ADAPTATION FUND

REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to the email: submissions@adaptation-fund.org

ADAPTATION FUND

LOCALLY-LED ADAPTATION PROJECT/PROGRAMME PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Empowering Communities to Lead Ecosystem-Based Adaptation for Water Security in the Reventazón Basin of Costa Rica

Country: Costa Rica

Thematic Focal Area: Nature based solutions and Ecosystem-based adaptation

Type of Implementing Entity: National Implementing Entity

Implementing Entity: Fundecooperación para el Desarrollo Sostenible

Executing Entities: The Tropical Agricultural Research and Higher Education Center (CATIE) and Comisión para el Manejo de la Cuenca del río Reventazón (COMCURE)

Amount of Financing Requested: 5,000,000 (in U.S Dollars Equivalent)

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

NOTE: The LOE 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 proposal has been submitted before including at a different stage (pre-concept, concept, fully- developed proposal)

☒ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.

Please note that fully-developed proposal documents should not exceed 100 pages for the main document, and 100 pages for the annexes.

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.

Costa Rica's commitment to climate adaptation is articulated through its updated Nationally Determined Contribution (NDC), the National Adaptation Policy (PNACC), and the National Climate Change Strategy. These frameworks prioritize ecosystem-based adaptation (EbA), integrated water resource management (IWRM), and participatory governance as strategic pillars for reducing vulnerability across rural and urban landscapes. The updated NDC (2020) specifically highlights the urgent need to strengthen adaptive capacity in key watersheds and scale nature-based solutions through local action. This aligns with the Reventazón River Basin's role as a priority landscape for water security, agricultural resilience, and biodiversity connectivity.

While Costa Rica is globally recognized for its climate leadership, including its National Decarbonization Plan (2018), which targets net-zero emissions by 2050, and for producing over 99% of electricity from renewable sources, the country is equally focused on enhancing resilience to climate extremes. With intensifying rainfall variability, rising temperatures, and growing pressure on natural systems and local livelihoods, adaptation has become an imperative—not only a complement—to mitigation efforts.

The Reventazon river watershed is highly vulnerable to both hydro-meteorological extremes and slow-onset climate change. Climate models from the PRECIS and CORDEX platforms reveal a future marked by increased intensity and frequency of extreme rainfall events, especially between May and October. This trend correlates with growing cases of flooding, landslides, and soil loss, especially in the upper sub-watersheds of Purires, Birrís–Páez, and Orosi. Concurrently, dry-season droughts are intensifying, lowering streamflows in critical tributaries and creating conflicts among users. By 2050, temperatures are expected to rise by 1.5 to 2.3°C, affecting coffee viability, vegetable productivity, and milk yields. These changes exacerbate the socio-economic vulnerabilities of smallholders—many with less than 3 ha—and low-income families dependent on ecosystem services and agricultural income.

Accordingly, recent hydrological assessments of the Reventazón Basin indicate growing variability in rainfall and greater uncertainty in water availability for both productive and domestic needs. In particular, the Birrís–Páez and Purires sub-basins show signs of seasonal hydrological stress, with reduced recharge during the dry season and flashier runoff events during the wet season

The Reventazón River Basin is a cornerstone of Costa Rica's development and environmental sustainability. It supplies approximately 25% of the potable water for the Greater Metropolitan Area (GAM), sustains 85% of national vegetable production, and provides 30% of the country's dairy output. Critically, the basin generates 965 MW of clean hydroelectric energy, making it the most important watershed for national power production. These resources support over a million people, rural livelihoods, and vital public infrastructure, emphasizing the basin's strategic importance for national climate resilience.

Location of Reventazón river watershed
Starting point for the delimitation of the project's pilot site (red dot in the map on the right), which begins from the area of influence of the Reventazón Hydroelectric Project (PHR) and extends upstream, following the watershed divide and resulting in the map shown in Figure 1.

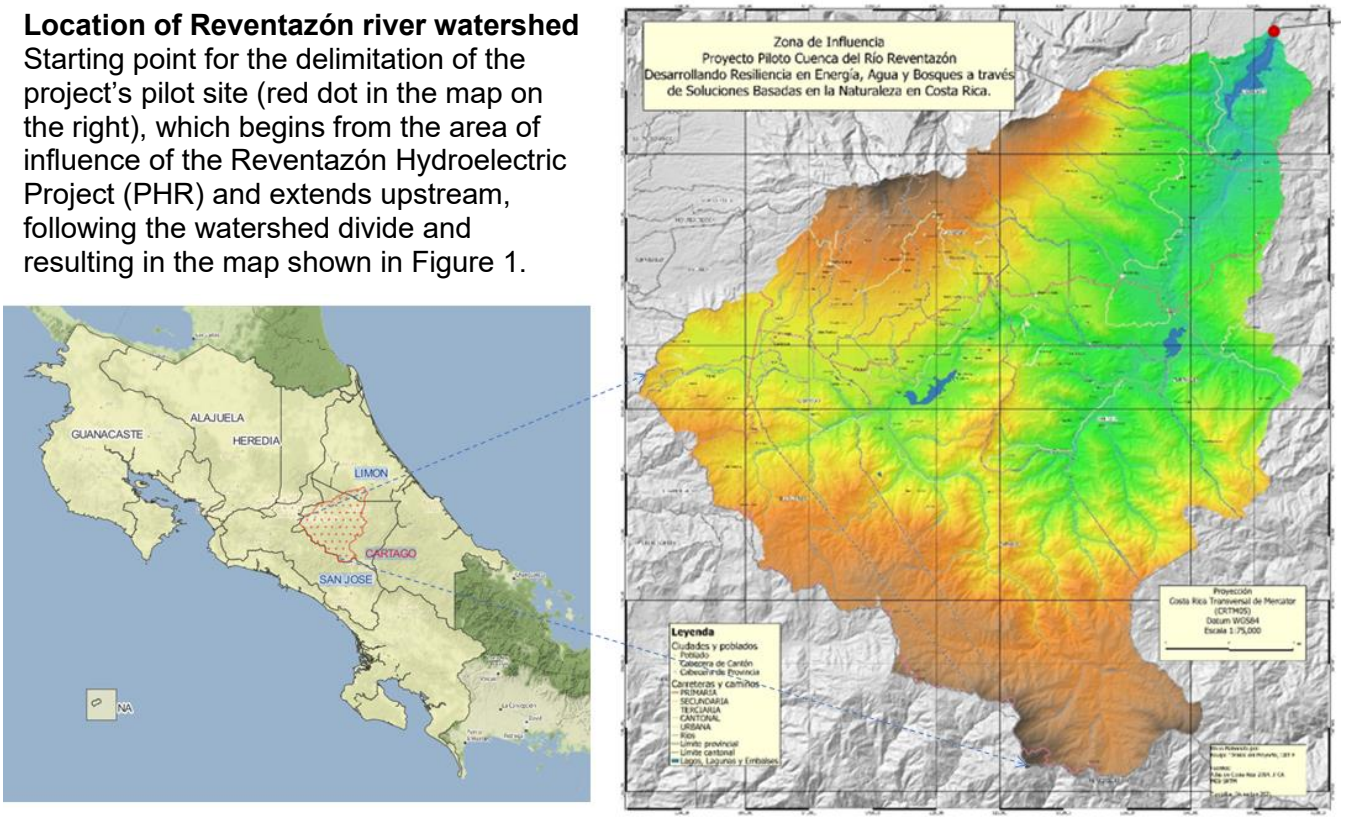

Figure 1. Location of upper and middle part of the Reventazon river Watershed as priority sites for the project. Framed within the Lambert projection coordinates Easting 578000 to 586000 and Northing 221000 to 231000. It can be located within these coordinates on the Bonilla cartographic sheet of the National Geographic Institute (IGN), at a scale of 1:50,000.

Socio-environmental analysis also reveals significant pressures due to steep terrain degradation, erosion, and the replacement of native forest with pasture or intensive crops. These trends contribute to sedimentation downstream, affecting hydroelectric production and municipal aqueducts. Households located on unstable slopes with limited economic safety nets are among the most vulnerable

This watershed is home to approximately 280,000 people, with a high concentration in rural areas characterized by poverty and limited access to basic services. According to recent socio-territorial analyses, many households face land tenure insecurity and fragmented access to climate services. Women represent over 50% of informal labor in agricultural supply chains yet are underrepresented in water management committees. Youth migration to urban centers continues to rise, weakening community cohesion and long-term stewardship of natural resources.

Community consultations and technical diagnostics confirm that despite growing awareness of climate change, many households—particularly women-led and smallholder farms—lack access to reliable climate services, technical support, and structured adaptation resources. These deficits emphasize the need for targeted education, inclusive planning, and co-implementation processes grounded in locally led adaptation.

A watershed sustainability index (WSI) applied by Rebolledo (2024) further confirmed the vulnerability gradient within the basin. This multidimensional index—combining hydrological, environmental, socioeconomic, and institutional indicators—highlighted particularly low sustainability scores in the Purires and Birrís–Páez sub-basins. These areas face water insecurity, ecosystem degradation, and limited governance capacity. Weak forest cover, land use pressure, erosion, and limited participation of

women and youth in watershed governance reduced sustainability scores. The study underscores the urgent need for coordinated EbA investments and participatory co-management mechanisms to reverse these trends and improve basin-wide resilience.

Reventazon river watershed faces overlapping challenges of forest fragmentation, unsustainable agricultural expansion, and soil erosion, particularly in its mid- and upper sections. These issues degrade ecosystem functions essential for aquifer recharge, sediment regulation, and disaster risk reduction. In parallel, smallholder producers—especially women and youth—have limited access to technical assistance, financial capital, and climate-resilient alternatives, further deepening social inequities in the basin. This proposal responds directly to these threats by empowering communities to lead locally tailored, cost-effective ecosystem-based adaptation (EbA) interventions.

Community actors in Purires, Orosi, and Birrís–Páez have independently promoted agroecological farming, reforestation of degraded riverbanks, and collective soil conservation efforts through peasant organizations and municipal alliances. However, these efforts lack coordinated support and are hindered by unstable funding, fragmented technical assistance, and insufficient integration with national adaptation frameworks. This underscores the need for a structured, inclusive approach like the one proposed here.

Recent analyses using the Sustainable Asset Valuation (SAVi) methodology (Annex 1) confirm the benefits of EbA in the Reventazón context. Measures such as riverbank restoration, terracing, and agroforestry can generate over USD 5 million in avoided losses and co-benefits for agriculture and hydropower by 2052. These interventions provide climate resilience while enhancing productivity and reducing maintenance costs for downstream infrastructure.

The SAVi model highlights that failure to act will generate cumulative losses exceeding USD 4.3 million over 30 years from sedimentation, reduced hydropower productivity, and water treatment costs. In contrast, targeted EbA investment of USD 1.5 million could yield a net present benefit of USD 6.1 million, particularly in avoided road maintenance, agricultural yield stabilization, and enhanced carbon sequestration. These numbers reaffirm that climate investment must be directed toward solutions that offer both ecological integrity and financial returns.

During participatory workshops held in 2022–2024, community members consistently identified irregular rainfall patterns, declining coffee yields, and slope instability as top risks. Farmers reported stronger runoff events damaging terraces, while women leaders emphasized increased household stress during drought. These qualitative findings were validated by hydrological data, reinforcing that climate perception and evidence-based vulnerability align—and that both should inform intervention design.

The basin not only sustains 30% of Costa Rica's dairy and vegetable production but serves as a climate buffer for the Caribbean slope through its hydrological regulation. Impacts within Reventazón have downstream consequences, including for Limón port operations and sedimentation management in the Matina basin. These interlinkages require cross-territorial thinking and underscore the regional importance of EbA investment in Reventazón.

Accelerated loss and degradation of forest cover near key water sources exacerbate these challenges. Healthy land cover and well-functioning montane ecosystems are essential for stable hydrology and consistent water availability (Saenz et al., 2014). Ecosystem-based Adaptation (EbA) measures—such as reforestation, agroforestry, and avoided deforestation—are crucial for mitigating climate change impacts. These measures help regulate water flows, reduce sedimentation, and enhance water yields in vital watersheds (Buytaert et al., 2006; Vergara et al., 2011; Locatelli et al., 2018; INAP-World Bank, 2012).

Ecosystem-based Adaptation (EbA) has been identified as a cost-effective and locally appropriate strategy to respond to these threats. Measures such as agroforestry, reforestation, and avoided deforestation not only reduce vulnerability to climate risks but also enhance co-benefits, including carbon sequestration, biodiversity conservation, and income diversification for rural communities. However, the scaling and sustainability of EbA actions often face significant financial and institutional barriers, especially for smallholder and forest-dependent populations (UNEP, 2022).

To overcome these barriers, locally led, community-driven governance models are essential. The Reventazón basin offers an opportunity to co-design adaptation responses through inclusive, multi-stakeholder partnerships involving water users, community groups, indigenous and women-led organizations, agricultural cooperatives, and local institutions.

These actors not only bear the brunt of climate impacts but also possess crucial local knowledge, cultural assets, and land stewardship experience needed to restore ecological functionality and sustain climate resilience.

Implementing EbA in the Reventazón basin offers opportunities for innovative stakeholder partnerships. Such collaborations ensure communities receive resources to restore and sustainably manage ecosystems, aiding Costa Rica in meeting its climate commitments. Local communities, including agricultural producers and forest-dependent groups, play a critical role in sustaining watershed resilience. They depend on healthy ecosystems for their livelihoods and possess traditional knowledge essential for long-term stewardship (UNEP, 2022). Empowering these groups through inclusive EbA projects provides leadership opportunities for building a sustainable and resilient future.

However, securing funding is a common challenge for locally led EbA programs (UNEP, 2022). Involving sectors reliant on water in the design and financing of community-led EbA schemes can help address this issue. Despite EbA's potential to attract investments through benefits like improved water management and reduced sedimentation costs, only 1.5% of climate finance is allocated to nature-based solutions like EbA.

Mobilizing investments from water-dependent sectors through innovative governance and incentive mechanisms can bridge this gap and ensure long-term adaptive capacity. By placing local actors at the center of planning, implementation, and monitoring, this project aligns with the LLA principles and offers a replicable model for adaptation that is grounded in justice, subsidiarity, and ecosystem integrity.

To operationalize community-led EbA schemes at local and national levels, several challenges must be addressed:

- Mobilizing Capital: Difficulty in covering upfront costs due to a lack of pilot projects demonstrating EbA benefits.
- Policy and Incentives: Existing policy gaps and missing incentives discourage investment in upstream EbA initiatives.
- Data Availability: Insufficient site-specific data hinders the creation of an evidence-based business case showing clear revenue streams and return on investment.
- Institutional Capacity: A lack of capacity to stay updated on and adhere to guidelines for EbA design and implementation.
- By addressing these challenges, Costa Rica can enhance its water security and continue to lead in sustainable development and climate change adaptation.

Activities and interventions were identified and co-designed through community consultations, sub-basin-level workshops, and local priority-setting processes led by water user groups, women’s associations, and agricultural cooperatives.

The urgency of climate threats in the Reventazón Basin—combined with its national relevance—requires immediate, inclusive, and locally led action. This project adopts the Locally Led Adaptation (LLA) framework, empowering community stakeholders to co-design and implement EbA solutions that reflect their realities, priorities, and knowledge systems. By addressing both the ecological root causes and the social drivers of vulnerability, this initiative offers a replicable model for transformational adaptation in Costa Rica and the broader region.

Project / Programme Objectives:

List the main objectives of the project/programme
The project's main objective is to strengthen the resilience of climate-vulnerable communities and Costa Rica's water sector to climate change by placing leadership, decision-making, and control over adaptation resources in the hands of local actors. Through devolved governance, community-managed innovation funds, and participatory monitoring, the project will scale Ecosystem-based Adaptation (EbA) actions across the Reventazón Basin, ensuring inclusive, equitable, and locally sustainable resilience-building.

The proposed interventions aim to benefit two key stakeholder groups: (a) supporting communities in transitioning from unsustainable agricultural practices to models of sustainable rural livelihoods, as agreed upon by project partners and community members; and (b) improving water resource management to enhance climate resilience by regulating water flows, reducing siltation, and improving overall water quality.

The project has the following specific objectives:

1. Present a solid, evidence-based business case for EbA implementation to address the vulnerabilities of local communities while strengthening water supply resilience. This will help mobilize private investment and serve as a model for replication in other areas of the country and region.
2. Identify opportunities to influence environmental and water policy, creating economic incentives or enabling financial conditions for systematic EbA deployment in watersheds critical for water supply.
3. Develop a monitoring framework to track the impacts of EbA interventions, attracting investment in and enabling better management of ecosystems that benefit both local communities and the water sector by improving rural livelihoods.
4. Develop and promote a roadmap for public and private actors to replicate EbA models across the region, sharing lessons and experiences within a regional community of practice.

Project / Programme Components and Financing[1]:

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.

For the case of a programme, individual components are likely to refer to specific sub- sets of stakeholders, regions and/or sectors that can be addressed through a set of well-defined interventions / projects.

[1] IE and EE fees calculator: https://www.adaptation-fund.org/document/ie-and-ee-fees-calculator/

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. **Component 1: Community-Guided Implementation of Ecosystem-Based Adaptation in the Upper Reventazón Basi**	Output 1.1: Ecosystem resilience is strengthened through upstream EbA interventions. Output 1.2: The adaptive capacity of water assets is enhanced through partnerships with key stakeholders. Output 1.3: The pilot project provides diversified income streams for vulnerable populations, thereby improving livelihoods and economic resilience.	EbA is demonstrated to be technically and financially effective through a pilot project.	2,600,000
2. **Component 2: Policy and Financial Enabling Environment**	Output 2.1: Government authorities define a shared vision for a policy framework to foster EbA measures. Output 2.2: A financial incentives framework is developed to promote EbA interventions at the Reventazón Basin.	Policy and financial mechanisms are promoted to support the integration of EbA in the Reventazón Basin.	858,000
3. Component 3: Replication and Scaling-Up	Output 4.1: The pilot experience is shared with other regions, encouraging the scale-up of EbA financing practices. Output 4.2: Local awareness and ownership of adaptation and climate risk reduction processes are strengthened.	EbA models are replicated and scaled up by stakeholders in Costa Rica.	700,000
6. Project/Programme Execution cost			399,760
7. Total Project/Programme Cost			4,607,760
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			391,660
Amount of Financing Requested			4,999,420

Projected Calendar:

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

Milestones	Expected Dates
Start of Project/Programme Implementation	15 March, 2026
Mid-term Review (if planned)	15 March 2028
Project/Programme Closing	15 March 2030
Terminal Evaluation	June-August 2030

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. Specify how the project/programme enables devolving decision making to the lowest appropriate level and gives local institutions and communities more direct access to finance and decision-making power over how adaptation actions are defined, prioritized, designed, implemented; how progress is monitored and how success is evaluated.

Component 1: This component will operationalize adaptation priorities identified and led by community groups through sub-basin consultations and co-design sessions in the upper watershed of the Reventazón basin, led by local institutions and community organizations. It will test and refine priority adaptation practices such as: (a) agroforestry systems; (b) silvopastoral and regenerative livestock systems; (c) contour farming; and (d) revegetation of riparian buffer zones. These nature-based solutions aim to stabilize water flows, reduce erosion, and improve dry-season water availability—addressing increasing rainfall variability and land degradation.

The pilot will be governed by a community-based steering mechanism, composed of local producers, water user associations, and representatives from women and youth groups. These actors will guide decision-making, resource allocation, and activity prioritization—strengthening subsidiarity and accountability. An Innovation Fund will be co-designed with community stakeholders to support small-scale EbA interventions. Its disbursement criteria, governance structure, and oversight mechanisms will be transparent and inclusive, ensuring resources are equitably accessed and aligned with local priorities. The fund's eligibility criteria and grant disbursements will be shaped by community-nominated committees, who also led the selection of EbA priorities during the design phase

The pilot also contributes to cross-country knowledge exchange. Lessons from implementation will be shared with national stakeholders such as MINAE and COMCURE, and through regional cooperation with counterparts in Colombia—enhancing regional EbA replication and policy uptake.

A participatory monitoring and evaluation framework will be developed and operated locally. It will integrate traditional knowledge and scientific indicators to measure resilience outcomes—such as soil health, water yield, and adaptive capacity. Community-led data collection and reflection workshops will facilitate adaptive management, learning, and ownership. The monitoring results will feed into a digital dashboard to track,

visualize, and communicate progress, enabling evidence-based scaling and cross-country comparison of EbA effectiveness.

This project was designed to align closely with the eight principles of Locally Led Adaptation (LLA), as articulated by the Adaptation Fund and allied initiatives. The table below summarizes how each principle is embedded in the project approach.

LLA Principle	**How This Project Reflects It**
1. *Devolving decision-making to the lowest appropriate level*	Component 1 is governed by a community-led steering committee; local actors also co-design and control the Innovation Fund.
2. *Addressing structural inequalities*	At least 15% of the budget is allocated to gender-responsive activities; women, youth, and Indigenous people are prioritized in training and governance bodies.
3. *Providing patient and predictable funding*	The project establishes community-controlled Innovation Funds with multi-year cycles to enable iterative adaptation.
4. *Investing in local capabilities*	Training and participatory M&E empower communities to monitor EbA outcomes and influence ongoing decisions.
5. *Building on local knowledge*	Indigenous and local knowledge is integrated in EbA planning, restoration designs, and participatory indicators.
6. *Flexibility and learning*	Real-time adjustments are made through biannual reflection cycles based on local monitoring and adaptive learning.
7. *Transparency and accountability*	Resource allocation and selection of EbA actions are made through public community meetings and documented criteria.
8. *Collaboration and subsidiarity*	Institutional coordination includes local governments, water boards, and producer groups acting as decision-makers, not just beneficiaries.

Component 2: Scaling Up EbA Implementation. To scale up ecosystem-based adaptation (EbA) across Costa Rica and catalyze long-term investment, this component focuses on policy reform and inclusive financing mechanisms. The project will establish a clear policy impact pathway by engaging local stakeholders—such as water boards, producer organizations, and community-based committees—in the co-development of policy briefs and recommendations. These will be jointly presented with institutions like COMCURE and the Ministry of Environment and Energy (MINAE) to ensure local EbA priorities shape policy design and regulatory updates.

In parallel, the project will identify legal and institutional barriers that limit EbA uptake, working with relevant authorities to design regulatory reforms and incentives that favor nature-based solutions. One key strategy will be to strengthen and adapt Costa Rica's renowned Payment for Ecosystem Services (PES) program, aligning it more closely with climate adaptation objectives. This includes piloting EbA-specific PES schemes that reward practices such as agroforestry, riparian restoration, and water retention systems. Emphasis will be placed on ensuring that local communities—particularly women, youth, and smallholder farmers—are primary beneficiaries through simplified access procedures, community aggregation models, or group-based contracts.

Furthermore, the project will facilitate dialogues between public and private sector actors to explore blended finance opportunities for EbA. This includes designing models for scaling up successful local initiatives using public co-financing, corporate water stewardship partnerships, or multilateral climate funding streams.

By aligning local innovation with policy reform and finance mobilization, this component will enable long-term institutionalization and expansion of EbA interventions beyond the pilot area—enhancing national and regional resilience to climate change.

Component 3: Knowledge Sharing and Replication: The project seeks to disseminate lessons learned and best practices through a community of practice and by publishing findings to facilitate replication. A costed roadmap for replication will be developed in collaboration with key partners, outlining financing options (e.g., government climate budgets, PES revenues, private sector co-investment), technical capacity-building needs, and institutional roles. The roadmap will include scaling milestones, a timeline, and required resource envelopes for expansion to each sub-basin. By educating and engaging stakeholders at local, national, and global levels, it promotes the widespread adoption of EbA, enhancing collective climate resilience. To build a foundation for long-term scaling, the project will establish a Community of Practice (CoP) composed of local implementers, water authorities, producer groups, and national policymakers. This CoP will document and validate lessons learned, ensuring they are translated into replicable models and practical toolkits. Results will be disseminated through multi-format communication channels, including policy briefs, farmer-oriented guides, and virtual learning exchanges. Leveraging networks like Initiative 20x20 and Cities4Forests, GLFx (Global Landscape Forum Exchange) the project extends its reach, fostering regional collaboration and capacity building. These platforms will facilitate peer learning, South-South cooperation, and technical matchmaking between governments and grassroots actors across Latin America.

Continuous outreach will cultivate a national community dedicated to advancing EbA, promoting dialogue between investors, communities, and practitioners, and facilitating the scaling of EbA across the country and region. By combining grounded experience with strategic outreach and a replication plan, this component will ensure that local innovations are scaled nationally and inform broader climate resilience strategies.
The Community of Practice will prioritize horizontal peer learning among local water boards, producer groups, and community leaders, using participatory reflection workshops and farmer-to-farmer exchanges."

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. In particular, specify how the project/programme is addressing structural inequalities faced by women, youth, children, people with disabilities, people who are displaced, Indigenous Peoples and marginalized ethnic groups.

The project introduces innovative financing mechanisms by leveraging Costa Rica's existing PES program to fund community-led EbA activities. By quantifying and monetizing the benefits of EbA—such as improved water management, reduced sedimentation costs, and enhanced water yield—it attracts private investment and demonstrates a novel approach to sustainable financing. This participatory approach incorporates local knowledge and ensures long-term sustainability by involving sectors reliant on water assets in the design and financing of EbA schemes, addressing common funding challenges for locally-led programs. Nature-based solutions strategically protect, conserve, restore, and sustainably manage ecosystems to foster climate change adaptation and resilience while providing co-benefits like improved livelihoods, health, jobs, and biodiversity.

Despite these advantages, NbS and EbA are often overlooked in climate adaptation strategies. By implementing green infrastructure—such as restoring forests, riparian areas, and grasslands in upstream watersheds—EbA can stabilize hydrologic flows, improve water quality, reduce sediment loads in rivers, and help stabilize water supply during low-flow seasons, delivering cost-saving benefits for water assets and infrastructure sectors. By building a compelling business case through robust landscape planning, business case evaluation, and community consultations, the project introduces a "pay-for-success" financing model where upfront private capital funds watershed protection and restoration, and beneficiaries like water utilities repay the investment based on improved services and reduced costs resulting from healthier ecosystems. This approach addresses common funding challenges and paves the way for larger-scale investment opportunities aligned with climate and green finance trends.

The project ensures the full and active participation of women and other vulnerable groups in all stages of design, implementation, and monitoring. Gender considerations are not only mainstreamed across components but also prioritized through specific activities and budget allocations. At least 15% of the total project budget will be allocated to gender-responsive activities, including capacity-building, leadership training

for women, and tailored support for women-led EbA initiatives.

To ensure gender-equitable governance, women will be represented in decision-making bodies, including the community innovation fund management committees and participatory monitoring teams. Targeted training and outreach will be developed to reduce structural barriers faced by women and youth in accessing financial mechanisms and technical assistance for ecosystem restoration and sustainable agriculture.

The project is fully aligned with Costa Rica's National Strategy on Gender and Climate Change (ENGCC, 2021), which promotes inclusive climate governance and economic empowerment of women in environmental sectors. By integrating ENGCC principles, the initiative supports a just transition toward climate resilience, ensuring that the benefits of adaptation reach those who are most affected and historically underrepresented.

Beyond participation, the project invests in governance structures that place communities in charge of defining priorities, overseeing funds, and adjusting interventions over time.

The proposed EbA measures are rooted in community priorities and supported by a comprehensive Sustainable Asset Valuation (SAVi) analysis. This study, led by CATIE and IISD, demonstrates the long-term cost-effectiveness and co-benefits of nature-based interventions such as reforestation, agroforestry, and slope stabilization in the Reventazón sub-basins. Key findings are summarized in Annex 1.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme., focusing on the implementation and execution arrangements, in particular the mechanism which will provide more direct access to finance.

Ecosystem-based Adaptation (EbA) offers a cost-effective, scalable solution to climate risks affecting water infrastructure, ecosystems, and rural livelihoods in Costa Rica. Compared to grey infrastructure solutions—such as dams, sediment traps, or engineered filtration systems—EbA interventions (e.g., forest restoration, silvopastoral practices, riparian buffer recovery) provide comparable or superior benefits at a lower cost, while offering multiple co-benefits. For example, studies in Latin America have shown that restoring upstream forests costs between USD 300–700/ha annually, while traditional sediment-removal infrastructure can exceed USD 2,000 per hectare in operational costs alone (Locatelli et al., 2016; World Bank, 2019).

This project builds on Costa Rica's proven Payment for Ecosystem Services (PES) model and leverages community-based partnerships to amplify impact. These models reduce long-term operational costs by empowering communities to manage and maintain natural infrastructure, rather than relying on continual external investment.
To demonstrate cost-effectiveness, the project will track indicators such as:

- Cost per hectare restored and maintained under EbA.
- Cost per household benefiting from reduced climate-related water disruptions.
- Cost per metric ton of sediment avoided through upstream intervention.

Furthermore, shared regional platforms with Colombia and the broader Latin American network will promote cross-country replication and peer learning, thus lowering the marginal cost of adaptation across sites. Lessons will be codified and disseminated via a dedicated communications package and EbA information system, supporting replication in similar watersheds.

By focusing on prevention through nature-based solutions—rather than costly remediation after climate shocks—the project achieves both economic and ecological returns. These strategies align with Costa Rica's National Decarbonization Plan, National Adaptation Plan, and SDGs 6, 13, and 15. The project thus strengthens resilience across sectors while delivering high return on investment from both a fiscal and ecosystem services perspective.

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

This project supports Costa Rica's sustainable development goals by enhancing energy and water security and bolstering climate resilience, in alignment with the nation's environmental commitments to international agreements such as the UN Framework Convention on Climate Change, the Convention on Biological Diversity, and the UN Environment Assembly (UNEA). These treaties underscore Costa Rica's dedication to decarbonization, Nature-based Solutions (NbS), a circular economy, and the development of climate finance.

Aligned with the SDGs, the project targets SDG 6, which promotes water access and sustainable management, by using EbA to improve ecosystem services related to water quality and regulation. It also supports SDG 13 by enhancing community and hydropower sector resilience to climate impacts, and SDG 15 by utilizing EbA to protect and sustain vital terrestrial ecosystems, forests, and biodiversity.

This project directly supports Costa Rica's Nationally Determined Contribution (NDC), which prioritizes EbA to mitigate vulnerabilities from climate change (NDC, 2020). It aligns with Costa Rica's adaptation objectives of strengthening climate resilience, integrating adaptation criteria into financing and planning, adapting public services, and employing NbS. Specifically, the project reflects NDC strategies in Construction and Infrastructure, as Costa Rica aims to incorporate NbS to create a resilient, sustainable, high-efficiency infrastructure system with low emissions. In the Energy sector, the project aligns with plans to enhance the resilience of Costa Rica's electrical system, enabling renewable energy management at competitive costs. Similarly, it resonates with the Land Biodiversity and Forest strategy, promoting NbS to conserve ecosystem services and manage forest resources sustainably.

Further, the project aligns with key national policies, such as the National Development and Investment Plan (2023-2026) and the National Plan for Decarbonization (2018-2050), both of which emphasize sustainability, competitiveness, and efficiency in energy through low- or zero-carbon sources. Consistent with the National Adaptation Plan (2022-2026), the project emphasizes EbA to safeguard ecosystems and advance adaptive land management practices. Costa Rica's Adaptation Plan identifies climate-resilient infrastructure as a priority for the energy sector.

The project also aligns with the Economic Territorial Strategy for an Inclusive and Decarbonized Economy (2020-2050), which advocates for territorial management zones that harness natural capital and ecosystem services to drive productivity. Costa Rica seeks to strengthen territorial management practices to bolster ecosystem services. At the sub-national level, the project supports the Central Region's Development Plan 2030, which emphasizes water resource protection through community engagement in Costa Rica's Central Region, where the pilot will be implemented.

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.
Also describe, as needed, how the project/programme will provide support to local actors and build their capacities to comply with the standards.

This project centers on EBA activities, including conservation, restoration, and sustainable land use practices. Since it does not involve the construction of permanent infrastructure, there is no need to adhere to technical standards related to construction or building codes.

However, the project will comply with relevant national technical standards pertaining to environmental management, biodiversity conservation, and sustainable land practices. These may include guidelines for environmental assessments, forest management protocols, and regulations established by Costa Rican environmental authorities to ensure sustainable implementation of EbA activities.

In alignment with the Environmental and Social Policy of the Adaptation Fund, the project prioritizes the engagement of vulnerable communities and social groups throughout stakeholder consultations and will continue this inclusive approach during implementation. By actively involving these groups, the project ensures that their rights, needs, and perspectives are respected and integrated into project activities.

By adhering to these methodologies and complying with national technical standards, the project ensures responsible and sustainable implementation. It upholds environmental and social safeguards, aligning with both Costa Rican regulations and the Environmental and Social Policy of the Adaptation Fund, thereby fostering positive outcomes for ecosystems and communities dependent on water assets.

More specifically, to ensure compliance with Costa Rican regulations, the project will assess each EbA activity against national technical, legal, environmental, and social standards. The table below summarizes the key regulatory frameworks, permitting processes, and safeguards applicable to planned interventions.

EbA Measure / Activity	**Relevant Legal Instruments / Institutions**	**Required Standards / Permits**	**Potential Risks to Address**	**Notes / Compliance Actions**
Agroforestry Systems	Law 7575 – Forest Law / FONAFIFO / MINAE	Agroforestry registered under PES scheme; forest cover reporting	Non-compliance with forestry cover maintenance	Align designs with FONAFIFO agroforestry modalities; involve MAG for technical support
Silvopastoral Systems	SENASA, MAG guidelines / MINAE	Land-use planning must comply with sustainable livestock manuals	Overgrazing, riparian damage	Train farmers on MAG silvopastoral standards; buffer zones must be maintained
Terracing and Land Movement	SETENA, Law 7554 (Environmental Organic Law)	SETENA environmental viability required if earthworks >2ha or slope >30%	Erosion, slope destabilization	Require technical designs; engineer-certified works; notify SETENA early
Riparian Buffer Restoration	Forestry Law 7575 / Water Law / SINAC	Must respect legal protection strips (e.g., 10-15m buffers)	Encroachment into protected zones	Zoning and fencing with GPS; mapping prior to planting
Rainwater Harvesting via Infiltration Trenches	AyA / SETENA / Decree 32327	No EIA needed for small-scale systems, but design must follow national standards	Overflow, contamination risks	Design per MINAE-AyA guidelines; involve water boards in monitoring
Reforestation	Law 7575 / FONAFIFO / SINAC	Registration for PES; must use native species; no planting in protected areas unless authorized	Biodiversity mismatch	Select species from official SINAC lists; require community vetting

Community Infrastructure (small-scale)	SETENA, Local Government (Municipal Code)	Small works (<500m²) may be exempt from full EIA but still need land-use permits	Informal works, land tenure disputes	Use municipal construction permits; assess tenure early

The SAVi modelling confirms that community-led EbA measures outperform grey infrastructure or inaction by a factor of 2–3.5 in terms of avoided damages and ecosystem service benefits. The measures proposed are not only technically sound and socially supported, but also economically justified. For a summary of key indicators and findings, see Annex 1B.

F. Describe if there is duplication of project / programme with other funding sources, if any. Decribe how the project/programme will ensure coordination of different initiatives, sub-projects and small grants towards a common goal, enhances collaboration across sectors and outlines how activities avoid duplication and enhance efficiencies and good practice.

The project is strongly aligned with Costa Rica's PES Program, which has been operational since 1997. The PES program incentivizes landowners to adopt sustainable land management practices, including agroforestry and reforestation, by providing financial compensation for environmental services. This initiative has already benefited over 18,000 households and 19 indigenous communities while contributing significantly to the reduction of deforestation, protection of water resources, and rural development. By leveraging the existing PES framework, this project can directly build on the program's success, enabling additional financial support for water asset-focused EbA measures. The project's EbA activities will align with the PES objectives, ensuring broader impact on water resource conservation and sustainable land use practices.

In addition to the PES program, the project aligns with Agua Tica, Costa Rica's first public-private water fund. Agua Tica focuses on protecting and conserving water resources in the heavily polluted Grande de Tárcoles river basin, benefiting over 2 million people in the San José Metropolitan Area. The fund invests in NbS such as reforestation and sustainable agricultural practices, making it a key partner for the project's water asset-focused EbA activities. The project can utilize Agua Tica's model of public-private investment in natural infrastructure to scale up EbA initiatives, securing additional resources and enhancing water security. Agua Tica's experience in bringing together public and private stakeholders will provide valuable insights into managing water assets and ensuring long-term sustainability.

The project is also linked to larger regional efforts through its connection with Initiative 20x20, a regional effort to restore degraded lands in Latin America and the Caribbean. Costa Rica's involvement in this initiative, with its goal of restoring 50 million hectares by 2030, provides a strong foundation for scaling EbA activities nationwide. Initiative 20x20's network of technical, financial, and governmental partners offers additional support for financing and implementing large-scale restoration efforts. The project will leverage this network to attract impact investment and expand the scope of EbA interventions, ensuring alignment with Costa Rica's national and regional restoration goals while benefiting from Initiative 20x20's established platform for climate resilience and land restoration.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned and how this contributes to building and institutionalizing local capabilities. Provide details on managing traditional and/or indigenous knowledge, where relevant.

The project prioritizes structured learning as a critical pillar to support adaptive management, policy influence, and long-term replication. Building on the monitoring framework developed in Component 3, the project will institutionalize "learning-for-adaptation" cycles that analyze field data, stakeholder feedback, and climate impacts at regular intervals. These cycles will ensure that implementation strategies evolve in real time, enabling continuous improvement of Ecosystem-based Adaptation (EbA) practices across sites.

Knowledge products—including issue briefs, journal articles, policy memos, blogs, videos, and webinars—will be co-produced with community members and local institutions. These materials will not only showcase impacts and stories but also systematize traditional and local knowledge**,** ensuring it informs national EbA policies. Insights will be synthesized into practical guidance and shared through regional dialogues, technical exchanges, and training workshops.

A key innovation lies in the establishment of a learning platform and community of practice on water-focused EbA**,** as proposed in Component 3. Anchored by CATIE and supported by local partners and COMCURE, this space will enable practitioners, researchers, and policymakers to exchange tools, findings, and experiences. Specific learning events will include: (i) biannual multi-stakeholder reflection workshops; (ii) annual learning synthesis reports shared across the Initiative 20x20 platform; and (iii) presentations to networks such as the Inter-American Institute for Cooperation on Agriculture (IICA), Cities4Forests, GLFx.

To increase influence at policy levels, lessons learned will be integrated into dialogue with decision-makers, through co-developed policy briefs and working sessions with entities such as MINAE and local water authorities. Particular emphasis will be placed on scaling effective practices into future regulatory plans and aligning them with Costa Rica's National Adaptation Plan and climate finance strategies.

By embedding feedback loops and diverse knowledge systems into the implementation cycle, the project fosters a dynamic and inclusive learning process that enhances local ownership, supports institutional adaptation, and positions Costa Rica as a regional leader in locally led EbA.

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. Provide details on how the consultative process considered and addressed gender-based, economic and other inequalities and encouraged vulnerable and marginalized individuals to meaningfully participate in and lead adaptation decisions.

To build consensus on the project design and implementation, project partners organized 11 consultations with local stakeholders at three prioritized pilot sites in the sub-basins of Purires, Orosi, and Birrís-Páez. These consultations were conducted using a human rights approach by providing clear, timely, and truthful information in Spanish to all participants, ensuring compliance with national laws. An intersectional approach was employed, with the CATIE conducting social analyses to identify vulnerable groups in each sub-basin and assess their needs to guarantee equal access to NBS activities. Additionally, a gender-responsive approach was implemented, with CATIE performing a gender gap analysis to evaluate the role of women in EBA efforts, identifying their needs and challenges by consulting local policies on equity, inclusion, and inequality indexes.

A steering committee of 13 members from institutions such as COMCURE, SINAC, the Ministry of Agriculture and Livestock (MAG), local municipalities, and Costa Rica's Institute of Technology (TEC) was formed to coordinate the consultations and provide relevant information about the pilot sites. During the consultations, participants exchanged opinions on the effectiveness of NbS, reviewed technical documents outlining NbS characteristics, and identified preferred interventions. They shared their findings with the wider audience, and all attendees voted on the identified NbS. In total, 11 workshops were held with 242 participants (129 women and 113 men), resulting in 44 sub-working groups focusing on agriculture and cattle ranching (20 groups), biodiversity (12 groups), and solid waste management (12 groups). These consultations helped identify the most appropriate NbS interventions and gathered valuable input from diverse stakeholders (Table 2).

These consultations revealed common themes across the sub-basins, including the necessity for enhanced environmental education, simplified bureaucratic processes, greater governmental support, and active community engagement in environmental initiatives. Participants consistently advocated fair compensation mechanisms, increased capacity building, and stronger partnerships between local communities and authorities. The insights gathered will inform the project's approach to implementing EbA strategies that are community-driven and address the specific needs and challenges identified by stakeholders.

As a result of this process, community-led working groups selected the EbA activities to be prioritized under Component 1, such as riparian restoration, silvopastoral systems, and agroforestry models. These locally defined priorities directly shaped the proposed activities and financing mechanisms.

Table 2. Summary of the consultation process.

Workshop	Participants	Main findings

Purires sub-basin	74 (50 women, 24 men) in four workshops	• Economic Concerns: Participants felt that remuneration from the national PES scheme is insufficient.
		  ○ Perception of Bias: There is a belief that environmental laws favor large corporations over small landowners and local producers.
		  ○ Capacity Building: Emphasized the need for projects that provide capacity building to local communities.
		  ○ Tax Incentives: Suggested implementing tax exemption programs for community members engaged in restoration and conservation.
		  ○ Legal Awareness: Highlighted the need for educational programs to raise awareness about legal procedures related to environmental matters.
		  ○ Government Participation: Stressed that wider participation and commitment from local governments are crucial for successful natural resource management.

Orosi sub-basin:	90 (50 women, 40 men) in four workshops	• Environmental Education: Called for increased investment by local governments in environmental educational programs, including awareness of environmental laws and citizen responsibilities. • Preventing Environmental Damage: Expressed the necessity for new initiatives to prevent further environmental harm to local reservoirs. • Financing Mechanisms: Advocated for clear financing mechanisms for ecosystem services with minimal bureaucratic barriers. • Reducing Bureaucracy: Highlighted the need to simplify procedures for accessing agricultural loans and government permits. • Infrastructure Development: Noted a lack of political interest in investing in regional infrastructure, affecting electricity production and tourism development. • Public-Private Partnerships: Emphasized aligning interests in public-private partnerships for environmental protection and conservation.
Birrís-páez sub-basin	78 (29 women, 49 men) in four workshops	• Solid Waste Management: Identified the need for educational programs and training on solid waste management principles and best practices. • Community Engagement: Pointed out a perceived disinterest from water utilities and companies in participating in community water management activities. • Research and Data: Stressed the importance of conducting rigorous research on land use and vegetation.

Workshop	Participants	Main findings
		• Gender Participation: Recognized the need for increased participation of women in conservation, restoration, and sustainable management activities.
Concept validation workshop 1	Representatives from COMCURE, ICE, SENARA, Municipalities of Cartago, Oreamuno, Paraíso, Guarco, Turrialba, SINAC, FONAFIFO, MINAE, CATIE, FUNBAM, and other stakeholders in the Reventazón Basin.	• Project Objective Consensus: Participants aligned on the project's goals and the components required for effective implementation. • Component 1: Emphasis on selecting pilot sites for EbA measures, proposing implementation plans, and a technical training strategy. • Component 2: Suggestion to prioritize ecosystem services and introduce mechanisms like Payments for Environmental Services (PES). • Component 3: Defined ecosystem service indicators, establishing monitoring baselines and methods. • Component 4: Proposed strengthening communities of practice, improving land tenure frameworks, and creating accessible information repositories.
Concept validation workshop 2	Similar institutional representation from the first workshop, focused on the Reventazón Basin.	• Project Risk Analysis: Participants reviewed risks like land use changes, political will, and technical challenges, recommending technical assistance and clear communication to mitigate risks. • Component 1: Emphasis on local community engagement and technical support for agro-productive mechanization. • Component 2: Highlighted the need for political advocacy to adjust PES programs and encourage institutional participation. • Component 3: Call for a well-defined monitoring framework to track EbA impacts, maintain resources, and ensure project continuity. • Component 4: Importance of clear communication plans, collaborative leadership, and interactive training materials.
Concept validation workshop 3	Representatives from water management commissions (COBIRRIS, COMPURIRES, COROSÍ, COBRI SURAC) and technical experts from COMCURE, CATIE, and WRI.	• Feedback on Watershed Management: Participants provided insights to refine the watershed management plan and enhance the project's concept note for the Adaptation Fund. • Comprehensive Vision Integration: Collected inputs to ensure the concept note addresses technical, social, and environmental dimensions for an inclusive approach to water and energy security in the Reventazón Basin.

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

By demonstrating a viable model for EbA financing and implementation, the project provides a blueprint for future investments. Environmental and social risks are mitigated through inclusive planning, compliance with standards, and continuous monitoring. The project's innovative approach and potential for scalability further justify the investment, offering significant returns in terms of climate resilience and sustainable development.

Costa Rica's reliance on water resources for energy and daily activities makes the country highly vulnerable to climate change impacts such as changes in temperature, rainfall, and extreme weather events. Existing studies on climate adaptation in Costa Rica have largely overlooked the potential of EbA strategies to address these vulnerabilities, particularly with respect to water assets. Moreover, these studies have not explored alternative financing schemes to attract private and public funds for implementing EbA, which can also generate co-benefits such as enhanced water supply, agricultural productivity, and improved livelihoods for local communities. The proposed project seeks to fill this gap by creating community-centered, methodologically inclusive, and policy-oriented case studies. These case studies will be backed by a comprehensive monitoring plan to build scientific knowledge about climate impacts and adaptation costs in Costa Rica.

With the support of Adaptation Fund financing, the project will enable local communities to plan and implement EbA activities, yielding significant benefits such as improved water security and increased resilience to climate impacts. The project will also establish innovative financing mechanisms that can attract investment in EbA, helping to scale up these efforts across the country. By setting a supportive policy agenda and developing a participatory monitoring framework, the project will create the necessary conditions to sustain EbA efforts in Costa Rica. Additionally, lessons learned from the pilot project will be shared nationally and regionally, increasing awareness of EbA as a viable strategy for climate adaptation and enhancing local capacities to replicate successful initiatives in other areas.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme. In particular, describe how the project/programme supports long-term development of local governance processes, and improves the capacity of local institutions (including through simpler access modalities), and how it can ensure that communities can effectively implement adaptation actions, facilitate and manage adaptation initiatives over the long term without being dependent on project-based donor funding.

Sustainability has been a central consideration in the design of this project, ensuring that the benefits of Ecosystem-based Adaptation (EbA) interventions endure beyond the implementation period. The project emphasizes community-led action**,** fostering early and continuous engagement of local communities—especially women, youth, and Indigenous groups—in the design, execution, and governance of EbA measures. This approach cultivates strong local ownership and stewardship of natural resources, embedding long-term responsibility within the communities who rely most on healthy ecosystems.

To institutionalize these efforts, the project anchors EbA interventions within existing governance structures such as COMCURE and municipal regulatory frameworks. By aligning activities with municipal development plans and basin-level policies, the project ensures that interventions are formally recognized, resourced, and maintained. Participatory monitoring roles will be integrated into local community organizations and COMCURE's structure, enabling systematic, community-driven tracking of outcomes. Training modules will include knowledge transfer and documentation to ensure continuity through changes in local leadership.

A robust network of national institutions—including **MAG, INDER, and academic partners**—will provide technical support, scientific validation, and policy alignment. CATIE will manage a web-based knowledge

platform that will serve as a central hub for project data, learning tools, and outreach materials, further supporting institutional memory and replication.

Financial sustainability is secured through innovative climate finance mechanisms**,** such as the strengthening and strategic use of Costa Rica's Payment for Ecosystem Services (PES) system. The project will explore hybrid finance models involving contributions from hydropower utilities, water users, and private actors who benefit from upstream watershed services. A climate-resilient investment facility will be co-designed with stakeholders to channel resources into locally prioritized EbA actions. These funds may be replenished through water tariffs, local taxes, and PES contracts, offering a durable financial base beyond the project lifespan.

A comprehensive Monitoring, Evaluation, and Learning (MEL) system will guide adaptive management, track socio-environmental outcomes, and feed lessons into national and regional platforms. Together, these financial, institutional, and social strategies create a resilient foundation for sustaining EbA outcomes and replicating success across other watersheds in Costa Rica and Latin America.

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

Risk Screening and Mitigation Approach
The project has been designed to comply fully with the Environmental and Social Policy (ESP) of the Adaptation Fund. A detailed screening of all 15 ESP principles has been conducted. Although most risks are categorized as low or very low, the project will implement a comprehensive system of participatory safeguards, community engagement, and capacity-building activities to monitor and mitigate risks as needed.
These measures include:

- Educational workshops and talks on sustainable practices, environmental regulations, and community rights;
- Capacity-building for community leaders and technical staff in environmental management and social inclusion;
- Participatory risk monitoring through the project's MEL system, including feedback from community steering committees and local user groups;
- Community-based systems to receive and resolve feedback, complaints, or disputes

Importantly, based on the social analyses conducted by CATIE, and using demographic data and consultation records, no Indigenous Peoples have been identified in the sub-basins of Purires, Orosi, or Birrís-Páez targeted by this proposal. Therefore, the project does not trigger the Indigenous Peoples principle.

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		Very low. Ensure all activities comply with Costa Rican laws; technical assistance will be provided to meet regulatory and permitting requirements
Access and Equity		Low risk. There are potential risks associated with ensuring equitable access to the project's benefits, especially for marginalized groups. The project must ensure that all community members, regardless of socio-economic status, gender, or location, have fair access to the project's resources and opportunities. Further assessment is required to guarantee inclusivity in resource distribution. Anticipated actions to mitigate this risk will be conducting targeted workshops with marginalized groups (e.g., women, landless farmers); ensure equitable Innovation Fund access and grievance mechanisms.
Marginalized and Vulnerable Groups		Low risk. The project poses potential risks of unintentionally excluding marginalized and vulnerable groups. Special consideration must be given to ensuring their participation and that their specific needs and vulnerabilities are addressed throughout the project implementation. Further assessment is necessary to ensure that these groups are not negatively impacted. Anticipated actions are social targeting tools to identify vulnerable subgroups; ensure representation in planning bodies; host inclusive community assemblies.
Human Rights		Low risk. While the project follows a rights-based approach, there are potential risks of inadequate protection of human rights if not properly monitored. Ensuring the protection of communities' rights,

		particularly land rights and access to natural resources, will require further attention to avoid any unintentional violations. Anticipated measures would include applying a rights-based, participatory approach; ensure inclusive consultation and free, prior, and informed consent for any local-level decisions.
Gender Equality and Women's Empowerment		Low risk. Although the project is designed with gender equity in mind, it poses potential risks of not fully addressing gender inequalities. A more detailed assessment is necessary to ensure that the project actively promotes gender equity and women's empowerment, and that women are given leadership roles in community-based ecosystem adaptation activities. Anticipated actions would be allocation of 15% of project budget to gender-responsive activities; include women in all decision-making bodies; provide targeted training
Core Labour Rights		Very low. The project does not present significant risks in terms of labor rights, as it aligns with national labor standards and international conventions related to fair work conditions. Nevertheless, the project will align with Costa Rica's labor code and ILO conventions; contracts will include clauses for fair wages and safe working conditions.
Indigenous Peoples		No Indigenous Peoples reside in the intervention areas (based on consultation and national demographic data).
Involuntary Resettlement		Very low risks of involuntary resettlement have been identified, as the project does not involve and will avoid any forced displacement of communities or individuals.
Protection of Natural Habitats		Low risk. The project carries potential risks of disturbing natural habitats, particularly during the implementation of EbA activities. A detailed environmental impact

		assessment will be needed to ensure that natural habitats are preserved and protected. Anticipated actions to mitigate this risks include providing training on zoning and habitat restoration; technical support will ensure EbA interventions are designed to enhance, not harm, ecosystems
Conservation of Biological Diversity		Low risk. The project aims to enhance biodiversity, but there are risks related to the unintended degradation of ecosystems if EbA measures are not properly implemented. Detailed assessments are necessary to mitigate these risks. Anticipatory measures would include using native species and biodiversity-friendly practices in all EbA interventions; aligning with SINAC and FONAFIFO standards
Climate Change		Very low risk. The project's EbA strategy directly contributes to climate adaptation; no negative emissions outcomes expected.
Pollution Prevention and Resource Efficiency		Low. The project will promote low-input, organic practices in agriculture; train farmers in pollution mitigation and nutrient recycling as complementary tools to the EbA measures selected
Public Health		Very low. The project does not pose significant public health risks, but further assessment is needed to ensure that ecosystem changes do not negatively impact local health conditions, such as water quality. Anticipatory measures would include monitoring water quality near interventions; conduct health-oriented educational campaigns on safe water and sanitation.
Physical and Cultural Heritage		Very low. Site screening and community mapping will avoid interference with cultural heritage; community protocols will guide interventions.
Lands and Soil Conservation		Low. Risks exist concerning soil degradation due to climate change or improper land use practices.

		Further assessment is necessary to ensure that project activities promote soil conservation and sustainable land management practices. Anticipatory measures will include implement training on land stabilization, terracing, and contour farming; follow Costa Rican land use norms and SETENA standards

Monitoring and Adaptive Risk Management

All Environmental and Social risks will be monitored through the project's participatory Monitoring, Evaluation, and Learning (MEL) system, which integrates local indicators and reflection workshops every six months. Community institutions such as water boards, women's groups, and producer organizations will play key roles in tracking safeguards and reporting risks.

Annual learning events and feedback mechanisms will allow the project team to adapt strategies, adjust activities, and proactively manage risks based on community experience and technical guidance. All activities will align with Costa Rica's regulatory frameworks, and the project will uphold the principles of inclusion, precaution, and accountability across all components.

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; add as many participating governments if a regional project/programme:

Carlos Isaac Pérez Mejía *Vice Ministry of Strategic Management, Ministry of Environment and Energy, Costa Rica*	Date*: (Month, day, year)* *July 11, 2025*

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 (National Adaptation Policy (Política Nacional de Adaptación al Cambio Climático 2018–2030; Updated Nationally Determined Contribution-NDC 2020–2030, National Decarbonization Plan (2018–2050National Biodiversity Strategy and Action Plan -ENB 2016–2025; National Policy for Sustainable Development of the Rural Territories-2015–2030; Water Resources Management Policy 2020–2030; National Climate Change Strategy-ENCC 2015–2021; Reventazón Basin Management Plan/Plan de Manejo Integral de la Cuenca del Reventazón – COMCURE) 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.

Marianella Feoli Peña Implementing Entity Coordinator 	
Date: *July 11th 2025*	Tel. and email: +506 2225 4507, mfeoli@fundecooperacion.org
Project Contact Person: Marianella Feoli Peña	
Tel. And Email: +506 2225 4507, mfeoli@fundecooperacion.org	

[2] 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.

MINISTERIO DE AMBIENTE Y ENERGÍA | GOBIERNO DE COSTA RICA | VICEMINISTERIO DE GESTIÓN ESTRATÉGICA

July 11th, 2025
DVGE-076-2025

Letter of Endorsement by Government
Ministry of Environment and Energy

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

Subject: Endorsement for the project **"Empowering Communities to Lead Ecosystem-Based Adaptation for Water Security in the Reventazón Basin of Costa Rica"**

In my capacity as designated authority for the Adaptation Fund in Costa Rica, I confirm that the above national grant 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 Costa Rica.

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by Fundecooperacion para el Desarrollo Sostenible and executed by Comision para el Ordenamiento y Manejo de la Cuenca Reventazón (COMCURE) and Tropical Agricultural Research and Higher Education Center (CATIE).

Sincerely,

Carlos Isaac Pérez Mejía
Viceministro de Gestión Estratégica

cc: Archivo / Consecutivo

Annexes

Annex 1: Sustainable Asset Valuation of Ecosystem-Based Adaptation (EbA) Measures in the Reventazón River Basin

This annex summarizes key findings from the SAVi (Sustainable Asset Valuation methodology) study conducted to assess the long-term economic performance of Ecosystem-based Adaptation (EbA) interventions in the Reventazón River Basin. The assessment applied a system dynamics modelling approach to evaluate the environmental, social, and financial returns of different EbA options prioritized through community consultations in the sub-basins of Orosi, Purires, and Birrís–Páez.

Objectives of the SAVi Assessment

- Estimate **avoided costs** of ecosystem degradation, water insecurity, and erosion.
- Compare EbA performance against business-as-usual and grey infrastructure alternatives.
- Highlight co-benefits including carbon capture, improved water flow regulation, and local job creation.

Current land use, basis for the modeling and SABi assessment

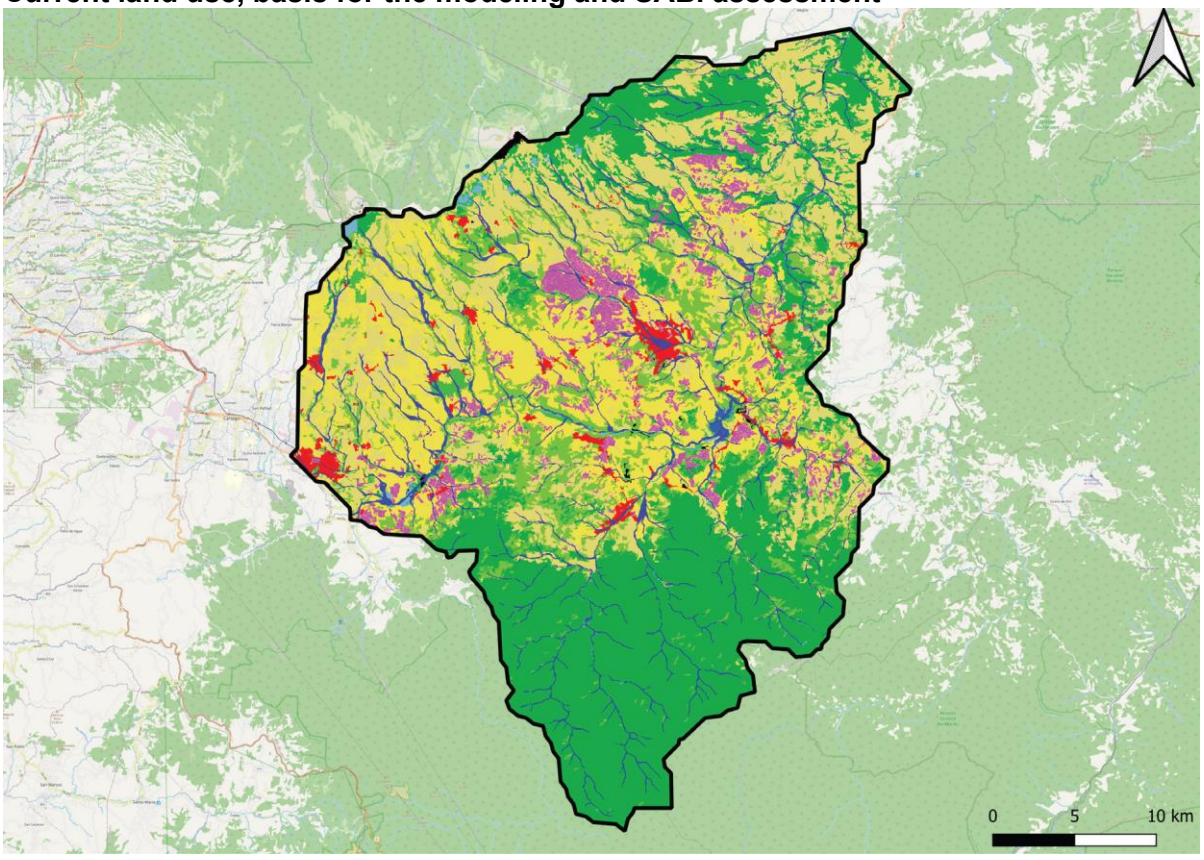

Figure 1. Land-cover classes of the Pilot Site and Basin-Wide scenarios. Source: Georg Pallaske, Ronja Bechauf, Edoardo Carlucci, and Marco Guzzetti. 2024. Sustainable Asset Valuation of Ecosystem-Based Adaptation Measures in the Reventazón River Basin, Costa Rica. IISD

Key Findings

- EbA interventions such as **forest restoration, agroforestry, and slope stabilization** yield **2.3–3.5 times higher returns** compared to non-intervention over a 20-year horizon.
- Cost savings result from reduced flood risk, improved agricultural productivity, and decreased sedimentation affecting hydropower and irrigation systems.
- Every dollar invested in EbA yields up to **$3.50 in long-term avoided costs and ecosystem services benefits**.

The SAVi results reinforce the **cost-effectiveness, climate resilience**, and **sustainability** of EbA measures proposed under Component 1. They provide a science-based rationale for scaling nature-based solutions led by local actors, supporting the project's long-term impact and financial viability.

The full report is available for download at:
https://nbi.iisd.org/wp-content/uploads/2024/07/nbi-costa-rica-reventazon.pdf

Annex 2

Summary of Community Consultations for EbA Prioritization in the Reventazón River Basin

CATIE – COMCURE – Local Actors (2022)

This annex synthesizes the community consultation process conducted in 2022 by CATIE and COMCURE to identify Ecosystem-based Adaptation (EbA) priorities in the sub-basins of Orosi, Purires, and Birrís–Páez, part of the Reventazón River Basin.

Participatory Methodology

Workshops were held in each sub-basin using facilitated dialogue, participatory mapping, problem trees, and option-ranking exercises. The process was supported by COMCURE's local coordination and leveraged CATIE's technical expertise.

Sub-basin	Date	Venue	Stakeholders Involved
Orosi	18 Jan 2022	Salón Comunal de Palomo	ASADAS, producers, women's group, CATIE, COMCURE
Purires	20 Jan 2022	Salón Comunal de Corralillo	Local leaders, teachers, environmental committee
Birrís–Páez	27 Jan 2022	Escuela de Cañón de Birrís	Producers, ASADA Cañón, young people, COMCURE

Key Outcomes

Each workshop generated a validated list of locally prioritized EbA actions. The results were aligned with environmental risks and local capacities. Highlights include:

- Orosi: forest restoration, environmental education, slope stabilization.
- Purires: water harvesting, school outreach, reforestation in recharge areas.
- Birrís–Páez: sustainable grazing, green filters, and organizational training.

Relevance to LLA Principles

This consultation process ensured:

- Decisions were born from the community, with direct ownership;
- Activities reflect local priorities and knowledge systems;
- Women and youth were actively represented in all three sites;
- Workshop documentation (photos, summaries, signed attendance lists) is archived and available upon request.

These consultations laid the foundation for the menu of EbA measures proposed in Component 1 and support the integrity of the proposal's bottom-up design logic.

Full consultation report available upon request or via institutional repository

Annex 3.

Legal Requirements Matrix detailing the technical and regulatory frameworks applicable to the proposed EbA interventions in Costa Rica.

The implementation of Ecosystem-based Adaptation (EbA) measures in the Reventazón River Basin requires adherence to the technical, legal, and environmental standards set forth by Costa Rican regulatory frameworks. This matrix outlines the relevant laws, institutions, and permitting requirements applicable to each type of intervention proposed in this project. The objective is to ensure that all actions—ranging from forest restoration to infrastructure for water harvesting—comply with the norms of institutions such as SETENA, SINAC, MINAE, MAG, and municipal authorities. This annex will guide the project's legal due diligence and risk management processes, particularly those related to environmental and social safeguards. It also strengthens the project's alignment with national standards and contributes to building trust with local communities and stakeholders.

EbA Measure / Activity	**Relevant Legal Norms / Institutions**	**Permits / Actions Required**
Forest Restoration and Reforestation	Ley Forestal No. 7575; SINAC permits; National Reforestation Registry	Reforestation registration; area plan submission to SINAC
Agroforestry and Silvopastoral Systems	MINAE/MAG land use compatibility norms; Soil Use Guide (MAG)	Landowner agreement; land use approval (MAG)
Construction of Terraces or Live Barriers	SETENA Guidelines for Soil Movement; Municipal Construction Permits	SETENA Environmental Diagnostic (D1); engineer sign-off
Water Harvesting Infrastructure (e.g., tanks, infiltration ditches)	DPSA-MINAE; SETENA (if >2ha); AyA standards for water quality	Design by certified technician; local water committee approval
Riverbank Stabilization and Riparian Buffer Zones	Water Law (Ley de Aguas); SETENA if involving riverbank modification	River authority review; potential D1 form if high impact
Soil Conservation Works (e.g., contour ditches, bunds)	MAG Soil Conservation Technical Norms; No SETENA if small-scale	Technical assistance by MAG; local monitoring committee
Wetland or Spring Restoration	National Wetlands Policy; Ramsar site guidelines if applicable	Coordination with MINAE and SINAC; site inspection
Community Environmental Education Facilities or Kiosks	Municipal permit + MINAE guidelines for educational use of public land	Municipal license; educational approval by CONAGEBIO (if biodiversity-related)