Environmental and Social Impact Assessment (ESIA)

for

Resilient Puna

Ecosystem based Adaptation for sustainable high Andean communities and ecosystems in Peru

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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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Abbreviations

AE	Accredited Entity
AMA	Accredited Master Agreement
ANA	National Water Authority
ALA	Local Water Management
BMZ	German Federal Ministry for Economic Cooperation and Development
CGRA	Regional Committee for Agricultural Management
CIRA	Certificate of Non-existence of Archaeological Remains
CRVC	Climate Resilient Value Chain
CSO	Civil Society Organization
EbA	Ecosystem based Adaptation
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Safeguards
EUR	Euro
E&S	Environmental and Social
FAA	Funded Actitivy Agreement
FPIC	Free, prior and informed consent
FMU	Puna Facility Management Unit
GA	Gender Analysis
GAP	Gender Action Plan
GbV	Gender based Violence
GCF	Green Climate Fund
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GLRD	Gender and Land Rights Database
GRM	Grievance Redress Mechanism
IdM	Instituto de Montaña
IFC	International Finance Corporation (World Bank Group)
INEI	National Institute for Statistics and Information
IPCC	Intergovernmental Panel on Climate Change
IPLCEP	Indegenous People and Local Communities Engagement Plan
IPP	Indigenous Peoples Policy
ILO	International Labour Organization
IWGIA	International Work (sic) Group for Indigenous Affairs
MERESE	Mechanisms of remuneration for ecosystem services
MIDAGRI	Ministry of Agricultural Development and Irrigation
MINAM	Ministry of Environment
M&E	Monitoring and Evaluation
NDA	National Designated Authority (for the GCF)
NGO	Non Governmetal Organization
NPA	Natural Protected Area
NYC	Nor Yauyos Cochas
PS	Performance Standards
PSC	Project Steering Committee
SEIA	Environmental Impact Assessment System

SDG	Sustainable Development Goal
SEAH	Sexual Exploitation, Abuse and Harassment
SEP	Stakeholder Engagement Plan
S+G	Safeguards+Gender (Management System of GIZ)
SERFOR	National Forest and Wildlife Service
SERNANP	National Service of Natural Protected Areas of Peru
SINANPE	National System of Natural Areas Protected
TA	Technical Assistance
TIU	Territorial Implementation Unit

Executive Summary

The project being proposed for funding in part by the Green Climate Fund (GCF) called “Resilient Puna: Ecosystem based Adaptation for sustainable High Andean communities and ecosystems in Peru” (hereafter “Resilient Puna”) aims at improving the way Puna ecosystems are being managed to ensure that they continue to provide their ecosystem services and support adaptation to climate change in six years. Therefore, the project is supposed, if properly implemented, to have a positive impact on both the ecosystems, livelihoods, and the local communities in the South High Andes of Peru. Furthermore, the project will strengthen institutional capacities at different levels government levels to incorporate EbA approach in planning, M&E and regulatory systems.

The Environmental and Social Impact Assessment (ESIA) for the proposed project has been developed mainly from primary (stakeholder consultations) and secondary information gathered as the Puna area has been studied extensively and a rich literature is available regarding its ecosystems and sociology.

In parallel to the ESIA, Stakeholder consultations have been conducted which are summarized in Annex 7 Summary of consultations and stakeholder engagement plan. This document provides next to an extensive mapping of stakeholders a summary of three missions which were carried out in the field. These three missions allowed the recollection of qualitative data that were used to better understand the potential risk from social and environmental point of view and the sensibility of the stakeholders, which were used for this document.

The project is classified at this stage as a Category B (medium risk). Therefore, respective plans (Environmental and Social Management Plan and the Indigenous Peoples and Local Communities Engagement Plan) needs to be developed.

At this stage, all of the activities are fully designed. Activities related to the financial support under sub-activity 1.1.2.1. include defined list of for example, eligible districts, potential beneficiaries, maximum grant amounts of the financial support, eligible Ecosystem based Adaptation measures and Climate Resilient Value Chains. Therefore, the environmental and social risks could already be identified at the project level (presented in this document) and appropriate mitigation measures are defined in the Environmental and Social Management Plan (Annex 6b) and the Indigenous Peoples and Local Communities Engagement Plan (IPLCEP, Annex 6c).

The impact assessment results from the description of the project which establishes a set of impact factors, and the description of the physical, natural and human environments, who relates to sensitivity of the environmental and social components with which the project will interact. The experts in charge of the impact assessment performed a cross-referenced analysis of the impact factors of the project with the sensitive elements of the biophysical, natural and human components of the environment to assess the significance of the impact.

The risks are assessed based on the features of the project and the general context, stakeholder consultation for each ESS standard was carried out in May 2023, specialized field literature, as well as internationally recognized good practice guidelines developed by the main multilateral development banks (including World Bank, International Finance Corporation, etc.).

There are many approaches to estimate impacts, the definition of impacts and risks used in the present assessment is that of IFC (2012) and the ten standards of the World Bank and the GCF, which are also compatible with GIZ´s Safeguards and Gender Management System (S+G):

- Environmental and social impacts refer to any change, potential or actual, to (i) the physical, natural, or cultural environment, and (ii) impacts on surrounding community and workers, resulting from the business activity to be supported.

- Environmental and social risk is a combination of the probability of certain hazard occurrences and the severity of impacts resulting from such an occurrence.

A simple rating system is used for the assessment of the potential risks rated on a six-level scale:

Table 1: Risk rating methodology

Impact rating	Sensitivity of the receptor	Scale of the impact	Duration of the impact	Intensity of the impact
Positive				
Low:	Very low sensitivity	Very small scale	exceptional	Low intensity
Middle:	Low sensitivity	Small to medium scale	Short duration	Low to medium intensity
High:	Receptor somehow sensitive	Medium to large scale	Longer duration	Medium to high intensity

This system takes into account two criteria:

- The likelihood of the risk and its expected severity without specific corrective measures (duration, scale, intensity).

- The sensitivity of the affected component, taking into consideration stakeholder value that reflects the importance of change against the receptor's current conditions.

Mainly negative impacts and risks are estimated in the assessment in order to focus on strategies to avoid, mitigate or compensate adverse effects of the project.

Table 2: Summary of environmental and social impact assessment

Environmental & Social Safeguards	Risk Level (B-Medium / C-Low)	Explanation on Risk Level Determination
Overall Project / Programme ESS Category	☒ B or I-2 ☐ C or I-3	In general, the project will have a positive environmental and social impact on the beneficiaries in the South High Andes of Peru. Nevertheless, potential adverse environmental and social impacts of the project will mostly site-specific, but due to the nature of the interventions these impacts will not be irreversible or complex in nature and will be easily remediable through preventive and mitigation measures.
ESS 1: Assessment and management of environmental	☒ B or I-2 ☐ C or I-3	No major risk has been identified regarding greenhouse emission and climate change aspects. Nevertheless, due to the competitive nature of the proposed Puna Facility, financial mechanism to finance Local initiatives proposed by project beneficiaries,

Environmental & Social Safeguards	Risk Level (B-Medium / C-Low)	Explanation on Risk Level Determination
and social risks and impacts		potential socials risks (e.g., competition, conflicts) between communities and/or groups of beneficiaries could arise.
ESS 2: Labour and working conditions	☐ B or I-2 ☒ C or I-3	No major risk has been identified regarding labour and working conditions.
ESS 3: Resource efficiency and pollution prevention	☐ B or I-2 ☒ C or I-3	The project aims at improving resource efficiency. None of the components present an important risk in terms of pollution.
ESS 4: Community health, safety and security	☐ B or I-2 ☒ C or I-3	Low risks might arise during the works related to the implementation of the local initiatives in relation to community health and safety.
ESS 5: Land acquisition and involuntary resettlement	☐ B or I-2 ☒ C or I-3	No land acquisition is foreseen. A special attention must be paid to land status when selecting Local initiatives site.
ESS 6: Biodiversity conservation and sustainable management of living natural resources	☐ B or I-2 ☒ C or I-3	No risk has been identified regarding biodiversity.
ESS 7: Indigenous Peoples	☒ B or I-2 ☐ C or I-3	While the project primarily targets Indigenous Peoples and Local Communities, their diversity means that their unique needs and involvement in project implementation must be carefully considered. In addition, the competitive nature of the Puna Facility could potentially lead to conflicts.
ESS 8: Cultural heritage	☐ B or I-2 ☒ C or I-3	Proper consultation process and a chance find procedure ay need to be put in place. No major risk has been identified.
ESS 9: Stakeholder engagement and information disclosure	☒ B or I-2 ☐ C or I-3	There is a risk of rising too many expectations and generating frustration by organizing to many consultations in places where the project may not have any direct interventions. Therefore, stakeholders need to be informed continuously during project implementation.

1 Project description

1.1 Project objective and components

Climate change and unsustainable management practices are degrading Puna ecosystems (peatlands, wetlands and grasslands) and the services they provide (provision and regulation of water; provision of fodder, food and fiber; nutrient and carbon regulation). Increased temperatures have already depleted 51% of Peru's glaciers[1]. Fewer rains and longer drought periods added to glacier melting threaten the livelihoods of approx. 560,000 people in the Southern High Andes of Peru (SHAP) and the water security of millions of people downstream. In addition, the huge stocks of carbon stored in Puna ecosystems could be released to the atmosphere as they become increasingly degraded.

Communities in the SHAP are characterized by low levels of development, focus on subsistence agriculture and husbandry practices, limited economic opportunities and overall high climate vulnerability. They lack the means and capacities to implement adaptation alternatives or adopt climate-resilient livelihoods. One of the few highly valued production chains available is alpaca fiber but besides provision of raw materials, participation by smallholders is low. The Peruvian Ministry of Agricultural Development and Irrigation (MIDAGRI) has set in place a series of programs to support these vulnerable populations for improved competitiveness and management of Puna ecosystems, but access is low and available budgets are not sufficient to address identified needs. Ancestral technologies, tools and practices related to Ecosystem based Adaptation (EbA) have been applied in the SHAP since pre-Inca periods and they are currently being abandoned because of a decomposition of traditional structures.

The project aims to increase the resilience of Andean communities in the departments of Arequipa, Cusco, Puno, Lima (Yauyos) and Apurimac, through the management, conservation and restoration of high Andean ecosystems; to also promote an increased access to public and private financing and a stronger participatory territorial planning towards Ecosystem-based Adaptation (EbA). GCF funding will increase access to MIDAGRI programs through technical assistance and set the funding structure to sustain investments in the long term via payment for environmental services, private sector contributions and microfinancing. Local communities will be trained on EbA design and implementation and Climate Resilient Value Chains to cement a change in behaviour and boost the local economy for the continued protection of Puna ecosystems. Experiences from the Nor Yauyos Cochas reserve will be transferred to the SHAP for lessons on EbA implementation and facilitation of participatory processes. The project will support MIDAGRI in incorporating the EbA approach and gender perspective into all its programs and improve coordination with other stakeholders on the territory. Community based, local and national monitoring systems to assess progress on adaptation will be integrated to existing information management and coordination platforms. Overall, the project will directly benefit 60,715 rural population and the conservation and restoration of 23,914 hectares of high Andean ecosystems.

The ”Resilient Puna” project is organised into three components: (i) Puna ecosystems are restored, conserved and better managed to support climate resilient livelihoods, through the

[1] MIDAGRI (2020). Perú perdió el 51% de sus glaciares debido al cambio climático - Noticias - Ministerio de Desarrollo Agrario y Riego - Plataforma del Estado Peruano (www.gob.pe)

implementation of EbAs measures; (ii) Public and private financing for EbA measures and climate resilient livelihoods are in place and accessible for vulnerable communities in the Puna Ecosystem; and, (iii) EbA and climate resilience are mainstreamed into multilevel landscape governance instruments.

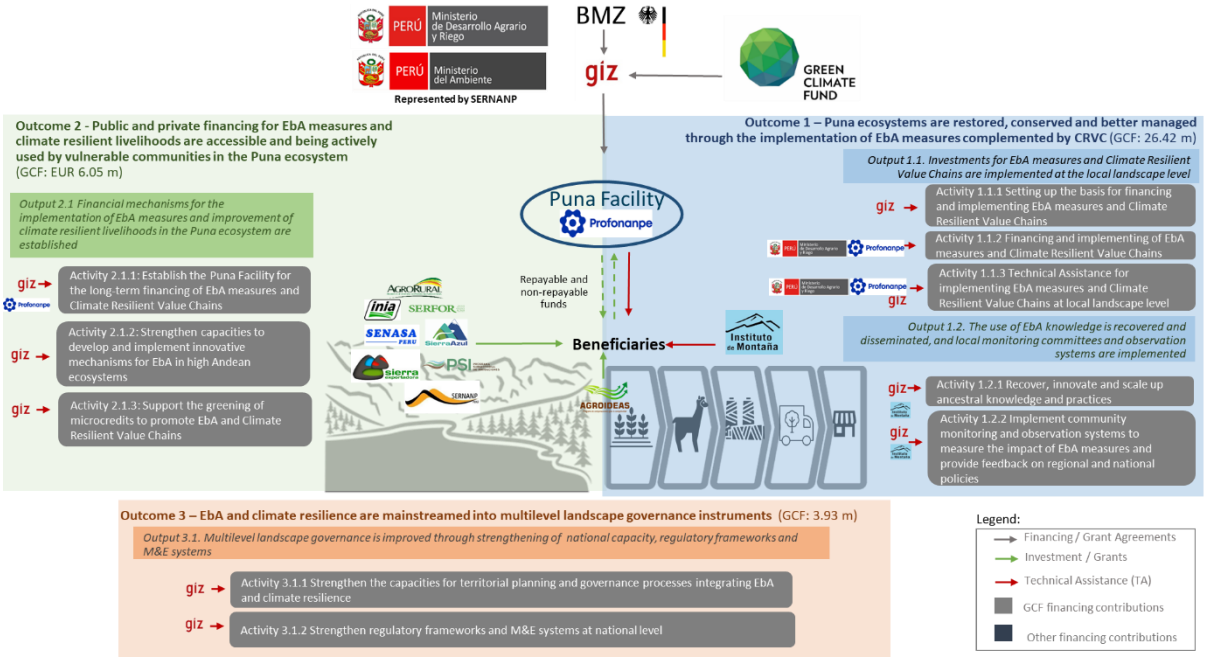


Figure 1: Project design

Component 1 will promote resilient Puna ecosystems and value chains by financing and co-financing climate-focused investments at local landscape level. By implementing investments on the ground, the aim is (i) to maintain or improve the provision of puna ecosystem services for climate resilience of the high Andean population and (ii) to strengthening Climate Resilient Value Chains that are dependent on and impacting on those ecosystems. A series of structural interventions, technological packages, trainings, information materials and communities' exchanges to nurture dialogue will be implemented to co-produce knowledge and foster community monitoring to measure EbA impacts that then will result in investment on the ground.

Component 2 will align and leverage public and private financing for EbA measures and Climate Resilient Value Chains (CRVC) at different and coordinated levels. The focus of this component is on mobilizing finance at different scales and with different schemes, with impact beyond the specific landscape. The key feature of this component is the establishment of a Facility (Puna Facility) and its leverage potential financing and facilitate the mobilization of MIDAGRI investments, Payment for Ecosystem Services PES, private and financial institutions resources.

Within Component 2 under Activity 2.1.1 the project will establish and manage through the Executing Entity Profonanpe[2] a financial mechanism known as the "Puna Facility". The objective of the Facility is to channel GCF funds (through Sub-Activity 1.1.2.1) and provide technical assistance (TA) (through Sub-Activity 1.1.3.1.) to implement Local initiatives in the

[2] PROFONANPE is a non-profit institution under private law, whose purpose is to promote the scientific and technical management of the biological diversity of the country's protected areas, and for the fulfilment of this purpose, its objective is to capture, administer and channel resources that can be transferred to it; to contribute to the conservation of biodiversity, and the adaptation and mitigation of climate change.

Southern High Andes of Peru (SHAP). Under Sub-Activity 1.1.2.1 the Facility will channel funds to final beneficiaries to enable the implementation of Ecosystem based Adaptation (EbA) and Climate Resilient Value Chain (CRVC) Local initiatives based on a list of eligible EbA measures and list of CRVC interventions.

Component 3 will promote integrated participatory as well as gender sensitive landscape planning, governance platforms and policy improvement and coordination, fostering dialogue and improving coordination among stakeholders that intervene in the landscape (local, regional and national governments, rural communities, producer organizations, watershed committees, and MIDAGRI extension services, among others). The most adequate processes through effective participatory approaches or platforms for knowledge exchange, dialogue, coordination and consensus-building will be fostered according to local needs, considering the different perspective of men, women, youth and the elderly.

1.2 Implementation arrangements

In order to implement the Project, GIZ will need to establish legal arrangements with MIDAGRI, SERNANP, Profonanpe and Instituto de Montaña - see Figure 2 below):

- The German Federal Ministry for Economic Cooperation and Development (BMZ) will commission GIZ with the implementation of the GCF project (amended commissioning agreement). The GCF will transfer funds based on the Funded Activity Agreement (FAA) to the Accredited Entity GIZ.
- GIZ (as EE) will receive an internal task assignment from the AE for the implementation of the project.
- GIZ (AE) will amend an existing implementation agreement (i.e., subsidiary agreement), based on GIZ standard operating procedures with the MIDAGRI as the political partner of the project and Executing Entity executing activities with own funds (related to the BMZ commission and signed between GIZ and MIDAGRI).
- SERNANP as an Executing Entity executing activities with own funds will signed a cooperation agreement (i.e., subsidiary agreement), based on GIZ standard operating procedures with GIZ (AE).
- Finally, GIZ (AE) will sign with Profonanpe and Instituto de Montaña grant agreements (i.e., subsidiary agreements), based on GIZ standard operating procedures. These subsidiary agreements establish the legal basis on which GIZ makes the GCF Proceeds available to Instituto de Montaña to implement project activities and Profonanpe to set up, manage and operate grant disbursement through the Puna Facility, in accordance with the AMA and FAA.

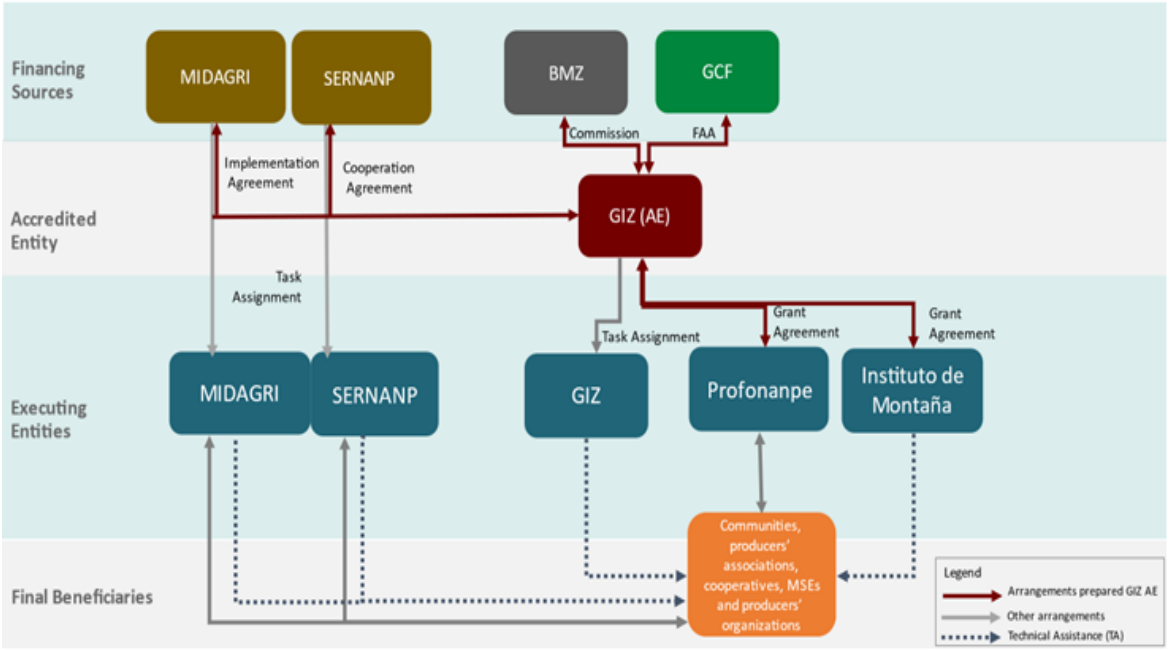


Figure 2: Legal arrangements

The governance of the project will be composed as shown in Figure 3 below by a Project Steering Committee (PSC) as the main governing body for the project. The PSC will provide strategic project implementation guidance to the project implementation structures whilst ensuring compliance with climate and national socio-economic development objectives. The GIZ with their oversight function as Accredited Entity along with the National Designated Authority (NDA) will ensure GCF-related compliance and guidance is provided during project implementation. In addition, the project will also have a Project Management Committee composed by the five Executing Entities of the project which will ensure the management and coordination of the project among the Executing Entities and supervises the implementation in the project implementations area. Furthermore, the project government structure will include Territorial Implementation Units (TIU), which represent the level of project implementation by components and territories. These units will consist of teams from all the Executing Entities at their respective operational levels within the territories. The Project Implementation Unit (PIU) will execute the recommendations of the PMC and ensure that the recommendations of the Territorial Implementation Units (TIUs) are discussed and addressed.

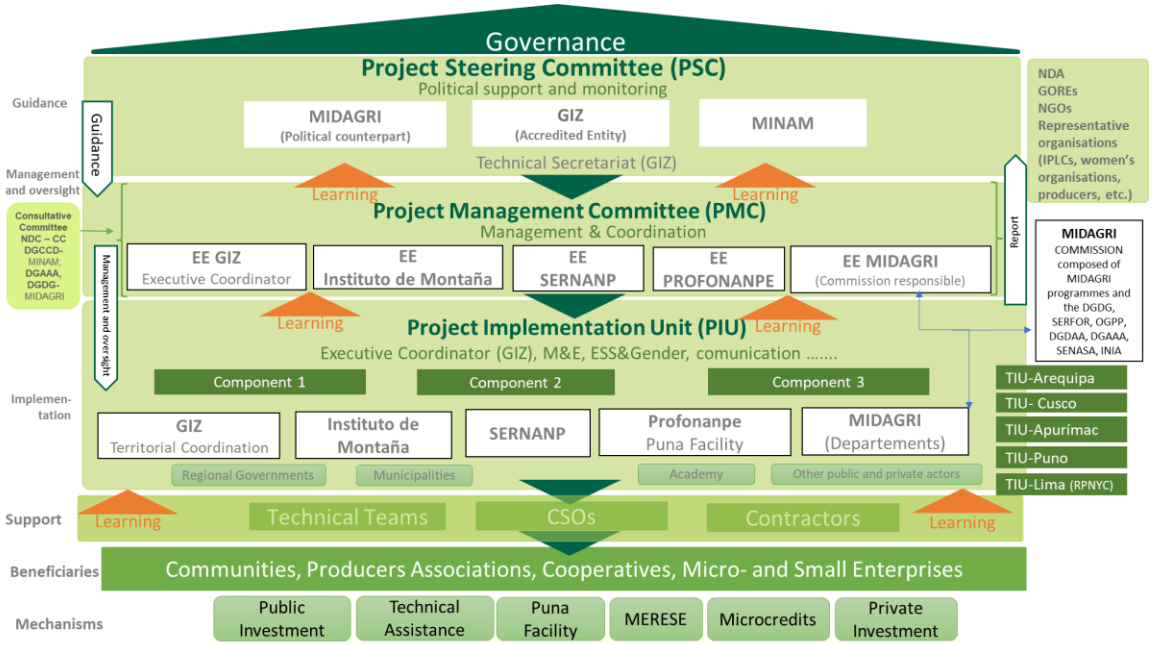


Figure 3: Project Governance Structure

Key entities, including Accredited and Executing entities

The proposed project with GIZ as Accredited Entity has 5 Executing Entities including:

GIZ Peru as Executing Entity (EE): GIZ has been active in Peru since over 50 years and currently employs approximately 210 staff members, most of them Peruvian nationals. Specifically, GIZ Peru has been working on climate change and biodiversity issues in Peru since 2003 and current technical assistance in the sector amounts to approx. EUR 60 million.

The Ministry of Agricultural Development and Irrigation of Peru (MIDAGRI): Is the Peruvian government institution in charge of the agricultural sector. Its main function is to supervise and regulate the country's agricultural sector. Within the project MIDAGRI represents the political counterpart of the project, is an Executing Entity and chairs the PSC, in addition it participates in the PMC and in the project implementation in the project implementation area through the Territorial Implementation Units.

Profonanpe: Is a non-profit private law institution. It is the only environmental fund in Peru and a Direct Access Entity accredited before the GCF, with extensive experience in the management of environmental funds (Regional Water Fund in Piura, MERESE for Arequipa, etc.). Its mandate is to provide stable, long-term funding and to develop and implement innovative strategies for the conservation and management of protected areas. Within the project Profonanpe will be responsible for the management of the "Puna Facility" a competitive fund, which will provide non-repayable and repayable grants, through calls for proposals aimed at promoting Local initiatives to implement Ecosystem-based Adaptation measures and Climate Resilient Value Chains.

The National Service of Natural Protected Areas (SERNANP): Is a specialized technical public agency attached to the Ministry of Environment, in charge of directing and establishing technical and administrative criteria for the conservation of Natural Protected Areas (NPAs) and ensuring the maintenance of biological diversity. SERNANP is the governing entity of the National System of Natural Areas Protected by the state (SINANPE), and as the technical-normative authority, it carries out its work in coordination with regional and local governments

and landowners recognized as private conservation areas. SERNANP will act as an Executing Entity and coordinate with the project partners to guarantee the integral fulfilment of the expected results of the project participating in both the PMC and TIUs. In particular, SERNANP will co-finance and participate in the execution of the activities implemented within the Natural Protected Areas that are part of the project.

Instituto de Montaña (IdM): Is a non-profit organization that works for the conservation of the natural, cultural and spiritual values of mountain peoples and ecosystems. It will act as Executing Entity, by contributing and scaling up its experience in the implementation of EbA measures in the Nor Yauyos Cochas Landscape Reserve to the other regions of the project. It will use participatory tools for participatory design, implementation and monitoring of EbA measures, which contribute to the ownership and sustainability of the Local initiatives supported by the project. IdM will participate in the Project Management Committee and in the territory as part of the Territorial Implementation Units and it will coordinate with other project partners to guarantee the integral fulfilment of the expected results of the project.

1.3 Stakeholder engagement for project design

Stakeholder engagement has been considered as a key element during the project development. The design of the project builds on extensive consultations and multi-stakeholder engagement conducted during the Concept Note and Funding Proposal development stages. The Summary of consultations and stakeholders´ engagement plan (Annex 7) provides a detailed overview of the different stakeholders´ engagement processes conducted. Stakeholder feedback provided during the consultations included:

Regional governments[3]

Newly elected regional governments were willing to welcome initiatives focused on mitigating climate change effects and support adaptation. Therefore, the Resilient Puna project proposal was also well received. The regional governments of Arequipa, Apurímac, Cusco and Puno have planned and are implementing similar activities to the Resilient Puna project, such as small green houses, small irrigation, pasture protections, etc.), in coordination with MIDAGRI´s decentralized programs.

MIDAGRI, as the leading agency in agriculture and irrigation, has put in place different platforms and dialogue mechanisms, at national and subnational level, with different degree of success. This includes MIDAGRI's Agroclimatic Management Platform[4], Committees for Agricultural Management, governance platforms for initiatives of retribution for ecosystem services mechanisms and l Watershed councils. Despite these articulation efforts, there are

[3] In the framework of a unitary and decentralised state, the Peruvian government is structured on three levels: - The national level: with powers of national scope, it comprises the three branches of government and the constitutionally autonomous bodies.- The regional level: whose sphere of government is the departments, under the responsibility of the regional governments. - The local level: whose sphere of government is the provinces, districts and population centres, in charge of the provincial, district and population centre municipalities. Conoce cuál es la organización del Estado peruano - Orientación - Presidencia del Consejo de Ministros - Plataforma del Estado Peruano (www.gob.pe)

[4] The Agroclimatic Management Platform (PGA) works at local and regional level, coordinating with the District Municipality, the Regional Agriculture Department (DRA), the Regional Agriculture Management Committee (CGRA), the Regional Department of the National Meteorology and Hydrology Service (SENAMHI) and the decentralized units of the Ministry of Agricultural Development and Irrigation (MIDAGRI). The platform addresses the challenges of climate change Peru is currently facing, facilitating dialogue and disseminating information on how climate affects the agricultural sector, to prevent the effects of climate variability in the altiplano.

still significant needs in terms of consolidating joint mapping, planning and coordination, especially to attend communities´ needs. Most communities still do not have a proper land delimitation, mapping and zoning of their territories.

Local governments (province and district municipalities)

The district municipalities represent the closer public administration entity for local communities. They generally implement local projects to support local communities. District municipalities operate through district Development Plans. Unfortunately, their budgets tend to be limited and depend on additional support from subnational governments to implement productive projects (e.g., green houses, small irrigation). Some municipalities have conformed District Development Committees (e.g., Lamay district in Cusco) to ensure the proper coordination between the local government and communities.

During fieldwork consultations, most of municipalities' staff were recently put in place. As in the case of subnational governments, they were also willing to welcome and support the Puna Resilient project initiative. District authorities highlighted their concerns about increasing effects of climate change, mainly drought and frost.

Communities and producers' associations

Communities met during fieldwork mentioned to have suffered the consequences of climate change, such as drought, unpredictability variation of temperatures and rainfalls, and changes in the seasonal patterns. They also mentioned confronting social challenges, including an aging population, particularly among alpaca producers (as young people tend to migrate to urban settings), conflicts over land tenure, and competition between mining activities and other agricultural endeavours.

During fieldwork, communities and producers' associations highlighted their demand for water, both in the form of small and large-scale reservoirs and irrigation systems. Communities and producers acknowledged the potential value of the assistance the Puna Resilient project could provide. They recognized the need of combining larger scale actions like the construction of "qochas" (traditional Andean water reservoirs) and irrigation investments with individual support to families that work agriculture in their own plots. Of note, women are particularly interested in the transformation and commercialization of locally sourced raw materials.

Before the consultations, an environmental and social pre-screening of possible negative impacts of the project was conducted. Results of the consultations also informed the Environmental and Impact Assessment.

Figure 4: Meeting held in Apurimac

2 Legal and institutional framework

2.1 International treaties, conventions, and agreements

The Government of Peru has adopted and ratified different international treaties, conventions and agreements regarding to climate change, human rights and labour. The most relevant include:

- International Labour Organization: 77 Conventions and 1 Protocol regulating labour, employment, harassment, etc have been ratified by Peru[5].
- Human rights: most international treated regarding human right have been signed and ratified by Peru[6].
- Climate change: Peru has ratified Paris Accord on Climate Change on 2016.

A detailed list of treaties and protocol ratified by Peru can be found in Appendix 1.

2.2 National policies and legal framework

In terms of general environmental frameworks other relevant laws and regulations include:

- Law of the National System of Environmental Evaluation and Impact, Law No. 27446.
- Regulation of the Law of the National System of Environmental Evaluation and Impact, Law N° 27446, approved by DS N° 019-2009-MINAM.
- Regulation on Transparency, Access to Environmental Public Information and Citizen Participation and Consultation in Environmental Matters, approved by DS N.° 002-2009-MINAM

In addition, Annex II (the Inclusion List) of Peru's Environmental Impact Assessment System Law (Law No. 27446) and Ministerial Resolution N° 383-2016-MINAM (update of the Inclusion

[5] Ratifications for Peru
[6] Ratification of International Human Rights Treaties - Peru

List) identifies the industry sectors and projects requiring environmental approvals by the national government.

The law covers any public or private investment project involving construction, activities or works with adverse impact where an environmental certification is compulsory. In this regard, projects are classified into 3 categories:

- Declaration of environmental impact “Declaracion de impacto ambiental” (no significative impact)
- Semi-detailed impact assessment “Estudio de impacto semidetallado” (adverse impacts of moderate intensity)
- Detailed impact assessment “Estudios de impacto detallados” (projects having major impact on the environment)

2.3 Environmental certification in the agriculture sector

Specifically for the agricultural sector, the Ministry of Agricultural Development and Irrigation (MIDAGRI) requires a simple environmental assessment and declaration to be prepared and submitted to the Regional Director of Agricultural Environmental Affairs in Lima using a Form P-5.

In this regard, the relevant statutes include:

- Regulation of Environmental Management of the Agricultural Sector, approved by DS No. 019-2012-AG.
- Regulation of Citizen Participation for the Evaluation, Approval and Monitoring of Environmental Management Instruments of the Agrarian Sector, approved by DS N.° 018-2012-AG.
- Approval of the culmination of the process of transfer of functions from the agriculture subsector of MIDAGRI to SENACE, approved by RM N° 194-2017- MINAM), through which SENACE assumes the functions to review and approve the EIA-d.
- Ministerial Resolution 202-2019-MINAM7, modify the list of activities subject to environmental certification.

Certificate of Non-existence of Archaeological Remains (CIRA)

All investment projects, whether public or private, are required to have the CIRA before starting work. This certificate is one of the requirements for mining activities, energy exploitation, communication routes, hydraulic works, installation or production plants, agricultural development, etc. The CIRA is a document through which the government certifies that, in a given area, there are no archaeological remains on the surface. In the case of areas larger than five (5) hectares and/or kilometres, the procedure is the result of an Archaeological Evaluation Project, while for areas smaller than five (5) hectares and/or kilometres, only supervision by the Ministry of Culture is required.

To obtain the CIRA, an application is submitted to the Directorate of Archaeology or the Regional Directorates of Culture, attaching proof of payment for issuance of the CIRA

[7] Resolución Ministerial N.° 202-2019-MINAM - Normas y documentos legales - Ministerio del Ambiente - Plataforma del Estado Peruano (www.gob.pe)

(according to the TUPA); plan of location and scope of intervention of the project and descriptive memory in UTM coordinates Datum WGS 84, signed by an engineer or architect. The application is evaluated within a maximum period of 20 working days. This procedure is subject to positive administrative silence, i.e. if after 20 working days of submitting the application, the project holder considers the application approved. Once the CIRA is issued, the project owner must prepare an Archaeological Monitoring Plan, prepared by a professional registered in the National Archaeological Registry of the Ministry of Culture. This plan is approved within a maximum of ten (10) working days by the Directorate of Archaeology. The relevant statutes are:

- Supreme Decree N° 054-2013-PCM
- Supreme Decree N° 060-2013-PCM
- Ministerial Resolution No. 037-2013-VMPCIC-MC, Directive of Standards and Procedures for the Issuance of the Certificate of Non-existence of Archaeological Remains (CIRA)

Forest plantation registration

All forest plantations on public or privately owned land must be registered in the National Register of Forest Plantations (RNPF, for its acronym in Spanish) conducted by the Forestry and Wildlife Service, through the Regional Forestry and Wildlife Authorities. The process is carried out through a simple, free and automatic procedure, according to procedure 6 of Annex 1 of the Regulation for Plantations. The relevant statutes are:

- Forestry and Wildlife Law, Law No. 29763
- Regulations for the Management of Forest Plantations and Agroforestry Systems, approved by DS N° 020-2015-MINAGRI
- Regulation for Forest Management, approved by DS N° 018-2021-MINAGRI.
- Guidelines for the inscription of plantations in the National Register of Forest Plantations and its annexes, approved by RDE N° 165-2015-SERFOR-DE

Approval for sustainable use of wild South American camelids (Vicuña)

The Law N° 29763 regarding Forest and wildlife indicates that people who work with wild South American camelids will need to obtain approval of a simplified planning document (management statement) in which it is expressed actions for the sustainable management and use of wild South American camelids, without jeopardising the recovery of the species and its habitat.

Water and community water board

The Water Law (Ley de Recursos Hídricos – LRH, published March 31, 2009) has enhanced the National Water Resources System (substituting Decree No. 1081) which now consist of the National Water Authority (ANA, for its acronym in Spanish), a National Water Resources Court, River Basin Councils, regional and local governments and water users' organizations. However, some institutions foreseen under the law, such as the River Basin Councils, have been recently created to enhance the dialog among stakeholder to coordinate, to plan and to

commit on specific action linked to the watershed management, conservation and development[8]

The Local Community Water Committees are responsible for the registration and approval of all water users at the sub-watershed level and while they are under the authority of the Local water management (ALAs, for its acronym in Spanish) the latter rarely have direct contact and field involvement with the Local Committees.

Superficial Water use license

This is the document issued by the National Water Authority, through the Local Administration Authority, at the request of a party, authorising the use of water for a permanent activity, for a specific purpose (agricultural purposes, population use, etc.) and in a specific location.

Legal Basis

Law No. 27444, Law of General Administrative Procedure, Article 113 (11/04/2001).

- Law Nº 29338, Law on Water Resources, articles 15 numeral 7; and 53 (31/03/2009).
- D.S. No. 001-2010-AG, Approving the Regulations of Law No. 29338, Law on Water Resources, Articles 85 and 86 (Mar. 24, 2010).
- D.S. Nº 006-2010-AG, Approves the Regulation of Organization and Functions of the National Water Authority – ANA, article 38 literal c (08/07/2010).
- D.S. N° 023-2014-MINAGRI, Modifies the Regulation of Law N° 29338, Law of Water Resources, article 1 (27/12/2014).

Conservation Agreements in Natural Protected Areas (NPA)

According to Presidential Resolution N° 183-2020 SERNANP, this mechanism aims to establish joint working alliances between SERNANP, the executor of the administration contract and the population adjacent to the Natural Protected Area, to contribute to the conservation of the biodiversity and ecosystem services of the protected natural area, through the strengthening of participatory monitoring, the development of sustainable economic activities (bio-business and commercial articulation), and cultural revaluation.

Prior consultation with Indigenous or Native Peoples

The Act No. 29785 on the right to prior consultation with Indigenous Peoples, based on the International Labour Organization (ILO) Convention No. 169, establishes that the government must carry out a process of prior consultation before approving any administrative or legislative measure that may affect the collective rights of any Indigenous Peoples. This law regulates the stages of the consultation process, attributing to the government's promoting entities (mainly ministries of the different sectors of the executive power) the duty to identify the administrative measure that should be the subject of the consultation, as it is directly linked to the impact on the collective rights of Indigenous Peoples. In addition, theState's promotional entities must identify the Indigenous Peoples to be consulted, publish information on the legislative or administrative measure, evaluate the organization of the Indigenous Peoples,

[8] Consejos de Recursos Hídricos de Cuenca

carry out the processes of dialogue between representatives of the government and representatives of the Indigenous Peoples, and decide.

- Law No. 29785 on the right to prior consultation with indigenous peoples, recognized in Convention No. 169 of the International Labour Organization (ILO)
- Law No. 24656 Peasant Communities General Law
- Regulation of Law No. 29785, Law on the Right to Prior Consultation of Indigenous or Original Peoples recognized in Convention 169 of the International Labour Organization (ILO), approved by Supreme Decree No. 001-2012-MC
- Ministerial Resolution No. 350-2012-MEM/DM, which approves the administrative procedures in which the prior consultation process must be carried out
- Vice-Ministerial Resolution No. 010-2013-VMI-MC, which approves the procedure for indigenous peoples' requests for inclusion in a process of prior consultation or for the conduct of such a process
- Forestry and Wild Fauna Law, Law No. 29763 Regulations for Forestry and Wildlife Management for Native Communities and Farmer Communities, approved by DS N° 021-2015-MINAGRI

More information on Indigenous or Native Peoples can be found in the Indigenous Peoples and Local Communities Engagement Plan (IPLCEP) (Annex 6c) for the proposed project.

Gender

The Law Nº 28983 regarding equal opportunities between women and men, includes provision regarding vulnerability to the climate change:

- To promote access to productive, financial, scientific-technological resources
- To promote the economic, social and political participation of rural, indigenous women, as well as their integration in the decision-making spaces of community organizations, production associations and others.

More information on the Gender legal framework can be found in the Gender Analysis (Annex 6a) for the proposed project.

3 Environmental and social standards

3.1 GCF´s environmental and social policies

The GCF's "Environmental and Social Policy"[9] (decision B.19/10[10], paragraph (b)) is an overarching policy framework for promoting a paradigm shift towards low-emission and climate-resilient development pathways in the context of sustainable development. Through this policy, GCF will require that all GCF-supported activities will commit to:

- avoid, and where avoidance is impossible, mitigate adverse impacts to people and the environment;
- enhance equitable access to development benefits; and

[9] Environmental and social safeguards | Green Climate Fund
[10] Environmental and Social Management System: Environmental and Social Policy | Green Climate Fund

- give due consideration to vulnerable and marginalized populations, groups, and individuals, local communities, indigenous peoples, and other marginalized groups of people and individuals that are affected or potentially affected by GCF-financed activities.

GCF policy requires that the accredited entities undertake assessment of environmental and social, including transboundary risks and impacts to ensure that the activities proposed for GCF financing meet their environmental and social safeguards pursuant to the ESS standards of GCF and policy. The environmental and social assessment will be in a manner that: follows good international industry practices, identifies best alternatives and allows for an integrated and balanced view of the environmental and social risks and impacts pursuant to GCF standards and requirements of the accredited entities, considers the environmental and social factors, that can affect the achievement of intended results, and shall include where applicable upstream and downstream environmental and social risks and impacts and impacts on ecosystems and identifies opportunities to enhance the positive environmental and social outcomes and benefits.

Currently, GCF uses the International Finance Corporation (IFC) Performance Standards (PS) as its interim ESS Standards, as adopted by the GCF board in 2014. The detailed description of these standards can be found on IFC's website[11].

- PS1: Assessment and management of environmental and social risks and impacts
- PS2: Labour and working conditions
- PS3: Resource efficiency and pollution prevention
- PS4: Community health, safety and security
- PS5: Land acquisition and involuntary resettlement
- PS6: Biodiversity conservation and sustainable management of living natural resources
- PS7: Indigenous Peoples
- PS8: Cultural heritage

GCF is in the process of developing its own environmental and social standards and the document adopts the structure of these envisaged new GCF ESS:

- ESS1: Assessment and Management of environmental and social risks and impacts
- ESS2: Labour and Working Conditions
- ESS3: Resource Efficiency and Pollution Prevention
- ESS4: Community Health, Safety and Security
- ESS5: Land Acquisition and Involuntary Resettlement
- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS7: Indigenous Peoples
- ESS8: Cultural Heritage
- ESS9: Stakeholder Engagement and Information Disclosure
- ESS10: Financial Intermediaries

This document is structured along the new (draft) ESS Standards of GCF. Find the full draft of the proposed standards with more detailed information as a "red-line-version" (in track-changes mode)[12].

[11] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards

[12] ess-full-document-red-line-version.pdf (greenclimate.fund) and Virtual Stakeholder Consultation on the development of the GCF's new ESS – Stage 3: Proposed full draft | Green Climate Fund

Table 3: Overview of GCF's new (draft) ESS Standards

ESS standard	Description
ESS 1: Assessment and management of Environmental and Social Risks and Impacts	ESS 1 sets out the Entities' responsibilities for assessing, managing, monitoring, and reporting on environmental and social risks and impacts associated with each stage of an activity financed by GCF, to achieve environmental and social outcomes consistent with the Environmental and Social Standards. Entities carry out an environmental and social impact assessment (ESIA) of GCF-financed activities to assess the environmental and social risks, impacts, co-benefits and dependencies of the project. Included in ESS 1 are now: • Climate change resilience and adaptation: understand project physical and transitional climate risks, provide guidance on how best to assess and manage these risks, support co-benefits, and minimize mal-adaptation, consideration of natural hazard and disaster analysis and the need to align with the Paris Agreement. • Contextual Risk Assessment and Human Rights provisions (GIZ: context and human rights analysis (iPCA)): if significant risks are identified that project activities lead to negative impacts regarding conflict, fragility, violence (incl. SEAH) or human rights violations (discrimination, social cohesion, corruption, access to services, civil rights, digitalization, eviction, etc.).
ESS 2: Labour and working conditions	ESS 2 recognizes that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of and respect for the fundamental rights of workers. ESS 2 establishes the need for fair treatment, including safe and healthy working conditions.
ESS 3: Resource efficiency and pollution prevention	ESS 3 recognizes that increased economic activity and urbanization often generate increased levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at the local, regional, and global level. ESS 3 outlines the requirements for managing resource use and pollution prevention, including following circular economy and responsible investment principles. Greenhouse gas emissions and embodied carbon are considered in this Standard. Where projects will involve the installation of physical infrastructure, they need to address opportunities to improve the resource efficiency. Projects that are expected to produce more than 25,000 tons of CO2-equivalent annually, need to quantify and disclose emissions. Climate change mitigation is considered in this Standard too.
ESS 4: Community health, safety and security	ESS 4 concerns responsible practices to reduce health, safety, and security risks to communities. The safeguarding of personnel and property in accordance with relevant human rights principles is explained. ESS 4 has a focus on community exposure to impacts and risks due to project activities, equipment, and infrastructure. The relevance of climate adaptation in managing these issues takes on greater importance with the frequently modifying baseline, including changes to settlement locations and community compositions. This Standard acknowledges that infrastructure activities can impact people and natural resources outside the footprint and that public authorities play a key role in promoting health, safety, and security of the public. The Standard addresses the responsibility of relevant entities to avoid or minimize risks and impacts to community, health, safety, and security which might arise from project-related activities.
ESS 5: Land Acquisition and involuntary resettlement	ESS 5 addresses the management of land acquisition, restrictions on land use, access to assets and natural resources, physical or economic displacement, and involuntary resettlement where this is unavoidable. This includes consideration of mitigation measures such as fair compensation and improvements to and living conditions. ESS 5 considers how issues concerning land acquisition and involuntary resettlement are to be managed. Over the decade since the Standard

ESS standard	Description
	was developed, there has been increased emphasis on social issues, especially the sensitivities of this topic, and related lessons learned have been shared.
ESS 6: Biodiversity conservation and sustainable management of living natural resources	ESS 6 recognizes that protecting and conserving biodiversity, maintaining ecosystem services, and managing living natural resources adequately are fundamental to sustainable development and presents how to achieve this. The strong links between climate change and biodiversity mean that current crises in both domains are heavily inter-twined.
ESS 7: Indigenous Peoples	ESS 7 has an objective to minimize negative impacts, foster respect for human rights, dignity, and culture of indigenous populations, and promote development benefits in culturally appropriate ways. This includes consideration of Free, Prior, and Informed Consent (FPIC) of the Affected Communities of Indigenous Peoples, and respecting and preserving the culture, knowledge, and practices of Indigenous Peoples. ESS 7 considers how Indigenous Peoples (IPs) issues are to be incorporated in the management and implementation of GCF-financed activities. In 2018, GCF published its Indigenous Peoples Policy (IPP). The process for producing the IPP included careful review and analysis of other investors' approach. The result was a carefully worded and detailed policy.
ESS 8: Cultural heritage	ESS 8 aims to guide companies in protecting cultural heritage from adverse impacts of project activities and supporting its preservation. This includes protecting cultural heritage from adverse impacts and promoting the equitable sharing of benefits from the use of cultural heritage. When cultural heritage is a significant project issue, this includes the requirement for a Cultural Heritage Management Plan.
ESS 9: Stakeholder engagement and information disclosure	ESS 9 is a new proposed standard to promote open and transparent engagement between the entity, its workers, worker representatives, local communities and affected persons and, where appropriate, other stakeholders. This uses the stakeholder aspects of ESS 1 as its starting point. Effective stakeholder engagement includes information disclosure, meaningful consultation, and appropriate levels of participation by those affected by project affects and interested in project outcomes.
ESS 10: Financial intermediaries	ESS 10 is a new proposed standard recognizing that financial intermediaries are a key instrument for promoting sustainable financial markets and provide a vehicle to channel funding to the micro, small and medium-sized enterprise sector. The nature of intermediated financing means that the FIs will assume delegated responsibility for environmental and social assessment, risk management and monitoring as well as overall portfolio management. Accredited entities, acting in intermediary functions, undertake all necessary measures to ensure that all component subprojects and activities meet the requirements of GCF ESS, and that the borrowers, grantees, and investees have the adequate management systems, processes, and capacity to manage environmental and social risks and impacts.

3.2 Indigenous People's Policy

The GCF Indigenous People's Policy[13] applies whenever indigenous peoples are present in, have, or had a collective attachment or right to areas where GCF-financed activities will be implemented. This includes indigenous peoples who, during the lifetime of members of the community or group, have lost collective attachment to distinct habitats or ancestral territories in the project area because of forced severance, conflict, government resettlement programs, dispossession of their land, natural disasters, or incorporation of such territories into an urban area.

The Policy (decision B.19/11[14]) recognizes that indigenous peoples often have identities and aspirations that are distinct from mainstream groups in national societies and are disadvantaged by traditional models of mitigation, adaptation, and development. In many instances, they are among the most economically marginalized and vulnerable segments of the population. The economic, social, and legal status of Indigenous Peoples frequently limit their capacity to defend their rights to, and interests in, land, territories, and natural and cultural resources, and may restrict their ability to participate in and benefit from development initiatives and climate change actions. In many cases, they do not receive equitable access to project benefits, or benefits are not devised or delivered in a form that is culturally appropriate, and they are not always adequately consulted about the design or implementation of activities that would profoundly affect their lives or communities.

The GCF Board of Directors has additionally approved an Indigenous People's Policy (decision GCF.B.19/11). The Indigenous People's Policy applies to the GCF, AEs and National Designated Authorities (NDAs). The Policy includes stringent safeguards for all projects/programmes that include Indigenous Peoples (IPs). Peoples potentially affected by the programme sometimes include "ethnic groups" which count as "Indigenous Peoples" by the definition used in the Indigenous People's Policy.

If ESS 7 is triggered, an Indigenous Peoples Plan needs to be prepared as separate document.

3.3 Gender equality

The GCF gender policy[15] (B.24/12[16]) recognizes that gender relations, roles and responsibilities exercise important influences on women's and men's access to and control over decisions, assets and resources, information, and knowledge. It also recognizes that the impacts of climate change can exacerbate existing gender inequalities. The Gender Policy further acknowledges that climate change initiatives are more sustainable, equitable and more likely to achieve their objectives when gender equality and women's empowerment considerations are integrated into the design and implementation of projects. Further, this Gender Policy recognizes that women and vulnerable communities are also part of the solution to climate change and should, therefore, be effectively engaged in discussions and decisions that affect them. The GCF Gender policy has three main objectives:

- To support climate change interventions and innovations through a comprehensive gender approach, applied both within the institution and by its network of partners,

[13] Indigenous peoples policy | Green Climate Fund
[14] Indigenous Peoples Policy | Green Climate Fund
[15] Gender policy | Green Climate Fund
[16] Updated Gender Policy and Action Plan 2020–2023 | Green Climate Fund

including accredited entities (AEs), national designated authorities (NDAs) and focal points, and delivery partners for activities under the GCF Readiness and Preparatory Support Programme.

- To promote climate investments that:
  - Advance gender equality through climate change mitigation and adaptation actions; and
  - Minimize social, gender-related and climate-related risks in all climate change actions.
- To contribute to reducing the gender gap of climate change-exacerbated social, economic and environmental vulnerabilities and exclusions through GCF climate investments that mainstream gender equality issues.

The German Coalition Government pursues a feminist foreign and development policy. The feminist policy approach is guided by the following principles: a gender transformative, intersectional, and human rights-based approach, an inclusive gender understanding, the promotion of the rights, representation and resources of women and girls and marginalized groups, joint up multilateral action and close cooperation with (feminist) civil society. The German Federal Ministry for Economic Cooperation and Development (BMZ) aims at increasing the projects/programmes targeting gender equality as a significant objective to 85% and projects/programmes pursuing gender equality and the empowerment of women as its primary goal to 8% by 2025. Both the BMZ[17] and the German Foreign Office[18] will launch their new strategies in March 2023. In addition, the BMZ will launch a new Gender Action Plan in autumn 2023.

The Gender Strategy "Gender reloaded: Vision needs Attitude – Attitude meets Action"[19] provides guidance and a solid accountability framework for the promotion of equal rights and opportunities for all people regardless of their gender, sexual orientation, and gender identity within GIZ and in the framework of our cooperation with development partners and commissioning parties. With its Gender Architecture, with dedicated experts and more than 500 gender focal persons, and its Safeguards+Gender Management System, GIZ is well set to meet the requirements of GCF's Gender Policy and facilitate the roll-out and implementation of Germany's feminist foreign and development policy.

A gender analysis (GA) and a gender action plan (GAP) are prepared as separate documents.

3.4 German government environmental and social policies and standards

As an implementing agency of the German government, GIZ is legally bound to German law and regulations in environmental and social safeguarding. Additionally, specific government policies for the operations of GIZ apply.

Since 2017, GIZ uses a Safeguards + Gender Management System[20] at every stage of commission management for all GIZ business areas and commissioning parties. The Safeguards+Gender Desk at GIZ's headquarters, staffed with Specialists in Safeguards Management, ensures compliance with rules and regulations, and advises analysis, risk assessment and identification of adequate measures to mitigate risks as well as use

[17] Feminist development policy | BMZ
[18] Feminist Foreign Policy - Federal Foreign Office (auswaertiges-amt.de)
[19] GIZ Gender Strategy. Gender reloaded: Vision needs Attitude – Attitude meets Action
[20] Safeguards+Gender management system (giz.de)

opportunities for co-benefits in the safeguard areas environment, climate protection and adaptation to climate change, conflict and context sensitivity, human rights, and gender.

On climate risks, the assessment includes risks significantly affecting the climate resilience (adaptive capacity) of people, ecosystems and/or infrastructure, as well as greenhouse gas emissions caused by project activities.

GIZ's S+G Management has been assessed as compliant with the GCF's environmental and social policy as part of GIZ's accreditation as an executing entity for the GCF in 2017. GIZ is currently (2023) in the process of re-accreditation.

3.5 Sexual exploitation, abuse, and harassment (SEAH)

Sexual Exploitation and Sexual Abuse violate human dignity and universally recognised international legal norms and standards and have always been unacceptable behaviour. Sexual Harassment results from a culture of discrimination and privilege, based on unequal relations and power dynamics.

The GCF Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment[21] establishes GCF's zero tolerance of SEAH. It sets clear obligations for GCF Covered Individuals and its Counterparties to prevent and respond to SEAH and to refrain from condoning, encouraging, participating in, or engaging in SEAH.

GIZ does not tolerate any form of sexual exploitation, abuse, and harassment in the company. All employees must follow:

- the GIZ policy banning sexual harassment at the workplace
- the GIZ Code of Ethics
- the GIZ Code of Conduct
- the GIZ Human Rights Policy

GIZ promotes a corporate culture of action always based on universal ethical values and principles[22]. Integrity, honesty, respect for human dignity, openness and non-discrimination are at the heart of this culture. We categorically reject corruption and bribery and stand for human rights[23].

GIZ's ethical principles, values and beliefs are set out in a Code of Ethics[24]. Its purpose is to guide the actions of our own workforce and all those we work with. GIZ has a specific policy banning sexual harassment at the workplace, which refers to the sanction mechanisms in place (related to HR measures etc.). Since 2021, there is also a dedicated unit within the Compliance and Integrity Unit, which is responsible for SEAH and serves as a complaint mechanism.

The protection of whistle-blowers[25] is a high priority. The Compliance and Integrity Unit[26] investigates all reports of violations of the Code of Conduct, Discrimination, Sexual

[21] GCF/B.23/14 : Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment | Green Climate Fund and GCF/B.28/03/Rev.01 : Revised Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment | Green Climate Fund
[22] Ethics and Integrity (giz.de)
[23] GIZ Human Rights Policy
[24] Code of ethics.pdf (giz.de)
[25] Introduction (bkms-system.com)
[26] Compliance (giz.de)

Misconduct, work harassment (bullying) or serious compliance violations. It ensures that all reports are followed-up with, including the response with appropriate consequences.

Children's rights are an essential component of GIZ's approach to human rights. GIZ takes its responsibility to protect children seriously in its business activities. The GIZ Child Protection Policy[27] is aligned with GIZ's value system, the GIZ Code of Ethics. When it comes to child protection, GIZ is guided by international legal frameworks on children's rights.

As a part of the contextual risk assessment and human rights provisions (ESS 1, ESS 4), forms of violence as contextual phenomena in the project context, such as physical, sexual, psychological and/or structural violence, power, force and/or threats, power relations in general, discrimination of population groups, corruption patterns, are analysed and addressed if such risks are identified.

With regards to executing entities, GIZ's focus is on strengthening the organisations' capacities to deal with SEAH cases and strengthen prevention mechanisms.

3.6 Complaints and Whistleblowing

GIZ has an established Whistleblowing System[28], which offers various reporting channels that can also be used by anyone anonymously, if required. Complaints and reports on any legal violations, rule-breaking or regulatory infringements by employees or third parties (e.g. contracted service providers, funding recipients) in relation to the work of GIZ, can be submitted via an online Whistleblower Portal, especially on the following:

- Corruption and bribery
- Misappropriation, fraud and embezzlement
- Conflicts of interest
- Sexual misconduct and sexual exploitation
- Violations of human rights
- Violations of environment-related obligations (violations of environmental law)

GIZ's Corporate Unit Compliance & Integrity is in charge of the system. GIZ follows up on all reports and ensures they are investigated resolutely and fairly. For this purpose, a standardized and transparent processing procedure is in place.

In its Code of Conduct, GIZ stipulates that people who provide information in justified cases do not suffer any disadvantage as a result of doing so, unless the whistle-blower has infringed the "Code of Conduct" or other regulations.

Complaints and reports can also be filed with any GIZ country or project office, in writing or by requesting a meeting, if required.

[27] Kindesschutzpolicy-en (giz.de)
[28] GIZ Whistleblowing

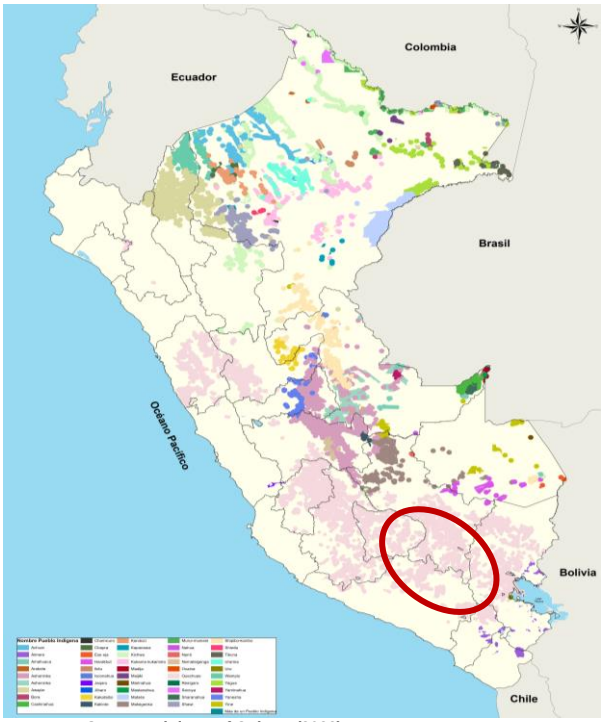
4 Environmental and social baseline situation in the target regions

4.1 Project implementation areas

Due to the extent of the Peruvian Andes (364,716 km^2)[29] and limited project funds, watersheds where interventions could have the greatest potential were prioritized according to climate and ecosystem criteria. The climate-related criteria included a) vulnerable communities: i) altitude higher than 3500 m.a.s.l., (including a buffer zone down to 2800 m.a.s.l.); b) ecosystems: i) presence of puna key ecosystems (peatlands, grasslands and wetlands) and ii) distance to degraded lands; c) climate: i) distance to areas that have undergone deglaciation and ii) presence high or very high risks to droughts for agricultural and livestock.

As a result of this exercise, 91 districts in 5 regions (Arequipa, Cusco, Apurimac, Lima (Yauyos) and Puno) were prioritized, with an overall population of approximately 560,000 in the SHAP. During the development of the funding proposal, a second phase has been carried out, focusing on enabling conditions to implement the project according to social, economic, and environmental factors. In this phase, 58 districts located in the departments mentioned above were prioritized and will be eligible for the Puna Facility. Other 33 districts will be only beneficiaries of capacity building activities. Map 1 portrays the prioritised areas for intervention. In addition, the target areas of the project are located on modified habitats due to agricultural activity, natural habitats in the frame of the Natural Protected Areas (see chapter 5.4.) and critical habitats inside and outside of Natural Protected Areas as the bofedales due to their contribution to water regulation (see chapter 5.3).

Source: own



Source: Ministry of Culture (2023)

Map 1: Prioritised areas for intervention and Map of Indigenous Peoples in Peru (Quechua in light pink)

[29] The Peruvian Andes cover more than 60% of the extension of the territories of the South American Andean eco-region and 28% of the Peruvian territory.

Table 4:List of eligible districts for the Puna Facility

Department	Project target area (districts)	Prioritized districts (eligibles for Puna Facility)	Basins
Apurímac	23	10	Intercuenca Alto Apurimac
Arequipa	26	12	Vitor Quilca Chili, Subcuenca Cotahuasi- Ocoña
Cusco	29	23	Vilcanota-Urubamba, Inambari
Lima (Yauyos)	4	4	Cañete
Puno	9	9	Azángaro, subcuenca Coata
Total	**91**	**58**	

Ample experience in implementing EbA and liaising with local stakeholders on the ground has already been gathered in the landscape reserve Nor Yauyos Cochas (NYC)[30], which is located at the upper reaches of the Cañete watershed, in the Department of Lima. Knowledge, methods and experience on enhancing natural capital and maintaining ecosystem services through EbA measures will be transferred from NYC to support replication in other protected areas: Salinas y Aguada Blanca National Reserve, and Cotahuasi Sub Watershed Landscape Reserve in the Department of Arequipa, and Ampay National Sactuary in the Department of Apurímac.

4.2 Population density

The prioritized districts are usually conformed by urban settings and dispersed in rural villages. .The Government of Peru categorizes its districts by population density in a typology defined in table 4. According to the 2017 INEI census, 66% of the population of Arequipa live in rural population centres, compared to 55% in Cusco, 42% in Apurímac and 41% in Puno. In the case of Lima, all prioritized districts correspond to rural area; whilst the national average is 20.7% (INEI 2018). Note that population centres are considered rural if their population is under 2,000 inhabitants and that proximity to population hubs impacts access to basic services, which are discussed below.

Table 5: Urban and rural population in the study area

Prioritised districts in Resilient Puna project departments	Population (2017)	Urban area		Rural area	
		Population	%	Population	%
Apurímac	170,063	98,615	58%	71,448	42%
Arequipa	45,580	15,477	34%	30,103	66%
Cusco	292,830	131,008	45%	161,822	55%
Lima	1,457	0	0%	1,457	100%
Puno	57,119	33,843	59%	23,276	41%

[30] See for example Global Mountain EbA project implemented by UNDP, UNEP and IUCN.

Total	**567,049**	**278,943**	**49%**	**288,106**	**51%**

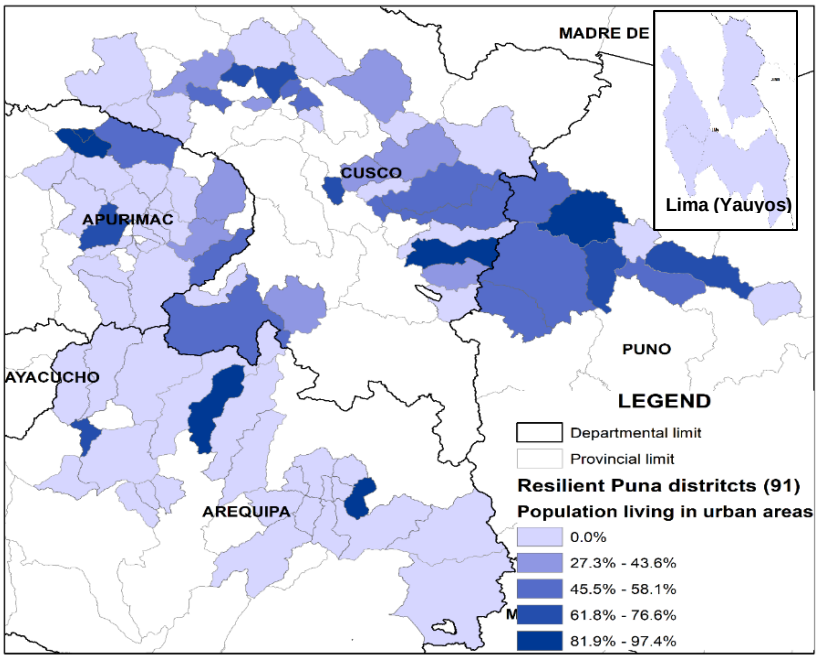
Source: Population and housing census, 2017. INEI.

In addition, in the last decades Peru has experienced a drop-in birth rate caused the average annual population growth rate to drop from 2.6% in the mid-20th century to 1.5% today (INEI 2020b).

4.3 Population structure

In the last decades, Peru has experienced a drop-in birth rate caused the average annual population growth rate to drop from 2.6% in the mid-20th century to 1.5% today (INEI 2020b).

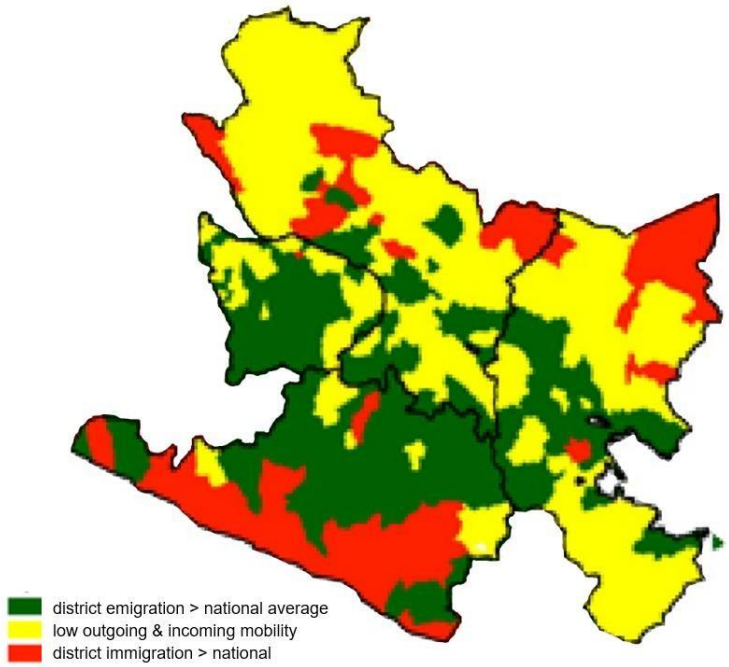
The districts prioritised in the project intervention have experienced a decline in population in recent years: Cusco's population decreasing from 300,017 in 2007 to 292,830 in 2017. In the same time period, Arequipa's population decreased from 56,693 to 45,580, Puno's population decreased from 60,745 to 57,119 and Lima's population 3,896 to 3,341. Apurimac was the only department with population growth, from 151,222 to 170,063.



Map 2: Percentage of the population of the prioritised districts living in urban and rural areas as defined by the INEI 2017

Internal migration is another factor strongly impacting Peru's population structure. According to data from 2017[31], highland areas, in which the prioritized project districts are located, have comparatively high emigration levels.

[31] National census 2017, INEI



Map 3: Classification of the project regions' levels of immigration/emigration in the year 2017 (INEI 2019)

With a significant portion of the population living in poverty and extreme poverty, communities in the SHAP are mostly dedicated to subsistence activities in agriculture and animal husbandry, with limited commercial activity or access to markets. This lack of opportunities triggers the migration of especially young men to urban centres, leaving a void in the family and community structure. Women are left in charge of the households and often resort to leasing their land, resulting in increased degradation of ecosystems due to unsustainable rearing practices. In addition, due to the impacts of climate change in agriculture and livestock people in the Andes are already migrating as a strategy of adaptation to the changes[32]. In this context, mining activity (both formal and informal) offers more opportunities and attracts workers in those areas. According to the people met during the field mission in May 2023, it is the main reason for young people to not remain in the community (or even to come back).

4.4 Socio-Cultural profile

The following sub-chapter describes the socio-economic profile of the Andean population that live around or over 3500 m.a.s.l in the regions of Puno, Cusco, Arequipa, Apurimac and Lima (Yauyos).

69% of the population in the project area belong to the Quechua Indigenous Peoples Group[33] and the other 31% are Spanish-speaking Andean communities. Spanish-speaking Andean communities can also be identified as IPLCs. In accordance with the obligations established in Convention 169 of the International Labour Organisation (ILO) and the Peruvian Law, peasant or Andean communities peoples can also be identified as indigenous or original peoples, according to the criteria: a) Direct descent from the original populations of the national

[32] Hosmer-Quint, Sam, "La Relación entre Cambio Climático y Migración en los Andes de Perú: Los Q'ero, Taquile y la Cordillera Blanca" (2020). Independent Study Project (ISP) Collection. 3335.
[33] List of indigenous or native peoples

territory, b) Lifestyles and spiritual and historical links with the territory they traditionally use or occupy, c) Their own social institutions and customs, d) Cultural patterns and way of life different from those of other sectors of the national population. The names used to designate indigenous or aboriginal peoples do not alter their nature or their collective rights.

There is considerable uniformity in the cultural-socio-economic conditions within this area. As a general profile, the Quechua speaking people of the high Andes are subsistence level agriculturalists, living in poverty or extreme poverty reliant on livestock grazing and limited crop production[34]. While most children attend primary school only a minority continue and complete their secondary education instead withdrawing to support the family's subsistence activities[35].

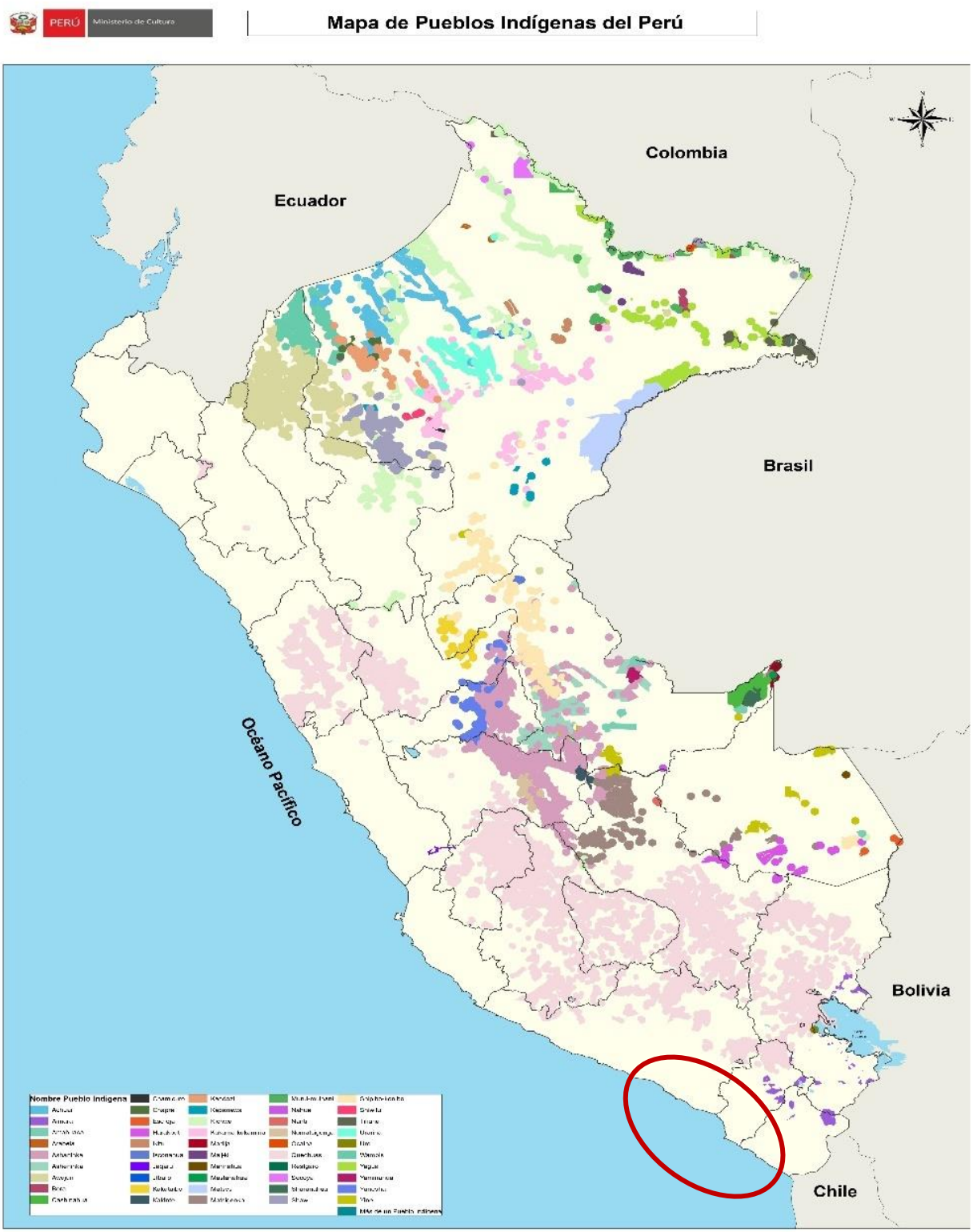
Indigenous Peoples in the area

The Peruvian state has made an initial identification of the Indigenous Peoples Groups (peasant and native communities) and has formally recognised 55 Indigenous or Original Peoples in the whole Peruvian territory[36]. However, in the target area of the Resilient Puna project there is only one Indigenous Peoples Group present: the Quechua.

The Quechua people are the long-standing largest Indigenous Group in Peru (5,179,774 people) and in the Andean territory, whose mother tongue is Quechua.

Find in the following map the distribution of the Indigenous Peoples in Peru, highlighting in a red circle the Quechua people (pink) within the project intervention area.

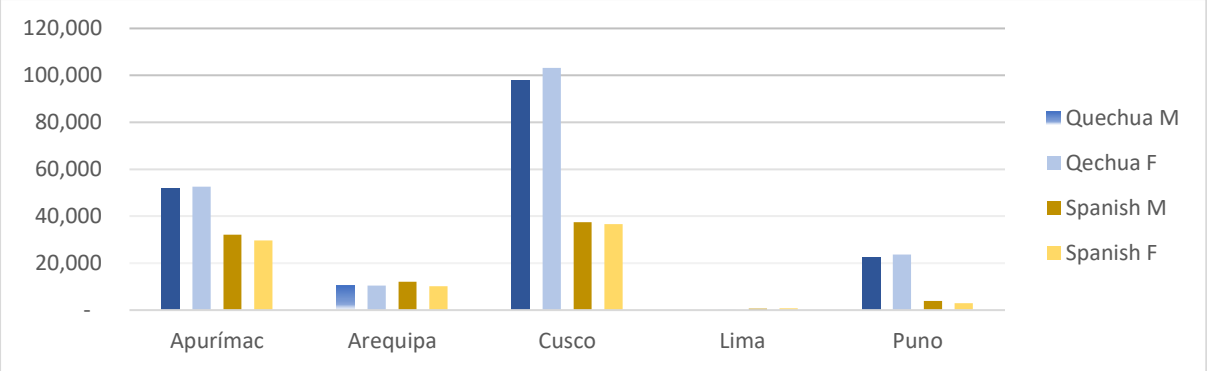
[34] Sarapura S., Safeguarding the land to secure food in the highlands of Peru: The case of Andean peasant producers, 2022
[35] World Pulse, PERU: Education Barriers in the Andes, 2022
[36] Preguntas frecuentes | BDPI (cultura.gob.pe)



Source: Ministry of Culture (2023)

Map 4: Map of Indigenous Peoples in Peru (Quechua in light pink)

Figure 5: Population per native language according to gender, in project target districts



Source: INEI, National Census 2017.

Table 6: Quechua and Spanish speakers

	Quechua Male	Qechua Female	Spanish Male	Spanish Female
Apurímac	31%	32%	19%	18%
Arequipa	24%	24%	28%	24%
Cusco	36%	38%	14%	13%
Lima	1%	0%	47%	51%
Puno	42%	45%	7%	6%
Total	34%	35%	16%	15%

Source: INEI, National Census 2017.

According to the people consulted in May 2023, access to health care, and other basic services are often limited. Community water systems may provide chlorination and a single outside water connection with wastewater systems being largely absent (field visit, May 2023).

In addition, small and informal mining activity is also common above 3500 m.a.s.l. This activity is often highly damaging as a result of the land clearing, waste rock disposal, and contamination of waterways. Where a mining site is present, it does generally represent the main source of cash income for the community and attract the younger population.

Quechua Indigenous Peoples social and political institutions[37]

The main known pre-Hispanic form of social organisation of Quechua populations is the ayllu, an institution originally founded on kinship. Similar forms of kinship-based organisation are still found in some areas of Cusco and Apurimac (Skar, 1997). At present, the most widespread form of organisation of contemporary Quechua peoples is the peasant community.

This form of collective and territorially based organisation has a leadership, democratically elected every two years in accordance with the law in force (General Law of Peasant Communities, 1987), which is responsible for governing collective affairs and intermediation with the state. The communal leadership is composed of between 8 and 14 or more positions, including a president, a secretary, a treasurer, a prosecutor and other minor positions, traditionally all positions are occupied by men. According to the 2017 census (INEI), 97% of

[37] Quechuas | BDPI (cultura.gob.pe)

community presidencies in our country are currently in the hands of men[38]. The communal leadership is accountable to a communal assembly, which is considered the highest organisational and decision-making body of the community.

Quechua Indigenous Peoples Cultural Expressions[39]

The Quechua peoples have a wide range of traditional festivals and dances associated with them (Romero, 2008). The Catholic patron saint festivals stand out for their number and spatial coverage, which have been incorporated into the practices of Andean peoples since the 16th century and have given rise to a characteristic Andean Catholic ritual practice. Patron saint festivals celebrate a patron saint (a Christ, a virgin, a cross, a saint or a saint) and involve several days of celebration under a common structure: vespers, central days and a day of farewell, also called kacharpari.

Patron saint festivals are occasions for the display of traditional costumes, the performance of traditional music and the preparation of food and dishes specific to the locality. Festivals are usually developed through organisations, brotherhoods, mayordomías or cargo systems, all of them under various forms of reciprocity and obligation between relatives and neighbours. Patron saint festivals provide a series of mechanisms for bonding, identity, status and prestige in Quechua villages (Cánepa, 2001).

Also, a series of festivals linked to productive activities, such as water sowing and harvesting, but above all the cleaning of irrigation ditches and blacksmithing. These two types of festivals are more "traditional", have more indigenous elements than the patron saint festivals, and are widespread in many highland regions (Cloudsley, 1988).

The ditch-cleaning festivals refer not only to collective work and generalised reciprocity (they include banquets where everyone shares) but also to the ancestors who provide the water, as well as extolling the goodness and the work done correctly. They include specialists, offices, and also propitiatory rituals. They are usually held in May or September, depending on the communities and regions. These festivals have both ritual and technical purposes, as they incorporate the work of cleaning and repairing traditional irrigation systems, reservoirs, and canals (Ráez, 2005).

For their part, the herranza festivities, the branding of cattle, take place in the middle of the year, between July and August. They are also called Santiago, rodeo, señalakuy or diachakuy, among other names. They combine collective and extended family celebrations, involving a series of propitiatory rites of payment to the land and the hills that guard the livestock, and the branding of the animals in different ways: burnt marks on cattle, cutting and taping the ears of camelids, and sewing coloured wicks on sheep. In the southern Andean areas, the wylanchas and tinkas of llamas and alpacas are also performed, propitiatory rites for the fertility of the animals that involve songs, dances, banquets, payments and animal sacrifice. In some areas of the central-southern highlands there is also the toropukllay, a ceremony, game and spectacle that combines a condor and a bull in a ritual act, as a propitiatory rite (Molinié, 2009).

[38] https://rpp.pe/politica/estado/al-menos-el-30-de-los-puestos-directivos-en-comunidades-campesinas-seran-ocupados-por-mujeres-noticia-1209667?ref=rpp
[39] Quechuas | BDPI (cultura.gob.pe)

Vulnerable subgroups within Resilient Puna project districts

The population of the study area is practically equally distributed between men and women (50% / 50%) with 282,709 men and 284,339 women according to the last population and housing census.

Age

According to age groups, the largest population is found in the 11 to 15 age group, with nearly 60,000 inhabitants.

The 0-14 age group represents on average 27% of the entire population, while those over 60 years of age represent on average of 15% of the inhabitants of the study area.

Table 7: Age distribution

Total target population	Women	Children (0 to 14 years old)	Elderly (60 to +95 years old)
Apurimac	50%	28%	11%
Arequipa	51%	21%	19%
Cusco	51%	30%	12%
Lima	51%	25%	22%
Puno	50%	30%	10%
Average	51%	27%	15%

Source: National Census (INEI, 2017).

- In Apurimac, girls represent 28% of the total female population and elderly women 12%.
- In Arequipa, girls represent 20% of the total female population and elderly women 21%.
- In Cusco, girls represent 29% of the total female population and elderly women 13%.
- In Lima, girls represent 24% of the total female population and elderly women 23%.
- In Puno, girls represent 29% of the total female population and elderly women 11%.

Iliteracy

The illiteracy rate of the total population of the study area is 17%, which is more than double the national average of 5.8% according to the last National Census in 2017.

According to gender, the percentage of illiterate women (+14 years old) is three times higher than the percentage of illiterate men. Thus, 23% of women do not know how to read and write compared to 8% of men. Compared to the national average of illiteracy among women (8.5%), the percentage in the project target area is 14.5%.

The illiteracy rate is higher in the districts of Cusco, which gives this region a percentage of more than 15% of the population over 14 years of age that does not know how to read and write. Among the districts that make up the region, Lares, Challabamba, Quiquijana, Paucartambo and Llusco stand out, all with a rate of over 27%.

The districts with the highest level of illiteracy in their population over 14 years of age were Tambobamba (Apurímac) and Puyca (Arequipa) with a percentage of 30%.

Table 8: Illiteracy rate

	Women	Children (0 to 14 years old)	Elderly (60 to +95 years old)
Apurimac	11%	6%	6%
Arequipa	11%	7%	6%
Cusco	15%	7%	6%
Lima	5%	6%	2%
Puno	12%	7%	6%
Average	11%	7%	5%

Source: National Census (INEI, 2017).

- In Apurimac, girls represent 30% of the total female population and elderly women 38%.
- In Arequipa, girls represent 30% of the total female population and elderly women 44%.
- In Cusco, girls represent 25% of the total female population and elderly women 37%.
- In Lima, girls represent 57% of the total female population and elderly women 25%.
- In Puno, girls represent 28% of the total female population and elderly women 42%.

Migration

Motivated by various reasons, is often part of the social fabric in highland communities. Migrants tend to be of working age and slightly more of them are male than female. They usually head to urban areas in Peru. Slightly less than half (46%) of respondents indicate work as the motivation, while better living and study conditions also play a role. Beyond these, some migrant family members move for reasons such as lack of land, marriage, family conflict or military service. Sizeable shares of migrants' family members also indicate "environmental problems" as playing some role in migration decision. Orlove (2009) argues that low stream levels due to glacier retreat will deteriorate pastures and make herding impossible for pastoralists in Cusco, making outmigration of already mobile pastoralists to other regions more likely. At most, some pastoralists may be able to stay in the highlands during the rainy season but will have to migrate during the dry season[40].

4.5 Gender

A Gender Analysis (GA Annex 8a) has been developed for the project. This chapter is extracted from those assessments.

Peru is a country with high levels of inequality, in terms of income, property, access to basic social services, infrastructure and gender. In 2020, monetary poverty increased by 9.9 percentage points and reached 30% of the Peruvian population. This affected 46% of people living in rural areas (3.1 million people) and 26% of people living in urban areas (6.8 million people) (INEI, 2021b). In terms of gender inequity, Peru has progressed launching different norms for the mainstreaming of a gender approach in public policy, but it is still insufficient.

[40] Bergmann, J., K. Vinke, C.A. Fernández Palomino, C. Gornott, S. Gleixner, R. Laudien, A. Lobanova, J. Ludescher and H.J. Schellnhuber, 2021. *Assessing the Evidence: Climate Change and Migration in Peru*. Potsdam Institute for Climate Impact Research (PIK) and International Organization for Migration (IOM). Potsdam and Geneva.

In Peru, there are marked patterns of gender-based roles and/or behaviours, and historically established stereotypes and social expectations about women's and men's aspirations and opportunities persist and are clearly discriminatory in that they limit women's options for full development. Peru has progressed launching different norms for the mainstreaming of a gender approach in public policy, but it is still insufficient.

Below are shown indicators that illustrate gender gaps in Peru:

- Political participation: the percentage of women in the legislative branch has recently reached the quota percentage (30%) 38,8% in 2022. Women's access to political representation is much lower even in regional and local governments[41].
- Gender-based violence: 63.2 % of women between 15 and 49 years of age have been victims of domestic violence at some time in their lives by their husband or partner (INEI/ENDES, 2018).
- Reproductive health: In 2021, every day, four girls under the age of 15 gave birth and every hour 5 adolescents aged 15 to 19 became mothers. Generally, a product of pregnancy resulting from sexual violence (UNFPA, 2018).
- Education and employment: the percentage of young women between the ages of 15 and 29 who neither study nor work is more than double the percentage of young men. 24.2% and 11.3%, respectively.
- Poverty: Monetary poverty among young Peruvian women aged 20-39 years is higher than that of their male peers, in 2 to 3 percentage points more than the national average (INEI/ENAHO, 2016).

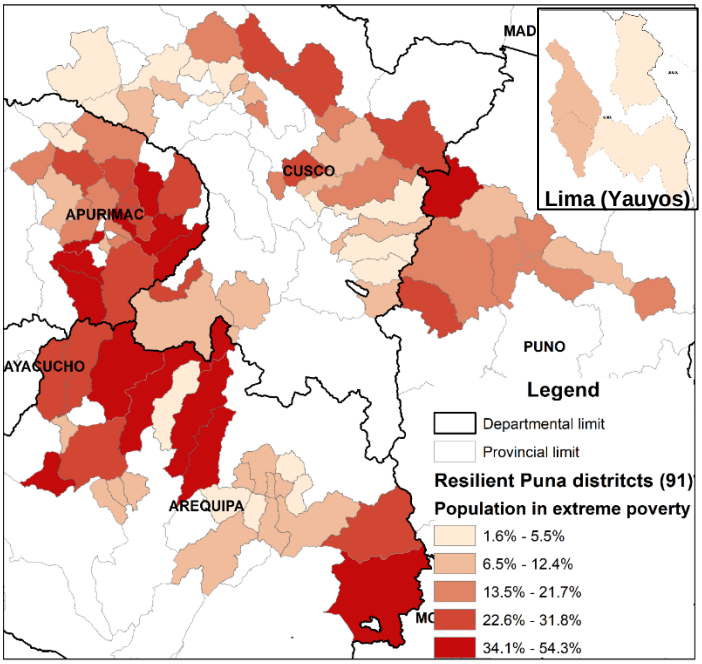
Women in the Andes and specifically in Local Communities, due to their socially constructed roles and responsibilities, and the still existing conceptions of male superiority struggle with a position of inferiority regarding access and control over natural resources such as land, water, production and commercialization of agricultural products. Moreover, their responsibilities in the reproductive sphere, like domestic labour and family care limit their availability of time and opportunities for education, training, paid employment and participation in decision-making spaces. This translates into under-representation in different type of organizations. Despite this, women actively participate in the management of key natural resources such as water and land. While men concentrate their participation and decision making in agriculture and animal husbandry, women are responsible for water supply for subsistence farming, food preparation, cleaning and, hygiene of family members, including the ill and disable (Carrillo & Remy, 2022).

There are several barriers that prevent women from playing a more active role in in the economic development of the region. Many women have limited access to land ownership, financial loans, as well as limited opportunity for training and technical assistance (INEI, 2012). The low productivity of land and labour leads men to leave farming jobs, looking for better paid activities like mining, construction, transport. The high opportunity cost induces migration, as a temporary or permanent rural exodus. Women are left in charge of caring for children and the elderly, the household, and the farm, challenging their capacity to earn better income. From farming work, 38% of women in agricultural occupations are unpaid family workers.

[41] https://oig.cepal.org/en/indicators/legislative-power-percentage-women-national-legislative-body-0

4.6 Poverty and Employment

Poverty in Peru has rapidly declined since the start of the 21st century, as a result of prosperity from the international market, tourism, low inflation, greater economic opportunities, and neoliberal economic policy, at one of the fastest rates in South America. Poverty decreased from 58.7% in 2004 to 20.5% in 2018, or from 14.9 million people in poverty to fewer than 6.8 million people in 2018, according to the National Institute of Statistics and Informatics (INEI). In 2019 the poverty rate decreased by another 1,7%, unfortunately, the Covid-19 pandemic, delayed all progress in poverty reduction, increasing it by 10 percentage points (BCRP, 2021)42. Therefore, the study area concentrates 14% of its population in the poorest districts of the country and 24% in the districts of the second quintile of highest national poverty.

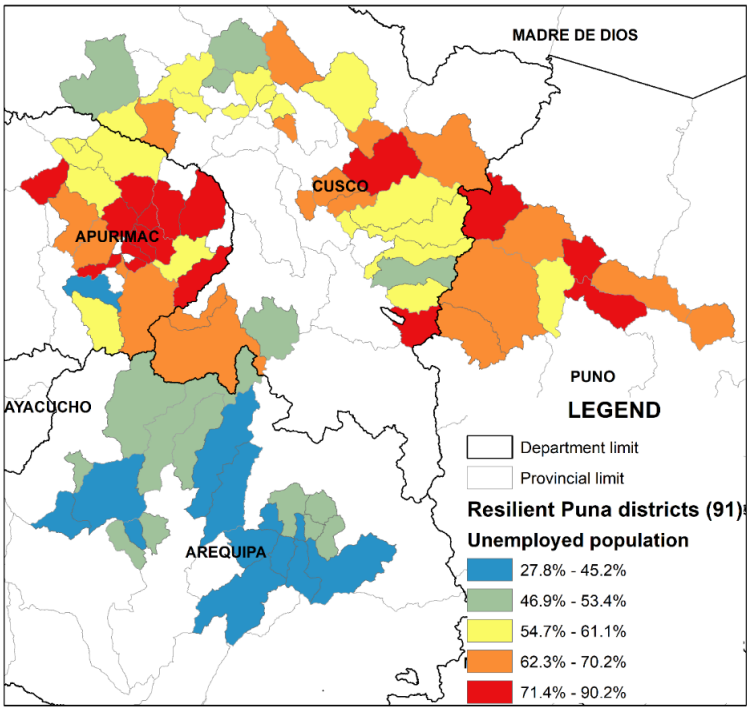


Map 5: Extreme poverty map in the project intervention area (CENSO 2017)

Poverty in Peru is especially present in underdeveloped and most inland regions of Peru, as a result of little economic opportunity and availability of capital in those regions and more generally in the high Andean districts.

INEI divides its regions into four categories based on monetary poverty rates: The first category includesregions with extreme poverty rates between 11.2% and 14.7%, the second with rates between 6.3% and8.3%, the third between 2.4% and 3.7% and the final category between 0.1% and 1.0%. In this categorization, Apurímac, Cusco and Puno all fell into category two based on data from 2020, while Arequipa was in group three. This categorization has remained fairly stable in the time frame between 2013 and 2020. Only two regions in Peru were categorized as group one in the calculations for 2020 (INEI 2020a).

[42] Banco Central de Reserva del Perú. https://www.bcrp.gob.pe/docs/Publicaciones/Reporte-Inflacion/2021/junio/ri-junio-2021-recuadro-2.pdf



Map 6: Unemployment rate among EAP in the prioritized districts in percent (INEI 2018a)[43]

According to the 2017 census, the majority of economically active persons (EAP[44]) in the prioritized districts gain their income as wage-earning employees, followed by self-employment in agriculture and/or livestock raising. The number of EAP without gainful employment varied strongly between districts, though it is notable that the nine districts with the lowest unemployment (see Map 6) were all located in the Arequipa region. This may at least in part be due to the region having a higher working population (77,8%) than the national average (75,3%). The district with the highest unemployment, 39.3% of EAP, was Mamara district in Apurímac, compared to a national unemployment rate among EAPs of 4,7% (INEI 2018).

A gender gap in employment was visible in the majority of districts, with an average difference of 7 between the % of unemployed female EAPs and the % of male EAPs unemployed. The largest gap was recorded in Gamarra district in Apurímac, where over half of female EAP were seeking employment, in comparison to only 6.29% of male EAP. This calculation however only shows the gender employment gap among EAPs. It is noteworthy that an average of roughly two-thirds of EAPs recorded in the census were male. Though this gender gap varies between districts, it can be said that in general, considerably less women in the project area are economically active than men.

4.7 Economic profile

One of the main subsistence systems of the Quechua people is agriculture. They have developed a complex system of agricultural production that has survived to the present day[45].

[43] For the prioritised districts in the province of Yauyos, department of Lima, no information was available.

[44] In Peru the minimal age to work is 14 years.

[45] Quechuas | BDPI (cultura.gob.pe)

It combines the management of terraces (andenes) or other forms of soil transformation (camellones, qochas), with irrigation and crop rotation systems, associated with regulated rest. These systems are developed mainly for the production of tubers (potato, olluco, oca, mashua) or Andean grains (quinoa, kiwicha, cañihua) and are associated with specific types of tillage (chuki, t'aya, wachu), as well as with tools specific to high altitude and small areas (Morlón, 1996; Gonterre, 2009). One of the most characteristic tools of this people is the chaquitaqlla or foot plough. This tool, with several variants, has been widely used in the central and southern Andean areas, and involves teamwork to plough and plough the land. There are also other tools used to a greater or lesser extent for agricultural activity (Bourliaud, Hervé, Morlón, & Chakitalla, 1988; Lechman & Soldi, 1981; Pino, 2001).

Andean families typically rely on a diverse set of subsistence agricultural activities to meet their basic needs and traditionally, tubers (e.g. potatoes) and pseudocereals (e.g. quinoa) dominate small-holder farming in the high Andes. Livestock (sheep, goats, pigs, cattle and camelids) together with small mammals (guinea pigs, rabbits, chickens, etc.) kept in home shelters, provide both a source of meat protein and cash income when sold to local markets. Women and children are primarily responsible for the herding of animals which often requires moving them daily from the lower elevation residences, where the animals are corralled at night, to the higher elevation communal grasslands. Crop production (mainly potatoes, wheat, quinoa, corn and beans) are typically managed by the males with excess production sold or exchanged for other food products they cannot produce (e.g. sugar, salt, vegetables etc).

Depending on their proximity to local towns the males might secure several months of unskilled labour thus earning a small additional amount of cash income. Families generally do not have bank accounts. Due to the subsistence nature of high Andean communities, opportunities for paid work and income are sought, with the exception of mining areas.

Table 9: Distribution of Economically Active Population (EAP) per male/female and economic activity in prioritized districts by department

Economic Activity	Apurímac		Arequipa		Cusco		Lima		Puno	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
A. Agriculture, livestock, forestry and fishing	71%	29%	60%	40%	47%	53%	63%	37%	58%	42%
B. Mining and quarrying	94%	6%	91%	9%	81%	19%	97%	3%	96%	4%
C. Manufacturing industries	76%	24%	64%	36%	46%	54%	70%	30%	68%	32%
D. Electricity, gas, steam and air conditioning supply	82%	18%	85%	15%	87%	13%	100%	0%	80%	20%
E. Water supply; sewage disposal, waste management and decontamination	82%	18%	84%	16%	75%	25%	-	-	100%	0%
F. Construction	94%	6%	91%	9%	96%	4%	91%	9%	98%	2%
G. Wholesale and retail trade; repair of motor vehicles and motorbikes	41%	59%	33%	67%	43%	57%	33%	67%	39%	61%
H. Transport and warehousing	89%	11%	94%	6%	92%	8%	100%	0%	99%	1%

I. Accommodation and food service activities	45%	55%	29%	71%	34%	66%	42%	58%	21%	79%
J. Information and communication	71%	29%	70%	30%	64%	36%	-	-	60%	40%
K. Financial and insurance activities	45%	55%	54%	46%	41%	59%	-	-	55%	45%
L. Real estate activities	55%	45%	100%	0%	81%	19%	-	-	50%	50%
M. Professional, scientific and technical activities	62%	38%	65%	35%	59%	41%	71%	29%	68%	32%
N. Administrative and support service activities	68%	32%	60%	40%	69%	31%	100%	0%	69%	31%
O. Public administration and defence; compulsory social security schemes	71%	29%	61%	39%	64%	36%	47%	53%	66%	34%
P. Education	53%	47%	43%	57%	48%	52%	56%	44%	61%	39%
Q. Human health care and social work activities	61%	39%	24%	76%	28%	72%	0%	100%	37%	63%
R. Arts, entertainment and recreation	72%	28%	71%	29%	77%	23%	-	-	74%	26%
S. Other service activities	54%	46%	50%	50%	58%	42%	50%	50%	71%	29%
T. Activities of households as employers; undifferentiated activities of households as producers of goods and services for own use	3%	97%	9%	91%	9%	91%	25%	75%	7%	93%
U. Activities of extraterritorial organisations and bodies	0%	100%	100%	0%	-	-	-	-	-	-

Source: Population and Housing Census 2017. INEI.

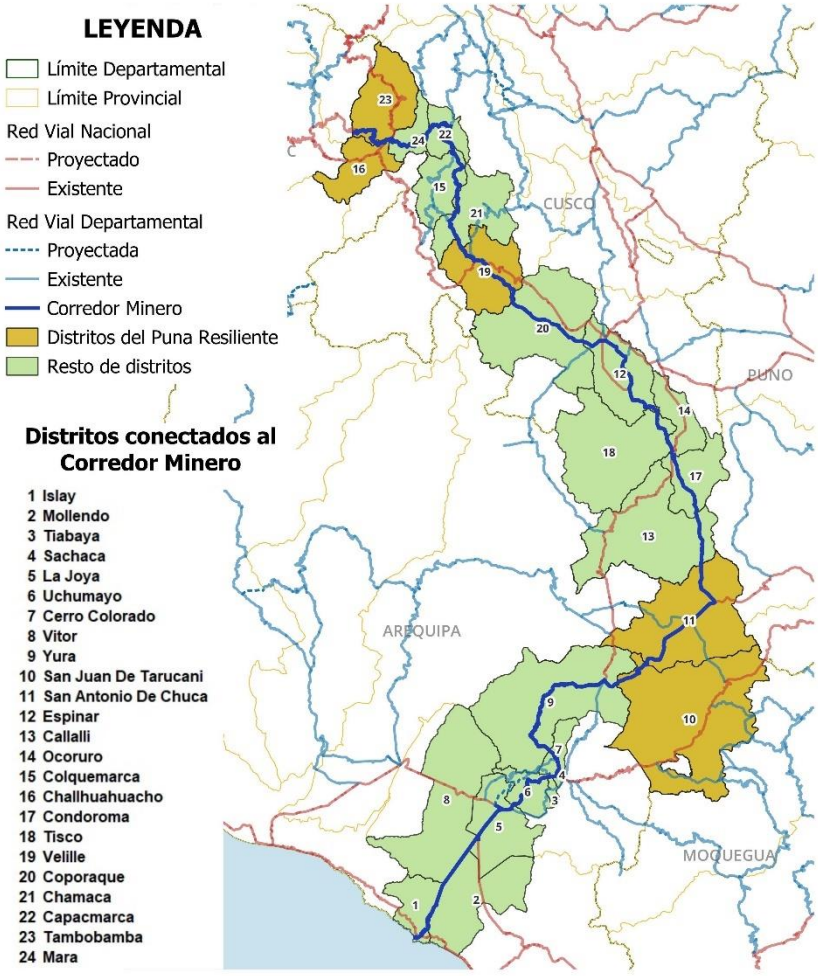
The mining activity is also highly present in the project region with both active and inactive sites. In this sense, it was identified through the Integral Registry of Mining formalisation (REINFO in Spanish), the Resilient Puna districts that have information on miners in the process of formalisation (current and suspended). Within the scope of the project, Apurímac is the department with the most records of current (229) and suspended (1005) miners in the process of formalisation. Lima has the fewest, with only 2 in force and 26 suspended.

Table 10: Status of mining formalization process in the project area

State of Resilient Puna districts per department	Apurímac	Arequipa	Cusco	Lima	Puno	Total
Current	229	180	122	2	42	575
Suspended	1,005	817	793	26	265	2,906

Total	1,234	997	915	28	307	3,481

Similarly, Apurímac has the most mining concessions with 49.9% of its territory under concession[46].



Source: MMG las Bambas. Own elaboration

Map 7: Mining Corridor in SHAP

4.8 Social-environmental conflicts

In September 2022, the Ombudsman registered 211 conflicts in Peru, 21% are from the South High Andean departments: 1% in Arequipa, 5% in Puno, 6% in Apurimac, and 9% in Cusco. In the Southern High Andes of Peru (SHAP area), conflicts are mainly caused by socio environmental concerns related to mining activities, such as environmental damage, unfulfilled social commitments between the mining company Las Bambas and peasant communities. For this reason, the project made a prioritisation of districts, considering the criterion of not having eligible districts for the Puna Facility that have a high level of socio-environmental conflicts, especially those caused by mining activities, since in many cases socio-environmental conflicts lead to road blockades, social mobilisations, human trafficking, and other illegal

[46] Source: CooperAcción (2023). https://cooperaccion.org.pe/mapas/

activities. The 33 of the 91 districts that were not selected to apply to the Puna Facility for this reason will receive capacity building actions.

Some conflicts are caused by land tenure disputes between adjoining communities, these conflicts have not resulted in people injured. Nevertheless, some of these conflicts may eventually escalate into episodes of violence between police forces and protesters, mostly when key highways are blocked. Therefore, it is important to highlight the project will not support mining activities nor deal with land tenure issues (communities without title or with delimitation boundary conflicts).

The project envisages the elaboration of a risk plan plan to constantly map the types of problems and conflicts that may occur during implementation. It should also be noted that the project will identify at the beginning of implementation communities that have tittle and do not have territorial demarcation conflicts with other landowners.

4.9 Land tenure

The Andean puna is comprised of marginally productive (subsistence) agricultural lands and small scattered human settlements characterized by extreme poverty, low education levels and literacy rates with significantly lower life expectancy and higher child mortality rates than the rest of Peru.

Peru's Agrarian Reform laws were enacted in 1969, before that date, land in the project area was owned by haciendas[47], where the local population worked as serfs. Under the Agrarian Reform Peru's government expropriated over 9 million hectares of land which were redistributed to collective agricultural cooperatives controlled by state bureaucrats. Also, in this context an identity shift was experienced, from cultural to class: Indigenous communities from 1969 onwards changed their name to peasant communities. During the 1970's and 80's the Andean communities began to occupy and retake the lands previously taken from them by the hacienda owners. It is important to mention that in 1980 the Law on Agricultural Promotion and Development allowed parcelling out the land previously awarded to associative enterprises in smallholdings in favour of individual peasants. By 1990 most of the land in the Andes was under the control of the communities with the agricultural cooperatives being largely dissolved. In addition, the interest for attracting investments resulted in free formalization or legalization of the land market and allowed again the free transfer of land[48].

Various legal reforms have occurred since the 1980's recognizing the Andean communities as the legal title holders of their land mainly:

- In 1987 the General Law of Peasant Communities, Law N° 24656, was approved and it recognizes peasant communities as organizations of public interest, with legal existence and legal personality, recognized by the State and protected by Peru's Political Constitution, with rights over natural resources and the territory they occupy. Peasant communities are made up of families united by ancestral, cultural, social and economic ties, who have communal ownership of the territories they inhabit.
- In 1991, the goal of attracting private investments gave a boost to land registration and titling efforts through the Rural Land Registry Act No. 667. The Law on the Promotion of Investments in the Agricultural Sector No. 653, also from 1991, removed all

[47] In Spanish, a large landed estate, originating in the colonial period (source: Hacienda | Spanish Colonial, Landownership, Agriculture | Britannica)
[48] Peru - Context and Land Governance

restrictions, including the transfer of rural land and restrictions for commercial entities to access land, which is considered as the end of the agrarian reform. This openness to commercial land ownership is expressed in the 1993 Constitution by the recognition of land rights to 'any other associative tenure form' besides private and communal (Art. 88).In 1995, the Law No. 26505, better known as the Land Law, (later modified by Laws No. 26570, 26597, 26681) set the principles to promote private investments for the development of economic activities, including in the land of peasant and native communities. The law establishes a liberal regime when it comes to land as compared to previous legislation and guarantees access to land to any natural and legal person without limitation in extension and use (Article 4). The Regulation of the law states that any land susceptible of being used for agricultural purposes can be offered to private investments (Article 4).

- In 1992, Decree-law No. 667 on the Rural Property Registry created a Special Land Titling and Cadastre Project (PETT), which was established as a specialized institution of Peru's Ministry of Agricultural Development and Irrigation (MIDAGRI)[49]. The project was intended to formalize private property rights through titling, to encourage the development of an efficient and transparent rural land market and to promote investment in agriculture. These objectives were to be implemented through two main strategies: i) The development of standards and guidelines for cadastral surveys and; ii) The monitoring, evaluation and proposition of standards to organise the registration of rural lands.
- According to the article 88 of the current Political Constitution of Peru (1993), it states that the Peruvian State supports agrarian development and guarantees the right to land ownership, in private, communal or any other associative form land. This article also states that the law can fix the limits and the extension of the land according to the peculiarities of each area. Moreover, peasant communities' lands are unseizable, imprescriptible, and inalienable, and by exception they can be sold to third parties, following a rigid procedure pre-established in article 7 of Law N° 24656; they can also be ceded in use to third parties for purely productive purposes and for the direct benefit of the Peasant Community by means of a contract or agreement. Finally, if communal lands are abandoned, they return to the domain of the State. This will mark an important milestone, initiating the liberalization of the land ownership and the individual rural property regime with the to promote the development of the agrarian sector and the acceleration of the Peruvian economy.
- Some legislation includes measures promoting smallholdings but with questionable implementation. Law No. 30355, from 2015, is specifically devoted to support family producers through measures like formalising land titling, providing technical and technological support, developing financial programmes, promoting the effective access to water and other basic services, and promoting the association and cooperation of family producers, among others[50].

Analysing the 2012 National Agrarian Census, land tenure in the High Andes generally appears to be dominated by private regime, in average 48% of the agricultural units [51]in the prioritized districts of the Resilient Puna project (varying from 24% to 86% depending on the region), followed by communal land regime, for 44% of agricultural units in average (variation from 1% to 70 % depending on the department). Tenant and Possessors regimes are less common in the target area of the project. Traditional herder communities living in the High

[49] FAO, Land titling in Peru: What future for women's tenure security, 2013
[50] Peru - Context and Land Governance
[51] It is defined as the land or set of land used totally or partially for agricultural production including livestock, conducted as an economic unit, by an agricultural producer, regardless of size, tenure regime or legal status. (CENAGRO, 2012)

Andes tend to combine private and collective regimes as an alternative form for strengthening land tenure, treating grasslands as common resources which are accessed, used and controlled collectively, usually under open access or communal land tenure regimes.[52]

Table 11: Land tenure in the prioritized districts by department

Department	Private Property	Communal Property	Tenant	Possessors[53]	Other	Total Agricultural Units
Apurímac	73%	19%	4%	3%	1%	62,753
Arequipa	86%	1%	7%	2%	4%	58,592
Cusco	24%	70%	3%	1%	1%	168,961
Lima	73%	5%	10%	11%	1%	1,921
Puno	75%	15%	5%	1%	4%	12,691
Total	48%	44%	4%	2%	2%	304,918

Source: National Agricultural Census, 2012. INEI.

The property formalization programs of the 1990s achieved some progress in the individual titling of land parcels, but also of some peasant communities. However, mainly due to the state's prioritization of individual land titling, large extensions of land of peasant communities have still not been titled, so there is still a large gap and sometimes source of social conflicts[54].

Table 12: Formalization of landowners in the prioritized districts by department

Department	With title registered in public registers	With title not registered in public registers	Without title, but in the process of being titled	No title, no title process	Total area (ha)
Apurímac	30%	55%	0%	15%	598,013
Arequipa	43%	23%	13%	21%	849,533
Cusco	41%	50%	6%	3%	756,965
Lima	16%	0%	0%	84%	73,394
Puno	41%	37%	9%	13%	440,985
Total	38%	39%	7%	15%	2,718,891

Source: National Agricultural Census, 2012. INEI.

Regarding local communities in the project area, 700/755 have been recognised, of which only 610/700 are titled and share communal property. It is worth noting that during the field consultations, discussions were held with approximately 240 local communities/producer's associations/cooperatives.

Table 13: Communities' formalization in the project districts

Department	Number of communities	Total area (ha)
APURIMAC	**233**	**248,941**
Unrecognised	**17**	**-**

[52] Damonte, G., M. Glave, S. Rodríguez and A. Ramos. 2016. 'The evolution of collective land tenure regimes in pastoralist societies: lessons from Andean countries. IDS Working Paper No. 480. Brighton: Institute of Development Studies.
[53] People who informally occupied land.
[54] Baldovino Silvana (2016). Una primera mirada: Situación de la tenencia de la tierra en el Peru. SPDA, Lima-Peru.

Untitled	17	-
Recognised	**216**	**248,941**
Untitled	22	44,815
Titled	194	204,126
AREQUIPA	**52**	**660,716**
Unrecognised	**4**	**-**
Untitled	4	-
Recognised	**48**	**660,716**
Untitled	4	9,930
Titled	44	650,786
CUSCO	**395**	**462,124**
Unrecognised	**26**	**-**
Untitled	26	-
Recognised	**369**	**462,124**
Untitled	52	48,346
Titled	317	413,779
PUNO	**75**	**215,020**
Unrecognised	**8**	**-**
Untitled	8	-
Recognised	**67**	**215,020**
Untitled	12	-
Titled	55	215020
Total recognised and titled		
Recognised	**700**	1,586,801
Titled	610	1,483,711
Total general	**755**	**1,586,801**

Source: MIDAGRI

In 2013, MIDAGRI's steering role in this area became even clearer with the enactment of Law No. 30048, which amends the Legislative Decree approving the Law on the Organization and Functions of MIDAGRI. Organization and Functions of MIDAGRI, and which establishes as a specific function and exclusive competence of this ministry, to dictate the norms and technical guidelines in matters of physical-legal sanitation and formalization of the land. in matters of physical-legal regulation and formalization of agrarian property, which includes the lands of peasant and native communities. With the decentralization process, competencies for peasant land formalization activities were transferred to regional governments.

With regard to the problem of community's property formalization, Baldolvino (2016) identified multiple long-standing issues that include legal, institutional, technical, social, gender, stakeholder diversity, migratory processes, budgetary, social, economic, social and political aspects, overlapping of rights, geographic location or even confusion in the application of the law. This confusion has increased with the transfer to regional governments and the competencies assigned to these and the competencies assigned to them, either due to ignorance of the processes or lack of resources to implement them. processes or lack of resources to implement them.

The FAO and the Land Portal provide relevant information on gender and land tenure. Launched in 2010, the Gender and Land Rights Database (GLRD) was developed by FAO

based on information produced by civil society organizations, national statistics authorities, academics and other sources to highlight the major political, legal and cultural factors that influence the realization of women's land rights throughout the world.

In this regard, a number of fundamental barriers that prevent women from securing their rights to land have been identified:

- The machismo mentality is a cultural issue that is at the root of the problem. The fact that women are de facto in the shadow of men means that fewer efforts are deployed for their education and contributes to building the sense that they are less capable than their male counterparts.
- In many instances, their existence is not officialised by an identification document. Different projects implemented in Peru failed to bring women more tenure security, largely because they could not provide a valid ID for the land title to be issued[55].
- Although the legislation is gender-neutral in nature, the cultural prevalence of men over women has meant that the implementation has so far largely favoured men. The civil code of 1984 abolished the notion of head of household to establish that husband and wife manage the household equally. Despite this historic change in the legislation, it has been noted that titling officials still perpetuate this cultural concept that the husband is the person with decision-making authority.
- In rural and remote areas, the lack of information about the legislation further limits women's ability to claim their rights. New legislations are published in the Peruano – Peru's official journal – and are available on the internet, but few producers have access to these sources. The main barrier originates in the community itself and the machismo mentality[56].

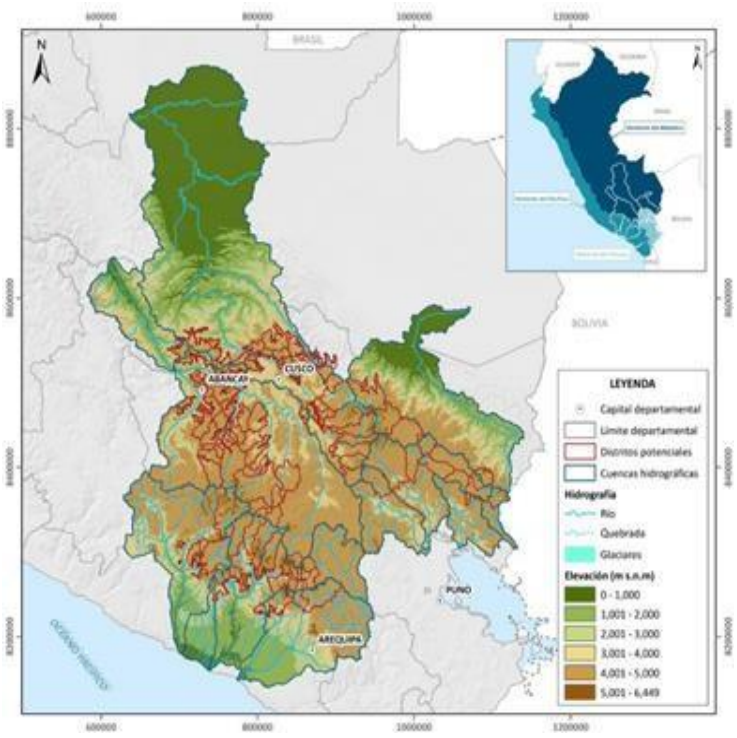
Finally, recognized communities have a legal personality from which members derive their right to use land. Within peasant communities, decisions regarding the allocation of land and water rights are made in the community's general assembly. In recent years, there has been a growing pressure from the state to transform these user rights into ownership rights, thus promoting individual property over communal property (establishment of the General Regulation of Public Registries). This momentum has resulted in problems of duplication of land titles due to a lack of coordination among the entities generating inconsistencies in the graphic information. A National Integrated System of Real Estate Cadastral Information was created in 2003 to regulate and consolidate the information from the different entities in charge of the cadastral registration.

5 Environmental profile

5.1 Topography

Project selection criteria dictates that only areas at an altitude higher than 3500 m.a.s.l. (including a buffer zone down to 2800 m.a.s.l.) are considered for interventions. Consequently, all prioritized districts lie in the high altitudes of the Andes. Given its location in the High Andes, the study area's terrain is characterized by mountain and hill slopes and upland plains. A detailed map of landforms in the study area can be found in the following map below.

[55] FAO, Land titling in Peru: What future for women's tenure security, 2013
[56] FAO, Land titling in Peru: What Future for Women's Tenure Security, 2013



Map 8: Elevation, hydrography and geographic position of the study area in Peru

Peru is one of the Latin American countries with the largest number of volcanoes, as part of its territory is located in the Pacific Ring of Fire, a region known for its intense seismic and volcanic activity. Most of these volcanoes are located in the south of Peru (from Ayacucho to Tacna) and make up more than 400 volcanic structures (Peruvian Volcanic Arc); however, only 6 are considered potentially active volcanoes or at some point in history have shown volcanic activity within the project area.

Map 9: Peruvian Volcanic Arc

Source: [Orange alert called as Ubinas volcano spews ash across southern Peru (peruviantimes.com)]

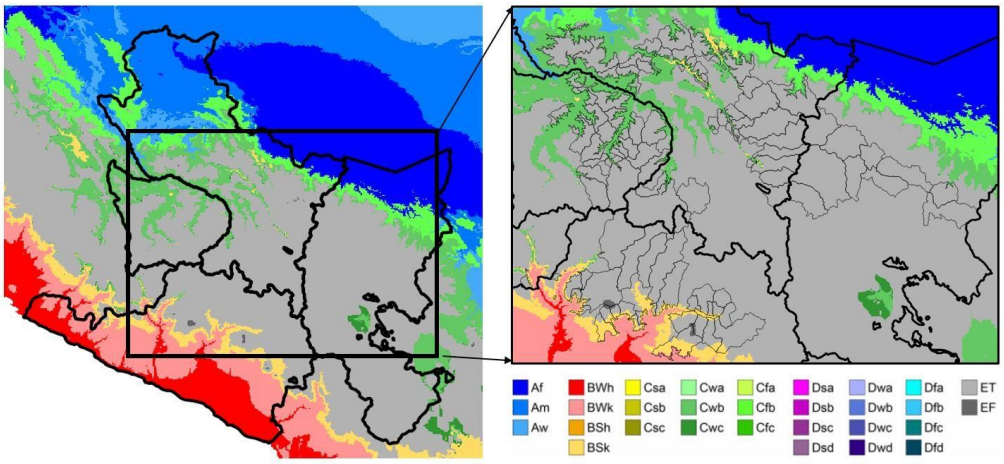
Table 14: List of volcanoes within the implementation project area

Name	Location	Activity level
Chachani	It is located 55 km from the city of Arequipa. It is part of the Cordillera Volcanica.	Inactive
Coropuna	Viraco (district), Castilla (province) and Salamanca (district) in Condesuyos (province), both in Arequipa department.	Inactive
Huambo	Huambo, Orcopampa, both in Arequipa department	Inactive
Misti	Located in Chili River Valler, inside of the Salinas and Aguada Blanca National Reserve , in Arequipa department	Inactive
Sabancaya	Maca (district), Arequipa department.	Active
Ubinas	Ubinas (district), General Sánchez Cerro (province), Moquegua (department).	Active

Source: CENVUL - Centro Vulcanológico Nacional | Centro Vulcanológico Nacional (igp.gob.pe) (2023)

5.2 Climate

The four project regions contain different climate types, with the prioritized districts being dominated tundra climate (Köppen-Geiger classification ET), with smaller areas of oceanic- and subtropical highland oceanic climate (Cwb and Cfb), as well as cold desert and semi-arid steppe climates (BWk and BSk) in Arequipa.



Map 10: Climate map of the four project regions (left) and prioritized districts (right) using the Köppen-Geiger system and data from 1980 to 2016 (Beck et al. 2018)

As the Köppen-Geiger climate classification system is based on the mean annual cycle of temperature and precipitation, it is possible that the boundaries of climate types may shift in the future as climate change progresses (Beck et al. 2018). Predictions for this shift can be found in Feasibility Study.

ET is one of the two polar and alpine climate types defined in the Köppen-Geiger system, the key defining characteristic of which is an average air temperature of between 0°C and 10°C in the warmestmonth. This means that the temperatures in the prioritized districts are somewhat lower than the cities representing the project region averages illustrated in the region-specific climate figures in the next subchapter. Precipitation is highly seasonal in the Puna, with the majority of rainfall occurring during the austral summer (December through March). There is further a high interannual variability in precipitation (ranges between 500 and 1000 mm in wet Puna) (Rolando et al. 2017).

Arequipa

Arequipa receives the lowest precipitation of the four project districts. On average under 1 mm of precipitation falls in this region in the months between May and August, and only 65 mm in February, the month with the highest precipitation. The highest mean monthly temperature in Arequipa, 12.4°C, was also recorded in February. In general, temperatures in the austral summer are roughly 1-2.5°C warmer than the region's average temperature of 10.8°C. The lowest mean temperature of circa 9°C is recorded during the austral winter months of June, July and August. Average temperatures are significantly lower in the north-east of Arequipa, where the majority of the prioritized districts in this region are located.

Apurímac

Apurímac shows a particularly strong seasonality in average precipitation, which ranges from 0.03 mm in June and July and 114.5 mm in February. The seasonal patterns of the Puna landscape are similarly clear in this region as in Arequipa, with the austral summer (December through March) characterized by the majority of the annual rainfall and slightly higher temperatures than the dry, cooler austral winter. The average mean temperature in the winter months is 6.5°C, while temperatures in the summer average at around 9°C. Even the highest temperatures recorded in the Apurímac region remained under 10°C. The majority of the prioritized districts in Apurímac are located in the east of the region, where average annual temperatures are slightly higher than in the prioritized districts in Arequipa, though the overall mean annual temperature in the region is lower.

Cusco

While the seasonal pattern of dry, cool austral winters in contrast to warmer temperatures and higher precipitation in the summer months is also clearly visible in Cusco's weather data, the region differs considerably from both Arequipa and Apurímac. Precipitation levels in Cusco are notably higher than the two previous regions, ranging between 190-170 mm in December through February and 20-40 mm in winter months. Mean temperatures are also higher in this region, with mean monthly temperatures never falling below 10°C. Cusco is also the only of the four project regions in which maximum temperatures rise above 20°C. The mean annual temperature in Cusco is significantly (3-4.5°C) higher than that of the other three project regions, in particular in the North. As the prioritized districts are located in the mid- and southern part of the region, the temperature conditions between different parts of the project area do not differ as strongly.

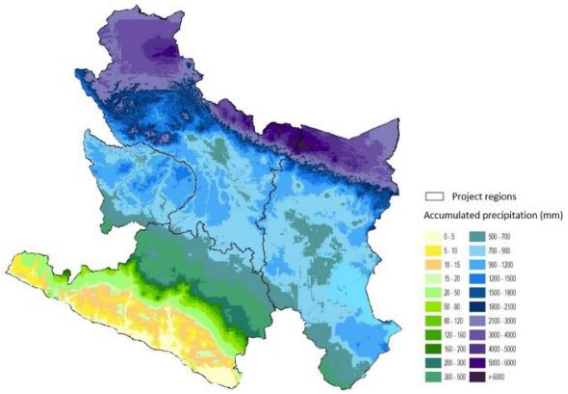
Puno

Similarly, to the Cusco region, precipitation in the winter months is not as low as in Arequipa or Apurímac, ranging between 20 and 40 mm. In December through February, the months with the highest precipitation, monthly precipitation increased to almost 185 mm. In the cool austral winter, monthly temperatures averaged between 8°C and 9.5°C. However, Puno has the lowest minimum winter temperatures of the four project regions, though staying just above freezing (0.2-0.5°C). Average annual temperatures are notably higher in the far North of Puno

than in the rest of the region. As all prioritized districts in Puno however lie in the South of this climatic line, the temperature conditions in different parts of the project area are nevertheless similar.

5.2.1 Ongoing trends in precipitation and temperature

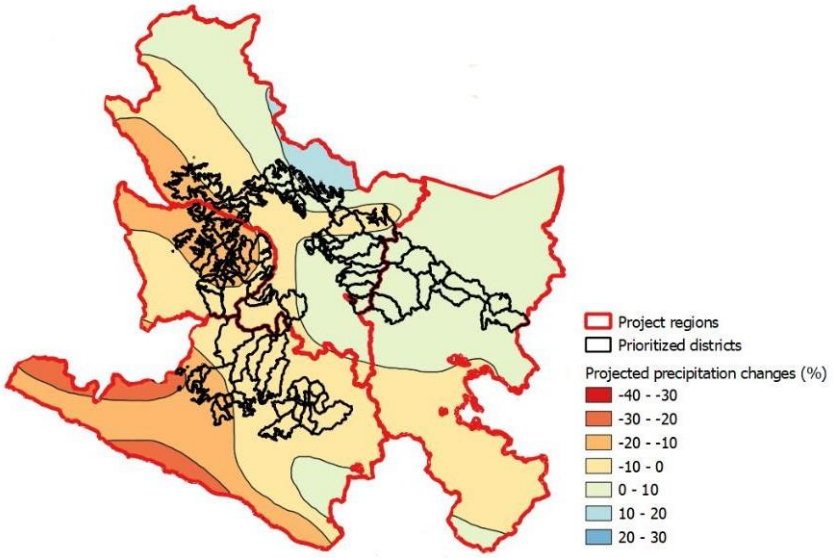
Comparing average precipitation levels across the four project regions, the areas in which the 91 districts are located receive a medium amount of rain for their respective region.



Map 11: Accumulated annual precipitation 1982-2010 (SENAMHI 2021)

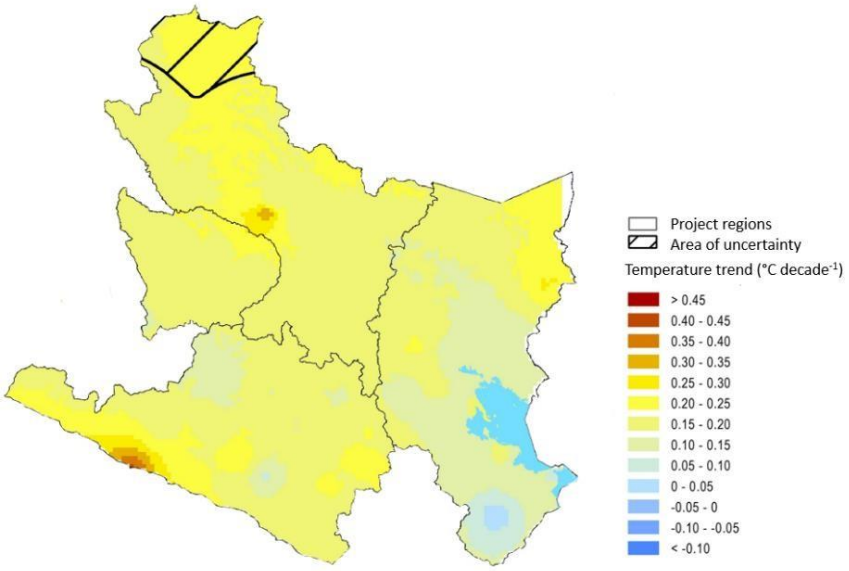
However, precipitation patterns are shifting under climate change. Based on observed data, SENAMHI projected changes in annual precipitation expected in roughly the next decade. For the majority of prioritized districts, the predicted changes are under 10%, with north-eastern districts predicted to experience a slight increase in annual precipitation, while districts in the North of Arequipa and the South of Apurímac will experience a similarly small decrease in precipitation.

During the field mission (May 2023), all communities reported to have experienced reduced precipitation for the past 10 years and mentioned that they were marked by drought for the last two years.



Map 12: Projected changes in annual mean precipitation at the national level for the period 2025-2035, with respect to the 1983-2003baseline (SENAMHI 2009).

Several of the eastern prioritized districts will however experience higher levels of precipitation decrease of up to 20%, mainly in the Apurímac region.



Map 13: Trends in annual mean temperatures in the project region between 1964-2014 (SENAMHI 2017)

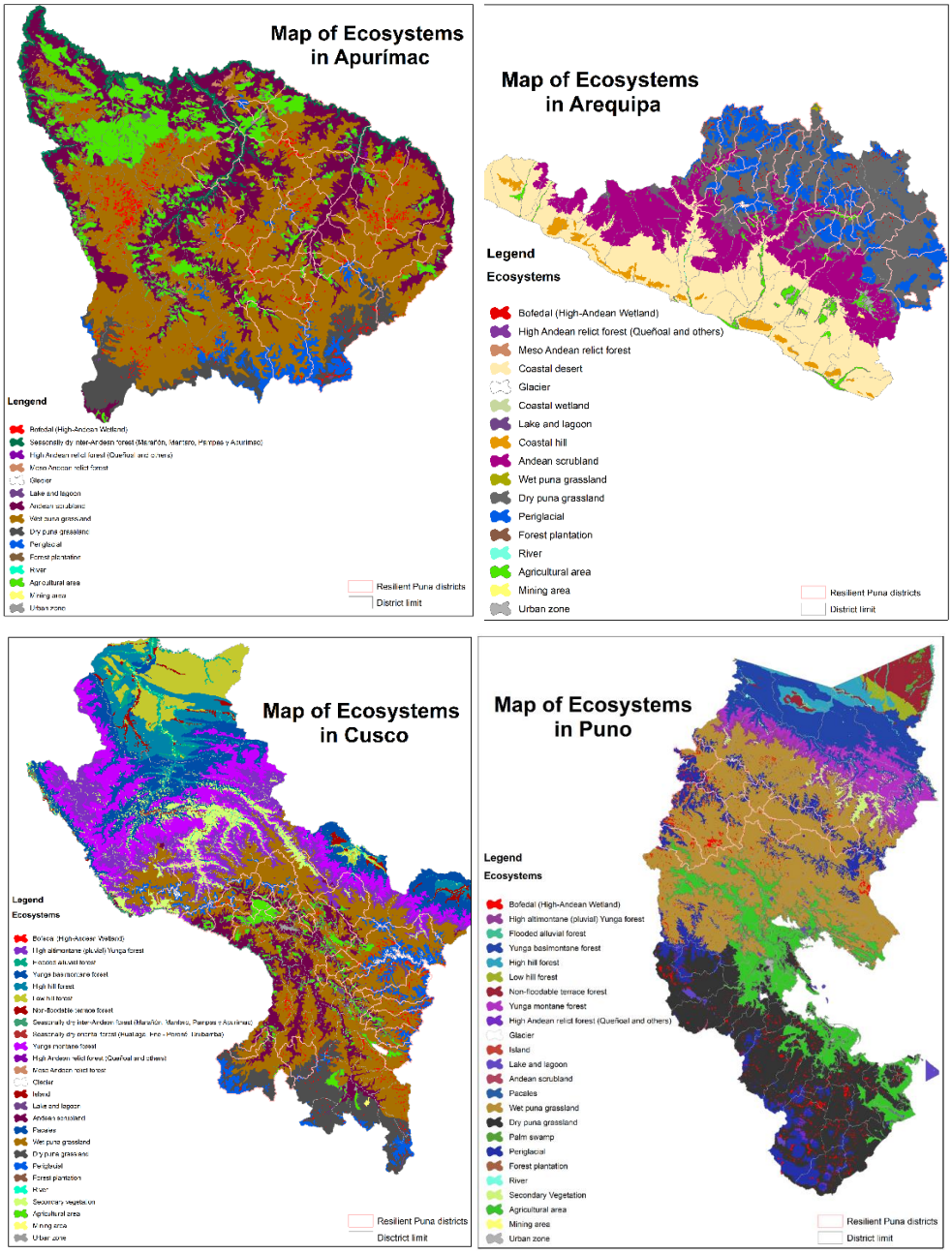
While mean temperatures in the project region remain low overall, an analysis of annual mean temperatures over the past fifty years reveals a temperature increase between 0.10 and 0.25 °C decade^{-1} in the prioritized areas within the four project regions (see Map 10).

5.3 Ecosystems

All prioritized districts are made up of high mountain ecosystems, with the Puna ecosystems peatlands, grasslands and wetlands being of particular interest for the project. Due to the focus on high mountains, the ecosystems within the 91 districts shared more similarities than the ecosystems within each project region. The main ecosystem types in the prioritized areas are: Wet puna grassland, dry puna grassland, wetlands, Andean scrubland, periglacial zone, high Andean relict forest, meso-Andean relict forest (for the buffer zone up to 2800)[57].

Map 14: Ecosystems in the project area (MINAM 2018)

[57] Conceptual definitions of Peru Ecosystems. (MINAM). Definiciones Conceptuales de los Ecosistemas del Perú | SINIA | Sistema Nacional de Información Ambiental (minam.gob.pe)



The Flora consists typically of open meadows with rocks, bunchgrass, herbs, moss, and lichen. Grasses are represented by the genera Calamagrostis, Agrostis, and Festuca. Azorella compacta and Puya raimondi are shared between the two ecoregions. Polylepis, Buddleja, and Escallonia are trees found at lower elevations in the Central Andean Wet Puna ecoregion.

Table 15: Botanical species registered by type of ecosystem in the project area

Type of ecosystem	Botanical species registered
Wet puna grassland	*Chuquiraga spinosa, Baccharis spp., Berberis sp., Ageratina sternbergiana, Bartsia camporum, B. patens, Calceolaria spp., Cheilanthes scariosa, Clematis peruviana, Eremocharis integrifolia, Hologyne ferreyrae, Jaltomata bicolor, Lupinus ballianus, Peperomia naviculaefolia, Villadia reniformis, Puya raimondii, Festuca spp., Jarava (=Stipa) spp., Calamagrostis spp., Deyeuxia spp., Poa spp., Matucana haynei.*
Dry puna grassland	*Parastrephia lepidophylla, P. quadrangularis, Fabiana ramulosa, F. stephanii, Baccharis sp., Junellia arequipense, J. juniperina, Mutisia orbygniana, Adesmia atacamensis, A. spinosissima, Anthobryum triandrum, Arenaria serpens, Chersodoma arequipensis, Diplostephium tacorense, Puccinellia frigida, Senecio spinosus, Xenophyllum poposum, Margyricarpus sp., Puya raimondii, Azorella compacta, Festuca orthophylla, Jarava (=Stipa) spp., Deyeuxia spp., Echinopsis pamparuizii, Opuntia corotilla, O. ignescens, O. soehrensii, Oreocereus hempelianus.*
Bofedales (Andean Wetlands)	*Distichia muscoides* “champa”, *Plantago rigida* “champa estrella”, *Oxychloe sp., Werneria caespitosa, Hypochoeris stenocephala, Luzula peruviana, Gentiana sedifolia, Alchemilla pinnata, Alchemilla diplophylla, Lilecopsis andina, Calamagrostis eminens, C. rigescens, C. jamesoni, Scirpus rigidus* “cuchipelo” o “totora silvestre”
Andean scrubland	*Kageneckia lanceolata “lloque”, Mutisia acuminata “chinchircuma”, Barnadesia dombeyana “yaulli”, Tecoma stans “huaranhuay”, Caesalpinia spinosa “tara”, Schinus molle “molle”, Austrocilindropuntia subulata “anjokishka”, Pitcairnia spp., Puya spp.*
Periglacial zone	*Xenophyllum spp., Senecio sp., Draba sp., Pycnophyllum spp., Ephedra sp., Adesmia sp., Azorella spp., Nototriche spp.*
High Andean relict forest	*Polylepis spp., Diplostephium sp., Baccharis tricuneata, B. genistellodies, Parastrephia lepidophylla, Chuquiraga spinosa, Lupinus sp., Pycnophyllum molle, Margyricarpus pinnatus, Chersodoma sp., Heliotropus sp., Opuntia floccosa, Adesmia spinosissima, Chersodoma sp., Festuca spp., Jarava spp*
Meso-Andean relict forest (for the buffer zone up to 2800)	*Escallonia resinosa* “chachacoma” o “karkac”, *Escallonia myrtilloides* “tasta”, *Podocarpus glomeratus* “intimpa”, *Myrcianthes oreophila* “unka”, *Kageneckia lanceolata* “lloque”, *Alnus acuminata* “aliso” o “lambrán”.

Source: Definiciones Conceptuales de los Ecosistemas del Perú | SINIA | Sistema Nacional de Información Ambiental (minam.gob.pe)

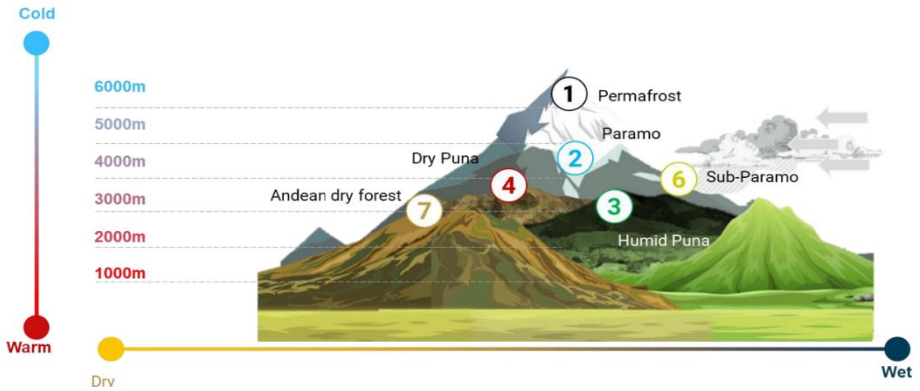


Figure 6: Andean Eco-regions (adapted from UNEP-ROLAC / FS-UNEP Centre, 2014)

Fauna

The Fauna includes Darwin's rhea (Pterocnemia pennata) and the puna mouse (Punomys lemminus) are endemic birds and mammal species found here. Vicuña (Vicugna vicugna), guanaco (Lama guanicoe), chinchilla (Chinchilla brevicaudata), andean fox (Lycalopex culpaeus), condor (Vultur gryphus) and viscacha (Lagidium spp) are also present. In the Arequipa region, a high number of vicuñas were reported impacting on grassland quality and competing with alpacas for pasture (Ocongate and Chachas Districts). It is important to mention that Vicuna is part of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES in spanish) list. The vicuña is categorised as "Near Threatened", according to Supreme Decree 004-2014-MINAGRI. Peru's vicuña population is listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Table 16: Categories of CITES fauna species[58]

CITES	Specie	National category	UICN
Vicuña	*Vicugna vicugna*	near threatened	Lower concern
Guanaco	*Lama guanicoe*	Critical danger	Lower concern
Andean Fox	*Lycalopex culpaeus*	-	Lower concern

The vicuña DEMA[59] allows local people, communities and associations to sustainably manage this species in two management modalities: in the wild and in semi-captivity. In both cases, management must be framed within the framework of the conservation of this camelid, without altering its population, behavior and reproductive capacity.

Within this framework, the use of its fibre is authorized, for which purpose the vicuñas are sheared annually. The fibre obtained is sold in local and international markets. In this way, this productive activity has become a sustainable economic alternative for the high Andean populations.

Likewise, the DEMAs establish that the people who carry out the management undertake to implement and comply with the commitments to reinvest in the species. This implies investment in favor of the conservation activity in aspects related to the control and surveillance system, sanitary activities, work to improve the ecosystem with activities such as water management, replanting of pastures, expansion of wetlands, construction of drinking troughs and others.

SERFOR grants the authorizations for the DEMA of wild flora and fauna in different modalities; and carries out the follow-up and ocular inspections for the fulfilment of what is established in said planning document, all in accordance with the provisions of Law N° 29763, Forestry and Wildlife Law.

[58] LISTADO DE ESPECIES DE FAUNA SILVESTRE CITES - PERÚ (minam.gob.pe)
[59] The DEMAs are simplified planning documents that allow the sustainable use of forest and wildlife resources, provided that they do not jeopardise the recovery capacity of the species being managed.

5.4 Natural Protected Areas

18.68% of the ecoregion is under national protected areas (NPA) status with a number of ANPs contained within the Resilient Puna project target area most notably:

- Salinas y Aguada Blanca National Reserve, Arequipa
- Cotahuasi Sub Watershed Landscape Reserve, Arequipa
- Nor Yauyos Cochas Landscape Reserve, Lima and
- Ampay National Sanctuary, Apurímac.

The Law of Natural Protected Areas, Law Nº 26834, in its article 21º states that according to the nature and objectives of each natural protected area, a category will be assigned to determine its legal condition, purpose and permitted uses:

Areas of indirect use: These are those that allow for non-manipulative scientific research, recreation and recreation and tourism, in appropriately designated and managed areas. In these areas, extraction of natural resources, as well as modifications and transformations of the natural environment, are not permitted in these areas. natural environment. Indirect use areas are National Parks, National Sanctuaries and Historic Sanctuaries. Historic Sanctuaries.

Areas of direct use: Areas that allow the use or extraction of resources by local populations, in those zones and places and for those resources defined by the management plan of the area. Other uses and activities must be compatible with the objectives of the area. Areas of direct use are National Reserves, Landscape Reserves, Wildlife Refuges, Communal Reserves, Protected Forests, Hunting Reserves and Regional Conservation Areas.

5.5 Land use

In the high South Andes of Peru, 77% of hectares in the target area are natural pastures, while only 8% of the land is for agricultural use. In Apurimac and Cusco, agriculture land use is higher than in Lima, Arequipa and Puno.

Table 17: Land uses (surface area in hectares) in the prioritized districts by department

Department	Total area (ha)	Agricultural land	Natural pastures	Forests and woodlands	Other uses
Apurímac	622,082	12%	54%	9%	26%
Arequipa	915,486	3%	87%	2%	8%
Cusco	924,925	12%	75%	5%	7%
Lima	74,908	1%	96%	0%	3%
Puno	502,468	4%	89%	0%	7%
Total	**3,039,869**	**8%**	**77%**	**4%**	**11%**

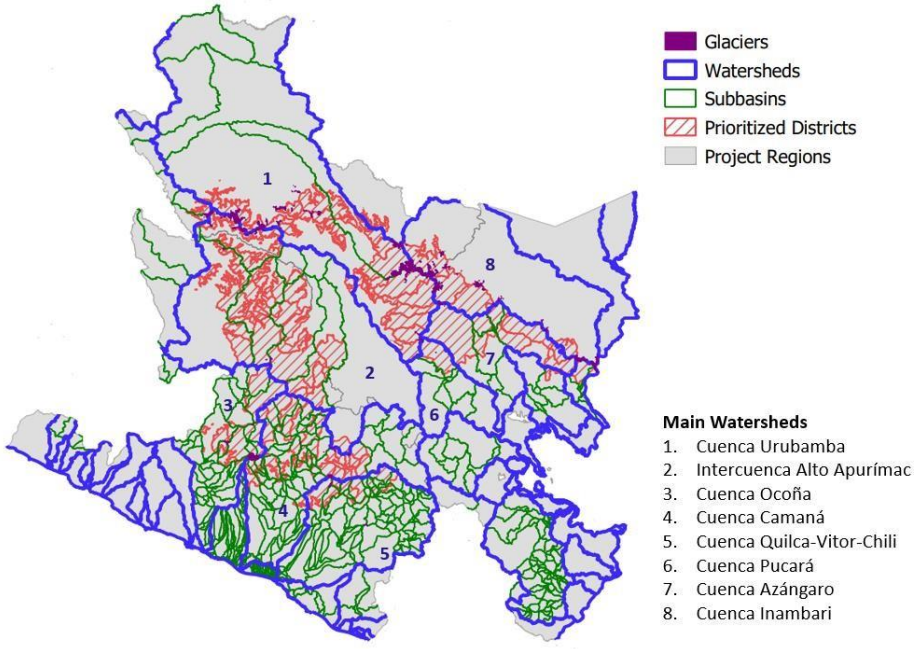
Source: INEI CENSO 2012.[60]

[60] IV Censo Nacional Agropecuario 2012 - Base de Datos REDATAM (inei.gob.pe)

5.6 Water sources

In addition to the highly seasonal and variable precipitation, the project areas receive water influx from glacier melt and water-regulating ecosystems (peat- and wetlands) through a network of rivers and smaller waterways. As the prioritized districts are all at comparatively high elevations, project interventions affecting waterways and -supply are likely to impact downstream water availability. While there is some overlap between region- and watershed boundaries, the prioritized project districts fall into 8 main watersheds and a plethora of subbasins (see figure below). The density of subbasins is particularly high in Arequipa.

According to Article 64 of the Law on Water Resources, Law No. 29338, on the Rights of Peasant and Native Communities, the State recognises and respects the right of peasant and native communities to use the waters that exist or flow through their lands, as well as the basins from which these waters originate, for economic, transport, survival and cultural purposes, within the framework of the provisions of the Political Constitution of Peru, the regulations on communities and the Law.



Map 15: Watersheds, subbasins and glaciers in the project regions (ANA undated a, INAIGEM 2018).

There is a clear distinction between land that depends on rainfall and land that has access to irrigation. In the high Andean zone, land essentially depends only on rain (60%) while 40% depends on irrigation access. This is very important, considering that the rainy season in the Andes last four months from December to March.

Table 18: Agricultural area (ha) by type of agriculture (irrigated vs rainfed) in the prioritised districts by department

Department	Irrigated area	Rainfed area	Total area (ha)	Total Agricultural Units
Apurímac	40%	60%	622,082	62,753
Arequipa	61%	39%	915,485	58,592

Cusco	40%	60%	924,925	168,961
Lima	23%	77%	74,908	1,921
Puno	7%	93%	502,467	12,691
Total	**40%**	**60%**	**3,039,867**	**304,918**

Source: National Agricultural Census, 2012. INEI.

Apart from Apurímac, all project regions contain sizeable glaciers. However, the Andes are experiencing a rapid retreat of glaciers as climate change progresses. Water- and ice bodies in the project area are therefore likely to undergo significant changes in the next decades, with research predicting an almost glacier-free future for the Andes long-term, accompanied by the creation of newglacial lakes (Drenkhan et al. 2019).

Table 19: Glacier surface areas in the project regions (INAIGEM 2018, ANA 2014)

MountainRange	Region	Glacier surfacereduction 1960s-2016
Ampato	Arequipa	65.89 %
Vilcabamba	Cusco	61.37 %
Urubamba	Cusco, Apurímac	69.09 %
Huanzo	Arequipa, Apurímac, Cusco	92.60 %
Chila	Arequipa	99.44 %
La Raya	Cusco, Puno	83.14 %
Vilcanota	Cusco, Puno	48.40 %
Carabaya	Cusco, Puno	71.03 %
Apolobamba	Puno	52.32 %

6 Environmental and social impact assessment

The present chapter assesses the potential negative environmental and social impacts of the proposed project activities. The impacts are assessed against the policies and standards of the project's ESS reference framework. For each type of impact, the present section identifies ESS management measures for the mitigation of negative impacts and enhancement of possible co-benefits.

The objective of the measures is to achieve compliance with the ESS reference framework. The measures were integrated in the Environmental and Social Management Plan (ESMP, Annex 6b) and an Indigenous Peoples and Local Communities Engagement Plan (IPLCEP, Annex 6c) conducted for this project and will be operationalized during project implementation.

A Stakeholder Consultation Summary and Engagement Plan (Annex 7), Gender Analysis (GA, Annex 8a) and Gender Action Plan (GAP, Annex 8b) were developed in parallel to the ESS documents.

Table 20: Structure of the chapter: Assessment of potential environmental and social impacts, and guidance for mitigation

E&S topics	Corresponding ESS or policy
Climate change mitigation	GCF E&S policy + ESS3

Climate change adaptation	GCF E&S policy
Labour and working conditions (including OHS)	ESS2
Resource efficiency and pollution prevention	ESS3
Community health, safety and security	ESS4
Land acquisition and involuntary resettlement	ESS5
Biodiversity conservation and sustainable management of living natural resources	ESS6
Indigenous Peoples policy	ESS7 + GCF Indigenous Peoples policy
Cultural heritage	ESS8
Non-discrimination and inclusion of vulnerable persons	ESS1
Emergency preparedness and response	ESS1
Human rights	GCF E&S policy
Risks of conflicts, fragility and violence	GIZ S+G system
SEAH	GCF E&S policy
Data privacy and cyber security	GIZ S+G system

6.1 Assessment of possible negative impacts (ESS triggered)

Possible negative impact that can trigger ESS are listed below.

Table 21: Possible negative impacts of the project

ESS	Risk of negative impact	Related project (sub-) activity	Risk mitigation measure	Assumed Risk mitigation effectiveness	ESS triggered? (In-depth assessment necessary?)
1	Environmental and social risks may occur mostly related to: 1) the participatory process for engaging beneficiaries and supporting the design of intervention plans where EbA measures and climate-resilient value chains are prioritised for future local initiatives. Potential risk related to exclusion of potential beneficiaries, increasing the conflicts between local population and inadequate design of measures leading to maladaptation, 2) the implementation of Ecosystem based Adaptation and proposed Climate Resilient Value Chains. Potential risks related to the intensification of production, investment in the post-harvest/storage facilities and social risks.	1.1.1 Setting up the basis for financing and implementing EbA measures and climate resilient value chains 1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains 2.1.1. Establish the Puna Facility for the long-term financing of EbA measures and Climate Resilient Value Chains	Pre-assess whether those interested meet the requirements for applying to the Puna Facility (based on the eligibility criteria for Puna Facility recipients shown in table 2 and the List of ineligible recipients in table 3 both in the Operation Manual (Annex 21). In the subactivity 1.1.1.2, support to beneficiaries to development of site-specific climate diagnostics and preparation of participatory intervention plans will be done in order to reduce the social and environmental risk. Related to 1.1.2 and 2.1.1 Adequately develop and implement a gender and culturally sensitive beneficiary engagement and communication strategy Ensure an	High	Yes

			adequate identification of potential beneficiaries following the eligibility and ineligibility criteria for the Puna Facility. Set up an Environmental and Social Management Plan to manage all potential risks following the B categorization of the project to be followed by all relevant EEs.		
2	Accidents during construction and land work or contagion could occur. Potential occupational and safety risks during Local initiatives implementation.	1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains	Implementation of health and safety measures (signaling, protection of risk zones information, etc.).	High	No
3	Greenhouse gas emissions could be emitted if mechanized measures to increase productivity or for processing are proposed for the Local initiatives or if specific potential markets are targeted abroad. Potentially unintended negative impacts on Greenhouse gas emissions.	1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains 1.1.3 Technical Assistance for implementing EbA measures and Climate Resilient Value Chains at local landscape level	Adequate following of list of eligibility EbA measures and Climate Resilient Value Chains and Local initiative selection criteria by Profonanpe during evaluation of Local initiatives. Promote access to national markets for climate resilient and sustainable value chains in subactivity 1.1.3.3	High	No
3	Water, energy, waste and pollution may arise from the mismanagement of water resources, design of irrigation and drainage systems. Potentially unintended negative impacts on pollution prevention.	1.1.1 Setting up the basis for financing and implementing EbA measures and Climate Resilient Value Chains 1.1.2 Financing and implementing of EbA	Adequate and careful design of potential Local initiative proposal ensured by Promoters and CSOs supporting project beneficiaries in subactivity 1.1.1.2. Following of Local initiative ESS selection criteria and Local initiative screening by Profonanpe during evaluation of	High	No

		measures and Climate Resilient Value Chains 1.1.3 Technical Assistance for implementing EbA measures and Climate Resilient Value Chains at local landscape level	Local initiative and ensuring an adequate technical assistance provided by the technical assistance provider hired by Profonanpe during the refinement of the Local initiative proposals and monitor de implementation in order to prevent risks. In subactivity 1.1.2.1.		
4	Accidents and hazards during construction and land work could occur. Potentially community health and safety risks during Local initiatives implementation.	1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains	Monitoring the implementation of health and safety measures planned in Local initiatives (signalling, protection of risk zones information, etc.).	High	No
4	Risk of violence and harassment towards women's empowerment actions. Potential sexual exploitation, abuse, harassment (SEAH).	Cross-cutting	Adequate development and implementation of the Gender Action Plan. Grievance redress mechanism.	High	No
5	No risks of involuntary resettlement can be assessed as there are no project or Local initiative activities proposed that may cause involuntary displacement.				
5	Risk of conflict over ownership and land tenure could arise from Local initiative implementation. Poor selection of land could invalidate the intended investment.	1.1.1 Setting up the basis for financing and implementing EbA measures and Climate Resilient Value Chains 1.1.2 Financing and implementing of EbA	Adequate review and eligibility documentation by Profonanpe during evaluation of Local initiative to confirm ownership and/or rights of access and use over indicated land where EbA measure are planned to be implemented.	High	No

		measures and Climate Resilient Value Chains	In addition, a publication period has been considered as part of the process to validate the absence of conflicts.		
6	Risk of unexpected ecosystem degradation due to oil and gas leakage from vehicles, attendance overrun, overgrazing, introduction of alien species among others could occur. Potential risks of increased frequentation, degradation of existing system/balance and pests and diseases.	1.1.1 Setting up the basis for financing and implementing EbA measures and Climate Resilient Value Chains 1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains	Adequate planning of Local initiative and support by promoters and CSOs and evaluation of Local initiative proposals including following of Local initiative ESS selection criteria, exclusion list and screening of Local initiative by Profonanpe during evaluation of Local initiative and ensuring an adequate technical assistance provided by the technical assistance provider hired by Profonanpe during the refinement of the Local initiative proposals. Adequate monitoring during Local initiative implementation by Profonanpe.	High	No
7	Due to an inadequate design of the project and lack of consultations, which respects forms of Indigenous Peoples and Local Communities' reputational risk of the project could occur.	Cross-cutting	Adequate development and implementation of the Indigenous Peoples and Local Communities Engagement Plan (IPLCEP, Annex 6c).	High	Yes
8	Potentially unexpected archaeological findings during Local initiative preparation and/or implementation. Possible unintended negative impacts on cultural heritage.	1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains	Ensure by Profonanpe and MIDAGRI during implementation of Local initiative and public investment projects that unexpected findings are reported to MINCUL.	High	No

9	Due to an improper development and organization of stakeholder engagement and consultations high expectations amongst Local initiative beneficiaries could occur. Potential risk of insufficient stakeholder engagement and rise of high expectations amongst Local initiative beneficiaries.	1.1.1 Setting up the basis for financing and implementing EbA measures and Climate Resilient Value Chains 1.1.2 Financing and implementing of EbA measures and Climate Resilient Value Chains	Adequately following and implementation by all EEs of the Stakeholder Engagement Plan (as part of Annex 7) developed for the proposed project.	High	Yes

In general, the impacts are low to medium and mostly related to the activities within component 1 (regarding activity 1.1.2 Implementation of EbA measures and Climate Resilient Value Chains) and component 2 (regarding activity 2.1.1. establish the Puna Facility for the long-term financing of EbA measures and Climate Resilient Value Chains), since the competition for funds could be a conflict driver. In this regard as under sub-activity 1.1.2.1 the Puna Facility will channel funds to final beneficiaries to enable the design and implementation of Ecosystem based Adaptation (EbA) and Climate Resilient Value Chain (CRVC) Local initiatives based on a list of eligible EbA measures and CRVC interventions, as the project design counts with defined list of eligible districts, potential beneficiaries, maximum grant amounts of the financial support, eligible Ecosystem based Adaptation measures and Climate Resilient Value Chains the environmental and social risks could already be identified at the project level (presented in this chapter) and appropriate mitigation measures are defined in the Environmental and Social Management Plan (Annex 6b).

ESS 1: Assessment and management of environmental and social risks and impacts

Assessment

In general, negative environmental and social impacts may occur when the project involves 'specifically identified physical elements, aspects and facilities that are likely to generate environmental and social impacts' (as per the terminology employed in ESS1).

The project will include 3 components:

- Component 1: Puna ecosystems are restored, conserved and better managed to support climate resilient livelihoods, through the implementation of EbAs measures.
- Component 2: Public and private financing for EbA measures and climate resilient livelihoods are in place and accessible for vulnerable communities in the Puna Ecosystem.
- Component 3: EbA and climate resilience are mainstreamed into multilevel landscape governance instruments.

While the ESMP (see Annex 6b) outlines E&S mitigation measures at project level for all EEs, in the context of the Puna Facility (see description of sub-activity 1.1.2.1 below) where financial instruments are applied in the project and potential E&S risks and impacts of such financing cannot be assessed in detail in advance, a Facility specific Management of Environmental and Social risks and Instrument-specific principles will be applied (see below).

<u>Sub-activity 1.1.2.1 Implementation of Local initiatives financed by the Puna Facility:</u>

Under sub- activity 1.1.2.1 Profonanpe will forward grants and results-based repayable grants as a financial instrument for the implementation of Local initiatives which will integrated EbA measures and Climate Resilient Value Chains based on the eligible measures and interventions below:

Eligible EbA measures:

1. Conservation and restoration of bofedales[61]

[61] Andean peatlands

2. Family qochas[62]
3. Integrated soil fertility management
4. Contour farming
5. Infiltration ditches
6. Sustainable grassland management
7. Conservation agriculture
8. Agroforestry
9. Forest restoration with native species
10. Restoration of andenes/ terraces

Eligible Climate Resilient Value Chains:

- Camelids (alpacas and vicuñas)
- High Andean crops (quinoa, native potato varieties)
  Complementary value chains including: tarwi, guineapigs, handicraft and community-based ecotourism.

Facility specific Management of Environmental and Social risks and Instrument-specific principles

In this regard, all activities and sub-activities related to the mentioned financial instrument will meet the general principles listed in the table below:

[62] The qochas are small temporary water reservoirs, located at the headwaters of watersheds. These practices are used to make use of rainwater and have been carried out since ancestral times. Specifically, the Family qochas take advantage of depressions in the terrain, using local materials to improve their water storage capacity, minimising impacts.

Table 22: Instrument-specific principles

No	Risk assess-ment	Instrument-specific principles	Reference to Activity/ Sub-Activity	Respon-sible EE
1	Puna Facility beneficiaries receive funds to implement Local initiative that infringe upon one or several ESS dimensions	All Non-repayable and Results-based Repayable Grants should follow these criteria: • Investment activities supported by Puna Resilient must, in all instances, be legal and aligned with the climate adaptation objectives of the project. • Non-repayable and Results-based Repayable Grants can be used by beneficiaries of the Puna Facility only to finance Local initiatives which includes integrated EbA measures and Climate Resilient Value Chains based on the eligible measures and interventions. • Local initiatives financed by the Puna Facility must be implemented on land where the land ownership and/or use rights has been confirmed. • Local initiatives financed by the Puna Facility must be aligned with the eligibility criteria for the Local initiatives (provided in the Operations Manual Table 4) • No funding shall be approved or disbursed that exceeds, or represents a significant risk of exceeding, a Category B ESS risk. • Financial transfers will be made only to identified recipients who meet the eligibility criteria based on the Operations Manual Table 2. • Potential funds recipients falling under the exclusion list (provided in the Operations Manual Table 3) are excluded from the project. • Subject to the constraints set by instrument-specific eligibility criteria, all funding decisions must be non-discriminatory in relation to recipients' gender, ethnicity, age and religion. • Funding decisions and resulting payments are subject to the project's Grievance Redress Mechanism. • Activities falling under the exclusion list (provided in the Operations Manual Table 6) are excluded from the project. • Successful completion of the ESS screening process. • The Project Steering Committee (PSC) reserves the right to approve any modifications or updated that may be required at the operational or strategic level related to the Puna Facility • Successful completion of the ESS screening process.	Non-repayable and Results-based repayable Grants (Sub-Activity 1.1.2.1)	Profonanpe

The table above outlines the instrument-specific principles of the Facility specific Management of Environmental and Social risks that will be applied by Profonanpe. Based on these instrument-specific principles, Table 23 and 24 on ESS risks related to the EbA measures and CRVC interventions a Puna Facility ESS Screening Checklist for sub-activity 1.1.2.1 will be developed by Profonanpe in cooperation with GIZ during the inception phase of the project. The Checklist (appraisers' checklist) will build on the existing ESG Screening Checklist established by Profonanpe for the EBBF project (see Annex 6b(1)) and "Format 2" in the Safeguard Manual of Profonanpe. This checklist will be adhered to, monitored and reported on during project implementation. Based on this Checklist, a pre-Checklist to be used in sub-

activity 1.1.1.1 Setting up the basis for financing and implementing EbA measures and Climate Resilient Value Chains will be developed by GIZ during the Inception Phase of the project. This pre-Checklist will be used by the CSOs and local promoters who will support the beneficiaries interested in applying to the Puna Facility to already assess early on any potential Environmental and Social risk.

ESS Due Diligence:

Profonanpe will conduct in the frame of the evaluation of the Local initiatives an ESS Due Diligence (please refer to Step 8 in the Operations Manual). The ESS Checklist will be completed by the Facility Management Unit. If no deal breaking issues or major concerns are identified during this assessment, based also on the overall evaluation the selection process will continue, and the Facility Management Unit will assign an ESS specialist to conduct the ESS DD report including site visits, if necessary.

The ESS Checklist will be the basis for the report to identify major risk areas that require special attention in the report and E&S requirements that are related to the risk category. For instance, for Category B Local initiatives according to the identified Environmental and Social impact during the ESS screening, Profonanpe will support the selected grant recipients after signing of the Local Initiative Grant Agreement in elaborating a “Environmental and Social Matrix” following their Safeguard Manual as described in the Operations Manual. Category C projects will not require any specialized matrix. This matrix will include a set of mitigation measures with monitoring and arrangements to be considered during the implementation of the Local initiatives to correctly manage any potential adverse environmental and social impacts that may have been identified.

Related EbA and CRVC risks:

For the CRVC component of the Local initiatives, generic type of risks could be identified. They will not be directly related to the CRVC but to the type of investment done:

- Environmental risks may be linked to the intensification of production (access to resources, introduction of invasive species, etc.)
- Investment in the post-harvest/storage facilities (impacts linked to the technology and the construction)
- Social risks may be linked by the shifting of the value from different links of the chains introducing social unrest, gender issues or economic distress.

The two tables below provide a screening of potential negative risks and impacts to be considered for the list of eligible Ecosystem based Adaptation (EbA) measures and Climate Resilient Value Chain (CRVC) for the Local initiatives, as well as their mitigation measures and project activities where their implementation is budgeted.

Table 23: Potential Environmental Risks of the EbA measures and CRVC

Proposed EbA measure and CRVC	Potential environmental risk	Mitigation measure	Activities/Sub-activities
EbA 1 Conservation and Restoration of bofedales	Bofedales enclosure to prevent livestock entry can inhibit in/out migration of wildlife.	1. Participatory diagnostics will evaluate if there are wildlife uses. If there are necessity of barrier implementation. 2. Bofedales restoration plans must identify and attempt to correct the watershed level root causes of the degradation and to restore original hydrological flows and conditions. 3. Ensure perimeter barriers prevent livestock entry but facilitate other wildlife species emigrations between bofedales. 4. Maintenance requirements must be planned and implemented. 5. Future biological monitoring will be implemented	The measures 1, and 2 will be addressed in sub-activity 1.1.1.2 The measure 3, 4 and 6 will be addressed in sub-activity 1.1.2.1 (The Local initiatives will include budget to implement necessary mitigation measures planned). 1. In sub-activity 1.1.3.1Technical assistance will be done to review the risk of the local initiatives and to design mitigation actions. The measure 5 will be addressed in Activity 1.2.2,
	Damage to bofedales from increased sediment loading due to upstream or in bofedal drainage modifications	6. Implement in-stream sediment barriers or curtains to minimize sediment dispersal.	
EbA 2 Family qochas	Deviation of watercourses and affect the availability of water for other water users in the upper and middle reaches	1. Close coordination with the National Water Authority accompaniment to (ANA) and approval of water use if needed. 2. Interventions should also be evaluated and designed with a water basin approach to avoid qochas can affect water availability in the surrounding area and/or downstream. 3. Additional studies will be done, if it would be required by ANA. 4. Facilitation of agreements between water users. 5. Tools to manage water passages will be included in the design and implementation. 6. Monitoring water availability and agreements will be	The measures 2, 4, 7, 8, 9 and 10 will be addressed in sub-activity 1.1.1.2. The measures 1 and 3 will be addressed in sub-activity 1.1.3.1. The measure 5 will be addressed in sub-activity 1.1.2.1 (The Local initiatives will include budget to implement necessary mitigation measures planned). The measure 6 will be addressed in Activity 1.2.2 .

		done.	
	Poorly made qochas can lead to erosion, landslides, and failure to reserve water after a period.	7. Soil and water studies should be a requirement during the planification phase of the measure. 8. Ensure that qochas are not not build in sloping areas.	
	Access to transport equipment and materials could facilitate greater public access but could affect or degrade sensitive areas.	9. Family qochas are small and don't require big equipment. In any case, at the planning phase, confirm access requirements during application screening. 10. Ensure access removal or controls if nearby sensitive areas are at risk.	
EbA 3 Integrated Soil Fertility Management	Animal manure composting and leachate can affect nearby drainage and water quality.	1. Diagnostics will evaluate the possible areas to implement the measure. 2. Planning and prioritization will ensure all composting and storage areas are located away from drainages. 3. Leachate collection systems are employed.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2. The measure 3 will be addressed in sub-activity 1.1.2.1
EbA 4 Contour Farming	Altered drainage patterns can affect adjacent lands.	1. Careful planning will be done. 2. Installation of drainage systems and controls will be implemented.	The measures 1 will be addressed in sub-activity 1.1.1.2. The measure 2 will be addressed in sub-activity 1.1.2.1
EbA 5 Infiltration ditches	The establishment of infiltration ditches causes initial soil disturbance which in some cases may increase erosion. This measure requires maintenance to avoid risks.	1. Ensure local context analysis prior to trench construction. 2. Soil and geological surveys would be done. 3. Ditches work best when vegetation cover is also managed. 4. Planning will seek to associate this measure with EbA 6, EbA 7, EbA 8 or EbA 9, to ensure adequate vegetative cover	The measures 1 and 3 will be addressed in sub-activity 1.1.1.2. The measures 2 will be addressed in sub-activity 1.1.3.1.
EbA 6 Sustainable grassland management	Pasture rotation and fencing to restore pastures can close off other wildlife such as vicuñas or put pressure on overgrazing and increase carrying capacity in other areas.	1. The carrying capacity of the natural pastures will be evaluated and taken into account in pasture management planning, as well as the use of the pasture by other wild species such as vicuñas. 2. Complementary adaptation measures will be taken into account to avoid food shortages.	The measures 1, 2 and 3 will be addressed in sub-activity 1.1.2.1 (The Local initiatives will include budget to implement necessary mitigation measures planned). The measure 4 will be addressed in Activity 1.2.2.

		3. Ensure perimeter barriers prevent livestock entry but facilitate other wildlife species emigrations between fencing. 4. Pastures will be evaluated periodically to ensure that their productivity is not affected.	
EbA 7 Conservation Agriculture	None, this type of action will respect environment and the social contribution of farmers, it is an objective of the activity		
EbA 8 Agroforestry	Planting of non-native tree species (that may be preferred by landowner/users) can lead to introduction of pests and diseases.	1. Ensure the use of native tree species only. For this purpose, information will be provided on the properties and characteristics of native species suitable for agroforestry in the identified sites.	The measures 1, 2, 3 and 5 will be addressed in sub-activity 1.1.2.1 (The Local initiatives will include budget to implement necessary mitigation measures planned). The measure 4 will be addressed in Activity 1.2.2.
	Crops may be affected by shade reducing production volumes. Trees may compete with crops for water and soil nutrients.	2. Identify and prioritize appropriate (shade tolerant) food crops. 3. Identify the specific objectives (e.g. obtain tree products, fruit, erosion control etc) in order to evaluate the benefits in contrast to decrease production. 4. Identify and measure impacts of this measure.	
	Trees can attract larger predators (cats, owls) that prey on small animals and livestock.	5. Identify risks and potential animals, communicate with stakeholders, identify mitigation.	
EbA 9 Forest reforestation with native species	Increased risk of wildfires	1. Site selection to consider risk to surrounding infrastructure and properties.	The measures 1 will be addressed in sub-activity 1.1.1.2. The measure 2 will be addressed in Activity 1.1.2.1. The measures 3 will be addressed in sub-activity 1.1.3.1. The measures 4 will be addressed in sub-activity 1.2.2.
	Reforestation of non-native tree species (that may be preferred by landowner/users) can lead to introduction of pests and diseases or negative impacts of soil and water.	2. Reforested activities only include planting native species.	
	Increased risk of harbouring	3. Evaluate risks and designed mitigation measures with	

	pests and predators	landowners and users. 4. The presence of pests and diseases will be monitored to take immediate action when necessary.	
EbA 10 Restoration of Andenes/Terraces	Abandoned terraces promote erosion processes, including extreme cases of landslides.	1. New terraces will not be promoted. 3. 2. The EbA 10, will be implemented in areas not located in risk zones. To do that specifical studies will be done. Ensure terraces have the potential to articulate with existing agricultural or tourists' activities so people will not abandon them.	The measures 1 will be addressed in sub-activity 1.1.3.1. The measure 2, will be addressed in sub-activity 1.1.1.2.
High Andean crops (quinoa, native potato varieties)	Risks of using prohibited chemicals pesticides and generates water and soil pollution	1. The project will actively seek to promote and provide technical assistance to develop agro-ecological practices and ensure that pesticides are not applied. 2. This value chain will be accompanied always with EbA 3 and/or EbA 7 to develop alternatives to the use of pesticides.	The measures 1 will be addressed in sub-activity 1.1.3.1. The measure 2, will be addressed in sub-activity 1.1.1.2.
Camelids (alpacas and vicuñas)	Risk of camelids overgrazing and worsening the pasture degradation	1. The project will promote pasture management plans to ensure sustainable use of grazing lands and recovery for the degradation. 2. This value chain will be accompanied always with EbA 6 to develop an adequate grassland planning. Also if there are risk of overgrazing, due the number of animals present, complementary adaptation measures will be designed to avoid the lack of feed that leads to overgrazing. 3. Pasture quality monitoring will be carried out to measure changes in pasture condition related to the initiatives implemented.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2. The measures 3 will be addressed in activity 1.2.2.

This table identifies the potential social risks associated with each of the EbA measures.

Table 24: 25Potential Social Risks of the EbA measures and CRVC

Proposed EbA measure and CRVC	Potential social risk	Mitigation measure	Activities/Sub-activities

EbA 1. Conservation and Restoration of bofedales	Conflicts over use among community members of the area for restoration works, related employment opportunities and benefits in conducting the work.	1. Participatory diagnostics will identify actual users of the land. 2. Confirm landowners and users and obtain documented approval of works from all parties prior to start. 3. People who will be in charge of the work to be carried out, will be designated by the community or the association. 4. Community monitoring will monitor compliance with agreements	The measures 1 will be addressed in sub-activity 1.1.1.2 . The measures 2 and 3 will be addressed in activity 1.1.2.1 during the development of proposals. The measure 4 will be addressed in Activity 1.2.2 ,
	Conflicts between upstream and downstream water users over interruption or alteration of water flows and water quality during and after the restoration works.	1. In the diagnostics identification of all the local water uses and users will be done. 2. Facilitation of water sharing agreements 3. Obtain approval of local community water board (not ALAs) if needed. Identify downstream water users within the area of influence and communicate work plans, schedules and potential impacts prior to start.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2 . The measure 3 will be addressed in activity 1.1.2.1 during the development of proposals.
EbA 2. Family qochas	Conflicts over water use, for fear that availability among members of one location or availability of water in the lowlands may decrease.	1. In the participatory diagnostics, possible areas for the implementation of the qochas will be identified, as well as their potential beneficiaries. 2. The prioritization of the qochas to be included in the local initiatives will be done in a participatory manner. 3. The construction of qochas should be reported to and agreed with all parties involved. 4. Community monitoring of water availability and distribution will be implemented.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2 . The measure 3 will be addressed in activity 1.1.2.1 during the development of proposals. The measures 4 will be addressed in activity 1.2.2 .
EbA 3. Integrated Soil Fertility Management	Conflicts over ownership and use of the project site among community members, the resulting benefits and related employment opportunities. Very labour-intensive measure required, sufficient workforce may not be available for implementation.	1. In the participatory diagnostics, possible areas for the implementation of EbA 3 will be identified, as well as their potential beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 3. People who will be in charge of the work to be	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2 . The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals. The measures 5 will be addressed in activity 1.1.3.1 during the refinement of proposals.

		carried out, will be designated. 4. Confirm landowners and users of the site. Obtain documented approvals from all parties over all aspects of the work and benefits prior to start. 5. Community Monitoring will be implemented.	The measure 6 will be addressed in Activity 1.2.2,The measure 5 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
EbA 4. Infiltration Ditches	Conflicts over ownership and use of the project site among community members, the resulting benefits and related employment opportunities.	1. In the participative diagnostics, possible areas for the implementation of EbA 4 will be identified, as well as their potential actual users and beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 3. People who will be in charge of the work to be carried out, will be designated. 4. Confirm landowners and users of the site. Obtain documented approvals from all parties over all aspects of the work and benefits prior to start. 5. Community monitoring will monitor compliance with agreements.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2 . The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals. The measure 5 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
EbA 5. Contour Farming	Conflicts over ownership and use of the project site among community members, the resulting benefits and related employment opportunities. If the contour farming can be implemented depends on the type of soil.	1. In the diagnostics, possible areas for the implementation of EbA 5 will be identified, as well as their potential actual users and beneficiaries. 2. Soil studies to confirm suitability for Eba implementation will be conducted. 3. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 4. Confirm landowners and users of the site. Obtain documented approvals from all parties over all aspects of the work and benefits prior to start.	The measures 1, 3 and 5 will be addressed in sub-activity 1.1.1.2 . The measures 4 and 6 will be addressed in activity 1.1.2.1 during the development of proposals. The measures 2, 5 and 7 will be addressed in activity 1.1.3.1 during the refinement of proposals. The measure 8 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
	Requires extensive manual labour. Potential conflicts among community members over-compensation and benefits. Very labour intensive as a proper	5. The necessary manpower is available for implementation will be evaluated. 6. People who will be in charge of the work to be carried out, will be designated in a participatory way.	

	design of the measure is needed, if the contour farming can be implemented depends on the type of soil.	7. Define clear labour requirements, gender repartition and compensation policies 8. Community monitoring will monitor compliance with planning and agreements	
EbA 6. Sustainable grassland management	Conflicts over use ownership and use of the project site among community members, the resulting benefits and related employment opportunities.	1. In the participatory diagnostics, possible areas for the implementation of EbA 6 will be identified, as well as their potential actual users and beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 3. People who will be in charge of the work to be carried out, will be designated. 4. Confirm landowners (individual and communal, as well as men and women) and users of the site and obtain documented approvals from all parties over all aspects of the work prior to start. 5. Community monitoring will monitor compliance with planning and agreements.	The measures 1, and 2 will be addressed in sub-activity 1.1.1.2 . The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals. The measure 5 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
EbA 7. Conservation Agriculture	Conflicts over ownership and use of the project site among community members, the resulting benefits and related employment opportunities.	1. In the diagnostics, possible areas for the implementation of EbA 7 will be identified, as well as their potential actual users and beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 3. People who will be in charge of the work to be carried out, will be designated. 4. Confirm landowners and users of the site (individual and communal, as well as men and women). Obtain documented approvals from all parties over all aspects of the work and benefits prior to start.	The measures 1, and 2 will be addressed in sub-activity 1.1.1.2. The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals. The measure 5 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)

		5. Community monitoring will monitor compliance with planning and agreements.	
EbA 8. Agroforestry	Conflicts over ownership and/or use of the project site among community members, the resulting benefits and related employment opportunities.	1. In the diagnostics, possible areas for the implementation of EbA 8 will be identified, as well as their potential actual users and beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 3. People who will be in charge of the work to be carried out, will be designated. 4. Confirm landowners and users and obtain documented approval of works and benefits by all parties prior to start . 5. Confirm landowners and users and obtain documented approval of works and benefits by all parties prior to start. 6. Need to be clear on what the specific objectives are (e.g. obtain tree products, fruit, erosion control etc) in order to evaluate who will be the beneficiaries. 7. Community monitoring will monitor compliance with planning and agreements.	The measures 1, 2 and 5 will be addressed in sub-activity 1.1.1.2. The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals. The measure 6will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
EbA 9. Forest restoration with native species	Conflicts over ownership and use of the project site among community members, the resulting benefits and related employment opportunities. May reduce economic value of land lost from agro production or timber forest products.	1. In the participatory diagnostics, possible areas for the implementation of EbA 9 will be identified, as well as their potential actual users and beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites and native species to be included in the local initiatives will be done in a participatory manner. 3. Process people who will be in charge of the work to be carried out, will be designated.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2. The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals.

		4. Requires prior landowner and land user approval of area to be restored. 5. Trade-offs will be agreed for loss of existing land use if it would be necessary.	
EbA 10. Restoration of Andenes/ Terraces	Conflicts over ownership and/or use of the project site among community members, the resulting benefits and related employment opportunities	1. In the participatory diagnostics, possible areas for the implementation of EbA 10 will be identified, as well as their potential actual users and beneficiaries and if the necessary manpower is available for implementation. 2. The prioritization of the sites to be included in the local initiatives will be done in a participatory manner. 3. People who will be in charge of the work to be carried out, will be designated. 4. Requires prior landowner and land user approval of restored. 5. Community monitoring will monitor compliance with planning and agreements.	The measures 1 and 2 will be addressed in sub-activity 1.1.1.2. The measures 3 and 4 will be addressed in activity 1.1.2.1 during the development of proposals. The measures 5 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
High Andean crops (quinoa, native potato varieties)	Conflicts among community members for the use of water to irrigate their products	1. In the participatory diagnostics water uses and users will be evaluated. Not new users will be promoted. The measures will promote crop varieties with a smaller water footprint and the reduction of water use. 2. Promote agreements among community members to efficiently use the water without affecting each other. 3. Community monitoring will monitor compliance with planning and agreements.	The measure 1 will be addressed in sub-activity 1.1.1.2. The measure 2 will be addressed in activity 1.1.2.1 during the development of proposals. The measure 3. will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)
Camelids (alpacas and vicuñas)	Conflict among vicunas and alpacas' producers for the use of pasture	1. In the participatory diagnostics, pasture users will be identified, as well as their potential actual conflict. 2. Promote agreements among camelids producers to sustainable use the pasture. Moreover, the project will promote pasture management plans to ensure	The measure 1 and 3 will be addressed in sub-activity 1.1.1.2. The measure 2 will be addressed in activity 1.1.2.1 during the development of proposals.

		sustainable use of grazing lands and recovery for the degradation. 3. Complementary adaptation measures will be planned in order to reduce food shortage. 4. Monitor alpacas and vicuñas population in the specific sites.	The measure 4 will be addressed in activity 1.2.2 (Conflict sensitive community-based monitoring system)

In general, the nature and small scale of the EbA intervention proposed in the Resilient Puna project may require regional and potentially only district or even community level approvals. Furthermore, considering the type of Local initiatives proposed by Puna Facility, in some of the cases also licenses of the National Water Authority and Local Water Authority (ANA and ALA), CIRA and permits of SERNANP and/or SERFOR will be required.

Climate change adaptation impact

The aim of the project is to strengthen adaptation to climate change through more resilient system on the Puna ecosystems. The project contributes to the Risk management and climate change adaptation plan for the agriculture sector -2012-2021- Plan GRACC-A. To select target districts, criteria on agricultural and livestock risk to drought were taken from the Plan GRACC-degradation of land was taken from MINAM, and deglaciation rate from ANA/INAIGEM. The SHAP is also where approximately more than 50% of the peatlands are present, and 80% of the alpaca, 60% of llama and 20% of vicuña heads are present. Project activities in all components will support MIDAGRI to tackle the vicious cycle of high vulnerability, lack of profitability, degradation of ecosystems services, poverty, and migration in the high South High Andes.

Human rights

GCF's E&S policy, as well as GIZ's safeguards management system, put a significant emphasis on avoiding infringement of the human rights of others and address adverse human rights impacts those ventures may cause or contribute to. Each of the ESSs has elements related to human rights dimensions that a project may face during its operations. For the present project, human rights risks and impacts are essentially related to employment, Indigenous People and Llocal Community rights, land rights, SEAH Gender equality, gender based violence and are respectively assessed under the relevant ESS category. Through the following of respective plans (ESMP, IPLCEP and GAP) the project prevents and mitigate properly potential human rights issues arising from the different ESS categories.

Grievance Redress Mechanism

ESS1 establishes the requirement for an external communication and grievance redress mechanism (GRM) for the project, to ensure that grievances from potentially affected communities and individuals and external communications from other stakeholders are responded to and managed appropriately.

According to the GCF's E&S policy, the purpose of the GRM is to receive and facilitate the resolution of concerns and grievances about the environmental and social performance of GCF-financed activities. At GCF-level, the independent Redress Mechanism will address the grievances and complaints filed by people and communities who may be, or have been, affected by adverse impacts in connection with the potential failures of the GCF-financed activities to implement measures pursuant to the operational policies and procedures of GCF, including its ESS standards. In the event of a complaint being filed with the Independent Redress Mechanism, GIZ, as the Accredited Entity, will cooperate with the Independent Redress Mechanism and the GCF.

The effectiveness criteria defined and recommended by the United Nations[63] for non-judicial complaints mechanisms should be taken as guiding principles:

- Accessibility: The GRM is communicable and communicated to all stakeholder groups for which it was designed. It is understandable by all, even illiterate people, without cost or risk of reprisals for the complainant.

- Cultural appropriateness: the GRM will consider the local cultural context to propose appropriate ways of handling community concerns. Fairness: this ensures that claimants have reasonable access to the sources of information, advice and expertise needed to implement a complaints procedure under impartial, informed, and compliant conditions.

- Transparency: the GRM provides project stakeholders with information on its design, operation, the outcome of complaints handled, and the results achieved.

- Respect for human rights: the GRM ensures that the outcome of the remedies and reparation measures are compatible with internationally recognized human rights.

- Continuous improvement: the project builds on relevant measures to draw lessons learned to improve the mechanism and prevent future claims and abuses.

- Communication, participation and dialogue: the mechanism requires the participation of communities and other stakeholders during its design, implementation and monitoring. To this end, the mechanism should include a system of communication and informed consultation for affected groups and individuals, with an emphasis on dialogue on ways to address and resolve complaints.

- Proportionality: scaled to risk and adverse impact on affected communities.

- Appropriate protection: the mechanism prevents retribution and does not impede access to other remedies.

- Confidentiality is very important and particularly regarding GBV/SEA. The project will be committed to protecting the identity of the Complainant and to handling personal information in accordance with legal requirements.

The GRM for the proposed project will be finally designed when the project operational set-up is final (i.e., inception phase). The GRM will allow any individual to register a complain and will be harmonized with Profonanpes, MIDAGRI and SERNANP existing systems which includes:

- MIDAGRI's web platform and a strategy to communicate with their beneficiaries and partners: "*Acceder a los canales de atención al ciudadano del Midagri*" (Access to MIDAGRI's citizenship services)[64]. MIDAGRI has also developed a grievance redress strategy and template to address complaint (see annexe 4).
- SERNANP has a space on its website to make virtual complaints[65] and to denounce acts of corruption by any of its officials[66].
- Profonanpe's mechanism for complaining[67] and/or reporting any non-compliance with the institutional Code of Ethics and/or the aforementioned guidelines, as part of the

[63] https://www.ohchr.org/sites/default/files/2022-01/arp-note-meeting-effectiveness-criteria.pdf
[64] Access to MIDAGRI's citizenship services: https://docs.google.com/forms/d/e/1FAIpQLSdt5RgKDr-CcHzF48nill88kp4CKg45UODqWA7VJs1DkoVxVA/viewform?gxids=7628
[65] Libro de Reclamaciones (servicios.gob.pe)
[66] Denuncias Ciudadanas (servicios.gob.pe)
[67] Microsoft Word - Mecanismo.Quejas.050722_INGLÉS+flujos_Actua.17.01.23 (1).docx (profonanpe.org.pe)

control and oversight process of the projects it manages, as well as the registration of complaints regarding the application of administrative procedures. If an individual anticipates reporting any instances of non-compliance with the Code of Ethics or the guidelines, there are two available methods to do so: a) virtually, on a website, for cases of complaints and denunciations, by completing the information that is requested and b) physically, by completing a form (not available from the website during the document elaboration). Information required includes personal data (names, surnames, address, telephone number), copies of the supporting documents of the report and, if possible, a written document with the complaint. Once all the documents are duly completed, they should be sent in a sealed envelope to the Profonanpe offices in Lima, Peru.

- Based on the complaint Profonanpe follows following procedure for resolving complains:
  - **Operational level of care**: is the first level of care and are linked to actions that contemplate an intervention, and are received by the team in charge in the territory. The maximum period of attention is 10 working days.
  - **Management level of care**: this is the second level of care and complaints are linked to the functions of the institution's line and support bodies. At this level, solutions may lead to an investigation by line and institutional support bodies. The maximum term of attention is 20 working days, counted from the end of the operative level of attention.
  - **Executive level of attention:** is the third level of attention and the complaints that reach this level go through an investigation by the control bodies in order to adopt institutional corrective measures. And the term of attention is 15 working days from the end of the management level of attention.
- For more information on each level please see chapter 10.1 Procedure for resolving complaints of Profonanpe's Complaint Attention Mechanism.
- Appeals process for grievances that cannot be resolved at lowest level/are complex:
  - In case a common understanding is not reached between the parties involved for the resolution of a complaint, or if the affected person is not satisfied with the response given by Profonanpe, the affected person may appeal to another instance that he/she deems appropriate. If the complaint remains unresolved or unsatisfactory for the affected person, he/she may refer it to the complaint mechanisms of the international cooperation funds, as the case may be. Cooperation funds such as the World Bank, the Green Climate Fund, the Inter-American Development Bank, among others, have independent complaint mechanisms for interventions carried out by accredited entities that do not comply with their environmental and social policies.
- In the case of handling sensitive/anonymous grievances (including SEA/SH grievances) Profonanpe has established in the frame of the EBBF project following procedure:

  a. Uptake and process: The person in charge of the portfolio company is limited to gathering specific information, such as the nature of the complaint, the survivor's age and gender if possible, and whether the perpetrator is linked to the project. They are required to receive all allegations. If the complainant is not the survivor, the person in charge encourages them to communicate with the survivor, highlighting the benefits of

coming forward. In cases of credible safety concerns for the survivor, direct contact may be attempted to offer service referrals, always respecting the survivor's consent.

b. Acknowledge and follow up: Upon obtaining the survivor's consent, the person in charge is obligated to promptly refer the survivor to the relevant Gender-Based Violence (GBV) service, addressing specific needs and preferences. These services encompass legal, psychosocial, medical care, safety, and security-related support.

Within 24 hours of receiving the allegation, the person in charge must notify the Field Management Unit (FMU) of the Sexual Exploitation and Abuse by Humanitarian Workers (SEAH) incident. It is imperative that the information collected adheres to principles of confidentiality, anonymity, and consent. The reported elements should be limited to: (i) the age and sex of the survivor; (ii) the type of alleged incident as reported; (iii) the employment status of the alleged perpetrator within the project; and (iv) whether the survivor has been referred to a service provider.

c. Fact analysis: If the survivor expresses a desire for disciplinary action in addition to the provided services, the Safeguard Specialist will refer the case to the Project Manager and Project Board. This involves analyzing the facts to determine if the alleged perpetrator is associated with the project, leading to a referral to the employer for investigation. In cases where national law mandates it, the Facility Management Unit might be obligated to refer the complaint to local authorities for further investigation and potential criminal prosecution. The survivor must be informed of the legal obligations related to reporting incidents before disclosing the complaint, respecting the principle of consent. Referral to local authorities, where not legally mandated, should only occur with the survivor's explicit consent.

d. Monitor, evaluate and closure of process: The Safeguard Specialist shall issue regular reports to the FMU containing basic information on the types and number of SEAH allegations, and the age and sex of the survivor to enable them to track grievances. If the survivor does not wish that disciplinary action be pursued by the employer and has not pursued legal action independently, the process is closed after the referral to services has been provided. In cases where the survivor seeks disciplinary action to be pursued by the employer or where the survivor pursues independent legal action, the process is closed once that disciplinary or legal action has been initiated. The tracking records should show the results of the referral.

In order to ensure local communities, have the possibility to formulate simple complaints or denunciations, the system should consider different ways to receive a complaint:

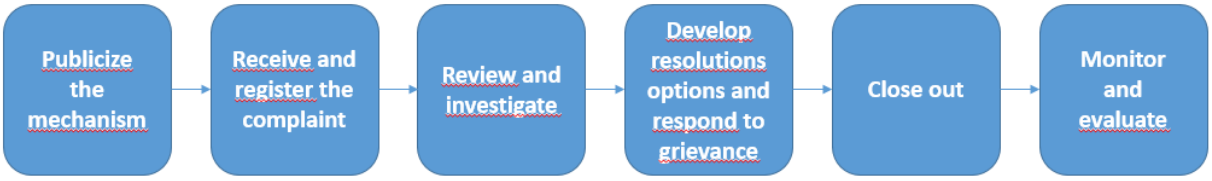
- Through a key person from the communities that can receive/register a complaint. In theory, this must include alternatives in case the complaint concerns the key person herself.
- It may consider complaints ‘boxes’ where the people can drop a complain, a recommendation.
- A process to ensure complaints are rapidly analyses, treated and a communication is given back to the complainant.

In addition, and in accordance with the Gender Analysis (Annex 8a) and the Gender Action Plan (Annex 8b), the GRM will also include Gender based Violence (GbV) and Sexual

Exploitation Abuse and Harassment (SEAH) aspects and will ensure to be gender and culturally sensitive to ensure anonymity of protection of complaint.

Following process steps could be considered during GRM design:

Figure 7: Process steps of a grievance mechanism



The proposed process is not static; it is a process that should be enriched and reshaped to respond appropriately to the concerns of complainants.

Details are given below and need to be appropriated and specified.

- **Publicize the Grievance Redress Mechanism:** All project stakeholders (employees, communities and other stakeholders) must be informed about the mechanism through different channels that should be described. For example: information workshops for the local population in the villages (this information could be given during the meeting with local authorities); information to all employees.

- **Receive the complaint:** The channels receiving complaints need to be created, defined, and communicated to all stakeholders. The Grievance officer will be in charge to collect the complaints. The channels must be diversified and could include phone (people may call the project), paper form, verbal complaint formulated to the project directly or to key informant rely from the community.

- **Complaint registration:** Complaints will be registered in a complaint register by the Grievance officer only. The project will examine the admissibility and severity of the complaint. If the complaint is not admissible, the reasons must be explained to the complainant, if possible, immediately upon receipt of the complaint or request. If the complaint is admissible, the grievance officer will carry out a first analysis to identify the problem.

- **Review and investigate:** If necessary, an investigation will be initiated within one to two weeks after receipt of a complaint or request deemed admissible. The purpose of this investigation is to verify the validity and determine the level of severity of the complaint.

- **Develop resolutions options and respond to grievance:** The development of resolutions options should be described, considering the severity of the complaint.

- **Close out: a** complaint is considered closed when it is considered inadmissible or unfounded or when a solution is accepted by all parties concerned and is implemented. All documents relating to closed applications and complaints will be archived in the register of requests and complaints.

- **Monitor, report and evaluate the GRM:** The GRM will be computerized in the form of a database. The information concerning its file will be accessible to the complainant. The grievance officer will carry out a monthly report to the E&S team on the number and type of complaints, the complainants, the types of actions taken to resolve them, the percentage of success and lines for improvement.

- **Processing time of a complaint:** The processing time needs to be described and communicated to the stakeholders.

ESS Management systems

Considering the potential risks and risk categorisation of the proposed project as B, the proposed project is required to have a project-level ESMP for the management of the risks. The proposed project will therefore need to:

- Plan and budget for qualified human resources to support the implementation of the ESMP as well as monitor and continuously adapt the ESMP implementation in close coordination with partners and stakeholders in Peru
- Establish a mitigation hierarchy (anticipate, avoid; minimize; compensate or offset)
- Ensure that regular dialogues and consultations take place including at local level
- Establish appropriate communication and grievance redress mechanisms

In addition, as most of the potential risks are related to the implementation of the Local initiatives that will be funded through the Puna Facility, Profonanpe the leading Executing Entity managing the Puna Facility will need to:

- Budget for qualified human resources to support the implementation of the EMSP and IPLCEP to screen each Local initiatives proposal to ensure it does not present none of the major risk pre-identified
- Establish or adapt an appropriate communication and grievance redress mechanisms that fits to the proposed project

In the case of Profonanpe as the Executing Entity managing the Puna Facility the fund has respective ESS system, an 'Environmental and Social Management' System which is the operational framework for environmental and social matters. It is a group of policies, standards, processes and procedures that help Profonanpe to identify, analyse, control and decrease both the occurrence and impact of environmental and social risks. It applies at both project intervention level and also at the institutional level. One of the key elements are the eleven environmental and social policies. In addition, Profonanpe successfully passed a reaccreditation process with the GCF during 2021 and 2022 and one of the aspects evaluated was Profonanpes alignment with environmental and social matters. Profonanpe also counts with a tailor-made introduction course for their directors and staff and an in-depth course for project staff to strengthen their capacities on ESS and Gender including following modules: Introduction to Environmental and Social Safeguards, Gender and indigenous Peoples issues, Environmental and Social evaluation of programs and projects and monitoring, reporting and verification systems.

As an EE of the project, SERNANP has an Environmental, Social and Indigenous Peoples Management Framework of the National System of Natural Areas Protected by the State ESMF-SINANPE , whose objective is to strengthen the environmental and social sustainability of ANPs activities at the national level. Thus, through the ESMF-SINANPE, potential environmental and social risks associated with the activities implemented by SERNANP are identified. The ESMF-SINANPE contains the guidelines to strengthen the incorporation of the intercultural approach, which considers that any SERNANP project that supports the issue of effective management must direct resources to the implementation of social safeguards, especially with regard to participatory management activities, co-management, RR.NN management, training, gender approach and participatory processes complementary to the

ANP processes; since these activities could contribute to the mitigation of conflicts, the reaching of agreements and the establishment of commitments, the co-management or co-execution of activities, among other issues that require strengthening participation.

Within the framework of implementation of the Puna Resilient project, IdM has experience in expanding EbA Mountain in Peru, which builds on years of working with local mountain communities in the Nor Yauyos Cochas Landscape Reserve, by restoring the wetland and grassland ecosystems in the Reserve. Communities can improve management of declining water supplies, reduce erosion and the risk of natural disasters. EbA measures in mountains help increase the resilience of ecosystems and communities to address climate change.

In the case of the EE, the Ministry of Agricultural Development and Irrigation (MIDAGRI), it has been implementing the Register of Agricultural Producers (PPA) that will allow for district and personalized information on agricultural producers as part of their M&E. Also, they have availability of climate satellite information tools but insufficient diffusion for their use and application in decision-making. There is limited implementation of the monitoring system for livestock activities, no follow-up and evaluation of the interventions of the sector in terms of planting and harvesting water and no monitoring and reporting system for sectoral commitments for NDCs.

Impact rating: (low, middle, high)

The overall risk associated with the proposed project is rated as middle. Although most actions proposed will contribute to the overall risk management and climate adaptation capacity of the project beneficiaries as most of the interventions and actions proposed by the project will have positive social and environmental impacts, due to the competitive nature of the proposed financial mechanism established under activity 2.1.1. and eligible list of measures for the implementation of the Local initiatives under activity 1.1.2 potential risks on for example conflicts could arise. However, these risks can be easily remediable through mitigation measures such as the implementation of the Local initiatives related to the Puna Facility the project will introduce the respective ESMP (Annex 6b) and IPLCEP (Annex 6c). In addition, the relevant Executing Entities have the needed ESS systems to implement respectably the ESMP and IPLCEP.

Mitigation and management measures

If the identified potential risks are not managed adequately via the ESMP and IPLCEP, it can have unintended negative impacts as in gender imbalance or social unrest linked to the selection of potential beneficiaries of the Puna Facility and the perception of equity among community members. Therefore the project would need to budget for and hire dedicated environmental and social experts with sufficient qualifications to manage the different environmental and social risks identified for the project (in particular to manage the stakeholder engagement plan, indigenous people framework, ESMP implementation, monitoring and learning).

In addition, Profonanpe as the managing Executing Entity of the Puna Facility will need to budget for and hire dedicated staff to manage and monitor the different environmental and social risks potentially arising from the implementation of Local initiatives following the ESMP and IPLCEP (for more information please see Annex 6b and 6c) through an environmental and social screening of the Local initiatives.

The environmental and social screening is a voluntary process put in place to ensure the proper social and environmental integration of the Local initiatives.

As Profonanpe already has predesigned screening list, Profonanpe should assess and adjust if needed the screening list to ensure that it is tailored to the objectives of the proposed project.

In summary, the process should include:

1. **During the preparation of Local initiative ideas and site-specific diagnostics (executed by GIZ):**
   - Pre-selection and identification of main districts and watersheds
   - Diagnostics, baseline and mapping
   - Design of main action lines
   - Design of bases for competitive funds
   - Soil and water studies and coordination with the competent authorities
   - Identify any potential conflicts between local communities and consider this for the site-specific diagnostics
2. **During the pre-selection and evaluation of Local initiative proposals (executed by Profonanpe):**
   - Screening of the Local initiative proposal based on a tailored screening checklist prepared by Profonanpe ESS expert to identify any potential risks and impacts.
   - Use of the screening list by the Puna Facility Management Unit (FMU) during pre-selection of Local initiatives and evaluation by the Independent Technical Evaluation Committee.
   - When necessary, the FMU should propose field visit to conduct deeper assessment.
   - Depending on the screening result (either category C, B or A), a Local initiative proposal may be either refused, modified or accepted.
   - In case the proposal needs some refinement, Profonanpe would need to ensure that the applicant receives the needed support in adapting the Local initiative proposal in conformity with the E&S standards. This approach should be participatory.
   - In the case of category B proposals, Profonanpe through the Environmental, Social and Gender specialist of the Facility Management Unit will support beneficiaries in developing Local initiative ESS plans.
   - Profonanpe's disclosure procedures[68] will be respectively considered. In this regard the disclosure activities must be carried out no less than 30 calendars days in advance, counted from the beginning of the Due Diligence process. The safeguard reports will be available in both English and the local language (if not English). The reports will be made available on the website of Profonanpe as well as in locations convenient to affected peoples.
   - To ensure that information is accessible, efforts will be made to present it in the language spoken by the intended audience. Additionally, dissemination strategies will be culturally tailored to the specific Indigenous People and Local Communities and be gender sensitive. It will also be necessary to document the dissemination actions, in order to monitor that the information has reached each of the actors

[68] All in line with the stakeholder mapping, Stakeholder Engagement Plan and communications plan, and transversally with the Gender Action and the Indigenous Peoples and Local Community Engagement Plan.

involved and especially vulnerable populations Ensure that investment related to water are communicated to ANA and that the Ministry of Culture is informed and gives approval to ensure the inexistence of superficial archaeological remains in the places were some EbA measures will be implemented. In addition, if camelids are part of the Local initiatives, ensure that the approval of National Forest and Wildlife Service (SERFOR) of vicuñas (camelids) management is in place and in case the Local initiative is in a Natural Protected Area a conservation agreement is available.

3. **During the implementation of Local initiatives (executed by Profonanpe):**
    - Ensure that Local initiative develop a safety protocol to minimize labour related accidents.
    - Ensure during Local initiative implementation to provide awareness raising, training and ad-hoc support in E&S management.
    - Ensure the monitoring of the application of the E&S management results, and enforcement via the Local initiative Grant Agreements the continuous monitoring. An internal monitoring will be necessary, especially during early stage of the sub-project selection, sub-project finalisation and validation.
    - Manage a grievance redress mechanism which includes SEAH grievance mechanism.

Profonanpe will also make sure that hired staff is trained and information is disseminated including, the potential risks of implementing defined EbA measures and CRVC based on table 13 and 14.

ESS 2: Labour and working conditions

Assessment

In relation to any possible unintended negative impacts of the project concerning labour rights no risk is expected regarding working conditions and informal labour. Nevertheless, occupational health and safety risks may occur during the implementation of some of the EbA measures (e.g., qochas, infiltration ditches, etc.) as the implementation will be done by labour force within the communities. Therefore, potentially following risks have been identified:

- Accidents during construction of for example greenhouses, material transportation, hazard, and lack of signalization.
- Accidents during land work related to the e.g qochas, infiltration ditches, etc.
- Contagion, sickness spreading.

Impact rating: (low, middle, high)

The risk can be rated as low as no large-scale and long-lasting interventions are foreseen within the Puna Facility and actions will take place in open spaces.

Mitigation and management measures

During any kind of work, basic health and safety protocols will be considered to ensure that risks are contained. Such measures shall include among others, protective equipment, when necessary, signalization and information, surveillance, contact with local health centres, etc.

ESS 3: Resource efficiency and pollution prevention

Assessment

Risks of possible unintended negative impacts on resources use and pollution prevention would be limited as the list of proposed interventions (Ecosystem based Adaptation measures and Climate Resilient Value Chains) eligible to fund through the Puna Facility are nature based and respectful to the resources available.

Nevertheless, it does exist a certain risk in terms of:

- Greenhouse gas (GHG) emissions and climate change mitigation:
  - If specific potential markets are targeted abroad within the support of project beneficiaries in accessing markets.
- Mismanagement of water resources in the watershed through unproperly designed of family qochas or infiltration ditches affecting downstream users.

Impact rating: (low, middle, high)

The impacts related to potential GHG emissions can be rated low as there will be a list of eligible measures that can be financed through the Puna Facility which were analysed considering environmental and sustainable aspects. For the specific case of GHG the measures proposed will in addition also have a mitigation co-benefit as most of them can reduce and even capture GHG emissions.

In addition, the impacts related to mismanagement of water resources can be assessed as low as its consequences could outstrip the community that is implementing the Local initiatives. Nevertheless, the project and the Puna Facility will also provide Technical Assistance to the applicants and conduct screening to ensure that Environmental and Social aspects are considered during the development and evaluation of the Local initiative.

In the case of the co-financing of MIDAGRI, MIDAGRI conducts an Environmental Management Inform (IGA)[69] for small or nature-based infrastructures and small productive activities, which is approved by the General Directorate of Agrarian Environmental Affairs in MIDAGRI. Through this procedure, we will grant you the Environmental Certification for those projects under the competence of the Agricultural Sector, which are not within the scope of the Environmental Impact Assessment System (SEIA) and do not generate significant environmental impact[70]. If the activity or infrastructure is part of the SEIA; another certification will be needed. In the case of nature-based solutions they are not included.

Mitigation and management measures

An adequate and careful design of potential Local initiatives by the involved stakeholders during the preparation of the Local initiatives will be ensured. In addition, a proper communication strategy together with a stakeholder engagement plan will mitigate the potential risks and adapt properly the Local initiatives to the context.

[69] Solicitar una certificación ambiental - Informe de Gestión Ambiental (IGA) - Trámite - Ministerio de Desarrollo Agrario y Riego - Plataforma del Estado Peruano (www.gob.pe)
[70] Listado de inclusión de proyectos de inversión sujetos al SEIA - Informes y publicaciones - Ministerio del Ambiente - Plataforma del Estado Peruano (www.gob.pe)

Specifically for the case of the Puna Facility Profonanpe will ensure to follow the adequate lists of eligibility EbA measures and Climate Resilient Value Chains and Local initiatives selection criteria during the evaluation of proposed Local initiatives.

In addition, the project will promote access to national markets while supporting project beneficiaries within activity 1.1.3. In the design, the following list of standard measures to prevent the risk of pollution should be considered to select the more appropriate for each Local initiative.

List of standard mitigation measures to be implemented.

Potential risk	**Mitigation measures**
Inefficient use of natural resources and other materials	In the design prioritize the use of locally available natural resources and locally procured materials. Promote the use of waste from agricultural and livestock activities in the design of measures.
Neglect of pollution risks on the part of the beneficiaries and local actors.	Training communities and other groups of beneficiaries about best practices for pollution reduction.
Neglect by local neighbors can generate pollution risks that affect ecosystem services. For example, in the event that one neighbor starts a fire, everyone can be affected.	Raise public awareness about pollution issues and their impacts through radio spots and signaling in critical areas.
Soil and underwater contamination a cause of use of toxic chemical pesticides and herbicides	In the operations manual in the exclusion list it is included the use of toxic chemical pesticides and herbicides. Safer and less toxic pest control methods will be promoted, such as crop rotation, use of insect repellent plants and manual pest removal will be promoted through EbA 3 and EbA 7.
Soil and underwater contamination a cause of use of poor waste management. Waste may contain toxic chemicals that can leach into the soil and contaminate.	Waste Management: Properly manage and properly dispose of hazardous and non-hazardous waste from the implementation of the measure (like plastics, batteries, etc): Recycle whenever possible.
	Promote the use of safer disposal methods, such as composting.
Accidental fires due to the use of fire in camps.	Fire prevention training and measures to avoid fires.
Soil erosion due to poor design and implementation of measure could contaminate the soli and the water.	Adequate design to prevent erosion.
	Training for proper implementation
Air pollution from livestock emissions and waste.	Only the camelid value chain will be supported because its emissions are significantly lower than those of cows.

	Management of camelid manure will be considered as part of integrated soil fertility management (EbA 3).
Emissions generated by the use of fossil fuels	The selection of clean energy sources will be promoted, such as solar panels in the event that a motor is required to pump water.
	To reduce transportation that requires fossil fuels, increased trade in local and regional markets will be promoted.

ESS 4: Community health, safety and security

Assessment

Potentially risks and impacts on the health and safety of the affected communities, including impacts on ecosystem services affecting the local community health and safety could arise in relation with the selection and implementation of the Local initiatives through the Puna Facility. In this regard conflicts over ownership and the wrong selection of Local initiative site represents one of the highest risks for the proposed project and the communities benefiting from the project interventions.

In relation to the Local initiatives' implementation accidents and hazards during construction and land work could occur (see also ESS 2).

In addition, Gender imbalance and violence also represent a risk related to the selection and implementation of Local initiatives as there could be threats to women associations/community leaders, subordination of women, harassment towards individuals that use Grievance Redress Mechanisms (GRM) amongst others. This risk could be increased by having a specific focus of women led Local initiatives and by proposing strengthening women's empowerment through technical assistance provided by the Puna Facility.

Impact rating: (low, middle, high)

The overall impact can be rated as low. Even though there is a potential risk of conflicts among beneficiaries regarding ownership of common land that can be rated as middle, if the project carefully chooses and select project site and written approval from the Community Assembly is provided the impact can be kept low.

In relation to the other potential risks the impacts can be rated as low as the project is planning to support small-scale and short-term interventions and gender imbalance will be managed through the Gender Action Plan (Annex 8b) which includes the consideration of an operative gender- and culturally sensitive GRMs which includes Gender based Violence (GbV) and Sexual Exploitation Abuse and Harassment (SEAH) aspects.

Mitigation and management measures

During any kind of work basics measures such as signalling, protection of risks zones, will be implemented (see also ESS 2). In addition, a careful site identification will be ensured, during design of Local initiative proposals and implementation the respective documentation clarifying ownership of common land is provided. In order to monitor any potential social risk, the project will also hire a risk manager to develop a Risk Management Plan and monitor the status of socio-environmental conflicts.

In regard to the gender specific risks, it will be ensured that the Gender Action Plan (Annex 8b) is developed and implemented adequately.

In addition, standard mitigation measures for the main, likely, standard community health and safety risks and impacts are being considered via the following instruments:

- **Ensure Indigenous People and Local Community (IPLC) Engagement:** Actively involve the IPLC in Local initiative planning and decision-making to understand their concerns and seek their input.
- **Health and Safety Protocols:** Development of health and safety protocols to prevent accidents and injuries for beneficiaries implementing the Local initiatives.
- **Grievance Redress Mechanisms:** Establish gender- and culturally sensitive GRMs which also considers GbV and SEAH to allow women and men IPLC members to report concerns and seek resolution.

ESS 5: Land acquisition and involuntary resettlement

Assessment

No risk of involuntary resettlement can be assessed, as a principle no project activities or sub-activities may cause involuntary displacement would be accepted.

Regarding land use, it exists a risk of conflict over ownership and land tenure (individual versus communal and among individuals). In addition, due to a poor selection of land during the Local initiative preparation and selection, the investments can invalidate, on medium to long term, any investment-related benefit.

Impact rating: (low, middle, high)

The overall impact rating is low. The identified risk can have a significant impact on communities, as land tenure is a sensitive issue. However, the impact can be reduced at an early stage through an appropriated mitigation strategy.

Mitigation and management measures

It will be necessary to confirm landowners' titles and users of any selected Local initiatives site and ensure the consent of the entire community through the Communal Assembly and Agreement signed.

ESS 6: Biodiversity conservation and sustainable management of living natural resources

Assessment

The project aims at improving conservation of natural resources and their adapted and resilient use. Nevertheless, based on the proposed measures for the implementation of Local initiatives, limited risks may include:

- The creation of improved access road may facilitate greater access to the public and accelerate the degradation of sensitive area.
- Unexpected damage on bofedales due to a wrong assessment of the situation.
- Overgrazing due to wrong choice on the Climate Resilient Value Chain component.
- Agroforestry and reforestation may attract new pests and diseases into the targeted area.
- Community ecotourism will increase tourist frequentation and may impact conservation if unproperly managed.

- Exotic species could be introduced in Natural Protected Areas
- Qochas or infiltration ditches can alter drainage patterns can affect adjacent lands.
- Possible benefit to members of communities/associations or cooperatives involved in illegal mining activities.

Impact rating: (low, middle, high)

The impact rating can be assessed as low. As the potential risks may impact various environment circle. It is considered, at this stage that the risk would be of negligible intensity.

Mitigation and management measures

Most of the mitigation measures will be implemented from the design phase of the Local initiatives. The following specific measure will be taken into consideration:

- Verify access requirements during the site-specific diagnostics of Local Initiatives in case there are sensitive areas (e.g. bofedales) and ensure the adequate design of access removal or controls.
- Ensure a good design of measures to prevent negative impacts such as sediment dispersal, landslides, etc.
- During site selection, take into account the potential risk to nearby infrastructure and properties.
- Prohibit use of chemical fertilizers and pesticides
- In case Local initiatives include bofedales, ensure that restoration plans identify and describe how to correct the watershed level root causes of the degradation and to restore original hydrological flows and conditions.
- Future ecosystem monitoring and maintenance requirements must be planned.
- Comply with the provisions on the in force “Action Plan on the Invasive Exotic Species in Peru" including the use of invasive exotic species for grassland productivity improvement, reforestation and/or afforestation.
- Previous specific-site diagnostics will be prepared as well as territorial planification of the measures. Topographic, soil and water studies should be planed as part of the Local initiative.
- Regarding illegal mining, ensure close coordination with the chief of the Natural Protected Areas, Regional and Local Governments, NGOs, Ombudsman’s Office to identify specific places and people involved in this activity.
- Identify during planning (activity 1.1.1.) potential beneficiaries that are involved in illegal activities and exclude them from participating in the project.
- In the case of Natural Protected Areas, the project will:
    - Closely coordinate with SERNANP, which is an Executing Entity in this project. Coordination with the Chief of each decentralized office in the target areas of the project will be promoted to assess the compatibility of the measures inside the areas and to avoid prohibited species or to put in risk existing biodiversity.
    - Ensure that conservation agreements among beneficiaries and SERNANP are signed.

ESS 7: Indigenous peoples

Assessment

An Indigenous Peoples and Local Communities Engagement Plan (IPLCEP) was developed (see Annex 6c) to ensure that indigenous peoples and local communities[71] are sufficiently and meaningfully consulted leading to their free, prior and informed consultation (FPIC) to project interventions, that they will have equal opportunity to share the project benefits, and that any potential negative impacts are properly mitigated.

Impact rating: (low, middle, high)

The impact rating can be assessed as medium, as even though most of the beneficiaries of the project are local communities[72] and communities themselves will develop in a participative manner their climate diagnostics and territorial plans indicating which measures and Climate Resilient Value Chains will address their climate problem and needs. Local communities are diverse and their individual needs and engagement in the project implementation needs to be considered. In addition, despite the fact, that technical support and community workshops will be provided by the project and communities will benefit positively from the Puna Facility, the competitive nature of the Facility might trigger potential conflicts or enhance existing rivalries between or within communities and/or Indigenous Peoples.

Mitigation and management measures

Adequate development and implementation of the Indigenous Peoples and Local Communities Engagement Plan (IPLCEP, Annex 6c).

Adequate development and implementation of the IPLCEP by all stakeholders.

The project will be designing and implementing a clear easy access culturally sensitive communications strategy for the Puna Facility, communicating in a transparent way the selection criteria for Local community initiatives,

Local initiatives should be planned considering the rainfall/crop planting calendar of the communities.

ESS 8: Cultural heritage

Assessment

The project, as part of its component 1, aims at restoring ancient practices in the puna system to improve resilience, adaptation to climate change and benefit to the communities. In addition, the project will promote the recovering of ancestral practices. Some elements of the community (qochas, part of the mountain) may be considered as ancestral practices by the community and would be considered by the project.

It exists a limited risk that some Local initiative activities are proposed in cultural heritage sites since the South part of Peru was the centre of the Inka empire. However, this remains negligible because the project will request for the Certificate for the inexistence of

[71] The term local communities were included as people consulted declared they would prefer to be designated as local communities instead of indigenous people.

[72] A local community has been defined as a group of interacting people living in a common location. It implies a group of families organized around common values and driven by social cohesion within a shared geographical location. People met in May 2023 declared they would prefer to be designated as local communities instead of indigenous peoples.

Archaeological Remains (CIRA)[73] when is needed. A risk of unexpected finding of some archaeological rest and artefact may happen during earth work. In this case, the Ministry of Culture (MINCUL) will be informed in order to assess the findings and define appropriate measures to avoid loss of access to cultural heritage. In addition, in the case of cultural heritage, where ancestral practices and uses are maintained, in situations such as the terraces and qochas, to be rehabilitated as proposed by the project, they would be considered under the category "Living Landscape", so there is no restriction on access to the population that uses them; this category is defined in Article 7, paragraph b)ii, of Supreme Decree No. 02-2011-MC[74].

Impact rating: (low, middle, high)

The impact rating of this potential risk can be rated as low. The risks would remain negligible as no large-scale activities are anticipated.

Mitigation and management measures

For the Local initiatives the Chance finds procedure of Profonanpe should be used following their Social and Environmental Policy (SEP) (https://profonanpe.org.pe/wp-content/uploads/2021/03/PAS-2021.pdf). In case cultural heritage is found in the Local initiative area, a procedure for unforeseen heritage findings must be included, including the collaboration of experts to evaluate the cultural heritage found, taking into account the General Law of Cultural Heritage of the Nation (Law No. 28296), which states that any public or private work involving soil removal must have the respective permit. The institution responsible for granting such authorization is the Ministry of Culture, through a Certificate of Non-existence of Archaeological Remains (CIRA).

ESS 9: Stakeholder engagement and information disclosure

Assessment

The main risk will come from too many consultations organized too early in the process and during project development. Overacting at this stage may cause severe frustration to the community met and where the project may not be implemented later. It is important not to rise to much expectation at early stage of the project development.

Impact rating: (low, middle, high)

The impact rating from this risk can be assessed as middle. An improper development and organization of too many consultations can have a significant impact on communities, as the consultation process mobilizes a lot of people within communities and some of them will probably not access the project.

Mitigation and management measures

Stakeholders will be properly engaged, and a good communication strategy will be put in place. A Stakeholder Engagement Plan has been already prepared (see Annex 7). It is necessary to adapt the consultation process to the stage at which the project stand to limit expectation from the communities and further frustration if the project is not funded or none of the activities benefit the consulted communities.

[73] 4 Procedimiento para el CIRA y el PMA22-01-2021_02 (mef.gob.pe)
[74] dsndeg002-2011-mc.pdf (cultura.gob.pe).

Annex 1 – Treaties and protocols ratified by Peru

Treaties and protocols ratified for Peru regarding labour (ILO)

Fundamental

Convention	Date	Status	Note
C029 - Forced Labour Convention, 1930 (No. 29) ***P029*** *- Protocol of 2014 to the Forced Labour Convention, 1930 ratified on 18 Jun 2021 (In Force)*	01 Feb 1960	In Force	
C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)	02 Mar 1960	In Force	
C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)	13 Mar 1964	In Force	
C100 - Equal Remuneration Convention, 1951 (No. 100)	01 Feb 1960	In Force	
C105 - Abolition of Forced Labour Convention, 1957 (No. 105)	06 Dec 1960	In Force	
C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)	10 Aug 1970	In Force	
C138 - Minimum Age Convention, 1973 (No. 138)*Minimum age specified: 14 years*	13 Nov 2002	In Force	
C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)	10 Jan 2002	In Force	

Governance (Priority)

Convention	Date	Status	Note
C081 - Labour Inspection Convention, 1947 (No. 81)	01 Feb 1960	In Force	
C122 - Employment Policy Convention, 1964 (No. 122)	27 Jul 1967	In Force	
C144 - Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144)	08 Nov 2004	In Force	

Technical

Convention	Date	Status	Note
C001 - Hours of Work (Industry) Convention, 1919 (No. 1)	08 Nov 1945	In Force	
C004 - Night Work (Women) Convention, 1919 (No. 4)	08 Nov 1945	Not in force	Abrogated Convention - By decision of the ILC at its 106th Session (2017)
C008 - Unemployment Indemnity (Shipwreck) Convention, 1920 (No. 8)	04 Apr 1962	Not in force	Abrogated Convention - By decision of the International Labour Conference at its 109th Session (2021)
C009 - Placing of Seamen Convention, 1920 (No. 9)	04 Apr 1962	Not in force	Abrogated Convention - By decision of the International Labour Conference at its 109th Session (2021)
C010 - Minimum Age (Agriculture) Convention, 1921 (No. 10)	01 Feb 1960	Not in force	Automatic Denunciation on 13 Nov 2003 by convention C138
C011 - Right of Association (Agriculture) Convention, 1921 (No. 11)	08 Nov 1945	In Force	
C012 - Workmen's Compensation (Agriculture) Convention, 1921 (No. 12)	04 Apr 1962	In Force	
C014 - Weekly Rest (Industry) Convention, 1921 (No. 14)	08 Nov 1945	In Force	
C019 - Equality of Treatment (Accident Compensation) Convention, 1925 (No. 19)	08 Nov 1945	In Force	
C020 - Night Work (Bakeries) Convention, 1925 (No. 20)	04 Apr 1962	Not in force	Denounced on 18 Jun 1996
C022 - Seamen's Articles of Agreement Convention, 1926 (No. 22)	04 Apr 1962	In Force	
C023 - Repatriation of Seamen Convention, 1926 (No. 23)	04 Apr 1962	In Force	
C024 - Sickness Insurance (Industry) Convention, 1927 (No. 24)	08 Nov 1945	In Force	
C025 - Sickness Insurance (Agriculture) Convention, 1927 (No. 25)	01 Feb 1960	In Force	

Convention	Date	Status	Note
C026 - Minimum Wage-Fixing Machinery Convention, 1928 (No. 26)	04 Apr 1962	In Force	
C027 - Marking of Weight (Packages Transported by Vessels) Convention, 1929 (No. 27)	04 Apr 1962	In Force	
C032 - Protection against Accidents (Dockers) Convention (Revised), 1932 (No. 32)	04 Apr 1962	Not in force	Automatic Denunciation on 19 Apr 1989 by convention C152
C035 - Old-Age Insurance (Industry, etc.) Convention, 1933 (No. 35)	08 Nov 1945	In Force	
C036 - Old-Age Insurance (Agriculture) Convention, 1933 (No. 36)	01 Feb 1960	In Force	
C037 - Invalidity Insurance (Industry, etc.) Convention, 1933 (No. 37)	08 Nov 1945	In Force	
C038 - Invalidity Insurance (Agriculture) Convention, 1933 (No. 38)	01 Feb 1960	In Force	
C039 - Survivors' Insurance (Industry, etc.) Convention, 1933 (No. 39)	08 Nov 1945	In Force	
C040 - Survivors' Insurance (Agriculture) Convention, 1933 (No. 40)	01 Feb 1960	In Force	
C041 - Night Work (Women) Convention (Revised), 1934 (No. 41)	08 Nov 1945	Not in force	Abrogated Convention - By decision of the International Labour Conference at its 106th Session (2017)
C044 - Unemployment Provision Convention, 1934 (No. 44)	04 Apr 1962	In Force	
C045 - Underground Work (Women) Convention, 1935 (No. 45)	08 Nov 1945	Not in force	Denounced on 09 Jun 1997
C052 - Holidays with Pay Convention, 1936 (No. 52)	01 Feb 1960	In Force	
C053 - Officers' Competency Certificates Convention, 1936 (No. 53)	04 Apr 1962	Not in force	Abrogated Convention - By decision of the International Labour Conference at its 109th Session (2021)
C055 - Shipowners' Liability (Sick and Injured Seamen) Convention, 1936 (No. 55)	04 Apr 1962	In Force	

Convention	Date	Status	Note
C056 - Sickness Insurance (Sea) Convention, 1936 (No. 56)	04 Apr 1962	In Force	
C058 - Minimum Age (Sea) Convention (Revised), 1936 (No. 58)	04 Apr 1962	In Force	
C059 - Minimum Age (Industry) Convention (Revised), 1937 (No. 59)	04 Apr 1962	In Force	
C062 - Safety Provisions (Building) Convention, 1937 (No. 62)	04 Apr 1962	In Force	
C067 - Hours of Work and Rest Periods (Road Transport) Convention, 1939 (No. 67)	04 Apr 1962	Not in force	Abrogated Convention - By decision of the International Labour Conference at its 106th Session (2017)
C068 - Food and Catering (Ships' Crews) Convention, 1946 (No. 68)	04 Apr 1962	In Force	
C069 - Certification of Ships' Cooks Convention, 1946 (No. 69)	04 Apr 1962	In Force	
C070 - Social Security (Seafarers) Convention, 1946 (No. 70)	04 Apr 1962	Not in force	Instrument not in force
C071 - Seafarers' Pensions Convention, 1946 (No. 71)	04 Apr 1962	In Force	
C073 - Medical Examination (Seafarers) Convention, 1946 (No. 73)	04 Apr 1962	Not in force	Abrogated Convention - By decision of the International Labour Conference at its 109th Session (2021)
C077 - Medical Examination of Young Persons (Industry) Convention, 1946 (No. 77)	04 Apr 1962	In Force	
C078 - Medical Examination of Young Persons (Non-Industrial Occupations) Convention, 1946 (No. 78)	04 Apr 1962	In Force	
C079 - Night Work of Young Persons (Non-Industrial Occupations) Convention, 1946 (No. 79)	04 Apr 1962	In Force	
C080 - Final Articles Revision Convention, 1946 (No. 80)	04 Apr 1962	In Force	
C088 - Employment Service Convention, 1948 (No. 88)	06 Apr 1962	In Force	

Convention	Date	Status	Note
C090 - Night Work of Young Persons (Industry) Convention (Revised), 1948 (No. 90)	04 Apr 1962	In Force	
C099 - Minimum Wage Fixing Machinery (Agriculture) Convention, 1951 (No. 99)	01 Feb 1960	In Force	
C101 - Holidays with Pay (Agriculture) Convention, 1952 (No. 101)	01 Feb 1960	In Force	
C102 - Social Security (Minimum Standards) Convention, 1952 (No. 102)*Has accepted Parts II, III, V, VIII and IX. Pursuant to Article 3, paragraph 1, of the Convention, the Government has availed itself of the temporary exceptions provided for in Articles 9(d); 12(2); 15(d); 18(2); 27(d); 48(c); and 55(d).*	23 Aug 1961	In Force	
C106 - Weekly Rest (Commerce and Offices) Convention, 1957 (No. 106)	11 Jul 1988	In Force	
C107 - Indigenous and Tribal Populations Convention, 1957 (No. 107)	06 Dec 1960	Not in force	Automatic Denunciation on 02 Feb 1995 by convention C169
C112 - Minimum Age (Fishermen) Convention, 1959 (No. 112)	04 Apr 1962	In Force	
C113 - Medical Examination (Fishermen) Convention, 1959 (No. 113)	04 Apr 1962	In Force	
C114 - Fishermen's Articles of Agreement Convention, 1959 (No. 114)	04 Apr 1962	In Force	
C127 - Maximum Weight Convention, 1967 (No. 127)	19 Jun 2008	In Force	
C139 - Occupational Cancer Convention, 1974 (No. 139)	16 Nov 1976	In Force	
C147 - Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147)	06 Jul 2004	In Force	
C151 - Labour Relations (Public Service) Convention, 1978 (No. 151)	27 Oct 1980	In Force	
C152 - Occupational Safety and Health (Dock Work) Convention, 1979 (No. 152)	19 Apr 1988	In Force	
C156 - Workers with Family Responsibilities Convention, 1981 (No. 156)	16 Jun 1986	In Force	
C159 - Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159)	16 Jun 1986	In Force	
C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)	02 Feb 1994	In Force	

Convention	Date	Status	Note
C176 - Safety and Health in Mines Convention, 1995 (No. 176)	19 Jun 2008	In Force	
C178 - Labour Inspection (Seafarers) Convention, 1996 (No. 178)	04 Oct 2006	Not in force	Instrument not in force
C183 - Maternity Protection Convention, 2000 (No. 183)*Women workers are entitled to 14 weeks of maternity leave: 49 days of prenatal leave and 49 days postnatal leave.*	09 May 2016	In Force	
C189 - Domestic Workers Convention, 2011 (No. 189)	26 Nov 2018	In Force	
C190 - Violence and Harassment Convention, 2019 (No. 190)	08 Jun 2022	In Force	

Ratification of International Human Right Treaties, Peru

International Bill of Human Rights	Signature	Ratification	Accession
International Covenant on Economic, Social and Cultural Rights	11 Aug 1977	28 Apr 1978	
International Covenant on Civil and Political Rights	11 Aug 1977	28 Apr 1978	
Optional Protocol to the International Covenant on Civil and Political Rights	11 Aug 1977	3 Oct 1980	
Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty	Not signed		
Prevention of Discrimination on the Basis of Race, Religion, or Belief; and Protection of Minorities	**Signature**	**Ratification**	**Accession**
International Convention on the Elimination of All Forms of Racial Discrimination	22 Jul 1966	29 Sep 1971	
Women's Human Rights	**Signature**	**Ratification**	**Accession**
Convention on the Elimination of All Forms of Discrimination against Women	23 Jul 1981	13 Sep 1982	
Optional Protocol to the Convention on the Elimination of Discrimination against Women	22 Dec 2000	9 Apr 2001	
United Nations Convention against Transnational Organized Crime	14 Dec 2000	23 Jan 2002	
Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime Preamble, supplementing the United Nations Convention against Transnational Organized Crime	14 Dec 2000	23 Jan 2002	
Protocol against the Smuggling of Migrants by Land, Sea and Air, supplementing the United Nations Convention against Transnational Organized Crime	14 Dec 2000	23 Jan 2002	
Slavery and Slavery-Like Practices	**Signature**	**Ratification**	**Accession**
Slavery Convention	Not signed		

Protocol amending the Slavery Convention	Not signed		
Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery	7 Sep 1956		
Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others	Not signed		
Protection from Torture, Ill-Treatment and Disappearance	**Signature**	**Ratification**	**Accession**
European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment	Not signed		
Protocol No. 1 to the European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment	Not signed		
Protocol No. 2 to the European Convention for the Prevention of Torture and inhuman or Degrading Treatment of Punishment	Not signed		
Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment	29 May 1985	7 Jul 1988	
Rights of the Child	**Signature**	**Ratification**	**Accession**
Convention on the Rights of the Child	26 Jan 1990	4 Sep 1990	
Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflicts	1 Nov 2000	8 May 2002	
Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour		10 Jan 2002	
Freedom of Association	**Signature**	**Ratification**	**Accession**
Freedom of Association and Protection of the Right to Organise Convention		2 Mar 1960	
Right to Organise and Collective Bargaining Convention		13 Mar 1964	
Employment and Forced Labour	**Signature**	**Ratification**	**Accession**
Convention concerning Forced or Compulsory Labour		1 Feb 1960	
Equal Remuneration Convention		1 Feb 1960	
Abolition of Forced Labour Convention		6 Dec 1960	
Discrimination (Employment and Occupation) Convention		10 Aug 1970	
Employment Policy Convention		27 Jul 1967	
Convention concerning Occupational Safety and Health and the Working Environment	Not signed		
Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families	22 Sep 2004		
Education	**Signature**	**Ratification**	**Accession**
Convention against Discrimination in Education		Ratified	
Refugees and Asylum	**Signature**	**Ratification**	**Accession**
Convention relating to the Status of Refugees			21 Dec 1964
Protocol Relating to the Status of Refugees			15 Sep 1983

Nationality, Statelessness, and the Rights of Aliens	Signature	Ratification	Accession
Convention on the Reduction of Statelessness	Not signed		
Convention relating to the Status of Stateless Persons	Not signed		
War Crimes and Crimes Against Humanity, Genocide, and Terrorism	**Signature**	**Ratification**	**Accession**
Convention on the Non-Applicability of Statutory Limitations to War Crimes and Crimes Against Humanity			11 Aug 2003
Convention on the Prevention and Punishment of the Crime of Genocide	11 Dec 1948	24 Feb 1960	
Rome Statute of the International Criminal Court	7 Dec 2000	10 Nov 2001	
Law of Armed Conflict	**Signature**	**Ratification**	**Accession**
Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field	12 Aug 1949	15 Feb 1956	
Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea	12 Aug 1949	15 Feb 1956	
Geneva Convention relative to the Treatment of Prisoners of War	12 Aug 1949	15 Feb 1956	
Geneva Convention relative to the Protection of Civilian Persons in Time of War	12 Aug 1949	15 Feb 1956	
Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I)	12 Aug 1949	14 Jul 1989	
Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims on Non-International Armed Conflicts (Protocol II)	12 Aug 1949	14 Jul 1989	
Terrorism and Human Rights	**Signature**	**Ratification**	**Accession**
International Convention Against the Taking of Hostages			6 Jul 2001
International Convention for the Suppression of Terrorist Bombing			10 Nov 2001
International Convention for the Suppression of the Financing of Terrorism	14 Sep 2000	10 Nov 2001	
International Convention for the Suppression of Unlawful Seizure of Aircraft			28 Apr 1978
International Convention on the Prevention and Punishment of Crimes Against International Protected Persons			25 Apr 1978
U.N. Activities and Employees	**Signature**	**Ratification**	**Accession**
Convention on the Privileges and Immunities of the United Nations			24 Jul 1963
Convention on the Safety of United Nations and Associated Personnel	Not signed		
Regional Conventions	**Signature**	**Ratification**	**Accession**

[European] Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No.2 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No.3 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No.4 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No.5 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No.6 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No.7 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No. 8 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No. 9 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No. 10 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No. 11 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
Protocol No. 12 to the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms	Not signed		
European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment	Not signed		
Protocol No. 1 to the European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment	Not signed		
Protocol No. 2 to the European Convention for the Prevention of Torture and inhuman or Degrading Treatment of Punishment	Not signed		
African Regional Conventions	**Signature**	**Ratification**	**Accession**
African [Banjul] Charter on Human and Peoples' Rights *	Not signed		

Convention Governing the Specific Aspects of Refugee Problems in Africa *	Not signed		
Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa *	Not signed		
Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights *	Not signed		
African Charter on the Rights and Welfare of the Child *	Not signed		

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