



Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Bolivia	LATIN AMERICA AND CARIBBEAN	P178861	
Project Name	Bolivia Resilient Water Management for Community and Household Irrigation Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Water	Investment Project Financing	3/13/2023	5/19/2023
Borrower(s)	Implementing Agency(ies)		
Plurinational State of Bolivia	Ministerio de Medio Ambiente y Agua (MMAyA), Viceministerio de Recursos Hidricos y Riego (VRHyR)		

Proposed Development Objective

To improve the availability of water resources and increase access to resilient irrigation in vulnerable rural communities.

Financing (in USD Million)	Amount
Total Project Cost	173.40

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The Project will support the implementation of the first phase of the Government of Bolivia's Climate Smart and Resilient Program, which is a comprehensive rural development program, covering actions from water conservation, irrigation and risk management investments to information, knowledge management and water governance. It will have a strong focus on adaptation strategies for tackling the impacts of climate change on water security as well as developing resilience to climate change exacerbated risks for Bolivia's poorest communities. The Project will help



secure adequate water for irrigation of rain-fed crops, increasing farmers' ability to improve food security and reducing their vulnerability to the increasing climate change induced rainfall variability.

The Project design will consider some basic principles, inter alia:

- A comprehensive analysis of needs at the basin level. Activities, or subprojects, related to the availability and sustainable use of water resources for target areas will be identified through a comprehensive analysis of the basin's needs. For activities that are eligible for Project funding, pre-feasibility studies (Technical Report on Preconditions or IT) and detailed technical designs (Pre-investment Technical Design Studies or EDTPs) will be prepared.
- Basins as the basic geographic unit. The Project will target basins between 100 and 250 km² (operational hydrographic units), whose management unit is the Basin Management Organization (OGC). These basins will be grouped, reaching sizes of up to 20,000 km² which are managed by a Basin Management Unit (UGC), .
- A bottom-up approach. The activities or subprojects will be identified and prioritized by the communities with the active participation of the municipal governments and the OGCs. A bottom-up approach will also be used for data collection in the field to build ownership and ensure that the communities are aware of the results of the work.

The Project's target will be basins located in the departments of Oruro, La Paz, Cochabamba, Potosí, Chuquisaca, and Tarija, which are mostly in the highlands and inter-Andean valleys. The geographic area comprises 201 municipal governments. Eligibility criteria for the selection of these basins include: (i) high aridity index, (ii) high levels of poverty, (iii) high population density, and (iv) potential areas of intervention under the different components of the Project. The Project will sequence the activities to focus initially on basins that present high levels of need and high levels of readiness for implementation, tackling 'low-hanging fruits' quickly to demonstrate early successes in the first phase of the Bolivia Climate Smart and Resilient Program and inform the design of the following phases.

The Project will comprise the following four components:

Component 1. Water resources planning and pre-investment studies (US\$10.3 million). This component will fund studies with two objectives: (i) development of water management plans at the basin level that follow both IWRM and integrated basin management (MIC by its acronym in Spanish) approaches. This task will involve the identification and analysis of the main challenges basins face from a territorial and sectoral perspective, the development of a strategic vision based on the sustainable use of water resources; and (ii) the development of pre-investment studies and detailed engineering designs for the subprojects, related to water conservation, irrigation, and risk management infrastructure, identified in each basin water management plan. This component does not include works related to the subprojects (for water conservation, irrigation, and risk management infrastructure).

Component 2. Climate resilient infrastructure investments (US\$112.1 million). This component will fund works and the supervision of investments related to water conservation, soil and land management, irrigation, and risk management to adapt to the impacts of and to build resilience against climate change exacerbated floods and droughts. The component will be divided into three sub-components:

- Subcomponent 2.1. Investments in MIC. Investments will include activities to protect water sources, water planting and harvesting, soil improvement, protection of water recharge areas and recovery of forest areas. These investments aim to reduce the vulnerability of watersheds facing degradation and desertification, and to increase water availability and local storage capacity. The investments will also enhance soil and crop carbon stock.



- Subcomponent 2.2: Community and household irrigation systems. The investments in household and community irrigation systems will include infrastructure for water capture (harvesting of surface runoff, groundwater extraction, and other alternative water sources), the installation of water storage solutions, the conveyance of water to the field, and the equipment necessary for water distribution on the plots.
- Subcomponent 2.3: Risk management infrastructure. The subcomponent will support infrastructure to protect land and communities against extreme hydrological events, including flooding, and conserve, restore and manage soils degraded by erosion.

Component 3: Capacity building for water governance and enhanced productivity (US\$14.1 million). This component will fund technical assistance (TA) and capacity building activities to enhance water governance at the national, macro, regional and basins level. The component will include the following activities, inter alia: (i) the development of the School of Water Culture for Life; (ii) TA and training for Basin Management Units (UGC), Basin Management Organizations (OGC), municipal governments, and farmers; and (iii) support for the future development of a national information system on water resources.

Component 4. Project management (US\$13.5 million). This component will fund activities to support Project administration and management, including procurement, financial, environmental, social, technical management, and monitoring and evaluation.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The majority of the rural population involved in this project is of Quechua and Aymara origin, with a majority of Quechua population in the Departments of Potosí, Cochabamba and Chuquisaca, while the Aymara population is mainly located in the departments of La Paz and Oruro, as well as a minority of Afro-Bolivian population in the La Paz Department, and in Oruro, there is also a significant presence of Quechua and Uru Chipaya population, along with other vulnerable groups, including migrants. During preparation, further demographic and socioeconomic data is expected to become available, including the overlap of project sites with the afro-descendant (AD) population in the La Paz Department. Eligibility criteria for the selection of these basins included: (i) high aridity index, (ii) high levels of poverty, (iii) high population density, and (iv) potential areas of intervention under Sub-components (2.1), (2.2) and (2.3). The Project will sequence the activities to focus initially on basins that present high levels of need and high levels of readiness for implementation, tackling ‘low-hanging fruit’ quickly to demonstrate early successes in the first phase of the Bolivia Climate Smart and Resilient Program (this is a national program where the World Bank is participating to attend the first phase with this Project, there is no other financier at the moment), which focuses on improving access to irrigation in dispersed areas of the Cochabamba, Chuquisaca, La Paz, Oruro, Potosi, and Tarija Departments. In these disperse rural areas most of the inhabitants are indigenous peoples (IP) and live in conditions of severe poverty. According to preliminary estimates, the Borrower expects this Project, as the Program’s first operation, to directly benefit approximately 98,430 families or 442,936 inhabitants.

In terms of ecoregions, the project covers four ecoregions: i) Puna Norteña, ii) Prepuna, iii) Inter Andean Dry Forest and iv) Tucumano-Boliviano Forest (Ibisch, et.al. 2003). In this area, there are national, departmental, and municipal protected areas of interest due to their particularities of landscape, biodiversity, and water resources. Even though



the project will intervene in those places where water is scarcer, Bolivia has high per capita water availability in general, but water is unevenly distributed in its territory and the climate crisis as well as water pollution and growing supply and demand imbalances are clear warning signs of water insecurity in the country (APMT, 2021). Bolivia has been experiencing diverse impacts of climate change. The country has lost approximately 45% of the glacier surface during the last 50 years. Seasonal variation is becoming more extreme, including wetter rainy seasons with more intense precipitation events, and drier dry seasons which result in seasonal droughts. The effects are evident in the project area and its agriculture, which affects the production of the most vulnerable populations.

Water stress is directly limiting agriculture, the principal economic activity in rural Bolivia. Farmers in the highlands and in the Inter-Andean valleys rely on rainfed agriculture and utilize the short rainy season to produce crops, such as potatoes, maize, wheat, oat, beans, peas, and onions, primarily for personal use and secondly for local markets. Although irrigation, which allows for a second production cycle during the dry season, is a key method for coping with temporal rainfall variability, only 10 percent of cultivated land in Bolivia is under irrigation. The Government of Bolivia (GoB), recognizing the importance of irrigation for agricultural production, developed an ambitious plan, “Decade for Irrigation 2015-2025, Towards One Million Hectar

D. 2. Borrower’s Institutional Capacity

The project's implementation entity will be the Ministry of Environment and Water's responsibility through its Vice Ministry of Water Resources and Irrigation (VRHyR). There are two existing Project Implementation Units (PIUs) for recent and ongoing projects which could potentially implement the Project: the Pilot Program for Climate Resilience/ Programa Piloto de Resiliencia Climática (PPCR)-PIU (components 1, 3, 4), and the Mi Riego-PIU (component 2), which depend on the VRyHR. The PPCR-PIU and Mi Riego-PIU have a long experience in formulating and implementing MIC and Irrigation projects, formulating plans, programs, and specific guides for preparing investment projects in MIC and Irrigation that include environmental and social impact assessment (ESIA). During this past decade, they have executed programs and projects with different funding sources , such as CAF and IDB. PPCR-PIU implemented the project Bolivia Climate Resilience – Integrated Basin Management (P129640) in 2018 and 2020 with funding from the World Bank. Both PIUs have separate teams of environmental and social specialists. However, it will be the first time they apply the Bank's Environmental and Social Framework (ESF). During project preparation, the roles, and responsibilities of the different levels of government related to the different subsectors (watersheds, irrigation, risks) will be clarified and assessed, and the strengthening and staffing needs will be analyzed and addressed to ensure adequate implementation of the project, which will inform ESCP commitments.

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II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

Environmental Risk Rating

Substantial

The Environmental Risk is considered Substantial. Under Component 2, the Subcomponent of Climate resilient infrastructure investments considers investments in integrated basin management (MIC), community and household irrigation systems, and risk management infrastructure. It will include activities like protecting water sources, water planting and harvesting, soil improvement, protection of water recharge areas, and recovery of forest areas, infrastructure for water capture (harvesting of surface runoff, groundwater extraction, and other alternative water sources), the installation of water storage, and resilient infrastructure to protect lands and ecosystems. These activities will contribute to the conservation and improvement of ecosystems and productive systems. Nonetheless,



diverse environmental risks and impacts could result, such as: i) Impacts on natural habitats due to inadequate water management planning, ii) Impacts on biodiversity due to inadequate resource management planning in the basin, iii) Impacts on agrobiodiversity due to the introduction of foreign species to production systems as a result of the introduction of irrigation systems that enable year round higher-value crop production, iv) Risk of contamination of water and soil due to inappropriate use of agrochemicals that may be intensified as a result of the introduction of irrigation systems, v) Risks related of consumption and management of water in construction, vi) Risk of inadequate management of waste and hazardous wastes (fuel oil) during construction, vii) Risks of pollution, air emissions and noise during construction, viii) Risk of damage to archaeological remains due to excavations; ix) Occupational health and safety risks, and x) Risks related to the construction of reservoirs (currently expected to be small), which may include changes to surface hydrology, dam safety considerations, minor flow reductions in rivers and streams to divert water to reservoirs (with potential for downstream effects on other water users), potential disruptions to fish and other aquatic biodiversity if water intake structures block river flows, etc. Due to the small to medium scale and location of the civil works anticipated for each subproject, most risks and impacts are expected to be predictable, temporary, reversible, low in magnitude, site-specific, and with low probability of major adverse effects to human health or the environment. Nonetheless, this will be further analyzed during project preparation, in order to propose appropriate measures to avoid, reduce and mitigate potential environmental risks and impacts in a manner consistent with the ESF, including the cumulative impacts in the basins. The environmental risk rating will be revisited prior to Appraisal, depending on the further definition of the nature and scale of potential project investments, potential criteria to exclude higher risk subprojects from eligibility, and the findings of analytical work underlying the E&S instruments to be prepared.

Social Risk Rating

Substantial

Based on the limited information currently available, the social risk classification of the project is deemed to be Substantial. Potential social risks of the project preliminarily identified include: (i) risk of elite capture and potential exclusion of vulnerable populations and groups whose interests could be under-represented from project benefits, such as indigenous women, elders, youth, persons with disabilities, and sexual and gender minorities, if targeted strategies to ensure their engagement are not incorporated in the preparation and implementation of the Project, particularly in an institutional context with limited level of coordination between the multiple entities expected to be involved, including the implementing agency VRHyR through Mi Riego (Component 2) and UC PPCR (Components 1, 3 and 4), and the decentralized offices of both entities, the different levels of water users organizations, subnational governments, and local intersectoral agencies; (ii) potential loss of the indigenous agricultural knowledge of the Quechua and Aymara population in the project area, as well as their knowledge of biodiversity management, mainly as a result of agricultural technical assistance and increased involvement in the market economy, if cultural pertinence measures were not properly taken into account; (iii) minor labor influx risks associated with the civil works, especially if codes of conduct are not followed, even though project efforts will focus on promoting local hiring of community workers; (iv) potential increase or intensification of underlying local tensions and even of conflicts if stakeholder engagement processes are not properly carried out in rural agricultural areas with water scarcity; and (iv) use of areas with potential economic or social alternative uses, particularly agriculture, to build the community irrigation infrastructure works, creating an opportunity cost for the local population. These risks could be more pronounced as a result of a sensitive context associated with the ongoing COVID-19 pandemic, which could pose health challenges for project workers and communities. The Bank’s due diligence will continue during project preparation, and the relevant information and analysis will be reflected in the A-ESRS. The social risk rating will be revisited prior to Appraisal to determine if it needs to be modified, based on the results of analytical work to be carried as part of the preparation of the Project’s E&S risk management instruments, and the feedback received in

Public Disclosure



the consultations with project stakeholders, which are expected to provide further clarity on the likelihood and severity of the potentially adverse social impacts and risks.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

This standard is relevant. The proposed project, inter alia, seeks to implement up to 322 subprojects. The proposed irrigation scheme targets small and medium-sized family farming producers, and the client estimates that the project will impact 201 municipalities directly, which is expected to benefit approximately 98,430 families. Given the exact scope and locations of most of the 322 subprojects, including MIC, modular, risk/resilience and irrigation subprojects, will be defined only during project implementation, the project has adopted a framework approach to E&S risk management. As such, a draft version of an Environmental and Social Management Framework (ESMF) for the whole project in all its components will be developed, consulted on, and disclosed by appraisal to provide information on requirements and processes for E&S due diligence of the potential investments under the project during the implementation stage.

The ESMF is expected to provide information about (i) the potential direct, indirect and cumulative E&S risks and impacts from the proposed investments, based on the typology of activities and location, (ii) characterization of potential contextual E&S risks and issues which may be present in different beneficiary locations, including potential SEA/SH risks, risk of child labor, and potential intensification of social conflicts over the proposed water usage measures; (iii) identification of applicable national legislation, relevant World Bank Environmental and Social Standards, and any other applicable international requirements, and gaps to achieve consistency with the ESF; (iv) management and mitigation measures to potential E&S risks and impacts identified, both during construction and operation; (v) identification of vulnerable groups, and specific measures to prevent adverse impacts on them and improve their inclusion opportunities; (vi) cultural pertinence measures and protocols to implement project activities with IP and AD populations; (vii) a protocol to ensure that project beneficiaries receive adequate information about the voluntary nature of any donation of land for irrigation works and prevent forms of coercion; (viii) details of the requirements for site-specific Environmental and Social Management Plans (ESMPs) and checklists; and (vii) implementation arrangements, capacity building measures, and budget for E&S management. It will also include subprojects exclusion list and guidelines for the Environmental and Social Assessment of the subprojects in the Pre-investment Technical Design Studies (EDTP) and for the Environmental and Social Management Plans (ESMPs).

Based on the scope and nature of the proposed activities the ESMF will also include, inter alia: (i) an E&S Screening Checklist for risk classification of site-specific project (subproject) activities under Component 2; (ii) an exclusion list of activities to exclude those that may result in long term, permanent or irreversible negative environmental and/or social impacts and impacts on highly sensitive areas in terms of their biodiversity and cultural heritage value; and (iii) generic E&S risk management procedures, based on the relevant WB ESS and WBG Environmental, Health and Safety (EHS) Guidelines (General and applicable specific guidelines for Agribusiness and Food Production).



The project anticipates the support of construction, rehabilitation, and operation of small water reservoirs, which could involve safety and environmental risks. Although these are expected to be farm ponds and low embankment tanks with small storage capacity, the type and size of the reservoirs and their embankments/dams is expected to be further defined during preparation. Therefore, it is estimated that the potential impacts and risks will be identified prior to Appraisal and reflected within the Appraisal-ESRS and addressed as needed in the ESMF. Further details are included in the ESS4 section.

Given the little available information on the specific socio-economic and cultural characteristics of the project beneficiaries, and the size and complexity of the project (322 subprojects), it is important to understand the social and economic context of the project. For this purpose, and given that the majority of the population will be IPs, the project's target population will be considered as having an IP profile. The borrower will prepare a Social Assessment (SA) on the main social aspects of the project, based on the provisions of ESS7. This SA will be elaborated with secondary information available on the VRHyR (census, statistics, previous studies, plans, etc.), complemented with consultations with IPs and other vulnerable groups and interviews with key social actors, and its findings will be reflected in the ESMF. The SA will be useful to better identify and assess the social impacts and risks of the project on IPs (and potentially ADs as well), particularly to understand how the vulnerability situation of certain sectors of the population may increase their risk exposure as a result of project activities, as well as measures to minimize its negative impacts, manage risks, and identify opportunities for proactive inclusion. The potential risk of intensification of local tensions or conflicts surrounding the use of water will be also analyzed, along with the potential loss of the indigenous agricultural knowledge, and the other topics identified in the social risk rating section. Also, the SA will allow for improved mechanisms for meaningful consultation with IPs, and other rural population, and with an emphasis on the vulnerable groups among them, such as women, the elderly, youth, ADs, people with low levels of education, people with disabilities, among others located in the likely areas of the project. At the subproject level, E&S information will be contained in Environmental and Social Management Plans (ESMPs), checklists, and "Estudios Técnicos de Preinversión" (EDTP). Given the importance of EDTP to contain all required information to support subprojects with relevant E&S data throughout the project, the Bank will conduct an independent consultancy at the VRHyR to evaluate the consistency of existing and available EDTP during project preparation and strengthen the standard of these instruments to be implemented in subprojects during project implementation.

To outline all the above commitments as well as others detailed in this ESRS, the borrower shall prepare an Environmental and Social Commitment Plan (ESCP) including all material actions and measures to be undertaken by the borrower during project implementation, along with timeframes for their completion and monitoring and evaluation arrangements.

Areas where "Use of Borrower Framework" is being considered:

None

ESS10 Stakeholder Engagement and Information Disclosure

This Standard is relevant. The proposed project will have multiple stakeholders with different levels of involvement and/or interests, particularly IPs, ADs, and other rural farmers. Key stakeholders will include direct beneficiaries such as: (i) the small and medium agriculture and livestock producers and their families (an estimated 98,430 families) who will benefit from access to improved irrigation systems and strengthening of their technical and productive capabilities in irrigation, crop management and business management; (ii) farmer user groups that have been created



and will be assisted in the management and administration of the improved irrigation systems (estimated total of 322 subprojects); (iii) producers trained and accredited as irrigation operators; (iv) irrigation managers, technicians and users of the irrigation systems, irrigation committees or organizations) that will be involved in the project through strengthening of their knowledge of irrigation good practices and management to improve operational efficiency of the irrigation systems and services, with 24 water governance mechanisms expected to be set up); and (v) other water users (non-irrigator) that might share the same common hydraulic system with the agriculture producers, among others.

Key Project's stakeholders preliminarily identified include indigenous organizations, farmers' organizations, afro-descendant associations, indigenous women's organizations, farmers, and agri-food entrepreneurs. They are expected to be directly and indirectly impacted by Project activities through the generation of job opportunities, irrigation works, and technical assistance in improving agriculture production and related business plans, and maximization of the participation of women and other vulnerable sectors of the population. As such, IPs are expected to be the main group toward which the stakeholder outreach efforts are directed, along with other vulnerable groups, including migrants. However, other social actors will be involved in the consultation process as well, including Afro-Bolivians (if their presence in the project area is confirmed during preparation in the Department of La Paz), government agencies related to the Project, and civil society organizations (universities, professional associations, NGOs, etc.).

These stakeholders are in 6 departments covering Andean highlands and Inter-Andean valleys. While most of them are IPs, they reflect a diversity of socioeconomic characteristics and vulnerability situation, and will require differentiated approaches to engage, consult, and inform them in an inclusive, meaningful, and culturally appropriate manner regarding: (i) the proposed subprojects design (type of irrigation system, infrastructure, equipment, conditions and commitments; methods of knowledge sharing, training, management practices and related commitment; proposed scaling up activities, commitment and responsibilities); and (ii) expected benefits, risks and impacts, and measures that will be taken to mitigate these, opportunities for inclusion, among other aspects. Preliminarily, these stakeholders are expected to include men, women, young, elderly, indigenous peoples, afro-descendants (to be confirmed), members of rural and/or indigenous communities, independent producers, producers' associations, and other economic agents that rely on water use. Local authorities involved in economic development and the management of water resources will also need to be engaged. During preparation and implementation, efforts will need to be made to identify and engage members of vulnerable/disadvantaged groups in an inclusive and appropriate manner, such as indigenous women, people with disabilities, illiterate people and/or low level of education, poorest, migrants, among others, that could potentially be affected adversely and/or excluded from the project potential benefits.

The VRHyR, through its implementation units, conducted initial consultations with key stakeholders, particularly with farmers and farmer users' organizations, and detailed information on these will be provided by the borrower during project preparation and will be documented in the SEP. Furthermore, this information will serve as a basis for updating the stakeholder mapping and identify appropriate disclosure and meaningful consultation activities, in a manner consistent with ESS7, that will be carried out prior to appraisal. The results of the consultation activities, and the feedback received from stakeholders during preparation, will be included in the draft SEP. These shall include, as a minimum, representatives of IP and AD organizations and of farmer associations from the Andean highlands and Inter-Andean valleys, representatives of national association and NGOs working with women in the agricultural



sector, representatives of the key government agencies involved in the project, civil society, among others to be identified as part of the SEP's stakeholder mapping exercise. The stakeholder engagement activities planned to be carried out after appraisal, and those anticipated during project implementation, will be also described in the SEP.

The successful design of improved irrigation systems in the participating regions will require a strong engagement with various institutional stakeholders that will be involved through sectorial authorities and agencies, including the following: Mi Riego, Vice Ministry of Water Supply and Basic Sanitation (VAPSB), National Irrigation Service (Servicio Nacional de Riego, SENARI), Departmental Irrigation Services (Servicios Departamentales de Riego, SEDERIs), National Hydrological and Meteorological Service (Servicio Nacional de Meteorología e Hidrología, SENAHMI), Audit Authority for Drinking Water and Sanitation (Autoridad de Fiscalización y Control Social de Agua Potable y Saneamiento, AAPS), intersectoral authorities, and subnational governmental authorities and/or agencies such as the Departmental Governments (06) and Municipal Governments (201).

During project preparation, VRHyR will prepare, consult on, and disclose a draft Stakeholder Engagement Plan (SEP) to map out the various project stakeholders, share project information, mitigate potential social risks and/or misconceptions about project impacts and benefits, and solicit feedback on the project, considering IPs as the main target population. VRHyR has already engaged and consulted with the farmers for the conformation of the farmer users' groups for the proposed subprojects to be financed under the Project. The SEP will outline (i) who the potential key stakeholders are; (ii) how they are to be engaged; (iii) how often the engagement will occur throughout the project; (iv) how disclosure will take place throughout the project; (v) how feedback will be solicited, recorded, and monitored over the project; (vi) who will be charged/responsible with this engagement; (vii) timeline and cost.

The SEP will furthermore outline the process to be carried out at the subproject level, during project implementation, to identify and map out subproject-level stakeholders, and design and carry out meaningful engagement with different groups as part of subproject design and implementation, with differentiated strategies to reach the most vulnerable, especially indigenous people, and the details of the project's grievance redress mechanism (GRM), including SEA/SH grievances, and in a culturally appropriate manner, consistent with the provisions of ESS7. Engagement planning and implementation will also put in place all necessary measures to facilitate the participation of diverse stakeholders, particularly those in need of special assistance, and to encourage women, youth, and indigenous peoples' active participation, among others. The draft SEP will be disclosed prior to appraisal with the objective of receiving and incorporating feedback about the overall project design and the project's E&S instruments.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

This standard is relevant. Project implementation will involve direct workers (PIU) and contracted workers. The project will be implemented by staff from the VHRH and additional consultants could be hired (Components 1, 3 and 4). The need for other types of workers, such as community workers and/or primary suppliers of project workers will be identified once activities are determined in greater detail. It is likely that contractors will be required for civil works for the irrigation infrastructure and equipment. Potentially, community workers could be involved (Component 2); this will be assessed during preparation. In the case of community workers, there will be an assessment of



relevant risks and the measures to address them, as detailed in para 37 of ESS2. It is not expected that primary supplier workers will be involved in subprojects, but this will be further assessed during project preparation. Should primary supplier workers be involved in the project (Component 2), there will be an assessment of relevant risks and the need to lay out the corresponding measures, as detailed in para 39 to 42 of ESS2.

Based on the currently available information, it is estimated that the implementation of infrastructure and equipment activities might require, for each subproject, an as-yet to be determined number of skilled workers as part of the contractor's crew. Moreover, unskilled workers will also be required, and they are expected to be hired locally and remunerated by the contractor. Based on that information, no significant risks related to labor influx are expected.

During project preparation, the client will prepare draft Labor Management Procedures (LMP), which will be consulted and disclosed prior to appraisal, and will identify the different types of workers and risks according to the activities they may perform under the project. The LMP will lay out requirements to promote transparency in terms and conditions of employment, fair treatment, non-discrimination, and equal opportunity; minimum working age and measures to prevent the use of all forms of child labor and forced labor; and worker's organizations. In addition, the LMP will include a GRM specifically for all project workers to ensure they have a mechanism in place for complaints and grievances. The minimum age for project workers will be 18 years old. While no use of child labor is foreseen as part of the Project, the LMP and ESMF will identify measures to prevent child labor practices among project workers and beneficiaries.

The Borrower will also include gender-based violence (GBV) issues in the LMP and identify available service providers that can be used as part of a referral pathway for any potential GBV case within the context of the project activities.

Among other elements, to ensure health and safety of workers during the construction and implementation phases of the project, the LMP will also include a generic Occupational Health and Safety Plan (OHSP) for likely civil works activities under Component 2, in line with the WBG general guidelines. Some of OHS hazards associated with the project activities may include among others: (i) operation of heavy machinery, (ii) slips, trips, and falls; (iii) hazardous material handling; (iv) exposure to hazardous substances; and (v) traffic safety. The OHSP will include generic measures addressing these and other types of typical OHS issues, as well as procedures for incident/accidents investigation, reporting and recording, emergency preparedness and response procedures, and continuous trainings for workers. It will also contain measures to address potential risks and impacts that may arise from the interaction between project workers and local communities. To ensure that the project promotes safety of women, and to avoid beneficiaries from becoming targets of sexual harassment or assault, the LMP will include a code of conduct. Both the labor GRM and the overall project GRM will include specific grievance channels, to be managed by trained personnel, for potential complaints related to gender based violence (GBV) or sexual exploitation and abuse (SEA) and sexual harassment (SH). These risks will be further analyzed during project preparation, and security and safety measures for workers will be included in the LMP. Other health-related issues for workers will be included in the ESMF as described under ESS1. All project workers will need to abide to the Workers' Code of Conduct in their relationships with the beneficiary community populations. Contractors and subcontractors are also expected to abide to the Code of Conduct, which will need to be specified as a requirement in the bidding documents.



Government civil servants are expected to work in connection with the project, whether full-time or part-time. They will remain subject to the terms and conditions of their existing public-sector employment agreement or arrangement unless there has been an effective legal transfer of their employment or engagement to the project. ESS2 will not apply to such government civil servants, except for the provisions of Protecting the Work Force Occupational Health and Safety and child and forced labor.

ESS3 Resource Efficiency and Pollution Prevention and Management

This standard is relevant. The integrated basin management (MIC) activities, community, and household irrigation systems, and risk management infrastructure Subprojects are associated with potential resource efficiency and pollution concerns like: i) Risk of contamination of water and soil due to inappropriate use of agrochemicals, ii) Risk of consumption and management of water in construction, including the potential concern that diverting water to small reservoirs could affect water availability in rivers/ streams downstream for existing water users, iii) Risk of inadequate management of waste and hazardous waste (fuels) during construction, iv) Risks of pollution, air emissions, and noise during construction. These potential risks associated will be addressed in the ESMF. It will include the subprojects exclusion list and guidelines for the Environmental Assessment of the subprojects in the pre-investment technical design studies (EDTP) and for the Environmental and Social Management Plans (ESMPs).

The use of pesticides and fertilizers in Bolivia is regulated by SENASAG (National Animal Health and Agricultural Service). However, it does not have sufficient human and economic resources to adequately supervise the smuggling and use of illegal and toxic agrochemicals. The environmental and health risks associated with the use of agrochemicals will be assessed during preparation, and appropriate measures in line with principles of Integrated Pest Management (IPM) will be outlined in the ESMF to address concerns, based on the types of crops likely to be planted following project interventions and the associated range of agrochemicals (legal and illegal) that may be sought out by communities. Such measures may include, for example, community awareness raising and technical assistance activities to educate and equip communities to farm using IPM approaches. Potential incentives to support environmentally-friendly agricultural practices and the use of national or international certifications or labels to be explored during project preparation feed back into Organizational Strengthening and Productive Technical Assistance (Fortalecimiento Organizacional y Asistencia Técnica Productiva, FORATP) under component 3.

Construction waste will include mostly waste from excavated soil and debris. The project is not expected to be a large user or generator of hazardous materials (fuel oil). These risks associated will nonetheless be further assessed during project preparation, and appropriate management measures to be applied at the subproject level will be outlined in the ESMF.

With the current information, it is considered that the investments of “Subcomponent 2.1 Investments in MIC” will include activities to protect water sources. During the preparation of the project, it is necessary to take into account that these activities do not restrict the current ecosystem services.

ESS4 Community Health and Safety



This standard is relevant. Various activities proposed under Component 2 may expose communities to health and safety risks, especially for those located immediately or close to construction sites and activities. The potential risks and impacts to nearby communities will be confirmed during project implementation, as part of the ESMPs once the exact locations of the project construction activities are determined. Risks include potential for accidents from increased traffic of project vehicles, machinery, and trucks. Some impacts resulting from civil works that may cause inconvenience to local communities may include air emissions and odors, noise, dust, vibration, hazardous materials, closure of roads, traffic disruptions, and others. The ESMF will identify and lay out generic measures to minimize community risks to these and other issues, while site-specific planning will confirm relevant issues and include more detailed management measures in the site-specific ESMPs. Additionally, measures to reduce road and pedestrian accidents around or near-by construction/rehabilitation of irrigation infrastructure and equipment will be included in the ESMF. Site-specific ESMPs will include traffic management plans and measures for local communities to ensure pedestrian safety, as well as requirements for the adoption of signage and safety barriers in or near construction zones and safe storage arrangements for construction machinery and equipment, measures to avoid the spreading of COVID-19 and other potential infectious diseases, and GBV and SEA/SH risk management procedures. Due considerations will be put to the specific needs of vulnerable groups such as elderly, women, children and persons with disabilities.

As the subprojects are still in conceptual design, there is no information available about the type and characteristics of the small water reservoirs to be financed, therefore, the significance of potential downstream risks and impacts could not be assessed at this stage. During preparation, the ESMF will confirm that there will be no risk of significant adverse impacts to local communities and assets due to potential failure of reservoirs' structures, or that the risk will be negligible. Any potential necessary dam safety measure for the reservoirs to be designed and/or rehabilitated under Component 2 will need be in compliance with ESS4 (e.g., dam safety measures for new reservoirs designed by qualified engineers in accordance with GIIP will be adopted and implemented). A lesson learned from the previous projects in Peru is the need for proper signing and fencing of all the small reservoirs to avoid potential risk of people accidentally falling in and drowning. This should be part of the subprojects' design.

The SEA/SH risk is not expected to be significant, particularly considering the low number of skilled outside workers expected, the intended use of local workers (semi-skilled and unskilled) as much as feasible, the implementation of a code of conduct and measures to promote their adherence, awareness raising activities expected for all workers regarding GBV and SEA/SH, and elaboration and implementation of provisions to attend cases of SEA/SH complaints in the SEP.

Currently, there is insufficient information on the nexus between the possibility of conflict and the use of scarce water resources in the areas where the estimated 322 subprojects will be developed; consequently, due diligence on this issue will be carried out during preparation based on the results of the SA and the relevant information will be reflected in the ESMF and A-ESRS.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This standard is relevant. While there is insufficient information available to make an effective determination at this stage, no risk of involuntary resettlement (including physical and/or economic displacement) or involuntary



restriction on land and/or water use has been identified as part of the project so far. To cover situations where areas of land expected to be used for the protection of water sources and other project works are expected to be donated on a voluntary basis by the participating communities and farmers, a Resettlement Policy Framework will be drafted during preparation. As such, this topic will be treated under ESS1. Also, the ESMF will include a protocol to ensure that people receive adequate information about the voluntary nature of their donation and to prevent any form of coercion. The information protocol on voluntary donation of irrigation land will be complemented with details, procedures, agreements outlined within the RPF as Annex to the ESMF in order to facilitate for stakeholder understanding (and subsequent RAP as needed) in line with ESS5 footnote 10 and de recommendations of the Guidance Note for ESS5. The due diligence on this topic will be completed during preparation and the relevant information will be reflected in the A-ESRS.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is relevant. The integrated basin management (MIC), community and household irrigation systems, and risk management infrastructure Subprojects are associated with potential environmental risks and impacts like: i) Impact on natural habitats due to inadequate water management plan, ii) Impact on biodiversity due to inadequate resource management plan in the basin, iii) Impact on agrobiodiversity due to the introduction of foreign species to production systems. These potential risks associated will be addressed in the ESMF. It will include a subprojects exclusion list and guidelines for the Environmental Assessment of the subprojects in the pre-investment technical design studies (EDTP) and for the Environmental and Social Management Plans (ESMP).

The intervention zones, because they are areas with a high rate of aridity, are naturally sensitive to water scarcity. These areas are also threatened by the effects of climate change and may experience frequent dry years and/or unexpected flooding. Therefore, the integrated management plans need to evaluate the available water resources in a climate change scenario and develop adequate measures for water use, both for the production systems and for the conservation of natural habitats and ecological flow. This aspect should be addressed during the preparation of the ESMF. On the contrary, an adequate water resource evaluation could strengthen natural habitats with climate change analysis and a basin management plan.

In the preparation of the ESMF, modified habitats, natural habitats, and critical habitats will be described in order to be clear in what type of habitats the subprojects will be implemented. At this time, we know that the subprojects will not be implemented in Protected Areas and that will be an exclusion list criteria. The possible impact on natural habitats may be related to effects on biodiversity since they are sensitive natural habitats whose biodiversity in many of them is also sensitive and may be endemic. For example, it is known that there are endemisms mainly of amphibian species in small basins and might need a Critical Habitat Assessment (CHA). Due diligence should include the preparation of maps to see intersections of potential subproject sites and natural protected areas, Ramsar sites or similar.

The introduction of irrigation systems may spur changes in the productive matrix that leads to the introduction of foreign species, while also discontinuing the production of traditional crops. The Andean zone presents great agrobiodiversity in tubers, roots and high Andean grains that are suffering a decrease in their production due to the change of the productive matrix to cattle and forage with grasses such as alfalfa, which also requires a large amount of water for its development. These aspects must be evaluated while preparing the ESMF to address them adequately.



ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This standard is relevant. Based on the currently available information, a key aspect of this Project is that the majority of the target population in the selected municipalities are indigenous peoples (IP), as defined by ESS7. As such, the elements of an IP plan are expected to be included in the overall project design and in a cross-cutting manner in the different E&S risk management instruments, such as the ESMF, SEP, and LMP, without the need to prepare a stand-alone IP plan. However, during project preparation, and to inform the due diligence process, it will be important to have more precise socioeconomic and cultural data on the beneficiaries that meet the four criteria for defining IPs stipulated in ESS7, to guide the Project's approach toward IPs in a culturally-pertinent manner. Likewise, VRHyR will determine the extent to which indigenous communal lands or territories may overlap with the project implementation area (a detailed map will be developed for the appraisal stage).

To gather such data, the client will include in the ESMF a Social Assessment (SA), to be developed following the provisions of ESS7, with baseline data regarding IPs in each region from a sample of households and communities targeted under the Project, to understand how water infrastructure, including irrigation and basin management subprojects, are implemented and managed. This assessment will provide additional information to characterize the implementation area of the project and its subprojects, and will inform if Project or subproject activities include the possibility of adverse impacts on IP communities, families, and/or individuals. The basic documentation at the subproject level will consist of pre-investment technical design studies (EDTP) and Environmental and Social Management Plans (ESMPs), and inputs for both will come from the knowledge and experience of the Borrower with local stakeholders, along with information from secondary sources (census data, previous studies, and projects, etc.). A draft version of the SA will be prepared, consulted, and disclosed as part of the ESMF before the project's appraisal.

The SA will also analyze the particular social, cultural, and productive features in each of the regions, and is expected to provide information to guide the adoption of culturally appropriate and meaningful consultation practices in the stakeholder engagement process that will take place with IPs and their national, regional, and local organizations, as well as recommendations to ensure that IPs and other vulnerable groups benefit in culturally appropriate ways from the Project, and to prevent the involuntary exclusion from vulnerable sectors of the population from project benefits.

The preliminary consultations carried out so far by the VRHyR and its implementing units took place with farmers organizations did not include information about IPs and their organizations yet. Such consultations will be undertaken during Project preparation. The Borrower will need to proactively engage with the relevant IPs to ensure their ownership and participation in project design, implementation, monitoring, and evaluation. The Borrower will also consult with them as to the cultural appropriateness of planned project activities, and will seek to identify and address any economic or social constraints (including those relating to gender) that may limit their opportunities to benefit from, or participate in, the Project. A summary with the results of these consultations, and the findings of related projects, such as the PAR III that covers a similar overall range of sites and stakeholders for project implementation, will be included in the draft SEP to be disclosed prior to appraisal. The SEP will also need to include a clear and culturally adequate process of structuring subprojects, plans and designs, and the use of adequate



communication and language with the beneficiary groups and organizations. Additional details about the stakeholder engagement process with IPs and other vulnerable groups is included in the ESS10 section.

At the subproject level, pre-investment technical design studies (EDTP) and provisions for the Environmental and Social Management Plans (ESMPs) will be developed by the Borrower, to be informed by the consultations with IPs. The ESMF will include key procedures and activities to ensure culturally adequate measures to be adopted during project implementation, based on the findings and recommendations from the SA, which will include the use of indigenous languages, as needed, as well as protocols intended to prevent adverse effects on the traditional culture of IPs, establishing the procedures to carry out stakeholder engagement activities at the subproject level that respect the functional social structures and deliberation forms of IPs, respecting their timeframes, and organizing them in places that are convenient for them, to ensure that such stakeholder engagement activities are meaningful. The consultation processes to be undertaken at the subproject level during implementation will be particularly useful to analyze specific conditions of IPs and other vulnerable groups, based on their territorial organization.

There is a risk that the agricultural technical assistance planned as part of the project could potentially induce the replacement of local agricultural knowledge of the mainly indigenous beneficiaries with unwelcome new approaches and technologies, particularly if cultural pertinence measures were not properly adhered to during project execution, and could also see themselves adversely impacted by the Project and/or its subprojects if the activities and priorities are not consistent with their traditional water management or biodiversity management practices.

Based on the currently available information, no activities that would require obtaining Free, Prior and Informed Consent (FPIC) from participating IPs have been identified. However, this situation will be further analyzed as part of the due diligence process, and will be also informed by the SA and the stakeholder engagement process. If it is concluded that FPIC is necessary, a framework will be included in the proposed instruments to guide the process. The application of FPIC will need to be systematically assessed at the subproject level during project implementation as well. If FPIC were to be applied at the subproject level, indigenous peoples will need to be consulted in good faith, following the provisions of ESS7, with sufficient and timely information concerning the benefits and disadvantages of the Project, and concerning the anticipated activities before they occur (i.e., the “prior” part). In such cases, consent will need to be secured, which refers to the collective support of affected IPs for the project activities that affect them, reached through a culturally appropriate process, and based on their own decision-making systems. Since FPIC does not require unanimity, it may be achieved even when some individuals or groups within or among affected IPs explicitly disagree.

ESS8 Cultural Heritage

This standard is relevant. According to the available information, some of the potential project areas, mainly in the Andean highlands and Inter-Andean valleys, may include tangible and intangible cultural resources. A background paper on irrigation services, including a baseline study in a sample of households and communities targeted under the Project will be carried out to understand how water infrastructure, including irrigation and basin management subprojects are implemented and managed. This paper will provide further information to characterize the implementation area of the project and its subprojects. The ESMF will include provisions for subproject-level screening and assessment of any known sites of cultural or historic importance which may be impacted locally, as well as identification of any sites of cultural/social importance for local communities (the ESMF’s exclusion list will



include a specific provision to avoid any potential damage to cultural heritage). The ESMF, and all future site-specific ESMPs as needed, will furthermore include, inter alia: (i) Chance Finds Procedures for the construction areas, and construction contracts will include clauses requiring civil contractors to take proper protective measures in case cultural heritage sites are discovered, including to stop construction activities if cultural property sites are encountered during construction; (ii) a Cultural Heritage Management Plan (CHMP) for civil works outlining mitigation measures to be considered to avoid or reduce impacts on community cultural heritage sites directly affected by the project; and (iii) any needed mitigation measures to avoid or restore community cultural sites. All site-specific ESMP measures will be reflected in corresponding bid documents and construction contracts.

The Chance Finds Procedure will set out how chance finds associated with the project will be managed and include a requirement to: (i) notify relevant authorities of found objects or sites by cultural heritage experts; (ii) fence-off the area of finds or sites to avoid further disturbance; (iii) conduct an assessment of found objects or sites by cultural heritage experts; (iv) identify and implement actions consistent with the requirements of this ESS and national law; and (v) train project personnel and project workers on the chance finds procedure.

Project activities are not expected to have significant impacts on IPs’ intangible cultural heritage. However, the ESMF SA will analyze the risk of cultural loss that could be potentially associated with the replacement of traditional indigenous knowledge about agricultural practices provided by non-indigenous technical assistance expected as part of the project. Additional information on potential impacts on cultural heritage will be also gathered as part of the consultations with IPs, particularly those to be carried out for the future site-specific ESMPs, which will include a more detailed analysis of the local conditions and productive alternatives related to the proposed activities.

The application of ESS8 will be further assessed during project preparation when a more detailed description of the proposed activities and areas or sites are available.

ESS9 Financial Intermediaries

This project will not include the use of financial intermediaries.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways	TBD
OP 7.60 Projects in Disputed Areas	No

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered? No

Financing Partners

Not relevant.

Public Disclosure



B. Proposed Measures, Actions and Timing (Borrower’s commitments)

Actions to be completed prior to Bank Board Approval:

The borrower will prepare, consult, and disclose prior to the beginning of appraisal:

- a draft ESMF that will include an exclusion list to segregate subprojects that could fall under the E&S classification of “High”.
- a draft SA report, as an appendix to the ESMF.
- a draft LMP, including Worker’s GRM and Code of Conduct, as an appendix to the ESMF;
- a draft RPF, and
- a draft SEP, including the Project’s GRM, as a standalone document.

The Borrower will also disclose a draft Environmental and Social Commitment Plan (ESCP).

The operational manual of the Project will contain the details of roles and lines of approving and reporting of E&S documents.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

- Establish and maintain a Project Management Unit(s) with qualified E&S staff and resources to support management of E&S risks and impacts of the Project.
- Define clear roles, responsibilities, and authority, as well as designate specific personnel to be responsible for the implementation and monitoring of the E&S risk management instruments.
- A requirement for the PIU to train its E&S team in the identification and management of E&S risks and impact in accordance with E&S standards requirements.
- Regular monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project, including stakeholder engagement activities during project execution, and functioning of the grievance mechanism.
- Deadlines for the Final versions of the ESMF (containing a SA and LMP), and the SEP (prior to the beginning of the bidding processes).
- Requirements to carry out site specific ESMPs/checklists for each subproject, depending on their characteristics, and to include construction related requirements into bid documents prior to their issuance.
- Requirements for implementation, supervision and monitoring of site specific ESMPs and other subproject level instruments as needed.
- Incidents and accidents notification.

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS

20-Feb-2023

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower: Plurinational State of Bolivia

Implementing Agency(ies)

Implementing Agency: Ministerio de Medio Ambiente y Agua (MMAyA)

Implementing Agency: Viceministerio de Recursos Hidricos y Riego (VRHyR)

V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

Task Team Leader(s): Martin Benedikt Albrecht, Luis Alfonso Alvestegui Justiniano, Griselle Felicita Vega

Practice Manager (ENR/Social) Maria Gonzalez de Asis Recommended on 11-Nov-2022 at 13:52:6 GMT-05:00

Safeguards Advisor ESSA Angela Nyawira Khaminwa (SAESSA) Cleared on 13-Nov-2022 at 13:39:44 GMT-05:00