ADAPTATION FUND

CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: AGUA Bolivia: Building Climate Resilience through Integrated Forest and Watershed Management in Vulnerable Micro-Catchments

Country: Plurinational State of Bolivia

Thematic Focal Area: Forestry; Disaster risk reduction and early warning systems; Agriculture

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: World Bank (International Bank for Reconstruction and Development)

Executing Entities: Ministry of Development Planning and Environment (MPDyMA)

Amount of Financing Requested: 10.000.000 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes ☐ No ☒

Amount of Requested financing for PFG: 150,000 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

☒ This concept has been submitted before

☐ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: 2/11/2026

Please note that concept note documents should not exceed 50 pages, including annexes.

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List of Acronyms/Abbreviations

Abbreviation	Meaning
ABT	Autoridad de Bosques y Tierra
AF	Adaptation Fund
APMT	Autoridad Plurinacional de la Madre Tierra
DA	Designated Authority (Adaptation Fund)
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESP	Environmental and Social Policy
ESS	Environmental and Social Standard
FPIC	Free, Prior and Informed Consent
GBV/SEA	Gender-Based Violence / Sexual Exploitation and Abuse
GRM	Grievance Redress Mechanism
INRA	Instituto Nacional de Reforma Agraria
LLA	Locally Led Adaptation
LMP	Labor Management Procedures
LOE	Level of Effort
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
PDES	Plan de Desarrollo Económico y Social
PFG	Project Formulation Grant
PPE	Personal Protective Equipment
SEP	Stakeholder Engagement Plan
SERNAP	Servicio Nacional de Áreas Protegidas
SPCR	Strategic Program for Climate Resilience

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Project/Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.

1. **The proposed project is an integral part of the World Bank's strategic approach to strengthening climate resilience in Bolivia's forest sector and forest landscapes.** The proposal starts from a simple adaptation premise: in Bolivia's forested and forest-fringe territories, climate extremes are increasingly undermining the ecosystem functions—forests, wetlands, riparian corridors, and recharge zones—that regulate water, buffer hazards, and sustain climate-sensitive livelihoods. In this regard, water security should not be treated as a separate "water resources" agenda, but as a core dimension of forest landscape resilience: when forest cover and watershed integrity degrade, communities face both reduced dry-season availability (lower baseflows, diminished springs, poorer quality) and greater wet-season impacts (higher runoff, erosion, sedimentation, and damage to local water systems). AGUA Bolivia therefore focuses on locally led, micro-watershed–based adaptation measures that protect and restore critical natural assets while strengthening community capacity to plan, operate, and maintain practical solutions.

Bolivia's socio-economic and climate vulnerability profile

2. **Bolivia's socio-economic context adds further vulnerability to communities already facing climate risks.** With a GDP per capita of around USD 3,500, it remains one of the poorest lower-middle-income economies of Latin America. National poverty has declined, but the reduction is uneven: extreme poverty affects fewer than 8 percent of urban households but 23 percent of rural ones, with the highest incidence in Amazonian departments such as Beni and Pando. These regions rely heavily on rainfed farming, fishing, and forest products, all of which are sensitive to shifts in rainfall and temperature. When drought dries up rivers or floods destroy fields, families lose both food and income with little capacity to recover. In Beni, recurrent floods have displaced tens of thousands of people; in Pando, more than 60 percent of the rural population still lacks reliable drinking water. Indigenous groups such as the Tacana, Tsimane', and Esse Ejja face direct exposure as their territories depend on stable rivers and wetlands now destabilized by fire and climate extremes. Migration patterns reflect this vulnerability: not only highland families but also households from Amazonian towns such as Riberalta and Cobija are increasingly moving toward regional capitals in search of stability, creating new social and environmental pressures in fragile peri-urban zones.

Hydrological imbalances and extremes in Bolivia

3. **Despite the perception of water abundance, Bolivia's hydrological reality is one of extremes and imbalances.** The Amazon Basin, which covers nearly two-thirds of the country and contributes more than 90 percent of renewable surface water, appears to offer limitless resources. Yet families within its valleys and headwaters often struggle with collapsing springs, contaminated rivers, or destructive floods. Rainfall is highly uneven: in parts of the Amazonian lowlands it exceeds 2,000 millimeters annually, while in inter-valley basins connected to the same system it can fall below 500 millimeters in dry years. The paradox of abundance and scarcity defines daily life for many rural households, illustrating why adaptation cannot be addressed through water infrastructure alone but must be embedded in broader forest and landscape management.

4. **The contrast is even sharper when Bolivia's three major basins are considered together.** The Amazon dominates, draining snowmelt and rainfall from Andean slopes into the Beni, Mamoré, and Iténez

rivers that converge toward the Madeira. Yet the endorheic Altiplano, where water is trapped in lakes like Titicaca and Poopó, suffers chronic deficits, with per capita availability far below international scarcity thresholds. The Río de la Plata basin, covering the southeastern lowlands, supports expanding agriculture but faces high climatic variability and recurrent floods. These imbalances matter because population distribution does not align with water availability: more than half of Bolivia's population lives outside the Amazon Basin, in areas with structural water stress. Even within the Amazon system itself, inter-valley and foothill regions such as those in Cochabamba and Chuquisaca already experience water scarcity. Climate change magnifies these mismatches, producing simultaneous droughts and floods that cut across ecological and administrative boundaries.

Importance of forest landscapes in ecological and socio-economic resilience

5. **Bolivia's forests and watersheds are the foundation of ecological balance and socio-economic resilience, and they function as critical natural infrastructure for climate adaptation.** More than 58 million hectares of forests—over half the national territory—make Bolivia one of the world's ten most forested countries. These ecosystems regulate rainfall, sustain soil fertility, store carbon, and buffer floods and droughts. For rural households, forests and the watersheds they sustain are indispensable for daily survival: timber, food, and medicines are harvested locally, while products such as Brazil nuts generate crucial income in Beni and Pando. The forestry sector is also a source of employment and income, with tens of thousands of jobs linked directly to forest products and community forestry. At the same time, when forest cover, riparian corridors, and recharge zones are degraded, these benefits decline rapidly – reducing dry-season water reliability, increasing erosion and sedimentation, and amplifying disaster impacts downstream. Bolivia's Amazonian and inter-valley landscapes also underpin global biodiversity, hosting more than 3,000 species of vertebrates and 25,000 species of plants. Protecting and managing these resources wisely is therefore both a national necessity and a global responsibility.

6. **The health of inter-Andean watersheds is critical for the stability of the Amazon Basin and the resilience of connected forest landscapes.** Valleys in Cochabamba, Chuquisaca, and northern La Paz capture rainfall that feeds springs and aquifers connected to larger Amazon tributaries. These areas, though smaller in size than the lowland forests, play a disproportionate role in regulating hydrology: when slopes are forested and soils are intact, they absorb and release water gradually, sustaining streams in the dry season. When degraded, they release water rapidly during storms, increasing downstream floods, and fail to recharge aquifers, leaving rivers reduced to trickles in dry periods. This creates a clear upstream–downstream risk pathway: localized degradation in steep micro-watersheds can translate into broader impacts on water reliability, sediment loads, and disaster intensity downstream. For rural families living in these valleys, degradation means less reliable springs and declining soil fertility; for downstream communities in Beni and Pando, it translates into greater flood peaks, silted rivers, and water insecurity. Protecting and restoring these inter-valley micro-watersheds is therefore a priority adaptation measure to sustain dry-season baseflows, reduce erosion and sedimentation, and limit disaster losses across connected landscapes.

7. **The country hosts 11 Ramsar sites covering 14.8 million hectares, placing it among the top nations for designated wetland protection**. The Llanos de Moxos, at 6.9 million hectares, is the largest Ramsar wetland in the world and plays a vital role in regulating floods and sustaining dry-season flows across the Amazonian lowlands. These wetlands buffer flood peaks, sustain fisheries, and provide grazing lands for thousands of rural and indigenous families. Yet their integrity depends on the condition of upstream forests and recharge zones: when inter-valley slopes are deforested and eroded, wetlands receive

sediment-heavy flows, undermining their ecological balance. Conversely, when recharge areas fail to store water, wetlands dry prematurely. These trends illustrate how climate extremes—combined with upstream land degradation—can rapidly erode wetland services that underpin local livelihoods and regional hydrological stability. Massive floods in 2014 and 2018 inundated nearly 100,000 km² of the Moxos plains, while more recent droughts have shrunk wetland areas, reducing fish catches and grazing availability. Protecting upstream forests and inter-valley watersheds is therefore inseparable from safeguarding Ramsar sites and the communities that depend on them.

Vulnerability of forest landscapes to climate change impacts

8. **Bolivia's forest landscapes are increasingly vulnerable to climate change impacts because climate extremes are intensifying and interacting with existing land-use pressures.** Droughts are becoming longer and more severe, drying soils and springs, reducing dry-season baseflows, and increasing forest flammability. In parallel, more intense rainfall events raise the likelihood of flash floods, erosion, and sedimentation—damaging small water systems, contaminating water sources, and degrading productive soils. These climate stresses are amplified by anthropogenic pressures such as agricultural expansion at forest frontiers, wetland conversion, upstream deforestation, and mining-related pollution, which weaken watershed function and accelerate land degradation. The result is a direct upstream–downstream transmission of risk: degradation in steep inter-valley slopes and headwaters reduces groundwater recharge and increases sediment-laden runoff, while downstream lowlands face higher flood peaks, silted rivers, and declining water reliability. Across Amazonian lowlands and inter-Andean micro-watersheds, households that depend on climate-sensitive livelihoods and local natural resources have limited buffers to absorb repeated shocks.

9. **Recent events illustrate the scale and compounding nature of these risks across Bolivia's forested and wetland systems.** The 2016 drought devastated approximately 283,000 hectares of crops and left reservoirs in La Paz and El Alto dry; the 2023 drought affected multiple departments, with reported sharp reductions in flows in some Amazon tributaries and severe impacts on households relying on springs and shallow wells. Flooding episodes repeatedly overwhelm communities in the lowlands: in 2014, Beni's floods inundated roughly 49,000 km² and displaced more than 340,000 people, damaging crops, isolating villages, and triggering disease outbreaks. Wildfires have also become a defining climate risk, with satellite observations (MODIS/VIIRS) and Global Forest Watch data showing multiple recent fire seasons with activity well above historical averages, particularly in the Chiquitanía and Amazon frontiers; in 2024, more than 10 million hectares reportedly burned, triggering a national emergency. Critically, these hazards reinforce one another—drought increases flammability; fires strip vegetation and reduce infiltration; subsequent heavy rains then mobilize sediments and intensify floods—creating systemic risks that erode watershed resilience, reduce ecosystem services, and accelerate livelihood losses and distress migration, especially among poorer households and those with limited access to finance, services, and resilient infrastructure.

Impacts on vulnerable populations

10. **Climate impacts on Bolivia's forest landscapes disproportionately affect Indigenous peoples, subsistence producers, and other rural communities whose livelihoods, food security, and cultural identity are tightly linked to forests, rivers, wetlands, and inter-valley watersheds.** Thirty-six Indigenous nations—representing a significant share of the population—depend on these ecosystems for water, fisheries, forest foods and medicines, and income from forest products, while also relying on them for

territorial governance and cultural continuity. In many Amazonian and inter-valley settings, households face a compounding exposure: drought reduces spring flows, soil moisture, and crop productivity; floods damage small infrastructure and contaminate water sources; and wildfires degrade forests and grazing areas while disrupting collection-based and smallholder livelihood strategies. Subsistence-oriented producers with limited savings, limited access to irrigation or resilient storage, and constrained market connectivity are often forced into negative coping strategies—selling productive assets, reducing food consumption, or migrating temporarily—further weakening community resilience and increasing pressure on already stressed ecosystems.

11. **Within these vulnerable groups, women frequently experience the impacts first and most intensely because of their roles in water provision, household food security, and care responsibilities, combined with persistent barriers to assets and decision-making.** In drought-affected inter-valley communities, women often spend more time collecting water as springs and shallow sources become unreliable, while also managing small-scale farming and household resilience under increasingly uncertain conditions. Yet women may have weaker access to land tenure, credit, extension services, and leadership roles in local governance structures—constraints that limit their ability to invest in adaptive measures or influence local priorities. At the same time, evidence from community-based resource management suggests that strengthening women's participation can improve service reliability and sustainability: women-led or gender-balanced water committees can support better operation and maintenance, more equitable distribution, and more consistent fee collection for basic services. Centering gender equality and women's leadership is therefore not an add-on, but a practical pathway to stronger adaptation outcomes in forest and watershed management contexts.

Policy and institutional framework for forest sector governance

12. **Policy frameworks provide ambition but face serious implementation gaps.** Bolivia's Constitution and the Law of Mother Earth articulate the principle of "Vivir Bien" and the rights of ecosystems, while the updated NDC sets quantitative adaptation targets: restoring two million hectares of degraded basins, implementing 102 basin management plans, and expanding water coverage to more than 95 percent of the population. It also prioritizes restoration of wetlands and peatlands, and expansion of agroforestry systems. Yet the inter-valley regions most critical for water recharge remain underfunded and overlooked. Basin committees exist but have inconsistent resources, protected areas overlap with indigenous territories but lack budgets, and enforcement of land-use regulations is weak. Without stronger investment, the commitments risk remaining aspirational rather than transformative.

13. **The dispersion of mandates across multiple agencies undermines efforts to control deforestation, restore watersheds, and secure water resources.** The Ministry of Development Planning and Environment (MPDyMA) leads the agenda. The Forest and Land Authority (ABT) is tasked with regulating deforestation but has limited enforcement capacity. The National Agrarian Reform Institute (INRA) manages land tenure, often a source of conflict where overlapping claims exist. The National Service of Protected Areas (SERNAP) oversees national parks but is chronically underfunded. In inter-valley regions, municipal governments lack both technical capacity and financial means to implement integrated watershed management. These gaps explain why upstream–downstream linkages are rarely addressed systematically, and why an integrated landscape approach is so critical.

Initial gender assessment

14. **In line with the Adaptation Fund Gender Policy, an initial gender assessment has been conducted to flag likely gender-differentiated climate risks, roles, constraints, and opportunities in the targeted micro-watersheds, and to reflect these early considerations in project design.** In rural and Indigenous contexts affected by hydrological extremes, women and men often face different exposure and coping burdens due to differentiated roles in domestic water management, livelihood activities, and community decision-making; women may also face greater time constraints and barriers to participation in planning, training, and leadership structures. Accordingly, the project will build gender-responsiveness into (i) the locally led adaptation micro-grants process, (ii) water governance and O&M arrangements, and (iii) preparedness and response systems. A detailed gender assessment and Gender Action Plan will be completed at full proposal stage, informed by sex-disaggregated baseline data and field consultations; the initial assessment is provided in Annex 1.

Proposed approach to address the development challenges

15. **The proposed approach fits the problem because it targets the micro-watershed scale where climate risks and land pressures translate most directly into impacts on water security, livelihoods, and ecosystem stability.** By working through micro-catchments, the project can connect upstream restoration and protection measures with downstream benefits, while tailoring solutions to local hydrology, land-use dynamics, and community capacity. The approach combines ecosystem-based adaptation (e.g., protection of recharge zones, riparian restoration, erosion control, fire-risk reduction around critical natural assets) with "last-mile" climate services that help communities and local institutions anticipate and respond to shocks (risk information, seasonal outlooks where available, community preparedness protocols, and locally actionable early warning and response arrangements). Community-driven LLA grants provide a practical mechanism to finance small-scale, context-specific adaptation actions selected through transparent criteria, supported by technical assistance and safeguards screening to ensure feasibility, sustainability, and inclusion. Taken together, these elements address the core drivers of vulnerability—degraded ecosystem functions, limited risk information, and weak local capacity to implement and maintain solutions—rather than treating impacts as isolated events.

16. **Looking ahead, the project is designed to generate durable resilience benefits beyond the life of the grant by strengthening local governance, learning, and scalability pathways.** By embedding implementation in local institutions and community structures (including water committees and Indigenous governance systems where relevant), the project aims to improve long-term operation and maintenance, reinforce accountability, and reduce reliance on ad hoc emergency responses. The combination of a clear "menu" of eligible measures, participatory planning, and results monitoring will enable adaptation lessons to be captured and translated into practical guidance for replication across similar forest landscapes and watersheds. Over time, this can help shift the development trajectory from reactive disaster recovery toward proactive risk management—where landscape stewardship, water security, and climate resilience are treated as mutually reinforcing priorities for rural development.

Project/Programme Objectives:

17. **Project objective.** To increase the resilience of vulnerable communities in selected watersheds and water recharge zones of the Bolivian Amazon basin through **concrete, locally led adaptation** (LLA) that secures water, stabilizes productive systems, and strengthens community preparedness.

18. **The project will achieve this by prioritizing targeted interventions in watersheds and micro-watersheds within the Amazonia, and its intervalley water recharge zones identified during the preparation phase as those facing the highest levels of climate risk.** Particular emphasis will be placed on bridging the persistent gap in household-proximate, low-cost adaptation measures and last-mile climate services, which remain critically underfinanced yet are essential for reducing vulnerability where it is most acute.

19. **Theory of Change (ToC) for AGUA Bolivia.** The project's ToC (Figure 1) explains how targeted investments in locally led adaptation, community climate services, and micro-watershed ecosystem-based adaptation will jointly reduce climate vulnerability in selected micro-catchments by improving water security and climate resilience for households, communities, and local institutions. The ToC starts from the core climate stressors affecting these territories—higher temperature, rainfall variability, droughts, floods, and fire risk—translating into water scarcity, degraded recharge functions, and heightened livelihood and safety risks. In response, Component 1 finances locally led, community-prioritized adaptation measures that strengthen climate-resilient water access and productive resilience; Component 2 strengthens community climate services and preparedness so that hazard information is converted into early action and response capacity; and Component 3 restores and stabilizes micro-watersheds and recharge areas to recover hydrological function and reduce erosion and sediment risks. Together, these pathways deliver the project outcomes by (i) improving the reliability and climate resilience of water access, (ii) strengthening local governance and coordination for equitable and effective water and risk management, and (iii) enabling the sustained use of actionable climate information for decision-making.

20. **Causal pathways and key assumptions.** Figure 1 also makes explicit the enabling conditions that must hold for outputs to translate into outcomes, and for outcomes to aggregate toward the long-term resilience goal. At the operational level, outputs are expected to materialize through (a) community mobilization and training (including inclusive participation), (b) technical assistance and applied learning-by-doing, and (c) timely procurement and delivery of small-scale goods and works, complemented by partnership building with municipal actors and relevant technical services. These outputs are expected to shift behaviors and capacities: households adopt improved water and soil-water management practices; local organizations and authorities strengthen governance, coordination, and conflict-resolution around water resources; and communities access and use climate information through locally appropriate channels (e.g., alerts, radio, and community protocols). The ToC assumes that communities and local governments remain willing and able to participate in locally led processes; that minimum levels of social cohesion allow community-based planning and O&M; and that climate information and communication infrastructure are sufficiently reliable to support preparedness and early action. It also recognizes that extreme events may intensify over time; the project therefore emphasizes "no-regrets" measures and flexible local planning so that benefits remain robust under a range of climate scenarios.

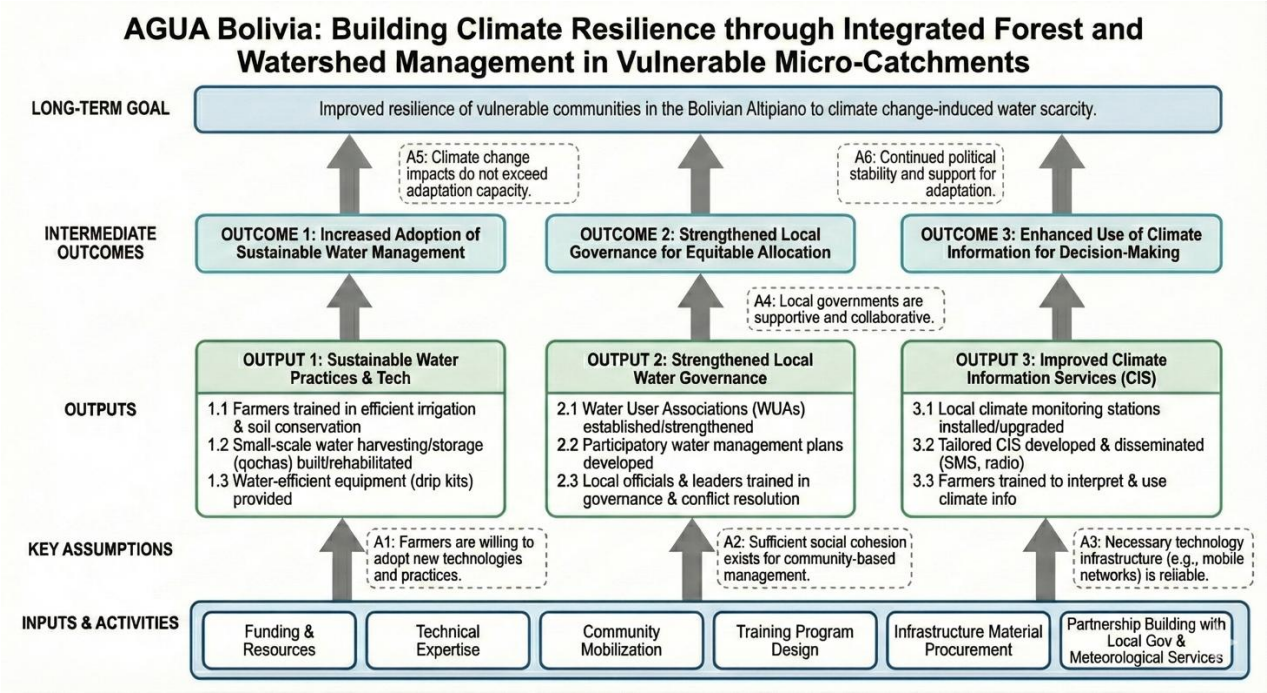


Figure 1: Theory of Change

Project/Programme Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term.

Project/Program Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
Component 1: Locally Led Adaptation for Water & Livelihoods	Outcome 1.1. Vulnerable households and communities have more reliable and climate-resilient water access for domestic and productive uses.	Output 1.1.1. Community-designed water access assets with community-led O&M arrangements are strengthened	1,800,000
		Output 1.1.2. Recharge-zone infiltration and soil-water conservation micro-works are implemented	450,000
	Sub component subtotal		2,250,000
	Outcome 1.2. Households adopt climate-resilient production systems and diversify livelihoods to reduce climate-related income and food security risks.	Output 1.2.1. Households adopt climate-resilient cropping and soil management packages	550,000
		Output 1.2.2. Agroforestry/silvopastoral systems and livelihood resilience measures are established/strengthened	1,000,000
	Sub component subtotal		1,550,000
Component subtotal			**3,800,000**

Component 2: Community Climate Services & Preparedness	Outcome 2.1. Climate information is translated into locally owned preparedness protocols and early actions.	Output 2.1.1. Community climate services and preparedness systems are strengthened	1,050,000
	Sub component subtotal		1,050,000
	Outcome 2.2. Communities have functional response capacity through trained and equipped brigades integrated with municipal DRM systems.	Output 2.2.1. Community response capacity is strengthened through trained/equipped brigades, coordination with municipal DRM systems, and simulations	1,150,000
	Sub component subtotal		1,150,000
Component subtotal			**2,200,000**
Component 3: Micro-Watershed Ecosystem-Based Adaptation (EbA)	Outcome 3.1. Priority micro-watersheds and recharge areas regain hydrological function and stability, reducing erosion and sediment risks.	Output 3.1.1. Micro-watershed restoration and stabilization package implemented	1,600,000
	Sub component subtotal		1,600,000
	Outcome 3.2. Soil moisture, ground cover, and productive resilience improve through sustainable pasture and soil management.	Output 3.2.1. Sustainable pasture and soil management package implemented	747,877
	Sub component subtotal		747,877
Component subtotal			**2,347,877**
Project operational total (Components 1–3)			**8,347,877**
4. Project/Program Execution cost			870,000
5. Total Project/Program Cost			9,217,877
6. Project/Program Cycle Management Fee charged by the Implementing Entity			782,123
Amount of Financing Requested			**10,000,000**

Table 1: Project Components and Financing

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2027
Mid-term Review (if planned)	Mid-2029
Project/Programme Closing	June 2032

Terminal Evaluation	December 2032

Table 2: Project Calendar

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project/programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

21. **The project will be implemented in small Amazonian watersheds and inter-valley recharge zones that directly sustain the Bolivian Amazon basin.** These areas represent the frontline of climate vulnerability: recurrent droughts dry up springs and streams, while intense storms bring destructive floods and landslides. Many of these landscapes also suffer from deforestation, fires, and land degradation that reduce their natural capacity to regulate water flows. The project will define specific locations during preparation in close collaboration with the Ministry of Development Planning and Environment, subnational authorities, and local organizations. This process will ensure that interventions focus on micro-watersheds and recharge areas facing the highest climate risks, while maximizing complementarity with other relevant initiatives.

22. **Geographic targeting will follow a transparent two-tier approach to ensure the project focuses on the most climate-vulnerable micro-watersheds and recharge zones while maximizing hydrological impact.** First, the project will prioritize candidate micro-watersheds/recharge areas using a rapid screening that combines (i) exposure to recurrent droughts, floods/landslides, and wildfire risk; (ii) hydrological significance for spring recharge, baseflow maintenance, and upstream–downstream connectivity; and (iii) the extent of land degradation pressures (deforestation, erosion, and recent fire impacts) that are undermining water regulation functions. This initial screening will be complemented by practical feasibility considerations—such as implementation access, presence of basic local governance arrangements (e.g., water committees or community organizations), and prospects for sustaining operation and maintenance—so that selected areas are both high-need and implementable within the project timeframe.

23. **Within selected micro-watersheds, interventions will be spatially concentrated and sequenced based on locally validated risk and vulnerability information to ensure benefits reach priority communities and critical recharge functions.** In a second step, the project will work with subnational authorities and local organizations to identify priority intervention pockets (e.g., headwater recharge zones, spring catchments, riparian buffers, erosion hotspots, and wildfire-prone interfaces) and the communities most dependent on these ecosystem services for domestic and productive water use. This finer-scale targeting will explicitly consider socioeconomic vulnerability (poverty, remoteness, reliance on climate-sensitive livelihoods, and documented water insecurity), while also leveraging complementarity with other initiatives so that Adaptation Fund resources can deliver “last-mile” micro-watershed adaptation measures where enabling investments or policy support are being pursued in parallel.

Proposed locally led adaptation (LLA) grant facility

24. **The project will finance a portfolio of community-driven LLA micro-projects through a small-grants mechanism.** At Concept Note stage, the individual micro-projects are not yet selected because they will be identified through a participatory process with communities and local authorities during preparation and early implementation. In Adaptation Fund terminology, these micro-projects therefore qualify as Unidentified Sub-Projects (USPs). Consistent with the Adaptation Fund USP guidance, the project classifies these USPs as "fully unidentified, within a fixed framework" because the project design already defines: (i) an indicative typology of micro-projects, (ii) the bounded intervention geography (selected micro-watersheds and water recharge zones sustaining the Bolivian Amazon basin), and (iii) the safeguards-based screening logic to be applied before approval and disbursement of any grant. This "fixed framework" approach preserves locally led flexibility while keeping activities sufficiently constrained to enable environmental and social risk management.

25. **The project intentionally does not pre-identify individual micro-projects at Concept Note stage because priority climate risks, local capacities, and feasible solutions differ markedly across micro-watersheds and communities.** A locally led approach therefore requires communities and local authorities to co-design proposals following local diagnostics and consultations, ensuring investments respond to the most binding, site-specific risks (e.g., drought-driven water insecurity, heat stress on production systems, erosion and sediment impacts) and avoiding "one-size-fits-all" packages that may underperform or create maladaptation. This sequencing also strengthens ownership and implementation realism by grounding each micro-project in locally validated design choices, clear roles for operation and maintenance where relevant, and practical arrangements for inclusive participation.

26. **At Concept Note stage, the project defines a bounded "menu" of *indicative* USP types—primarily under Components 1 and 3—to make clear what kinds of community micro-projects can be financed, while leaving room for locally led prioritization during preparation.** In broad terms, eligible subprojects are expected to include: (i) household and communal water-security micro-investments (e.g., rainwater harvesting, spring protection, small gravity systems) and related recharge-zone micro-works (e.g., infiltration trenches/contour measures) that improve dry-season reliability; and (ii) micro-watershed ecosystem based adaptation (EbA) and land-stability measures (e.g., assisted natural regeneration, riparian/spring buffers, slope stabilization, pasture recovery and soil-moisture conservation) that restore hydrological function and reduce erosion/sediment risks. These typologies are described in more detail under the respective components below to enable cross-referencing and coherence of design.

27. **The project will operationalize the LLA small-grants facility through a simple end-to-end grant cycle that translates community priorities into screened, approved, and verifiable micro-project financing.** In broad strokes, the cycle will include: (i) outreach and a call for proposals in eligible micro-watersheds; (ii) community-led formulation of proposals, supported by light technical assistance where needed; (iii) basic technical review and safeguards screening against the project's fixed framework (including exclusion criteria and proportional risk management instruments); (iv) endorsement and approval through clearly defined decision points; (v) signature of a grant agreement specifying scope, implementation responsibilities, minimum O&M arrangements where relevant, and reporting requirements; and (vi) disbursement in tranches linked to simple milestones, followed by implementation support, verification, and close-out. The detailed operating procedures—including templates, screening checklists, and verification protocols—will be finalized during full proposal preparation and reflected in the project's implementation arrangements.

28. **Beneficiary selection, endorsement authority, and grant sizing will be designed to keep the facility locally led while ensuring transparency, conflict-of-interest management, and fiduciary control.**

Beneficiaries are expected to include community groups and organizations (including Indigenous and women-led organizations where relevant) that meet basic eligibility criteria and propose feasible actions aligned with the fixed framework and the bounded geography. Selection criteria will prioritize vulnerability and expected adaptation benefits, technical feasibility, proportional O&M considerations, inclusion, and cost-effectiveness, alongside safeguards risk and the capacity to implement. Governance will combine community validation (e.g., community assemblies/committees) with municipal coordination where appropriate, and an implementing entity decision point to confirm compliance with eligibility, safeguards, and fiduciary requirements prior to approval and disbursement. Grant amounts and disbursement arrangements will be defined as part of preparation (including typical size bands and tranche logic) but will be structured to remain auditable—for example, by linking payments to documented progress/milestones and basic evidence of delivery (receipts, completion notes, and spot checks) while avoiding unnecessary complexity at micro-project level.

Component 1. Locally Led Adaptation for Water & Livelihoods

29. **Component 1 will finance locally led, small-scale adaptation investments that strengthen both water security and climate-resilient livelihoods in climate-vulnerable rural areas.** Building on community priorities in selected micro-catchments, recharge zones, and surrounding production landscapes, the component will channel resources through a transparent, criteria-based subproject selection process that favors practical, low-regret measures with clear O&M arrangements and strong inclusion of Indigenous and women-led organizations. The component combines (i) "last-mile" water security investments for domestic and productive uses—so households can cope with longer dry seasons and more erratic rainfall—and (ii) complementary investments that help households sustain and diversify incomes, including climate-resilient production practices and nature-based measures (e.g., soil moisture management, agroforestry and silvopastoral systems) that reduce sensitivity to heat and drought while protecting the local hydrology that underpins livelihoods.

30. **The component's design deliberately links physical investments with governance, skills, and follow-up so that both infrastructure and livelihood practices remain functional and used when climate extremes hit.** In practice, this means each financed subproject will be accompanied by: basic technical design and climate-risk screening; community agreements on roles and contributions; simplified O&M plans and training (as relevant for infrastructure); and "adoption support" for livelihood measures (e.g., demonstration and peer learning, short training cycles aligned with the agricultural calendar, and light-touch technical assistance to producer/community organizations). This structure also provides a sound framework to manage subprojects without losing clarity on what will be supported and how risks will be managed.

Outcome 1.1. Vulnerable households and communities have more reliable and climate-resilient water access for domestic and productive uses

31. **The project will close the most immediate adaptation gap faced by rural families: dependable water access under longer dry seasons, higher heat stress, and more variable rainfall.** The outcome prioritizes household- and community-proximate measures that (i) increase water availability during dry periods, (ii) protect water quality and traditional sources, and (iii) improve infiltration and soil moisture so that local hydrology recovers after droughts and fires. The approach is intentionally modular: communities can

combine a small set of measures (for example, rainwater capture plus spring protection; or infiltration works plus small distribution points) depending on their specific risk profile and feasibility.

Output 1.1.1. Community-designed water access assets with community-led O&M arrangements are strengthened

32. **The project will finance community-prioritized water access assets that can be implemented quickly, maintained locally, and scaled across multiple micro-catchments.** Activities will cover the full "asset cycle": participatory siting and design; small civil works and installation; basic water safety measures (as relevant); and establishment/strengthening of community O&M arrangements (committees, user rules, maintenance schedules, and simple recordkeeping). A typical example is a community that currently depends on a seasonal stream: the project can support rooftop capture and storage for households, plus a communal storage point for a school/health post, paired with a locally agreed maintenance plan and roles to keep the system functional during peak drought months. Indicative typology of subprojects to be supported under this output includes the following:

- Household rainwater harvesting systems (e.g., rooftop catchment, household tanks, first-flush devices, basic treatment where needed).
- Communal rainwater harvesting and storage (e.g., communal cisterns, collection on community buildings, distribution points for schools/health posts).
- Spring protection and gravity-fed systems (e.g., fencing and protection boxes, low-pressure gravity-fed pipelines to standpipes).

Output 1.1.2. Recharge-zone infiltration and soil-water conservation micro-works are implemented

33. **The project will fund small, labor-based micro-works that increase infiltration, reduce runoff and erosion, and improve soil moisture in recharge areas that sustain local springs and dry-season flows.** These measures are especially relevant where intense rainfall follows prolonged dry spells (a common pattern under climate variability), because compacted soils and degraded slopes convert rainfall into destructive runoff rather than groundwater recharge. Activities will include community mapping of priority recharge zones and erosion "hotspots," basic technical design and safeguards screening, implementation using locally appropriate methods, and practical guidance for upkeep (for example, seasonal clearing of silt traps or maintenance of vegetative barriers). Indicative typology of subprojects to be supported under this output includes the following (to be refined during full proposal preparation and finalized during implementation):

- Infiltration trenches, micro-terraces, and contour bunds (e.g., hand-dug trenches, contour micro-terraces, vegetative barriers).
- Complementary slope/rill stabilization micro-measures where needed to protect the effectiveness of infiltration works (e.g., small check structures and bioengineering-type measures appropriate to the local setting).

Outcome 1.2. Households adopt climate-resilient production systems and diversify livelihoods to reduce climate-related income and food security risks.

34. **Outcome 1.2 reflects the expected change that participating households are better able to maintain food and income despite droughts, heat stress, and increasingly erratic rainfall.** In practical terms, this is achieved when farmers reduce exposure to climate shocks through a mix of (i) improved on-farm

practices that protect soil moisture and stabilize yields, and (ii) livelihood diversification that spreads risk beyond a single crop or seasonal activity. The outcome is particularly relevant in settings where short dry spells can quickly translate into production losses and coping strategies that erode long-term resilience (e.g., distress sales of animals, reduced food intake, or abandonment of degraded plots). The project will therefore support adoptable, low-regret packages and complementary livelihood measures that can be taken up by households and producer/community organizations, with subprojects remaining indicative at this stage and finalized during implementation based on feasibility screening and community priorities.

Output 1.2.1. Households adopt climate-resilient cropping and soil management packages

35. **Output 1.2.1 is centered on the visible uptake of farm-level practices that help households maintain yields and reduce climate sensitivity under variable rainfall and higher temperatures.** Project support is expected to translate into households applying a coherent "package" (rather than isolated practices), typically combining drought-tolerant or heat-resilient varieties with improved soil management and mixed/rotational cropping that reduces pest and climate risks. Indicative subprojects and activities include:

- climate-resilient cropping systems (e.g., introduction of drought-tolerant varieties such as quinoa/cañahua where appropriate, mixed cropping, and basic agronomic improvements)
- improved soil and water management at plot level (e.g., practices that increase soil organic matter, reduce evaporation, and improve infiltration), complemented where feasible by small, water-saving technologies that directly support adoption.

Sustained uptake will be reinforced through a practical delivery model that blends demonstration plots, peer learning, and short training cycles aligned with the agricultural calendar, enabling households to test and adjust practices without taking on excessive risk; where inputs are supported, they will be linked to clear adoption milestones (for example, seed distribution paired with training and follow-up) to ensure the output is not merely distribution of materials, but observable adoption that can be maintained beyond the project period.

Output 1.2.2. Agroforestry/silvopastoral systems and livelihood resilience measures are established/strengthened

36. **Output 1.2.2 corresponds to the establishment or strengthening of more resilient production systems and complementary livelihood measures that diversify income and improve micro-climate and soil moisture over time.** The expected result is that households and communities integrate trees and perennial elements into farming and livestock systems in ways that reduce exposure to drought and heat while generating additional products and income streams. Indicative subprojects and activities include:

- agroforestry and silvopastoral systems (e.g., trees with crops and/or livestock, live fences, fodder trees, shade systems)
- livelihood resilience measures that strengthen buffers for vulnerable groups, including Indigenous and women-led organizations (e.g., small-scale processing of resilient crops, community seed banks, and water-saving technologies such as small drip systems or solar pumps managed through local groups).

The emphasis is on resilience-by-design—systems that keep producing even when climate conditions are unfavorable and livelihood options that reduce dependence on a single climate-sensitive activity—so support will prioritize technically appropriate species and designs, locally workable maintenance

arrangements (including community rules where common areas are involved), and simple market-facing elements where relevant (for example, basic processing or storage that reduces post-harvest losses), making the output measurable while ensuring it credibly contributes to reduced income and food-security risks.

Component 2. Community Climate Services & Preparedness

37. **Component 2 will strengthen "last-mile" climate services and community preparedness so that climate information results in early action and reduced losses from droughts, floods, and wildfires.** Building on community priorities and municipal DRM systems in selected areas, the component will support a practical chain from (i) translating forecasts and alerts into locally owned protocols and contingency arrangements, to (ii) ensuring communities have the people, coordination, and minimum equipment to act on those protocols when hazards materialize. The approach focuses on simple, repeatable tools—clear triggers, roles, and communication pathways—so preparedness becomes part of routine community and municipal practice rather than an ad hoc reaction after damage occurs.

38. **The component's design emphasizes co-development, testing, and institutionalization so that preparedness systems remain functional under real stress.** In practice, this means participatory development of community and municipal protocols linked to seasonal outlooks and hazard alerts; strengthening of communication and decision pathways across communities and municipalities; and regular simulation exercises to test and refine arrangements. The project will also support small preparedness micro-works needed to operationalize protocols (e.g., safe assembly points or evacuation signage), so the component delivers both "software" (protocols, drills, communication) and targeted "hardware" that enables early action.

Outcome 2.1. Climate information is translated into locally owned preparedness protocols and early actions

39. **Outcome 2.1 reflects the expected change that communities and municipalities routinely convert climate information into clear decisions and early actions before impacts escalate.** This outcome is evidenced when locally agreed triggers and procedures are in place and used—for example, communities adjust specific behaviors ahead of a drought period (e.g., water storage management, protection of key intakes), activate agreed communication cascades when fire risk rises, or implement simple flood preparedness steps when alerts are issued. The outcome is particularly relevant where information exists but does not reliably change behavior due to gaps in translation, unclear responsibilities, and weak coordination across actors and jurisdictions.

Output 2.1.1. Community climate services and preparedness systems are strengthened

36. **Output 2.1.1 is reflected in the establishment and use of practical community/municipal preparedness systems—protocols, communication pathways, and routine testing—that make early action feasible.** Support will include co-developing and institutionalizing community and municipal preparedness protocols linked to forecasts and alerts; strengthening contingency and coordination arrangements (including clear roles, responsibilities, and communication channels); and conducting

drills/simulations to test procedures and iterate. Where needed to make protocols implementable, preparedness micro-works may also be supported, such as:

- simple evacuation routes and signage;
- safe assembly points and basic risk-communication materials; and
- basic protection measures for critical local water infrastructure that is central to drought/flood response.

Outcome 2.2. Communities have functional response capacity through trained and equipped brigades integrated with municipal DRM systems.

37. Outcome 2.2 reflects the expected change that communities can respond quickly and safely to emerging events—especially fires and localized floods—through organized brigades that operate in coordination with municipal DRM arrangements. The outcome is evidenced when trained responders can mobilize early, communicate effectively, and follow agreed procedures that reduce escalation, protect lives, and limit damage to key assets and livelihoods. This is particularly important in remote areas where communities are the true first responders and delays in external support can turn manageable incidents into major disasters.

Output 2.2.1. Community response capacity is strengthened through trained/equipped brigades, coordination with municipal DRM systems, and simulations

38. Output 2.2.1 is reflected in functioning community brigades with minimum training, equipment, and coordination mechanisms that allow them to act effectively and safely alongside municipal DRM systems. Support will include training aligned with local risk profiles and agreed protocols (including safety and basic incident management), provision of essential equipment, and joint simulations/drills with municipalities and neighboring communities to test interoperability and communications. Equipment packages may include:

- personal protective equipment and basic hand tools;
- backpack pumps and small portable water tanks; and
- radios and basic communications gear to link brigades with municipal systems and alert chains.

The emphasis is on fit-for-purpose, maintainable equipment and routines that keep brigades operational beyond the initial distribution phase.

Component 3. Micro-Watershed Ecosystem-Based Adaptation (EbA)

39. Component 3 will finance ecosystem-based adaptation measures in priority micro-watersheds and recharge areas to restore hydrological function, reduce erosion and sediment risks, and strengthen the natural resource base that underpins rural livelihoods. The component targets the "upstream drivers" of water insecurity and climate vulnerability—degraded vegetation cover, unstable slopes, and declining soil moisture—that amplify drought impacts and increase flood and sediment damage. Investments will be identified through participatory micro-watershed prioritization and translated into practical restoration and land-management packages that can be implemented with communities and sustained through locally workable maintenance arrangements.

40. The component will apply a package approach that combines restoration, protection, and improved land management, anchored in community agreements on access, use, and upkeep. In practice, this means sequencing: (i) mapping and prioritization of recharge areas, riparian corridors, and erosion hotspots; (ii) basic technical design and safeguards screening; (iii) implementation using locally appropriate methods and native species; and (iv) simple arrangements for maintenance and compliance (including community rules where common areas are involved).

Outcome 3.1. Priority micro-watersheds and recharge areas regain hydrological function and stability, reducing erosion and sediment risks.

41. The expected change is that targeted recharge zones, riparian areas, and unstable slopes regain vegetation cover and stability, resulting in improved infiltration and reduced sediment loads that threaten water quality, infrastructure, and productive assets. This outcome is particularly relevant where climate variability is intensifying "flash" runoff after dry spells, increasing bank erosion and gully formation, and degrading springs and streams that communities rely on in the dry season. The project will prioritize interventions where restoration delivers clear hydrological and risk-reduction benefits for upstream and downstream users.

Output 3.1.1. Micro-watershed restoration and stabilization package implemented

42. **Output 3.1.1 is reflected in restoration and stabilization measures implemented in priority micro-watersheds and recharge areas, with basic protection and maintenance arrangements in place to sustain results. Indicative subprojects and activities include:**

- assisted natural regeneration (ANR) in degraded areas (e.g., protection of natural regeneration from fire/grazing and enrichment planting where needed);
- and spring buffer restoration (e.g., re-vegetation with native species along streams and around springs, exclusion zones, live fences); and
- slope stabilization and erosion control (e.g., check dams, live barriers, bio-engineering on unstable slopes, gully rehabilitation).

Implementation will be supported by community mapping of priority sites, fit-for-purpose design, and practical guidance for upkeep (for example, maintaining exclusion zones and periodically clearing sediment traps where relevant).

Outcome 3.2. Soil moisture, ground cover, and productive resilience improve through sustainable pasture and soil management

43. Outcome 3.2 reflects the expected change that grazing and farming areas maintain better ground cover and soil moisture under heat and rainfall variability, reducing land degradation while improving productive resilience. This outcome is especially relevant where repeated dry spells and overgrazing reduce forage availability, increase erosion, and push households toward coping strategies that undermine long-term viability. The project will support measures that keep soils protected and productive during stress periods and that can be maintained through locally workable grazing and land-use practices.

Output 3.2.1. Sustainable pasture and soil management package implemented

44. Output 3.2.1 is reflected in improved pasture and soil management practices implemented at scale in targeted areas, supported by simple routines and local arrangements that sustain adoption beyond initial support. Indicative subprojects and activities include:

- native pasture recovery and rotational grazing (e.g., reseeding with native species, rotational grazing schemes, water points to reduce pressure on fragile areas); and
- soil-moisture conservation in croplands (e.g., mulching, cover crops, contour planting, vegetative barriers in fields).

Where common areas are involved, the project will complement technical measures with practical community rules and follow-up (including demonstration and peer learning where useful) to ensure the output reflects real, sustained changes in land management rather than one-off inputs.

B. Describe how the project/programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

40. **The project financed by the Adaptation Fund is designed to deliver integrated climate change adaptation benefits by strengthening water security and resilience in Bolivia's most vulnerable micro-watersheds**. By combining community-led water infrastructure, preparedness and response systems, and ecosystem-based restoration, the project directly addresses the core risks of droughts, floods, and wildfires that undermine livelihoods and ecosystems. The interventions are structured to generate economic, social, and environmental benefits in a complementary manner, with a particular focus on empowering women, Indigenous peoples, and youth as leaders and beneficiaries of adaptation. The following sections describe in detail the environmental, social, and economic benefits of the project, and the measures put in place to avoid or mitigate negative impacts in line with the Adaptation Fund's Environmental and Social Policy and Gender Policy.

Environmental Benefits

41. **The project will deliver measurable environmental benefits by restoring and protecting key micro-watershed functions that regulate water availability and quality under increasing climate variability.** Building on a package of nature-based measures—rehabilitation of recharge zones, protection and buffering of springs and water sources, infiltration trenches/micro-terraces and other soil-water conservation micro-works, and assisted regeneration of native vegetation—the project will increase infiltration and groundwater recharge while reducing erosion and sediment transport. This is particularly important in Bolivia's inter-valley recharge landscapes where annual rainfall can fall below 500 mm in dry years, making water retention and dry-season baseflow critically dependent on healthy upper-catchment ecosystems.

42. **Ecosystem-based adaptation actions will restore at least 2,500 hectares of degraded land across targeted micro-watersheds, prioritizing riparian zones, slopes, and wetlands that are critical for recharge and flow regulation.** These measures will stabilize erosion hotspots, improve soil structure and ground cover, and reduce sedimentation that degrades downstream water quality and damages

community water systems. The restoration footprint will be complemented by locally led micro-projects (including infiltration and spring-protection measures) that extend benefits beyond restoration plots to the wider catchment. Progress will be tracked through quantifiable indicators such as hectares restored, number of springs/water sources protected (at least one priority source per participating community as a minimum), and stabilization of erosion-prone areas identified during micro-watershed planning.

43. **Integrated fire and drought risk management will protect these environmental gains by strengthening prevention and early response capacity in fire- and drought-prone landscapes.** The project will establish 60 community preparedness protocols and brigades and train and equip at least 1,200 community responders, reducing the likelihood that wildfires and extreme drought impacts undermine restored recharge areas, riparian buffers, and native pastures. By limiting severe burns and maintaining vegetative cover, the project will reduce post-fire runoff and sediment pulses, safeguard biodiversity, and generate mitigation co-benefits through enhanced carbon storage in recovering vegetation and soils. Targets and site-level baselines will be refined during full proposal preparation once specific micro-watersheds and intervention sites are confirmed.

Social Benefits

44. **The project prioritizes social inclusion by targeting communities most vulnerable to water scarcity, droughts, and wildfires, with direct benefits expected for more than 60 communities.** Based on the current scale of activities, the project is expected to directly benefit at least 8,000 household**s** (approximately 32,000 people), through improved water access and locally led adaptation micro-projects that strengthen domestic and productive water security (e.g., rainwater harvesting, spring protection, infiltration works). Direct beneficiaries are expected to be broadly gender-balanced (approximately 16,000 women and girls and 16,000 men and boys), with a focus on reducing the time burden on women and children associated with water collection and coping during shortages, thereby freeing time for education, childcare, and economic activities.

45. **A central social benefit lies in strengthened community resilience and preparedness through participatory planning and local response capacity.** Component 2 will support 60 community preparedness protocols and strengthen coordination with municipal systems for drought, heatwave, and fire risk management. At least 1,200 community responders will be trained and equipped to maintain local water infrastructure and implement early actions; the project will target at least 40% women and 30% youth among trainees to ensure inclusive leadership and skills development. These measures will reduce disruption to livelihoods and essential services during climate shocks, with spillover (indirect) benefits expected for additional users of shared water sources and community systems beyond the directly supported households.

46. **Beyond women, the project will deliberately prioritize other vulnerable groups—Indigenous Peoples, youth, poor and remote households, female-headed households, and (where relevant) elderly and persons with disabilities—through eligibility criteria and participatory selection of LLA micro-projects.** The small-grants mechanism will require inclusive community decision-making and will promote women's and Indigenous Peoples' participation in water committees and micro-project governance; the project will aim for at least 50% of supported micro-projects to be women-led or co-managed, and to ensure participation of Indigenous Peoples in planning and implementation in territories where they are present, applying culturally appropriate engagement and FPIC where applicable. These inclusion measures are intended to make resilience gains durable and equitable, not only improving welfare

outcomes but also strengthening local governance and social cohesion around water and risk management.

Economic Benefits

47. **The project will generate economic benefits by stabilizing household production and reducing climate-related losses through locally led adaptation (LLA) investments and more reliable water access.** Building on the water security, preparedness, and micro-watershed restoration measures described above, the project is expected to directly benefit at least 8,000 households (approximately 32,000 people) by protecting domestic and productive water use and reducing drought-related disruption to crops and livestock. Direct beneficiaries are expected to be broadly gender-balanced (approximately 16,000 women and girls and 16,000 men and boys), with LLA micro-projects prioritizing measures that improve water-use efficiency and reduce production risk (e.g., small-scale irrigation and water harvesting, agroforestry/silvopastoral measures, soil moisture conservation), leading to more predictable income and food security.

48. **Household-level welfare gains will also come from reduced coping costs—especially for vulnerable groups—through lower spending on emergency water and fewer productivity and health-related losses associated with unreliable or unsafe water.** Where water shortages force households to purchase or transport water, even modest reductions in emergency spending can be material: for illustration, if improved systems reduce dry-season coping expenditures by US$50–100 per household per season, aggregate savings across 8,000 households would be approximately US$0.4–0.8 million per season (to be validated with site baselines during full proposal preparation). These gains will accrue not only to women, but also to Indigenous Peoples, youth, poor and remote households, female-headed households, and (where relevant) elderly and persons with disabilities, who will be prioritized through LLA eligibility criteria and participatory selection.

49. **At community and municipal levels, improved preparedness and maintenance will reduce the economic cost of climate shocks and protect public and productive assets, with spillover benefits beyond direct beneficiaries.** With 60 community preparedness protocols and at least 1,200 trained responders, communities and municipalities will be better able to protect water infrastructure, avoid preventable damage, and reduce emergency response expenditures during droughts, floods, and wildfire events. In addition to the estimated 32,000 direct beneficiaries, the project is expected to generate indirect benefits for an additional 10,000–20,000 people who rely on shared water sources, downstream services, and community systems supported by the project (to be confirmed once the targeted micro watersheds and service areas are finalized).

Avoidance and Mitigation of Negative Impacts

50. **The project has been designed to maximize positive benefits while minimizing potential negative impacts, in full compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.** All activities will be implemented using environmentally sound, low-cost, and community-driven techniques to avoid maladaptation. Environmental and Social Management Plans will be prepared to prevent adverse effects such as involuntary resettlement, restriction of access to natural resources, or biodiversity loss.

51. **Participatory beneficiary selection criteria will ensure equitable access, prevent elite capture, and guarantee that vulnerable groups—including women, Indigenous peoples, and youth—are prioritized. A grievance redress mechanism accessible at the community level will provide channels for concerns and accountability.** Safeguards training for the Ministry of Development Planning and Environment and municipal governments will build institutional capacity to monitor compliance and integrate lessons into broader policies. Gender-sensitive indicators will track women's and men's access to benefits, ensuring equitable outcomes.

52. **In summary, the Adaptation Fund-financed interventions will directly enhance water security, strengthen social resilience, and restore ecological functions in Bolivia's most vulnerable micro-watersheds**. By separating environmental, social, and economic dimensions, the project demonstrates how ecosystem-based adaptation generates integrated benefits that are equitable, sustainable, and transformative for vulnerable communities.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

53. **The project is designed to maximize impact per dollar by prioritizing preventive, nature-based, and community-driven measures, with water security as its central focus.** The strategy reflects lessons from Bolivia and other countries: early, ecosystem-based, and locally led actions in water and land management deliver higher benefit–cost ratios than reactive or infrastructure-heavy responses.

54. **Water Security through Ecosystem-based Adaptation (EbA) vs. Grey Infrastructure.** For water management and erosion control under Components 1 and 3, the project deliberately favors EbA solutions—such as spring protection, infiltration trenches, micro-terraces, and restoration of riparian and slope vegetation—over capital-intensive grey infrastructure like large reservoirs or pumping systems. EbA approaches are typically cheaper per hectare, self-sustaining, and multi-functional, delivering co-benefits such as biodiversity recovery, improved soils, and carbon sequestration. For instance, protecting and restoring upstream recharge areas costs a fraction of constructing and maintaining a reservoir and avoids the recurrent costs of dredging or sediment control downstream. Distributed water storage solutions, including rainwater harvesting cisterns and vegetative buffers, reduce sedimentation, improve infiltration, and enhance dry-season flows. Studies from Latin America consistently show that EbA can be 50–90% more cost-effective than engineered alternatives when long-term co-benefits are counted. In this project, grey works (cisterns, small-scale irrigation upgrades) are used only where natural measures alone are insufficient, ensuring a balanced and efficient allocation of resources.

55. **Community-Based Subprojects vs. Top-Down Infrastructure Delivery.** Through Component 1, the project finances over 120 locally led subprojects in water harvesting, resilient agriculture, and livelihood diversification. Community-driven design ensures that investments are tailored to local contexts, reducing the risk of maladaptation and costly project failure. Mobilizing collective work traditions (mingas) for activities like planting, spring fencing, and maintenance of infiltration works lowers costs by ~30% compared to contractors, while improving survival rates and long-term maintenance. This model avoids high transaction costs associated with top-down delivery and ensures ownership, which translates into sustained benefits beyond the project life.

56. **Preparedness and Early Response vs. Reactive Emergency Spending**. Component 2 invests in preparedness and climate services rather than costly emergency responses. Equipping 1,200 local

brigades and developing community drought and fire protocols costs less than a single season of large-scale water trucking or firefighting operations. For example, trucking water to rural communities during the 2023 drought cost millions of dollars, yet provided only temporary relief. By contrast, a protected spring or functioning rainwater harvesting system ensures reliable supply year after year, at a fraction of the cost. Similarly, training brigades and setting up local response systems is far cheaper and more sustainable than hiring external contractors or relying on expensive firefighting aircraft. This approach shifts the cost curve from high emergency expenditure to low-cost, preventive action.

57. **Wildfire Prevention vs. Firefighting and Post-Disaster Recovery**. In Component 2, resources are allocated to preventing ignition and containing fires early, rather than expanding costly national firefighting fleets. A single firefighting helicopter can cost over US$500,000 per fire season, covering limited territory and requiring recurrent expenditure. In contrast, equipping and training 60 community brigades costs around US$1 million in total, providing sustained local capacity for multiple years. Preventing or containing fires at early stages also avoids the exponentially higher costs of ecological and economic damage, such as destroyed crops, degraded soils, and respiratory health crises. The project therefore secures both fiscal savings and long-term ecosystem integrity.

58. **Integrated Watershed Rehabilitation vs. Reactive Engineering**. Component 3 focuses on restoring degraded slopes, riparian zones, and wetlands in priority micro-watersheds, rather than investing in downstream engineering solutions. Rehabilitation of natural buffers reduces sedimentation in rivers, prolongs the lifespan of existing rural infrastructure, and improves downstream water quality. In contrast, sediment traps, dredging, or concrete embankments require continual maintenance and are often overwhelmed if upstream degradation is not addressed. The project thus adopts a cost-effective "source to system" approach, ensuring that modest upstream investments secure downstream infrastructure and productive systems.

59. **Leveraging Co-Financing and Existing Programs**. The Adaptation Fund contribution is strategically positioned to finance the "incremental" adaptation measures that would otherwise remain unfunded. National and World Bank co-financing covers baseline costs—such as general infrastructure or productive support—while AF resources ensure these investments are climate-resilient. For example, if co-financing supports agriculture, AF resources introduce drought-tolerant species and soil-water conservation; if co-financing builds rural infrastructure, AF ensures upstream slope stabilization. This integration maximizes returns by embedding adaptation into larger investments at marginal cost, avoiding duplication and ensuring efficient use of limited grant funds.

60. **Long-Term Sustainability as a Cost Factor**. Capacity building, governance reforms, and preparedness protocols financed under Components 1 and 2 have enduring effects beyond project closure. Training water committees, empowering women-led groups, and embedding municipal maintenance plans spread costs over decades, as skills and systems remain functional after the project ends. This reduces dependency on external aid and avoids recurrent investment needs. Similarly, community-based restoration and tenure security measures prevent further degradation, avoiding the much higher costs of rehabilitating severely degraded ecosystems in the future.

61. **Alternative Analysis – "No Project" or Reactive Approach**. Without the project, adaptation in Bolivia's drought- and fire-prone micro-watersheds would remain fragmented and reactive. Experience has shown that reactive measures—such as importing water, subsidizing crop losses, or deploying military

brigades for firefighting—cost far more over time than preventive community-based measures. The "no project" scenario would perpetuate escalating fiscal and social costs, leaving vulnerable communities in a cycle of loss and recovery. By contrast, Adaptation Fund resources act as insurance, paying upfront for prevention and resilience, and protecting broader development investments (roads, farms, and water systems) from recurrent climate shocks.

62. **Efficient Management and Minimal Overhead**. Project execution costs are maintained at around 8%, within Adaptation Fund norms. The Ministry of Development Planning and Environment will leverage existing offices and staff, while World Bank supervision is integrated with the broader forest sector programme, avoiding duplication of systems and reducing overhead. This ensures that the majority of AF resources flow directly to field activities and community benefits.

63. **Overall, the cost-effectiveness of the project is rooted in prevention over cure, nature-based over grey infrastructure, and community empowerment over perpetual external inputs.** Protecting and rehabilitating a hectare of recharge area through community action costs dramatically less than trucking water during droughts or repairing flood-damaged infrastructure downstream. Training local brigades and maintaining early warning systems costs less than one season of fire suppression flights, while providing permanent capacity. Preliminary estimates suggest that for every US$1 invested, at least US$4–5 in economic losses will be avoided or new benefits generated over the life of the interventions—through avoided crop losses, reduced emergency costs, improved water security, and enhanced livelihoods. A summary table is presented below to illustrate comparative cost-effectiveness across components. A more detailed and exhaustive cost–benefit evaluation will be conducted during the full project design stage, once intervention areas are precisely defined and technical options specified.

64. **To further substantiate cost-effectiveness, Table 1 below includes indicative dollar estimates using (i) the AF financing allocations by component/output and (ii) order-of-magnitude unit costs observed in recent rural water security, EbA restoration, and community preparedness programs in Bolivia and the region.** These figures are intended to demonstrate the relative cost profile of prevention- and EbA-based measures versus reactive or grey alternatives; they will be refined at full proposal stage once the final micro-watersheds, technical designs, and market quotations are confirmed.

Component	Without Project / Reactive Approach (indicative costs)	With Project (AF-financed) (indicative costs)	Relative Cost-Effectiveness (with US$ context)
1. Locally Led Adaptation for Water & Livelihoods	**Recurring drought coping and emergency support**, including water trucking and ad hoc subsidies. **Indicative water trucking** for ~60 communities during a severe dry season: **~US$1.0–2.0M per season** (roughly **US$125–250 per household per season** for ~8,000 households), with no durable asset creation.	**AF allocation (Component 1 outputs): US$3.8M**, financing LLA micro-projects and household/community water and livelihood resilience packages for at least **8,000 households** (≈ **US$475 per household** on average for the C1 investment envelope).	**One-time investments reduce recurring coping costs and protect incomes.** Even under conservative assumptions, durable water assets can "pay back" the equivalent of multiple drought seasons of trucking within the life of the assets, while also reducing production losses and time burdens.
2. Community Climate Services & Preparedness	**Reactive response costs** (external brigades, emergency operations, and—where used—air suppression). A single firefighting helicopter can cost **~US$0.5M per fire season** with limited coverage; repeated seasons and multiple hotspots quickly scale costs.	**AF allocation (Component 2 outputs): US$2.2M**, including: (i) **US$1.15M** for community response capacity (**60 brigades / ~1,200 responders ≈ US$19k per brigade** and **~US$960 per responder**), and (ii) **US$1.05M** for community climate services/protocols (≈ **US$17.5k per community** across 60 communities).	**Prevention and early action are materially cheaper than repeated emergency response.** The full multi-year community preparedness package is on the order of **1–2 fire seasons of aerial suppression**, while building durable local capacity that reduces losses and response times year after year.
3. Micro-Watershed Ecosystem-based Adaptation (EbA)	**Downstream engineering and recurrent maintenance** (e.g., dredging, sediment traps, embankments) that must be repeated if upstream degradation persists. Indicative orders of magnitude: **US$0.2–0.5M per year per hotspot** for recurrent sediment management and repairs (highly site-specific).	**AF allocation (Component 3 outputs): US$2.35M**, including **US$1.6M** for restoration and protection in priority micro-watersheds and recharge zones. With a minimum of **2,500 ha restored**, this implies **~US$640 per ha** for the restoration envelope (with complementary soil/pasture measures financed under C3).	**EbA shifts spending from recurrent "repair" to durable "prevention."** At indicative unit costs of **~US$640/ha** for restoration, upstream measures are typically multiple times cheaper over time than repeated downstream engineering and deliver co-benefits (water regulation, soil fertility, biodiversity, carbon).

Table 3. Indicative Cost-Effectiveness of Project Interventions (with Estimated US$ Figures)[1]

[1] Note: These are indicative, order-of-magnitude estimates to demonstrate relative cost profiles; they will be validated and sharpened during full proposal preparation.

Decision area	Proposed intervention (project approach)	Main alternative(s) considered	Indicative cost profile (US$)	Why the proposed option is more cost-effective
Water security for dispersed communities	**Distributed water security package**: rainwater harvesting, spring protection, infiltration works, soil-water conservation, community O&M (LLA-driven).	(A) **Small reservoirs / pumping systems**; (B) **Reactive water trucking** during droughts.	Proposed: **~US$475/household** (C1 envelope average). Reactive trucking: **~US$125–250/household/season** recurring. Small reservoirs/pumping: higher capex + recurring O&M and sediment risk (site-specific).	Distributed systems **match dispersed settlement patterns**, reduce single-point failure risk, and **avoid recurrent emergency costs**, while strengthening local ownership and maintenance.
Wildfire preparedness and response	**Community brigades + prevention protocols + early action**, integrated with municipal coordination.	(A) **Aerial suppression / national fleet expansion**; (B) **External contractor-led response**.	Proposed brigades: **~US$19k/brigade** and **~US$960/responder** (from C2). Helicopter: **~US$0.5M/season** (recurrent).	**Early containment prevents exponential damage**; community capacity is **cheaper over multiple seasons** and expands coverage beyond what limited aerial assets can provide.
Climate information for early action	**Community climate services** (locally usable alerts, protocols, training; linked to action).	(A) **Technology-heavy monitoring only** without last-mile services; (B) **Ad hoc information** during events.	Proposed CIS/protocols: **~US$17.5k/community** (from C2). Monitoring-only options often underperform if not linked to action pathways.	Cost-effectiveness comes from **turning information into action** (reduced losses), not only producing data; community protocols maximize uptake and utility.
Micro-watershed restoration and erosion/sediment control	**EbA restoration** (riparian buffers, slope stabilization, recharge areas, native vegetation regeneration) at micro-watershed scale.	(A) **Downstream sediment traps/dredging/embankments**; (B) **No upstream action** with repairs after damage.	Proposed restoration: **~US$640/ha** (restoration envelope). Downstream recurrent works: **~US$0.2–0.5M/year per hotspot** (site-specific, recurring).	Treating causes upstream reduces downstream maintenance needs; EbA delivers **multiple co-benefits** that engineered fixes do not.

Table 4: Comparison of proposed interventions vs alternatives

D. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

65. **The Agua-Bolivia project is fully consistent with Bolivia's sustainable development and climate strategies.** It translates high-level national commitments into concrete, locally led adaptation measures in the most climate-vulnerable micro-watersheds of the country. Bolivia's third NDC (2025) elevates adaptation as a central pillar of the national climate agenda, with explicit commitments in water, forests, agriculture, health, and energy. It sets targets to: (i) strengthen resilience in water supply systems, securing safe access for all rural and urban populations through nature-based and community-driven solutions; (ii) restore and protect at least 4 million hectares of degraded ecosystems to safeguard water and biodiversity functions; (iii) reduce wildfire risk through prevention, early warning, and local response capacity; and (iv) mainstream gender equity, Indigenous rights, and climate justice in adaptation actions.

66. **Agua-Bolivia directly contributes to these commitments by financing rainwater harvesting, spring protection, infiltration trenches, and watershed restoration that secure dry-season water flows.** It establishes 60 community preparedness protocols and brigades for droughts and fires, aligning with the NDC's call for decentralized risk management. And by prioritizing women and Indigenous leadership in water committees and livelihood subprojects, it reflects the NDC's cross-cutting emphasis on equity and rights. The project also supports forest-water linkages and ecosystem-based adaptation that generate both adaptation and mitigation co-benefits.

67. **National Development Plan (PDES 2021–2025).** The PDES enshrines "Vivir Bien" as the guiding model and includes environmental protection, water security, and risk management as national priorities. Agua-Bolivia operationalizes these pillars by strengthening food security through resilient agriculture, safeguarding water sources for rural populations, and creating employment in restoration and risk brigades. It directly contributes to the PDES objectives of improving water security, enhancing agricultural productivity, and reducing vulnerability to climate shocks.

68. **Framework Law of Mother Earth and Integral Development (Law 300, 2012).** Law 300 recognizes the rights of Mother Earth and mandates integral management of life systems, implemented through the Autoridad Plurinacional de la Madre Tierra (APMT). Agua-Bolivia, under RAÍCES, is a concrete manifestation of this framework: it advances joint adaptation-mitigation by restoring forests and watersheds, reduces climate vulnerability of poor communities, and empowers Indigenous stewardship of territory. By coordinating closely with APMT, the project ensures consistency with the National Climate Change Policy and with the Joint Mitigation and Adaptation Mechanism for Forests and Mother Earth.

69. **National Adaptation Plan and Sectoral Strategies.** Bolivia is advancing its National Adaptation Plan (NAP) preparation with emphasis on water, forests, agriculture, and health. Agua-Bolivia feeds directly into this process: its outcomes in watershed restoration, drought/fire risk management, and community preparedness will inform national priorities and provide tested models for replication. The project also reflects Bolivia's Strategic Program for Climate Resilience (SPCR; 2011) under the Pilot Program for Climate Resilience, which highlighted watershed-level adaptation and institutional strengthening as urgent needs.

70. **Forestry, Land Use, and Territorial Planning Instruments.** Bolivia's Forestry Law (Law No. 1700; 1996) and territorial planning instruments—departmental Land Use Plans (Planes de Uso del Suelo, PLUS; e.g., Santa Cruz approved by Supreme Decree No. 24124 of 1995; additional departmental PLUS approved by Supreme Decree No. 26732 of 2002) and Territorial Development Plans (Planes Territoriales de Desarrollo Integral, PTDI; current five-year planning cycle 2021–2025)—define land management and land-use change planning at multiple scales. The country's disaster risk management framework is anchored in the Natural Disaster Risk Reduction Law (Law No. 602; 2014).

71. **Disaster Risk Management and Fire Control.** Law 602 (2014) and the National Disaster Risk Management Program emphasize community-based risk reduction and early warning systems. Agua-Bolivia strengthens this framework by creating and equipping 60 brigades (1,200 responders) and integrating community protocols with municipal systems. This is fully consistent with the Sendai Framework, advancing risk knowledge, institutional governance, and preparedness.

72. **Sectoral and Subnational Plans.** In addition, Bolivia's restoration and forest management agenda is supported by (i) the National Afforestation and Reforestation Program/Plan (Programa Nacional de Forestación y Reforestación, PNFR; created by Supreme Decree No. 0443 of 10 March 2010 and operationalized through the National Implementation Strategy 2016–2030 approved by Supreme Decree No. 2912 of 27 September 2016); and (ii) the "Nuestros Bosques" program (Supreme Decree No. 2914; 27 September 2016), which includes monitoring, fire management, and recovery of degraded forests. Subnational and sectoral instruments relevant to AGUA include the Plan del Sector Agropecuario y Rural con Desarrollo Integral para Vivir Bien (PSARDI 2016–2020), complemented by Indigenous Life Plans and departmental climate change strategies (dates vary by department/territory).

73. **Agua-Bolivia is fully embedded within Bolivia's sustainable development and climate policy framework.** The project operationalizes the country's NDC 2026–2035, the PDES, Law 300, and national adaptation strategies, while reinforcing subnational and Indigenous plans. By focusing on water resilience, community empowerment, and ecosystem restoration, the project ensures that Adaptation Fund resources advance Bolivia's national priorities and international commitments in an integrated, equitable, and transformative manner.

E. Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

74. **The project will comply with all applicable national technical standards in Bolivia,** including environmental assessment regulations, forestry and land-use norms, water and infrastructure standards, and labor and cultural heritage provisions. It will also adhere to the Adaptation Fund's Environmental and Social Policy (ESP) and Gender Policy. A compliance matrix will be developed during the full proposal to map required permits and applicable standards per activity. An Environmental and Social Management Plan (ESMP) will also be prepared to document mitigation measures, responsibilities, and monitoring arrangements. By embedding compliance in both design and implementation, the project not only avoids risks but also strengthens national enforcement capacity, ensuring that Adaptation Fund resources deliver lasting and legally grounded adaptation outcomes.

75. **Environmental assessment, permitting, and compliance will follow Bolivia's General Environmental Law No. 1333 (1992) and related EIA/licensing procedures**. This applies to all physical works financed under the project (e.g., water harvesting/storage, spring protection, infiltration trenches/terraces, small-scale irrigation works, and installation of climate monitoring stations), for which the project will carry out screening and prepare the required instruments (e.g., Ficha Ambiental and/or site-specific ESMPs, as applicable).

76. **Forest and vegetation management measures will comply with Forestry Law No. 1700 (1996) and applicable regulations**. This applies to ecosystem-based adaptation activities such as assisted natural regeneration, riparian restoration, slope stabilization with native vegetation, and any intervention in areas classified as forest lands, including any needed permits/authorizations.

77. **Fire risk management and any vegetation clearing will comply with national rules regulating land clearing and burning**, including Resolución Ministerial (R.M.) 131/97 (1997) and Decreto Sumpremo (D.S.) 26075 (2001) and subsequent updates (e.g., D.S. 3973 (2019), as applicable). This applies to project-supported wildfire prevention and preparedness actions, including community protocols and early warning. The project will not finance uncontrolled burning; any fire-related measures will be prevention-focused and legally compliant.

78. **Consultation and participation requirements for Indigenous Peoples will be implemented in line with the Constitution (2009) and Bolivia's relevant legal framework**, including ILO Convention 169 (ratified by Law 1257, 1991) and UNDRIP elevated to national law (Law 3760, 2007). This applies to geographic targeting, participatory planning, and selection/design of locally led adaptation subprojects, including ensuring FPIC where required. Where a sector-specific consultation regulation is relevant, it will also be respected (e.g., D.S. 29033 (2007) for hydrocarbons, if ever applicable to the activity type).

79. **Community water supply and sanitation-related works** will follow the applicable drinking water and sanitation framework (e.g., Law 2066 (2000) and implementing regulations). This applies to investments that improve access to safe water for domestic uses (e.g., spring protection, water harvesting/storage tied to community systems), including attention to basic service and water quality requirements where applicable.

80. **Irrigation-related investments will follow Irrigation Law No. 2878 (2004) and relevant technical norms**. This applies to small-scale irrigation and water-efficient productive-use investments supported through locally led adaptation subprojects, including alignment with water-use rights/arrangements and O&M responsibilities.

81. **Watershed planning and integrated water resources management will align with Bolivia's strategic framework for basin management** (e.g., Plan Nacional de Cuencas – 2007) and the broader climate/environment policy framework, including the Mother Earth Framework Law No. 300 (2012). This applies to micro-watershed planning, strengthening of water user arrangements, and ecosystem-based restoration measures that underpin water security outcomes.

82. **Cultural heritage protection, labor conditions, and occupational health and safety (OHS) will comply with Cultural Heritage Law No. 530 (2014)** and national labor/OHS legislation, including the General Labour Law (1939) and Decree Law 16998 (1979). This applies to all civil works and field

operations financed by the project (including community brigades), including use of chance-find procedures and contractor OHS requirements (PPE, training, incident reporting, etc.).

F. Describe if there is duplication of project/programme with other funding sources, if any.

83. **As part of the Concept Note due diligence on duplication, the World Bank team mapped the most relevant completed, ongoing, and planned initiatives in the project's thematic space** (forest–water resilience, locally led adaptation, restoration/EbA, climate services, and enabling frameworks). Table X summarizes these initiatives, their implementing entities, status and dates, and the specific complementarity expected with AGUA Bolivia. At this stage, AGUA Bolivia is designed to be additive rather than duplicative by focusing on micro-watershed, community-facing investments and implementation learning, while other initiatives primarily operate at larger territorial scales, in different geographies, or at the level of national enabling systems.

84. **Coordination will be operationalized through three simple measures during preparation and early implementation**: (i) geographic and activity screening during micro-watershed targeting and micro-project selection to avoid overlap and double-financing in the same communities; (ii) structured coordination with key implementing entities and national coordination channels (including periodic portfolio check-ins and information-sharing on planned activities, locations, and calendars); and (iii) systematic capture and use of lessons learned from related programs (e.g., EbA pilots, irrigation/climate services programs, and readiness support) to refine AGUA's micro-project guidance, safeguards screening, and monitoring approach. The mapping in Table 5 will be updated and validated with counterparts and partners during full proposal preparation.

Related project / initiative	Implementing entity (lead)	Status and key dates	Main focus / coverage	Complementarity and coordination with AGUA Bolivia
RAÍCES Bolivia – Resiliencia Amazónica e Iniciativas de Conservación y Ecosistemas Sostenibles	World Bank with Government of Bolivia counterparts	Planned / under preparation (concept stage)	Large-scale forest landscape resilience (governance, tenure, restoration, fire prevention, climate finance)	AGUA Bolivia finances "last-mile" micro-watershed adaptation within the broader RAÍCES platform. Coordination through unified annual workplans, targeting, and a shared M&E/learning framework.
RECEM-Valles (GCF FP202; implemented by FAO)	FAO (Accredited Entity) with Government of Bolivia counterparts	Ongoing; approved 16 Mar 2023; estimated completion 29 Jan 2029	Climate resilience in semi-arid/highland valleys (water security and productive systems)	No geographic overlap expected with AGUA Bolivia's forest/micro-watershed focus. Coordination through the NDA and technical exchanges on climate services, community engagement, and water governance where relevant.
Strengthening the National Adaptation Plan process (GCF Readiness; implemented by GIZ)	GIZ with Government of Bolivia	Ongoing/approved readiness proposal (Apr 2025)	Adaptation planning systems (NAP processes, mainstreaming, capacities)	AGUA Bolivia will feed field evidence (micro-watersheds, EbA, community governance) into NAP tools and sector guidance; avoid duplication by using AGUA as an implementation "laboratory" for NAP prioritization/monitoring methods.
Building an enabling environment for NDC 3.0 (GCF Readiness; implemented by UNDP)	UNDP with Government of Bolivia	Ongoing/approved readiness proposal (Apr 2025)	NDC implementation enabling conditions (institutional/technical readiness, coordination, monitoring)	AGUA Bolivia aligns local implementation with NDC targets (water security, EbA, risk reduction). Coordinate on indicators, reporting, and policy uptake so AGUA results inform NDC tracking and sector plans.
AGROSUSTENTAR (IFAD)	IFAD with Government of Bolivia (implementing partners TBD in public sources)	Ongoing; approved 26 Dec 2024; duration 2024–2032	Sustainable agriculture and rural livelihoods (national program, with strong relevance to resilience)	Designed to be complementary (e.g., IFAD more agriculture/technology and specific territories; AGUA Bolivia more forest–water micro-watersheds and wildfire-linked risks). Coordinate through joint learning and ensuring territorial targeting avoids overlap.
Dry Chaco biodiversity and forests project (GEF; supported by FAO)	Government of Bolivia with FAO support	Ongoing; approved Dec 2021; operational since Nov 2022	Sustainable management of biodiversity and dry forests in the Bolivian Chaco	Complementary thematic lessons on governance, restoration techniques, and community engagement. AGUA Bolivia can adopt proven approaches (e.g., community monitoring, restoration packages) while avoiding double financing through spatial targeting and joint platforms.
Pando EbA micro-project (Global EbA Fund)	Asociación Civil Armonía (ACEAA) and partners	Ongoing; start 18 Oct 2022; duration 24 months (as listed)	Ecosystem-based adaptation pilots in Pando	Complementary pilot experience on EbA and local implementation modalities. AGUA/RAÍCES can scale what works (technical designs, social approaches) through structured knowledge capture and replication protocols.
Watershared Accelerator (IDB Lab; BO-G1010)	Cuencas Sustentables SRL (executing agency)	Ongoing; approved 10 Mar 2025	Financial innovation for adaptation/mitigation and watershed management	Strong complementarity on incentive/PES-type approaches and watershed governance. Coordinate by aligning incentive design principles, safeguards, and community benefit-sharing; avoid overlap through geographic targeting and shared stakeholder mapping.

Table 5. Related projects and initiatives

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

85. **Learning and knowledge management is an integral part of AGUA Bolivia and will be managed under the project's own results framework, reporting lines, and budget.** The purpose is to (i) improve implementation quality through adaptive management, and (ii) generate practical lessons on locally led adaptation (LLA), community preparedness, and micro-watershed EbA that can be replicated by government and partners—without relying on, or being "integrated into," any external program framework.

86. **The project will implement a simple Learning and Knowledge Management Framework built around four linked functions: (a) routine monitoring, (b) structured reflection and course correction, (c) documentation of what works, and (d) dissemination.** Monitoring will track: progress against the results framework (outputs/outcomes); beneficiary reach (direct/indirect, sex- and age-disaggregated where feasible); functionality and O&M performance of water assets; hectares restored and maintained; and readiness metrics (protocols adopted, responders trained, simulations completed, people reached by alerts). Learning will be fed by seasonal "after-action reviews" (post-fire season and post-rainy season), rapid implementation reviews after each LLA subproject cycle, and periodic beneficiary feedback (including targeted sessions with women, youth, and Indigenous Peoples).

87. **Responsibilities and timing are clearly defined.** The executing entity/PMU will lead the framework through (i) an M&E function responsible for indicator tracking and reporting and (ii) a designated knowledge focal point responsible for learning events, documentation, and dissemination. Municipal governments and local service providers will co-track performance of community systems (e.g., water assets, preparedness protocols), while community organizations (water committees, brigades, restoration groups) will provide participatory monitoring inputs (functionality checks, O&M records, rapid incident logs, and lessons captured during review meetings). Tracking will occur continuously, consolidated quarterly for management reporting, with annual learning summaries and a mid-term and end-of-project evaluation.

88. **Learning activities and resources are embedded in project components/outputs rather than treated as a separate program.** In practice: (i) the LLA subproject cycle under Output 1.1.1, 1.1.2, 1.2.1 and 1.2.2 includes participatory planning, training, and "what worked/what didn't" reviews that inform the next cycle; (ii) Output 2.1.1 and 2.2.1 provide the backbone for knowledge generation on climate services and preparedness (protocol development, drills/simulations, lessons from events); and (iii) Output 3.1.1 and 3.2.1 generate applied learning on restoration and soil/pasture management (survival rates/maintenance, performance under drought/fire, erosion and recharge proxies). Costs for these learning functions are covered through the normal implementation, training, monitoring, and project execution allocations already included in the design.

89. **Dissemination will be practical, tiered, and regular.** Community-facing feedback will occur through local meetings after each seasonal review and through simple user-friendly products (brief guides, checklists, radio scripts/infographics where relevant). Practitioner-facing products will include short technical notes on design and O&M of water and infiltration measures, brigade protocols and simulation lessons, and restoration packages for recharge zones and slopes. Decision-maker outputs will include an

annual learning brief summarizing results, cost drivers, and policy/practice implications. The project will also contribute selected lessons to the Adaptation Fund's learning platforms and share non-sensitive outputs through relevant national coordination spaces—while keeping Agua-Bolivia's monitoring and reporting fully project-specific.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

90. **The project concept has been informed by a structured consultation process carried out through recent technical missions and multi-stakeholder dialogues in Bolivia.** These engagements combined (i) a national-level workshop and technical meetings to validate strategic priorities and delivery arrangements, and (ii) follow-up technical missions and bilateral meetings with relevant public institutions, civil society, technical partners, and development partners to refine the proposed intervention package and implementation approach. Table 6 below provides a summary of the consultative process undertaken to date.

91. **Vulnerable groups were engaged through both broad multi-stakeholder consultations and targeted dialogues, including women, youth, Indigenous Peoples, and remote rural households facing heightened exposure to drought, water scarcity, and wildfires.** In particular, the team held two dedicated consultation sessions (September 2025) with Indigenous Peoples' representative organizations, convened separately to ensure representativeness in the current institutional context. These consultations went beyond general "consideration" of vulnerable groups and directly informed the project's approach to locally led adaptation and safeguards: participants emphasized (i) the centrality of territories and the need to address pressures such as land encroachment and deforestation; (ii) recurrent wildfires and the need for community brigades, training, and early warning; (iii) water and health impacts linked to contamination (including mining/agrochemicals) and lack of basic services; and (iv) strengthening Indigenous livelihoods through value addition and market access for forest products and culturally appropriate nature-based opportunities, with explicit attention to opportunities for women and youth.

92. **The same sessions also clarified how consultation will be conducted for USPs (LLA micro-projects)**: at Concept Note stage, dialogue focused on principles, eligibility, and process, while site-specific consultations will occur during preparation and early implementation once micro-watersheds and micro-projects are identified. Indigenous representatives stressed that consultation should be continuous (not one-off), culturally appropriate, and transparent—supported by accessible materials for internal socialization, adequate time for deliberation, and (where relevant) Indigenous facilitators and local languages—along with meaningful participation in co-design, implementation, and monitoring (including community monitoring and brigades).

Consultation (date / format)	Stakeholders / consulted entities	Participants (total / women / men)	Topics discussed	Key outcomes and how reflected in project design
27–31 Jan 2025 (multi-stakeholder workshop + technical meetings)	National authorities and technical entities; subnational counterparts; cooperation partners; NGOs and other stakeholders relevant to climate finance, forests, water, and risk management	**116 / 42 / 74**	Strategic priorities for climate resilience and financing; institutional coordination; implementation feasibility; inclusion considerations; E&S requirements	Confirmed the need for a balanced package combining (i) community-driven resilience investments, (ii) local governance strengthening, and (iii) decision-support / climate information services, with clear targeting criteria and inclusion measures to ensure women and other vulnerable groups benefit.
24–28 Mar 2025 (technical mission + field discussions)	Technical agencies; local/municipal counterparts; implementing partners; field-based discussions with local actors relevant to priority landscapes	**22 / 8 / 14**	Operationalization of targeting and sequencing; risk management and preparedness; feasibility constraints; practical design adjustments	Strengthened the focus on sequencing and feasibility (quick wins plus longer-term ecosystem restoration), and reinforced the need for local capacity-building (protocols, training, O&M) to sustain outcomes.
Sep 2025 (multi-sector technical consultations + bilateral meetings)	Public institutions and planning/finance counterparts; technical agencies; development partners; NGOs and technical stakeholders; indigenous peoples' representative organizations	**53 / 21 / 32**	Institutional alignment; land/territorial governance themes; integrated fire management; protected areas and ecosystem management; coordination and complementarity; Indigenous priorities on territorial pressures, wildfire preparedness (brigades/EWS), water/health risks linked to contamination, and livelihood resilience/value addition for forest products and culturally appropriate opportunities	Confirmed the importance of clear roles and coordination while keeping project monitoring/reporting project-specific; strengthened the design emphasis on (i) community preparedness and brigades/early action, (ii) inclusive and culturally appropriate consultation for LLA/USPs with transparency and adequate deliberation time, and (iii) Indigenous participation in co-design and participatory monitoring (including leveraging traditional knowledge and community monitoring modalities), alongside investments and ecosystem restoration.

Table 6: Summary table of consultations to date[2]

[2] Note on gender estimates: Participant gender counts below are best estimates based on participant names in attendance lists (sex was not systematically captured as a field).

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

93. **The requested Adaptation Fund financing is justified because the climate risks this project targets are not adequately covered by baseline development spending in the targeted micro-watersheds.** In practice, routine investments in rural water and productive activities tend to prioritize service expansion or productivity gains, without systematically integrating climate risk (drought and flood variability, wildfire-driven impacts on forest–water functions, erosion/sedimentation) into technical design, watershed-scale planning, and long-term operation and maintenance. Similarly, disaster risk management resources are often oriented toward response after events rather than community-level prevention, preparedness, and sustained early action. This leaves a clear adaptation gap: high-vulnerability communities—often remote and with limited institutional presence—lack the tailored, climate-informed measures and local delivery mechanisms needed to reduce exposure and sensitivity in a durable way.

94. **The Adaptation Fund grant therefore covers the financing required to deliver stand-alone, measurable adaptation outcomes through the project's three components.** Specifically, the grant finances: (i) the establishment and operation of a locally led adaptation grant facility to identify and implement climate-informed micro-projects for water security and resilient livelihoods, with screening to ensure each micro-project directly reduces climate risk and has feasible O&M arrangements; (ii) community climate services and preparedness measures that strengthen early warning, inclusive training, and local response capacity, shifting the emphasis from reactive response to prevention and readiness; and (iii) ecosystem-based adaptation in micro-watersheds (restoration/stabilization and nature-based measures) targeted to hydrological function and resilience to extremes. These measures generate largely non-revenue public goods (reduced disaster losses, improved water reliability, restored ecosystem services) and entail high transaction costs for design, facilitation, and community-level governance—precisely the type of incremental adaptation cost that concessional grant financing is meant to cover rather than routine budgets or commercial finance.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

95. **Project outcomes are designed to be economically sustainable because they primarily reduce climate-related losses and stabilize critical ecosystem services (water regulation, erosion control, and reduced wildfire impacts) rather than create recurrent high-cost service models.** The project's LLA micro-projects will be screened to prioritize low-regret measures with clear beneficiary demand, feasible unit costs, and implementable operation and maintenance (O&M) arrangements. For Component 1, the emphasis on community-driven solutions and local institutions is expected to increase uptake and durability: the project will build practical capacity for planning, implementation, and O&M at community and municipal levels, and will embed micro-project selection and oversight in transparent local decision-making processes. For Component 3, ecosystem-based adaptation (restoration/stabilization and nature-based measures) is inherently lower-cost over the long run than hard infrastructure alternatives and is designed to generate sustained watershed benefits if maintenance responsibilities and incentives are clear.

96. **To ensure financial sustainability post-project—especially for Component 1 water-related facilities and Component 3 measures—the project will require each relevant micro-project to include an O&M plan and financing arrangement as a pre-condition for approval and disbursement.** Depending on the asset type and local context, O&M will be covered through a combination of: (i) community-level management committees with agreed rules and roles, endorsed by community assemblies; (ii) modest user contributions where socially acceptable and appropriate; and/or (iii) formal linkages to municipal budgets and service responsibilities for periodic maintenance and technical support. The project will also finance training and simple tools for O&M, and will include post-completion checks during implementation support to verify functionality and address early failures. Replication and scaling will be achieved through a practical package of products and routines developed under the project: standardized micro-project typologies and technical notes, screening and O&M templates, an evidence base on costs and performance, and a learning and dissemination program with municipalities, departmental actors, and national technical entities. This will allow other public programs and partners to adopt proven designs and delivery mechanisms, and will support the gradual expansion of the locally led approach beyond the initial micro-watersheds.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

97. **An initial screening against the Adaptation Fund's Environmental and Social Policy (ESP) indicates that Agua-Bolivia will generate predominantly positive environmental and social impacts, with no significant adverse effects anticipated.** The project is preliminarily classified as Category B, as potential risks are site-specific, small-scale, and can be managed with established mitigation measures. No Category A (significant, widespread, irreversible) risks have been identified.

98. **The key risks and mitigation measures by ESP principle are summarized as the following:**

- **Compliance with Law – Low risk.** All actions will comply with Bolivian law and required permits. Oversight will be ensured through the ESMP in coordination with competent authorities.
- **Access and Equity – Low to moderate risk.** Risks of perceived inequities in benefit distribution will be mitigated by transparent beneficiary selection, clear eligibility criteria, active monitoring of participation, and an accessible grievance mechanism.
- **Marginalized and Vulnerable Groups – Low risk.** The project is designed to benefit Indigenous peoples, rural poor, women, and youth. Measures include targeted outreach, culturally adapted methodologies, and flexible scheduling to ensure equitable participation.
- **Human Rights – Very low risk.** Activities uphold rights to a healthy environment, water, and participation. FPIC will be applied for Indigenous territories, with safeguards to avoid any unintended restrictions on livelihoods.
- **Gender Equality and Women's Empowerment – Moderate risk.** Gender gaps will be addressed through a Gender Action Plan, ensuring women's equitable participation and leadership, childcare provision where relevant, and sex-disaggregated monitoring of outcomes.
- **Core Labour Rights – Low risk.** No child or forced labor. All labor will comply with Bolivian and international standards. OHS protocols, PPE, and training will be mandatory for high-risk roles such as firefighting.

- **Indigenous Peoples – Low risk.** Indigenous communities are primary beneficiaries. FPIC, local languages, and traditional governance structures will be central to engagement.
- **Involuntary Resettlement – No risk.** No physical displacement. Activities will be implemented on degraded or communal lands with documented consent.
- **Protection of Natural Habitats – Low risk, positive impact.** Restoration will avoid critical habitats and focus on degraded areas, coordinated with SERNAP for work near protected areas.
- **Conservation of Biological Diversity – Low risk, positive impact.** Restoration will use only native species; no invasive or exotic species will be introduced.
- **Climate Change – Very low risk.** Project activities are adaptation-focused and will contribute mitigation co-benefits through reduced fire emissions and increased carbon sequestration.
- **Pollution Prevention and Resource Efficiency – Low risk.** Integrated pest management and biodegradable nursery inputs will minimize waste and chemical use.
- **Public Health – Low risk.** Fire prevention reduces smoke-related illnesses; health and safety measures, first aid, and links to local health services will mitigate occupational and community risks.
- **Physical and Cultural Heritage – Low risk.** Cultural sites will be identified with communities and avoided; chance-find procedures will be applied.
- **Lands and Soil Conservation – Very low risk.** Terracing, infiltration works, and EbA restoration will improve soil conservation, while temporary construction disturbances will be mitigated with erosion control best practices.

99. **World Bank ESF – Complementary Safeguards. As the Implementing Entity, the World Bank will apply its Environmental and Social Framework (ESF), which provides an additional layer of due diligence:**

- **ESS1** – Assessment and management of risks: ESCP, ESMF/ESMPs, screening tools aligned with national law and AF ESP.
- **ESS2** – Labor and working conditions: LMP, worker GRM, OHS measures, codes of conduct including GBV/SEA provisions.
- **ESS3** – Resource efficiency and pollution prevention: efficient water use, erosion/sediment control, waste management for nurseries and works.
- **ESS4** – Community health and safety: safe siting and design of small works, wildfire preparedness, traffic and construction safety.
- **ESS5** – Land acquisition: no land acquisition or involuntary resettlement expected; any land access will be voluntary and documented.
- **ESS6** – Biodiversity: strict avoidance of critical habitats; restoration enhances ecosystem services.
- **ESS7** – Indigenous Peoples: culturally appropriate engagement; FPIC; documentation of broad community support.
- **ESS8** – Cultural heritage: chance-find procedures and coordination with authorities.
- **ESS10** – Stakeholder engagement: SEP and multi-tier GRM accessible to women, Indigenous peoples, and other vulnerable groups.

Environmental and Social Management

100. **A full Environmental and Social Management Plan (ESMP) will be developed for the full proposal stage, outlining mitigation measures, responsibilities, budgets, and monitoring.** A multi-channel grievance mechanism accessible at community level will ensure transparency and accountability. M&E will track compliance (e.g., inclusion rates, habitat impacts, grievance resolution), with corrective actions applied as needed.

101. **Agua-Bolivia is designed to deliver environmental and social benefits. Identified risks are minor, site-specific, and manageable through established safeguards and the joint application of national law, the Adaptation Fund ESP, and the World Bank ESF.** Continuous consultation and inclusive governance will ensure that communities not only benefit from improved water security, preparedness, and restoration, but also confirm that the project respected their rights, strengthened their capacities, and left them better prepared for climate challenge.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		Risk: non-compliance with permits/authorizations (water abstraction/use, works in riparian areas, protected/forest areas), and local bylaws. Level: low–moderate. Activities: Component 1 small water works (e.g., intakes, storage, small conveyance), Component 3 restoration/stabilization works, Component 2 installations/equipment storage. Compliance: legal screening at micro-project (USP) level; permit/authorization checklist embedded in the USP screening tool; no disbursement until evidence of required permits/authorizations; contractor clauses for legal compliance; monitoring in ESMP/ESMF.
Access and Equity		Risk: benefits captured by better-connected groups; exclusion of remote households, women, or poorer producers from LLA grants/training; unequal access to improved water points or livelihood support. Level: moderate. Activities: Component 1 grant selection and community governance; Component 2 training and early-warning access. Compliance: transparent eligibility/selection criteria; inclusive facilitation; outreach to women-led/Indigenous organizations; disclosure of selection results; grievance mechanism accessible locally; monitoring of beneficiaries with sex/age/Indigenous status where feasible.
Marginalized and Vulnerable Groups		Risk: disproportionate adverse impacts on vulnerable groups (e.g., increased time burden, barriers to participation, loss of access to resources if local rules change). Level: moderate. Activities: Component 1 O&M committees/rules; Component 3 land-use/restoration measures; Component 2 preparedness protocols. Compliance: vulnerability screening in USP design; targeted participation measures (timing, language, safe spaces); avoid measures that restrict customary access without agreed alternatives; monitoring of distributional effects and corrective actions through ESMP/ESMF.

Human Rights	✓	
Gender Equality and Women's Empowerment		Risk: women have limited voice in micro-project decisions; unequal access to benefits (assets, training, jobs); safety/mobility barriers for participation in preparedness/brigades. Level: moderate. Activities: Component 1 LLA process and O&M arrangements; Component 2 training/brigades; Component 3 restoration jobs and maintenance. Compliance: initial gender assessment (CN) and full Gender Action Plan at full proposal stage; gender-responsive facilitation (meeting times, targeted outreach); sex-disaggregated monitoring; grievance channels for SEA/SH-type concerns as relevant.
Core Labour Rights		Risk: use of informal labor without clear conditions; OHS incidents during works; potential child labor in contracted/community works if not controlled. Level: moderate. Activities: construction/rehabilitation under Components 1 and 3; procurement of services; training/field activities. Compliance: labor management procedures within ESMP/ESMF; contractor requirements (no child/forced labor; fair conditions); OHS plan and PPE; worker grievance channel; supervision and incident reporting.
Indigenous Peoples		Risk: inadequate culturally appropriate engagement; measures affecting Indigenous institutions, customary resource use, or cultural values; benefit-sharing not aligned with Indigenous priorities. Level: moderate (context-dependent, potentially higher in Indigenous territories). Activities: all components in Indigenous areas, especially Component 1 USPs and Component 3 restoration/access rules. Compliance: culturally appropriate consultations and decision-making consistent with Indigenous rights; documentation of broad community support/consent as applicable; Indigenous participation in governance; tailored communication (language/format); screening to avoid impacts on customary rights; grievance mechanism adapted for Indigenous communities.
Involuntary Resettlement	✓	
Protection of Natural Habitats		Risk: localized habitat disturbance from works in/near riparian forests, wetlands, or protected areas; vegetation clearing; temporary access tracks. Level: moderate (location-dependent). Activities: Component 3 restoration/stabilization; Component 1 water works near streams/springs; fire management support under Component 2. Compliance: screening to avoid critical habitats and legally protected zones unless permitted and impacts are negligible/mitigated; site-specific ESMP measures (work methods, timing, revegetation); supervision and compliance checks.
Conservation of Biological Diversity		Risk: unintended biodiversity loss from poorly sited works; introduction of invasive species through restoration planting or materials; disturbance during fire management. Level: moderate. Activities: Component 3 restoration, nurseries/planting, erosion control; Component 1 small works and catchment measures. Compliance: use native species only; invasive species screening; biodiversity-sensitive siting; restoration design standards; monitoring of survival and ecological outcomes; prohibition of known invasive species in procurement/specifications.

Climate Change	✓	
Pollution Prevention and Resource Efficiency		Risk: localized pollution from construction waste, fuels/lubricants, sediment runoff into streams; poor disposal of solid waste; inefficient water abstraction. Level: moderate. Activities: Component 1 water works; Component 3 stabilization works; Component 2 equipment storage/maintenance. Compliance: waste management and spill prevention measures in site ESMPs; erosion/sediment controls; safe storage of fuels/chemicals; specifications on disposal; water abstraction safeguards (limits, seasonal considerations) as applicable; monitoring and corrective actions.
Public Health		Risk: community safety during works; water quality risks if systems are poorly designed/maintained; vector breeding if storage is unmanaged; occupational accidents. Level: moderate. Activities: Component 1 water supply/storage; Component 3 works near communities; Component 2 trainings/brigade activities. Compliance: community health and safety measures (signage, safe work sites); water quality safeguards (basic testing/standards and O&M training); vector control provisions for storage; OHS plans for workers; incident reporting and response.
Physical and Cultural Heritage		Risk: chance finds during small excavations; disturbance to sacred/culturally important sites or customary access routes. Level: low–moderate (site-dependent). Activities: Component 1 small civil works; Component 3 stabilization/restoration earthworks. Compliance: screening with communities prior to siting; avoidance of cultural sites; chance finds procedure in contractor clauses; stop-work and notification protocols; documentation in site ESMPs.
Lands and Soil Conservation		Risk: temporary or localized soil erosion from earthworks; slope instability if poorly engineered; unintended land degradation if grazing/land-use practices shift without safeguards. Level: moderate. Activities: Component 3 slope stabilization, erosion control, restoration; Component 1 small works and catchment measures. Compliance: erosion and sediment control measures; engineering standards for slopes; phased works and site rehabilitation; land-use measures designed with users and accompanied by practical support; monitoring of erosion/soil outcomes in priority sites.

Table 7: Environmental and social principles screening checklist

PART III: IMPLEMENTATION ARRANGEMENTS

A. Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

131. Indicators and targets in the results matrix are preliminary and will be refined during full proposal development, once specific intervention areas (micro-watersheds and communities) are selected, baselines are established, and technical designs are finalized. The grant amounts shown per objective/outcome correspond to the component-based budget of Agua-Bolivia. While they are presented against thematic outcomes for results tracking, the project's total financing also supports a cross-cutting implementation approach: continuous technical support to communities and municipalities, adaptive management and learning cycles, monitoring–evaluation and knowledge sharing, inclusive participation of women, Indigenous peoples and youth, safeguards and grievance redress, transparent procurement and financial management, and coordination across components and levels of government. This approach ensures coherent, accountable, and scalable adaptation results.

Project Outcomes	Project Outcome Indicators	Adaptation Fund Outcome	Adaptation Fund Outcome Indicator	Grant Amount (USD)
Component 1: Locally Led Adaptation for Water & Livelihoods				
Outcome 1.1. Vulnerable households and communities have more reliable and climate-resilient water access for domestic and productive uses.	Number of households benefiting from improved water supply assets	**Outcome 4:** Increased adaptive capacity within relevant development sector services and infrastructure assets	**4.2** Physical infrastructure improved to withstand climate change and variability-induced stress	2,250,000
Outcome 1.2. Households adopt climate-resilient production systems and diversify livelihoods to reduce climate-related income and food security risks.	% of participating households applying at least one climate-resilient production / soil-water management practice	**Outcome 6:** Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	**6.1** Percentage of households and communities having more secure access to livelihood assets	1,550,000
Component 2: Community Climate Services & Preparedness				
Outcome 2.1. Climate information is translated into locally owned preparedness protocols and early actions.	Number of communities/municipalities with co-developed preparedness protocols institutionalized	**Outcome 1:** Reduced exposure to climate-related hazards and threats	**1** Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	1,050,000

Outcome 2.2. Communities have functional response capacity through trained and equipped brigades integrated with municipal DRM systems	No. of brigade members trained and equipped (by gender)	**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	**2.1** Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	1,150,000
Component 3: Micro-Watershed Ecosystem-Based Adaptation (EbA)				
Outcome 3.1. Priority micro-watersheds and recharge areas regain hydrological function and stability, reducing erosion and sediment risks.	Hectares under assisted natural regeneration/enrichment planting	**Outcome 5:** Increased ecosystem resilience in response to climate change and variability-induced stress	**5.** Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	2,347,877
Outcome 3.2. Soil moisture, ground cover, and productive resilience improve through sustainable pasture and soil management.	Ha of pasture/cropland under improved management			
Total outcome level grant amount				**8,347,877**
Project Outputs	**Project Outputs Indicator(s)**	**Adaptation Fund Output**	**Adaptation Fund Output Indicator**	**Grant Amount (USD)**
Component 1: Locally Led Adaptation for Water & Livelihoods				
Output 1.1.1. Community-designed water access assets with community-led O&M arrangements are strengthened	No. of water supply systems installed/rehabilitated	Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	2,250,000
Output 1.1.2. Recharge-zone infiltration and soil-water conservation micro-works are implemented	Ha under infiltration/soil-water conservation measures			
Output 1.2.1. Households adopt climate-resilient cropping and soil management packages	No. of households adopting climate-resilient crop/soil practices (sex-disaggregated where feasible)	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	1,550,000
Output 1.2.2. Agroforestry/silvopastoral systems and livelihood resilience measures are established/strengthened	Ha under agroforestry/silvopastoral systems established/strengthened; No. of women-/Indigenous-led initiatives supported			
Component 2: Community Climate Services & Preparedness				
Output 2.1.1. Community climate services and preparedness systems are strengthened	No. of community/municipal preparedness protocols adopted; No. of people reached by alerts	Output 1.2: Targeted population groups covered by adequate risk reduction systems	1.2.1. Percentage of target population covered by adequate risk-reduction systems	1,050,000

Output 2.2.1. Community response capacity is strengthened through trained/equipped brigades, coordination with municipal DRM systems, and simulations	No. of brigade members equipped (by gender); No. of simulations exercises	Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	1,150,000
Component 3: Micro-Watershed Ecosystem-Based Adaptation (EbA)				
Output 3.1.1. Micro-watershed restoration and stabilization package implemented	Ha under assisted natural regeneration/enrichment planting; Km/ha of riparian and spring buffers restored	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	2,347,877
Output 3.2.1. Sustainable pasture and soil management package implemented	Ha under pasture recovery/rotational grazing			
Total output level grant amount				**8,347,877**

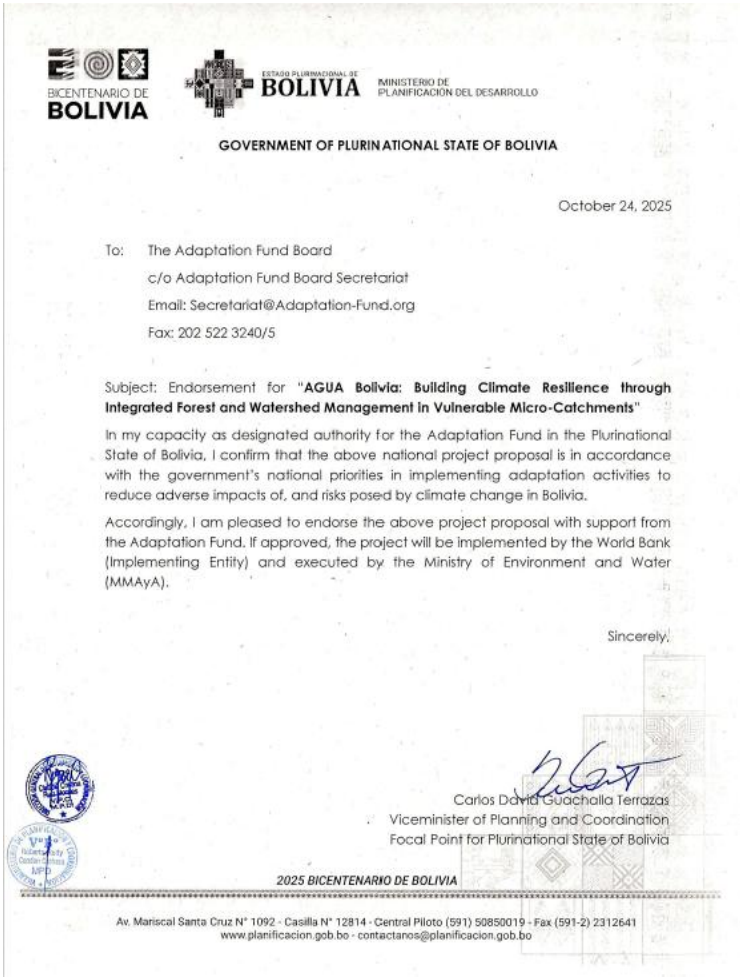
Table 8: Results framework

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2]: *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template.*

Carlos David Guachalla Terrazas, Vice Minister of Planning and Coordination, Ministry of Planning and Development	October 24, 2025



BICENTENARIO DE BOLIVIA

ESTADO PLURINACIONAL DE BOLIVIA — MINISTERIO DE PLANIFICACIÓN DEL DESARROLLO

GOVERNMENT OF PLURINATIONAL STATE OF BOLIVIA

October 24, 2025

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for **"AGUA Bolivia: Building Climate Resilience through Integrated Forest and Watershed Management in Vulnerable Micro-Catchments"**

In my capacity as designated authority for the Adaptation Fund in the Plurinational State of Bolivia, I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks posed by climate change in Bolivia.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the World Bank (Implementing Entity) and executed by the Ministry of Environment and Water (MMAyA).

Sincerely,

Carlos David Guachalla Terrazas
Viceminister of Planning and Coordination
Focal Point for Plurinational State of Bolivia

2025 BICENTENARIO DE BOLIVIA

Av. Mariscal Santa Cruz N° 1092 - Casilla N° 12814 - Central Piloto (591) 50850019 - Fax (591-2) 2312641
www.planificacion.gob.bo - contactanos@planificacion.gob.bo

B. **Implementing Entity certification***Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (……list here…..) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

[6.] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

BICENTENARIO DE BOLIVIA

ESTADO PLURINACIONAL DE BOLIVIA

MINISTERIO DE PLANIFICACIÓN DEL DESARROLLO

La Paz, 24 OCT 2025

MPD/VPC/DGSC-NE 0542/2025

Señor
Gilvio Janayo Caricari
Viceministro de Medio Ambiente, Biodiversidad,
Cambio Climático y Gestión y Desarrollo Forestal a.i.
MINISTERIO DE MEDIO AMBIENTE Y AGUA
Presente. –

Ref.: Remisión de la carta de endoso

De mi consideración:

Mediante la presente, tengo a bien remitir, para los fines que correspondan, la carta de endoso que aprueba el proyecto "AGUA: Construyendo resiliencia climática a través de gestión integrada de bosques y cuencas hidrográficas en microcuencas vulnerables", para ser presentado ante el Fondo de Adaptación (FA), en calidad de Autoridad Designada ante dicho organismo.

Con este motivo, saludo a usted con las atenciones de mi más alta y distinguida consideración.

Carlos David Guachalla Terraza
VICEMINISTRO DE PLANIFICACIÓN Y COORDINACIÓN
MINISTERIO DE PLANIFICACIÓN DEL DESARROLLO

DIRECCIÓN GENERAL DE SEGUIMIENTO Y COORDINACIÓN
V°B°
Cecilia Cristina
M.P.D.

V°B°
Roberto Rudy Condori Cachaca
MPD

H.R.: MPD/VU-16927/2025
CDGT/CCRM/Roberto Condori
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Zhihong Zhang  Implementing Entity Coordinator	
Date: *February 10, 2026*	Tel. and email: 202-473-9852 Zzhang2@worldbank.org
Project Contact Person: Mizushi Satoh	
Tel. And Email: msatoh@worldbank.org	

Revised PFG Submission Form[1] (additions in red)

Project Formulation Grant (PFG)

Submission Date: March 4th, 2026

Adaptation Fund Project ID: TBD
Country/ies: Plurinational State of Bolivia
Title of Project/Programme: AGUA Bolivia – Building Climate Resilience through Locally Led Adaptation in Vulnerable Micro-Watersheds
Type of IE (NIE/RIE/MIE): MIE
Implementing Entity: World Bank (IBRD)
Executing Entity/ies: World Bank (IBRD)

A. Project Preparation Timeframe

Start date of PFG	June 15, 2026
Completion date of PFG	May 31, 2027

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
1. Country- and site-specific climate risk, vulnerability and adaptation options assessment	Site-specific climate risk and vulnerability assessment; identification of context-specific adaptation options	18,000	• Climate risk and vulnerability assessment consultancy (lump sum): US$18,000 – compilation and review of existing climate, hydrological and environmental data. - analysis of hazards, exposure and vulnerability at micro-watershed level – identification and screening of feasible adaptation and hazard mitigation options – preparation of technical notes and synthesis report

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

2. Development of project options, implementation arrangements and preliminary indicators through participatory design	Defined project components, activities, implementation arrangements, preliminary indicators and cost estimates	28,000	• Project design and implementation arrangements consultancy (lump sum): US$18,000 – development of project and sub-project options and activity packages – definition of components, implementation arrangements and cost estimates – preparation of background technical papers and option notes – assessment of executing partners' institutional and operational capacity • Structured technical design workshops (non-territorial): US$10,000 – multi-session technical workshops with executing entity, subnational actors and experts – facilitation, materials, documentation and iterative refinement of design choices
3. Design of Locally Led Adaptation (LLA) small-grants facility (USP – fixed framework)	Operational design of LLA facility, grant cycle operation, decision-making roles and fiduciary flows	32,250	• LLA small-grants facility design consultancy (lump sum): US$20,000 – technical design of the grant cycle, eligibility criteria and sub-project typologies – definition of fiduciary flows, approval procedures and risk controls – preparation of operational guidelines, templates and tools, including: sub-project application and appraisal templates; screening and eligibility checklists; decision-making matrices and roles • LLA co-design workshops for governance and decision-making: US$12,250 – facilitated technical workshops with the executing entity, subnational actors and experts – validation and iterative

			refinement of operational rules and instruments
4. Environmental, Social, Gender and Indigenous Peoples safeguards framework for USPs	ESP-compliant screening tools, FPIC procedures, GRM and mitigation measures	23,000	• Environmental, social and gender safeguards consultancy (lump sum): US$17,000 – ESP risk screening and categorization for community-driven USPs – development of exclusion criteria, screening checklists and mitigation measures • Safeguards design and validation workshops (technical): US$6,000 – technical sessions to validate safeguards, FPIC approach and GRM with key stakeholders
5. Territorial consultations and participatory validation in selected micro-watersheds	Documented local consultations validating priorities, design choices and LLA arrangements	23,000	• Territorial consultations and participatory validation process (lump sum): US$23,000 – community-level consultations and workshops in selected micro-watersheds – engagement with Indigenous peoples, women and local authorities – local travel and subsistence – translation into local languages where required and documentation of results
6. Development of the project results framework, M&E and learning approach	AF-aligned results framework, indicators, M&E and learning approach	13,000	• Project results framework and M&E consultancy (lump sum): US$13,000 – finalization of Project's outcome and output indicators – definition of baselines, targets and means of verification – aggregation logic for LLA sub-project results – development of monitoring, evaluation and learning approach
IE fee (8.5%)		12,750	
Total Project Formulation Grant		150,000	

Description of Activities:

Activity 1. Country- and site-specific climate risk, vulnerability and adaptation options assessment

(US$18,000)

This activity will support a country- and site-specific assessment of climate risks and vulnerabilities, including the preliminary identification and prioritization of specific micro-watersheds and water recharge zones to be targeted under AGUA Bolivia. The assessment will focus on key climate hazards—particularly droughts, floods and wildfires—together with exposure pathways and vulnerability drivers affecting water security, ecosystems and climate-sensitive livelihoods.

The activity will include the compilation and review of existing climate, hydrological and environmental data; analysis of hazards, exposure and vulnerability at micro-watershed level; and the application of technical prioritization criteria (including climate risk, ecosystem condition, water security relevance and socio-economic vulnerability) to preliminarily prioritize micro-watersheds for project intervention. It will also identify and screen feasible adaptation and hazard mitigation options appropriate to local biophysical and socio-economic conditions. Outputs will be consolidated in technical notes and a synthesis report to inform subsequent project design.

This activity is required to ensure that project interventions are grounded in site-specific climate risks and clearly defined geographic priorities, in line with Adaptation Fund eligibility requirements. The requested budget reflects a focused technical consultancy covering analysis, prioritization and documentation, without financing new large-scale studies.

Activity 2. Development of project options, implementation arrangements and preliminary indicators through participatory design (US$28,000)

This activity will support the development and refinement of concrete project and sub-project options through a structured participatory design process. Building on the climate risk and vulnerability assessment, the activity will translate adaptation priorities into clearly defined project components, activities, implementation arrangements and cost estimates, ensuring technical feasibility and operational readiness.

The activity will include: (i) preparation of background technical papers and option notes; (ii) structured, non-territorial technical design workshops with the executing entity, subnational actors and technical experts to deliberate on design choices; and (iii) the participatory identification of preliminary, design-level indicators and milestones to support internal project structuring and decision-making. These preliminary indicators will be identified through participatory design processes and are intended solely to support internal project structuring, coherence and feasibility at the design stage

The activity will also assess the institutional and operational capacity of executing partners, identifying capacity gaps and implementation risks to inform final project arrangements. The requested budget reflects the combination of specialized technical inputs and multiple structured design workshops required to support a credible and participatory design process.

Activity 3. Design of Locally Led Adaptation (LLA) small-grants facility (USP – fixed framework) US$32,250

This activity will design the operational architecture of the LLA small-grants facility, which is a central element of AGUA Bolivia. At Concept Note stage, community-level interventions qualify as Unidentified Sub-Projects within a fixed framework, requiring a clearly defined operational design prior to submission of the full proposal.

The activity will define the full grant cycle, eligibility criteria and typologies of sub-projects, devolved decision-making roles and responsibilities, fiduciary flows and approval procedures. It will also deliver operational guidelines, templates and tools, including sub-project application and appraisal templates, screening and eligibility checklists, and decision-making matrices. These outputs will be developed and refined through structured LLA co-design workshops with the executing entity, subnational actors and technical experts.

The design of the LLA facility will be informed by inclusive and participatory principles consistent with the spirit of Free, Prior and Informed Consent (FPIC), while recognizing that proposed interventions are small-

scale, community-driven adaptation actions and do not involve large-scale infrastructure. The requested budget reflects the specialized and operational nature of this work and the need for iterative co-design to operationalize devolved decision-making.

Activity 4. Environmental, Social, Gender and Indigenous Peoples safeguards framework for USPs US$23,000

Given the use of a community-driven USP approach, this activity will develop a proportional environmental, social, gender and Indigenous Peoples safeguards framework compliant with the Adaptation Fund Environmental and Social Policy and Gender Policy, as well as the World Bank Policies. The framework will include risk categorization, exclusion criteria, screening checklists, mitigation measures, culturally appropriate engagement approaches consistent with FPIC principles, and a project-level grievance redress mechanism.

The activity will combine specialized safeguards consultancy inputs with technical validation workshops to ensure that the framework is practical, proportionate to risk, and usable within a LLA adaptation context. Particular attention will be given to aligning safeguards requirements with devolved decision-making processes under the LLA facility.

This activity is required to enable community-driven decision-making within the LLA framework, while ensuring environmental integrity, social inclusion and protection of rights. The requested budget reflects the need for specialized expertise and iterative validation of safeguards instruments, which is particularly important when financing multiple community-driven sub-projects.

Activity 5. Territorial consultations and participatory validation in selected micro-watersheds US$23,000

This activity will support territorial participatory and consultative processes in selected micro-watersheds to validate geographic priorities, locally relevant adaptation options, and key elements of the LLA design. Engagement will involve Indigenous peoples, women's groups, youth representatives, community organizations and municipal authorities, using culturally appropriate approaches and local languages where required.

The activity is intended to ensure that project design reflects local knowledge, differentiated vulnerabilities and community perspectives, and to strengthen the legitimacy and relevance of locally led adaptation actions. These processes are participatory and consultative in nature, proportionate to the scale and scope of the proposed project interventions.

The requested budget reflects costs associated with facilitation, local travel, translation, documentation and iterative engagement at the territorial level.

Activity 6. Development of the project results framework, M&E and learning approach (aligned with the Adaptation Fund Results Framework) (US$13,000)

This activity will support the development of the project-level results framework, building on the indicators and results logic already outlined at the concept stage and ensuring alignment with the Adaptation Fund Results Framework. It will further define project-specific outcomes, outputs and indicators, together with indicative baselines, targets and means of verification, consistent with Adaptation Fund requirements.

The activity will also articulate the project's monitoring, evaluation and learning approach at the design stage, including the overall logic for tracking results across locally led sub-projects and outlining the basis for a monitoring plan to be fully developed during the implementation phase.

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Zhihong Zhang		February 10, 2026	Mizushi Satoh	+1-2028765174	msatoh@worldbank.org

Annex 1. Initial Gender Assessment (Concept Note stage)

A. Objective, scope, and Concept Note limitations

This initial assessment identifies plausible gender-differentiated climate vulnerabilities, roles, and constraints relevant to the project's focus on strengthening resilience to hydrological imbalances and extremes through locally led adaptation investments, micro-watershed governance, and ecosystem-based measures. Because micro-projects are not yet identified (USPs) and will be defined through a participatory process during preparation and early implementation, the analysis is indicative and will be validated and refined through the full gender assessment at full proposal stage.

B. Initial findings: why gender matters for hydrological resilience in targeted micro-watersheds

Differentiated impacts and needs. Hydrological extremes can affect women and men differently depending on how water is accessed and managed at household and community level, the type of livelihoods pursued, and who participates in preparedness and response. In many rural settings, women carry a larger share of domestic water responsibilities (collection, storage, household water safety), so drought-related water scarcity can translate into higher time burdens, reduced time for income generation and community participation, and increased stress on household wellbeing. Climate shocks also affect livelihoods differently: men and women may have different roles in production, processing, and marketing (and different control over income), which can shape who can adopt new practices and who captures benefits. During disasters (floods, fires), social norms and safety considerations can constrain women's participation in response functions and decision-making, even where women play critical roles in early action and recovery at household and community level.

Constraints likely to be relevant at project sites. At the outset, the project assumes the following constraints may apply in parts of the target area (to be confirmed through fieldwork): (i) barriers to voice and leadership in community committees; (ii) time poverty due to unpaid care and domestic tasks; (iii) limited access to productive assets, finance, and information; (iv) mobility and safety constraints affecting participation in trainings, consultations, and response activities; and (v) compounding exclusion for Indigenous women where language and cultural norms require tailored engagement modalities.

C. Design implications embedded at Concept Note stage

1) Locally led adaptation micro-grants (USPs). To avoid elite capture and ensure equitable access to benefits, the micro-grants mechanism will (i) use inclusive facilitation and outreach so women (including Indigenous women) can meaningfully influence priorities; (ii) apply transparent eligibility and selection criteria that enable women-led groups to compete; and (iii) screen each micro-project for gender risks and opportunities before approval, including who benefits, who bears O&M burdens, and whether the design reduces (or increases) unpaid workload. Where feasible, micro-projects will include features that reduce women's time burden and improve safe access to water and livelihood options.

2) Water governance and O&M. For water-related micro-projects, governance arrangements (committees, statutes/rules, O&M plans, training) will explicitly promote women's meaningful participation and leadership. Practical measures may include meeting times/venues that accommodate women's schedules, accessible training formats, and clear roles to avoid shifting disproportionate unpaid O&M responsibilities onto women.

3) Preparedness, climate services, and response capacity. The project will design early-warning communication and preparedness protocols so that women's roles in household-level early action and recovery are reflected. Recruitment and training for brigades and response systems will be inclusive and

safe, with attention to barriers (time, norms, safety), appropriate equipment and protocols, and roles for women beyond traditionally assigned tasks.

4) Ecosystem-based adaptation and restoration. Restoration and land/watershed management activities can create jobs and stewardship roles. The project will promote fair access to these opportunities for women through targeted outreach, skills training, and locally appropriate work modalities, and will track benefits and participation in a sex-disaggregated way.

D. Key gender risks and initial mitigation measures

- **Exclusion from decision-making / elite capture:** mitigate via transparent selection criteria, documentation of participation, and facilitation approaches that enable women's voice in prioritization.
- **Increased unpaid workload:** mitigate by screening micro-project designs for workload impacts, incorporating time-saving features, and scheduling trainings/meetings in ways that work for women (and considering childcare/logistics where locally relevant).
- **Safety and harassment risks in participation and response roles:** mitigate through safe consultation spaces, codes of conduct, grievance channels, and practical safety measures for trainings and brigade participation.
- **Insufficient attention to Indigenous women's perspectives:** mitigate via culturally appropriate engagement (language, separate focus groups where useful, women facilitators where appropriate) and evidence of how feedback changes design.

E. Commitments for full proposal stage (Gender Action Plan)

At full proposal stage, the project will complete (i) a detailed gender assessment based on field consultations and sex-disaggregated data, and (ii) a time-bound Gender Action Plan integrated into component workplans and budgets. The plan will define actions, responsibilities, and monitoring arrangements tailored to each target micro-watershed and the final micro-project pipeline.

F. Indicative gender-responsive indicators (to refine at full proposal stage)

- Sex-disaggregated direct beneficiaries across components.
- Share of micro-projects demonstrating women's meaningful participation in design and at least one gender-responsive feature.
- Women's participation and leadership in water/O&M governance structures.
- Inclusion of women in preparedness/response training and (where relevant) brigade roles, with attention to safety and retention.