AFB/PPRC.36/Inf.29
8-9 October 2025

Adaptation Fund Board
Project and Programme Review Committee
Thirty-sixth Meeting
Bonn, Germany, 8-9 October 2025

PROPOSAL FOR SINGLE COUNTRY LOCALLY LED ADAPTATION PROPOSAL FOR COSTA RICA (2)

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: LLA Single country concept note

Country/Region: Costa Rica
Project Title: Empowering Communities to Lead Ecosystem-Based Adaptation for Water Security in the Reventazón Basin of Costa Rica
Thematic Focal Area: Nature based solutions and Ecosystem-based adaptation
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)
AF Project ID: AF00000445
IE Project ID:
Requested Financing from Adaptation Fund (US Dollars): $5,000,000
Reviewer and contact person: Farayi Madziwa
Co-reviewer(s): Alyssa Gomes
IE Contact Person: Marianella Feoli Peña

Technical Summary:	The project titled "Empowering Communities to Lead Ecosystem-Based Adaptation for Water Security in the Reventazón Basin of Costa Rica" aims 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. This will be done through the three components below: Component 1: Community-Guided Implementation of Ecosystem-Based Adaptation in the Upper Reventazón Basin (USD 2,600,000); Component 2: Policy and Financial Enabling Environment (USD 858,000); Component 3: Replication and Scaling-Up (USD 700,000). Requested financing overview: Project/Programme Execution Cost: USD 399,760 Total Project/Programme Cost: USD 4,607,760 Implementing Fee: USD 391,660 Financing Requested: USD 4,999,420 The proposal includes a request for a project formulation grant of USD 149,996. The first technical review raises some issues, such as clear articulation of concrete activities in the project components and the identification of related benefits in the project main text, consideration of Costa Rica's NAP,

	stakeholder consultation, alignment of the project with the AF Strategic Results Framework, and project categorization according to the AF ESP as is discussed in the number of Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review.
Date:	August 4, 2025

Review Criteria	Questions	Comments 1st Review [August 4, 2025]	Answers from Proponent (August 8, 2025)
Country Eligibility	1. Is the country party to the Kyoto Protocol and/or the Paris Agreement?	**Yes,** Costa Rica is a Party to both	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes, Costa Rica faces significant climate vulnerabilities from intensifying rainfall variability, rising temperatures, and the increased frequency and intensity of extreme weather events like floods, landslides, and droughts, impacting water resources, agriculture, hydroelectric power, infrastructure, and human settlements.	
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	**Yes,** LOE signed July 11, 2025	
	2. Does the length of the proposal amount to no more than fifty (50) pages for the	**Yes,** 30 pages	

	Concept note project document, including its annexes?		
	3. Does the project / programme support concrete adaptation actions to assist the country and/or the local actors in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	**Needs clarification.** The project site is going to be the upper and middle catchment areas of the Reventazon watershed. The project background and context highlight intensified rainfall variability, rising temperatures, droughts as climate hazards exacerbated by ecosystem degradation, and socio-economic inequities and leading to impacts such as soil erosion, particularly affecting smallholders, women, and communities. However, following initial stakeholder consultations between 2022 and 2024 (page 5), it is not clear what concrete adaptation measures were identified and included in the project as a result. It is not clear what concrete outputs would address which climate hazards or threats. The distinction between concrete adaptation actions identified between the upper and middle catchments of the Reventazon Watershed, that is within the priority project sites, is also not clear. These concrete activities could be	**Answer- CR1:** we included a paragraph summarizing our concrete products and capital goods for this project, located in page 9, Part II, in section A, as the second paragraph. Additionally, we presented detailed list of concrete products and another list of concrete goods, organized regarding Output 1.1 and Output 1.3 **Answer- CR2:** we added a paragraph and listed specific regulatory and policy frameworks (national as well as local), in page 11 and 12, Component 2, second paragraph. Additionally, we listed such regulatory framework as a complement to this response in the document of our concept note **Answer- CR3:** The wording of Principle 5 has been revised to match the official LLA terminology. The updated text now reads: “Building a robust understanding of climate risk and uncertainty.” This ensures full alignment with the wording endorsed by the Adaptation Fund and the broader Locally Led Adaptation movement. **Answer-CR4:** The proposal has been updated for consistency in explicitly referring to the three prioritized pilot sites: Purires, Birrís–Páez, and Orosi, located in the upper and middle Reventazón watershed. We presented a new version of the map in figure 1, at page 5. We also added new paragraphs in page 8 to specify the project boundary, as well as demographic details and initial identification of target beneficiary groups have been included: • Purires: Primarily smallholder vegetable farmers (horticultores), cattle ranchers, and ASADAS (local water associations) in the Corralillo area. • Birrís–Páez: Cañeros (sugarcane growers), dairy

		included under the relevant project components. **CR1:** Please clearly list the specific concrete products or capital goods and services that will result from this project under the descriptions for Output 1.1 and Output 1.3. Additionally, in Part II, Section A of the proposal document, an initial explanation is needed regarding how these products and tangible assets will address the climate risks and adaptation needs previously identified in the background, context, and project objectives. It is also essential to clarify the rationale behind the Locally Led Adaptation (LLA) approach and how this methodology specifically facilitates the stated objectives. **CR2:** Please revise Output 2.1 under Component 2 to be a more measurable deliverable, such as a policy framework, instead of a broad "shared vision" as opposed to defining of a shared vision. **CR3:** The wording of Principle 5 in the proposal differs from the official LLA	producers, and organized producers in Cañón de Birrís. • Orosi: Caficultores (coffee growers), eco-tourism cooperatives, and ASADAS in Palomo and La Flor. These stakeholders were also represented in the consultation process and identified as direct beneficiaries of the EbA measures. These additions improve geographical clarity and community targeting across the proposal. **Answer-CR5:** We clarified the term “pilot sites” for this proposal and explained context specific co-implementation of EbA measures un the three sub-basins considered our pilot sites. This paragraph is under section F, page 23. **Answer-CR6:** In pages 14 to 16, Component 2 has been revised to clearly specify the regulatory and policy frameworks targeted for reform or alignment through the project. At the national level, the project will engage with the following legal instruments. At the municipal level, the project will focus on integrating EbA considerations into the municipal development plans and land-use frameworks of the following five municipalities (cantones) in the Reventazón upper and middle watershed, coordinated under COMCURE: • Alvarado • Cartago • El Guarco • Oreamuno • Jiménez These municipalities are already engaged through COMCURE and have authority over territorial planning, environmental licensing, and implementation of PES or water protection bylaws at the sub-basin level. The project will support these jurisdictions to adopt enabling local ordinances, improve alignment with national EbA policy incentives, and potentially introduce municipal-level PES adjustments or EbA-based tax incentives.

		Principle 5 ("Building a robust understanding of climate risk and uncertainty"). Please revise the proposal to align with the correct wording.. (revisar web del LLA) Background information refers to some geographic markers for the project e.g., Birrís–Páez, Purires and ~~Matina~~ sub-basins, community actors in Purires, Orosi, and Birrís–Páez and in this section, it is not clear if these sub-basins or village/town names? Page 16 however, states that there are 3 prioritized pilot sites in the sub-basins of Purires, Orosi, and Birrís-Páez. **CR4:** Please be consistent in clearly mentioning throughout the proposal what the specific project sites in the Reventazon Watershed are. Please include the size of land area for the Reventazon Watershed (the project boundary), the demographics of the communities in the 3 prioritized pilot sites, and an initial identification of the target beneficiaries in the project areas. In addition, it would also be useful to show where the 3 project areas are located within the project	

		location map. **CR5:** Section F on page 15 outlines that there are 3 existing projects which provide lessons to scale up water-based EbA and PES schemes in the current project. Considering this aspect, please clarify why the current project refers to “pilot sites” which implies that the identified interventions are being tested on a small scale before wider implementation? Please also clarify why new interventions are being "piloted" rather than scaled up directly based on past experience. **CR6:** Component 2 is targeting regulatory reforms and incentives. It is not clear which specific laws or policies whose regulations are targeted and whether these are at the national or local/municipal/district level – as well as which municipalities/jurisdictions. Please specify which laws or policies are being targeted, and at which level (national, municipal, etc.), and in which specific municipalities. *<u>Comments for the fully developed proposal</u>* • *Please add an annex*	

		showing some results from Climate models from the PRECIS and CORDEX platforms and provide links as footnotes for the assessments mentioned in the proposal e.g, the hydrological assessment, socio-environmental analysis, socio-territorial analyses etc. • *At the fully developed proposal stage, the Innovation Fund described on page 7 should be fully articulated and explained.* • *At the fully developed proposal stage, the PES schemes in agroforestry, riparian restoration and water retention systems would need to be fully articulated that is, clearly articulate the ecosystem services, what specific action or outcomes providers of the services need to take or achieve, who are the buyers, who are the sellers, how services will be valued/costed, the institutional frameworks in place e.g land tenure or resource rights etc, benefit sharing and payment types,*	

		monitoring etc for each scheme. • *Diagrammatic representations of the Innovation Fund model and PES schemes should be provided clearly showing the flow of funds from the NIE to beneficiaries. In addition, where feasible please outline the specific concrete products or capital goods and services that would result from these interventions.* • *Though the full name of CATIE and COMCURE are included on the project title page, please include the full name with abbreviation in parenthesis the first time all abbreviations are used in the main document text e.g., SINAC, FONAFIFO etc.*	
	4. Does the project/programme enable devolving decision making to the lowest appropriate level? Does it give local institutions and communities more direct access to finance and decision-making power over how adaptation actions are defined,	**Needs clarification.** Clear rationale has been provided for adopting EbA to address adaptation challenges. However, the rationale for LLA is not clear. The proposal does not clearly articulate where devolving decision-making is taking place demonstrating the co-design of EbA solutions as	**Answer-CR7:** Added new paragraphs in Section H, pages 24 to 29 with: (1) Description of 11 community workshops in Purires, Orosi, and Birrís–Páez for climate risk identification and EbA prioritization. (2) Detailed explanation of how local actors (ASADAS, producers, etc.) participate in a multi-level governance structure. (3) Inserted governance diagram (Figure 2) at end of Section H to visualize community involvement in decisions.

	prioritized, designed, implemented; how progress is monitored and how success is evaluated.	stated on page 7. **CR7:** Please provide text to clearly show where and how local communities have taken the forefront in identifying climate risks, including where, and how they will be involved in decision-making in the project life cycle.	
	5. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund? Does the project/programme address structural inequalities faced by women, youth, children, people with disabilities, people who are displaced, Indigenous Peoples and marginalized ethnic groups?	**Needs clarification.** Page 7 identifies "communities" as a key stakeholder group to benefit from the project. However, this identification is rather vague, and whilst no indigenous people have been identified in the project areas, further clarification would be useful, that is, whether they are youths, elderly, minority groups, etc, in terms of number of individuals and/or households., including gender representative metrics. **CR8** Please provide a more detailed identification of project beneficiaries, including a demographic breakdown (e.g., number of individuals or households, gender metrics, age groups). Describe the specific benefits they will receive and how the project will ensure equitable	**Answer-CR8:** The concept note was updated with a demographic breakdown of project beneficiaries, pages 4-5, including gender and youth data. Types of benefits (economic, social, environmental) were detailed in Section H (p. 28-29), along with equity criteria and the use of Local Advisory Committees for transparent and inclusive selection.

		distribution **CR9:** Please clarify and outline the economic, social, and environmental benefits of the project. Additionally, the SAVi study map shows that a significant part of the project area is used for annual crops, with another substantial area under forestry and tree cover. Please link this information to the type of adaptation activities identified in the 3 project sites and explain the specific benefits to communities. Page 12 states that training and outreach will reduce structural barriers faced by women and youth in accessing financial mechanisms and technical assistance. **CR10:** Please include a description of the specific barriers women and youth face.	**Answer- CR9:** The project narrative was expanded to include a detailed paragraph (Section A, Page 16 and 17) outlining the economic (e.g., reduced sedimentation, improved agricultural productivity), social (e.g., empowerment of women and youth, stronger governance, improved water access), and environmental (e.g., erosion control, aquifer recharge, biodiversity connectivity) benefits. Additionally, SAVi land-use data was integrated (Page 7) to explain how annual crop areas (e.g., Purires), mixed coffee-forest mosaics (e.g., Birrís–Páez), and forested recharge zones (e.g., Orosi) directly inform site-specific EbA activities, ensuring relevance and effectiveness for each landscape and community type.

			Answer- CR10: A paragraph was added to Section H (Consultative Process), page 25, detailing the specific barriers women and youth face, including land tenure, training, financial access, and employment. The response explains how the project addresses these barriers through targeted actions and inclusive approaches.
	6. Is the project / programme cost effective?	**Cleared.** The proposal outlines the EbA approach as a lower cost option and the use of PES as a proven sustainable mechanism for the project.	
	7. Is the project / programme consistent with national, sub-national sustainable development strategies, national, sub-national or local development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	**Need clarification.** Please add footnotes with links to the NDCs, National Climate Strategy etc. Costa Rica's National Adaptation Plan (NAP) 2022 is relevant to the project. **CR11:** Please add a reference to the Costa Rica National Adaptation Plan (NAP) implementation. Note that detailed descriptions of which elements from each strategy, plan, or policy are relevant to the proposed project should be provided in the fully developed proposal.	**Answer-CR11:** A dedicated subsection titled "Alignment with Costa Rica's National Adaptation Plan (NAP 2022–2026)" was inserted at the end of Section A: Project Description (pages 17 to 18). This addition explains how the project aligns with the four main Axes of the NAP (knowledge generation, territorial planning, infrastructure resilience, and ecosystem-based approaches), as well as with cross-cutting principles such as gender equity and stakeholder engagement. A table 4, summarizing specific contributions to NAP products and targets was also included.

	8. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund? Does the project provide support to local actors and build their capacities to comply with the standards?	**Cleared.** An initial identification of relevant standards and applicable regulatory frameworks has been provided in Annex 3. *At the fully developed proposal stage, this section will need to be revised based on additional information that might be available.*	
	9. Is there duplication of project / programme with other funding sources? Does the project enhance collaboration across sectors and enhance efficiencies and good practice?	**Needs clarification.** The proposed project seeks to expand and draw on progress and achievements made from 3 existing initiatives. However, there may be a few other projects implementing EbA and PES in the geographic boundaries of the proposed project. **CR12:** Please clarify if, and how the current project avoids duplication and complements the following similar existing projects and activities in the same geographic area: • WRI project available here titled: Ecosystem-Based Adaptation in the Reventazón River Basin, Costa Rica in the geographic boundaries	**Answer -CR12:** A clarification paragraph was inserted in Section F, page 23, explaining that the referenced WRI project was a desk-based exercise, not implemented on the ground. The proposal is the first field-level EbA implementation in the prioritized areas. It also clarifies that the Reventazón Hydropower project (ICE) is a downstream infrastructure that will benefit indirectly from reduced sedimentation and better water regulation due to upstream EbA interventions.

		of the proposed project. • The Reventazón Hydropower project	
	10. Does the project / programme have a learning and knowledge management component to capture and feedback lessons, in particular managing traditional and/or indigenous knowledge, where relevant? Does it contribute to building and institutionalizing local capabilities?	**Cleared.** The project includes a learning and knowledge management component described on pages 15 and 16. *At the fully developed proposal stage, please specify the responsible entity for all knowledge management activities, including the collection and dissemination of learning. The proposal should clearly articulate how learning will be used to enhance the project's adaptive management. Furthermore, ensure that the knowledge management outputs are clear, measurable, and adequately integrated into the Results Framework for effective tracking.*	
	11. Has a consultative process taken place, and has it involved and encouraged all key stakeholders, and vulnerable groups, to meaningfully participate in and lead adaptation decisions? Did the consultative process consider and address	**Needs clarification.** The consultative process, outlined on pages 16-18 and in Annex 2, saw significant participation from women. **CR13:** Beyond the participation of women, please clarify if there was representation of other key	**Answer-CR13:** Section H (Consultative Process) was expanded to describe how other key groups such as youth and older adults participated in consultations. The paragraph clarifies the absence of Indigenous peoples in the area and affirms the representation of locally relevant marginalized stakeholders, in page 24.

	gender-based, economic and other inequalities in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	groups, including youth, and/or marginalized individuals as relevant. A steering committee, comprising representatives from organizations such as CATIE, COMCURE, and SINAC, oversaw these consultations. **CR14:** Please clarify whether these coordinating institutions (e.g., CATIE, COMCURE, SINAC) have local community representation within their membership, or how the steering committee otherwise ensures direct representation of community interests. *<u>Comments for the fully developed proposal</u>* • *It is noted that the current project activities do not include every item identified during the consultations, and this is understandable. For better clarity, please ensure the proposal's main text clearly describes the overall outcome of these consultations and explicit lists*	**Answer-CR14:** Section H, page 27 was updated to explain how community representation is guaranteed through Sub-Watershed Commissions that already function in the basin (Purires, Orosí, Páez-Birrís). These commissions include ASADAS, women, youth, retirees, and local governments. The paragraph also clarifies that while CATIE and SINAC don't have internal community members, they work through LAC and TIC bodies where community actors directly influence implementation.

		which of the suggested activities from communities were ultimately included in the project. Although Annex 2 offers this detailed information, it is crucial to integrate it into the main proposal document. • *Please provide a clear description of the gender-sensitive approaches used in the consultation process with respect to planning, discussion, and decision-making leading to the project activities identified by local communities.*	
	12. Is the requested financing justified on the basis of full cost of adaptation reasoning?	**Yes.** **Just a minor edit/insertion suggestion** to the following sentence under Section I on page 19 when the revised proposal is resubmitted: "*The project will also establish innovative financing mechanisms that can attract other investment in EbA,*	**Answer:** Incorporated such minor edit in such sentence. Appreciated**.**

		helping to scale up these efforts across the country" This would explicitly outline that the AF funded project will be implemented to completion without reliance on other external financing.	
	13. Is the project / program aligned with AF's results framework?	**No.** A section demonstrating alignment is not presented in the proposal. **CAR1:** Please include a description showing project alignment with AF's results framework, including the AF core indicators. The alignment table may be used to present alignment. See page 13 of the Instructions For Preparing A Request For Project Or Programme Funding From The Adaptation Fund	**Answer-CAR 1:** A new section titled "Alignment with the Adaptation Fund Results Framework and Core Indicators" was inserted on Page 29. It includes a narrative and table mapping the project's contributions to the seven AF outcome areas and core indicators, ensuring measurable alignment with the AF's M&E framework.
	14. Has the sustainability of the project/programme outcomes been taken into account when designing the project? Does the project/programme support long-term development of local governance processes, and improve the capacity of local institutions to ensure that communities can effectively implement	**Needs clarification.** It is noted that in part sustainability will be ensured through policy integration at the municipal level including in regulatory frameworks as well as capacity building delivered through technical assistance and knowledge management. **CR15:** Please detail which specific municipal policy(ies)	**Answer-CR15:** A new paragraph was inserted in Section A, Component 2 narrative, page 16. It explains that the project does not seek formal policy reform but rather influences local planning culture and institutional behavior in the municipalities of Paraíso, Jiménez, and Turrialba. It details how sustainability will be ensured across economic, social, environmental, institutional, and financial dimensions, emphasizing COMCURE's coordination role and community-led governance mechanisms.

	adaptation actions over the long term?	and/or regulatory framework will be enhanced/updated and for which municipality to support EbA under its jurisdiction. Please also provide some type of written commitment by institutions or optionally clearly state what role other identified institutional stakeholders and beneficiaries would play to ensure the sustainability of project activities, including but not limited to economic, social, environmental, institutional, and financial sustainability. It should be noted that adequately satisfying this requirement is tied to the identification of concrete adaptation activities and outputs as well as Section B on economic, social and environmental benefits for the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Concrete activities to implement EbA should be clearly articulated and included in the project components e.g., forest restoration, slope stabilization, water harvesting, reforestation etc. These are identified in Anex 2 under key outcomes.	**Answer-CR16:** Added detailed narrative in Part II, Section A, page 18, flowing table 4, describing specific EbA activities (e.g., forest restoration, water harvesting, slope stabilization), expected adaptation benefits, and long-term sustainability through community co-investment and technical support.

		CR16: Linked to the above CR, please describe what adaptation benefits from these activities would be achieved and explain how the green infrastructure or installations to be developed would be maintained beyond the project lifespan.	
	15. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Needs clarification.** The table on pages 21-24 has not been filled-in correctly. **CAR2:** Please put the text for principles where no further assessment will be done e.g., for the principle on indigenous peoples, under the column "No further assessment required for compliance". Please note an assessment report describing the risk, including potential direct, indirect and cumulative impacts as relevant, will be required at the fully developed proposal stage for all principles that require further assessment. **CAR3:** Please state the *provisional* category in which the screening process has classified the project/programme, that is, Category A, B or C. See page 10 of the Instructions For	**Answer-CAR2:** In the Checklist of environmental and social principles table (Now in pages 32-33), the row under "Indigenous Peoples" was updated to read: *"No further assessment required for compliance – no indigenous populations present in the project area."* A clarifying statement was added nearby to document the reasoning and ensure transparency. **Answer CAR3:** Paragraph added in Section K, Page 32, before the ESR (Environmental and Social Risk) table. It clearly states the project is Category B, in alignment with the Adaptation Fund's screening instructions (October 2017).

		Preparing A Request For Project Or Programme Funding From The Adaptation Fund	
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	**Yes.** The amount requested is within the $5 million per project LLA project cap.	
	2. Is the Implementing Entity Management Fee at or below 8.5% per cent of the total project/programme budget before the fee?	**No.** The IE fee for the project is cleared and is 7.8%. However, a PFG has been requested and the PFG fee is above the cap of 8.5%. **CAR4:** Based on the PFG request of $149,996, please amend the PFG fee as it should not exceed $11,750.	**Answer-CAR 4** We clarified in the concept note (page 31, Section I) that the Project Formulation Grant (PFG) request is for USD 149,996, and that the Project Formulation Grant fee (Implementing Entity fee) is USD 11,750, equivalent to 7.8%, which complies with the Adaptation Fund's maximum cap of 8.5%. In parallel, we also corrected the associated PFG request form by updating the "Implementing Entity Fee" line to USD 11,750 and ensuring this fee does not exceed the allowed threshold. The updated figures now reflect alignment between both documents and comply with the financial guidelines set by the Adaptation Fund.
	3. Are the Project/Programme Execution Costs at or below 9.5% per cent of the total project/programme budget (including the fee)?	**Yes.** The fee is 8.0%	
Eligibility of IE	1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	**Yes.** Fundecooperacion's accreditation expires 21 June 2026.	

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.

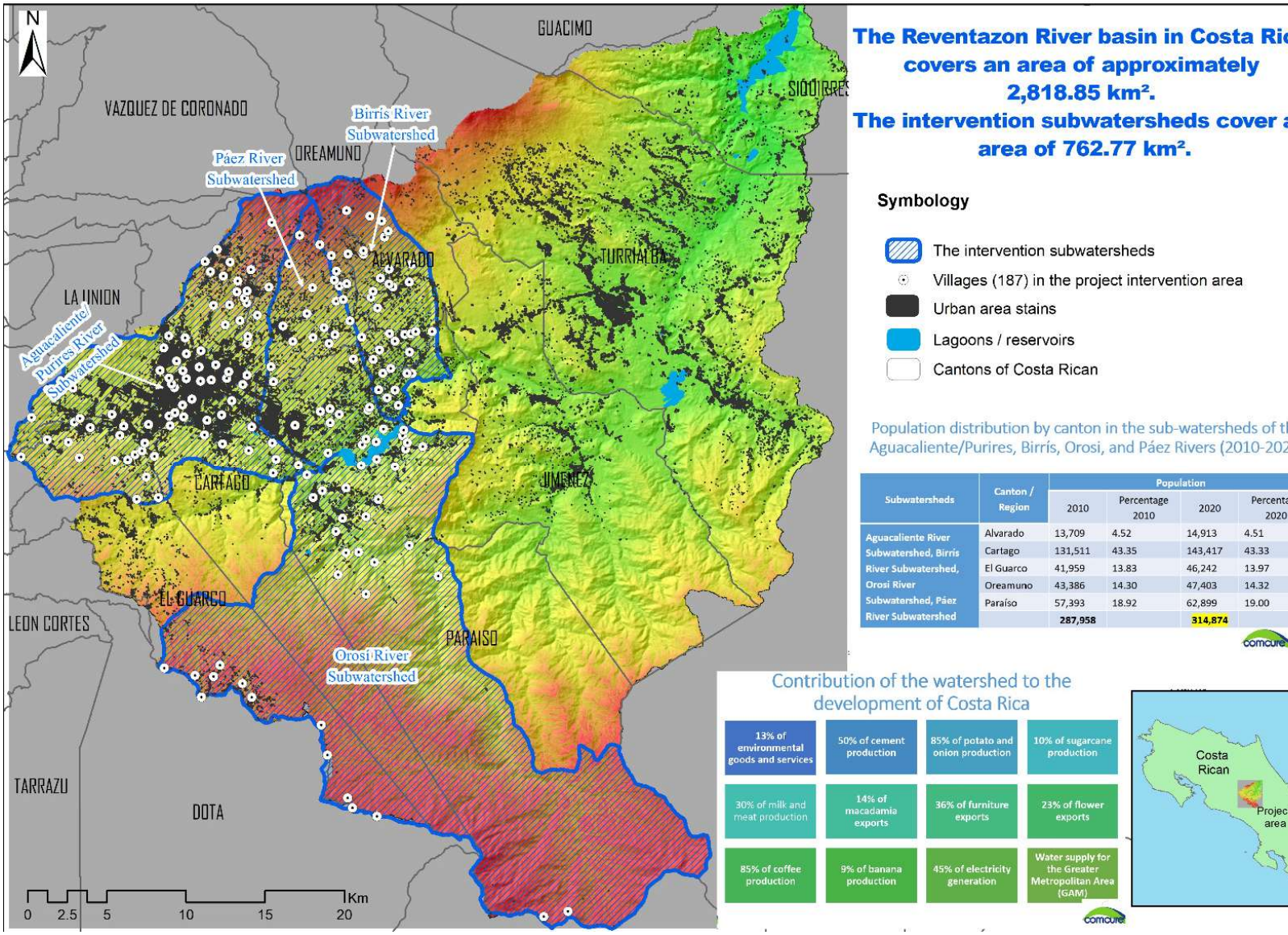

Figure 1. Location of upper and middle part of the Reventazon river Watershed as priority sites for the project. Framed within the Lambert projection coordinates Easting 578000 to 586000 and Northing 221000 to 231000. It can be located within these coordinates on the Bonilla cartographic sheet of the National Geographic Institute (IGN), at a scale of 1:50,000. This map displays the exact boundaries of the three intervention areas within the Reventazon watershed, overlaid with urban zones, lagoon systems, village distribution, and the relevant cantonal divisions. A contextual inset also highlights the location of the project area within the national territory of Costa Rica.

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.

Therefore, the Reventazón River Watershed, located in Costa Rica, is the geographic focus of this proposal. It spans an estimated 2,818.85 km², encompassing various sub-watersheds that play critical ecological, productive, and social roles at the national level. Within this broader basin, the project prioritizes three specific sub-watersheds for intervention, covering a total area of 762.77 km²:

1) Aguacaliente/Purirres River Subwatershed
2) Birrís River Subwatershed
3) Páez River Subwatershed (part of the Orosí River system)

These areas were selected based on their high vulnerability to climate change impacts, existing community engagement, and relevance to national environmental priorities. These sub-basins are characterized by high ecological sensitivity and strategic value for water production and agricultural livelihoods.

The intervention zone includes 187 villages across five key cantons: Alvarado, Cartago, El Guarco, Oreamuno, and Jiménez. The total population living in the intervention sub-watersheds is approximately 314,878 people, based on data from the 2010 census and 2020 estimates. Population distribution (inhabitants) is as follows:

- Alvarado: 14,129
- Cartago: 43,131
- El Guarco: 40,817
- Oreamuno: 44,224
- Jiménez: 43,681

Target beneficiaries include:
-In Purires: horticulturists (vegetable producers), cattle ranchers (livestock systems), and local water boards (ASADAS), particularly in the Corralillo area.
-In Birrís–Páez: sugarcane farmers (cañeros), dairy cooperatives, and water users in Cañón de Birrís.
-In Orosi: coffee producers (caficultores), eco-tourism groups, and ASADAS in Palomo, La Flor, and surrounding communities.
These groups were directly involved in consultation workshops and will benefit from EbA practices such as riparian restoration, silvopastoral systems, and regenerative agriculture.

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.

Furthermore, such SAVi study, conducted during project preparation, revealed that the prioritized sub-basins present distinctive land-use patterns:

- Purires: Dominated by annual crops, particularly sugarcane and vegetables on steep slopes.
- Birrís–Páez: Mixed mosaic of perennial crops (coffee) and forest fragments under secondary succession.
- Orosi: Higher forest cover and proximity to aquifer recharge zones and protected areas, but also some horticulture.

Thus, proposed EbA measures are tailored to these landscapes:

- In annual crop areas, the project will support contour planting, vegetative barriers, and mulching to reduce erosion, enhance infiltration, and protect soil fertility.
- In coffee areas, interventions include shade tree enrichment, live fences, and soil conservation infrastructure to increase resilience to heavy rainfall and droughts.
- In areas near forest or protected lands, the focus will be on ecological restoration, riparian buffer zones, and forest–agriculture interfaces to enhance water regulation and biodiversity corridors.

These interventions will help communities reduce their exposure to extreme events while increasing productivity, securing access to water, and strengthening ecosystem health.

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.

A spatial analysis carried out during project preparation using the SAVi model revealed clear patterns of land use in the prioritized pilot sub-basins. In Purires, the landscape is dominated by annual crops (mainly sugarcane and vegetables) often located on steep, erosion-prone slopes. Birrís–Páez is characterized by coffee plantations interspersed with secondary forest patches. Meanwhile, Orosi contains a high proportion of natural and semi-natural forest cover, particularly in areas that overlap with aquifer recharge zones and protected lands.
The proposed EbA interventions are tailored to these land-use types:

- In annual crop zones (Purires), the project will promote vegetative barriers, contour farming, and organic mulching to reduce erosion, stabilize slopes, and improve water infiltration.
- In coffee-growing areas (Birrís–Páez), practices such as shade tree planting, live fences, and soil conservation ditches will be promoted to enhance resilience to erratic rainfall, reduce runoff, and improve microclimates.
- In forest-adjacent areas (Orosi), activities will focus on ecological restoration, riparian buffer zones, and conservation agreements to secure ecosystem connectivity and water recharge.

These location-specific measures ensure that adaptation efforts are technically appropriate, locally owned, and aligned with the communities' productive systems and environmental context.
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.

Table 1. Relationships among project components, activities, expected concrete outputs and corresponding budgets

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	Policy and financial mechanisms are promoted to support the integration of EbA in the Reventazón Basin.	858,000

[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$)
	developed to promote EbA interventions at the Reventazón Basin.		
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

Table 2. Milestones for the proposed project

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 tangible EbA measures listed under Output 1.1 and 1.3 directly address the increasing intensity of rainfall, erosion, sedimentation, and dry-season water stress identified in the background section (pages 3–6). For example, riparian buffers and slope stabilization reduce sedimentation into hydropower reservoirs and municipal aqueducts, while agroforestry systems increase infiltration and support dry-season flow regulation. The provision of capital goods such as fencing for silvopastoral systems or infiltration trenches will concretely reduce runoff velocity, prevent landslides, and enhance aquifer recharge. These assets respond directly to local priorities validated through participatory consultations in Purires, Orosi, and Birrís–Páez sub-basins. A more concrete list of goods and services under these outputs is presented as follows:

For Output 1.1 – Ecosystem resilience is strengthened through upstream EbA interventions, our concrete products and capital goods will be:

- Agroforestry systems: Tree seedlings (native species), shade trees, support materials (stakes, fencing), agroforestry design plans.
- Silvopastoral and regenerative livestock systems: Grass-legume seed mixes, electric fencing equipment,

mobile water troughs, veterinary kits for sustainable grazing.

- Contour farming and soil conservation infrastructure: Terraces, infiltration trenches, contour ditches, bunds, and terracing tools (shovels, hoes, leveling A-frames).
- Riparian buffer restoration: Native tree seedlings, biodegradable plant protection, fencing materials to prevent livestock access, signage.
- Reforestation and slope stabilization infrastructure: Tree planting kits, soil stabilization mesh, live barriers (e.g., vetiver), erosion control materials.
- Rainwater harvesting infrastructure: Infiltration trenches, small-scale tanks, gutters, and filter systems aligned with national design standards.

Project services to deliver will be:

- Technical assistance and training (by MAG, CATIE, SINAES-MINAE, TEC, etc.)
- Land use planning and restoration design services (Updating the Reventazon river watershed management plan)
- Community mobilization and environmental education.

For Output 1.3 – Diversified income streams and improved livelihoods, our Project concrete products and services will be:

- Demonstration plots for sustainable agriculture and agroforestry.
- Community nurseries: Seeds, tools, greenhouse materials, irrigation kits.
- Marketing infrastructure: Signage, labeling tools, cooperative branding.
- Training programs and toolkits on value-added products and nature-positive entrepreneurship.
- Digital tools: Tablets and simple ICT (Information-Communication Technology) kits for women/youth groups for monitoring and cooperative management.

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 participatory design process for this proposal ensured representation beyond women, including youth, older adults, and other vulnerable or traditionally marginalized groups present in the Reventazón watershed. While there are no Indigenous populations within the project's geographic scope (as confirmed by COMCURE and SINAC), special attention was given to include older individuals, especially those recognized as local leaders or long-time land users, who hold valuable knowledge for decision-making and landscape management. Additionally, youth participation was facilitated through local environmental groups, community organizations, and technical education centers, helping ensure generational relevance in the design of adaptation actions. A Steering Committee, comprising institutions such as CATIE, COMCURE, and SINAC, oversaw the consultation process, ensuring that diverse stakeholder voices contributed to identifying climate risks and setting priorities. This inclusive approach strengthens the legitimacy and ownership of the project and aligns with the LLA principles of equity and locally led decision-making.

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.

This project is rooted in the LLA framework because communities in the Reventazón Basin face place-specific climate risks and have demonstrated the capacity to co-lead adaptation. By transferring control over resource allocation and adaptation design to local institutions and community actors, the project embodies the LLA principle of subsidiarity. The Innovation Fund and community-based steering mechanisms empower these stakeholders not just as beneficiaries but as decision-makers, which is essential for long-term adaptation success. This approach is especially justified given the asymmetry in access to technical support and climate finance currently experienced by women, smallholder farmers, and youth in the Basin.

Table 3. Relationship between LLA Principles and its application in the proposed project

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 a robust understanding of climate risk and uncertainty, through participatory monitoring, community-generated data, and integration of local experiential 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.

The project will target both national and local levels for regulatory and policy alignment. At the national level, it will work with regulatory frameworks such as the Water Law (No. 276), Forestry Law (No. 7575), Law of Use, management and soil conservation (No. 7779), all of which govern practices related to agroforestry, reforestation, water use, and land management. These national laws apply across Costa Rica's territory and guide the regulatory environment for EbA practices.

At the municipal level, the project will work with six municipalities within the Reventazón watershed—Cartago, El Guarco, Oreamuno, Jiménez, and Alvarado—to support regulatory harmonization and local ordinance development. These actions will be coordinated with COMCURE to ensure alignment between watershed-scale governance and local land use regulation. Municipal contributions will focus on enabling PES uptake, zoning for water source protection, and recognition of EbA benefits within local policy instruments.

Furthermore, the project will contribute and is aligned with the following National Policy Frameworks:

- National Climate Change Adaptation Policy 2018–2030 (PNACC) – Guides adaptation strategy, prioritizing EbA and water management (MINAE).
- National Development and Public Investment Plan 2023–2026 – Promotes climate resilience and territorial sustainability (MIDEPLAN).
- National Sustainable Production and Consumption Policy 2018–2030 – Supports circular economy, sustainable value chains, and resource efficiency (MINAE).
- National Rural Territorial Development Plan 2016–2030 – Promotes rural land-use planning, water security, and local adaptation (INDER).
- National Decarbonization Plan 2018–2050 – Emphasizes territorial management, NbS, and carbon-neutral development (MINAE).
- National Biodiversity Policy and Action Plan 2016–2025 – Aligns conservation, restoration, and watershed biodiversity management (SINAC-MINAE).
- National Water Policy (Política Hídrica Nacional) – Establishes IWRM principles, watershed governance, and the right to water (MINAE).
- National Plan for Integrated Water Resource Management (PNGIRH) – Operationalizes integrated and cross-sectoral water planning (MINAE).
- Water Law No. 276 – Legal basis for water governance, access rights, and watershed protection (under reform).
- National Drinking Water Policy 2017–2030 – Targets universal clean water access with emphasis on rural ASADAS (MINAE).
- National Sanitation Policy 2016–2045 – Expands wastewater treatment coverage and water quality protection (MINAE).

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.

As stated in section II, in the previous paragraphs, the project will target both national and local levels for regulatory and policy alignment, all of which govern practices related to agroforestry, reforestation, water use, and land management. These national laws apply across Costa Rica's territory and guide the regulatory environment for EbA practices.

At the municipal level, the project will work with six municipalities within the Reventazón watershed—Cartago, El Guarco, Oreamuno, Paraíso, Jiménez, and Turrialba—to support regulatory harmonization and local ordinance development. These actions will be coordinated with COMCURE to ensure alignment between watershed-scale governance and local land use regulation. Municipal contributions will focus on enabling PES uptake, zoning for water source protection, and recognition of EbA benefits within local policy instruments.

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.

While the project does not directly seek to reform existing municipal regulatory frameworks, it aims to strengthen local governance and influence land use and adaptation-related decisions in the municipalities of Paraíso, Jiménez, and Turrialba. These municipalities are part of the prioritized sub-watersheds and have a presence in COMCURE, the basin's coordination platform. By supporting field implementation of EbA practices through local farmer-to-farmer demonstration models, the project promotes behavioral and cultural change among land users and authorities. This 'neighbor-to-neighbor' demonstration approach is designed to radiate learning and adoption, which can ultimately influence municipal decisions around climate-resilient land and water management.
Although no formal municipal regulatory updates are planned, the project fosters strong institutional coordination via COMCURE, with representation from municipalities, ICE, ASADAS, and civil society, helping ensure long-term institutional sustainability. Additional sustainability mechanisms include:

- Economic: Reduced sedimentation in rivers improves hydropower plant efficiency and lowers maintenance costs.
- Environmental: Enhanced provision of ecosystem services, particularly for water regulation and risk mitigation.
- Social: Empowerment of local actors, particularly underrepresented groups, through advisory and implementation roles.
- Institutional: Strengthening of COMCURE's coordinating role and increased awareness and ownership by municipal authorities.
- Financial: Resource mobilization and training activities are designed to continue through local institutions and leverage co-financing opportunities.

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.

The project will generate multiple economic, social, and environmental benefits at local and national levels:
Economic Benefits:

- Reduced sedimentation in major hydroelectric infrastructure (e.g., Reventazón, Cachí), lowering maintenance costs and increasing clean energy production efficiency.
- Increased agricultural productivity from improved soil stability, water retention, and resilience to climate stressors.
- Greater access to financial mechanisms for smallholder farmers, women, and youth through capacity-building and linkages to green financing programs.

Social Benefits:

- Strengthened community governance and decision-making, especially through the participation of women and youth in Local Advisory Committees and the Technical Implementing Committee.
- Improved water security for rural households, especially those relying on ASADAS in dry-season-sensitive areas.
- Targeted support to reduce structural barriers that limit women and youth's access to technical assistance, funding, and EbA technologies.

Environmental Benefits:

- Erosion control and slope stabilization across priority agricultural zones, reducing risk of landslides and downstream sedimentation.
- Enhanced water regulation and aquifer recharge through forest restoration and riparian buffer protection.
- Improved biodiversity conservation and landscape connectivity in the upper and middle Reventazón watershed.

Alignment with Costa Rica's National Adaptation Plan (NAP 2022–2026)[2]
Additionally, the project is aligned with key national policies such as the National Development and Investment Plan (2023–2026) and the National Decarbonization Plan (2018–2050), both of which prioritize sustainability, competitiveness, and energy efficiency through low- or zero-carbon sources. Notably, the project is directly aligned with and contributes to the National Adaptation Plan to Climate Change (NAP) 2022–2026, Costa Rica's primary adaptation roadmap. The project makes concrete contributions to NAP Axes 1, 2, 3, and 4: strengthening knowledge management and capacity building (Axis 1); integrating adaptation criteria and Nature-based Solutions (NbS) into territorial management instruments and municipal and community capacity building (Axis 2); prioritizing the restoration of strategic ecosystems and sustainable management of water resources in priority watersheds (Axis 3); and promoting climate-resilient energy and water infrastructure (Axis 4). Key actions include the training and capacity building of local and sectoral stakeholders, access to and use of climate information for decision-making, and the implementation of participatory and community-based water resource monitoring. These actions directly support key NAP targets, such as the incorporation of adaptation criteria in at least 50% of regional and local instruments, the increase in areas under ecosystem-based management, the reduction of infrastructure vulnerability to climate threats, and the strengthening of technical and social capacities at all levels. The project also upholds the NAP's cross-cutting principles of gender equity, inclusion, social participation, innovation, and economic and fiscal sustainability. Thus, the

- [2] Source: Climate Change Directorate; Ministry of Environment and Energy. (2022). *National Adaptation Plan to Climate Change of Costa Rica, 2022–2026*. San José, Costa Rica. 204 pp. https://cambioclimatico.minae.go.cr/wp-content/uploads/2022/04/NAP_Documento-2022-2026_VC.pdf

project operationalizes national adaptation priorities, making a concrete contribution to the achievement of the NAP objectives for the 2022–2026 period.

Table 4. Linkages between Project Activities and NAP 2022–2026 Products/Actions

Project Activity	NAP Axis/Target	NAP Product/Action
Implementation of participatory and community-based monitoring of water resources and ecosystems	Axis 1 – Knowledge management and capacity building	Early warning and monitoring systems developed and strengthened at the local level (Products 1.1, 1.3, Ch. 5, Annex 1)
Training and capacity building for local stakeholders (communities, local governments) in EbA and resilience	Axis 1 – Knowledge management and capacity building	Strengthening technical and social capacities; generation and dissemination of relevant climate information (Products 1.1, 1.4)
Integration of adaptation criteria and NbS into territorial and watershed planning	Axis 2 – Resilient territorial planning	Inclusion of adaptation criteria in at least 50% of regional/local planning instruments (Axis 2 Target, Ch. 5, Annex 1)
Restoration and conservation of priority ecosystems (reforestation, agroforestry, riparian zones)	Axis 3 – Biodiversity and watersheds	Increase in hectares under restoration and ecosystem-based management; development of biological corridors; sustainable watershed management (Axis 3 Target, Products 3.1, 3.3)
Implementation of green infrastructure and improvement of climate-resilient water services	Axis 4 – Resilient infrastructure	Adapted water infrastructure and public services; reduction of vulnerability to extreme climate events (Axis 4 Target, Product 4.1)
Promotion of financial mechanisms and incentives for EbA	Axis 2 and Cross-cutting principles	Development of financial incentive frameworks and public policies for EbA (Product 2.2, Axis 6: financial sustainability)
Inclusion of gender perspective and vulnerable groups in decision-making and actions	NAP Cross-cutting principles	Effective participation of women and vulnerable groups in project governance and activities (Ch. 4 & 5, cross-cutting)
Dissemination of lessons learned and creation of communities of practice	Axis 1 and Cross-cutting principles	Platforms for knowledge exchange, communication, and replication of successful experiences (Product 1.4, Annex 1)

To achieve the outcomes described above, the project will implement a portfolio of concrete Ecosystem-based Adaptation (EbA) activities. These include reforestation of riparian zones, slope stabilization using native vegetation, agroforestry systems in degraded farmland, water harvesting micro-infrastructure, and forest restoration through natural regeneration and enrichment planting. These actions were identified in participatory planning processes and are tailored to the ecological and productive realities of the three pilot sites. Expected adaptation benefits include reduced soil erosion, improved infiltration and water regulation, protection from landslides and flooding, enhanced biodiversity, and increased resilience of local livelihoods to climatic variability. Sustainability of these measures is promoted through co-investment: producers will contribute land, labor, and in-kind support for implementation. This participatory co-financing approach ensures ownership and long-term maintenance. In addition, technical training and support will be provided to local farmer groups and water management organizations (ASADAS), who will be involved in monitoring and maintaining the interventions after project closure.

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 infrastructures 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.

The adaptation benefits expected from the EbA measures include reduced soil erosion and slope instability through restoration of degraded areas and agroforestry; increased water availability and groundwater recharge through infiltration practices; and improved local microclimates and ecosystem resilience via reforestation and riparian buffers. These benefits directly contribute to reduced vulnerability to landslides, floods, and droughts, particularly in the upper and middle sections of the Reventazón watershed.

Sustainability of green infrastructure beyond the project lifespan will be achieved through three mechanisms:

1. Co-investment by producers and landholders, who will contribute land, labor, or materials as in-kind contributions to the EbA practices they adopt. This ensures ownership and long-term care of EbA practices.
2. Strengthening of COMCURE, Sub-watershed Committees, and local ASADAS, which will support the continuity of EbA practices as part of basin-wide water resource management and community water supply protection.
3. Farmer-to-farmer diffusion strategy, which will allow for replication and scaling through demonstration and peer learning, reducing dependence on external financing.

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.

Table 5. Linkages between Project Activities and NAP 2022–2026 Products/Actions

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	AyA / SETENA / Decree 32327	No EIA needed for small-scale	Overflow, contamination risks	Design per MINAE-AyA guidelines; involve

EbA Measure / Activity	Relevant Legal Instruments / Institutions	Required Standards / Permits	Potential Risks to Address	Notes / Compliance Actions
Infiltration Trenches		systems, but design must follow national standards		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.

The proposed project does not duplicate other initiatives in the Reventazón watershed. Regarding the "Ecosystem-Based Adaptation in the Reventazón River Basin" mentioned by the reviewers, it is important to clarify that this was a desk-based modeling and scenario planning exercise conducted by the World Resources Institute (WRI) and not an implemented field project. Therefore, this proposal constitutes the first EbA implementation in the prioritized sub-basins, applying and expanding upon lessons learned from previous simulations.

Similarly, the Reventazón Hydropower Project, operated by the Costa Rican Electricity Institute (ICE), refers to the physical infrastructure (dam and reservoir) downstream of the project sites. Rather than duplicating efforts, the proposed interventions will complement this energy infrastructure by improving upstream land management, reducing erosion and sedimentation, and enhancing water regulation—leading to increased efficiency and lower maintenance costs for hydropower operations. Thus, the proposed project adds climate resilience value to both past analytical work and existing infrastructure.

The term *"pilot sites"* in this proposal refers to the context-specific application and co-implementation of EbA measures within three sub-basins of the upper and middle Reventazón watershed—Purires, Birrís–Páez, and Orosi—rather than to entirely new or untested interventions. While previous projects (such as those implemented by COMCURE, FONAFIFO, or Agua Tica) have generated important lessons on water-based EbA and PES, these interventions had different spatial, institutional, and socio-ecological contexts.
In this project, the term "pilot" reflects the intention to test integrated models of locally led governance, financial incentives (such as Innovation Funds), and participatory monitoring mechanisms, in alignment with LLA principles. The EbA practices (e.g., agroforestry, silvopastoral systems, riparian restoration) are well known in Costa Rica, but their co-governance, funding, and scaling mechanisms are being adapted to new community dynamics and climate risks.
Therefore, the project is not piloting the EbA practices themselves, but rather piloting their locally led implementation at scale, including decentralized governance models, inclusive fund management, and community-driven learning systems. These are preconditions for effective and replicable scaling in Costa Rica's diverse watershed contexts.

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.

The project places local communities at the forefront of both climate risk identification and decision-making. Between 2022 and 2024, CATIE and COMCURE facilitated 11 participatory workshops across the prioritized sub-basins of Purires, Birrís–Páez, and Orosi, where community members conducted preliminary risk mapping, prioritization of adaptation options, and validation of EbA measures. These sessions involved diverse stakeholders including ASADAS, coffee and sugarcane producers, horticulturists, livestock keepers, women's associations, and municipal officials, who shared their lived experiences and local knowledge of climate impacts such as reduced spring flows, soil erosion, and extreme rainfall. These insights directly shaped the formulation of proposed project components.

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.

Furthermore, during the consultative process, several barriers faced by women and youth were clearly identified. Women, particularly those engaged in small-scale agriculture or caregiving roles, reported limited access to technical training, financial services, and land tenure, which restricts their ability to participate in ecosystem-based adaptation (EbA) interventions or access incentives. Youth participants noted challenges in securing employment and a lack of tailored training in climate adaptation and entrepreneurship. These barriers were considered in the design of project activities and targeted outreach efforts. As part of the gender-responsive and socially inclusive approach, the project includes specific activities such as tailored training, participation in decision-making platforms, and support for accessing EbA incentives, particularly through Output 1.3 and 2.2.The consultative process intentionally included other key groups beyond women, particularly youth and older adults, who are relevant in the Reventazón watershed context. While there are no Indigenous communities identified in the project's geographic scope, the consultation workshops included youth from local technical schools, young producers, and community leaders. Older adults, often landowners and decision-makers in farming households, also actively participated, contributing valuable historical and environmental knowledge. Their inclusion helps ground ecosystem-based adaptation (EbA) strategies in local realities. These groups have been integrated into project planning through participatory diagnosis, design validation workshops, and the Local Advisory Committee (LAC), ensuring that the voices of youth and marginalized individuals help shape the project design and implementation.

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 prorities directly shaped the proposed activities and financing mechanisms.

Table 6. 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.

Workshop	Participants	Main findings
		○ 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. • 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,	• 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).

Workshop	Participants	Main findings
	SINAC, FONAFIFO, MINAE, CATIE, FUNBAM, and other stakeholders in the Reventazón Basin.	• 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.

While institutions such as CATIE and SINAC do not embed individual community members in their internal governance structures, the project ensures direct representation of community interests through multiple mechanisms. First, the Steering Committee itself includes local stakeholders, including COMCURE, municipal governments, and representatives from community-based organizations. Second, a strong foundation of local coordination already exists in the form of active Sub-Watershed Commissions operating in the Reventazón Basin, including those of the Purires, Orosí, and Páez-Birrís rivers. These commissions are inclusive multi-stakeholder groups composed of ASADAS, local governments, COMCURE, youth, women, retired elders, environmental groups, and other community members, who meet regularly to plan and oversee activities using a watershed-based approach. These structures ensure participatory and horizontal

decision-making, and several representatives from these commissions are expected to take part in the Local Advisory Committee (LAC) and Technical Implementing Committee (TIC). The TIC, led by COMCURE, will work closely with communities, ensuring that EbA activities respond to local priorities and reflect the knowledge and participation of diverse community actors. This embedded governance structure provides legitimacy, accountability, and ensures that the project builds upon existing community-based platforms.

Community participation will continue throughout the project lifecycle via a multi-tiered governance structure, preliminarily structured as follows:

- Local Advisory Committees (LACs), composed of community representatives, provide inputs on local priorities and implementation oversight.
- The Technical Implementing Committee (TIC), led by COMCURE, ensures local knowledge is reflected in daily operations and facilitates coordination across the sub-basins.
- The Steering Committee (SC) includes community and institutional representatives who review and approve work plans and budgets.
- A Project Management Unit (PMU) and a Technical Advisory Group (TAG) support implementation while ensuring strategic and scientific alignment.

This structure allows local actors to shape decisions on investments, implementation strategies, adaptive management, and monitoring. It also ensures upward and downward feedback loops between local, regional, and national actors, fulfilling the LLA principle of “devolving decision-making to the lowest appropriate level.

The project's Steering Committee will include direct community representation to ensure that the priorities, values, and needs of local stakeholders are reflected in governance and implementation decisions. While institutions such as CATIE and SINAC do not have formal community members within their structures, COMCURE is a legally established inter-municipal and intersectoral body that includes mayors, ASADAS, producer organizations, and other local actors from within the Reventazón watershed. COMCURE’s structure enables direct participation of community-based representatives and water users, serving as a critical channel for local voices. Furthermore, additional community leaders and civil society representatives will be formally invited to participate in the Steering Committee to reinforce local ownership, equity, and accountability. This participatory composition aligns with the principles of Locally Led Adaptation, particularly in upholding inclusivity and downward accountability throughout the project lifecycle.

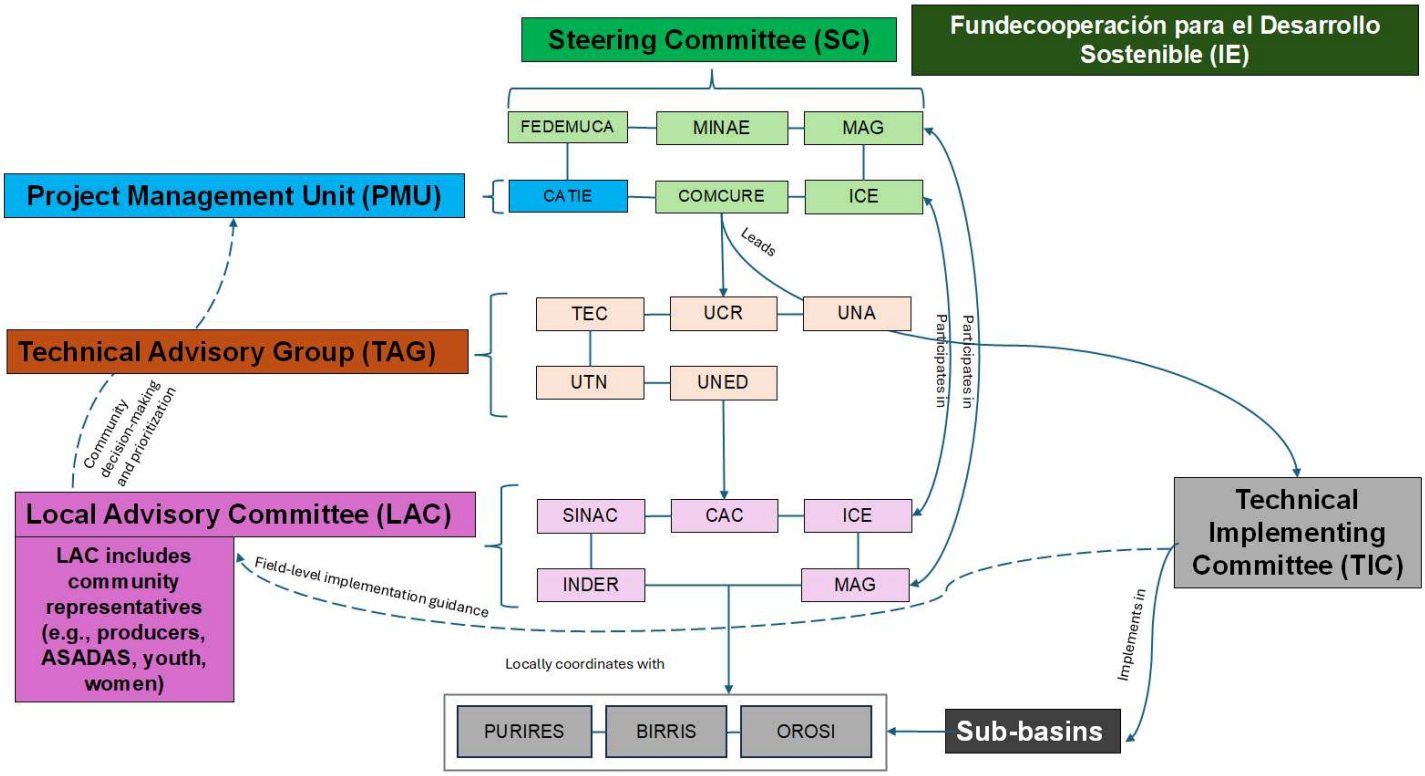

Figure 2. Preliminary Project Governance Structure and Decision-Making Flow. The governance structure ensures that community representatives—especially producers, ASADAS, youth, and women—actively shape and prioritize the selection of EbA measures through the Local Advisory Committees (LACs). Decision-making flows from communities to implementation units, aligning with the LLA approach under the Adaptation Fund. These arrangements will be refined and formalized in the full proposal stage.

To guarantee fair and equitable distribution of project benefits, the selection of direct beneficiaries will follow a transparent process led by the Local Advisory Committees (LACs) and supervised by COMCURE. The prioritization will use a set of agreed-upon criteria, including:

1. Exposure to climate risks (e.g., vulnerability to floods, landslides, water shortages).
2. Degree of dependence on ecosystem services for livelihoods.
3. Socioeconomic vulnerability, including limited access to resources or credit.
4. Gender and youth inclusion, with targets to increase female-headed households and youth participation.
5. Willingness to adopt EbA practices and participate in co-management activities.

This inclusive selection process will be validated in each sub-basin (Purires, Orosi, Birrís–Páez), ensuring localized and needs-based targeting. Furthermore, communities will be directly represented in the decision-making bodies of the project through their LACs and the Technical Implementing Committee (TIC), reinforcing empowerment and accountability at the lowest appropriate level.

Alignment with the Adaptation Fund Results Framework and Core Indicators

The proposed project is strongly aligned with the Adaptation Fund's Results Framework and its seven strategic outcome areas. The project design integrates core indicators of the Fund across all three components, ensuring that outcomes are measurable, attributable, and contribute directly to climate adaptation in the Reventazón River Basin. This alignment reflects the project's multidimensional approach—combining ecosystem-based adaptation, institutional strengthening, inclusive governance, and climate-resilient livelihoods. The table below provides a detailed mapping of the project's contributions to the Adaptation Fund's core outcome areas and indicators.

Table 6. Relationships between Adaptation Fund (AF) Outcome Area, AF core indicator and the proposed project specific contributions to them.

AF Outcome Area	AF Core Indicator	Project Contribution
Outcome 1: Reduced exposure to climate-related hazards and threats	1.1 Number of direct and indirect beneficiaries	At least **6,000 direct beneficiaries**, including smallholder farmers, ASADAS, and community members across three prioritized sub-basins, will benefit from nature-based risk reduction measures (e.g., EbA, reduced erosion, flood control).
Outcome 2: Strengthened institutional capacity to reduce risks	2.1 Number of staff trained	More than **100 local and institutional stakeholders** (COMCURE, CATIE, SINAC, municipalities, ASADAS) will be trained in watershed governance, EbA, and adaptive planning tools.
Outcome 3: Strengthened awareness and ownership of adaptation	3.1 Number of outreach and advocacy campaigns	Community workshops, environmental education in schools, and communication campaigns will reach over **10,000 people**, supporting behavioral change and public awareness.
Outcome 4: Increased adaptive capacity in relevant sectors	4.1 Natural assets improved/restored	The project will establish or restore over **600 hectares** of natural infrastructure (e.g., vegetated barriers, forested riparian zones, agroecological plots).
Outcome 5: Increased ecosystem resilience	5.1 Area of ecosystems restored, preserved, or protected	Ecosystem-based adaptation activities will restore or preserve at least **1,000 hectares** of forest and riverine ecosystems in the upper Reventazón watershed.
Outcome 6: Diversified and strengthened livelihoods and sources of income	6.1 Number of households with climate-resilient livelihoods	Over **600 rural households** will adopt agroecological practices, water harvesting, and bioinput-based systems that improve both production and resilience.
Outcome 7: Strengthened policies and regulatory frameworks	7.1 Number and type of policies or frameworks developed or improved	The project will support the development of a **basin-wide strategic roadmap**, and propose regulatory inputs aligned with national policies (e.g., PNACC, national water and soil laws).

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 other 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.

Additionally, a Project Formulation Grant (PFG) has been requested for USD 149,996, with an associated Implementing Entity management fee of USD 11,750, equivalent to 7.8%, in compliance with Adaptation Fund guidelines.

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.

Based on the initial screening conducted in line with the Adaptation Fund's Environmental and Social

Policy and Instructions (October 2017), the proposed project is provisionally classified as Category B (moderate risk). The potential impacts are site-specific, limited in scale, and can be effectively mitigated. These impacts include temporary disturbance during the implementation of ecosystem-based adaptation activities (such as planting, minor land movement, or reforestation) and potential inequality in access if safeguards are not applied. These risks will be further assessed and addressed through an Environmental and Social Risk Assessment at the fully developed proposal stage.

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.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
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 further assessment required for compliance – no indigenous populations present in the project area (confirmed through COMCURE

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
		local consultation and national demographic data)[3]."
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

[3] Indigenous Peoples are not present in the project area; this has been confirmed through demographic data and local consultation with COMCURE. Although no further assessment is required for this principle, the project continues to prioritize inclusion of other vulnerable groups—particularly women, youth, and older adults—across all activities, in line with the AF's Social and Gender policies.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
		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[4]

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) fecha en que se firma*

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.

Name & Signature Implementing Entity Coordinator	
Date: *(Month, Day, Year)*	Tel. and email:
Project Contact Person:	
Tel. And Email:	

[4] 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.

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

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

Project Formulation Grant (PFG)

Submission Date: 11th July, 2025

Adaptation Fund Project ID:
Country/ies: Costa Rica
Title of Project/Programme: Grass-roots of Adaptation – Strengthening community climate resilience through locally led adaptation in Costa Rica
Type of IE (NIE/RIE/MIE): National Implementation Entity
Implementing Entity: Fundecoopreación Para el Desarrollo Sostenible
Executing Entity/ies: Local Governments, Local Organizations, NGO's, others.

A. Project Preparation Timeframe

Start date of PFG	October 2025
Completion date of PFG	March 2026

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
Stakeholder Mapping and Participatory Consultation	Comprehensive stakeholder map and engagement report, including a list of key actors, participation strategies, and documented community priorities.	23 550	Funds for stakeholder analysis, engagement logistics, facilitation, workshops logistics, translation, and tailored participation strategies targeted at youth, women, and indigenous communities.
Environmental and Social Risk Assessments and Safeguards	Environmental and social impact assessment report with identified risks, mitigation measures, and safeguards for project implementation.	27 200	Resources for conducting impact assessments, mitigation planning, consultations with local communities, and development of safeguard documentation
Gender and Generational Strategy Development	Gender and youth inclusion strategy, with clearly	22 900	Consultancy services, technical staff, trainings of EE and NIE

[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.

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
	defined actions, indicators, and implementation plan		staff, funding for tools such as data analysis, participatory workshops, and expert consulting to identify barriers and develop inclusive strategies promoting youth and women's participation.
Coordination with Government, Academia, and Innovation Actors	Partnership agreements, coordination frameworks, and a stakeholder engagement plan for ongoing collaboration	22 700	Budget for meetings, workshops, collaboration agreements, and communication platforms to foster inter-institutional synergy and leverage research and innovation networks.
Proposal development and submission	The proposal is complete and approved by the Adaptation Fund.	23 300	Consultancy services, technical staff, resources for technical writing, editing, translation, formatting, and alignment with fund guidelines, including expert support for strategy coherence.
Design of Monitoring & Evaluation (M&E) mechanism and USP management manuals and procedures	Monitoring and evaluation framework, including tools, indicators, and USP management manuals, ready for adoption during project implementation	19 600	Consultancy services, technical staff, funds for developing tailored monitoring tools, manuals, templates, and capacity-building activities to ensure transparent, scalable, and adaptive project management.
NIE fee		11 750	8,5% of project cost. Management fees for administratives cost, procurement costs, financial accountability, bank fees and transfers fees
Total Project Formulation Grant		$150.000	

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

Stakeholder Mapping and Participatory Consultation:
A comprehensive stakeholder mapping exercise will identify key local actors, including municipalities, community leaders, local organizations, women, youth, and indigenous groups. Tailored engagement strategies will be developed to facilitate inclusive and representative participation across different territories. Consultations—through workshops, interviews, and focus groups—will actively incorporate local knowledge and priorities, ensuring that the project design responds directly to community needs, aligns with local adaptation plans, and enhances local ownership. These processes will validate community-specific

risks, opportunities, and resilience strategies, establishing a solid foundation for the project's relevance and sustainability.

Environmental and Social Risk Assessments and Safeguards
Systematic risk assessments will focus on potential impacts to local ecosystems, cultural sites, and livelihoods at the community and municipal levels. These analyses will ensure compliance with the Adaptation Fund's safeguards and national regulations, with special emphasis on vulnerabilities identified through local and municipal adaptation plans. Based on findings, context-specific mitigation measures will be designed to prevent harm, support resilience-building, and ensure environmental and social equity at the local level.

Gender Analysis and Strategy Development
A gender analysis will be conducted with a focus on local dynamics, including intra-community roles, decision-making processes, and access to resources. The resulting gender strategy will promote active participation of women, youth, and vulnerable groups in local adaptation activities, ensuring their voices influence planning and implementation. This approach will facilitate equitable benefit sharing, strengthen local social cohesion, and promote community-led solutions aligned with municipal adaptation priorities.

Coordination with Local Governments and Community Stakeholders
Active engagement with municipalities and local authorities will be prioritized to support integration of the project within existing local adaptation plans and development strategies. This will foster coordination, facilitate resource mobilization, and ensure physical and institutional sustainability. Strengthening multi-stakeholder partnerships at the local level will enable ongoing feedback, local ownership, and post-project continuity.

Proposal Development and Submission
Building upon the above, all inputs—including local adaptation strategies, community feedback, and municipal priorities—will be integrated into a comprehensive proposal aligned with the Fund's requirements. This will include developing a logical framework, theory of change, and indicators that are suited for local implementation and monitoring. The proposal will be finalized with quality review, translation, and formatting, ensuring it reflects true local leadership and context.

Design of the Monitoring & Evaluation System and USP Manuals
A locally-contextualized M&E framework will be developed to track progress and assess impacts at the community and municipal levels. Manuals for managing USPs will be tailored to local conditions, ensuring effective, transparent, and shared management of pilot activities. These tools will support adaptive management, foster local learning, and enable the scaling of successful practices within and across territories, ensuring long-term impact driven by local actors

Budget breakdown	contractual services	technical staff	workshop logistics	communication materials (design and production)	local travel	total
Stakeholder Mapping and Participatory Consultation	8000	5800	7500		2250	23 550,0
Environmental and Social Risk Assessments and Safeguards	12500	2900	7500	2500	1800	27 200,0
Gender and Generational Strategy Development	12500	2900	6000		1500	22 900,0
Coordination with local government, and community stakeholders	12000	2900	3000	2550	2250	22 700,0
Proposal development and submission	14000	5800	2500			22 300,0
Design of Monitoring & Evaluation (M&E) mechanism and USP management manuals and procedures	10000	2900	3000	2500	1200	19 600,0
					subtotal	138 250,0
					fee (8,5%)	11 750,0
					total	150 000,0

For LLA Projects only:

If requesting additional funding for LLA projects to enable devolving decision making to the local level, please specify the activities that would directly serve to enable devolving decision making to the lowest appropriate level and enable local actors to make informed decisions on how adaptation actions are defined, prioritized, designed, and implemented: Please provide justifications for their need and for the amount of additional funding required:

No additional funding is requested. All proposed activities aimed at strengthening local-level decision-making are included within the original budget, ensuring their feasibility without the need for complementary resources.

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
Marianella Feoli		July 11th, 2025	Marianella Feoli Peña	+506 22254507	gerencia@fundecooperacion.org

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.

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)