



ADAPTATION FUND

REGIONAL PROJECT PROPOSAL

PART I: PROJECT INFORMATION

Title of Project:	Strengthening the adaptive capacities of climate-vulnerable communities in the Goascorán watershed of El Salvador and Honduras through integrated community-based adaptation practices and services
Countries:	El Salvador, Honduras (Central America)
Thematic Focal Area:	Food security
Type of Implementing Entity:	Multilateral Implementing Entity (MIE)
Implementing Entity:	World Food Programme (WFP)
Executing Entities:	Ministry of Environment and Natural Resources (MARN) and National Centre for Agricultural and Forestry Technology (CENTA), Ministry of Agriculture (MAG), Ministry of Natural Resources and Environment (MiAmbiente), Ministry of Agriculture and Livestock (SAG), the Institute of Forest Conservation and Development, Protected Areas and Wildlife (ICF), Presidential Office for Climate Change (Clima+), and the International Union for Conservation of Nature (IUCN).
Amount of Financing Requested:	\$11,886,691 (in U.S Dollars Equivalent)

Project Background and Context:

Geography and climate

This project is a regional initiative focused on the transboundary watershed of Goascorán which lies between the Eastern Region of El Salvador and south-western Honduras. The Goascorán watershed flows into the Gulf of Fonseca, consists of 36 sub-basins, covering 13 municipalities in the El Salvadoran departments of La Unión and Morazán and 16 municipalities in the Honduran departments of La Paz, Valle, Comayagua and Francisco Morazán. The watershed falls within the Central American Dry Corridor, which stretches from southern Mexico to Panama, and which has recently experienced multiple years of severe drought.

According to a management plan prepared in 2007, the watershed covers an area of 2,345 km² with 52 per cent in Honduras and 48 per cent in El Salvador.¹ Data generated in 2013 by the Honduras Millennium Account calculates an area of 2,613.89 km² of which 61.2 per cent lies in Honduras and 38.8 per cent in El Salvador² (IUCN, 2016).³

The watershed can be divided into three main areas: i) a mainly mountainous upper basin with slopes greater than 50 per cent; ii) a middle basin, constituted by rugged hills with slopes varying from 20 to 50 per cent; and peaks reaching 540 metres above sea level and iii) a lower basin, mostly constituted by plains and the delta in the Fonseca Gulf.

This project does not imply any delimitation endorsement or acceptance by the United Nations or the governments of El Salvador and Honduras and does not affect the sovereign interests of El Salvador and Honduras in the Goascorán watershed and the Gulf of Fonseca; likewise any graphic representation or

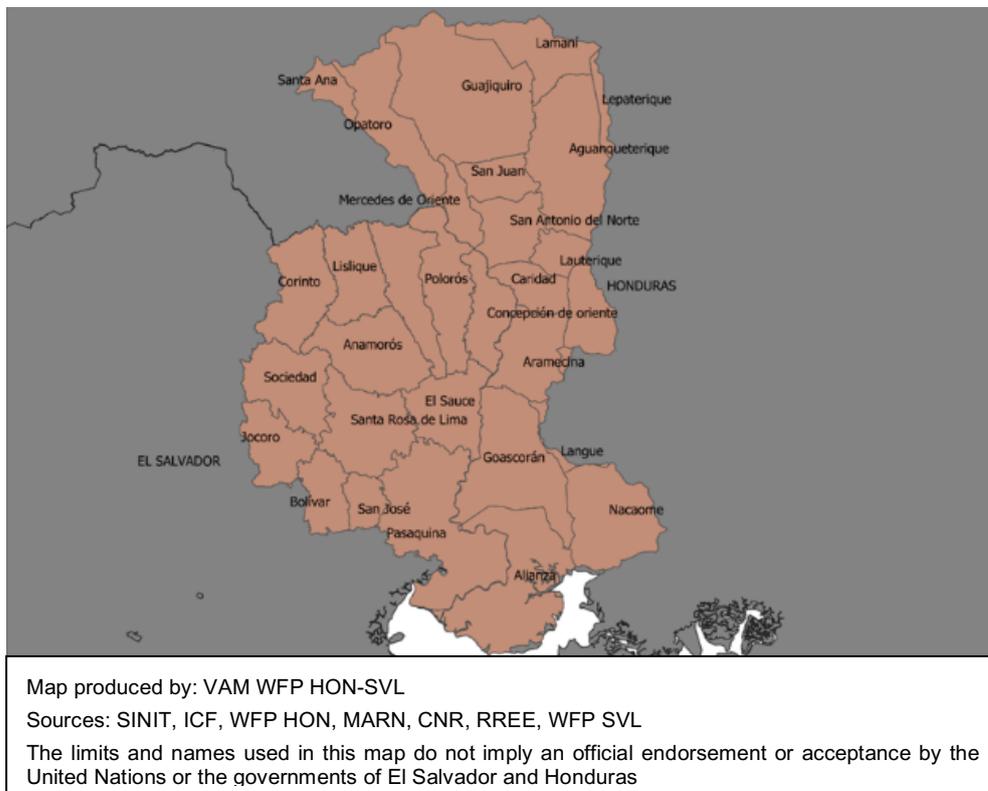
¹ El Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), 2007, *Plan de manejo de la cuenca binacional del río Goascorán*, www.cartografia.mag.gob.sv/index.../category/8-planes-de-manejo?...goascoran-catie

² The International Union for Conservation of Nature (IUCN), 2016, *La cuenca del Río Goascorán: Honduras y El Salvador: revitalizar la gestión transfronteriza integrando nuevos y diversos actores* <https://portals.iucn.org/library/node/47631>

³ Such data discrepancies regarding the extent of watersheds are common in Central America, highlighting the need for greater regional collaboration in generation of geographic information).

maps are merely illustrative.

Map 1. The Goascorán watershed and its municipalities. As the border demarcation remains under dispute, this map does not delineate the frontier between the two countries.



There are four climatic zones in the Goascorán watershed:

- i) tropical hot savannah: rising from sea level to 800 metres with average annual temperatures of 20 - 27° C, and annual rainfall of 1,700 mm
- ii) tropical warm savannah: between 800 to 1,200 metres with annual average temperatures of 20 - 22° C and rainfall of less than 2,000 mm per annum.
- iii) high-altitude tropical climate: between 1,200 to 1,800 metres with average annual temperatures of 16 - 20° C and maximum variations of 20.6 to 22. 4° C in the rainy season and rainfall exceeding 2,000 mm per annum.
- iv) highland climate: from 1,800 to 2,700 metres with temperatures between 10 to 16° C and a three-month dry season.

In a normal year, the rainy season runs from mid-April until October, interrupted by the *canicula*, a one-week dry period, typically occurring between mid-July and mid-August. The dry season normally lasts between November and mid-April. In both Honduras and El Salvador, the agricultural calendar and food availability is determined by the rainfall regime.

Socio-economic context and analysis of livelihoods

Some 326,000 people live within the watershed, 43 per cent located in Honduras and 57 per cent in El Salvador, with a higher population density in El Salvador.⁴ The Lenca, an indigenous people of southwestern Honduras and eastern El Salvador, are now found only in Honduras, with some representation in the watershed. The Opatoro, Santa Ana and Guajiquiro municipalities are the most representative of Lenca culture. In the lower and middle watershed some Lenca physiognomic features can be found but in general the inhabitants are typically *mestizo*, no longer retaining Lenca traditions and

⁴ El Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), 2007, *Plan de manejo de la cuenca binacional del río Goascorán*

worldview. See Box 1 for a summary.

Eighty-five per cent of the watershed population lives in rural areas. Their dependence on livestock and rainfed agriculture renders them more vulnerable to climate variability and shocks. On both the Honduran and El Salvadoran sides of the watershed, the incidence of malnutrition ranges from moderate to high. Households depend on cultivation of maize, sorghum and beans, livestock raising, small-scale aviculture and remittances. In the Salvadorian Dry Corridor, 72 per cent of the interviewed households for the latest WFP Emergency Food Security Assessment (EFSA), reported they do not own land to cultivate⁵. Sixty per cent of the population on the Honduran side of the watershed lives in extreme poverty while among the El Salvadoran inhabitants of the watershed the percentage ranges from 24.8 per cent to 65.1 per cent.⁶

Due to the international political trend, the area is also expecting a high number of returning migrants. This will increase existing pressures on natural resources, reduce the amount of remittances and consequently contribute to increased levels of poverty.⁷

Box 1. Social, cultural, ecological and livelihood differences in the Goascorán River basin

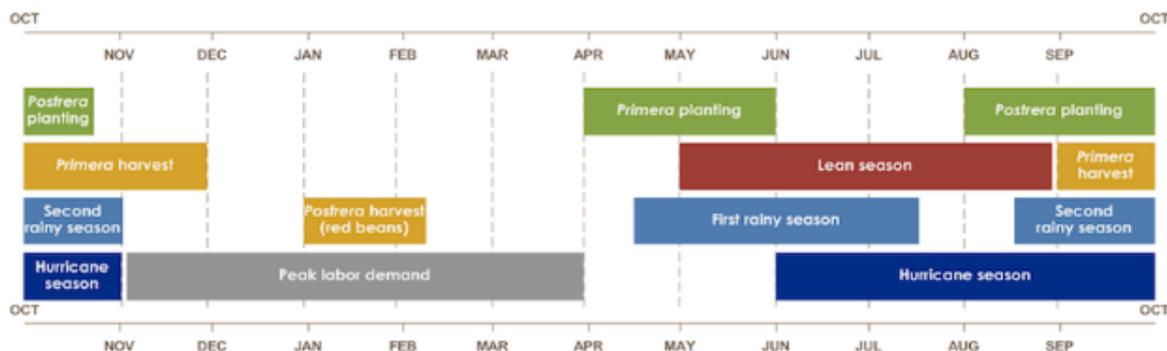
Like every basin, the Goascorán River has three well-defined areas, namely: High, Medium and Low Zones. Each of these areas has marked ecological, social, cultural and productive. A brief summary includes:

Upper area of the basin: Inhabited mainly by families of the indigenous people Lenca; here are located the headwaters and the main tributaries of the watershed; the population is mainly engaged in the cultivation of coffee, basic crops and fruit; affected by drought and water stress; its indigenous population has a more prone aptitude for the conservation and protection of its micro-watersheds, as well as the adoption of technologies.

Mid-zone of the basin: Inhabited mainly by latino-mestizo population with high migration rates to the United States; are engaged in livestock and basic crops; affected by drought and water stress.

Low area of the basin: Inhabited mainly by latino-mestizo population; they are mainly engaged in the cultivation of basic grains and fishing; often affected by drought and floods.

Fig. 1 Seasonal calendar for Goascorán watershed, including agricultural practices and periods of food insecurity. Due to consecutive droughts since 2012, farmers have begun to only plant once a year, skipping the *primera* planting period.



Agriculture represents an important source of livelihoods for both men and women but only 12 per cent of producers are women. Rural women in both countries face fundamental challenges. At national level, 39.3 per cent of women in Honduras and 41.6 per cent in El Salvador are economically dependent on men⁸. Data from the latest EFSA in the Dry Corridor from El Salvador, in biparental households headed by men, 80.4 per cent of men are the main bread winners⁵. The national illiteracy rate in El Salvador is 12.2 for women while for men is 8.5⁹ and in Honduras is 11.07 for women and 11.01 for men¹⁰. Sixty per cent of the

⁵ Emergency Food Security Assessment (EFSA), 2018, World Food Programme, El Salvador

⁶ Information provided to WFP by MAG, El Salvador and MiAmbiente, Honduras

⁷ Migration Policy Institute, 2019, *Effective Reception & Reintegration Services for Returning Mexican, Central American Migrants Reduce Re-Migration Pressures, Improve Outcomes*

<https://www.migrationpolicy.org/news/effective-reception-reintegration-services-returning-mexican-central-american-migrants-reduce>

⁸ United Nations Economic Commission for Latin America and the Caribbean (CEPAL), 2017,

<https://oig.cepal.org/es/indicadores/poblacion-sin-ingresos-propios-sexo>

⁹ Multiple Purpose Household Survey, 2017, Department of Statistics and Censuses (DIGESTYC), El Salvador

¹⁰ Permanent Multiple Purpose Households Survey, 2016, National Statistics Institute (INE), Honduras

illiterate population in rural areas are women¹¹. At national level, only 12 per cent of women in Honduras and 13 per cent in El Salvador own land and, typically, their parcels are smaller and less fertile.¹² Less than five per cent of women have access to credit and technical assistance.¹³ Women generally lack awareness of their personal rights and empowerment opportunities. Women and girls face disadvantages in access to health, education, political representation and formal employment. Rural families living in the Dry corridor of both countries report women are mainly in charge of the non-remunerated care and domestic work (90 per cent in El Salvador⁵) but women also participate in the family agricultural work as well as informal income-generating activities. In Honduras, the control and use of financial resources is reflected in decision-making. While house expenditures and food purchase are often decided jointly as a couple, decisions related to what products to cultivate and sell is mainly dominated by men, showing women are still excluded, perpetuating gender inequalities and prevailing the social norm that a man "brings money home, works and supports the family".¹⁴ The situation in El Salvador is similar.

These factors lead to negative consequences for development of women's capabilities and their autonomy. In the 2018 Gender Inequality Index (GII), El Salvadoran women are ranked 121st out of 189 countries and Honduran woman are ranked 133rd.¹⁵

Table 1. 2018 Gender Inequality Index (GII)

Gender Inequality Index										
HDI rank	Country	Gender Inequality Index		SDG3.1	SDG3.7	SDG5.5	SDG4.6		Labour force participation rate	
				Maternal mortality ratio	Adolescent birth rate	Share of seats in parliament	Population with at least some secondary			
		Value	Rank	(deaths per 100,000 live births)	(births per 1,000 women ages 15–19)	(% held by women)	(% ages 25 and older)		Female	Male
		2017	2017	2015	2015-2020	2017	2010–2017	2010–2017	2017	2017
121	El Salvador	0.392	91	54	69.5	32.1	42.2	47.9	47	78.8
133	Honduras	0.461	109	129	70.8	25.8	36.8	33.5	50.9	85.8

Climate change vulnerabilities and impacts

The watershed, like other areas within the Central American Dry Corridor, is highly vulnerable to climate change due to high climate variability, exposure to extreme weather events and poverty.¹⁶ The main climate change effects in the region are delayed onset of the rainy season, increasing frequency and intensity of droughts during the growing season, excessive rains and severe flooding. Extreme events exacerbate the fragility of vulnerable communities' lives and livelihoods in the transboundary Goascorán watershed, especially in environmentally degraded areas. This leads to high levels of poverty, food insecurity, malnutrition and out-migration. The El Niño/Southern Oscillation (SO) phenomenon has contributed to these challenges. During the 2014 to 2016 El Niño significant drought was experienced throughout the Dry Corridor.

Due to recurrent droughts since 2012 the majority of communities have reduced their planting cycle from twice to once a year, skipping the *primera* planting, lowering production and thus suffering significant income losses. Having only one harvest per year creates food and income shortages, compromises food security and aggravates poverty. From 2014 to 2016, continuing drought caused a river flow reduction of up to 90 per cent. In Honduras, it led to a loss of 96 per cent of maize yields and 87 per cent of beans, while in El Salvador it led to an estimated agricultural economic loss of over \$200 million.¹⁷ The prolonged

¹¹ Encuesta de Hogares de Propósitos Múltiples (EHPM), 2014

www.digestyc.gob.sv/index.php/temas/des/ehpm/publicaciones-ehpm.html?download=559%3Apublicacion-ehpm-2014014.

¹² Red Centroamericana de Mujeres Rurales, Indígenas y Campesinas (RECMURIC), https://www-cdn.oxfam.org/s3fs-public/file_attachments/desterrados-full-es-29nov-web_0.pdf

¹³ Desterrados: tierra, poder y desigualdad en América Latina Oxfam Internacional <https://www.oxfam.org/en/peru-brazil-nicaragua-cuba-mexico-bolivia-el-salvador-dominican-republic/how-rural-women-are>

¹⁴ Food for Peace Project Preliminary Assessment (EFSA), 2019, World Food Programme, Honduras

¹⁵ <http://hdr.undp.org/en/composite/GII>

¹⁶ Global Climate Risk Index 2018, <https://germanwatch.org/en/14638>

¹⁷ Information provided to WFP by MAG, El Salvador and SAG, Honduras.

drought, one of the longest in history, has also affected sugar cane, coffee, fish farming, aviculture and livestock and raised prices by up to 20 per cent. Given this, families, especially from rural areas, have been forced to reduce both their number of meals and their quality, thus increasing rates of malnutrition in the countries as well as in the watershed.¹⁸

In the second half of 2018 the Dry Corridor suffered a 40-day severe and a 20-day moderate drought during the rainy season. This affected the food security of thousands of households, caused a loss of around \$100 million in grain production and reduced water flow in the Goascorán River by 70-75 per cent.¹⁹ Given the severe impacts of El Niño, Dry Corridor countries closely monitor the possibility of new events.

Looking at longer-term climate change trends, climate projections indicate increasing temperature. The temperature could rise above current levels from between 0.7°C and 1.5 C during the 2020s and 2030s, and between 1.5°C and 2°C in the 2040s (with the highest rise above current values in the east of El Salvador and in central and south-western Honduras). By the end of the century the rise is estimated to be between 1.5°C to 4.5°C.²⁰

As regards rainfall, projections show a decreasing trend in both countries. In El Salvador there could be a decrease between 15 - 25 per cent during the 2020s in levels of rain experienced between 1981 and 2010. The 2030s shows a rainfall decrease between 10 and 20 per cent, with the biggest changes in the east of El Salvador. During the 2040s rainfall could decrease between 10 and 20 per cent, while in the 2070s the decrease could be 15 - 25 per cent. During the 2080s rainfall could decrease between 20 per cent and 30 per cent with a projected further decrease in the 2090s of between 20 per cent and 35 per cent.²¹ In Honduras, the entire country is expected to experience, in the short, medium and long term, increasing precipitation deficits during the most humid quarter of the year. During the second quarter of the year there will be increased precipitation, suggesting that future rains could commence earlier in the year. Rainfall projections suggest a fall of between ten and 20 per cent below 1981- 2010 levels, with an increase in central and southern Honduras and deficits towards the Caribbean Coast.²²

The impacts of climate change on agriculture were examined by the Economic Commission for Latin America and the Caribbean (ECLAC). Based on the Decision Support System for Agro-Technology Transfer model (DSSAT), the ECLAC study²³ foresees in El Salvador, Nicaragua, Honduras and Guatemala a severe production decrease in various agriculture sectors. For example, it foresees a decrease in bean production of 12 per cent by 2020 and 19 per cent by 2050. Corn production is predicted to drop between four per cent and 21 per cent by 2050. It also foresees that the increase in temperature will decrease the production capacity and varieties of Arabica coffee.

In 2020, amidst the country-wide lockdown due to the COVID-19 pandemic, Tropical Storm (TS) Amanda hit El Salvador in the early hours of May 31st, causing catastrophic damage and loss of human life on a nationwide level. This TS is estimated to be the most devastating weather disaster in El Salvador in 22 years since Hurricane Mitch struck the country in 1998. According to records from the Ministry of Environment and Natural Resources (MARN), TS Amanda accumulated between 700 and 1,100 mm of rainfall when Mitch accumulated a maximum of 400 mm of rain over a longer period. According to the historical average, in 10 days Tropical Storm Amanda caused 40% of the total winter rainfall. Preliminary assessments reveal USD 101.4 million in damages and losses, 22,476 small staple grain producers affected and 336,000 people in food insecurity.

Key factors of vulnerability and barriers to adaptation

Interventions to facilitate climate change adaptation need to identify and address key barriers and vulnerability factors to ensure that societies are resilient in the face of a changing climate. The following are the main factors of vulnerability and barriers identified in the watershed:

1. Environmental degradation

¹⁸ Emergency Food Security Assessment (EFSA) 2018 and 2019, WFP, El Salvador and Honduras

¹⁹ Information provided to WFP by MAG and MARN, El Salvador and SAG and MiAmbiente, Honduras

²⁰ El Salvador, Third National Communication to the Conference of Parties under UNFCCC, 2018, <https://unfccc.int/documents/182973>

²¹ Third Communication on Climate Change, 2018, MARN, El Salvador.

²² National Climate Change Strategy, 2018, National Directorate of Climate Change, Honduras

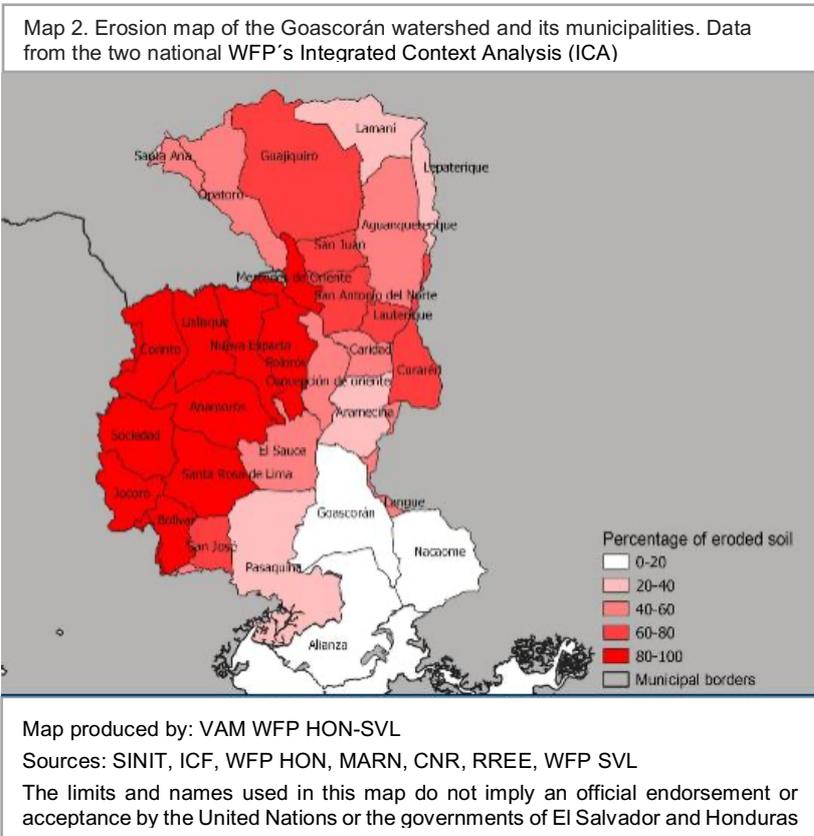
²³ ECLAC, 2018, *Climate Change in Central America. Potential Impacts and Public Policy Options* https://repositorio.cepal.org/bitstream/handle/11362/39150/7/S1800827_en.pdf

Already extensive environmental degradation in El Salvador and Honduras is being aggravated by climate change. A major factor contributing to degradation is erosion which is primarily driven by inappropriate uses and management of land and forest for agricultural and livestock practices. Human activity has promoted drastic changes in the vegetation coverage. Households mainly use land for low-yielding subsistence agriculture and overgrazing which leads to compaction of soils. This results in soil surface permeability, further reducing the capacity of soils to receive and store water.

In the higher part of the watershed in both countries there are mountainous areas with little forest cover, high surface runoff and low infiltration. This increases the erosive potential of rain. In the lower part of the watershed, runoff is relatively low. This combines with tidal forces in the Fonseca Gulf and eroded material deposits at higher elevations to increase the likelihood of flooding. A soil erosion map produced by the International Food Policy Research Institute (IFPRI) shows that more than 66 per cent of soils of the Goascorán watershed are eroded.²⁴

The Goascorán watershed has suffered floods, in particular in 2011 due to the 12-E Tropical Depression, in 2010 due to the Agatha Tropical Storm and in 2009 due to Hurricane Ida.

The impact of the irregularity of rainfall is intensified by environmental deterioration, generated by the removal of vegetative cover, erosion and soil degradation, which reduces soil fertility, infiltration and water retention capacity.



2. Barriers at household/community level

Communities in the Goascorán watershed are challenged by low adaptive capacities, including a lack of access to knowledge, skills, tools, assets and services, all of which further increase their vulnerability to climate change. Women tend to be more vulnerable to the effects of climate change. Traditional agriculture practices combined with insufficient technical assistance, inefficient or absent irrigation systems, and poor soil and water conservation practices, reduce people's abilities to adapt to climate impacts. Depletion of natural resources have further had negative environmental impacts on soil erosion and fertility, deforestation, increased frequency of mudslides and landslides, and river sedimentation. Some of the most common negative practices are slash-and-burn agriculture or fire-fallow cultivation, as a traditional practice prior to sowing. Others are unregulated deforestation, abandonment of parcels of still productive land due to lack of resources and poor management of solid and liquid wastes due to the lack of regulations. Also, the common use of chemical inputs in agricultural and livestock production affects biodiversity.

As a consequence of climate variability and shocks of the last few years, rural communities' livelihoods are increasingly challenged to meet basic food and nutritional needs, further exacerbating poverty and capacities to adapt. In 2015, WFP's Cost of the Diet analysis in the Dry Corridor showed that 40 per cent of the population cannot afford all the necessary nutrients for a healthy diet due to low incomes. The percentage drops to 21 per cent at the national level. Coping strategies include sale of key assets such as livestock, migration (with further reduction of family workforces) and withdrawing children from school. Households which lose their harvest and have their food reserves depleted have to increase the proportion of resources spent on food to the detriment of other investments including agricultural inputs before the

²⁴ International Food Policy Research Institute (IFPRI), 2016, *Agricultural Typology Report, Market Trade and Institution Division*, June 2016.

next farming season. All these factors increase household vulnerability and reduce community resilience.

In order to gain a deeper understanding of current communities' constraints, in October 2018 WFP carried out a scoping exercise with communities' representatives in the Goascorán watershed areas. The exercise highlighted that communities in the watershed lack timely and locally-accurate climatic and weather information which would help them make well-informed decisions to protect their livelihoods and boost their resilience. In addition, agricultural producers typically do not access formal savings or credit to finance purchases of agricultural inputs. Low financial inclusion is due to inadequate access to information and negative perceptions of financial tools. Most cultivators do not protect the investments made in productive activities through either conventional indemnity-based agricultural insurance or innovative weather or vegetation index-based insurance products for lack of an insurance product that would be adequate to them. Insurance is also often required by financial institutions or input-providers for farmers to access loans for inputs, which is an additional barrier for rural smallholder farmers to access loans or high-quality inputs due to its high costs.

There are specific further impacts of climate change for children, adolescents and women. Reduced agricultural production and thus household incomes have affected ability to afford school fees, triggering a rise in school dropout rates in recent years. Children are having lower food intake quality and quantity, affecting their nutritious needs and consequent development. Women, charged with family health and food security, are experiencing a heavier and more difficult work load, but are now expected to provide the same outcomes but with less resources. Commonly women are now forced to walk longer distances or pay higher prices to get water.

In recent years, migration has been on the increase. Climate-related environmental vulnerability and low agricultural productivity, together with the lack of access to land and basic services and scarce employment opportunities outside the agriculture sector, are among the main factors that are causing high levels of emigration in and out of the countries. In the watershed, migrations affect both men and women, although the communities in the area claim to perceive an increase among women who decide to migrate temporarily. Families resort to temporary migrations because current crop production barely guarantees their food subsistence and need extra income to cover other needs such as health and education. The temporary migration allows a family member to supply the rest of the family with remittances, but a pattern is emerging where over time families end up migrating completely and permanently.

In 2020, humanity is experiencing one of the largest crises of the modern era due to the COVID-19 pandemic, which officially arrived in Honduras and El Salvador in March 2020 with the confirmation of the first positive cases. Since then, the governments implemented a variety of actions to reduce the spread of the disease such as social distancing, movement restrictions, market and border closures. These measures are causing significant impacts on the economy and food security at national and local levels, including the most vulnerable populations in the Goascorán transboundary watershed. In fact, COVID-19 pandemic is worsening pre-existing complex situations faced by vulnerable population, such as climate change effects. It is not only affecting people health but impacting economic security due to the costs increment and the reduction of remittances and agriculture production. It is increasing food insecurity and malnutrition because of the limited access to food due to the movement restrictions and the fewer incomes per family.

3. Barriers at the institutional level

Both countries have adopted policies and regulatory frameworks to collect and produce information to enable adaptation. Honduras presented its National Adaptation Plan in 2018. El Salvador's National Adaptation Plan is under preparation. While both countries promote the inclusion of a climate change adaptation focus in municipal planning, linkages between implementation mechanisms from national to local level remain weak. On both sides of the Goascorán watershed, local planning instruments are unable to appropriately include climate change concerns due to limited awareness, knowledge and capacity.

Preliminary consultations with climate and weather information producers and communities in the Goascorán watershed have indicated that there are institutional capacities to produce accurate weather and climate information. However, a lack of financial resources, technical capacities and mechanisms prevent such information being tailored and shared at the necessary scale with end-users in communities in the basin. Community representatives highlighted that the only available information are national weather forecasts. These are neither easily accessible nor always trusted since they are not tailored to the specificity of different areas. Agricultural and other advisories are also often lacking. In addition, the information currently produced and disseminated comes from national institutions (either as climate information

producers²⁵ or as communication intermediaries²⁶) without close collaboration to ensure efforts are complementary and address information gaps. Within institutions there is some recognition of the importance of co-producing climate information, however, creating feedback mechanisms between communities and information producers (to ensure the information meets community needs) has not happened.

Consultations with financial institutions (insurance companies, banks, credit unions and NGOs involved in risk finance) as well as communities have confirmed that vulnerable populations in El Salvador and Honduras lack adequate access to financial products such as savings and insurance to support their resilience to climate shocks. The financial sector lacks incentive, capacity and skills to extend financial services to these populations, many of whom are remotely located, largely as the markets are not at scale and thus provide less lucrative returns than traditional and higher income market segments, unless reached at scale. Index (or parametric) insurance products²⁷ have emerged to help overcome some of these challenges with administrative costs and coverage, providing an affordable risk solution to vulnerable farmers. However, as index insurance is relatively new to Central American markets, it takes time for insurance regulators to review and approve these novel products for commercial distribution, and which creates a barrier for commercial insurers to invest in offering index insurance in their product portfolios. The highly volatile nature of climate events and their ability to affect large populations have also meant insurance companies require international reinsurance support, but this also requires capacity building of insurance regulators within the Central American countries to better understand how to oversee and regulate such products happened.

At a wider binational level, both governments recognise that climate change challenges and solutions in the Goascorán watershed are across boundaries and require a regional response to effectively encompass the socio-ecological needs across the watershed area. Presently, communities, local institutions, civil society, the private sector and other stakeholders lack the ability to coordinate and share adaptation practices across the watershed. This makes it challenging to adopt a coordinated approach to climate change adaptation across both countries, despite similar natural environments. Efforts have been made from the perspective of watershed management governance, including some success within Honduras with the Goascorán Watershed Council as well as the 14 micro-watershed management councils. Binationally, attempts with integrated watershed management led to the establishment of the Binational Management Group of the Goascorán River Basin in 2006.²⁷ Unfortunately, despite investments (including the BRIDGE programme in 2011-2015)²⁸, this Group continues to face challenges with inclusivity of community and gender considerations, representation across the whole watershed (priority lies with upper and middle parts of the watershed) and the Group's inability to establish a consolidated vision, management and government commitment. However, based on the positive experiences in the Goascorán watershed the Central American Commission for Environment and Development (CCAD) explicitly requested IUCN and "the Watershed Community management, to strengthen the coordination and exchange of experiences between El Salvador and Honduras" because efforts made at regional level (CCAD/SICA) on transboundary water management, experiences exchange and close coordination (referred to as "hydro diplomacy") represent an opportunity for the Goascorán watershed to become a replicable successful case.

As a result of a lack of coordination, planning and knowledge sharing at the watershed level, the ability for communities and local governments to have adaptive capacities that are transformative in addressing the impacts of climate change (and long-term sustainable development), remain out of reach.

Project Objectives:

The project's main goal is to strengthen the climate change adaptive capacity of vulnerable households in the degraded transboundary watershed of Goascorán across El Salvador and Honduras by providing

²⁵ Climate information producers are institutions (typically public) whom analyse weather and climatic data and convert it into climate information products; typically they include meteorological organisations but can also involve institutions that produce advisories such as ministries of agriculture.

²⁶ Communication intermediaries are organisations (public or private) whom disseminate climate information through communications channels they manage, such as agricultural extension workers, mobile phone or radio companies.

²⁷ Transboundary: Trans-Border Management Group for the conservation of the environment of the Goascoran River, Honduras and El Salvador, 2008, Fundacion Vida, <https://www.gwp.org/globalassets/global/toolbox/case-studies/americas-and-caribbean/transboundary.-trans-border-management-group-for-the-conservation-of-the-environment-of-the-goascoran-river-honduras-and-el-salvador-320-english.pdf>

²⁸ The Goascorán River Basin: Honduras and El Salvador, 2016, International Union for Conservation of Nature and Natural Resources (IUCN), https://www.iucn.org/sites/dev/files/content/documents/bridge_goascoran_english.pdf

communities with integrated climate risk management tools and services that enhance their resilience to climate variability and change.

The Project will promote climate change adaptation strategies in the transboundary watershed by:

1. Enabling climate-vulnerable communities to practice community-based adaptation (CBA) within an integrated watershed management approach; and
2. Connecting climate-vulnerable populations in the Goascorán watershed to access innovative services that increase their climate risk management capacities.

Project Components and Financing:

Project Components	Expected Outcomes	Expected Outputs	Countries/ Beneficiaries	Amount (US\$)
1. Enabling climate-vulnerable communities to practice community-based adaptation within an integrated watershed management approach.	1.1 Vulnerable households and communities have strengthened capacities to adopt community-based adaptation measures to manage climate risks within the Goascorán watershed.	1.1.1 Goascorán's integrated watershed management approach is linked to community-based adaptation processes to support vulnerable communities and households.	El Salvador and Honduras	\$395,000
		1.1.2 Well-proven climate adaptation practices are introduced, applied and scaled up for vulnerable smallholder farmer households in the Goascorán watershed.	El Salvador and Honduras	\$4,571,000
		1.1.3 Ecosystem-based disaster risk reduction approaches are introduced, applied and scaled up across communities in the Goascorán watershed.	El Salvador and Honduras	\$1,959,000
2. Connecting climate-vulnerable populations in the Goascorán watershed to access innovative services that increase their climate risk management capacities.	2.1 Climate-vulnerable communities in the Goascorán watershed have enhanced capacity to make well-informed decisions based on quality climate information	2.1.1 Strengthened access to timely, tailored and co-produced climate and weather information for smallholder farmers and communities (enhanced decision-making).	El Salvador and Honduras	\$1,440,000
		2.2.1 Strengthened access to risk transfer mechanisms (insurance) for smallholder farmers and communities.	El Salvador and Honduras	\$1,100,000
	2.2 Climate-vulnerable households in the Goascorán watershed have more resilient (improved) self-management of climate risks through enhanced and inclusive access to financial products and services	2.2.2 Strengthened access to financial risk reserve and prudent risk-taking mechanisms (savings and credit) for smallholder farmers and communities.	El Salvador and Honduras	\$540,000
1. Project Execution cost (9.5%)				\$950,475.00.00
1. Total Project Cost				\$10,955,475.00
2. Project Cycle Management Fee charged by the Implementing Entity (8.5%)				\$931.215
Amount of Financing Requested				\$11,886,691

Projected Calendar:

Milestones	Expected Dates
Start of Project Implementation	10/2021
Mid-term Review (if planned)	2023
Project Closing	10/2025
Terminal Evaluation	2025/2026

PART II: PROJECT JUSTIFICATION

A. Describe the project components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience,

This Adaptation Fund project aims to strengthen the adaptive capacity of people within the Goascorán watershed by adopting a community-based adaptation approach that also incorporates integrated watershed management and ecosystem-based adaptation best practices. The initiative is regional due to its focus on addressing climate-related challenges shared by communities on both sides of the watershed in El Salvador and Honduras, with a set of activities adapted to specific environmental and socio-economic conditions found in the higher, middle and lower parts of the watershed. Communities and local stakeholders have been consulted and will continue to be key actors throughout the project design and implementation to ensure that people's real needs are addressed. Adaptation Fund resources will be invested to allow adaptive capacities to be built at the community level that are sustainable and scalable, with lessons learnt to also be shared within the region to allow for replication in similar contexts.

The project has been designed so that all activities are complementary in contributing to building people's adaptive capacities. This builds on experiences and lessons learnt that an integrated set of activities are more likely to build people's resilience and capacities compared to a single activity. By strengthening the integrated watershed management approach and integrating community-based adaptation in local planning and coordination processes, the project is expected to benefit approximately 245,000 people (75 percent of the total watershed population). Approximately the same number of people are expected to access tailored climate and weather information, thus being able to make better informed decisions on agricultural livelihoods. In addition, the project will target 6,000 households (30,000 people) as direct beneficiaries of a set of activities including improved adaptation practices, ecosystem restoration and conservation, and access to insurance and other financial services. The Training of Trainer (TOT) approach of the project will allow these activities to reach a larger number of beneficiaries through the replication of training and championing of best practices, with a more precise calculation of the outreach of these TOOs to be estimated during full project preparation.

In addition to the executing entities involved in this Adaptation Fund project, further partnerships will be sought with local organizations for the implementation of field activities, and which will be identified during full proposal preparation and project inception.

The project will actively be monitored with a lens to being responsive to needs based on gender and indigenous ancestry. It will collect lessons to improve design and reach of climate adaptation activities to different vulnerable sub-populations. This approach will also enable a better understanding of success factors that can help scale up and replicate climate adaptation activities across the two countries.

The diagram below describes the proposed integrated strategy, how each part work, how they link and the expected results:

OBJECTIVE

The project's main goal is to strengthen the climate change adaptive capacity of vulnerable households in the degraded transboundary watershed of Goascorán across El Salvador and Honduras by providing communities with integrated climate risk management tools and services that enhance their resilience to climate variability and change.

THE INTEGRATED STRATEGY

HOW IT WORKS

RESULTS

1 CBA within an integrated watershed management approach.

- 1.1.1 Goascoran's integrated watershed management approach is linked to community-based adaptation processes to support vulnerable communities and households.
- 1.1.2 Well-proven climate adaptation practices are introduced, applied and scaled up for vulnerable smallholder farmer households in the Goascoran watershed.
- 1.1.3 Ecosystem-based disaster risk reduction approaches are introduced, applied and scaled up across communities in the Goascoran watershed.

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2 Connecting climate-vulnerable populations in the Goascoran watershed to access innovative services that increase their climate risk management capacities.

- 2.1.1 Strengthened access to timely, tailored and co-produced climate and weather information for smallholder farmers and communities (enhanced decision-making).
- 2.2.1 Strengthened access to risk transfer mechanisms (insurance) for smallholder farmers and communities.
- 2.2.2 Strengthened access to financial risk reserve and prudent risk-taking mechanisms (savings and credit) for smallholder farmers and communities.

Vulnerable households and communities are provided with access to a wide and interconnected range of tailored climate change adaptation best practices, complemented by integrated and sustainable approach towards natural resources in the watershed.

Knowledge and experience sharing and coordination is promoted among communities and local actors, nationally and binationally, on existing and emerging adaptation practices that are proving successful.

Vulnerable households and communities are given access to climate services and risk finance tools that typically don't reach these "last mile" rural and remote locations.

Together the outputs will improve the adaptive capacity of vulnerable households and communities, preparing people for current and future climate risks. An integrated approach will allow local knowledge and skills to be strengthened, enhancing the resilience of people's livelihoods and the environment that sustains them. Climate information services will enable communities to make better informed decisions in light of climate variability and change. Risk financing mechanisms will provide them with greater financial resilience in case of extreme weather events. Enhanced local coordination, planning and knowledge sharing across the Gaoscoran watershed will strengthen communities' capacity to identify, develop and sustain climate adaptive solutions and create a lasting mechanism to promote sustainable community-based adaptation and watershed management practices.

Strengthening the adaptive capacities of climate-vulnerable communities in the Goascorán watershed of El Salvador and Honduras through integrated community-based adaptation practices and services

WFP SLV HN

Component 1. Enabling climate-vulnerable communities to practice community-based adaptation within an integrated watershed management approach

This component focuses on strengthening and scaling up household and community adaptive capacities through the implementation of a range of interconnected climate change adaptation measures. A cross-cutting element that bridges with all activities (including under component 2), is to enable Goascorán's integrated watershed management approach to be better linked to community-based adaptation processes so that climate-vulnerable communities and households can be better supported (output 1.1.1). Much of the component focuses on enabling tangible grassroots level adaptive capacities, by helping people to adopt well-proven climate adaptation practices (output 1.1.2) and communities to establish ecosystem-based disaster risk reduction assets (output 1.1.3).

Outcome 1.1 Vulnerable households and communities have strengthened capacities to adopt

community-based adaptation measures to manage climate risks within the Goascorán watershed.

Activities under this outcome aim to enable vulnerable households and communities across the watershed to have the knowledge, skills and assets that integrated together provide them with the capacities to be able to withstand by themselves current climate risks and slow-onset climate change. These include ensuring people have a tailored, community-based approach that allows for them to exchange and share experiences and lessons learnt on appropriate adaptation measures; in providing them with the skills and technologies that will enable them to adapt and diversify their livelihoods; and in supporting their communities in building and maintaining ecosystem-friendly assets that will be better able to withstand weather-related shocks and stressors. An implicit factor around the community- and ecosystem-based approaches is to also fortify greater social cohesion and local-level governance structures that are considered essential to strengthen people's adaptive capacities. These capacities are also expected to be better enhanced when done in an integrated watershed approach across both El Salvador and Honduras, increasing the overall climate resilience of the Goascorán watershed in terms of ecosystem health and local coordinative capabilities.

Output 1.1.1 Goascorán's integrated watershed management approach is strengthened to involve community-based adaptation processes of local coordination, planning and knowledge sharing.

This output addresses the need to improve community-level knowledge of climate change impacts and appropriate adaptation measures that can be adopted in the Goascorán watershed. It considers an integrated community-based watershed management approach across both Honduras and El Salvador centred on a general recognition that Goascorán is a shared transboundary watershed whose neighbouring countries face similar challenges related to the impacts of climate change, climate variability and environmental degradation on people and livelihoods, and can benefit from similar solutions. Over the years Honduras and El Salvador have addressed climate change issues separately and differently within their territories, developing various but uneven capacities on a range of technical areas. Unfortunately, best practices were rarely shared at the local level and especially across countries. A regional approach was thus determined a fundamental way to encompass the entire watershed, with cross-border community-based cooperation offering the potential to avoid duplication, generate cost savings and allow more communities to be reached with adaptation measures.

The aims and broad approaches adopted under this output are to facilitate knowledge and experience sharing among communities and local actors for both existing and emerging adaptation measures that are proving to be successful best practices. The output will enable binational exchanges at the local level, to encourage a more sustainable and lasting coordination and connections among local stakeholders. In this vein, the proposed project will apply a community-based participatory approach to strengthen communities' capacity to identify, develop and sustain solutions, and will ensure equitable involvement of youth, community elders, women and members of indigenous communities. Ecosystem-based adaptation measures will fit within this scope of work as they are considered fundamental to a whole-of-watershed approach that assures ecosystem health. It will also apply a training of trainers (ToT) approach to maximise the number of people benefitting from capacity development activities. These efforts aim to strengthen social cohesion and governance structures at the local level. Linkages to municipal and national level capacities will be made where appropriate, but with an emphasis on their servicing concrete adaptation capacities at the local, territorial level.

During the preliminary assessments done for the concept note preparation, some mechanisms were identified as options to support the sharing of knowledge and more cost-effectively encouraging replication and scale up of activities among communities. Among others, these include the El Salvador Early Warning System to share weather information; and the Honduras Watershed and Micro-watershed Councils to support communities in self-governance in operating and maintaining the quality and sustainability of water services. Several community-based and ecosystem-based adaptation practices and technologies have also been undertaken among different NGOs, international organisations and governments across the watershed in each country but have not reached a scale that has been replicable.

In line with these efforts, the output will promote the mainstreaming of climate risk management and adaptation into local planning instruments to contribute to efforts to improve the enabling environment for local climate action within the Goascorán watershed including the financial management aspects that will be conducive to the establishment of Investment Plans that integrate climate change risks and adaptation measures. The project will build on an initiative that the Honduran Ministry of Natural Resources and Environment with the support of UNDP started in 2015 to design a Methodological Guide to Incorporate Adaptation to Climate Change in Development Planning - CdT 4H. This Guide informs local governments on how to plan and develop climate change and climate risk management interventions. Lack of resources

meant that the guide was initially introduced only in five municipalities designated for inclusion. However, subsequently the Honduran Secretariat of Agriculture and Livestock and the Institute of Forest Conservation and Development, Protected Areas and Wildlife have used the guide as a planning tool, adapting it to their specific needs. As the Guide speaks directly to the local needs of the populations being targeted with support, the project will work with the Honduran Government to expand its use to all watershed areas, including introducing it to corresponding municipalities within the watershed in El Salvador. The guide will be adapted to the reality and needs of watershed communities, with each country's National Adaptation Plan serving as a reference to whether local priorities are represented. Key local actors from those Honduran municipalities in which the guide is already being used will also be asked to share experience and lessons learnt and to suggest how to further develop the Guide. It is also expected that the Guide will be a key tool in supporting the strengthening of the knowledge sharing, best practices identification and replication mechanisms driven by the project.

WFP intends to work with a range of communities and national and local institutions to develop and introduce a Handbook on Adaptation Options. This will consider the range of climate variability and change concerns for the watershed, people's livelihoods and available resources, as well as best practices emerging and the community level under this project. The co-production of this Handbook by diverse stakeholders will help to define adaptation options that communities will understand. A focus will be placed on ensuring communities are effectively reached with communication messages and advisories for these adaptation options so that they can ultimately be included in their community planning. This is considered important both to build ownership of activities to be implemented and to help avoid any maladaptation to the impacts of climate change by ensuring people have options that have been carefully considered based on climate science and technical expertise in different adaptation options. It will also support local governmental, non-governmental organisations, the private sector and civil society to better determine where technical and financial support is likely required and who can provide it. It is planned to train members of community leaders and local institutions in how to disseminate and discuss the handbook with communities during community and household consultations. This will support attainment of all outputs under component 1 and 2.

To instil an ethos of replicability, efficiency and cost-effectiveness, the project will develop a knowledge management platform. It will learn from and explore elements of integration with the online platform *Edufami* being established under a regional Adaptation Fund project that supports similar knowledge sharing among vulnerable Afro and indigenous communities in the Colombia-Ecuador border area²⁹. Inclusive knowledge management on adaptive best practices will foster the sharing of information and experiences among local communities across both countries, and ensure sustainability. This aims to enable individuals, households and communities with the knowledge on how to adopt (and replicate) a variety of best practices that are proving successful. Adaptation options and best practices featured within the Guide and Handbook would aim to be promoted through this platform to strengthen their longevity beyond the project.

Output 1.1.2 Well-proven climate adaptation practices introduced, applied and scaled up at vulnerable smallholder farmers households and watershed levels.

This output is a critical pillar for ensuring that vulnerable households, communities and the environment they depend on become more resilient to climate-related shocks. It will be achieved through providing climate-vulnerable populations within the Goascorán watershed with access to a wide and interconnected range of tailored community-based climate change adaptation measures.

Specific climate change adaptation activities will be based on the specificities and needs of the higher, middle and lower watershed ecosystems and their residents. At the beginning of the project, WFP's Community-based Participatory Planning (CBPP)³⁰ will be used to work with communities to develop community plans that will address their needs and demands for building their adaptive capacities. The CBPP is an approach that brings together communities, partners and local governments to identify problems and adapt program responses to local requirements. This planning tool analyses livelihoods, vulnerability profiles, land and landscape use, exposure to specific shocks as well as gender inequality. It will build upon practical and technological adaptation measures already identified and implemented by both countries as well as the main type of asset creation activities identified through consultations with communities and experts. Activities will be tailored to the specific needs of different and potentially highly vulnerable groups, such as women, indigenous populations, youth and elders. It will also take into

²⁹ This Adaptation Fund project is titled 'Building adaptive capacity through food and nutrition security and peacebuilding actions in vulnerable Afro and indigenous communities in the Colombia-Ecuador border area', with WFP as the implementing entity.

³⁰ <https://www.preventionweb.net/publications/view/47204>

consideration land tenure issues that affect people's decisions and investments.

To support the identification of these community-based adaptation measures, initial consultations with communities and institutions in the Goascorán watershed were conducted and have begun to broaden the understanding of key climate-related vulnerabilities and likely impacts, as well as gaps and needs facing households, along with an initial identification of possible adaptation measures that can be introduced. While household surveys and further community consultations are planned during the proposal formulation, this first analysis already allowed to identify some key activities to be considered under this output. Acknowledging that livelihoods in the watershed are primarily agricultural, the project will support the introduction of a range of climate-smart agricultural practices through technical guides and based on other pilot experiences developed in the Goascorán watershed in collaboration with strategic partners and in accordance with the policies and strategies of the ministries of agriculture and environment in each country. Such techniques include: the implementation of agro-ecological techniques, agroforestry, crop diversification, promotion of biofortified seeds such as for drought-resistant crops, natural pollination through beekeeping, organic agriculture techniques, post-harvest management, avoiding stubble burning, contour sowing, rainwater collection and storage and irrigation systems powered by renewable energies, community water storage systems, protection of water sources and springs, drip irrigation systems, canal infrastructure improvement, soil and water conservation measures, among others. Livelihood diversification activities will also be promoted to help improve the adaptive capacities of smallholder farmers and community members.

The project will provide smallholders farmers, community leaders and local institution technicians with training, inputs and assets, ensuring the participation of vulnerable groups, through the training of trainers (ToT) modality to ensure long-term sustainability. Technical assistance will be supported under the Farmers Field Schools (FFSs) methodology and the development of action plans (adaptation plans). To foster an enabling environment, training will be provided to strengthen coordination to extension officers and local technicians from national institutions in order to ensure greater presence on the ground and advisory services to producers.

Output 1.1.3 Ecosystem-based disaster risk reduction approaches are introduced, applied and scaled up across communities in the Goascorán watershed.

This output complements the work with smallholder farmers by ensuring an integrated and sustainable approach towards natural resources in the watershed. Such activities are needed given the environmental degradation of the landscape in which vulnerable communities are living, one in which extreme climatic events such as intense precipitation after long dry periods can increase risks of flash flooding and landslides due to the poor saturation profile of soil, loss of foliage and blockages in natural drainage outlets.

The output seeks to implement protective and preventive natural resource management actions by introducing household and community-based conservation and restorative practices within the landscape in which these people live, with a special focus on water producing areas for communities at the micro-watershed level. These natural resource management interventions will form part of the menu of practices within the *Handbook of Adaptation Options*. Attention will be paid to ensuring these practices are easily understood and implementable by communities, with the appropriate expertise provided to ensure quality interventions avoid maladaptation and do no harm. Through incorporating integrated measures to conserve their micro-basins, communities will generate environmental, economic and socio-cultural benefits, including improvements in people's food security, incomes and resilient livelihoods.

Activities to be implemented within communities will be determined through community consultations and planning exercises, and may include a range of ecosystem-based disaster risk reduction and adaptation interventions including agroforestry, integrated water resource management, reforestation, and sustainable forest management interventions. The project anticipates that the most appropriate activities will be identified and tailored based on the specific needs of the high, middle and lower watershed, through the investigations with communities and experts and taking into account the practical and technological adaptation measures already identified and implemented by both countries. This entails using a Community Based Participatory Planning (CBPP) approach – a methodology which enables inclusivity of different groups in the decision-making of activities (including men, women, youth, indigenous and any specific vulnerable groups). CBPP is considered a critical means to encourage local ownership and sustainability, and is also cost-effective in helping to identify and commit local community resources, time and effort to implement these community-based activities.

The ecosystem-based approaches adopted under this output will introduce a series of cooperative, iterative steps to be taken to characterise existing conditions, identify and prioritise problems, define management

objectives, develop conservation, restoration and management strategies and implement and adapt selected actions. Promoting integrated development programmes through the effective participation of local people is intended to prevent further ecological imbalance and create long term sustainability.

Component 2 Connecting climate-vulnerable populations in the Goascorán watershed to access innovative services that increase their climate risk management capacities.

The second component focuses on strengthening people's access to innovative and tailored "last mile" services that help vulnerable communities to better manage climate risks. These services include helping people enhance their ability to make well-informed decisions with climate information services (output 2.1.1), transferring risks of weather-related shocks through microinsurance (output 2.2.2) and generating more financial inclusion with the ability to save and take out loans (output 2.2.3). These activities are considered important complements to component 1, whereby integrated together within a community-based watershed approach, people and their communities will have a greater ensemble of climate risk management and climate change adaptation practices, skills, assets and services that will help them overcome climate-related shocks and stressors.

Outcome 2.1 Climate-vulnerable communities in the Goascorán watershed have enhanced capacity to make well-informed decisions based on quality climate information.

Activities under this outcome aim to connect climate-vulnerable communities in the Goascorán watershed to more timely and tailored gender sensitive climate information services that will allow them to make better decisions. Weather and climate risks especially impact people's agricultural livelihoods within the watershed, and the lack of farmers' access to timely and appropriate climate information is a major constraint that impacts their ability to make well-informed decisions with regards to their planting and harvesting activities. Extreme weather events are also a concern, with early-warning systems designed to produce more tailored community warnings considered a worthwhile investment in saving lives and livelihoods from climate-related disasters. The tailored approach is a key focus for the climate services orientation of activities under this outcome, to ensure messages address the different needs of women and men, ethnic groups and disadvantaged people.

Output 2.1.1 Strengthened access to timely, tailored and co-produced climate and weather information for smallholder farmers and communities (enhanced decision-making).

This output is centred on helping communities make better informed decisions in the face of climate variability and change. It will focus on ensuring populations within the watershed have access to "last-mile" climate and weather information that is tailored to be understandable, easily accessible and acted upon. Smallholder farmers targeted with these climate services especially require information that is relevant and timely to enable them to take informed agricultural decisions on different seasons, such as the choice of crops to plant, when to plant, their investment in agricultural inputs, and if to harvest early or to wait for improved weather conditions. The information includes both rapid-onset and slower-onset events, as well as year-to-year climate variability and longer-term climate trends. This information will be an important complement to the outputs under component 1 to support people's adaptive capacities.

A first step under this output will involve undertaking a comprehensive baseline assessment (including household survey and focus group discussions) that seeks to develop a detailed understanding of the needs of all residents in a community. Experience has demonstrated that it is essential to properly take into account the differences in how people access climate information, including elements of trust, communication preferences and resources. This can include, for example, whether different people have trust in certain institutions, if they have access to radio/phone/social media, and whether there are differences in literacy levels among women, men, the elderly, indigenous populations, youth, landowners and the landless.

Based on lessons learned with other climate service initiatives that are establishing a "last mile" orientation, the project would then aim to convene a binational consultation workshop for climate services stakeholders and representatives of communities within the watershed. This would begin a conversation around how to systematise a two-way dialogue system between the key actors to ensure populations (especially vulnerable groups) within the watershed can access tailored climate and weather information.

The co-production model will ensure:

- Different national entities managing and producing climate and weather information can exchange and agree on an appropriate design of climate services products to efficiently reach communities

with tailored information.

- Communication intermediaries are actively involved in supporting efficient translation and dissemination of climate and weather information through the communication channels most appropriate for the communities.

Representatives from end-user communities such as farmers, village leaders and community-based organisations are able to continuously improve timely and accurate climate and weather information by communicating their challenges, needs and opportunities. Based on these efforts, channels to exchange information might include WhatsApp and Chatbot, bulletins, and community centres, among others. Consideration is being given to using ROLA (Red de Observación Local Ambiental),³¹ an already functioning network working in El Salvador, and which consists of community leaders providing climate and weather observations to the national Met Service (DGOA) as part of the Early Warning System through Whatsapp messages. ROLA could be strengthened expanding the scope of the tool to include adaptation considerations and replicated in Honduras through the work of the binational body.

In communities without internet access, ROLA could be able to provide the same services through SMSs. ChatMas is a BOT-assistant system being developed and tested by WFP El Salvador and MARN. It is based on artificial, interactive and predictive intelligence through which information from different local, national and international data sources, community members (as local source) and climatological information are analysed. Automated predictions based on the indicators analysed by the system should be then provided to the population. If the pilot proves to be efficient and accurate, the system can be scaled up and replicated in Honduras.

Outreach is also anticipated to include face-to-face support to smallholder farmers and training of trainers workshops for institutions to help them understand how to translate weather forecasts and climate change projections into readily-understandable information for communities. It also includes agricultural advisory services to farmers to know how to use the climate and weather information received, which will help these end-users make informed decisions on cropping and livestock management based on immediate, seasonal and longer-term forecasts. Early warnings for extreme weather events would also be targeted to ensure they are better tailored to support speedier community-level alerts and action. The ToTs with the institutions will serve part of a wider effort to ensure institutional actors can better orient their climate information and agrometeorological advisories to serve “last-mile” populations in the watershed, along with other communication intermediaries in the public/private sector. The co-production approach involves creating feedback mechanisms to ensure the weather and climate information meets community needs, and will thus involve bringing together government institutions, communication intermediaries and end-users to design the climate information products on an iterative basis.

Climate information producers include national meteorological services (DGOA³² in El Salvador and DICTA-SAG³³, MiAmbiente and COPECO³⁴ in Honduras) and the agricultural departments (MAG and CENTA³⁵ in El Salvador and SAG and ICF³⁶ in Honduras).

In coordination with the Central American Commission on Environment & Development (CCAD), under the framework of the regional initiative "Building Resilience in the SICA region under a synergistic approach between Mitigation and Adaptation focusing on the Agriculture, Forestry and other land uses sector (AFOLU-2030)", information on agriculture and forests generated during the implementation of this proposal will be provided to feed the Monitoring, Reporting and Verification System (MRV).

Outcome 2.2 Climate-vulnerable households in the Goascorán watershed have more resilient (improved) self-management of climate risks through enhanced and inclusive access to financial products and services.

Activities under this outcome aim to connect climate-vulnerable people in the Goascorán Watershed to have access to financial products and services that will allow them to be better able to self-manage climate risks. Currently these financial services – including savings, credit and insurance – are lacking in their availability to people in the watershed. Innovative insurance products will contribute to improving families’

³¹ Red de Observación Local Ambiental (ROLA), <http://www.marn.gob.sv/400-voluntarios-conforman-la-red-de-observacion-local-ambiental-rola/>

³² The Environmental Observatory General Directorate

³³ The Agricultural Science and Technology Directorate with the Agriculture and Livestock Secretariat

³⁴ The Permanent Contingency Commission of Honduras

³⁵ The Ministry of Agriculture National and the Center for Agricultural and Forestry Technology

³⁶ The Ministry of Agriculture and Livestock and the Institute of Forest Conservation and Development, Protected Areas and Wildlife

climate resilience by providing timely financial payouts in the event of large-scale weather events, such as supporting farmers to avoid negative coping strategies while stimulating faster recovery. Savings and credit will also improve families' ability to manage climate risks by building a stronger financial-base, allowing them to invest in improved agricultural inputs while having a buffer against covariate and idiosyncratic shocks. Coupled with other outputs in components 1 and 2, the project sees these activities as providing people with a set of integrated climate risk management and adaptation tools that they can self-manage and improve their overall adaptive capacities.

Output 2.2.1 Strengthened access to risk transfer mechanisms (insurance) for smallholder farmers and communities.

This output builds on resilience-building tools for smallholders included in component 1 and will develop risk transfer instruments that households can access in the event of a weather-related shock to create a buffer against such idiosyncratic shocks³⁷ not covered through conventional insurance mechanisms.

Introduction of weather-index (parametric) microinsurance products for farmers in the target area aims to both protect and help diversify livelihoods. The financial compensation provided by insurance protection can help households maintain their level of wellbeing even when severe shocks occur. In addition, insurance can stimulate increased investments in productive activities by enabling access to credit and provide the security of compensation in case a shock occurs. Weather-index insurance has the benefit of being able to provide rapid pay-outs, and usually is offered at a lower cost than traditional insurance. This is because (parametric) index insurance makes pay-outs based on a weather index (such as rainfall) reaching a pre-specified threshold (or trigger) vis a vis traditional insurance that requires a more costly and less timely loss assessment process.

The project will support the development and tailoring of a weather-index insurance product for the watershed population. A participatory index design approach will enable tailoring the product with farmers and their needs, establishing triggers for the insurance pay-out and windows of protection. It will raise awareness and improve vulnerable farmers' access to insurance products. The poorest farmers will be able to access the insurance by investing their time in the livelihood and community-level actions set out in outputs 1.1.2 and 1.1.3, steadily reducing their vulnerability to climate-related shocks over time. For these farmers, the insurance premiums will be initially subsidized by the project. The subsidy will be reduced gradually to enable farmers to transition to pay for-insurance themselves. The project might also identify mechanisms that enable public/private financial contributions (such as subsidies or fee reductions) to reduce premium costs. Specific details will be defined through analysis and consultation with the communities and identified partners during the microinsurance product design phase, with the aim towards long-term financial sustainability and scalability.

Given the complex and technical nature of modelling climate risks for weather-index insurance, it is recognised that bringing this financial service to the target population in the Goascorán watershed will require mobilising public/private entities involved in insurance to increase their reach to these communities. Presently expansion of index insurance in Central America has been limited, including in El Salvador and Honduras³⁸. In 2018, the Microinsurance Catastrophe Risk Organisation (MiCRO), a social enterprise specialised in the design and implementation of index microinsurance, launched the first index insurance in the El Salvador market. Working closely with government and insurance sector stakeholders, MiCRO worked with El Salvador's insurance regulator, the *Superintendencia del Sistema Financiero* (SSF), to have the product approved and brought to market. The design of this current product, however, is not accessible for the profile of smallholder farmers in the Goascorán watershed. In Honduras, weather-index insurance has yet to be offered commercially, although research institutions recently completed a donor-funded project on the viability and design of a weather-index based insurance product for Honduran farmers, and which was reviewed and approved by the regulator, the National Committee for Banking and Insurance (CNBS). To date no local insurance provider has developed and commercialized such a product, and private sector insurance providers in Honduras do not have awareness of the value or potential of weather-index insurance for providing affordable protective cover for vulnerable farmers, and therefore are not investing in bringing these products to market.

Mobilising these and other valid risk finance institutions across the watershed to sustainably reach vulnerable populations requires encouraging a connection with them and the communities to receive these services, as well as facilitating dialogue between regulators to enable insurance products to be approved

³⁷ Idiosyncratic risk refers to the particular experience where one household's experience is typically unrelated to neighboring households' (i.e. household-level shocks, such as death, injury or unemployment)

³⁸ <https://www.microrisk.org/countries-regions/central-america/>

and made commercially available. It also requires working with these companies and distribution channels to create and/or strengthen (as necessary) financial products that will both be accessible for households in the watershed region and protect against the financial consequences of climate-related events. Most insurance products currently available in El Salvador and Honduras only provide coverage for the value of credit and loans, and therefore are only accessible to those integrated into the formal economy. Through supporting the development and distribution of index insurance products tailored for vulnerable communities with local insurers, this output will promote the creation of a sustainable commercial market for index insurance products for lower-income households.

Output 2.2.2 Strengthened access to financial risk reserve and prudent risk-taking mechanisms (savings and credit) for smallholder farmers and communities.

In the Goascorán watershed, the overall use of financial services is currently not widespread, limiting habits in savings and prudent risk taking with credit. One of the main constraints is the lack of financial services – both formal and informal – that are available to community members to adopt. People’s abilities to use such facilities are considered an important ingredient to building people’s household-level resilience, as they tend to be a key coping strategy that families turn to when faced with the impacts of a climate-related or other disaster. Such financial services are also important to strengthen a household’s adaptive capacities, as people can invest in new livelihood practices and approaches, including climate-smart agricultural inputs such as drought-resistant seeds or water harvesting technologies. These financial services are thus seen as an important complementary activity that will strengthen the various activities undertaken under component 1 and 2, by providing people with an increased ability to introduce new approaches and replicate actions over time, and thus supporting the project’s goals of scalability and household and community-level sustainability.

In order to strengthen people’s access to these financial services, community members will be organised into informal savings groups that determine jointly a fixed amount to be contributed into the savings pool per month. From this, small loans can then be distributed between members at minimal interest rates, thus supporting modest investments in agricultural inputs or other business enterprises. Loans are reviewed and approved by the members, to ensure adherence to the group’s guidelines. The activity will also involve a series of awareness building activities, education and training in saving techniques for these groups. These approaches build on lessons from *Cajas Rurales*³⁹, community savings and loans groups that are well-established in Honduras, in order to help inform and form similar groups in El Salvador.

This output will also encompass financial literacy training to build people’s capacities to understand of the basic principles of financial education, as well as on business development topics such as market access, business development and negotiation of collective agricultural input purchases. As the capacity for financial management increases, efforts will be made to connect these groups to formal financial institutions where it is deemed appropriate, as these are seen to facilitate access to formal credit for members that will also be protected by the insurance products developed. The project will however be cautious to ensure that connection to formal financial services are sustainable and will not erode any efforts made with informal financial services, as they have proved to be a better investment in certain contexts. This will be assessed during project implementation, alongside identifying pathways that will ensure these can be replicated and scalable. WFP’s work with both the Governments of El Salvador and Honduras on social protection as well as cash-based transfers will be explored in this context as possible routes for scaling efforts to reach a larger population of climate-vulnerable people.

B. How the project would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms

WFP is collaborating with partners to test and scale up innovative ways of providing rapid assistance to the poorest and most vulnerable farmers after a shock, helping them become more climate resilient and food secure. WFP recognises that in order to achieve sustainable and resilient food security, nutrition and livelihoods, it is essential to rely on a comprehensive set of integrated disaster risk management strategies and tools that provide an early response after a shock, while reinforcing the ability of food insecure communities to cope with and adapt to future climate change impacts. The project will introduce an innovative climate risk management approach which combines different components that mutually reinforce each other into one integrated strategy. This integrated approach will strengthen household and community

³⁹ <http://www.funder.hn/centros/cajas-rurales>

adaptive capacities through the implementation of a range of interconnected risk strategies, including risk reduction (improving resource management through the climate adaptation practices); prudent risk taking (providing capacity building on livelihoods diversification, climate change adaptation planning and microcredit); risk reserves (enabling savings); risk transfer (introducing microinsurance to compensate farmers in the event of weather-related shocks); and risk information (providing timely, tailored and co-produced climate services for smallholder farmers and communities). This combination of activities aims to build the adaptive capacities of these communities by protecting them from climate-related shocks, reducing their use of negative coping strategies, and stimulating faster recovery.

As part of the integrated climate risk management approach, some of the tools and services that will be introduced are particularly innovative in the regional context. Microinsurance is a powerful tool for smallholders to manage climate risks and achieve resilient livelihoods, while also enabling investments and growth in the agricultural sector. The potential for index insurance to build resilience for rural smallholder farmers to climate-related risk has only recently begun to be realised and is a relatively new concept in El Salvador and Honduras. Index insurance as a solution to transfer risks from communities to capital markets to support quick recovery after a climate-related disaster is an increasingly utilised mechanism. The project will also introduce “last mile” climate services that haven’t been made available to these vulnerable populations in Central America to date. By finding pathways to replicate, systematise and scale these practices, including strengthening of community and local institutions, the project aims to aspire to transformative adaptation in the two countries.

The project’s focus on community-based cooperation in the watershed is also considered to be an opportunity to encourage local sharing of knowledge and expertise - and replication of successful innovations – between and on both sides of the border. Further, the project’s emphasis on enhancing cooperation and coordination among community, local government and stakeholders is considered to be a cost-effective way to create synergies between community-based integrated watershed management and climate change adaptation approaches and hopes to provide an example to other countries considering cross-border collaboration in addressing climate change concerns across a catchment area.

C. Describe how the project would provide economic, social and environmental benefits. Describe how the project would avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund

This project proposal provides the following environmental, economic and social co-benefits:

Environmental benefits

Integrated watershed management and sustainable management of natural resources will be central to promote enhanced climate change adaptation and food security to the targeted communities and households, and to achieve long-term environmental benefits in the project areas. Such an approach entails the rational utilisation of land and water resources for optimal production, but with minimum impact on natural and human resources. It will result in a lower rate of land erosion, reduction of sediment in the watershed, increased water retention, increase forest coverage, crop diversification and reduced vulnerability to climate-related shocks. Activities related to water harvesting, tree planting and water infiltration practices will contribute to increased soil fertility and overall ecosystem health. Soil conservation practices will also offer the opportunity to both preserve land and infiltrate water, improve water quality to the surrounding environment. The integration of these efforts across the watershed as a binational intervention will further promote a geographical approach that is defined by nature rather than the limits set by political administrative divisions.

Social benefits

Adaptive capacity

In order to build the adaptive capacity of households and communities to adapt their lives and livelihoods to the impacts of climate variability and change, the project recognizes that an important emphasis is needed to be placed on analysis of information needs so that people - and local governments, institutions and other actors supporting these actions - can understand the climate impacts, possible adaptation options, and to plan and act accordingly. The project has been especially designed to ensure that its component, outcomes and outputs are interconnected and all necessary to sustainably improve the

targeted populations' adaptive capacity and enable lasting impacts. In this sense, the project aims to take an integrated approach that considers knowledge, skills, assets and services as key components to build the adaptive capacity of vulnerable people, their households and communities within the Goascorán watershed. The project's focus on community-based and ecosystem-based adaptation approaches that guide the overall implementation of activities also emphasizes the important social cohesion and community governance structures that will be strengthened throughout the process of implementation, and that are seen as integral to building these communities climate resilience.

In order to improve the understanding of appropriate climate actions, a core focus for Output 1.1.1 is to undertake the necessary consultation and analysis with different communities and experts across the watershed in both countries, to improve and expand the Guide, as well as develop the Handbook of Adaptation Options and establish the platform, and which will then inform all activities undertaken under the outputs 1.1.2 and 1.1.3. Special emphasis is placed on vulnerable and marginalized populations to guarantee these groups will be able to access the process design and implementation.

Enhanced food security and nutrition and improved incomes

Experience shows that all project activities can have the dual benefits of enhancing food security and incomes while building climate resilience. Given that climate-sensitivity of the most vulnerable populations in the watershed are agriculturally-based, and that any climate shock shows a clear link to increasing their food insecurity, malnutrition and continued cycle of poverty, the project places a strong emphasis on ensuring that adaptive practices are targeted at smallholder farmers and communities with a no regrets approach that addresses vulnerable people's barriers to adopting disaster risk management and adaptive capacities in the watershed. This includes ensuring people can be supported with the restoration and creation of household and community-level assets that will make them more resilient against future climate-related shocks and stressors, as well as providing them with access to knowledge and skills that will allow them to have greater capacities to implement disaster risk management, adaptation practices as well as diversify the livelihoods. WFP will also work with local partners to enable its well-established Community-Based Participatory Planning tool to include a climate change adaptation lens so to help communities to identify community-level actions that support their food security and climate resilience.

Farmers should be able to produce during the lean season and moderate drought episodes, as well as plan for climate-related shocks and stressors. Services such as tailored climate information and risk finance instruments will assist households to prepare and reduce the impacts of these shocks and stressors on their food security, nutrition and livelihoods. In addition, by having access to financial services that allows people to save and take out loans, people will have a greater ability to grow their income and guarantee a more disposable income to be better able to invest in climate-smart farming and disaster risk management and adaptation practices, further improving their livelihoods, wellbeing and enabling increased adaptive capacities. Insurance products will help people protect their investments and instil confidence in taking intelligent risks that give them the capacity to diversify livelihoods and grow household wealth.

Gender empowerment and vulnerable groups

Analyses and field experience highlight that women have lower access to resources and lower decision-making power than men in the watershed area. Women carry out a large portion of the farm work together with household and family care work. The impacts of climate change are increasing the burden on women and communities that were already vulnerable. Frequent droughts and crop failure are seriously affecting families' livelihoods and women and children are forced to contribute even more to household income, without being released from their domestic responsibilities. Education and health outcomes for children are also affected negatively. Assistance is therefore clearly needed to build women's resilience to the impacts of climate variability and change while attempting to change prevailing gender inequalities.

The project will contribute to gender equality and women's empowerment through a gender mainstreaming approach shaped by determination to ensure equal rights, access and opportunities for participation and leadership in the project and in community decision-making. Civil society – national NGOs as well as community-based organisations – will be involved in all decision-making so that the project integrates vulnerable groups (such as women and indigenous people) concerns. The project will adopt Free, Prior and Informed Consent (FPIC)⁴⁰ principles during all engagement with indigenous communities and their

⁴⁰ FPIC is a methodology now frequently deployed by development actors to establish bottom up participation and consultation of indigenous communities prior to the beginning of a project within their ancestral land or using resources within it. It conforms with aspirations set out in the *United Nations Declaration on the Rights of Indigenous Peoples*.

representatives. The project will ensure that communities are part of the climate change adaptation solutions and that any activity is adapted to their needs, culture and traditions. Efforts to identify opportunities to integrate gender-transformative actions into the project will also be explored through other funding opportunities, building on experiences being examined in other countries in the region.

Avoiding or mitigating negative impacts

The following measures will ensure that project activities are designed and implemented in a way that does not cause negative social or environmental impacts:

- There will be genuine, not just tokenistic, inclusion of community representatives in project design, implementation and monitoring. This is enabled through WFP's experience in Community-based Participatory Planning exercises.
- Government collaboration and alignment will be enhanced through the integration of project goals with local development plans.
- Technical support will be sought especially in relation to sensitive or specialised services. Examples include gender issues as well as ecosystem-based adaptation, microinsurance, irrigation and integrated watershed management.
- The CdT 4H Guide and the Handbook on Adaptation Options will ensure Implementation will be in accordance with national standards and safeguards articulated in various strategies and guidance documents.
- Grievance and feedback mechanisms will be developed, and communities encouraged to understand and use them.
- During full project formulation stage, an environmental and social risk assessment will be performed, in accordance with the Adaptation Fund's 15 principles.
- There will be activity-level environmental and social screening for the components' activities at project implementation stage.
- Environmental and social risk management plans, commensurate with the risks assessed, will be developed at project formulation stage.
- Planning, implementation and monitoring of necessary mitigation measures will be identified by means of activity-level environmental and social screening.

D. Describe or provide an analysis of the cost-effectiveness of the proposed project and explain how the regional approach would support cost-effectiveness.

The project will identify and use appropriate pathways that will allow for replication and scaling up so that more climate vulnerable people across the watershed can benefit from the Adaptation Fund's support. Partners under the project are presently examining where entry-points for integration into existing public and private sector initiatives are possible so that activities can be scaled and sustained during and beyond the project's four years. One example is the support to the introduction and application of the Guide and the Handbook in all targeted municipalities. As a result, it is expected that municipal planning instruments and relevant budgets will integrate and mainstream climate change adaptation considerations to make the implementation of adaptation strategies more financially sustainable in the longer-term. This has led to estimates that up to 245,000 people (75 percent of the watershed) will be reached through this project.

To enable these pathways to be utilised, the project requires a small but important investment under output 1.1.1 to establish and augment existing binational approaches across the watershed so that a more cost-effective sharing of knowledge and lessons learnt can be enabled. This is a central rationale for the regional (binational) approach of this project, by leveraging opportunities across the watershed that can generate cost-effective and efficiency benefits. To further increase the impact of the project, the investment in knowledge management under output 1.1.1 also aims to link with wider regional fora where best practices are shared with governments, institutions and civil society to allow replication and scaling of community- and ecosystem-based adaptation activities, as well as novel approaches in "last mile" climate information services, index-based insurance and other financial services that increase people's climate resilience within their households and communities. By facilitating knowledge management, this output acts as the bridge to enable all other activities under components 1 and 2 to become more scalable and sustainable.

The project is also designed to complement and enhance the efficacy of previous and ongoing initiatives in the watershed by integrating with and drawing on experiences and lessons learned. This also includes partnering with different government institutions and organisations (as outlined under Section I), to ensure

the project will not have to begin with testing and developing new tools, systems, and approaches that can be costly and timely to adjust into successful models. The lessons learned, best practices, and achievements under these previous and ongoing initiatives will help ensure savings by avoiding challenges previously experienced and building on systems and networks that have already begun to be put in place. This includes also generating opportunities to mainstream climate change adaptation into local planning and related budgets, which aims to help local governments avoid long-term dependence on a continuous injection of external investments for the continuity of activities.

Ensuring community ownership and maintenance of local systems, assets and approaches has long been seen to be an important ingredient for sustainability and cost-effective investment. The project will ensure that the activities undertaken are needs- and demands-based by using household surveys and Community Based Participatory Planning activities to design tools and services that address barriers prevent people from adopting them, as well as to generate community ownership. Concrete interventions will be carefully costed with communities to determine resources that communities can contribute to before decisions are taken on implementation. Experience has also highlighted that enabling households and communities to adopt an integrated set of risk management practices maximizes the project's desired outcomes towards building people's climate resilience. Not only is the impact of the project higher, but the logistical cost of outreach to beneficiaries with multiple adaptation practices, assets, skills and services can be reduced when channelling these in an integrated way with partners through the same facilitating organization.

Throughout all components, the project will use a Training of Trainers (ToT) approach to maximize the number of farmers reached through capacity development activities and to ensure long term sustainability and scalability beyond the project target areas. In WFP's experience with ToTs, they are proven to be a cost-effective measure to disseminate new knowledge and practices, by targeting community champions with training, tools and techniques. These champions will be carefully selected through community consultations and pre-determined eligibility criteria to support wide-scale promotion.

The innovative services promoted by the project are specifically designed to ensure cost-effectiveness and economic sustainability by enabling beneficiaries to self-manage climate risks. By enabling access to last mile climate information, farmers will be able to make well-informed decisions, ensuring they can put in place risk management efforts ahead of a predicted climate-related shock, as well as helping them make best use of any investment made on agricultural inputs. Through co-production techniques, the project will use its last-mile approach towards climate services to tangibly build local stakeholders' and institutional capacities to produce tailored climate information. As regards to the channels for dissemination, these will be chosen taking into consideration people's needs and cost-effectiveness criteria, prioritizing those channels that ensure wider outreach for a limited additional cost (for example radio or television). By establishing small-scale savings and loans groups, the project will enable farmers to invest their own resources in improved agricultural inputs, thus maximizing the implementation of adaptation techniques introduced through component 1. The relatively small investment in introduction of index insurance will also transfer the risk of major economic losses due to severe climate shocks to insurers and reinsurers, reducing the burden on government funds. Further, index insurance products are more cost effective than traditional indemnity-based agricultural insurance products as lower administrative costs translate to a reduced cost of insurance premiums.

Finally, by fortifying a partnership among executing entities across both countries, this project will be able to marry existing but different strengths in institutional processes and technical capacities across the watershed, from governance and knowledge management, to community-based and ecosystem-based adaptation, to climate information, insurance and financial services. From a project implementation perspective, the regional approach allows cost sharing among the two countries, and which is a core rationale for this being a binational project, given that the climatic challenges are similarly experienced and dependent upon a whole-of-watershed approach, alongside the similarities in limited adaptive capacities shared by people within the Goascorán watershed. These cost-efficiencies are especially expected to be achieved through the hiring of coordination and technical experts for specific activity areas, and their collaborative work and expertise will generate benefits through establishing and building on common systems, practices and lessons across the watershed and beyond.

E. Describe how the project is consistent with national or sub-national sustainable development strategies

El Salvador and Honduras have adopted policies, strategies and plans and made international commitments which facilitate actions to promote adaptation and tackle climate change. The project directly aligns, contributes to and supports their implementation.

Among the most relevant, in El Salvador the project fits readily with the Government's Plan Cuscatlan (PQD 2019-2023), which clearly states the intention to promote conservation, biodiversity, valuation and sustainable use of natural heritage. The country's 2012 National Environmental Policy aims to "reverse environmental degradation and reduce vulnerability to climate change". El Salvador's National Climate Change Strategy, launched in 2013 aims to implement mechanisms and principles coherent with this project as does the 2015 National Climate Change Plan which has an objective "to build a society and an economy that is resilient to climate change and low in carbon".

In Honduras, the project aligns with and supports the Country Vision 2010-2038 of "a productive Honduras, generator of opportunities and decent employment, that takes advantage of its resources in a sustainable way and reduces environmental vulnerability", and the National Plan 2010-2022 that contains 11 strategic guidelines for achieving the Country Vision, one of which relates to climate change adaptation and mitigation. Honduras' National Adaptation Plan, presented in 2018, has as a general objective "to guide adaptation actions focused on the integration of sustainable development strategies in order to reduce the adverse impacts of climate change and variability in the country", and the Master Plan for Water, Forest and Soil, whose main objective is for water, forest and soil resources to be managed sustainably through broad local participation. A thorough breakdown of the specific instruments to which the project aligns can be found in Table 2, with alignment identified at the component level. A list of other relevant policies and strategies is provided in Annex 2.

Under the SICA framework, the Central American Commission on Environment & Development (CCAD), which see the involvement of both ministers of environment, have approved and given their political support to the regional initiative "Building Resilience in the SICA region under a synergistic approach between Mitigation and Adaptation focusing on the Agriculture, Forestry and other land uses sector (AFOLU-2030)". This initiative is structured in five Components, of which, the present project would be consistent and complement three:

1. Conservation of forests and forest ecosystems: intended to reduce emissions of Greenhouse Gases (GHG) related to deforestation and forest degradation.
2. Transformation of agricultural production systems: with transit towards a low-carbon, resilient agriculture and livestock adapted to the climate, with low use of agrochemicals and nitrogenous fertilizers, improving the management of water resources, with emphasis on the Central American Dry Corridor and the arid zones of the Dominican Republic.
3. Integration and promotion of sustainable agricultural techniques, practices and services adapted to the climate in the cultivation of staple grains and export crops.

Table 2. Selected Relevant Policies and Links with Project Components

Policy/Plan	Key priorities	Alignment
El Salvador		
Plan Cuscatlan 2019-2023	<p>The Government will promote the conservation, valuation and sustainable use of ecosystem's services and biodiversity, encouraging innovative solutions.</p> <p>Environment Component: Integral approach and main challenges. Actions: 7: Free access to information. 8: Establish financial protection policies. 11: Ecotechnology. 12: Improve the quality and use of surface water. 14: Adaptation and mitigation with co-benefits. Component: Droughts in the country. Actions:</p> <ul style="list-style-type: none"> - Develop agriculture with a focus on hydrographic basins and territorial planning based on hydrographic mapping. - Education and awareness of the protection and conservation of this vital resource; impacting students from the first levels. - Clean technologies to avoid pollution, and good waste management from urban settlements, colonies, neighborhoods and communities. <p>Human Rights Component: Poverty reduction Actions:</p>	Outcome 1 and 2

	<p>- Empower the population, providing equity in access to risk information,</p> <p>Economy Programmatic axis: 1. Inclusive and sustainable economic growth Actions: 1.2. Economic activities environmentally sustainable.</p>	
Environmental Policy 2012	<p>General Objective: Reverse environmental degradation and climate change vulnerability in the face of climate change.</p> <p>Specific Objectives:</p> <ol style="list-style-type: none"> 1. Reverse environmental degradation 2. Sustainable management of water resources 3. Environmental organisation of land use 4. Promote a responsible environmental culture. 5. Reverse ecosystems and landscape degradation. 6. Reduce climate risk 	Outcome 1 and 2
National Climate Change Strategy 2013	<p>Strategic axis 2: Climate change adaptation</p> <p>Priorities:</p> <ul style="list-style-type: none"> • Adaptation strategies with emphasis on agriculture, water resources, infrastructure and health • Restoration of critical ecosystems and rural landscapes • Urban and coastal planning 	Outcome 1
National Climate Change Plan (NPCC) 2015	<p>Component 1- Programme to incorporate climate change and disaster risk reduction into development plans, policies and modernising of public institutions.</p> <p>Action 1. Incorporation of strategic climate change and risk reduction incorporation into policies, national budgets, and national development plans at local and sectorial levels.</p> <p>Component 3 – Biodiversity and ecosystems management programme for climate change adaptation and mitigation.</p> <p>Action 1. Protect, rehabilitate and preserve existing ecosystems and improve their ecological functions</p> <p>Action 2. Re-establish ecological connectivity and restore ecologically diverse rural landscapes</p> <p>Action 3. Address pressures on biodiversity and reduce ecosystems pollution</p> <p>Action 4. Research and innovation, knowledge development and management about biodiversity and ecosystems for climate change adaptation</p> <p>Action 5. Control of land use changes for agricultural, tourism and urban activities</p> <p>Component 4. Transformation and diversification programme of agricultural, forestry and agroforestry practices and activities</p> <p>Action 1. Transformation of agricultural practices and production diversification with climate resilient alternatives and sustainable development of fisheries</p> <p>Action 2. Develop Research, technologies and capacities on climate-resilient crop and agricultural production</p> <p>Action 3. Programme to promote development of resilient coffee plantations</p> <p>Action 4. Design and implement mitigation actions based on forest and agroforestry adaptation.</p> <p>Component 5: Water resources climate change integral adaptation programme</p> <p>Action 2. Full integration of the National Water Resources Integrated Management Plan (PNGIRH) as a key instrument for climate change adaptation.</p>	Outcome 1 and 2
Nationally determined contributions (NDC) ⁴¹ - Adaptation Actions	<p>Commitments:</p> <p>Water resources:</p> <ul style="list-style-type: none"> - Between 2021 and 2025, El Salvador will implement protection and restoration activities through appropriate management plans for 70% of the main aquifer recharge areas identified in the National Plan for Integrated Management of Water Resources <p>Agriculture, livestock and forestry:</p> <ul style="list-style-type: none"> - By 2030, El Salvador will establish and manage one million hectares through "Sustainable Landscapes and Resilient to Climate Change". - El Salvador will present a plan for the diversification of agriculture and economic activity for the eastern part of the country, to be implemented in the period 2018-2025, to boost its resilience to the adverse effects of climate change and guide its low-carbon development. 	Outcome 1 and 2
Local Sustainable Development Plan for the Fonseca	<p>Objective 1. By 2030, the vegetation cover has been maintained on at least 13,892 hectares, 700 hectares of forest have been reforested and one more protected natural area has been established, with forest cover, in the conservation area.</p>	Outcome 1 and 2

⁴¹ Both countries are currently undergoing a review and adjustment process to present the new NDCs in 2021, to the United Nations Framework Convention on Climate Change (UNFCCC).

Gulf Conservation Area		
Honduras		
Country Vision 2010 – 2038	<p>Objective 1: A Honduras without extreme poverty, educated and healthy, with consolidated social security systems</p> <p>Goal 1.2. Reduce to less than 15 per cent the number of households in poverty</p> <p>Objective 3: A productive Honduras, generator of opportunities and decent employment, which takes advantage of its resources in a sustainable manner and reduces environmental vulnerability</p> <p>Goal 3.1. Reduce the open unemployment rate to two per cent and the visible underemployment rate to five per cent</p>	Outcome 1 and 2
National Plan 2010 – 2022: Strategic Guidelines	<p>Strategic guideline 1: Sustainable development of the population</p> <p>Strategic guideline 5: Health as a foundation for the improvement of living conditions</p> <p>Strategic guideline 7: Regional development, natural and environmental resource.</p> <p>Strategic guideline 8: Productive infrastructure as a motor of economic activity</p> <p>Strategic guideline 11: Climate change adaptation and mitigation</p>	Outcome 1 and 2
National Adaptation Plan 2018	<p>The general objective of NAP is to guide adaptation actions focused on the integration of sustainable development strategies in order to reduce the adverse effects of climate change and climate variability</p> <p>Specific objectives:</p> <ol style="list-style-type: none"> 1. Generate institutional capability on knowledge management related to climate change adaptation. 2. Strengthen multisectoral (inter-institutional and intersectoral) and multilevel coordination (at multiple levels of government from local to national levels) for the formulation and implementation of adequate climate change adaptation at city and community levels 3. Promote ecosystems protection, good management and restoration as a fundamental axis of adaptation in rural and urban communities, as well as achievement of environmental and socioeconomic benefits 4. Promote the transference and appropriation of adaptation technologies, considering synergies with climate change mitigation 	Outcome 1 and 2
Nationally determined contributions (NDC) ⁴² - Adaptation Actions	<p>Commitments:</p> <p>A 15% reduction in GHG emissions by 2030 in the Energy, Agriculture, Industrial Processes, Solid Waste sectors.</p> <p>For the sector land use change and forest (LULUCF), restore 1 Million Hectares (9% of the territory approximately)</p>	Outcome 1
Master Plan for Water, Forest and Soil 2017.	<p>Vision: Honduras is a highly productive country that manages and takes full advantage of water, forest and soil resources with community participation, promoting sustainable human and economic development which is capable of facing climate change risks for the benefit of the entire Honduran population.</p> <p>Main objective: Water, forest and soil resources are sustainably managed with broad local participation.</p> <p>Objectives: i) Institutions and local organisations with technical and financial capacity to implement integrated land, water and forest management. ii) Strengthened public and private institutions; financial mechanisms and incentives are implemented for the integral management of natural resources and the wellbeing of the population. iii) Knowledge for capacity building and decision making generated and managed. iv) Sustainable practices are implemented for the conservation, protection, restoration and usage of water, forest and soil resources.</p>	Outcome 1

F. Describe how the project meets relevant national technical standards and complies with the Environmental and Social Policy of the Adaptation Fund.

The proposed interventions will adhere to all national technical standards in both El Salvador and Honduras, particularly those relating to concrete adaptation measures. These include:

- El Salvador's 1998 Environment Law⁴³, whose objective is to establish provisions for the protection, conservation and recovery of the environment and the sustainable use of natural resources.
- El Salvador's 2005 Protected Areas Law⁴⁴, whose objective is to regulate the establishment of the legal

⁴² Both countries are currently undergoing a review and adjustment process to present the new NDCs in 2021, to the United Nations Framework Convention on Climate Change (UNFCCC).

⁴³ Ley de Medio Ambiente www.oas.org/osde/fida/laws/legislation/el_salvador/el_salvador_233.doc

⁴⁴ Ley de Áreas Naturales Protegidas <https://www.asamblea.gob.sv/decretos/details/411>

regime, administration, management and increase of protected natural areas in order to conserve biological diversity, ensure the functioning of essential ecological processes and guarantee the stability of the natural system.

- El Salvador's 2002 Forestry Law, the objective of which is to establish provisions that allow for the increase, management and sustainable use of forest resources and development of the timber industry.
- El Salvador's 1994 Wildlife Conservation Law, which seeks to protect, restore, sustainably use and conserve biological species.
- Honduras's 1993 General Environment Law, whose objective is to ensure the protection, conservation, restoration and sustainable management of the environment and natural resources.
- Honduras's 2013 Climate Change Law⁴⁵ whose aim is to establish the principles and regulations necessary to plan, prevent and respond in an appropriate, coordinated and sustained manner to the impacts generated by climate change.
- Honduras's 2007 Forestry, Protected Areas and Wildlife Law⁴⁶, which establishes the legal framework for administration and management of forest resources, protected areas and wildlife, including its protection, restoration, exploitation, conservation and promotion, fostering sustainable development, according to the social, economic, environmental and cultural of the country.
- Honduras's 2009 General Water Law⁴⁷, which aims to establish the principles and regulations applicable to the proper management of water resource for protection, conservation, valorisation and use of water resources to promote the integrated management of this resource.

Ongoing consultations with the following entities will take place at all stages of project design and implementation to ensure that all project activities comply with relevant national technical standards:

1. Ministry of Environment and Natural Resources (MARN) – El Salvador
2. National Center for Agricultural and Forestry Technology (CENTA) – El Salvador
3. Ministries of Foreign Affairs (RREE and SRECI) – El Salvador and Honduras
4. Ministry of Natural Resources and Environment (MiAmbiente) - Honduras
5. Institute of Forest Conservation and Development, Protected Areas and Wildlife (ICF) – Honduras
6. Presidential Office for Climate Change (Clima+) – Honduras
7. Central American Commission on Environment & Development (CCAD)
8. International Union for Conservation of Nature (IUCN).

Necessary safeguards will be incorporated into project design through environmental and social assessments and during implementation through monitoring and evaluation. The project will fully comply with the Environmental and Social Policy of the Adaptation Fund and WFP's environmental policy. Controls will be put in place to ensure that the project will not exacerbate inequalities, negatively impact marginalised populations nor harm the environment.

G. Describe if there is duplication of project with other funding sources, if any.

For the preparation of this concept note, key stakeholders were consulted, and a complete mapping of potential overlapping activities was carried out in order to avoid any potential duplication of efforts or resources. The proposed project will not create duplications with other multinational, trans-boundary or national organisations, but will create synergies with, strengthen and build on current and former initiatives and activities implemented in the area.

There are a number of initiatives being implemented in the watershed area and in the wider region which the proposed project will complement.

The Improved Coastal Watershed and Livelihoods Project⁴⁸ 2016 – 2019, a binational initiative implemented by the International Union for Nature Conservation (IUCN) which aims to improve the management of the Goascorán lower watershed and coastal zone natural resources. The proposed project will build on the work done by this initiative in the lower watershed. It will take into consideration lessons learned and best practices and it will ensure the incorporation of their binational efforts into the community-based coordination and knowledge sharing practices.

⁴⁵ Ley de Cambio Climático <https://observatoriop10.cepal.org/es/instrumentos/ley-cambio-climatico-decreto-297-2013>

⁴⁶ Ley Forestal, Áreas Protegidas y Vida Silvestre (LFAPVS)

⁴⁷ www.poderjudicial.gob.hn/CEDIJ/Leyes/Documents/LeyGeneralAguas.pdf

⁴⁸ <https://www.iucn.org/regions/mexico-central-america-and-caribbean/improved-coastal-watershed-and-livelihoods-project-%E2%80%9C-source-sea%E2%80%9D>

Nuestra Cuenca Goascorán⁴⁹ (NCG) Phase II. Funded by the Swiss Agency for Development and Cooperation (COSUDE), the project has been implemented in the Honduran side of the watershed. Phase I (2015-2018) was executed by an institutional consortium led by IUCN. Phase II is being implemented by a consortium integrated by GFA Consulting Group and the Swiss Red Cross and it started in May 2019 and is expected to end December 2020. The project prioritises the upper and middle watershed and seeks to strengthen community management of the Río Goascorán watershed and improve the quality of life of its inhabitants in face of the challenges posed by climate change and risks for disasters.

Climate-Smart Family Agriculture project with an Integrated Watershed Management for Resilient Food Production approach in Central America (CSFA-RFP), founded in Honduras by EUROCLIMA + Programme. This initiative, which will take two years to implement, was launched in August 2019 by the Dutch Service for Development Cooperation (SNV) and the Association for Integrated Watershed Management of La Paz and Comayagua (ASOMAINCUPACO). It prioritizes the upper watershed, targeting 600 Lenca families and around 150 local stakeholders. Its objective is to promote resilient food production (RFP) based on a sustainable water management approach in the context of the Lenca ancestral practices, through the validation and adoption of climate-smart agricultural (CSA) production systems, facilitating processes and platforms for disseminating experiences and upscaling actions in the Central American region.

The Rural Opportunities, Inclusive Economic Development for the Gulf of Fonseca project. Funded by World Affairs Canada (AMC) and implemented by the Swiss Foundation for Technical Development Cooperation (SWISSCONTACT) started in 2017 and is expected to end in 2023. The main objective is to improve the economic well-being of small entrepreneurs and producers in the Dry Corridor, especially women and youth.

In El Salvador there is a recently approved Green Climate Fund initiative, *Upscaling climate resilience measures in the dry corridor agroecosystems of El Salvador* (RECLIMA), which aims to improve the resilience of vulnerable farmers to the impacts of climate change. Implementation will be led by the Food and Agriculture Organisation (FAO) with whom project planners with closely liaise.

The proposed project will be implemented in close coordination with these initiatives, in order to create synergies and maximise impacts. The coordination will allow this project to extend NCG and CSFA-RFP's expertise in implementing adaptation and restoration interventions to more beneficiaries and locations under this Adaptation Fund project. In addition, the Adaptation Fund project will enhance NCG and CSFA-RFP's project with providing its beneficiaries with innovative climate-resilience tools and services, including last-mile climate services and risk financing instruments such as microinsurance. Consultations with the project teams are ongoing and will continue during full project preparation to ensure the initiatives complement each other's, including in the choice of specific target sites, partners and activities. It will ensure the incorporation of the CSFA-RFP platforms for disseminating experiences into the community-based coordination and knowledge sharing mechanisms.

The project will also build on past experiences by different actors to scale up approaches that have proven effective. The project is different for its holistic and comprehensive approach to climate change adaptation and integrated community-based watershed management across the whole watershed, including a focus on binational capacity strengthening and knowledge sharing. The project offers a vehicle for bringing together the other existing initiatives under a common approach.

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

The project will emphasise the collection, analysis and dissemination of lessons learnt and best practices across the Goascorán watershed, with a particular focus on enabling community exchange and binational collaboration. This aligns with experience that the replication, scalability and sustainability of community-based activities are more successfully achieved when there are concerted investments in documenting, tailoring information and sharing knowledge as a central and cross-cutting focus.

The project's approach will involve ensuring both vertical and horizontal communication, so that decision-making and knowledge sharing mechanisms works both between the different communities in the Goascorán watershed, as well as relevant stakeholders involved in adaptation practices across the watershed. There will be annual convening events to disseminate lessons learnt and to work on

⁴⁹ <https://www.iucn.org/es/regions/meso-am%C3%A9rica/nuestro-trabajo/agua-cuencas-y-costas/proyectos-en-curso/gesti%C3%B3n-de-cuenca-en>

strengthening the sharing of knowledge and lessons. The improved “CdT 4H” Guide, the Handbook on Adaptation Options and the platform produced through the project will remain with the communities and local governments. The project will also encourage the dissemination and further development of these products to support best practices to be replicated by government social programmes and communities beyond the project cycle.

Under Component 1, the project will streamline information-sharing and coordination to avoid duplication and extra costs and empower communities, leaders and stakeholders at all levels and across both countries to improve their strategic decision-making. By disseminating climate information to communities, their leaders, regional decision makers and scientists, the project’s investment will reach a wide audience and generate benefits for the entire LAC region. Attention will be given to capturing the effectiveness of culturally sensitive adaptation approaches. Best practices will be shared through local workshops and events as well as through existing national and regional information-sharing networks, fora and media. A core interest is capturing, documenting and sharing climate change adaptation best practices and their support for improving vulnerable people’s livelihoods, food security and nutrition. The project’s regional focus will seek opportunities to showcase and share experiences with other countries across LAC, not only for countries where a shared watershed is a reality, but also in documenting knowledge and lessons in implementing an integrated set of community- and ecosystem-based practices as well as innovative climate information and financial services.

As part of the investment in a binational knowledge-sharing mechanism, the project will develop a Monitoring, Evaluation and Learning (MEL) system which focuses on collection and analysis of evidence-based lessons for improving or influencing implementation. Capacity strengthening actions will also be provided under the training of trainers (ToT) modality to ensure long-term sustainability and to enable the beneficiaries to transfer knowledge and capacities to other actors in and outside the watershed. This investment in robust evidence generation is considered essential to highlight to local and national governments across LAC on the worthiness of investment in these types of activities and support their prioritisation of broader policies, programmes, plans and budgets, creating a more enabling environment for sustainable finance and action.

I. Consultative process

Between June 2017 and July 2020, WFP conducted stakeholder consultations with governments entities, communities, development partners and NGOs, to understand their existing challenges and needs, ongoing and planned projects, experience and lessons learnt in addressing the impact of climate change and variability across both countries and in the Goascorán watershed.

WFP has worked in close coordination with MARN, CENTA, RREE and CCAD in El Salvador and with MiAmbiente, ICF, Clima+, IUCN and SRECI in Honduras to develop the project pre-concept and concept notes. four binational meetings were held with government counterparts and civil society stakeholders to identify priorities for the project design and jointly develop the strategy and documents, ensuring the alignment with national policies, strategies and standards. Consultations with the various government entities highlighted the following:

- the desire to put the priority on adaptation activities and the need for a binational approach;
- the need to work at both household and community levels to create a more extensive impact in the watershed;
- the need to strengthen climate services in both countries;
- the need for an innovative integrated strategy and the interest in including index-based microinsurance;
- the desire to allocate the majority of the budget community-based adaptation to serve the most climate-vulnerable people first.

Through meetings and communication with development partners and NGOs, such as IUCN, COSUDE and FAO, previous and existing projects have been mapped to avoid any duplication and identify complementarities and possible synergies with the proposed project. The exchanges with local organizations made it possible to identify the skills already present in the watershed and to agree on working together to create a complementarity between the different actions.

The process was complemented by a series of specific analyses, investigations and meetings with institutional and community stakeholders at national, municipal and local level to identify impacts of climate change on food security and livelihoods and wider poverty-reduction needs.

In October 2018, a mission was conducted to assess the context for the integration of risk financing

strategies and climate information services. The assessment looked at governments, institutions, possible partners and community capacities, needs and strengths on those topics. Community consultations were held through focus group interviews with key actors in both sides of the watershed. Meetings were also held with government entities (DGOA, MARN, MAG and CENTA in El Salvador and MiAmbiente, SAG, DICTA-SAG, ICF and COPECO in Honduras) and possible partners (MICRO, Oxfam, Seguro Furturo).

Between October 2018 and January 2019 different consultations were conducted with local communities to understand the vulnerabilities, needs and capacities at the local level. The exercises aimed at collecting information on people's livelihoods; vulnerabilities, risks and impacts of climate change; gender roles; and needs and capacities. The methodology used was focus group discussions and interviews with community leaders. A specific consultation was carried out with the Lenca indigenous population. The findings of the communities' consultations are summarized in Annex 1.

During full proposal preparation, WFP will continue to engage in extensive consultations including with institutional stakeholders, local organizations, communities, civil society and the private sector. Through these consultations, project activities will be defined, and the implementation partners identified, prioritising local organisations with experience in the area, such as IUCN. Community-level consultations will include participatory exercises (using WFP's Community-Based Participatory Planning methodology) to capture the views of elders, adolescents, women, men and community leaders to further identify climate-related threats and vulnerabilities, and to identify and plan the most appropriate adaptation measures with a focus on generating community ownership and sustainability.

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

In designing the activities under both components of this project, efforts have been made to maximise funds to ensure a prioritisation towards generating tangible community-based adaptation capacities that support the most climate-vulnerable people within communities in the Goascorán Watershed. In reviewing the project budget, costs have been reduced where possible, recognising where funds could be used to maximise the number of people reached through small investments in knowledge management and institutional strengthening that generate the necessary enabling environment to allow for replication, scale up and long-term sustainability. This has led to estimates that 75% of people in the watershed will be reached through this project with two or more activities.

An analysis of where these costs will justify the investment being asked of the Adaptation Fund are presented below according to the project's components.

Baseline scenario

Without the integrated climate change adaptation strategy proposed in this project, the baseline scenario would see continued negative impacts of climate variability and change, including continued shortage of water when rains fail, continued negative coping strategies adopted by communities in the Goascorán Watershed, a continued deterioration in livelihood resilience (especially for smallholder farmers), environmental degradation and food insecurity. These trends will worsen in the long term as climate change effects advance. Unless concrete adaptation measures are developed, lack of income, land degradation and water shortage will continue to exacerbate. Without access to timely, understandable climate information, people will not be able to make well-informed decisions. They will also remain without access to risk financing instruments such as savings, credit and insurance, limiting their capacities to take well-informed risks that increase their productivity and incomes due to reduced household capacities to absorb climate-related shocks.

The Governments of El Salvador and Honduras have advanced in adopting policies and in establishing regulatory frameworks to address climate change. Both countries also promote the inclusion of a climate change adaptation focus into local planning – the Municipal Development Plans in Honduras, and the Municipal Land Use Plan and Land Development in El Salvador. However, the transmission mechanisms from national to local level to take concrete actions remain weak. Communities on both sides of the Goascorán watershed have developed various but uneven climate change adaptative capacities, with limited and in many cases no ability to share knowledge and experiences in best practices and lessons learnt. A lack of financial resources, despite some national institutional capacities to compile and publicise climate information and best practices, means these efforts do not reach communities in the Goascorán watershed. Similarly, weather-based index insurance is new to Central America and require a proof of concept to convince governments and the private sector to invest in providing these and other financial

services to vulnerable populations.

Additionality

The project will adopt a community-based regional approach to encompass the watershed area so that climate change adaptation challenges, opportunities and capacities are addressed at the most sustainable and efficient scale.

Adaptation Fund resources will be used to introduce an innovative climate risk management approach which combines different activities to mutually reinforce each other into an integrated strategy. This integrated approach will strengthen household and community adaptive capacities and resilience. The project will implement climate change adaptation practices at household level to strengthen people's livelihoods and adaptive capacities (Output 1.1.2) and at community level to strengthen the watershed natural resources against future climate risks (Output 1.1.3). The specific climate change adaptation activities will be tailored based on the specificities and needs of the high, middle and low watershed ecosystems and the residing populations.

The project will work with the communities to identify which type of climate and weather information and advisories they need, and which are the most effective, trusted and preferred dissemination channels. It will then work with national institutions and build upon existing capacities to generate mechanisms to deliver and create accurate and tailored climate and weather information (climate services) that meets the needs of the populations in the watershed (Output 2.1.1). Moreover, it will also provide training to ensure that the information is understood and effectively used by the household and communities to adapt to climate variability and change. The project will improve access to savings and credit and provide index microinsurance to vulnerable smallholder farmers (Outputs 2.2.1 and 2.2.2). Given index insurance a new product in the Central America region, resources will also focus on creating an enabling environment of willing and able partners to offer such products, as well as conducive financial sector regulation and regulatory bodies. The project will work to strengthen these institutions, facilitating dialogue between regulators in the Central America region on international learning on index insurance regulation, and will work with national insurance companies and distribution channels to strengthen, or build, their offering of financial products to protect against the financial consequences of climate events. Through this, when a sever-shock occurs, farmers will receive compensation for weather-related losses, preventing them from selling their assets and stimulating faster recovery.

K. Describe how the sustainability of the project outcomes has been taken into account when designing the project.

This project has considered sustainability as a key underlying feature across all component activities, as a core goal is to inspire transformative adaptation capacities across the Gaoscorán watershed. The project places special emphasis on how to establish pathways to replication and scalability in a cost-effective manner, by looking at each activity and their possible points of integration with a range of public and private sector programmes, policies and intermediaries. Testing these integration points from the outset of the project will be important design features, and which will include increasing the capacities of different public-private sector actors to deliver activities, resources and services to climate-vulnerability communities within in the watershed in the long-term, alongside focusing on systematising such delivery into existing processes and systems. The vision is that the first two years of the project will generate the experiences and lessons learnt to mainstream the project's activities across all parts of the watershed in the final two years, with also an eye to influencing a mainstreaming of these experiences into national and binational processes where possible.

Several concrete strategies will help achieve the sustainability of the project strategy and actions after the project completion date. One of the most important elements is the promotion of a sustainable community-based watershed management mechanism under component 1 and output 1.1.1, by promoting the strengthening and renewal of inclusive local coordination, planning and CCA knowledge sharing within existing watershed governance bodies and related planning processes. This aims to promote ownership among communities and local actors to prioritise and decide on the actions they see as essential, and which are important elements to ensure long-term sustainability and maintenance of any climate action. It also aims to enable local and national institutions to place a focus on servicing the most climate-vulnerable populations within the watershed.

Connected with this community-based integrated watershed approach under output 1.1.1. is the integration of CCA practices through the implementation of the Guide, Handbook and possible online platform, all

aligned (and where possible integrated) with national adaptation plans, policies and standards as well as existing platforms and planning processes. These efforts will help to define adaptation options that individuals and communities will be better able to understand, share experiences and self-autonomously decide to adopt, enabling a cost-effective replicability and scalability of these adaptation practices. The approach will importantly also allow local governmental, non-governmental organizations, the private sector and civil society to better determine where technical and financial support is required and to identify possible financial resources and services. It is expected that as a result, municipal planning instruments and relevant budgets will integrate and mainstream climate change adaptation considerations to make the implementation of adaptation strategies more financially sustainable in the longer-term. The project will also connect the private sector and civil society into these planning processes and knowledge tools so they are more consciously aware of the needs of climate vulnerable people within the watershed and to understand and explore how they can contribute to servicing their needs within their own planning exercises.

Under output 1.1.2 and 1.1.3, where the focus is on enabling household and community level adaptation practices and assets, the project has identified that an important sustainability consideration is the capacity strengthening of a range of local actors to help disseminate and support the implementation of these activities. A component of this capacity strengthening involves ensuring that all adaptation planning and activities are designed and implemented at the community level jointly between technical experts, local governments and communities, so that each of these actors have the knowledge on how to maintain these activities beyond the project timeline, along with understanding how these can be replicated in other communities outside of the project's funding capacities and timeframe. The use of training of trainers (ToT) modalities will also enable an enhancement of knowledge and scalability after the project end-date. The most effective intermediaries that can be trained and supported to deliver on these activities will be selected in consultation with these local stakeholders, but may include local government planning officers, agricultural extension officers, community representatives, civil society and NGO advocates as well as relevant private sector actors with relevant intersections within the community. Sustainable financing will also be explored as part of this selection process.

Under component 2, the project will also aim to look at strengthening the capacities of a range of intermediaries that are best positioned to ensure a "last mile" delivery of relevant climate risk management services to climate vulnerable households. These intermediaries will be determined during the more detailed design stage and planned consultations but are anticipated to range across the public-private sector divide. For climate information services under output 2.1.1, these include the meteorological agencies themselves through more tailored climate information products, but may also include agricultural extension officers, radio, television and phone companies among others. Ensuring these stakeholders' engagement in the project from the start, and their role in co-producing climate information as well as delivery of services are seen as actively augmenting their capacities and ability to carry these activities on beyond the project end-date. The project's investment in engaging local, national and regional institutions within this co-production approach and its grassroots mentality that services climate-vulnerable communities, also aims to provide a prototype for how these institutions could adopt and mainstream these processes internally.

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

Project activities will be designed, planned and implemented in order to minimise any risk for negative social and environmental impacts. Activities will be designed in close consultation with beneficiaries – including the most vulnerable groups – and stakeholders will take into account the different needs and constraints of these groups.

A preliminary social and environmental risk assessment was performed based on the Adaptation Fund's 15 environmental and social principles outlined in the Adaptation Fund Environmental and Social Policy. Component 1, which mainly includes capacity development, strengthening of governance and dissemination of information, is not expected to have a negative effect on the environment. Activities under outcome 1 might have potential negative environmental impacts if not implemented properly. However, these activities are not yet fully defined at this early stage and will be further developed with the communities during full proposal preparation and project implementation. The project is therefore categorised to be "medium risk", or category B. The below table shows the results of the preliminary social and environmental risk assessment carried out during the development of this project concept note. All future activities will be screened against the Adaptation Fund's 15 principles. An environmental and social risk assessment will be

carried out during full project preparation, when concrete activities will be defined, and an environmental and social risk management plan will be developed to mitigate risks identified.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>	x	No risk. Relevant national and local authorities will be consulted during the proposal development process to ensure compliance with all relevant laws.
<i>Access and Equity</i>		Low to no risk. In-depth consultations with communities and stakeholders during the proposal development process and throughout project implementation will ensure that no activity will interfere with access to basic services or exacerbate existing inequalities. The project will promote the equitable access to activities and assets by youth, elders and women in targeted communities as well as equal and inclusive participation and leadership from both men and women in decision making spaces. The project will ensure that any activity includes marginalised and vulnerable groups such as elderly, youth, indigenous people and disabled.
<i>Marginalised and Vulnerable Groups</i>		Low to no risk: Marginalised and vulnerable groups – especially women and indigenous people - will be consulted during the development of the full proposal to ensure that project design responds to threats, priorities and mitigation measures they identify. This project will empower vulnerable groups to make decisions on concrete adaptation actions, valuing their traditional and local knowledge. In order to ensure appropriate design of activities to meet marginalised and vulnerable groups' needs, the project will seek to understand and analyse challenges experienced by these groups in accessing specific services (such as climate information and financial products). Means to determine this information include a mix of household surveys, focus group discussions and community consultations.
<i>Human Rights</i>	X	Low to no risk: This project affirms the rights of all people and does not violate any pillar of human rights.
<i>Gender Equity and Women's Empowerment</i>		Low risk: The project will be implemented in a context where gender inequality is prevalent, therefore greater efforts should be made to ensure that project activities contribute to gender empowerment. This project will promote women's leadership in governance processes and decision-making power for climate change adaptation and food security and nutrition. Through targeted consultations with women, project design and implementation will ensure that gender considerations are integrated. Both women and men will equally participate and lead inclusive participation and decision making spaces. During project formulation, a gender assessment will be carried out to ensure that the project effectively responds to the unique needs of women and girls and promotes gender equity.
<i>Core Labour Rights</i>	X	Low to no risk: The project will ensure respect for international and national labour laws and codes, as stated in WFP's policies.
<i>Indigenous Peoples</i>		Low risk. Lenca communities are settled in the project implementation area, especially in the upper watershed. Representatives of the Lenca communities have been consulted during the preparation of this concept note. Extensive consultation will be carried out during full proposal preparation, including a full Free Prior and Informed Consent (FPIC) process, to ensure that the project appropriately incorporates indigenous people's priorities and needs in all activities.
<i>Involuntary Resettlement</i>	X	No risk: The project will not lead to involuntary resettlement.
<i>Protection of Natural Habitats</i>		Low risk. By implementing sustainable land use, conservation and restoration and integrated water management activities, the project will ensure the protection of natural habitats. In addition, consultations with government stakeholders, community leaders and communities will ensure that conversion or degradation of critical natural habitats (including those that are legally protected, officially proposed for protection, recognised for their high conservation value, or recognised as protected by traditional or indigenous local communities) is avoided.
<i>Conservation of Biological Diversity</i>		Low to moderate risk Crop diversification and reforestation activities could lead to a deterioration of biological diversity if seed, crop types and tree species are not correctly selected, for example resulting in inadvertent introduction of invasive species. To ensure this risk is addressed, this project will prioritise local species and avoid the use of non-native and invasive species.
<i>Climate Change</i>	X	Low to no risk: The project will not generate any significant emissions of greenhouse gases and will not contribute to climate change in any other way. All project components and activities contribute to increasing local capacities to

		sustainably face climate change in the long-term and climate variability in the short and medium terms.
<i>Pollution Prevention and Resource Efficiency</i>	X	No risk: The project will not release pollutants. Energy efficiency, minimisation of material resource use, and minimisation of the production of wastes will be embedded in project design.
<i>Public Health</i>		Low risk: The project will be designed and implemented in a way that avoids any negative impact on public health. Attention will be given to activities related to water harvesting and storage and communities will be sensitised on how to use and store the water in a safe and efficient way.
<i>Physical and Cultural Heritage</i>		Low to no risk. Consultations and engagement with stakeholders and communities will ensure that any physical cultural heritage present on the project site is identified and potential negative impacts are avoided through project design.
<i>Lands and Soil Conservation</i>		Low to moderate risk The adaptation activities in outcome 1 could have negative impacts on land and soils conservation, if not designed properly. In addition, increased agricultural production and livelihoods may lead to increased investment in livestock which may have an unintended effect on the environment, mostly on soils and water resources. Sensitisation and training in outcome 1 will ensure these issues are well understood. The project will identify mitigation and monitoring measures to ensure that unintended negative impacts resulting from its activities are avoided or minimised.

PART III: IMPLEMENTATION ARRANGEMENTS

As confirmed in consultation with the Adaptation Fund Secretariat, Part III will be submitted as part of the Project Proposal stage. Various implementation arrangements are already being discussed among the implementing and executing entities as well as other partners. These will be further developed during consultative exercises for the project proposal.

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

A. Record of endorsement on behalf of the government

<i>Fernando Andres Lopez Larreynaga Minister of Environment and Natural Resources (MARN) Ministry of Environment and Natural Resources (MARN)</i>	July 23, 2020
<i>Elvis Yovanni Rodas Flores, Secretary of State, Secretaria de Energia, Recursos Naturales, Ambiente y Minas, Honduras</i>	August 6, 2020

B. Implementing Entity certification

<p>I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans of El Salvador and Honduras and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.</p>	
<p><i>Andrew Stanhope Representative & Country Director, WFP El Salvador Implementing Entity Coordinator</i></p>	
Date: August 7 th , 2020	Tel. and email: +503 7856 4061/ andrew.stanhope@wfp.org
Project Contact Person: <i>Jaakko Valli, Deputy Country Director</i>	
Tel. And Email: +503 7919 1118/ jaakko.valli@wfp.org	
<p><i>Judith Thimke Representative & Country Director, WFP Honduras Implementing Entity Coordinator</i></p>	
Date: August 7 th , 2020	Tel. and email: +504 2236 9002/ judith.thimke@wfp.org
Project Contact Person: <i>Etienne Labande, Deputy Country Director</i>	
Tel. And Email: 25377012362/ etienne.labande@wfp.org	

Endorsement letter – El Salvador



MINISTERIO DE
MEDIO AMBIENTE
Y RECURSOS
NATURALES

MARN-GCS-061-2020

San Salvador, July 23th, 2020

Subject: Endorsement for the project "Strengthening the adaptive capacities of climate-vulnerable communities in the Goascorán watershed of El Salvador and Honduras through integrated community-based adaptation practices and services".

Adaptation Fund Board
Adaptation Fund Board Secretariat
Email: secretariat@adaptation-fund.org
Fax: +202 522 3240/5

I am delighted to confirm the commitment of the Ministry of Environment and Natural Resources (MARN) of El Salvador, to participate actively in the process to finalize this proposal and to engage the other national entities to accompany this process until the approval.

In my capacities as official Designated National Authority (NDA) and Focal Point for the Adaptation Fund, I would like to express our "non-objection to the project concept note" of this regional project between Honduras and El Salvador.

This project is a great opportunity for the communities bordering both countries within the Goascorán watershed, which historically has been shaped by environmental and socio-economic concerns with direct effects in their ecosystem and its water-supply management conditions, hampering into their food and nutrition security. Therefore, we endorse this regional project concept note to be submitted to the Adaptation Fund with the support of the United Nations World Food Program (WFP).

If this Concept Note is approved, I also want to reaffirm our commitment to complete this process until its final approval as full proposal; thus, ensure a holistic and participatory approach with all project stakeholders and to benefit by implementing and strengthening the adaptive and social scheme of the people in most need of this bordering area.

Most sincerely,

Arq. Fernando Andrés López Larreynaga
Minister



Kilómetro 5 ½ Carretera a Santa Tecla, colonia y calle Las Mercedes, edificios MARN, San Salvador,
El Salvador, Teléfono (503) 2132-9418; 2132-9680. Correo electrónico: despacho@marn.gob.sv
www.marn.gob.sv

Endorsement letter - Honduras



SECRETARÍA
DE RECURSOS NATURALES
Y AMBIENTE

Tegucigalpa, M.D.C., Agosto 06, 2020

OFICIO No. UCEMR-DMA-0400-2020

Subject: Endorsement for the project "Strengthening the adaptive capacities of climate-vulnerable communities in the Goascorán watershed of El Salvador and Honduras through integrated community-based adaptation practices and services".

Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: secretariat@adaptation-fund.org
Fax: +202 522 3240/5

I am delighted to confirm the commitment of the Secretary of Natural Resources and Environment of Honduras, to participate actively in the process to finalize this proposal and to engage the other national entities to accompany this process until the approval.

In my capacities as official Designated National Authority (NDA) and Focal Point for the Adaptation Fund, I would like to express our "non-objection to the project concept note" of this regional project between Honduras and El Salvador.

This project is a great opportunity for the communities bordering both countries within the Goascoran watershed, which historically has been shaped by environmental and socio-economic concerns with direct effects in their ecosystem and its water-supply management conditions, hampering into their food and nutrition security. Therefore, we endorse this regional project concept note to be submitted to the Adaptation Fund with the support of the United Nations World Food Programme (WFP). If this Concept Note is approved, I also want to reaffirm our commitment to complete this process until its final approval as full proposal; thus, ensure a holistic and participatory approach with all project stakeholders and to benefit by implementing and strengthening the adaptive and social scheme of the people --in most need-- of this bordering area.

ING. ELVIS JOVANNI RODAS FLORES
SECRETARY OF THE STATE BY LAW



EYR/JM/RM
CC: ARCHIVO

Edificio Principal: Despacho de Recursos Naturales y Ambiente , 100 metros al Sur del Estadio Nacional,
Planta Telefónica: (504) 2232-9200, Apdo Postal 1389, 4710, www.miambiente.gov.hn Tegucigalpa, Honduras, C. A.

Annex 1

Integrated analysis of the Goascorán Watershed

Due to the limited number of pages allowed in the Concept Note, this Annex summarises the three main analysis carried out during the concept note design: community consultations, climate vulnerability and risk analysis, and municipalities prioritisation.

Complete documents for each analysis are available upon request in Spanish.

PART I – Community Consultations

Purpose

The purpose of the community consultations was to generate a better understand of the perceptions, challenges, needs and existing adaptive practices and capacities in the Goascorán watershed, to better inform the design of the project components, outcomes and outputs articulated in this concept note.

Methodology

Community consultations were carried out through focus group discussions and interviews. Meetings were held in both sides of the watershed with representatives from all the municipalities, to be able to represent the totality of the area.

In El Salvador, consultations saw the participation of municipalities staff, community leaders and key stakeholders, 81 in total (55 men and 26 women). In Honduras, the consultations were held with 32 community leaders and micro-watershed council representatives (19 men and 13 women) and with 35 Lenca indigenous representatives. These were completed during the period 10/2018-01/2019.

Consultations were designed to gather primary information on the watershed, local perceptions on climate change and their impacts on lives and livelihoods. Focus group discussions were also held with women and indigenous populations separately in order to provide a safer environment for minorities to share their perspectives without influence from other peers.

The consultations followed a semi-structured interview process to allow for different participants to share in an open-ended and qualitative way their experiences and perceptions on climate variability and change. Questions asked included the following topics, among others: weather and climate reality and perceived changes; livelihoods and how are affected by the changes; social vulnerabilities and risks; division of labour between men and women.

Main findings

- **Climate awareness:** The watershed populations demonstrated awareness that it is living in one of the areas within both countries with the lowest annual rainfall average, proneness to disasters and large food insecurity. When talking about climate change and variability, the key actors reported a strong perception of change in the precipitation patterns and temperature, with consequent difficulties in understanding the start and cycle of current sowing seasons. The main changes identified by the participants are:
 - a light and intermittent rain in the beginning of winter which before was constant;
 - the July *canicula* extends from 1 to up to 5 weeks, followed by irregular and light rain in August;
 - since September irregular rain stronger and intermittent, which continues until October.

In many cases, this has led to the loss of seeds and crops, causing high food insecurity in the territory.

- **Threats:** The participants identified that the main threats faced by the communities are recurrent droughts, high temperatures, torrential rains and strong winds, soil erosion, destruction of basic infrastructure, food shortages, pollution and pests and diseases in crops and forests which cause significant impacts on crop loss. They emphasized that scarce water availability in the dry season, floods in the lower watershed related to rains of greater intensity during the rainy season, and a perceived drastic variability in temperature which have strong impacts on the crops. *Caniculas* (heat wave), and

drought periods are becoming more recurrent and longer, which causes loss of crops, seeds and animals, directly affecting the decrease in economic income associated with harvests, reduction of job opportunities and migration of rural populations. Informants are also aware that land degradation due to deforestation, indiscriminate burning and other negative agricultural practices is contributing to the occurrence of adverse climatic impacts, but do not have the knowledge or means to adjust these practices.

- **Coping strategies:** The key actors reported that in the last years, the area has lacked livelihood investment projects, compared to other areas in the countries, and in response rural families have increased negative coping strategies to meet their food needs. Often these have been irreversible, because families have had to resort to selling their productive assets, reproducing livestock and even the land where they cultivated their crops. Moreover, small holder farmers are decreasing or eliminating the first basic grains spring sowing in May, because it is most negatively affected by prolonged *caniculas*, and are increasing the second sowing in August-September.
- **Gender inequality.** Consultations highlighted that women have lower access to resources and lower decision-making power than men in the watershed area. Women are mainly in charge of the non-remunerated care and domestic work but also participate in the family agricultural work as well as informal income activities. The impacts of climate change are increasing the burden on women. Frequent droughts and crop failure are seriously affecting families' livelihoods and women and children are forced to contribute even more to household income, without being released from their domestic responsibilities. Education and health outcomes for children are also affected negatively.
- **Adaptation practices:** When talking about the urgent actions needed in the watershed, the key actors identified the installation of rainwater harvesting and storage systems, supplemented by efficient irrigation systems; diversification of crops and the use of drought-resistant seeds; and protection, reforestation and restoration of water-producing areas. An interesting element was the proposal to implement greenhouses and to establish agroforestry systems (wind-breaking barriers, silvopastoral systems, silage, etc).
- **Systems and governance:** From a socio-economic point of view, they identified the need for capacity building actions on value chains, savings habits, financial mechanisms and micro-enterprises with consequent promotion and possible low interest financing. They also talk about creating and strengthening watershed councils to manage potential conflicts over water in the territory and about strengthening the local governments capacities in the design and application of actions for the natural resources recovery and conservation. Lastly, they identified the need to increase the water harvesting and storage for human consumption and to receive technical assistance on soil conservation practices.

The following are other important points identified by the key stakeholders during the consultations:

1. Activities align to the livelihoods seasonality to maximise households support.

Training families in the use and management of microcredits or having strategic savings at the beginning of the harvest, can help households to make their own investments. Programmes that support people to increase their food reserves and cash savings ahead of the food insecurity season will help families to overcome seasonal challenges more easily.

2. Focus programmes based on the vulnerabilities of households and their requirements.

The project should take into account people time availability and particular characteristics of each vulnerable group in the community. For example, the provision of basic services such as health, social protection, training and education are universal, regardless of the vulnerability level, but the creation of assets, through the mechanisms of food assistance, is not appropriate for groups with adequate levels of food security and resilience, which surely have enough assets to move forward. This means that the programmes must adjust to the needs and capacities of each group so that they can strengthen their capacities and improve their reality.

3. Complementarities and links between programmes and partners.

Individual entities cannot cover the full spectrum of needed activities due to restrictions in their capacity, resources and technical expertise. Establishing links between programmes/projects generates greater complementarity to support people, for example, integrating health and nutrition programmes during food insecure periods can reduce the costs of medicines and treatments. This saving can be invested in the creation of assets during the harvest season, when the conditions are propitious.

Photos 1 and 2. Communities consultation in Honduras



Photos 3 and 4. Communities consultation in El Salvador



PART II - Climate Vulnerability and Climate Risk Analyses in Goascorán watershed.

Purpose

The purpose of undertaking the climate vulnerability and climate risk analysis in the Goascorán watershed was to develop a comprehensive picture of current vulnerabilities and future climate change risks. The assessment of vulnerability to existing climate variability and extremes is a necessary starting point for defining adaptation options. Assessments of past weather events, for example heavy rain or extreme temperatures, and analysis of consequent responses can help to provide insights into successful or ineffective initiatives and to avoid duplications.

Methodology

Information gathered to undertake these analyses are based on primary sources of a qualitative nature as well as secondary sources. Secondary sources involved the El Salvador Second and Third National Communication on Climate Change and the Honduras Second National Communication of Climate Change. Information for this analysis are based mainly on national level secondary sources due to the

lack of climate vulnerability data specific for the Goascorán watershed. Interviews were undertaken with municipalities stakeholders and community leaders, thirty-nine in total (28 men and 11 women) and in Honduras with thirty-two community leaders and micro-watershed council representative (19 men and 13 women) and thirty-five Lenca representatives.

Main findings

The watershed gathers 29 municipalities, 13 in El Salvador and 16 in Honduras. The elevation of watershed territory allows classifying it into three categories, high, middle and lower watershed. Most elevated areas are part of high watershed in this zone; pastoral activities, agroforestry and ecological tourism are the main livelihoods of the population. In middle-watershed, agriculture and raising of livestock are the main livelihoods. Finally, in lower-watershed, livelihoods include fishing, aquaculture, tourism and commerce as the most important.

According to the community consultations, increasingly frequent droughts, climatic variability, and high environmental deterioration have caused a reduction of productive areas, increase in production costs, decrease in productivity and disincentives in agricultural production.

Frequent droughts have decreased agricultural production quantity and quality, as well as negatively influenced biodiversity (reduction or extinction of a variety of flora and fauna species). Recurrent droughts have increased the number of people in the watershed who are now in a situation of greater vulnerability especially in their food security. Some farmers have had to change their annual crops for perennial crops as a means of adapting to climate variability.

Regarding migration, the interviewees stated that both men and women migrated temporarily to get incomes to cover the expenses of basic needs in health, education, clothing and others. Employment opportunities and local labor in the area are limited. This is related to the effects of climate change on production (previously there were profits in production and now only subsistence production is guaranteed). Interviewed people said that now whole families are migrating and they did it in a permanent way. This has seen a reduction in the amount of remittances injecting into the local economy. One of the main social impacts is family disintegration (Municipality of San Jose La Fuente, La Union, El Salvador), related to the increase in school dropouts, leaving their children vulnerable to the presence of criminal groups in the zone.

As part of the consultations, an exhaustive listing of climatic vulnerability and risks found in the watershed, as well as adaptation actions, are presented in the next table.

Table 1. Climate Vulnerability, Risks and Actions

Impact	Causes	Current Effects	Future Effects	Affected Areas	Actions performed	Proposals for adaptation actions
Impacts associated with El Niño phenomenon	<ul style="list-style-type: none"> • More recurrent and prolonged droughts • The most recurrent and prolonged El Niño Phenomenon • Temperature Increase • Deforestation and forest fires. • Overexploitation of water flows. • Loss of moisture in the soil due to inadequate management of cultivation areas. • Little cultivation of Drought-resistant species 	<ul style="list-style-type: none"> • Decreased agricultural productivity • Food Shortages • Increased levels of malnutrition • Crop loss • Drinking water rationing • Surface water sources and underground aquifers reduction • Loss of river and ravine streams. • Increase of pests and diseases in crops and coniferous forests • Food price volatility • Soil degradation • Increased forest fires • Loss of forest cover • Extension of the agricultural frontier • Agricultural migration • Land use changes • Extinction of flora and fauna • Income reduction • Unemployment in the agricultural sector. • Conflicts between water users. • Increased migration to USA and elsewhere. • Reduction in sowing periods during the year mainly in small producers. 	<p>El Salvador Under the horizon of 2021-2030, the Precipitation reductions could be in the order of between a 15-25 %</p> <p>HONDURAS Under the horizon of 2021-2030, precipitation reduction is expected to be 30 per cent in the Dry Corridor. Erratic distribution of rains expected to affect primary livelihoods of the area. Rise in sea level expected to cause salinization of freshwater aquifers by over-exploitation of water resources.</p>	<p>All the municipalities in the basin were affected, some with greater severity than others.</p> <p>The municipalities most affected are its</p> <p>EL SALVADOR</p> <ul style="list-style-type: none"> • Concepción de Oriente • Jocoro • Sociedad • Corinto • Pasaquina • Santa Rosa de Lima • San José • Bolívar <p>HONDURAS</p> <ul style="list-style-type: none"> • Santa Ana • Opatoro • Guajiquiro • San Antonio del Norte • Caridad • Aramecina • Langue 	<ul style="list-style-type: none"> • Government declares state of emergency • Delivery of agricultural packages to affected producers • Food delivery • Deepening of private underground wells for the irrigation of sugar cane and other crops • Fire brigade interventions to tackle forest fires • Opening of wells for drinking water extraction • In a few places, establishment of micro-irrigation projects and rainwater collection reservoirs 	<ul style="list-style-type: none"> • Increase the Water collection infrastructure in the rainy season. • Increase the water supply of natural springs through reforestation, infrastructure and good practices in soil and forest • Improving the scope of climate services for small producers to improve their resilience to the drought impact • Identification of needs and strengths of the territories and the promotion of them with measures by climate change adaptation and Disaster Risk Reduction • Capacity building of watershed agencies • Design of municipal risk management plans • Design of municipal planning and territorial development plans • Capacity-building of watershed agencies.
Impacts by decrease and change and seasonality of the	<ul style="list-style-type: none"> • Extreme weather Events more frequent and intense (hurricanes, storms) 	<ul style="list-style-type: none"> • Partial or total damage to arable land and pastures • Increase of pests and diseases in crops • Animals death 	<p>El Salvador Year-on-year changes show a behaviour towards</p>	Delta and low plains as areas susceptible to flooding.	<ul style="list-style-type: none"> • Emergency declaration at central and local governments levels 	<ul style="list-style-type: none"> • Strengthen communication mechanisms for early warning • Reforestation

<p>average rainfall and by increase in intensity in the extreme events</p>	<p>and tropical waves, torrential rains, etc.)</p> <ul style="list-style-type: none"> ● Nina Phenomenon ● Deforestation of watersheds ● Sedimentation of rivers and streams ● Lack of drainage systems or in poor condition ● Presence of solid waste in river beds and mouths. ● Change of land use and urban development without control or environmental planning. 	<ul style="list-style-type: none"> ● Food shortages ● Increased levels of malnutrition ● Increased migration and number of people affected by floods ● Loss and damage to roads and bridges ● Damage to potable water systems and sewers ● Losses and contamination of surface water sources ● Increase of gastrointestinal and dermatological illnesses ● Loss and negative effects on the houses ● Contamination of Water sources ● Increase of pests and vectors of human diseases ● Increased mortality rates ● Impoverishment of the affected population 	<p>increases in precipitation, with a high probability of extreme events increase. During the dry season (December to April), Increases in precipitation above 10% are expected.</p> <p>HONDURAS</p> <p>Increased flooding in the middle and lower area of the basin, loss of natural barriers to infiltration, resulting in runoff that degrades soils and sharp flow increases in the main rivers and their tributaries.</p>	<p>The municipalities most affected are</p> <p>EL SALVADOR</p> <ul style="list-style-type: none"> ● Pasaquina ● Lislique <p>HONDURAS</p> <ul style="list-style-type: none"> ● Alianza ● Valle ● Opatoro ● Guajiquiro 	<ul style="list-style-type: none"> ● Establishment of Hostels ● Delivery of food, clothing, sheets and other items for flood victims ● Delivery of construction materials for housing repair. ● Delivery of seeds and fertilizers ● Early Warning Systems ● Radio communication Systems of civil protection in some municipalities ● Establishment of departmental, municipal and communal Civil Protection Commissions and Departmental Emergency Committees 	<ul style="list-style-type: none"> ● Soil and water conservation ● Integral management of solid waste. ● Design of municipal risk management plans ● Design of municipal planning and local development plans. ● Capacity building of watershed agencies ● Design of municipal risk management plans.
<p>Impacts by annual average temperature increase</p>	<ul style="list-style-type: none"> ● Accumulation of greenhouse gases in the atmosphere that causes global warming ● Deforestation ● Change in rainfall patterns 	<ul style="list-style-type: none"> ● Decreased productivity of crops due to water and caloric stress. ● On the exploitation of the soils. ● Precipitation reduction. ● More wildfires from burning stubble or garbage. ● Migration of terrestrial and aquatic species (fish) ● Change of ecosystems and biomes ● Increased pests and diseases in crops 	<p>El Salvador</p> <p>During the 2020s and 2030s term temperatures could rise between 0.7 ° C and 1.5 ° cover historic baseline.</p> <p>HONDURAS</p> <p>By 2050 temperature increase of 2-4 degrees above historic levels is anticipated.</p>	<p>All the municipalities of the basin, especially those in the middle and low area.</p> <p>Most affected municipalities are</p> <p>EL SALVADOR</p> <ul style="list-style-type: none"> ● Pasaquina ● Santa Rosa de Lima San José ● Bolívar. 	<ul style="list-style-type: none"> ● Micro-irrigation systems in some areas of the basin. ● Pest and crop disease combat by farmers ● Fire Brigade Action in case of fire 	<ul style="list-style-type: none"> ● Reforestation ● Use crop rotation ● Design of municipal risk management plans ● Design of municipal planning and development plans ● Capacity building of watershed agencies.

		<ul style="list-style-type: none"> • More frequent and intense heat waves • Health impacts health especially for such vulnerable groups as elders, children and pregnant women. • Reduction of water flows in sources and rivers. 		HONDURAS <ul style="list-style-type: none"> • Alianza • Aramecina • Goascorán, 		
Landslides	<ul style="list-style-type: none"> • Torrential rains during extreme weather events • Soil erosion in hillsides and lack of protection works • Deforestation of the basin in high and low areas • Inadequate agricultural Practices without soil conservation works • Forest fires • Overgrazing in mountainous areas • Lack of land planning plans 	<ul style="list-style-type: none"> • Crop loss and areas for agriculture • Obstruction of transport infrastructure – streets, highways, bridges) • Damage to homes located in hazardous areas • Loss of human life • Loss of natural soil fertility 	<p>El Salvador The increase in extreme rainfall impacts directly on the amount of landslides</p> <p>HONDURAS The increase in extreme rainfall impacts directly on the amount of landslides</p>	<p>Communities prone to landslides and landslides.</p> <p>Agricultural land on slopes</p> <p>Municipalities of the upper and middle basin of the river Goascorán</p>	<ul style="list-style-type: none"> • Construction of mitigation works such as retaining walls and gabions • Improve the management of watersheds through projects • Activation of emergency systems by means of civil protection 	<ul style="list-style-type: none"> • Capacity building of watershed agencies • Improve the management of watersheds • Activation of emergency systems through the Permanent Contingency Commission of Honduras (COPEPO) • Design of municipal risk management plans • Design of municipal planning and local development plans • Capacity-Building of watershed agencies.

Part III - Prioritisation process at municipal level of Goascorán Watershed.

Purpose

The purpose of the prioritisation exercise was to determine which areas of the Goascorán watershed should be targeted with the climate change adaptation activities, especially at the community level under Component 2.

Methodology

The process of prioritising municipalities in the Goascorán watershed was developed through the combination of WFP's Integrated Context Analysis (ICA)⁵⁰ and the widely-used analysis of livelihoods methodology developed by the UK Department for International Development (DFID).

This required consultation with local authorities and community leaders to identify strengths and weaknesses in the entire watershed area. The combination of these two analyses allowed prioritisation of the project intervention areas, taking into consideration different vulnerability factors. The combination of social, cultural and climate elements provided a holistic overview. Factors analysed were historical trends (ten years in the case of ICA), livelihoods, land degradation, food security and social, financial, natural, physical and human capital.

Findings from the Integrated Context Analysis (ICA)

The ICA is based on the analysis of the of food insecurity historical trends and the main natural risks, such as droughts, floods and landslides, which are superimposed to identify areas of overlap. Taking into consideration food insecurity and recurrence of disasters allows identification not only of past and present changes, but also what could happen in the future in each different vulnerability category. It enables to identify where and what kind of short, medium and long term actions are necessary to reduce such vulnerability. As a result of ICA analysis, the municipalities within Goascorán watershed are classified into five areas of priority, based on their levels of recurrence of food insecurity and exposure to hazards.

Figure 1. Explanation of ICA prioritisation categories

Combined level of natural hazards	Recurrence of vulnerability to food insecurity above threshold		
	Low	Medium	High
Low	Area 5 Category 5 Absence of long-term vulnerability to food insecurity suggest that programme themes should concentrate on DRR. This includes early warning and disaster preparedness, as well as mitigating land degradation and other risk reduction measures.	Area 3 B Area 3 A Category 3 Districts identified as Area 3A show persistent vulnerability to food insecurity that can justify safety nets; Area 3B districts are more likely linked to seasonal factors where safety nets may also be applicable, or shocks where recovery is more of a focus. Whilst natural shock risk is lower, local contexts may benefit from early warning / preparedness to reduce risk from possible events.	
Medium	Area 4 B Category 4 In the absence of a clear long-term vulnerability to food insecurity entry point (noting that pockets of food insecurity may exist), DRR including early warning / preparedness is a priority. Further, attention should be paid to land degradation given that this could worsen future shocks, potentially impacting food security.	Area 2 B Category 2 Intermittent vulnerability to food insecurity patterns may be related to either shocks (natural or man-made) or seasonal factors. If seasonal, safety nets can reduce predictable food insecurity; if shocks are a cause, a recovery focus may be suitable. At the same time, high shock risk argues for DRR including early warning and preparedness.	Area 1 B Category 1 Persistent vulnerability to food insecurity suggests that safety nets providing predictable support to vulnerable populations may be appropriate, whilst high shock risk justifies including DRR, including early warning and preparedness themes.
High	Area 4 A	Area 2 A	Area 1 A

⁵⁰ The ICA is a process a process used to identify and discuss the most appropriate programmatic strategies in specific geographical areas - including resilience building, disaster risk reduction, and social protection - between WFP, government and partners. See: <https://documents.wfp.org/stellent/groups/public/.../wfp264472.pdf>

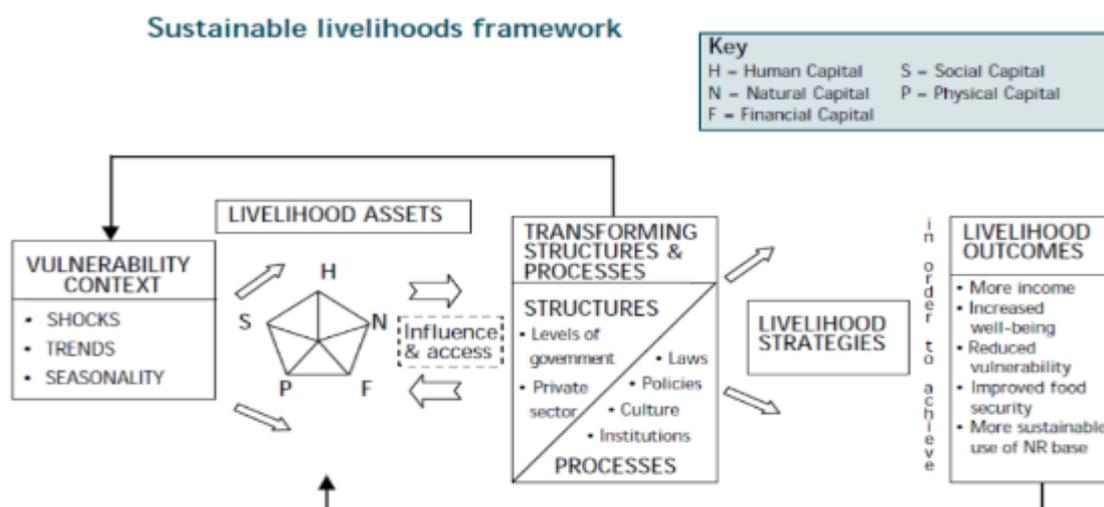
Table 2. Goascorán Watershed ICA classification:

Country	Department	Municipality	ICA CLASSIFICATION
El Salvador	La Unión	Anamorós	5
El Salvador	La Unión	Bolívar	4
El Salvador	La Unión	Concepción de Oriente	5
El Salvador	La Unión	El Sauce	4
El Salvador	La Unión	Lislique	3
El Salvador	La Unión	Nueva Esparta	3
El Salvador	La Unión	Pasaquina	4
El Salvador	La Unión	Polorós	3
El Salvador	La Unión	San Jose	2
El Salvador	La Unión	Santa Rosa de Lima	4
El Salvador	Morazán	Corinto	3
El Salvador	Morazán	Jocoro	2
El Salvador	Morazán	Sociedad	3
Honduras	Comayagua	Lamaní	5
Honduras	Francisco Morazán	Curarén	1
Honduras	Francisco Morazán	Lepaterique	2
Honduras	La Paz	Aguanqueterique	2
Honduras	La Paz	Guajiquiro	2
Honduras	La Paz	Lauterique	1
Honduras	La Paz	Mercedes de Oriente	2
Honduras	La Paz	Opatoro	2
Honduras	La Paz	San Antonio del Norte	1
Honduras	La Paz	San Juan	3
Honduras	La Paz	Santa Ana	2
Honduras	Valle	Alianza	5
Honduras	Valle	Aramecina	3
Honduras	Valle	Caridad	3
Honduras	Valle	Goascorán	5

Findings from the Livelihood Analysis

To complement the ICA Analysis, a second assessment was combined in order to tune the prioritisation process at municipal level. The second assessment was based on the Sustainable Livelihood Framework (SLF) developed by DFID.⁵¹ Through consultation with key local informants, it was possible to identify strengths and weaknesses of the territories and populations. The methodology explored the five kinds of capital comprising sustainable livelihoods – human, natural, financial, social and physical.

The way in which these contribute to the adaptation to the effects of climate change can be seen in the following graph:



⁵¹ See www.livelihoodscentre.org/...livelihoods.../8f35b59f-8207-43fc-8b99-df75d3000e86 and www.glopp.ch/B7/en/multimedia/B7_1_pdf2.pdf

This exercise was completed through focus groups interviews with the participation of women and men from the communities in order to derive a better understanding of what the population consider as a strength and what as their main problems. To calculate the weight of each interview question, capitals were given equal weighting in order to have a comparative measure between municipalities.

After the definition and calculation of each livelihood capital questions and score, the watershed municipalities poverty indicators were identified. This allows general comparative exercise between targeted municipalities financial, natural, physical, social and human capacities and with the municipalities poverty percentage to identify food security and stunting in the area.

Once all the information is analysed, each municipality is inserted into one of four categories, where 4 refers to higher prioritisation level and 1 lower prioritisation level:

1. Areas with a high level of skills and low prevalence of stunting.
2. Areas with a high level of skills and a higher level of stunting.
3. Cantons with low level of capabilities and low prevalence of stunting.
4. Cantons with low level of skills and higher level of stunting.

Table 3. Goascorán Watershed Municipalities Livelihood analysis classification:

Country	Department	Municipality	LIVELIHOOD CLASSIFICATION
El Salvador	La Unión	Anamorós	1
El Salvador	La Unión	Bolivar	3
El Salvador	La Unión	Concepcion de Oriente	3
El Salvador	La Unión	El Sauce	4
El Salvador	La Unión	Lislisque	3
El Salvador	La Unión	Nueva Esparta	2
El Salvador	La Unión	Pasaquina	2
El Salvador	La Unión	Polorós	2
El Salvador	La Unión	San José	2
El Salvador	La Unión	Santa Rosa de Lima	2
El Salvador	Morazán	Corinto	2
El Salvador	Morazán	Jocoro	4
El Salvador	Morazán	Sociedad	1
Honduras	Comayagua	Lamaní	3
Honduras	Francisco Morazán	Curarén	3
Honduras	Francisco Morazán	Lepaterique	3
Honduras	La Paz	Aguanqueterique	4
Honduras	La Paz	Guajiquiro	3
Honduras	La Paz	Lauterique	4
Honduras	La Paz	Mercedes de Oriente	1
Honduras	La Paz	Opatoro	3
Honduras	La Paz	San Antonio del Norte	2
Honduras	La Paz	San Juan	3
Honduras	La Paz	Santa Ana	1
Honduras	Valle	Alianza	2
Honduras	Valle	Aramecina	2
Honduras	Valle	Caridad	2
Honduras	Valle	Goascorán	1
Honduras	Valle	Langue	2

Prioritisation conclusions from the combination of the ICA and Livelihood Analyses

Table 4. Prioritization. The combination of the information from the Integrated Context Analysis and the Livelihood Analysis resulted in a 1-5 prioritization scale, in which one represent the highest priority and five the lowest.

Country	Department	Municipality	Priority
Honduras	Francisco Morazán	Curarén	1
Honduras	La Paz	Lauterique	1
Honduras	La Paz	San Antonio del Norte	1
El Salvador	La Unión	San Jose	2

El Salvador	Morazán	Jocoro	2
Honduras	Francisco Morazán	Lepaterique	2
Honduras	La Paz	Aguanqueterique	2
Honduras	La Paz	Guajiquiro	2
Honduras	La Paz	Mercedes de Oriente	2
Honduras	La Paz	Opatoro	2
Honduras	La Paz	Santa Ana	2
El Salvador	La Unión	Lislisque	3
El Salvador	La Unión	Nueva Esparta	3
El Salvador	La Unión	Polorós	3
El Salvador	Morazán	Corinto	3
El Salvador	Morazán	Sociedad	3
Honduras	La Paz	San Juan	3
Honduras	Valle	Aramecina	3
Honduras	Valle	Caridad	3
Honduras	Valle	Language	3
El Salvador	La Unión	Bolívar	4
El Salvador	La Unión	El Sauce	4
El Salvador	La Unión	Pasaquina	4
El Salvador	La Unión	Santa Rosa de Lima	4
El Salvador	La Unión	Anamorós	5
El Salvador	La Unión	Concepción de Oriente	5
Honduras	Comayagua	Lamani	5
Honduras	Valle	Alianza	5
Honduras	Valle	Goascorán	5

Annex 2

Other relevant policies and strategies

In addition to the policies listed within Part II E, the below are related policies and strategies that the project will also ensure are considered.

Policy	Key priorities	Alignment
El Salvador		
El Salvador Sustainable Plan 2018-2030	<p>Commitments agenda and guidelines around four axes to promote country's sustainable development</p> <p>Strategic axis 1: Comprehensive risk management for disaster reduction and climate change.</p> <p>Strategic axis 2: Knowledge management and culture of sustainability</p>	Outcome 1 and 2
Forestry Policy 2016-2036	Strategic axis 4: Reduce the vulnerability of ecosystems and productive systems against climate change impacts	Outcome 1
Environmental strategy for climate change adaptation and mitigation of the agricultural, forest and aquatic sectors	<p>Numeral 3. The agricultural sector and climate change</p> <p>Numeral 3.1. climate change and food and nutrition Security.</p> <p>Numeral 3.2. Relationship between risk management and climate change.</p> <p>Numeral 4. Context of agriculture in El Salvador and natural resources</p> <p>Numeral 4.2. Degradation processes of natural resources.</p> <p>Numeral 4.3. Soil strategic management.</p> <p>Numeral 4.4. Transition from conventional to sustainable agriculture.</p>	Outcome 1
El Salvador's National watershed management strategy	<p>Strategic axis 1: Promote inter-institutional and intersectoral coordination and cooperation for sustainable and adaptive management of the watersheds</p> <p>Strategic axis 2: A sustainable and resilient agriculture against climate change.</p> <p>Strategic axis 3: Agro-climatic risks management.</p> <p>Strategic axis 4: Strengthening of institutional and key actors' capacities</p>	Outcome 1 and 2
Spatial planning and territorial development National Plan	<p>General objective: achieve the full incorporation of the territory and its natural and human resources in the process of modernising and sustainably developing the country to improve the population's quality of life.</p> <p>Specific Objective 6: Fully develop the productive potential of the rural environment and the entire national territory, in order to create balance in the living conditions and in the activities' distribution at national level.</p> <p>Specific Objective 7: To develop integral water resource management plan through watershed plans and a regulatory system that ensures total coverage of water demands, as well as full development of intensive irrigated agricultural systems.</p> <p>Specific Objective 11: To carry out transnational projects important for Central American integration and integral management of shared territorial systems.</p> <p>Specific Objective 12: Incorporate risk management in order to increase people's safety and avoid or reduce the harmful effects caused by natural events.</p>	Outcome 1 and 2
Honduras		

<p>National Strategy against climate change (ENCC)</p>	<p>Purpose: [...] strengthening of the current framework of public policies, incorporating appropriate and timely strategies and measures; aimed to reduce socio-environmental and economic vulnerability; and improve the adaptation capacity; particularly of the populations, sectors and territories more exposed to climatic threats.</p> <p>Policy Framework: The ENCC is consistent with the Country Vision of Honduras, and is oriented to adapt the current public policy framework to appropriately address the challenges posed by global climate change and to prevent its adverse effects.</p> <p>Strategic objectives for adaptation:</p> <p>Line of Action 1: Creation and strengthening of institutional and human capacities</p> <p>Line of Action 2: Strengthening of planning and coordination spaces (inter-institutional and territorial)</p> <p>Line of Action 3: Strengthening of intersectoral consultation spaces</p> <p>Line of Action 4: Synergistic planning of adaptation and mitigation</p> <p>Line of Action 5: Planning and integrated action of socio-environmental issues in the national and regional level of the Central American Integration System (SICA).</p> <p>Line of Action 6: International cooperation and financial mechanisms.</p>	<p>Outcome 1</p>
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