



Project Identification Form (PIF) entry – Full Sized Project – GEF - 7

Fostering Water Security in the Trifinio Region: Promoting the formulation of a TDA/SAP for its transboundary Lempa River Basin.

Part I: Project Information

GEF ID

10108

Project Type

FSP

Type of Trust Fund

GET

Project Title

Fostering Water Security in the Trifinio Region: Promoting the formulation of a TDA/SAP for its transboundary Lempa River Basin.

Countries

Regional, El Salvador, Guatemala, Honduras

Agency(ies)

UNEP,

Other Executing Partner(s)

General Secretariat of the Organization of American States (GS/OAS)

Executing Partner Type

Others

GEF Focal Area

International Waters

Taxonomy

Sustainable Development Goals, Focal Areas, River Basin, Transboundary Diagnostic Analysis, International Waters, Pollution, Nutrient pollution from all sectors except wastewater, Paris Agreement, United Nations Framework Convention on Climate Change, Climate Change, Land Degradation, Sustainable Land Management, Sustainable Agriculture, Ecosystem Approach, Influencing models, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Demonstrate innovative approaches, Stakeholders, Communications, Education, Awareness Raising, Local Communities, Civil Society, Non-Governmental Organization, Community Based Organization, Academia, Information Dissemination, Type of Engagement, Consultation, Private Sector, Indigenous Peoples, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Capacity Development, Theory of change, Learning, Knowledge Exchange, Enabling Activities, Knowledge Generation, Freshwater

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Duration

48 In Months

Agency Fee(\$)

456,000

Submission Date

5/7/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
IW-3-5	GET	800,000	9,000,000
IW-3-6	GET	2,366,667	13,547,200
IW-3-7	GET	1,633,333	17,240,800
	Total Project Cost (\$)	4,800,000	39,788,000

B. Indicative Project description summary**Project Objective**

Reducing stress on the transboundary water resources in the Trifinio region by developing a Strategic Action Plan for its trinational Lempa River Basin and enabling the joint management of the shared water resources, while building community-based ecosystem resilience to climate variability and change.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
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<p>Component 1: Improved understanding of the key transboundary water resources uses, the environmental threats faced by the Lempa River Basin, and the corresponding root causes, impacts and gaps.</p>	<p>Technical Assistance</p>	<p>Outcome 1.1: Consensus reached amongst the countries and key stakeholders (<i>including the scientific community, CSO and private sector</i>) on the main environmental transboundary issues, their root causes, impacts and gaps.</p>	<p>Output 1.1.1: A Transboundary Diagnostic Analysis (TDA) for the Lempa trination river basin formulated on the principles of the water/food/energy nexus.</p> <p>Output 1.1.2: Environmental, social (incl. migrant issues) and gender assessments for the Lempa River basin identifying key weak points for intervention, including economic valuation of ecosystem goods and services as input to the TDA (Outputs 1.1.1) and to inform IWRM planning (SAP).</p> <p>Output 1.1.3: A Diagnostic Analysis for the transboundary aquifer system as input to the output 1.1.1 & 2 including prioritization of actions to support the conjunctive use and management of surface and groundwater as a way to achieve environmental security.</p> <p>Output 1.1.4: A knowledge portal with data on priority transboundary water issues, socio-economic characteristics, as well as water-energy-food nexus baseline to support the formulation of the Lempa trination river basin TDA and as input to outputs 4.1.1 & 2 below.</p>	<p>GET</p>	<p>900,000</p>	<p>5,880,000</p>
<p>Component 2: Enhancing integrated water resources</p>	<p>Technical Assistance</p>	<p>Outcome 2.1.</p>	<p>Output 2.1.1:</p>	<p>GET</p>	<p>1,300,000</p>	<p>14,650,000</p>

management governance in the Lempa Basin.

Existing basin-wide joint cooperation mechanism strengthened.

A Comprehensive inventory of national/regional legislative instruments and institutional frameworks and assessment of countries capacity to implement an Integrated Water Resources management approach.

Outcome 2.2:

An agreed way forward for the Lempa tri-national basin tri-national basin to support environmentally sustainable development of the Trifinio region and its water resources.

Output 2.1.2: Operational national and regional inter-ministerial committees, including a working group on IWRM, and a basin/region-wide multisector monitoring task force for the Lempa Basin.

Output 2.1.3:

A Transboundary Cooperation Agreement (Protocol/Directives) promoting effective investments in support of water resources management in the Lempa Basin.

Output 2.1.4:

At least 3 targeted capacity building training programs for relevant stakeholders at national and regional agencies as well as at the Trinational Commission for the Trifinio Plan (CTPT) to drive national and regional reforms on IWRM.

Output: 2.2.1: Strategic Action Plan (SAP) 2020-2035 [*Endorsed at the ministerial/presidential level*] including structural and non-structural measures, policy recommendations, a communication and data sharing strategy, a robust

financing strategy and modus operandi for attracting private sector interests, as appropriate.

Output 2.2.2: Long-term 2020-2035 investment plans (*including feasibility analysis*), environmental impact assessments for water infrastructure (small-scale nature-based solutions), and sustainability strategy for the Lempa Basin inclusive of donor roundtables.

Component 3: Demonstrating the feasibility and cost of innovative IWRM solutions.	Investment	<p>Outcome 3.1:</p> <p>Increased understanding of the impacts & feasibility of IWRM approaches in minimizing environmental risks & building ecosystem resilience.</p>	<p>Output 3.1.1:</p> <p>At least 4 IWRM demonstration projects in different parts of the Lempa Basin strengthening local capacity to support an ecosystem-based management approach at scale;</p> <p>a. Sustainability IWRN camps at San Francisco del Valle, targeting indigenous communities such as Copan Ruinas and Antigua Ocotepeque, with support from GEF-SGP.</p> <p>b. Water-use Efficiency working with the Coffee industry promoting the closed loop cycle approach (CE) maximizing sustainable production.</p> <p>c. Innovative and sustainable financial community-based initiatives (<i>e.g. water funds, tariffing, seed funding and microcredits scheme, PES etc.</i>) for the Lempa Basin to promote practices that avoid natural resources degradation as well as a compendium of best practices for upscaling.</p>	GET	1,475,000	6,919,200
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d. Remedial actions, improving water resources management at local levels – e.g. constructed wetlands, headwaters protection and targeted watershed cleanup day, conjunctive use of surface and groundwater management.

Output 3.1.2: Webinars and workshops, at least 2 /year, highlighting the experiences and the lessons learned from the demonstration project, and mainstreaming them into the SAP feasibility plans.

Component 4: Water resources monitoring programs for IWRM decision-making, and facilitation of information exchange within the Lempa Basin.

Technical Assistance

Outcome 4.1

Improved understanding of water security threats, and access to decision support tools for making informed IWRM decisions.

Outcome 4.2: Enhanced application and visibility of the project and the IWRM approach in the Lempa Basin.

Output 4.1.1: Decision Making Support System (DMSS) which allows the user to access, articulate and integrate information/data for decision making on IWRM in the Lempa Basin.

Output 4.1.2: Effective and operational internet-based tool harnessing data from output 1.1.1, and climate change adaptation and mitigation data (PIACT); as well as hosting the Decision Making (from output 4.1.1.).

Output 4.1.3: An integrated indicator-based hydro-climatic resources monitoring and reporting system (based on international standards such as IISD, IIASA, USGS, etc. and capitalizing on the TWAP/DHI Indicator Framework methodology) for the Lempa Basin.

GET 900,000 11,738,800

Output 4.2.1: Communication and awareness building strategies, *inclusive of;*

- IWRM specific educational programs, at least 2, for the local communities, universities, schools, governments and other stakeholders. *(Including the adaptation of the OAS water and education program.)*
- CTPT specific communication strategy.
- Lempa Basin IWRM Drive multi-stakeholder campaign.
- Ecotourism/IWRM promotional material for the private sector (hotels).

Output 4.2.2: Accessible project website compliant with the IW:LEARN toolkit (inclusive of project developed data); participation at the International Waters conferences; and at least 3 experience notes and fact sheets.

Sub Total (\$)	4,575,000	39,188,000
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Project Management Cost (PMC) ⓘ

GET	225,000	600,000
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Sub Total(\$)	225,000	600,000
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Total Project Cost(\$)	4,800,000	39,788,000
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C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Government of Honduras	In-kind	Investment mobilized	5,600,000
Government	Government of Honduras	Grant	Investment mobilized	500,000
Government	Government of El Salvador	In-kind	Investment mobilized	6,500,000
Government	Government of Guatemala	In-kind	Investment mobilized	12,300,000
Donor Agency	GS/OAS	In-kind	Investment mobilized	600,000
CSO	National Coffee Association (ANACAFE)	In-kind	Investment mobilized	900,000
CSO	Farmers Organization (Green Fund) Esquipulas	In-kind	Investment mobilized	8,000
CSO	Departmental Network of Chiquimultecas Women (REDMUCH)	In-kind	Investment mobilized	480,000
CSO	Trifinio Association for Sustainable Development (ATRIDEST)	In-kind	Investment mobilized	1,000,000
CSO	Brotherhood of Honduras	In-kind	Investment mobilized	1,500,000
CSO	Commonwealth of Trifinio Municipalities Honduras	In-kind	Investment mobilized	4,400,000
CSO	Commonwealth of mayors, Trifinio and Cayaguaanca	In-kind	Investment mobilized	1,200,000
CSO	Commonwealth of Trifinio Municipalities El Salvador	In-kind	Investment mobilized	4,800,000
			Total Project Cost(\$)	39,788,000

Describe how any "Investment Mobilized" was identified

Co-financing has been identified in consultation with countries and the Executing Agency. Such co-financing from countries is coming in the form of in-kind mobilized investments. Investments have indeed been mobilized with other donors for programmes and activities which will run in parallel and contribute to the

work of the proposed project. The same applies to OAS' co-financing. The PIF design Task Team has called on countries and partners to inventory parallel activities and programmes which were reviewed to ensure that such investments were forward looking and relevant to the objectives of the proposed project. While such investments were mobilized with other donors in the region, they are listed against countries as in-kind mobilized investments given that countries are the recipients of the resources in charge of the delivery. Honduras, in contrast, is providing USD 500,000 of cash co-financing to support project execution. Such co-financing contributions will be confirmed in writing by CEO endorsement and tracked during project execution. The co-financing is by no mean recurring expenditure. It indeed corresponds to activity resources.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Regional	International Waters	International Waters	4,800,000	456,000	5,256,000
Total GEF Resources(\$)					4,800,000	456,000	5,256,000

E. Project Preparation Grant (PPG)

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNEP	GET	Regional	International Waters	International Waters	150,000	14,250
Total Project Costs(\$)					150,000	14,250

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF) ⓘ	Ha (Expected at CEO Endorsement) ⓘ	Total Ha (Achieved at MTR) ⓘ	Total Ha (Achieved at TE) ⓘ	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
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Indicator 3 Area of land restored ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.2 Area of Forest and Forest Land restored ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

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Indicator 3.3 Area of natural grass and shrublands restored ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

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Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

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Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas) ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

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9569.00

0.00

0.00

0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified) ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares) ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

9,569.00

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title

Submitted

Indicator 7 Number of shared water ecosystems (fresh or marine) under new or improved cooperative management ⓘ

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Lempa			
Count	1	0	0	0

Indicator 7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)



Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Lempa	1			

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)



Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Lempa	1			

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)



Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Lempa	1			

Indicator 7.4 Level of engagement in IWLEARN through participation and delivery of key products(scale 1 to 4; see Guidance)



Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Lempa	1			
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Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

N/a

Part II. Project Justification

1a. Project Description ⓘ

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed;

Background;

The Trifinio Region consists of 7,541 km² of ecologically diverse and indivisible terrain, as declared by the Plan Trifinio (explained below), spread over the point where the borders of El Salvador (15.6% of the area), Guatemala (46.5% of the area) and Honduras (37.9% of the area) meet. There are five types of forests found within Trifinio: cloud forests, transitional forests, mixed forest consisting of pines and oaks, subtropical dry forests, and tropical forests. The Trifinio Region is considered, as per the Central American Commission for Environment and Development (CCAD), as a priority area for the Mesoamerican Biological Corridor as described in the Regional Strategy for the Conservation and Sustainable Use of the Mesoamerican Biodiversity, as well as being one of the few areas that links the Atlantic and Pacific Oceans.

At the heart of this region is the Montecristo Massif, which is one of the largest (12,000 ha) and least disturbed cloud forests in Central America recognized by its unique biological diversity. This virgin forest harbors many endemic species of flora and fauna that are considered endangered and comprises the upper reaches of three of the most important watersheds in Central America. Also, a key function of this mountain area is guaranteeing water supply for local communities and playing an important role in regional development through the promotion of coffee production, conifer forest extraction and agro-tourism.

The region is home to endangered ecoregions such as the pine oak forest and the mountainous forest of Central America. As per SalvaNatura NGO data, nearly 1,500 species have been inventoried (900 plants, 100 beetles, 50 amphibians and reptiles, 80 mammals and 300 birds among others). Around 70 species use this region as a migration ground and at least 12 of them are endangered migratory species of global significance (e.g. Galapagos Petrel, Guatemala Spikethumb Frog, Geoffroy's Spider Monkey) henceforth stressing the need for maintaining healthy ecosystems and water resources for the benefit of regional and global biodiversity. Unfortunately, anthropogenic pressures have reduced the Montecristo Massif to an island surrounded by fragmented habitat. Cloud forests serve as a specialized habitat for many endemic species – organisms uniquely adapted to cloud forest that cannot live in any other habitat. Therefore, the loss of their habitat leads to decreased biodiversity. Unsustainable land use practices, encroachment of agriculture on forested area, coupled with the lack of management and enforcement capacity from the governments in the region have resulted in the increased degradation of the Trifinio region's shared natural resources.

The Lempa River Basin and its Aquifer system

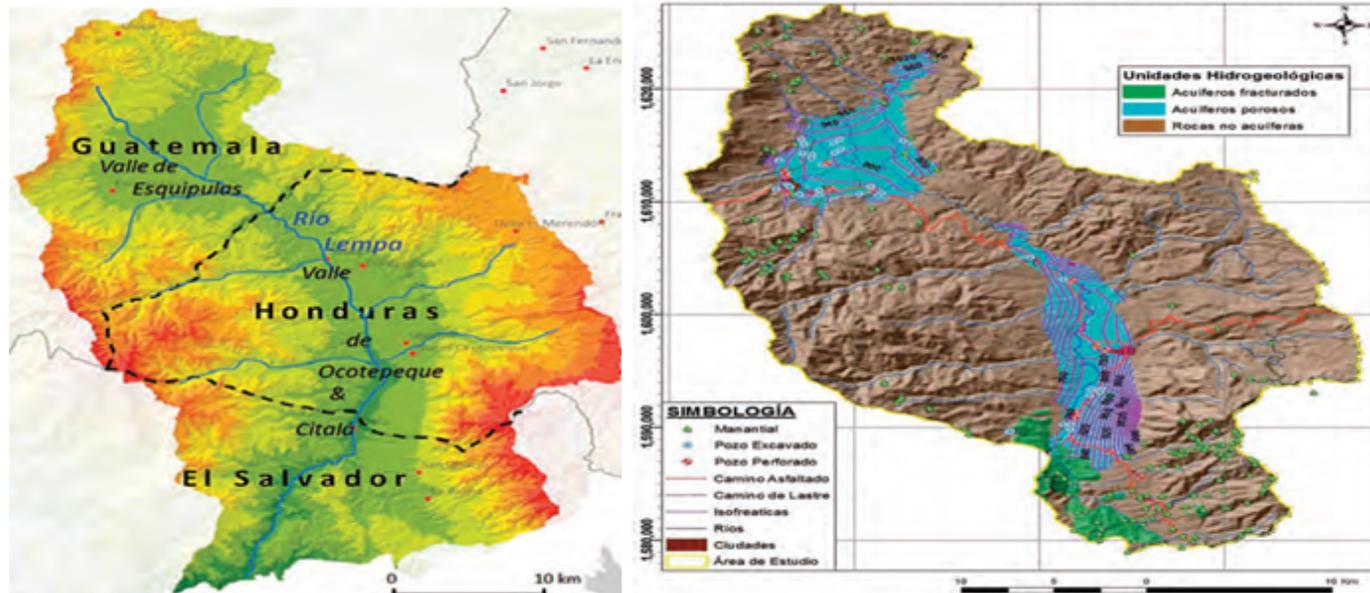
The region has several sub-basins. Lempa, a transboundary trinational river basin is one of them which is shared by Guatemala, Honduras and El Salvador and will form the geographical scope of this project. Other rivers include Motagua River flowing toward the Guatemalan territory; and Ulua River into Honduras.

The Lempa runs from the southeastern territory of Guatemala and southwestern part of Honduras, at an approximate elevation of 1,500 meters, up until the Pacific Ocean in El Salvador. The total area of the river basin is approximately 18,240 km² of which 10,215 km² (56 %) are in El Salvador; 5,472 km² (30 %) in Honduras; and 2,553 km² (14%) in Guatemala. The upper Lempa River, with an area of 3,618.50 km² and an estimated population of 350,065 inhabitants, is characterized as an ecologically fragile system whose resources are under extensive pressure from unsustainable use and exploitation thereby limiting further development of the region.

The Trifinio region has 3 main basins and 10 sub-basins. Topography, geological structure and climate conditions, as well as vegetation cover determine the density of its basin's water network (drainage density [1]) hence its high predisposition to erosion and floods.

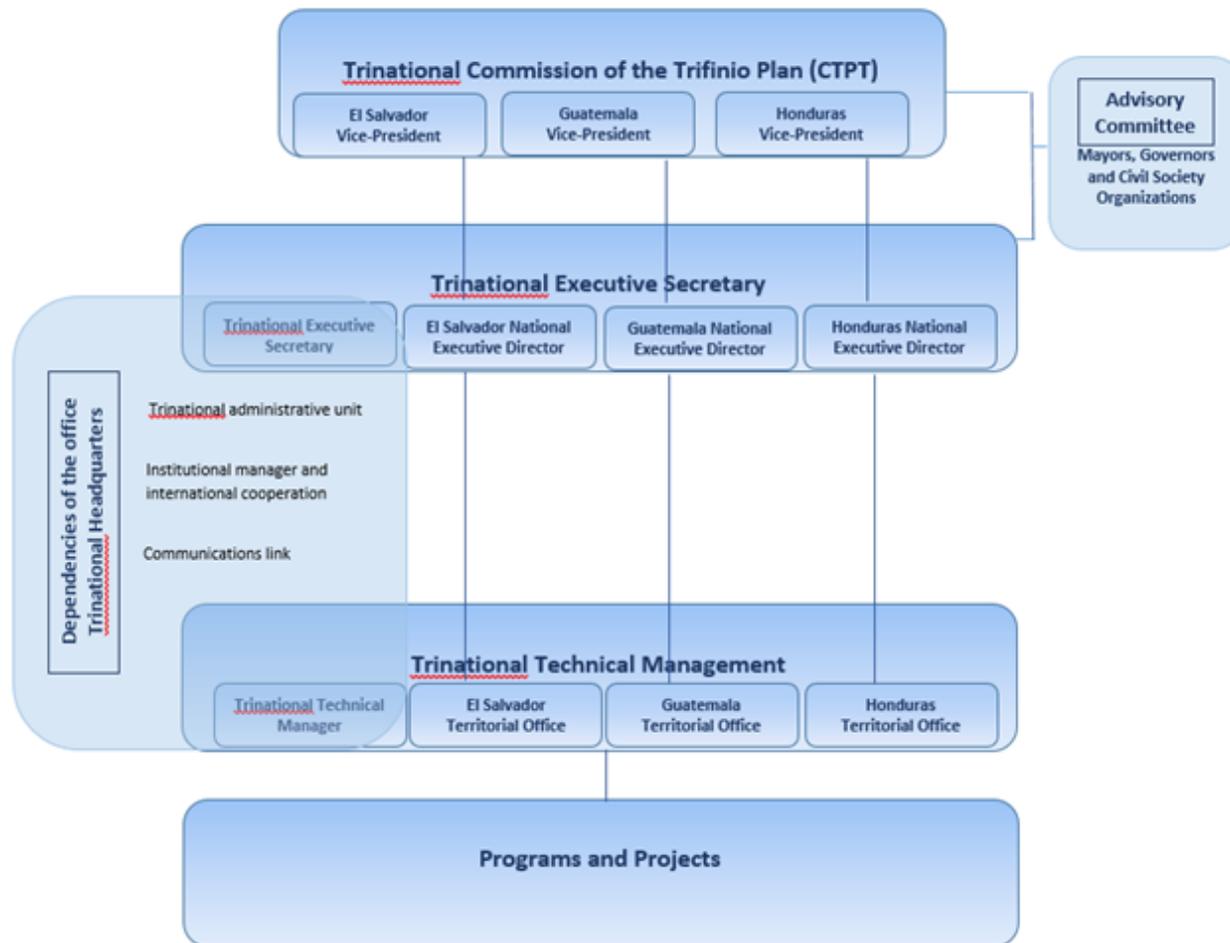
The Aquifer system is characterized by four hydrogeological recharge areas based on their capacity to store and circulate water underground ranging from high infiltration or recharge areas to zones of mid infiltration with deep water levels to areas of mid infiltration with water levels close to surface and, zones of low infiltration.

According to an IGRAC case study assessment report on the Trifinio Aquifer"[2], the Trifinio aquifers are only moderately productive but they are abundantly recharged due to the considerable rainfall surplus during the rainy season and their favorable location as it comes to intercepting runoff from the surrounding mountainous zones. The study also describes two separate spatial units, one in the Valle de Esquipulas and the other one in the **Valle de Ocotepeque–Citalá** (the only transboundary aquifer in the Trifinio Honduras-El Salvador) (see image below). Only the aquifer zone in the Valle de Ocotepeque-Citalá (OC-C) is transboundary and shared between Honduras and El Salvador. However, all alluvial aquifer units in the aquifer system, including those in Guatemala, are hydraulically connected by Río Lempa.



The three Trifinio countries rely to varying degrees on the system's water resources (surface and groundwater) for agriculture, industry (manufacturing), energy, domestic and subsistence needs, conservation and tourism (there are important tourist attractions in it such as: The Archaeological Park of Copan Ruinas, the Basilica of the Cristo Negro Esquipulas and the National Park of Montecristo). Throughout the entire watershed subsistence agriculture (production of basic grains) is practiced, and it is estimated that around 7 million peoples live within the stretch of the three major basins of the region, therefore, its health is fundamental for the sustenance of the inhabitants of the riparian countries.

Consequently, in an effort to address some of these issues, the Trifinio Plan, was formulated on November 12, 1986, with support from the governments of El Salvador, Guatemala and Honduras, the OAS, IICA and the European Economic Community (now the European Union). The Plan consists of an institutional process promoted by the three governments, in which the common expectations and interests of the different communities of the region are laid out. It is based on an international treaty signed by the three countries and approved by the respective National Congresses. Its highest authoritative body is the Trinational Commission of the Trifinio Plan (CTPT) formed by the Vice Presidents of Guatemala and El Salvador, as well as a designated spokesman to the presidency of Honduras (the table below lays out the institutional structure of the CTPT). The CTPT functions as a permanent organism that coordinates and consults matters in the region. It is the main forum that analyzes sustainable development issues in the Trifinio, and most importantly, promotes financial cooperation.



On the other hand, the Trifinio Plan also contributes to the process of integration in Central America facilitating a joint management effort for the region. The Trifinio Region is constituted as an indivisible ecological unit through its Plan. The Region has a total of 45 municipalities: 15 belong to Guatemala, 22 to Honduras and 8 to El Salvador, the estimated population in 2015 was 818,911 inhabitants, equivalent to 3% of the total population of the 3 countries; 70% of the population as well as the municipalities are rural. Gender distribution in the Trifinio region totals to 51.3% of males while 48,7% are women, within them 12% of the population is indigenous peoples from the etnia Maya Chortí (around 88,000).

Thus, the Trifinio Region has been denoted as a shared biosphere between El Salvador, Honduras and Guatemala which from a systemic/ecosystem approach is indivisible as declared by its member states, where its basins system as well as its forest don't recognize borders, hence any intervention at the regional level in the Trifinio impacts the environment and water resources of the 3 countries.

The Trifinio Plan gives the region the needed framework to foster integrated management but there are several factors, including financial and institutional capacity and a lack of a shared long-term vision, that limit its success in managing the water resources at the basin level. According to the report “Progress on Integrated Water Resources Management – Global baseline for Sustainable Development Goal (SDG) indicator 6.5.1”, the final IWRM score for El Salvador and Honduras is 21, whereas for Guatemala it is 25. These numbers indicate the lack of enabling environment, institutional and participatory capacity, management instruments and the financing available in these countries to advance IWRM. The details of these challenges are outlined below in the root causes section but this statistic from the IWRM Global Baseline Report provides further confirmation of the situation in the Lempa basin and the wider Trifinio region, and the need to strengthen joint cooperation and facilitate transboundary management of the shared resources.

Global Environmental Problems:

Note on terminology: taking into account that there are many definitions of water security, which imply different approaches depending on each scope, within the context of this project and its regional background, the term water security refers to:

“the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human wellbeing, and socio-economic development, for ensuring protection against waterborne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.” *UN Water Definition*

“Water security promotes environmental protection as well as social justice and addresses the impacts of poor water management. A water secure world reduces poverty, advances education, and increases living standards. It is a world where there is an improved quality of life for all, especially for the most vulnerable—usually women and children—who benefit most from good water governance.” *GWP’s strategy 2017*

For the Water Director of Central America (2015 WWF7) Water security is seen as the “reference framework to articulate the use and conservation of water with the national development goals and objectives of each country; as well as the Integrated Water Resources Management, as the mean to achieve it.

There are scores of issues impacting the Lempa basin and the wider Trifinio Region. However, only the key transboundary environmental problems are mentioned below:

a) **Water Security:** The unsustainable use of water resources in this region and the lack of adaptation mechanisms to cope with the effects of climate change constitute a threat to water security for the local and regional populations. The greatest difficulties identified by all sectors regarding the water issue are the following;

- First, is the irrational use of water and the increasing demand, both in urban and rural areas.
- Second, pollution caused by the use of fertilizers and pesticides in Guatemalan and Honduran crops, the contamination caused by honey waters from the industries located on the other side of the Guatemalan border, as well as domestic waste and inadequate waste water treatments. There are no existing regulations for the agricultural, energy and industrial sectors regarding the use of water resources. The unsafe water quality has led to consumption of polluted waters which has aggravated health issues in the population.
- Third, there is little or no existence of an environmental culture, especially on the value of water.
- Lastly, changes in the hydrological regime in the area, such as longer extreme events like droughts and tropical cyclones (more water in the system but no capacity to store it), exacerbate the challenges facing water resources quantity and quality in the Region.

b) **Groundwater Pollution & Security:** As mentioned above, a variety of pollution is witnessed in this area, from domestic solid waste and untreated domestic wastewater to chemicals used in agriculture. Not only is the surface water in the Lempa river directly exposed to this contamination but so is the underlying groundwater. The vulnerability of its shallow alluvial aquifers is high, but no aquifer system-wide information is available yet on the current state of pollution of the system. Due to the lack of infrastructure for water supply in rural areas, communities resort to the use of groundwater through traditional sources such as springs. As these springs are increasingly yielding less water (and can run out of water in the dry season), communities are increasingly building dug wells to meet their basic needs. Most of the work to fetch water rely on women (80%) and usually takes about 40 minutes per day.

c) **Loss of Forest Cover & Habitat fragmentation:** Another problem identified is deforestation. In 24 years, forest loss has increased by 30%, corresponding to an average annual regional rate of 2.7 (which in turn represents a loss of 9,050 Ha of forests per year)[3]. This problem becomes more critical given the fact that Honduras is located at the top of the Lempa river basin, where the loss of forests has affected surface runoff, forest water retention capacity and aquifer recharge, leading to reduced flow in the summer and increased extreme events in the winter, causing inundations and landslides, especially in the middle and lower parts of the basin[4]. Forest loss is most evident with conifers (-45% during this period) due to the effects of a plague ("Gorogojo-weevil descortezador del pino") whose outbreaks in the territory have a strong relationship with environmental conditions and climate extremes in particular. Rojas, Locatelli and Billings found that an increase in the mean temperature and warmer climate anomalies as well as an increase in forest fires has an influence on occurrence and extension of this plague. Climate time series associated with outbreaks data correlates with the occurrence of long periods of droughts and warmer conditions (El Nino). Due to common practices to control this plague several collateral damages to the Lempa basin and the wider Trifinio region's biodiversity has occurred. The extensive use of agrochemical products for controlling the attacks, and the burning of affected forest with strong limitation for natural restoration has led to extension of land for agriculture and grazing. Agricultural land conversion of this region, that houses nearly 1,500 species and serves as a migration ground for 70 species out of which at least 12 are endangered migratory species of global significance, has led to increased habitat fragmentation and species loss. In the Montecristo National Park, 10 species of birds (from the El Salvador side) are threatened due to reduced habitat[5].

d) **Land Degradation:** Assessment of changes of land use and coverage for the period 1986-2010¹¹ along the Trifinio region brings clear evidence of specific challenges that this project need to address as well as the importance of a cross sectoral approach to the management of natural resources. Higher population density has led to land-use change in these once forested areas and resulted in habitat and species loss. Increasingly forests have been replaced by coffee plantations, agroforestry, and pasture. For example, coffee land coverage has extended by 450% during this period covering 1986-2010¹¹. Other activities such as cattle ranching and mining also significantly spread. For each new activity replacing lost forest (-30% of total forest during the last 24 years), the pressure on the ecosystems grows one witnesses new pollution sources such as from mercury and cyanide. Untreated waste waters and cattle ranching result in excess nutrients causing eutrophication and fish kills. Lack of land-use plans, poor integrated water resources management and forest management plans contribute to this problem. Moreover, the application of traditional agricultural methods is implemented using unsustainable practices that promote rapid erosion and increased sedimentation.

The above-mentioned problems are transboundary in nature and spill over into the other basin states, affecting their riparian and wetland habitats and, the amount and quality of water available for economic activities and social wellbeing. Each problem seems to be present at the individual state level as well as at the transboundary level; and being the basins of the Trifinio, the largest of Central America, these problems spread all over the region and its coastal drainage affecting related ecosystems as well. The key in any successful community depends on healthy ecosystems.

Root causes & Barriers;

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The immediate causes of the main trinational problems are largely attributable to inappropriate resource use, unsustainable practices, limited financial and technical capacity, and inadequate coordination. Other important causes are:

- lack of support from the authorities (*manifested by water users and local institutions, the environmental issue is not sufficiently prioritized in the political agenda*);
- lack of knowledge in the region concerning the value and inter-dependency of natural resources and laws that regulate their widespread use;
- low level of awareness and education amongst the local and indigenous communities about the management of land, biodiversity and water resources;
- poor water resource management at the regional, national and local level (*local administrators do not have the technical knowledge for administration*);
- lack of municipal ordinances (*there are issues related to water that are not regulated*);

In the Lempa basin and the wider Trifinio Region there is limited basin-wide understanding of available resources, and as stated by the member states within the framework of the CTPT and regional dialogue committees, that in order to manage and develop the water and natural resources in the basin, it is important to have a clear understanding of what is available, how this changes over time and what factors are important in maintaining a healthy ecosystem. The CTPT

recognizes the need to have a scientific knowledge base, however, it lacks the technical capacity, attributable to financial capacities, to facilitate a basin-wide transboundary in-depth analysis of the environmental threats, their corresponding root causes, impacts and gaps.

There is also lack of capacity at the national and regional level to promote and implement an Integrated Water Resources management framework for the Lempa Basin and the wider Trifinio Region. The basic premise of an integrated cross-sectoral approach is that it promotes the coordinated development and management of the shared water resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. In spite of the region having made significant progress in this direction through the CTPT, their proposed solutions currently listed in the Trifinio Plan are highly targeted (either sector specific or focusing on either land or water or biodiversity). The proposed project will aim at filling in this gap and ensure that the region has the technical and institutional capacity to meet this objective.

Nevertheless, the Lempa basin area and the wider Trifinio region suffer from not only environmental problems and governance problem, but also social problems. To begin, the region is underdeveloped, with a large rural population living in extreme poverty and without access to basic sanitation. For instance, more than 60 percent of children in the Trifinio region test positive for parasites because of contaminated water and poor sanitation. The Trifinio region is also a crucial immigration zone. Central America, particularly the area near the Trifinio Region, serves as the bridge for thousands of informal settlers and in order to alleviate the pressure on the ecosystems and provide marginalized communities with improved access to water and other resources, the proposed project will implement strategic actions on the ground.

High poverty rates and lack of opportunity is mostly found in the rural communities of the Lempa basin and the wider Trifinio Region. The regional average Human Development Index (HDI) is 0.647, below the national average of El Salvador and Guatemala[6]. This situation further aggravates the matters regarding natural resource management in the region, the government presence and public policies in economic, social and environmental areas. Such matters have been limited in the region and are not articulated, perhaps because the border region has a moderate population density that has remained isolated and undeveloped in all three countries for years. The limited business opportunities and credit sources, contribute to the fact that people are making their living primarily through marginal farming on soils that are not very productive. This has resulted in low production, low income, limited trade, scarce investment and ultimately a high rate of poverty.

Another barrier worth mentioning is the high rate of natural disasters—particularly in the country of Honduras. Honduras is susceptible to droughts, hurricanes and climate change. According to the Germanwatch Global Climate Risk Index, Honduras was the country most affected by extreme weather events between 1996 and 2015 with a total of 61 events over this period. This ranking is attributed to the aftermath of exceptionally devastating events, such as Hurricane Mitch, hitting the country. In Honduras, the death toll was close to 6,500 with up to 11,000 still missing due to this event. At least 70% of crops were destroyed. Crop losses were estimated at \$ 900 million.

2) The baseline scenario or any associated baseline projects:

During the 30 years of execution of the Trifinio Plan, different approaches have been implemented to promote and strengthen sustainable development, as well as transboundary integration in the region. The updates of these approaches through transactional strategies has resulted in the harmonization of key priorities with the policies of national and local governments. In this matter, the Trifinio Plan emerges as a comprehensive transboundary integration model in Central America, seeking to perfect an approach that integrates human development and environmental sustainability. Since the beginning, the focus of the Trifinio Plan has been linked to the conservation and management of natural resources, as these constitute the base for sustainable agricultural production, which is the main economic activity in this region. The expertise areas of CTPT are sustainable tourism management, protection of tropical forests, coffee and watershed management. However, as mentioned above in the barriers section, due to lack of capacity and the targeted nature of the solutions recommended through the CTPT, the integrated management of the water resources of the Lempa basin and the wider Trifinio Region has not yet been kick-started.

Nevertheless, this project will build upon the lessons learned and experiences of past projects in this region, especially the GEF funded Biodiversity project that was executed by the CTPT – GEF ID 2686. The project achieved significant success in managing a trinational protected area and identified similar challenges as the ones highlighted in above sections. Its activities tried to fill in the financial void through the design and implementation of a special trust fund, however, it wasn't a successful endeavor largely because the relevant stakeholders believed this idea to be over ambitious. It also ventured into establishing a monitoring system for the protected area and its buffer zone, but by the time the baseline data was collected, the project was nearing its end. The terminal evaluation (TE) [7] for this project sheds light on the opportunities that our proposed project can work on, mainly, on identifying financial options to ensure long-term financial integrity of implementing an integrated approach in this critical biosphere and use the collected data to feed into a region – wide monitoring system. The TE also recommended that political sensitivities be accounted for and any proposed project develop a comprehensive risk planning and management plan. Consideration be given to local participation and, the log frame be designed in a targeted but flexible manner. Furthermore, it recommended that decentralization, by sharing responsibilities with local stakeholders, will yield significant results. During the PPG phase, all of these recommendations will be taken into account.

Since 1992, CTPT has been involved in 17 on-going and completed projects executed in the Lempa basin and the wider Trifinio region, of which the following are of most relevance and will help build a strong baseline;

Governance of groundwater in transboundary aquifers: Phase II of this project is currently in execution. Among its main objectives are: Improving transboundary dialogue and cooperation, based on the development of shared management tools and recommendations for governance reforms focused in improving livelihoods, economic development, gender equality and environmental sustainability. This project is being executed by CTPT in coordination with IUCN.

Forestry and Water Program/GIZ Trifinio: This supraregional program “Protection of the Tropical Forest and Management of Hydrographic Basins in the Trifinio Region”, CAMARENA, was a joint effort between the CTPT and the Germany Agency for International Cooperation (GIZ). Since 2009, it has supported the trinational strategy for the integral development of the Region. Through models that aim towards the sustainable management of natural sources, the program aims to improve the living conditions of small producing families, while also reinforcing the CTPT. Finished in 2017, the program sought to strengthen the promotion and transboundary implementation of sustainable management of natural resources in the Trifinio Region.

The Protection of Forests and Watersheds Program was an initiative supported by the cooperation of the Federal Republic of Germany through the German Development Bank (KfW), its objective was to contribute to the conservation of natural resources in the Trifinio Region, with an ecosystem approach to deal with the effects of climate change. The work was carried out through cooperation with communities and local governments with co-investment and co-responsibility principles. In total, they worked with 32 local governments, distributed in the three countries, and there were interventions in fifteen sub-basins and seven protected areas of the Trifinio Region.

Tri-national Program for Sustainable Development of the Lempa River's Upper Basin – PTCARL Its main objectives were: to achieve sustainable management of the region's renewable natural resources in order to reduce vulnerability to natural risks, promote productive activities and economic diversification; and strengthen local governments. Additionally, another objective was to improve the organizational capacity of the communities within a tri-national integration framework.

Integrated Management of the Montecristo Trinational Protected Area aimed at establishing an efficient and operational trinational framework for the integrated and sustainable management of the Montecristo Trinational Protected Area (MTPA) and contribute to the consolidation of the biological corridors that connect it to the Mesoamerican Biological Corridor within the Trifinio Region.

The Interactive Platform for the Application of Tropical Weather (PIACT) developed by Costa Rica, compiles and groups forecasts and climate perspectives which are processed and transmitted to non-technical audiences in a comprehensive manner. With complementary funds, the tool will be upscaled and **adapted for** use by organized groups of the productive sector in the **Trifinio region** and help them to adapt and foster sustainable and efficient agriculture. PIACT operates through commercial platforms with high penetration in the population (i.e. Facebook, WhatsApp, SKYPE, Twitter, Messenger, Texts, www/WEB, commercial radios, among others).

Among the studies that have been carried out directly related to the water issues in the Lempa basin and the wider Trifinio region, the following are of relevance:

1. Tri-national Territorial Training Course with a focus on water resources assessments
2. Tri-national Water Agenda – A participatory proposal for the integrated management of water resources in the upper part of the Lempa river basin
3. Strategy for the integrated management of water resources in Guatemala
4. The Trifinio: The water resources in the upper part of the Lempa River basin
5. Final consultancy report of the Program for the Promotion of water to serve as a regional public good in the upper basin of the Lempa river (2009)
6. Tri-national Dialogue agenda of the Lempa river

7. Water management and municipalities in the upper basin of the Lempa river in the Trifinio region
8. Agenda for integrated water management between the Trifinio region and the national level of El Salvador. Consolidated report
9. Monitoring of the water quality in the upper basin of the Lempa river – results may be a heavy metal sampling campaign.

For more information about these studies please visit:

<http://www.plantrifinio.int/nuestra-institucion/biblioteca/category/15-recursos-hidricos>

As seen above, the Trifinio region has been subject to ample of international projects, cooperation and interventions, however, the CTPT as the formal body endorsed by the governments to work in the Lempa basin and wider Trifinio region still lacks capacity. Today, there is capacity for the CTPT to channel international aid in the region, however the institution lacks relevant technical expertise on IWRM and transboundary natural resources management. This situation has been provoked by a lack of coordination between the countries to foster the strengthening of the CTPT, by not allocating permanent resources to the management of shared natural resources on the Lempa basin and the wider Trifinio region, which are key to ensure the financial and technical sustainability of the projects and of the CTPT in the long-run. Most importantly it lacks a strategic vision from the States which is necessary to formulate public policies aimed at the tri-national region as a whole and institutionalizing shared management processes. Therefore, it needs a model that facilitates a holistic approach to replace the culture of intervening in silos with the final beneficiaries.

At the **national level**, the baseline is rather limited and includes amongst other initiatives the following activities. This proposed project will build upon this baseline and will seek to further define it as valuable inputs to the SAP.

Honduras

From 2013 to date, OAS has been supporting the Government of Honduras in establishing a regulatory framework for the development and execution of projects and activities within the framework of the Trifinio Plan with a focus on poverty alleviation and natural resource management in the Trifinio-Honduras region. Amongst other things, an Economic Development Council has been created to help producers access national and international markets in the tourism and agribusiness sectors. A cadre of young leaders has been trained in water resources management at municipal environmental units. In addition, Honduras has also recently formed Basin Councils as to support sustainable watershed management.

El Salvador

In 1945, the Government of El Salvador issued an Executive Decree for the creation of the Executive Hydroelectric Commission of the Lempa River (CEL in Spanish) which promotes generation of electric power through renewable sources.

The Ministry of Environment and Natural Resources of El Salvador (MARN) and the Foundation Association for Community Cooperation and Development of El Salvador (CORDES) signed a letter of understanding in 2018 to promote hydrological monitoring and improve understanding of risks in the lower Lempa Basin. The agreement is promoting inter-ministerial coordination addressing *inter alia* flood management and community resilience issues.

Guatemala

In Guatemala, water management is decentralized at the municipality level which are tasked with the development of municipal water management plans. In addition, SEGEPLAN (Secretariat of Planning and Programmes) in collaboration with IDB, has developed a national strategy for the integrated management of water resources which will inform this proposed project.

3) The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the project:

The proposed project focuses on enhancing tri-national cooperation for the management of water resources in the following countries: Honduras, El Salvador and Guatemala. It will strengthen national and regional institutions, increase their capacity to manage water security and ecosystem challenges, and create awareness about transboundary natural resources management. The activities will further aid in developing a shared vision to overcome weak governance, socio-economic challenges, land degradation, biodiversity losses, contamination and unsustainable practices that impact the quality of water and dependent ecosystems, and thus the quality of life of marginalized populations.

More specifically, the project activities will aim (1) to enhance the knowledge base and understanding of natural resources use and ecosystems values; (2) to assess the legal and institutional context and capacity needs for promoting natural resources management, (3) to test cost and feasibilities of innovative nature based solutions and financing mechanisms; (4) to develop a set of monitoring and reporting tools and knowledge sharing platforms and, (5) to compile the above learning into a structured Strategic Action Programme (SAP) for the holistic management of the Lempa Basin and the wider Trifinio region. Further the project will promote an integrated approach to water resources management to protect globally significant ecosystems and promote conservation and sustainable use of natural resources.

The Governments of Honduras, El Salvador and Guatemala specifically requested that a Strategic Action Programme be formulated for the Lempa Basin as an overarching management framework and a tool to attract structured investments. The SAP will attempt to address the aforementioned deficiencies, utilizing the prioritized issues identified in the TDA, and other project activities, thereby facilitating a better understanding of the Lempa River Basin and the wider Trifinio region's water resources, and providing guidance for achieving its sustainable management. Project activities will be carried out to enable the development, adoption and implementation of basin-wide monitoring and reporting, standards and practices; build capacity of water resource practitioners; adopt transboundary environmental and social assessment recommendations; and strengthen regional management (CTPT), legal and financing mechanisms.

The "business-as-usual" situation when it comes to the management of water resources in the Lempa Basin and wider Trifinio region has historically been very sectoral-based and haphazard. Investments have been made in agriculture, forestry, irrigation and water supply mainly to the benefit of those residing at or near the river systems of the region. Environmental management interventions, however, continue to be undertaken by an array of governmental organizations at the international, state and local levels in all countries, the nature of which is determined largely by local and political priorities and demands, without regard to the overall benefit to the basin as a whole. A sound scientific and technical basis (TDA) is essential for developing innovative integrated sustainable management interventions for the Lempa Basin and the wider Trifinio Region. Coordinated, and ideally joint, actions (SAP) by riparian countries and basin stakeholders will promote sustainable use and management of water resources.

Brief description of expected outcomes and components of the project:

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Following is the rationale for executing the proposed components and its corresponding outcomes and outputs.

Component 1: Improved understanding of the key transboundary water resources uses, the environmental threats faced by the Trifinio region, and the corresponding root causes, impacts and gaps.

Limited understanding of transboundary issues hinders decision making, sustainable development and water resources management of the Lempa river basin and the wider Trifinio region. Hence the focus of this component will essentially be on filling in the knowledge gaps and consolidating the science into a Transboundary Diagnostic Analysis (TDA)[8] to inform the formulation of a Strategic Action Programme (SAP) for the Lempa Basin as to improve ecosystem management and environmental security. Given the relevance of the underlying aquifer system of the region, a diagnostic analysis will also be carried out for the Esquipulas, Ocotepeque & Citala aquifer system as input to the Lempa Basin TDA. The information generated will inform the overall TDA and play a role in prioritizing actions for the conjunctive use and management of surface and groundwater. The TDA, along with the groundwater data and the assessments, will help populate a data and knowledge portal to inform decision making and serve as the basis to monitor and report on ecosystem health.

§ Outcome 1.1: Consensus amongst the countries and key stakeholders (including the scientific community, CSO and private sector) on the prioritized transboundary issues, their root causes, impacts and gaps.

The overarching framework of the TDA will be based on the water/food/energy nexus approach as per the IISA guidance and the **Transboundary Waters Assessment Programme (TWAP)** methodology. The TDA will assess the main root causes of environmental degradation and prioritize transboundary issues for remedial actions and investments as an input to the SAP. A regional science advisory committee will be formed to guide the formulation of the TDA. Multi-stakeholder engagement will also be key to ensure buy-in and ownership. Special attention will be given to groundwater resources and the understanding of "Trifinio Aquifer System". The TDA will also consider socio-economic issues including economic valuation of ecosystem goods and services and, the issue of gender and migrants. The resulting product will be approved by all major stakeholders, including, CSO and the private sector. Data will feed into both the Decision Making Support System (DMSS – output 4.1.1.) and the climate change adaptation and mitigation (PIACT – output 4.1.2) decision support tools consolidated into knowledge portal (1.1.4).

Component 2: Enhancing integrated water resources management governance in the Lempa Basin

Financial limitations and weak national governance (legislative and institutional frameworks and capacity) are preventing the region to successfully establish a joint governance framework for sustainably managing the water resources and assets of the Lempa Basin and the wider Trifinio region. The project will provide a platform to review and strengthen both at the national and regional levels the institutional and legislative frameworks and reinforce capacity to support a robust joint-cooperation mechanism for the Lempa Basin and wider Trifinio region. This component will also support the formulation of a ministerially/presidentially endorsed SAP ensuring water security for the Lempa Basin and the wider Trifinio region.

§ *Outcome 2.1: Existing basin-wide joint cooperation mechanism strengthened.*

Carrying out a comprehensive inventory and analysis of national/regional legislative instruments and institutional frameworks along with assessing the countries capacity within the Lempa Basin and the wider Trifinio region to execute Integrated Water Resources Management (IWRM) will be the first step towards understanding the gaps that need to be filled. Operationalizing national and regional inter-ministerial committees including a working group on IWRM and a basin -wide multisector monitoring task force for the Lempa Basin and the wider Trifinio Region will help in ensuring that the countries are making informed decisions on carrying out multi-sectoral approaches, and engaging all relevant stakeholders. Other key outputs under this outcome include the development of a Transboundary Cooperation Agreement (Protocol/Directives) promoting effective investment of resources and actions in the region. Lastly, targeted capacity building programs for all relevant stakeholders and the CTPT will be carried out, in order to effectively drive reforms on IWRM.

§ *Outcome 2.2: A way forward for the sustainable development and water resources management of the Lempa Basin.*

The long-term vision, Strategic Action Programme (SAP) 2020-2035, for managing the water resources of this indivisible ecological unit will be developed as part of this outcome. The key goal of this SAP is to aid the three countries in the Lempa Basin and the wider Trifinio region to effectively address the issue of ecosystem degradation in a coherent way and view it from a regional perspective. The SAP will be inclusive of structural and non-structural measures, policy recommendations, and ecosystem assessments of small-scale green infrastructure plans etc. In order to promote this shared vision with wider stakeholders, a communications strategy will be developed and financial strategy to attract donor and private sector interests. To better understand the long-term financial implications of the SAP recommendations, an investment plan will also be developed, and donor roundtables will be carried to ensure the financial sustainability of these plans.

Component 3: Demonstrating the feasibility of innovative IWRM solutions.

Targeted activities ameliorating ecological resilience will not only improve the quality of life for nearby communities in the Lempa basin and the wider Trifinio region but also make them more independent and resilient to climate variability and change. The implementation of these small-scale activities will shed light on the capacity of the countries to implement IWRM activities and inform future investments and sustainability plans.

§ **Outcome 3.1:** *Increased understanding of the impacts & feasibility of IWRM approaches in minimizing environmental risks & building ecosystem resilience.*

IWRM solutions under this component will target various stakeholders and implement innovative financial, educational and nature-based solutions. Strengthening of the on-going sustainability camps of the San Francisco del Valle, Honduras, will allow indigenous and local communities to learn about concrete practices in the field of sustainable development, and integrated land and water resources management. These camps are science-based demonstration/education facilities where such practices are assessed, tested and have the potential to be scaled up and promoted within the wider Trifinio region. To address the on-going issues with land-use change and wastewater management, especially with the coffee industry, a sustainable agriculture program that adopts a closed loop cycle approach will be designed and implemented. Both of these activities will demonstrate that when conservation activities are inclusive the benefits to the ecosystem can be multiplied. Other demonstration activities under this outcome will aim at improving the understanding of the value of the goods and services this pristine biosphere provides, and pilot innovative financial mechanism such as payment for ecosystems, water funds, microcredits schemes, etc. Given the importance of the water resources of this pristine ecosystem, it is implicit that remedial actions targeting improved water management at local levels, e.g., constructed wetlands, reservoir protection and targeted watershed cleanup day be carried out. And lastly, to better understand the role of the aquifer system of the Lempa basin in terms of providing water security and demonstrate the benefits of a conjunctive use and management of surface and groundwater resources, a pilot will be carried out in the trinational Esquipulas – Ocotepeque/Citala aquifer system. The experiences and lessons learned from these demonstration projects will be reported and mainstreamed into the SAP feasibility plans.

Component 4: Water Resources Management monitoring and reporting programs for decision-making, and facilitation of information exchange within the Lempa Basin.

Building on the data from the TDA, it is critical that monitoring and reporting programs be designed and implemented, especially to facilitate decision-making and knowledge sharing. The decision support tools of this component will allow the relevant stakeholders of the Lempa basin and the wider Trifinio region to improve their understanding of water security threats and adapt to climate variability and change. It is also important that the wealth of information and tools created by this project are made publicly available to the international community, so they can share lessons learned and together help achieve global environmental benefits.

§ **Outcome 4.1:** *Improved understanding of water security threats, and access to decision support tools for making informed decisions.*

A Decision Making Support System (DMSS) which sets the basis to access, articulate and integrate climate information data for the Lempa basin, will allow multi-sectoral stakeholders to communicate with each other and make informed decisions about resource use. A forecasting tool, PIACT, will compile climate data and transmit the information to non-technical audiences in a comprehensive manner. This is an on-going effort, therefore, with incremental funds from the

GEF, the tool will be upscaled and adopted for use by organized groups of the productive sector in order to practice sustainable and efficient agriculture. The platform operates through commercial platforms with high penetration in the population (i.e. Facebook, WhatsApp, Skype, Twitter etc.). Lastly, an integrated indicator-based hydro-climatic resources monitoring system will be developed, facilitating the monitoring of environmental trends and assisting the countries to report on the SDGs. All of these tools will be hosted on an effective and operational internet-based platform that also harnesses data from output 1.1.1.

§ **Outcome 4.2:** *Enhanced application and visibility of the project and the IWRM approach in the Lempa Basin.*

Under this outcome, IWRM specific educational programs will be developed for local communities, universities, schools, governments and other stakeholders. Additionally, there will be activities that aim at developing and implementing stakeholder engagement and communication strategies (including one for the CTPT and its national coordination offices) to promote ecotourism/IWNRM with the private sector (hotels). Awareness raising programs and multi-stakeholder campaigns will also be established in order to promote IWNRM within national parks. Lastly, activities ensuring IW: LEARN compliance will be carried out.

4) Alignment with GEF focal area and/or Impact Program strategies

The proposed project is directly related to the strategic area of International Waters (IW) of the GEF, in the following objectives:

IW – 3 – 5 – “Advance information exchange and early warning”;

IW- 3 – 6 – “Enhance water security in freshwater ecosystems through enhanced regional and national cooperation on shared freshwater surface and groundwater basins”;

IW 3 – 7 - “Enhance water security in freshwater ecosystems through investments in water, food, energy and environment security.”

5) Incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

The co-financing identified for this proposed project demonstrates the multiple sectors involved and their interest in working together on a shared vision. The groundwork laid down by the various international, regional and national entities, as highlighted in the baseline section, showcases the wealth of information that the project will be building upon. Several national and international initiatives have attempted to mitigate the environmental and socio-economic problems in the Lempa basin and the wider Trifinio region. A range of NGOs and academic institutions in the three countries have conducted several studies on water issues of this region. National agencies in the three countries address specific aspects of the quantity and/or quality of the shared surface and groundwater, deforestation and land-use change impacts. Although, in the case of groundwater, no aquifer-wide information is available yet on the current state of pollution of this aquifer. Nevertheless, many of these activities are either sectoral-driven or are being conducted very haphazardly in the absence of a common management vision for the region to meet both human and ecosystem needs, thereby resulting in a lack of a long-term vision and sustainable development of the region. The region however has a trinational organization - Trinational Commission of the Trifinio Plan (CTPT) - to administer trinational cooperation but it

entirely lacks the institutional, financial and technical capacity along with an integrated management framework to drive reforms in a holistic manner. The GEF IW focal area can facilitate this much needed transboundary cooperation, and fill in the gaps which are paramount in bringing the various sectors together and improving the overall ecosystem health of the Trifinio region.

6) **Global environmental benefits (GEFTF)**

The Trifinio Region is rich in natural resources (e.g. La Fraternidad Biosphere Reserve) and is part of one of the most important water systems in Central America, therefore, the integral approach suggested through this project will provide protection to these pristine ecosystems, that are not only important for the continent but are of global significance. The global environmental benefits of this project range from protection of tropical flora, fauna and water sources to providing climate change adaptation

The development and implementation of a basin-wide TDA/SAP that takes into consideration economic valuation of ecosystem goods and services is expected to greatly contribute to addressing the many environmental and social problems (such as poverty, gender inequality and the lack of education) associated with the changed hydrological regime, unsustainable water resource use and management in the Lempa River Basin and the wider Trifinio Region. The development of a coherent, basin-wide e-flow regime will improve the ecological functioning of critical habitats and ecosystems throughout the basin.

The Lempa Basin and wider Trifinio Region is considered as per the Central American Commission for Environment and Development (CCAD) as a priority area for the Mesoamerican Biological Corridor as described in the Regional Strategy for the Conservation and Sustainable Use of the Mesoamerican Biodiversity, as well as being one of the few areas that links the Atlantic and Pacific Oceans. In this sense, developing and implementing a basin-scale, ecosystem-based management plan for the sustainable use of the water resources in this transboundary region will have global environmental benefits, and ensure mainstreaming of productive sectors such as agriculture into water resource management planning.

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7) **Innovativeness, sustainability and potential for scaling up**

What distinguishes this project is its aim to create a shared agenda within the three governments and identify specific topics that will ultimately benefit the region holistically. Additionally, this project is innovative for the region in the sense that it focuses on building the capacity of CTPT, as well as incorporating and supporting the principles and decision-making of IWRM, with the final goal of creating a long-term strategic management and investment plan (aka IWRM SAP) for the region. The Strategic Action Plan (SAP) 2020-2035, proposed as one of the outputs of this project, could potentially generate economic opportunities and increased sustainable use and management of shared water resources for the Trifinio Region.

Another innovative key feature of this project is its water security focus approach for integrated water management. -This approach embraces management, governance and climate variability. The project will assess and enhance the Trifinio agreements; its financial, participation and transparency mechanisms; the capacities of its inhabitants, their knowledge, and resilience to extreme weather events.

Likewise, the heart of the project is its sustainability plan. Through improved capacities of CTPT, strengthened partnerships, the SAP, and the investment plans and assessments, the project will continue and scale-up in time. One of the goals is to assess the potential of water infrastructure (including small-scale green infrastructure) in the Trifinio Region using the Lempa Basin SAP and the investment plans as a starting point. Hopefully this will be done in partnership with a relevant regional development bank like the Inter-American Development Bank (IDB) or the Development Bank of Latin America (CAF).

The development of a basin-wide TDA including the trade-offs that the IISA nexus approach and TWAP methodology offer, will make this project the first study of such characteristics in the Region and its immediate rural and urban areas. In addition, as the region is experiencing fast population growth and agroforestry development, it is important to understand what hinders sustainable use of transboundary water resources.

The project aims to build capacities (e.g.: PIACT, the platform that collects and disseminates meteorological and prospective information in the short, medium and long term to multiple research centers in order to contribute to the optimization of productive activities in Central America), improve resilience and adaptation to climate change in the agricultural sector, educate young people on water and sustainable natural resources development, strengthen partnerships and lead the way to new and improved water infrastructures.

The suite of IWRM solutions in component 3 are innovative for the region especially the innovative financial mechanisms and sustainable coffee production promoted from a circular economy perspective.

[1] *It is the relationship between the basin's area and the water on the surface.*

[2] https://www.un-igrac.org/sites/default/files/resources/files/Rapport_general_GGRETA_web.pdf

[3] Estudio "*Recopilación de datos forestales de la Región Trifinio, para analizar la factibilidad de aplicar un mecanismo REDD*", Programa Bosques y Agua / GIZ –Trifinio, 2011.

[4] Agenda Hídrica Trinacional. Una propuesta participativa para la gestión integrada de los recursos hídricos en la parte alta de la cuenca del río Lempa.

[5] Komar, Oliver. (2002). Birds of Montecristo National Park, El Salvador. ORNITOLOGIA NEOTROPICAL. 13. 167-193.

[6] A nivel de país en el 2017 según el PNUD, El Salvador tuvo un IDH de 0.680, Honduras de 0.625 y Guatemala de 0.638

[7] https://www.thegef.org/sites/default/files/project_documents/2686_2012_TE_IDB_Regional_0.pdf

[8] Transboundary diagnostic analysis (TDA) - which is a scientific and technical assessment, through which the water-related environmental issues and problems of a region are identified and quantified, their causes analyzed and their impacts, both environmental and economic, assessed – will be developed along with basin -wide assessments that will help identify key weak points for intervention

1b. Project Map and Coordinates 

Please provide geo-referenced information and map where the project interventions will take place.



Source: Trifinio Strategy 2018

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why: No

N/A

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

The primary stakeholders of this project are country members of the Plan Trifinio (Honduras, El Salvador and Guatemala). The three National Executive Directions for the Plan Trifinio present in each country; each of these fall under the Office of the Vice President/country and is led by their respective National Executive Directors. These key stakeholders were the main drivers of the proposed project request and were consulted during the preparation of this project concept.

Additionally, the following NGOs have committed co-financing to the proposed project: The National Coffee Association (ANACAFE), The Departmental Network of Chiquimultecas Women (REDMUCH), The Trifinio Association for Sustainable Development (ATRIDEST), The Brotherhood of Honduras, The Commonwealth of Trifinio Municipalities in Honduras and El Salvador and the Commonwealth of mayors, Trifinio and Cayaguaanca.

During the preparation phase, the following relevant entities will be brought on board; The Institute of Guatemalan Tourism (INGUAT), The Inter-American Institute for Cooperation on Agriculture (IICA), The Natural Center for High Technology (CeNAT), The Tropical Agricultural Research and Higher Education Center (CATIE), The German Corporation for International Cooperation (GIZ), The Central American Integration System (SICA), The International Union for Conservation of Nature (IUCN), The Water Commonwealths of the Trifinio Region, as well as the international organization BCIE, The Central American Bank for Economic Integration.

Proposed activities, such as the creation of Inter-sectoral Committees in each riparian state, will assist in mainstreaming the SAP and the Action Plan development process amongst key stakeholders at the Ministries of Finance, Agriculture, Energy, Environment, Planning, and Tourism.

Local governments and communities will play a key role in the SAP preparation activities on the ground. Their roles and responsibilities will become more relevant as additional responsibilities are delegated from national governments to them.

The project will also take into account the indigenous populations of the Trifinio Region. These communities, which include peoples from the Maya Chorti ethnic group, are expected to participate in, but not limited to, the education programs. By doing this, the project will battle the social issue of marginalization.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Women play a central part in the provision, management and safeguarding of water resources in the Trifinio region. However, currently there are gaps in understanding their relevance to ecosystem management. In this region, water is used by women to produce coffee, the main source of income in the Trifinio, accounting for around 70% of the population's earnings. Approximately 7,000 families in the region directly depend on coffee for a living. Women are knowledgeable in the production of coffee, but not in the sales and economic matters. Thus, the project will focus on enhancing their capacities by providing tools to empower women into taking charge of their economic world. Consequently, the project will also support smallholder coffee farmers in the production and marketing of coffee—further decreasing the incentive to migrate.

The integrated water resource management -based approach envisioned within the development of a basin-wide TDA and SAP will account for gender dimensions in both the assessment and action formulation part of the process.

Furthermore, the proposed demonstration projects will ensure gender empowerment in the communities that will be part of piloting and demonstrating IWRM solutions in the region. To further ensure this, the project will gather as much information as possible during the preparatory phase on women's unique roles in the stewardship of natural resources and support to households and communities and incorporate them into the project design. Their knowledge and active involvement can make the project more resilient and adaptive to changes, especially in highly vulnerable areas. Additionally, the project will support the development of transboundary environment and social assessment guidelines, which when applied, will help (project) developers in the basin to identify various entry points for gender mainstreaming/women empowerment activities. A preliminary gender analysis will be undertaken as part of the PPG to develop a set of appropriate gender disaggregated indicators to measure progress in gender mainstreaming through the project.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement ⓘ

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Throughout the project, especially in the implementation of local demonstration projects, the aim is to promote the development of innovative public – private partnerships that bring together actors from the private sector, government and civil society as a mechanism to improve productivity and boost the growth of the sectors in the region. One of the key beneficiary sectors will be the agricultural sector. It is known that public-private agribusinesses have the potential to help modernize the agricultural sector and provide multiple benefits that can contribute to sustainable and inclusive agricultural development for small-scale farmers.

Governance of public-private partnerships is crucial to their success. The proposed project will promote robust institutional and regulatory frameworks, a reasonable system of land governance, transparent selection, budget processes for the selection of projects and private partners.

Some of these private partners may include - Progress Cement with its Agroforest Foundation, Farm Cascajal (ecotourism), Ecological Systems and Commercialization Alta Loma S.A (saving stoves), Trinational Tourism Chamber, TRECSA (windfarm), NEUMANN Foundation (sustainable coffee communities), Electrical Company of Guatemala SA (environmental programs). Their involvement and roles will be further defined during the PPG phase.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Preliminary identified Risks during the PIF development are:

Risk	Probability	Risk Mitigation
Financial Sustainability of the project (beyond the project's lifetime)	Medium	The countries have a long-standing history of joint coordination, and financial flow in the Basin however it has faced several challenges. Given the scale of the project and foreseen SAP implementation costs, the project SAP will include measures to mitigate this risk by including the participation of other entities of government, the formalization of arrangements for project's SAP implementation and the engagement of the PPs during and after the project.
Lack of Effective Communication between Water-user Communities and Other Stakeholder Groups	Low/Medium	This risk could significantly hinder achievement of an integrated approach to managing the water resources of the Lempa basin and the wider Trifinio Region. Provision of stakeholder participation opportunities, coupled with strong public awareness programs throughout the project's diagnostic and action phases will help minimize this risk.
Uncertainty Regarding Climate Change Impacts on the Region (TDA and SAP potentially affected)	Low	The IPCC has made global-scale predictions of climatic changes in different regions of the world, which are available to the three governments in their development of the TDA and SAP. Subsequent regional 'downscaling' research efforts of the global-scale IPCC results have provided further insight into anticipated climate change impacts on the Lempa basin and the wider Trifinio region and related hydrological components.

		<p>nts. Such efforts will be considered within the context of the TDA and in prioritizing the constraints to sustainable use of resources. This information will allow the riparian countries to consider and include adaptation measures and programs in the development and implementation of the Trifinio SAP, thereby also working to reduce risks and uncertainties associated with the project elements and their anticipated effects and impacts.</p>
<p>Lack of coordination among projects and entities working in the region, including national, regional entities and multilateral development agencies which may result in duplication of work and jeopardize project results.</p>	<p>Medium</p>	<p>The project is looking amongst other things to strengthen the coordination and management capacity of the CTPT for the sound management of water resources in the region. The project will also support the creation and operationalization of inter-ministerial coordination committee ensuring coordination amongst sectors. Finally, the G S/OAS has demonstrated a strong programme coordination capacity in the Trifinio Region and is one of the founding institutions that promoted the creation of the Trifinio plan and its technical commission CTPT.</p> <p>This provides a strong basis to ensure adequate coordination with all other relevant ongoing initiatives in order to avoid duplication.</p>

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The proposed project will be implemented through UN Environment. The GS/OAS will be the GEF Executing Agency. At the regional level, it will work closely with the CTPT. At the national level, it will partner with the the three National Executive Bureaus for the Plan Trifinio under the Office of their respective Vice President.

In addition, with regards to natural resources management, any activity in the Lempa Basin and wider Trifinio region will coordinate with the following national technical institutions:

Secretariat of Natural Resources and Environment (MiAmbiente+) – HONDURAS

Ministry of Environment and Natural Resources (MARN) – EL SALVADOR

Ministry of Environment and Natural Resources (MARN) – GUATEMALA

Other institutions such as meteorological services, water agencies, Ministries of Agriculture and Fishing, Forest services, and other local entities will also be engaged in the project for specific activities as defined during the PPG stage.

Subject to further discussion and agreement during PPG, a Project Coordination Unit (PCU) will be formed and will be in charge of day to day project execution under the overall guidance of the GS/OAS and CTPT; a Project Steering Committee (PSC) made of representatives of the countries as well as both the Implementing and Executing Agencies and other key stakeholders will also be formed to steer and provide oversight on project execution matters (*to be further defined during PPG*). At the Implementing Agency level, oversight and backstopping will be ensured through an appointed Task Manager within UN Environment. The evaluation process to be further outlined during PPG will follow the M& E policy of both the GEF and the Implementing Agency.

Throughout the TDA-SAP formulation process, representatives from civil society, local and rural communities, indigenous groups, scientific and technical advisors, and the private sector will be fully engaged through various mechanisms to be defined during the PPG.

The interaction and coordination with other relevant GEF and non-GEF financed initiatives will be done through the PCU, information sharing and joint activities and events. Representatives of other projects will be invited to the PSC meetings as observers. The proposed project will ensure coordination of activities with the following GEF financed project “UNDP-GEF Integrated Environmental Management of the Río Motagua Watershed, GEF ID – 9246 through joint Project Steering committee meetings.

The project will also coordinate with the KFW-development bank project 'Basins management in the Trifinio Region', especially for the engagement of the region's stakeholders in the development of TDA and formulation of the SAP. It will work closely with the GIZ-German Society for International Cooperation project 'Water and Forest', especially in the development of TDA and assessing climate change related issues in the region.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

- Strategy for Plan Trifinio 2014-2018
- National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC
- National Action Program (NAP) under UNCCD
- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD
- National Communications (NC) under UNFCCC
- Technology Needs Assessment (TNA) under UNFCCC
- National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD
- Biennial Update Report (BUR) under UNFCCC
- Sustainable Development Goal (SDGs)

The project is consistent with the National Action Plans of the three countries. Moreover, the project is fully consistent with the presidentially endorsed multisectoral **Strategy for Plan Trifinio 2014-2018** developed jointly by Honduras, El Salvador and Guatemala within the framework of the CTPT. The strategy is aligned with the countries' national development and sector plans, as well as the institutional frameworks at regional, national and local level. It promotes, at the local and national level, the protection, conservation, restoration, and sustainable management of the environment and natural resources. According to the Strategy, the sustainable management of natural resources with an emphasis on water resources constitutes one of the highest priorities of the Trifinio Plan.

The Government of Honduras signed the climate change Paris Agreement (PA) on April 22, 2016 and it was subsequently ratified on September 21 of the same year. In accordance with it, on September 2015, Honduras submitted its first Nationally Determined Contribution (NDC) where the government establishes national pledges. The sectors identified by the country as priorities for its the National Climate Change Strategy are: Water Resources; Risk management; Agriculture, soil and food security; Forests and biodiversity; Marine coastal systems; Human health; and Infrastructures (especially hydroelectric power). Among the adaptation measures of this Strategy, the strengthening of capacities and research is highlighted, such as: selection and development of varieties and species of crops and pastures resistant to droughts, floods and others; design and implementation of a national biodiversity research program; research and development of natural biocides; promotion of the establishment of regional research centers and a national outreach program; and development of sustainable systems based on agroecology. Honduras is also a party of the CBD, which it ratified in 1995. The national NBSAP stresses the importance of healthy water systems and their co-benefits to biodiversity resources.

El Salvador signed and ratified the PA as well. El Salvador has resorted to sectoral adaptation strategies with emphasis on agriculture, water resources, infrastructure and health, contained in the National Climate Change Strategy and the National Climate Change Plan. In its NDC, El Salvador affirms that it will promote the effective implementation of a regulatory framework for the integrated management of water resources. The integral and sustainable management of the resource, includes the protection, conservation and recovery of its sources (surface and underground ones); recognition of the human right to water, its fair use and rational and equitable distribution based on a hierarchy of priorities, with human access and use of water being the first priority. The normative framework will include the obligation to present, in each implementation cycle of the new climate change agreement, national contributions for adaptation and mitigation of the water sector, providing for this the institutional arrangements responsible for its preparation, verification of implementation and reporting.

Guatemala signed the PA on April 22, 2016 and ratified it on January 25, 2017. Guatemala presented its NDC on September 2015, where is stated that the State of Guatemala, through various national instruments, promotes and proposes the transversal reduction of vulnerability and improvement of adaptation processes in key sectors; establishing for this as a priority to strengthen the adaptation processes in: Human health; Coastal marine areas; Agriculture, livestock and food security; Forest resources, protected areas; Conservation and management of strategic ecosystems; Infrastructure; Integrated management of water resources; and Quality of productive infrastructure.

Also, lastly, the project is aligned with the Sustainable Development Goals (SDGs) goals - 6,7,8,9,15, 16 and 17, and the Aichi biodiversity target goals 2, 3, 7, 8, 11, 14, 18. Noting that the Aichi targets are to be reported by 2020, the project will focus on delivering in line with the SDG indicators and targets taking into special consideration the ones covering land degradation and biodiversity issues.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

Knowledge management and best practice exchange is an important element of the project and has been directly incorporated into component 4 of the proposed project. Knowledge products, data platforms and communication materials generated by the project will be widely shared through the project website, which will be compliant with the IW: LEARN toolkit.

Other activities such as IWRM educational programs and ecotourism promotional material targeting the hotel industry will help enhance the visibility of the project and contribute to raising awareness. The programs will target local communities, universities, schools, governments, private sector etc.

The activities carried out under component 3, such as targeted watershed clean-up day, will also contribute to effectively communicate the objective of the project. Another key awareness building activity is the PIACT (Interactive Platform for the Application of Tropical Weather) App - which is a platform that collects and disseminates meteorological information and short, medium and long-term forecasts from multiple research centers in order to contribute to the optimization of productive activities in the Lempa basin and the wider Trifinio Region. PIACT App disseminates meteorological information in order to improve preparedness, response and recovery in case of natural disasters such as heavy rain and severe droughts. Among the expected functions for the application is to be an early warning system for different types of hydrometeorological disasters. The app will make this information available for a large range of users regardless of their level of education. PIACT is the first platform and App of its kind in the region. It aims to reach users through their cell phones providing quick and easy information to understand meteorological events. The information provided by the App will be location specific (using GPS coordinates provided by cellphone) and come in different modes (maps, graphics, text, voice). PIACT App will have an impact on multiple sectors and users in areas like agriculture, livestock, transport, energy and civil society in general. It will impact the activities performed by offering information that delays sowing or forces people out of their homes. Lastly, the impact of the App can be measured by the improved preparedness and response prior to a natural disaster.

At least 1% of total project budget will be set aside for knowledge management and information exchange activities organized by IW:LEARN (e.g. International Waters Conference participation, information dissemination through IW:LEARN platforms and networks, twinning exercises). The proposed project activities under output 4.2.2. will deliver at least 3 experience notes and fact sheets.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Ms. Rosibel Martinez Arriaga	Director of External Cooperation and Resource Mobilization	SECRETARIAT OF ENERGY, NATURAL RESOURCES, ENVIRONMENT AND MINE (SERNA) - HONDURAS	3/29/2019
Mr. Jorge Ernesto Quezada Diaz	Head of the International Cooperation Unit	MINISTERIO DE MEDIO AMBIENTE Y RECURSOS NATURALES – EL SALVADOR	3/25/2019
Eng. Carlos Walberto Ramos Salguero	Vice Minister of Natural Resources and Climate Change	MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES - GUATEMALA	4/1/2019

