and Biodiversity coordination specialist is budgeted at 80% (part-time)
8	This personnel is cofinanced from IFAD with 60% of 5 years contract
9	This personnel is cofinanced from IFAD with 80% of 5 years contract
10	Corresponds to transferences for specific activities and investments cofinanced with Municipalities
11	This fund will be transferred through a national competitive call for an NGOO to manage the National observatory
12	Local consultant salaries over 4 years
13	Mid Term evaluation lump-sum
14	The consultancy includes a web platform maintenance service and support for 4 years
15	Two services: 1 to disseminate information on health, cultural, and ecological benefits of camelid products. 2 implement campaigns promoting camelid meat and fiber linked to Andean heritage.
16	4 services 1 each year: designing comprehensive manuals and technical guidelines on nature-based practices
17	2 Workshops in support of camelid valuation
18	Systematizations of 4 departmental workshops (producer-to-producer mentorship programs, community-based knowledge-sharing initiatives, and inter-municipal collaborations)
19	4 workshops with associated KM material
20	This personnel is cofinanced from IFAD with 60% of 5 years contract
21	This personnel is cofinanced from IFAD with 85% of 5 years contract
22	GBFF is cofinancinng 7% of all program operating costs, IFAD cofinances auditories, mobiliary, 4 offices and 3 vehicules defignated for the project, includig IT and computers and 5 years logistic costs.

Note: IFAD Cofinancing personnel (100%) includes at National level: 1 general Manager, 1 General administrative Manager, 1 general monitoring responsible. Technical support: communications, social inclusion, and a Component 2 responsible. Administrative unit: legal attorney, and national accountant. Also, Logistics personnel. Department level: 1 coordinator and 1 administrator, 1 department responsible for C2, and 1 logistic support.

Please explain any aspects of the budget as needed here

ANNEX H: BLENDED-FINANCE RELEVANT ANNEXES

Please use the most up to date templates per the most recent call for proposals.

ANNEX H.1: Termsheet

Instructions. This termsheet to be submitted with the PIF/PFD should include sufficient details to allow a financial expert to understand and judge the financial viability of the proposed investments. Indicative terms and conditions should be used when specific details are not yet available. An equivalent termsheet used for internal Agency purposes is acceptable but must include sections on Currency Risk, Co-financing Ratio and Financial Additionality.

ANNEX H.2: Agency capacity to implement blended finance projects

Instructions. Any financial returns, gains, interest or other earnings and remaining principal will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. and the GEF Non-Grant Instrument Policy.