ADAPTATION FUND

REGIONAL PROJECT PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project:	Building adaptive capacity to climate change through food security and nutrition actions in vulnerable Afro and indigenous communities in the Colombia-Ecuador border area
Countries:	Colombia and Ecuador
Thematic Focal Area:	Food security
Type of Implementing Entity:	Multilateral Implementing Entity (MIE)
Implementing Entity:	United Nations World Food Programme (WFP)
Executing Entities:	Grand Family Awá, the Network of Southern Pacific Community Councils (RECOMPAS), the Afro-Ecuadorian Confederation of Northern Esmeraldas (CANE)
Partners and Designated Authorities:	Ministry of the Environment and Sustainable Development (Colombia) and Ministry of the Environment (Ecuador)
Amount of Financing Requested:	14,000,000 USD

Project Background and Context:

Introduction

Climate variability and shocks exacerbate the fragile food security and nutrition status of vulnerable communities living in the Colombia-Ecuador border area. This region is highly vulnerable to the short- and longer-term impacts of climate change and climate variability, due to its geographical location and rugged topography. The Mira-Mataje and Guaitara-Carchi binational watersheds are located along the Colombia-Ecuador border and are shared by Afro-descendants and Awá populations (See Map 1). This binational territory was selected for the proposed project because populations in these two critical watersheds have been historically marginalized and affected by the prolonged conflict in Colombia, and are particularly affected by environmental degradation which is exacerbated by both short-term and longer-term climate threats. Both Afro-descendants and Awá populations suffer from high levels of food insecurity, micronutrient deficiencies, chronic malnutrition and unsatisfied basic needs, a situation made worse by climate variability and shocks.

The prioritized binational watersheds display a number of diverse ecosystems, from the Pacific coastal mangroves, to dry and tropical humid forests in the higher elevations, and finally cloud forests and scrublands in the high Andes. These ecosystems are sensitive to climate variability and small changes in temperature and water availability, and are

considered more likely to face rapid alterations as a result of climate change.[1] Climate variability and shocks compound the extensive environmental degradation of the two watersheds, in particular the over-exploitation of forests, crops planted on lands with high erosion rates in particular illegal crops, over-grazing in high altitude areas as well as decreasing access to water for consumption and crop production. In both binational watersheds, the population has expanded rapidly over the last thirty years, leaving many with limited access to basic services like healthcare and new technologies. An overreliance on extractive industries has led to enormous decrease in biodiversity and ecosystem service provision for Afro and Awá communities. Both losses continue to erode the vital ancestral knowledge that has, over the centuries, enabled the Awá and Afro-descendants to ensure their food security and nutrition, and manage their natural resources in harmony with mother earth.

The effects of climate change, including the increased frequency and intensity of extreme events, sea level rise and ocean acidification, combined with environmental degradation, exacerbate food insecurity and malnutrition by reducing access to productive assets and livelihoods. Thus, communities require sound planning and timely and accurate information to adapt to short- and longer-term climate threats. Emerging climate threats intensify the challenges of reconstructing physical assets and the social fabric of affected indigenous and Afro communities, for example after natural disasters like the Ecuador earthquake in April 2016.

Faced with common threats, the governments of Colombia and Ecuador developed the Colombia-Ecuador Neighbor and Integration Commission and the Colombia-Ecuador Binational Border Commission (COMBIFRON). These commissions address climate change, environmental degradation, poverty reduction, food security and nutrition and reconciliation in the framework of peacebuilding along the 586 kilometer border.[2] The commissions target not only rural smallholder farmers but also the most communities including Afro-descendants and Awá populations, who are vulnerable to climate shocks and variability.

The long-term increases in temperatures and precipitation variability in the tropical and dry forests are projected to reduce the fragile biodiversity of these ecosystems. As well, climate events, compounded by phenomena like the El Niño-Southern Oscillation (ENSO), will increase water scarcity and the frequency of acute crop losses in the short term and reduce food availability in the medium term. For example, the 2015-2016 El Niño phenomenon resulted in drought and forest fires, limiting water access and reducing crop yields in the border area and severely reducing incomes in the binational watersheds. These negative impacts from reoccurring natural events are exacerbated by poor agricultural, land management and fishing practices. In 2014 alone, over 4,000 ha were deforested in Nariño, Colombia, the majority converted for grazing and coca cultivation. During the last three decades the net area of mangroves in Ecuador decreased by 70 percent due to deforestation.[3,4] These impacts are already limiting crop diversity, agricultural productivity

[1] Nottingham, A. T., et al. 2015.
[2] These commissions are responsible for formulating, implementing and monitoring binational interest projects and border priority issues through the following binational technical committees: 1. Committee on Border Affairs 2. Infrastructure and Energy Committee 3. Environmental Affairs Committee 4. Committee on Economic and Business Affairs 5. Committee on Social and Cultural Affairs.
[3] IDEAM 2014.
[4] CLIRSEN 2004. Please note that CLIRSEN was absorbed into the Ecuadorian Space Institute in 2012.

and the ability of fragile mangrove and forest ecosystems to absorb and recover from short-term shocks.

Climate change adaptation with the objective of improving food and nutrition security provides an opportunity to reduce vulnerabilities and thus damages from climatic variability, while enhancing the adaptive capacities of women and men living in vulnerable conditions. Such actions also support peace building in Colombia and stability in the border area.[5] The government of Colombia and the Revolutionary Armed Forces of Colombia (FARC) are in final stages of resolving a number of issues that will end their 60-year conflict. Afro and Awá populations living on both sides of the border were disproportionately impacted by the conflict, through forced displacements, environmental damage, no access to productive assets and land, and poor access to social services. A stable peace is vital for both Colombia, where the former conflict destabilized communities, and Ecuador, where displaced Colombians sought refuge and the conflict spilled over the border. Ecuador currently hosts 60,329 Colombian refugees and 233,049 Colombians seeking refugee status.[6]

The constitutions of Colombia and Ecuador recognize the rights of ethnic minorities to self-governance and protection of their cultural identity, specifically their traditional practices for natural resource management.[7] Afro-descendent and Awá populations in the region have governance structures and coordination mechanisms within their communities and at binational levels (See Annex 3). Both Afro-descendant and Awá authorities recognize climate change and food security and nutrition as priorities for territorial development and have existing mechanisms for adaptation and nutrition initiatives. However, they lack capacities for large-scale implementation and scale-up of their traditional and local knowledge to promote food security and adaptation. This project will build local capacities to execute food security and nutrition and climate change adaptation actions, while enhancing coordination between Afro and Awá governance structures and binational commissions.

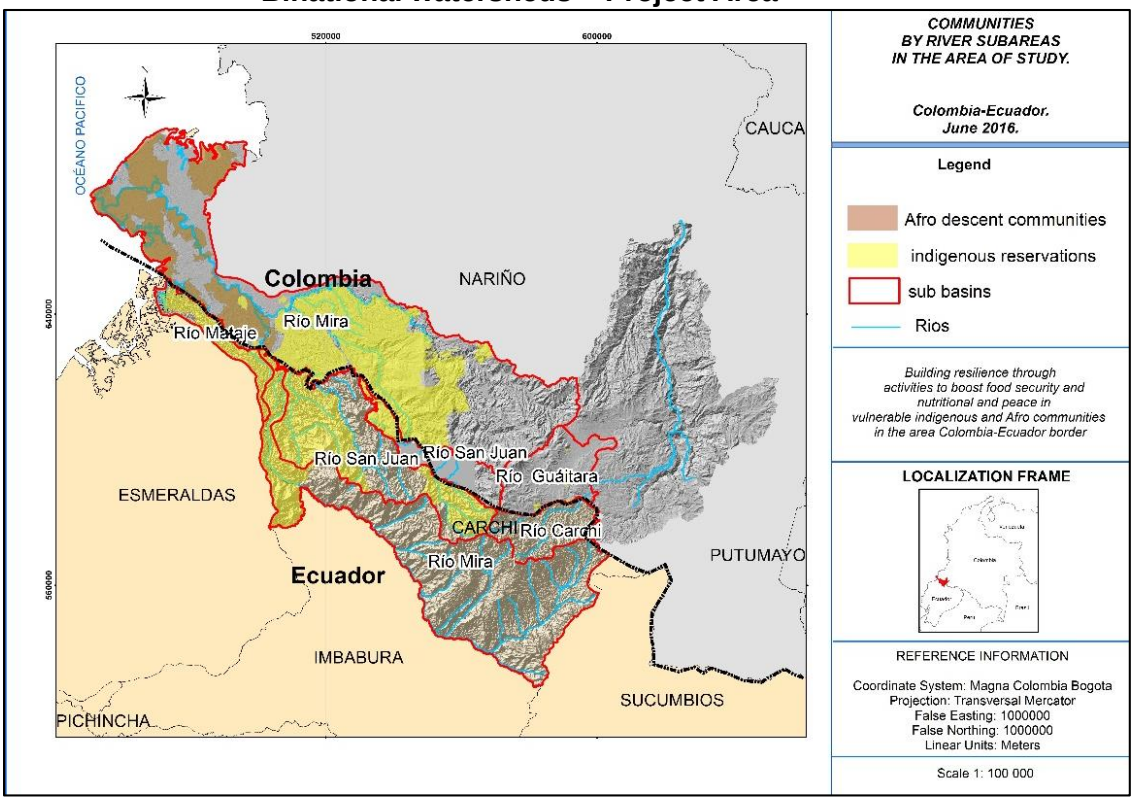
Gender equality and the empowerment of women and girls is key for building resilience to disasters and shocks and addressing the drivers of conflict. In the targeted binational territory there is an urgent need to prevent violence against women and girls, ensure equitable access to social services and productive inputs and promote the equality of women in conflict resolution and decision-making processes. The increasing loss of forests and land degradation as well as declining quality and quantity of freshwater undermines the food security and livelihoods of women and men, limiting family food consumption and their ability to access alternative livelihood resources and essential services. This can lead to tension and violence within the family and community.

Under the framework of the binational working groups for border integration and peace, the proposed project would innovatively strengthen food security and nutrition, livelihood resilience, and climate change adaptation. Supporting binational priorities and capacity building of local organizations, communities and local institutions, the proposed project will be executed by the Grand Family Awá, through its organizational structure that covers both Colombia and Ecuador, and Afro organizations including the Colombian based Network of Southern Pacific Community Councils (RECOMPAS) and its Ecuadorean affiliate the Afro-Ecuadorian Confederation of Northern Esmeraldas (CANE). These organizations are

[5] UNFCC 2014.
[6] 3 percent are in Carchí and 18 percent in Esmeraldas. Refugee Directory 2016.
[7] Constitution of Ecuador, *Article 57*. Constitution of Colombia, *Chapter XI*.

permanent autonomous umbrella associations comprised of Afro and indigenous territorial authorities with strong coordination mechanisms between communities in the two countries and within their institutional structures. During full proposal development, other potential executing entities will be evaluated as appropriate, in line with the Binational Plan for Border Integration. Implementing partners would be finalized according to the identification of communities during the project preparation phase. Selection would be based on food insecurity, malnutrition and vulnerability criteria applied in the two watersheds, with potential communities located in Nariño in Colombia, and Carchi and Esmeraldas in Ecuador. The province of Sucumbíos in Ecuador and Putumayo in Colombia may be considered specifically for the targeting of Awá populations. The final selection of departments within the two binational watersheds would also be assessed considering implementation capacities and potential impact at landscape level.

MAP 1
Binational watersheds – Project Area[8]



This Adaptation Fund (AF) project will generate local climate change adaptation responses with a focus on both community-based adaptation (CbA) and ecosystem-based adaptation (EbA) approaches to promote food security and nutrition. The strengthening of Awá and Afro institutional and community capacities in a culturally and conflict-sensitive manner, with a focus on gender, are other important expected results of the project. Also, this project presents an important opportunity to integrate climate change adaptation in Afro and

[8] Map of binational watersheds in the Colombia-Ecuador border region with delineation of indigenous and Afro-descendent populations in green and yellow respectively. The Carchi-Guaitara watershed and the Mira-Mataje watershed are delineated by red lines. Source: United Nations World Food Programme 2016.

indigenous development plans (Life Plans and Local Governance Plans) and binational watershed management plans, contributing to local economic development in historically marginalized areas.[9]

Importantly, this project proposes to implement climate change adaptation measures in the Mira-Mataje and Guaitara-Carchi binational watersheds along the Colombia-Ecuador border, contributing to strengthening food security and nutrition and, indirectly, confidence in peace, helping to bring stability to the border area. Specifically, the binational project aims to empower Afro and Awá institutions and communities to: 1) rescue traditional and local knowledge in support of adaptation and food security; 2) invest in measures to strengthen climate services in support of food security and nutrition, based in a cost-benefit analysis of adaptation measures;[10] 3) prevent or minimize the impacts of climate events and shocks; 4) adapt to longer-term climate threats through community and institutional capacity strengthening; and 5) restore vital ecosystem services and diversify livelihoods away from resource extraction. All will contribute to reversing the marginalization that these ethnic groups have faced for over 50 years, contributing to food security and nutrition through adaptation to climate change.

Climate Vulnerability at National Levels

The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) cited that in Latin America: a) tropical forests in the Amazon would be gradually replaced by savannas; b) semi-arid vegetation would be replaced by arid land vegetation; c) there would be a loss of biodiversity, with extinctions of species; and d) reductions in agricultural and livestock productivity would occur with adverse consequences for food security and nutrition.[11]

According to the Institute of Hydrology, Meteorology, and Environmental Studies of Colombia (IDEAM), Colombia is highly vulnerable to the environmental effects associated with climate change. Already, multiple departments in the country are experiencing a higher incidence of extreme rainfall events, higher average temperatures and decreased levels of humidity. Glacial retreat is an emerging problem, with glacial areas losing 3 percent to 5 percent of coverage per year. Sea levels have been rising 3.4 millimeters (mm) per year,[12] threatening communities on the Caribbean and Pacific coasts. Approximately 47 percent of coastal mangroves, grasslands, scrublands and lagoons are considered at risk. With sea levels rising as much as 1 meter (m) by the end of the 21st century, 41 percent of the populations along the Pacific Coast will be vulnerable to periodic flooding.

According to the Ecuador's Ministry of the Environment (MAE), the country has experienced sustained increases in temperature, changes in frequency and intensity of extreme events (droughts, floods), changes in the hydrological regime and the retreat of glaciers.[13] Crucial is the variation recorded in the last ten years with intense precipitation in very short periods followed by periods of significant decrease in precipitation. As well, the retreat of glaciers in recent years is significant, with 20 to 30 percent loss of ice mass in the last 30 years. For

[9] As Afro and Awá territories operate independently from the national territory, the Life Plans and local governance plans outline the community development and humanitarian objectives to guide local legal structures.

[10] A cost-benefit analysis of adaptation measures will be developed during the full project proposal development process

[11] IPCC 2014. *Climate Change 2014: Synthesis Report*.

[12] NASA Goddard Space Flight Center 2016.

[13] Ecuador's National Environment Policy 2010.

example, studies show that between 1976 and 2005, the surface covered by glacial ice on the mountain Cotopaxi has decreased by 30 percent.[14]

High mountain agro-ecosystems in Ecuador are exposed to cyclical drought, thus glacier runoff, which is threatened by the retreating glaciers, is critical for providing mountain communities with reliable water sources and sustaining livelihoods. Likewise, coastal and estuarine ecosystems along the Pacific Coast and the Guayas River estuary are particularly exposed to rising sea levels and settlements in the low-lying coastal areas.[15] Over the past few years, increasing social conflicts surrounding water resources and watershed management in Ecuador have led to a growing public debate surrounding the need for policy reform in the water resources sector.[16]

Climate threats to the border area

The border area between Colombia and Ecuador is one of the most climate sensitive and food-insecure regions in Latin America.[17] The climate is greatly influenced by its location on the inter-tropical convergence zone (ITCZ) and by geographic and atmospheric factors such as precipitation, solar radiation and wind systems. These factors influence the macro-climate, micro-climates and a number of ecosystems, including, importantly for the project, the coastal mangroves and inland dry and humid forests. The proposed project area includes 916,541 hectares in two binational watersheds – the Guaitara-Carchi and Mira-Mataje, which pass through the Nariño department in Colombia and Carchi and Esmeraldas provinces in Ecuador. Approximately 54 percent of the combined area of the two watersheds is in Colombia and 46 percent in Ecuador.[18]

Average annual rainfall varies between 2000-9000 mm in the border area. Rainfall patterns are bi-model, with two peak rainy periods between March-June and November-January and a dry period from July - August. The targeted watersheds contain both tropical- 0-800 meters above sea level (masl), with temperatures greater than 33° Celsius (C) and temperate climates- 800-1800 masl, with temperatures ranging from 8-24°C.[19]

Over the last three decades, a number of climate trends have become quite evident in the binational watersheds, including increasing rainfall variability, increasing temperatures and frequency of extreme climatic events, in addition to rising sea levels, more frequent storms and ocean warming and acidification.[20,21] These trends show extreme fluctuations, ranging from dangerous precipitation deficits to extensive rainfalls, associated with the southern and quasi-biennial oscillations, the ITCZ and ENSO. These longer-term climate trends threaten the livelihoods and fragile food security and nutrition situation of communities living in the border region, especially when combined with the negative impacts of climate vulnerability and agricultural expansion. Table 1 shows that both climate vulnerability and agricultural expansion will increase over the century.

[14] Cáceres, B, et al. 2005
[15] IPCC 2014: *Impacts,Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects*. IPCC
[16] *The Water Conflict in Ecuador*. Columbia University. 2010.
[17] Seddon, A.W.R., et al. 2016. *Sensitivity of global terrestrial ecosystems to climate variability. Nature*.
[18] According to WFP Colombia research team, 2016
[19] Tropical climates correspond to 71 percent of project area, while temperate climates represent 23 percent
[20] IDEAM 2016.
[21] Sierra, R., et al. 2009.

In the border region, maximum and minimum temperatures have been increasing – specifically, both days and nights are warmer.[22] According to climate scenarios generated by IDEAM for Colombia,[23] temperatures will increase by up to 2.6°C in the border region by 2100. Similarly, climate scenarios for 2090 predict temperature increases by up to 3.3°C in Esmeraldas and 4.03°C in Carchi.[24] In western Nariño in Colombia, along the border with Esmeraldas in Ecuador, maximum annual temperature increased by 0.54°C per decade between 1975- 2011; and mean annual temperature increased by 0.05°C over the forty year period.[25] From 1960 – 2006, temperatures along the Ecuadorian coast increased by 0.5 – 0.6°C and temperatures in the Andes increased by 1.5°C.

TABLE 1
Climate Vulnerability and the Agricultural Expansion Index (AEI) [26]

Year	Vulnerabilities	AEI
2009	-17.8	52.2
2020	-48.2	61.9
2050	-53.0	75.5

According to Ecuador's Second National Communication on Climate Change, climate scenarios for 2090 predict an overall increase in precipitation by 9.78 percent in Carchi and 30.39 percent in Esmeraldas. However, a micro-watershed analysis of precipitation patterns in the Mira and Guaitara watersheds in Colombia show decreases in precipitation over the century.

In the border region, it has been observed that the intensity, frequency and duration of extreme events have increased, especially during ENSO. This phenomenon occurs in five-year cycles and scientists suggest that extreme events like flooding and drought common during ENSO are becoming more intense due to climate change.[27] During the 2010-2011 La Niña event, rainfall increased by 33 percent in the Mira-Mataje watershed; in 1988-1989, rainfall increased by 150 percent in the municipality of Barbacoas in Nariño. These extreme rainfall events resulted in landslides, which isolated already marginalized communities. Recently, the 2016 El Niño phenomenon, the most severe on record in Latin America, resulted in prolonged drought and forest fires, limiting water access for human and animal consumption and decreasing crop production in the border area.

Within specific thermal micro-climates, these trends become more pronounced. In the hot, humid sub-zone of the Río Mira,[28] with average annual rainfall of 5400 mm, weak and

[22] In Ecuador, between 1960- 2006, average annual temperatures increased by 0.8°C, maximum annual temperatures increased by 1.4°C and the minimum annual temperature increased by 1.0 °C. Source: GEF/UNDP/MAE 2011.
[23] For the Third National Communication on Climate Change
[24] CEPAL 2012.
[25] At 3,120 masl, in the Guaitara-Carchi watershed, in the semi-humid cold climate
[26] This study, conducted in Colombia, discovered that vulnerability to climate change will rise significantly by the year 2020 while the agricultural frontier will consistently expand. Source: National Climate Committee 2001.
[27] Trenberth et al., 2003; IPCC Fourth Assessment Report: Climate Change 2007
[28] Based on IDEAM's Caldas-Lang model for climate classifications

moderate events have reduced average rainfall between 50 and 60 percent over the last two decades. In the presence of El Niño in the past decade, there has been a 17 percent decrease in annual rainfall. Taking into account the downward trend, it is expected that the rainfall during future El Niño events will be even lower than these averages.

Climate impacts and the targeted ecosystems

Mangroves
In the mangrove ecosystem that links Colombia and Ecuador along the Pacific Coast, rising sea levels, more intense storm surges, coastal flooding and soil saturation threaten mangrove seedling establishment and destroy older stands, thus reducing system resilience and ability to provide vital ecosystem services to coastal and inland communities. Such services include aquaculture, protection from storm surges and erosion control.[29] Sea levels are estimated to rise by one meter this century. There are 124,173 hectares of mangroves in the Mira watershed (Colombia) and 18,060 hectares in Esmeraldas (Ecuador).

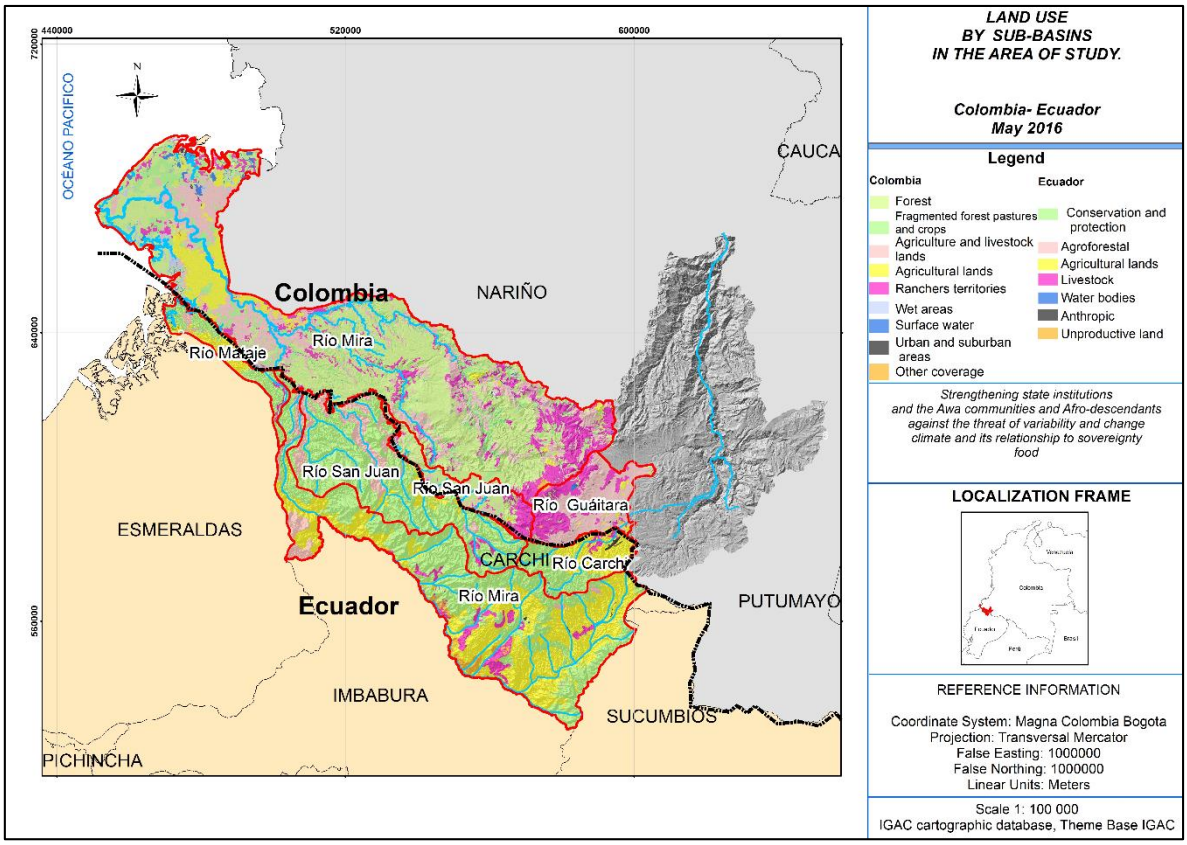
Loss of mangrove areas due to sea level rise, intense rainfall events and sedimentation negatively affect aquaculture and the production of estuarine species such as shellfish, red crab and sea bass for trade and consumption. In Ecuador, sea level rise will impact 21 percent of mangrove species with economic value by the end of the century.[30] Rising sea-levels and changing tidal and wind patterns impact fishing catches, affecting availability for both trade and individual and family consumption. Fishing and shellfish harvesting are affected by distinct climate threats; the expansion of saltwater into coastal groundwater sources and the disturbance of estuary soils by flooding rivers. Additionally, flooding of agricultural lands due to rising sea levels will impact not only fresh-water availability, but also income-generating opportunities like cacao, coconut and green plantain production as well as food prices. Additionally, climate change will exacerbate the expansion of tropical diseases and pests and change the biological components and balance of this fragile ecosystem.[31]

Mountain and forest ecosystems
In tropical dry and tropical rainforest ecosystems of the binational watershed, climatic change intensifies the prevalence of insect infestations. The long-term increases in temperatures and the decreases in rainfall in the high-mountain ecosystems are projected to reduce the fragile biodiversity of this ecosystem. This ecosystem faces water shortages as the Guaitara River, a critical water source, faces water shortages of close to 50 percent for land use patterns in the border region (See map 2).

The Andes in northern Ecuador experienced a temperature increase of 1.5°C from 1960 to 2006, a trend more evident in the mountain regions than along the coast.[32,33] Rainfall patterns on the other hand were irregular with a greater inclination towards increased precipitation. The humid plains and high Andean forests may experience significant reductions in area by the end of this century, while other landscapes such as low altitude wet Andean regions may expand.

[29] IDEAM 2014.
[30] CEPAL 2012.
[31] MAE 2011; Sierra, et al. 2009.
[32] UK Department for International Development (DFID) and World Wildlife Foundation (WWF) 2011. *Climate Change in a Living Landscape: Conceptual and Methodological Aspects of a Vulnerability Assessment in the Eastern Cordillera Real of Colombia, Ecuador and Peru.*
[33] Ecuador's National Development Plan (2013-2017) and Sierra et al. 2009

MAP 2
Land Use in Binational watersheds[34]



Marine species and vulnerability to climate change

Changes in temperature, circulation patterns and sea level will alter the availability of commercial marine species for local economies.[35] Specifically, cold water species such as tuna will decrease in abundance or migrate away from the equator, whereas high temperature tolerant species like marine shrimp will increase in abundance. ENSO-driven sea level rise impacts shellfish reproductive cycles and result in larval die-offs, especially during peak periods of reproduction between February and June.[36] Edible fresh-water species, such as cagua, chala and anchenda, have recently disappeared from the Mira watershed.

Crops and vulnerability to climate change

An important cash crop in the two binational watersheds is cacao. It grows best at 1300 masl, with temperatures between 22 and 30°C and average precipitation of 2500 mm. Due to climate variability, by 2100, a projected rainfall decrease to 1500 mm/year will severely affect yields and production potential, destroying the livelihoods of smallholder farmers who are completely dependent on cacao sale.

[34] Map 2 shows the various soil uses in the binational the Guaitara-Carchi and Mira-Mataje.watersheds. Over 40 percent of lands are used for agriculture and livestock activities.
[35] FAO Newsroom. 2008. *Climate change will have strong impact on fisheries*
[36] SwissAid 2009.

Extreme climate events are also affecting the cultivation of plantains, which are a dietary staple for the Afro descendants on the coast. Plantains require average temperatures of 26-27°C and prolonged rainfall with a regular distribution. Plantain cultivation is highly vulnerable to pests such as weevil and screw worm, whose populations are expected to expand with increases in temperature. During extreme rainfall events, plantain crops can be affected by the Sigatoka disease, commonly known as black leaf streak. Climate change is affecting livestock productivity throughout the border region due to reduced rainfall, extreme heat, degraded land and shortage of pasture and climate-resistant forage.[37]

Food security and nutrition in binational watershed communities

In the two watershed territories food security and nutrition is related to production, access, utilization and stability constraints. Climate events negatively impact rain-fed agriculture as described above as well as access to markets. Poor infrastructure combined with extreme events like heavy rainfalls cause landslides, damage roads and block access points, which increase costs for smallholder farmers, making their products uncompetitive. Rising temperatures gradually change ecosystems, as plants and animals migrate in accordance with their heat tolerances, reducing the provision of vital ecosystem services; all have already limited dietary diversity in Awá communities. Harvest yields in Afro-descendant communities have been stilted by increased climate variability and unpredictability in the rainy and dry seasons, which has limited community ability to accurately plan crop cultivation. A main contributing factor to community vulnerability in both binational watersheds is the lack of awareness and response options to deal with the threats that climate change and variability pose and possible mitigation measures such as early warning systems (EWS). As well, there have been few advances in terms of exploiting local knowledge to identify climate related threats or solutions.

Colombians who fled the conflict are particularly vulnerable to food insecurity; 70 percent of recent arrivals to Ecuador are food insecure and 24 percent of displaced children suffer from malnutrition.[38,39] A number of factors contribute to their vulnerability, including: inadequate access to social services, conflict between mining and agriculture, deforestation, the contamination and depletion of aquifers and climate change and variability.

Peace and border stability offers an opportunity for both Colombia and Ecuador to improve community resilience and food security through rehabilitation of degraded lands, invest in agricultural systems and climate services and increase access to high quality diverse diets, especially during the dry season.[40] In the border area, Afro-descendants and the Awá are dependent on fishing and agriculture and many lack formal employment and access to education due to the remoteness of their territories, exclusive development policies and the conflict. Opportunities for economic advancement and the potential to build more resilient livelihoods are minimal, thus impacting food security and nutrition and the potential to adapt to a changing climate.

Nutrition Situation

[37] CIAT. 2014.
[38] WFP Ecuador. 2015.
[39] Del Castillo, M., et al. 2014.
[40] REDD+

Approximately 43 percent of Colombians consider themselves food insecure, due to lack of access to basic staples and nutritious foods, according to the World Food Programme's (WFP) 2014 Vulnerability Analysis and Mapping and the national nutrition survey.[41] In Ecuador the situation is similar.[42] Afro-descendent and Awá populations living in the border area between Colombia and Ecuador face high levels of malnutrition and insufficient food consumption. Chronic malnutrition in children under five reaches nearly 70 percent in indigenous territories in both countries, compared to 13 percent nationally in Colombia and 25 percent in Ecuador.[43]

Malnutrition in all its forms is worse in rural indigenous and Afro communities in both Colombia and Ecuador. The triple burden – obesity, under-nutrition and micronutrient deficiencies – is an increasing problem in the border region. In the Pacific region of Colombia, 60 percent of Awá children under five suffer from chronic malnutrition and 10 percent suffer from acute malnutrition. In this area, 42 percent of children aged 1-4 register vitamin A deficiencies and 41.2 percent of children under five have anemia. Lack of micronutrients, specifically iron deficiencies, is a principal cause of child death. In the binational watershed municipality of Tumaco, infant mortality rates reach up to 58 percent.[44] Chronic malnutrition is 36.4 percent and the prevalence of obesity in children over five is 3.2 percent in the binational watershed municipality of Barbacoas. In Ricaurte, 60 percent of children aged 10-18 and 36.4 percent of children under two face chronic malnutrition.[45]

Ecuador reports high levels of chronic malnutrition in children under five in the border area, with 17.7 percent in Esmeraldas and 33.2 percent in Carchi. For indigenous populations in Carchi, this rate climbs to 51 percent.[46] While these numbers are staggeringly high as they are reported, they likely underestimate the prevalence of both chronic malnutrition and obesity in Afro-descendent and Awá populations because the numbers come from departmental health centers. These institutions are typically located far away from communities and do not respect local medicinal practices and traditions.

In Nariño, up to 79 percent of families registered poor food consumption and 75 percent lack access to basic services.[47] In 2005, government census data showed that the rate of Unmet Basic Needs reaches up to 90 percent,[48] particularly in rural populations in the Barbacaos municipality in Nariño. In this municipality, 40 percent of children are not breast-fed.[49] In Ecuador, 56.8 percent of families in Esmeraldas and 32.6 percent of families in Carchi registered poor food consumption in 2014. The rate of Unmet Basic Needs reaches 56.3 percent in Esmeraldas and 24.5 percent in Carchi, but climbs to 60 percent for indigenous communities in these provinces.[50]

Socio-economic context of Afro-Descendants

[41] Colombian Institute for Family Wellbeing (ICBF). National Nutrition Survey for Colombia (ENSIN). 2005.
[42] Life Condition Survey. 2014.
[43] UNDP
[44] Municipal Food and Nutrition Security Table of Tumaco 2012; *Food and Nutrition Plan for Afro and Indigenous People of the Tumaco Municipality for the Colombian Pacific (2012-2022)*
[45] Departmental Health Institute of Nariño (2015)
[46] ENSANUT (2014). Encuesta Nacional de Salud y Nutrición Ecuador
[47] WFP Emergency Food Security Assessment (EFSA) (April 2016)
[48] DANE. 2010.
[49] Departmental Health Institute of Nariño. 2015.
[50] Life Condition Survey. 2014.

Along the Pacific Coast, the main drivers of the economy include: cacao, plantain and coconut production, natural rubber and palm oil production and artisanal fishing and shellfish collection, as well as wood extraction and an emerging tourism industry. In highland territories, the Afro economy centers on small livestock production (pigs and goats) and subsistence agriculture, including the cultivation of beans, maize, sugar cane, avocado, fruits and pepper. Both agriculture and fishing livelihoods are vulnerable to climate change, particularly rising sea levels that impact mangrove ecosystems and flood important agricultural lands, thus putting populations at risk of food insecurity. Both men and women engage in day labor, with women typically working as merchants, maids or clay artisans and men working in masonry. The Pacific coast of the border region has been heavily impacted by deforestation and illegal activities such as coca cultivation. In both Colombia and Ecuador, palm oil production has resulted in forest clear-cutting and the expansion of the agricultural frontier**.**

Reconciliation and building confidence in peace will require actions to strengthen Afro cultural identity, territorial and natural resource protection and living in harmony with nature and realization of social rights, all pillars of Afro-descendant society. There are approximately 40,000 Afro-descendent women and 33,000 men in the border municipality of Tumaco who have been victims of the conflict.[51] With Colombia on the verge of signing the peace agreement, displaced people are gradually returning to their lands and livelihoods.

Socio-economic context of the Awá

In Awá tradition, the economy is based on reciprocity and solidarity rather than accumulation. The indigenous economy is based on the use of diverse skills and knowledge to aiming to sustainably use natural resources. Specifically, the Awá engage in limited hunting and fishing for subsistence, gathering of non-timber forest products and agriculture for self-consumption (maize, bananas and yucca). Their traditional economy depends exclusively on traditional and local knowledge, encompassing ecological, environmental and cultural knowledge which in the past was transmitted from generation to generation. The conflict, mega projects and the introduction of market economies has produced large social costs for the Awa, weakening their relationship with nature and their traditional systems of reciprocity and sustainably living within the landscape.

Due to historic marginalization, the Awá have affirmed their political autonomy and defended their territories against threats of violence and extractive activities. There are over 2,400 Awá women and 2,166 men who have been victims of the conflict in Colombia. In Ecuador, the Awá have been threatened by extractive companies (wood, palm oil and mining); in Colombia, the Awá have additionally been threatened by armed groups and forced displacements as well as climatic events. Due to the recent ENSO phenomenon, livelihoods and incomes were negatively affected and incomes due to severely restricted access to water.

Gender empowerment and climate change adaptation

In both binational watersheds, women face higher levels of vulnerability to climate change than men. Women are more likely to die during and after disasters because they lack access to EWS, knowledge of survival skills and freedom of movement. Additionally, they often cannot access relief services or receive compensation for property losses because they lack

[51] Departmental Health Institute of Nariño. 2015.

property titles and often, in indigenous communities, do not speak Spanish. While women make up the majority of labor in mangrove shellfish harvesting and smallholder farming, they have limited roles in decision-making; thus, helping women adapt to climate change is a significant concern for food security and nutrition. Women prioritize the harvesting and cultivation of diverse species that improve their family nutrition.

In the targeted binational territories, women have lower education levels, less access to credit and less participation in decision-making mechanisms. In the Pacific region, women die from preventable diseases due to lack of access to adequate health care. Violence impacts women as intimate partner violence, violence from the conflict and femicides are prevalent in both Awá and Afro societies. Violence was identified as a key issue by Awá women – in addition to insufficient access to health services and prioritization of gender in government policies.[52] Gender inequality, as measured by UNDP's Gender Inequality Index (2013), is 46.0 in Colombia and 42.9 in Ecuador, which are both above South America's average of 41.6.

On the political level, Afro and Awá societies promote women as key players in decision-making. In Afro society, the ethno-development plan of RECOMPAS promotes gender equality and the empowerment of women in environmental management practices and includes women on community councils, the main governance structure. Similarly, the Life Plan of the Awá promotes the participation of women in decision-making spaces. However, the implementation of such policies have not yet insured that women have achieved equity and true empowerment in either society or are prepared to face the new realities associated with climate change.

Climate change adaptation, food security and peace

On June 23, 2016, the Colombian government and FARC rebels agreed to a bilateral ceasefire, paving the way for the peace accords to be signed in mid- 2016.[53] Peace provides an opportunity for communities in the Colombia-Ecuador border region to rehabilitate their lands, recover their traditions and livelihoods and work to improve community food security and nutrition. Climate change adaptation and peace are mutually reinforcing, as enhancing community capacities to adapt to climate variability reduces conflict risk; at the same time peace-building actions that address weak governance and socio-economic issues strengthen joint adaptation actions.[54] CbA and EbA approaches are tools to support peace building and develop culturally sensitive models to address both social and economic injustices and the potential damages from increasing climatic variability.

This project proposes to strengthen food security and nutrition through climate change adaptation measures in two watershed on the Colombia-Ecuador border area in accordance with the binational working group priorities. Specifically, this project aims to strengthen food security and nutrition through empowering Afro and indigenous communities to: 1) invest in measures like climate services to strengthen food security and nutrition and prevent or minimize the impacts from climate events; 2) adapt to longer-term climate threats through community and institutional capacity building; and 3) restore vital ecosystem services through reforestation and diversify livelihoods away from resource extraction. All will contribute to reversing the marginalization that Afro and Awá communities have faced from

[52] Defensoría del Pueblo. 2011.
[53] Brodzinsky, S. and Watts, J. 2016.
[54] Smith, D. and Vivenkananda, J. 2007.

the social and environmental damage from the conflict and contribute to peace and reconciliation through adaptation to climate change.

Project Objectives

The project aims to achieve the following objectives:

1) Reduce climate vulnerabilities of local Afro and indigenous communities and the ecosystems they depend on, promoting food security and nutrition and preventative capacities, and contributing to the construction of peace; and

2) Strengthen adaptive capacities of Afro and indigenous communities in the cross-border region and strengthen regional institutions to address the threats posed by climate change.

Project Components and Financing:[55]

Project Components	Expected Outcomes	Expected Outputs	Countries	Amount (US$)
Component 1 Increase community awareness and knowledge on climate change risks and food security and nutrition in two border binational watersheds	1.1. Traditional and local knowledge recovered to support sustainable adaptation measures, food security and nutrition, and resilient livelihoods	1.1.1. One study per watershed produced on traditional and local practices, and ancestral and native plant and tree species that can improve dietary diversity and are resilient to climate change, promoting resilience to climate change and variability in the targeted binational watersheds.	Afro Awá	169,200
		1.1.2. Study produced on the feasibility of marketing native species for medicinal, artisanal, food and fodder related uses at regional, departmental and national levels.		56,400
		1.1.3. Workshops, dialogues and cultural events (for example fairs) organized to disseminate study results to 120 Afro and Awá communities, leaders and decision makers, in local languages. There will be equitable participation of men and women.		430,200
	1.2 Traditional knowledge and adaptation practices integrated in community dialogues and decision-making processes	1.2.1**.** In 120 communities, leaders, community members and women trained on climate change threats with culturally and gender sensitive methods. There will be equitable participation of men and women.		200,200
		1.2.2. Dialogues, fairs and exchanges involving 120 communities, leaders and community members on food security, nutrition and healthy living habits, considering climate threats, with special focus on diversifying diets and increasing incomes from the production and sale of native species and products. There will be equitable participation of men and women.		150,000
		1.2.3. One binational web-based adaptation learning platform in use.		150,000
		1.2.4. Compilations and sharing of best practices on risk reduction and risk management actions at binational watershed level, considering ecosystem type and emphasizing traditional and local knowledge.		300,500
Component 2 Increase binational, institutional and community capacities to sustainably address recurrent climate risks,	2.1. Increase scientific knowledge to manage climate change and risk, affecting food security and nutrition	2.1.1. Climate and environmental baseline scenarios carried out at watershed level analyzing level of degradation and vulnerability to climate change threats.	Afro Awá	400,600
		2.1.2. Studies at the binational watershed level produced on: 1) water provision considering climate threats; 2) ecosystem vulnerability in the face of climate change and variability and extreme events; and 3) food security and nutrition in vulnerable communities.		600,700

[55] This is a tentative budget based on preliminary consultations with stakeholders at the local, regional, national and binational levels. In the full project development phase, the exact project activities, expected results, participant numbers and budget will be defined with key stakeholders.

particularly those that affect food security and nutrition	2.2 Risk reduction capacity of binational institutions and communities strengthened, including leveraging climate services	2.2.1. 20 binational Early Warning Systems introduced, specifically tailored to inform the Afro and Awá communities about extreme events and sea level rise. Additionally, climate services will be introduced to include agro-meteorological data, vulnerability mapping, with a focus on crop yields and cycles; and climate risks in mangrove and high-mountain ecosystems.		700,500
		2.2.2. 120 leaders trained in Emergency Preparedness and Response with disaster management authorities.		180,000
		2.2.3. Climate change adaptation and risk management incorporated in regional and local planning instruments and budgets (Life Plans, Safeguard Plans, Watershed Management Plans, and Territorial Development Plans), considering national level plans and budgets.		325,000
Component 3 Reduce recurrent climate vulnerabilities through innovative community and ecosystem-driven adaption measures that reduce food insecurity	3.1. Improved access to livelihood assets, enhanced resilience and reduced risks from climate shocks in food-insecure communities and households	3.1.1. Methodology developed that interfaces scientific and traditional knowledge with community participation.	Afro Awá	40,000
		3.1.2. Effective adaptation measures designed and implemented using methodology developed in 3.1.1. and incorporating traditional and local knowledge and the recovery of degraded ecosystems in 120 communities.		3,600,000
		3.1.3. Community water harvesting, storage and management measures introduced.		800,000
		3.1.4. Cost-benefit analysis of proposed adaptation measures at micro-watershed level.		220,000
		3.1.5. Native species reintroduced to diversify production and consumption and for commercialization, including introduction of organic and agro-ecological crop production practices and ocean species.		900,000
	3.2. Increased adaptive capacity and ecosystem resilience to respond to climate threats and food insecurity	3.2.1. Soil management activities implemented, including agro-forestry and native nitrogen-fixing species.		780,000
		3.2.2. Conservation and recovery of 3,000 ha of forest ecosystems and 2,000 ha of mangroves threatened by climate change through tree planting and forest management actions, at the micro-watershed level, with species that are native and resistant to climate variability, in line with national plans.		900,000
		3.2.3. Monitoring system to track project results developed and implemented.		880,500
			4. Subtotal Project Cost	11,783,800
			5. Project Execution cost (9.5 percent)	1,119,460
			6. Total Project Cost	12,903,260
			7. Project Cycle Management Fee charged by the Implementing Entity (8.5 percent)	1,096,770
			8. Amount of Financing Requested	14,000,000

Projected Calendar:

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

Milestones	Expected Dates
Start of Project/Programme Implementation	April 2017
Mid-term Evaulation	February 2020
Project/Programme Closing	October 2022
Terminal Evaluation	March 2022

PART II: PROJECT JUSTIFICATION

A. Project Components

The governments of Colombia and Ecuador recognize the importance of territorial and differential approaches, especially in strengthening the role of Afro and Awá communities within the priorities of the binational technical commissions on Environmental Affairs and Social and Cultural Affairs.[56] The project additionally aligns with the Paris Agreement through leveraging local knowledge on adaptation into relevant socioeconomic and environmental frameworks.[57] The Constitutions of Colombia and Ecuador promote adopting traditional and local knowledge for natural resource management. In support of these overarching policy directions the project will adopt a culturally, conflict- and gender- sensitive territorial approach using CbA and EbA approaches. This project will address climate change, climate variability, and shocks related to extreme events in two watersheds in the border region of Colombia and Ecuador, contributing to food security and nutrition through the following three components:

Component 1: Increase community awareness and knowledge on climate change risks and food security and nutrition in two border binational watersheds
Component 2: Increase binational, institutional and community capacities to sustainably address recurrent climate risks, particularly those that affect food security and nutrition
Component 3: Reduce recurrent climate vulnerabilities through innovative community and ecosystem-driven adaption measures that reduce food insecurity

This project will support national strategies for climate change by specifically addressing local exposure to climate change risks in particular as they affect food security and nutrition. The binational territorial approach will be coordinated at four levels: national,

[56] The Environmental Affairs Binational Technical Committee focuses on integrated management of binational watersheds, protection of biodiversity and disaster risk reduction activities. Within the Social and Cultural Affairs Binational Technical Committee, there is a sub-committee on Afro and indigenous affairs, which focuses on environmental matters, political, educational and institutional strengthening and protection and human rights.

[57] Article 7, bullet point no. 05. *"Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate."*

departmental/provincial, municipal and communal, with implementation of concrete measures primarily at community level. However, coordination will be strengthened at all levels through specific management mechanisms in the project management committee. Participatory methodologies, tools and planning approaches will be developed as part of the project, with the aim of broader application in other binational watersheds.

The project is innovative and highly cost-effective due to its binational watershed approach, which will result in a number of cost-savings and efficiencies (See Part II section D). The commitment and local knowledge of executing partners, including the Grand Family Awa, RECOMPAS and CANE, will contribute to locally-driven planning and execution, thus ownership and the high potential for replicability, scalability and the sustainability of this regional project.

Importantly, WFP has capacities in the proposed departments including sub-office presence in the targeted territory.[58] WFP has worked for over a decade with the targeted Afro and Awá communities and is recognized for improving food security and nutrition in the area. The organization frequently works in sensitive situations and can access remote territories.

Components

1) **Component 1:** Increase community awareness and knowledge on climate change risks and food security and nutrition security in the binational watersheds

Objective: *Recover traditional knowledge and capacities to manage climate change risks and food security and nutrition in targeted Afro and Awá areas in the binational watersheds*

All activities under this component will raise awareness and understanding of climate risks and adaptation solutions, with special attention given to recovering ancestral knowledge, with a culturally and gender sensitive lens and a focus on food security and nutrition. Afro and Awá communities are faced with increasing fragmentation of their social structures due to external forces like environmental damage and the influx of mega projects, which accelerate the loss of traditional and local knowledge. In accordance with IPCC recommendations, recovery of cultures, local languages and traditional knowledge are means to strengthen social fabrics and connect younger generations with community elders, promoting the transfer of knowledge and practices.[59] Specific traditional practices and knowledge to recover and exchange include: traditional medicinal practices with native plants that are resilient to climate variation, native plant and crop species resistant to climate change for food production and diet diversification and traditional food preparation practices. Thus, attention will be given to promoting collective memory, the role of women and reintroducing traditional music to communicate climate threats, risk reduction measures and concrete response measures.

This component will build cultural spaces to recover traditional practices and promote inter-generational dialogue and learning, with the participation of women, youth and community elders. All trainings will involve the equitable participation of men and women. Such spaces include community events to present and discuss climate threats and responses. Importantly, a portfolio of studies will be produced to document traditional and local knowledge for community climate change adaptation and food security, including the

[58] In Colombia - Pasto, Nariño. In Ecuador – Tulcan, Carchi and San Lorenzo, Esmeraldas.
[59] IPCC. 2014. *Articles 4 and 5*

identification of adaptation measures that include gender considerations and target women and girls. Specifically, the studies will drive the introduction of concrete adaptation measures through: 1) inventories on native species resilient to climate change; 2) an inventory of ancestral and native foods that can improve dietary diversity; and 3) a feasibility analysis on transforming ocean, forest and crop species into higher value products and marketing these products (medicinal plants, grains, fruits, vegetables, fodder, and shellfish) for local and regional exchange and trade (See Table 2). These inventories will be completed jointly with community leaders and will be shared in print and online with relevant stakeholders.

With a focus on generating knowledge, exchanging practices and study findings, promoting a better understanding of climate threats and producing adaptation solutions, cultures will be strengthened and communities more cohesive. Strengthened binational institutional and community capacities will lead to informed decisions on climate change and food security and nutrition with culturally and gender-sensitive actions. This component includes two outcomes and eight outputs aligned to activities which aim to increase awareness at binational, territorial and community levels.

TABLE 2
Studies and Analyses in Component 1

Study	Description
Traditional practices	Inventory of tree and plant species resilient to climate variability
	Inventory of ancestral, traditional and native food crops that can improve dietary diversity and planting practices that are resilient to climate variability
Increasing value added of native species	Feasibility analysis on the potential to transform and market native species (shellfish from mangrove ecosystems) and crops (medicinal plants, grains, fruits, vegetables and fodder) for exchange and regional markets

Outputs 1.1.1 and 1.1.2 will build a compendium of information on traditional and local practices for climate change adaptation and food security and nutrition as described above. Through knowledge sharing events such as workshops and cultural fairs (***Output 1.1.3)***, the results of these studies will be disseminated at binational, territorial and community levels to inform decision-making on climate change responses, conservation of ancestral knowledge and biodiversity and income generation opportunities, with gender considerations and a focus on food security and nutrition practices.

Outputs 1.2.1. and 1.2.2. will focus on training activities to effectively promote dialogue and exchange of experiences between different actors including territorial authorities, nutritionists, community leaders, ensuring the equitable involvement of youth, community elders and women in Afro and Awá communities. Events will involve the equitable participation of men and women. These knowledge and information-sharing events will focus on inter-generational exchanges between elders and youth on how to adapt to climate threats, mitigate risks, recover, conserve and transform traditional native species for medicinal use, diversify family diets and sell agricultural products. A gender sensitive approach will be integrated in all training modules and awareness campaigns. Under ***Outputs 1.2.3.*** **and** ***1.2.4****.,* lessons learned and best practices on community risk reduction and management actions from communities will be compiled and shared with community leaders and governmental entities through a web-based platform. This platform will incorporate lessons learned from previous ENSO phenomena and consider local context

and ecosystem type and emphasize traditional and local knowledge The platform will be managed on a regional basis.

2) **Component 2:** Increase binational, institutional and community capacities to sustainably address recurrent climate risks, particularly those that affect food security and nutrition

Objective: *Strengthen knowledge generation to effectively plan, design and implement adaptation responses in highly food insecure communities, considering emergency preparation and response actions*

All activities under this component will enhance scientific knowledge and community understanding of climate change threats and potential adaptation solutions, linking food security and nutrition with an ecosystem perspective. Currently, Afro and Awá territories lack adequate planning information and tools at territorial and regional levels. With increasing climate variability, changes in crop cycles and rainfall patterns and extreme events, communities are facing growing unpredictability, and, thus, vulnerability. Therefore, this component will help build a concrete scientific knowledge base about the binational watersheds as a means to enhance community capacities to respond to climate threats, complementing existing climate scenarios at national levels.

Scientific studies include: climate variability and extreme event vulnerability analysis in the binational watersheds, water provision and hydro-climatic risks evaluation in the binational watersheds considering the importance for irrigation and human consumption, native species and crop vulnerability to increasing temperatures and a baseline ecosystem vulnerability assessment (See Table 3).

To link traditional and local knowledge with scientific information, these national climate scenarios and new scientific studies will feed into culturally and gender-sensitive EWS in binational communities, with agro-meteorological data enhanced, and vulnerability mapping networks adapted to the micro-watershed level. Threat mitigation recommendations will also be provided, based in traditional and local knowledge. A key aspect of the EWS and climate services will be recommendations on agro- and hydro-climatic management related to important forest, mangrove and crops species for promoting dietary diversity, as well as recommendations tailored to women. Information will be collected, processed and managed at the local and regional levels to strengthen articulation with national hydro-climatological networks. A needs assessment will be conducted to evaluate local capacities for a standard message service (sms) -based EWS and climate services. Thus, communities will have concrete information on threats and potential territorially appropriate risk reduction and mitigation measures. In coordination with Ecuador's National Institute of Meteorology and Hydrology (INAMHI) and IDEAM, the project will identify climate information gaps in the border region and establish monitoring stations in strategic areas as necessary.

Emergency preparedness and response (EPR) trainings with regional community leaders and government officials as well as women, youth and community elders, will ensure that the appropriate territorial institutions will have the capacity to respond to the threats identified in the climatic studies and interpret and implement EWSs in local contexts. All trainings will be coordinated with national disaster management authorities. All scientific information will be customized to Afro and Awá community needs and the EPR trainings will involve traditional and local knowledge on emergency response and mitigation measures. Scientific

information and workshops will be translated into local languages in easily understandable materials, depending on literacy levels.

Importantly, under this component, climate change adaptation and risk management will be incorporated into territorial planning. The plans will be adjusted to prioritize adaptation measures including appropriate budgets, in accordance with national climate scenarios and vulnerability analyses that are part of the National Communications on Climate Change to the IPCC. This will support decision-making in both countries, the effective implementation of adaptation measures and the incorporation of lessons learned from local authorities and the Ministry of the Environment and Sustainable Development in Colombia and the Ministry of the Environment in Ecuador. This component will additionally promote coordination between local, regional and national authorities to guarantee project sustainability and replicability.

Outputs 2.1.1. and 2.1.2. will build a portfolio of scientific information on climate change threats and risks at the micro-watershed level, with a focus on binational mangrove forests. The project will analyze gaps in climate knowledge on the micro-watershed level and then fill these gaps, considering: climate variability and extreme events (local climate scenarios in the short, medium and long-term); water provision and hydro-climatic risks in the two binational watersheds important for irrigation and aqueducts; and an analysis on how native crops important for dietary diversity will shift along altitudinal lines due to increasing temperatures. Climate and environmental baseline scenarios will be carried out at watershed level will analyze the level of ecosystem degradation and vulnerability to climate change threats, complementing existing national-level analyses.

Output 2.2.1. will focus on enhancing institutional capacity through improved climate services and climate information generated in ***Outputs 2.1.1. and 2.1.2.***, targeting binational institutional leaders, not only in the Afro and Awá communities but also territorial governmental entities, including the Autonomous Decentralized Government (GAD) of Carchi and technical agencies like Corponariño, the Autonomous Environmental Authority of Nariño. Binational EWS targeting the micro-watershed level will be strengthened by filling climate information gaps using seasonal forecasts, agro-meteorological data, and vulnerability mapping networks. Weekly and monthly radio bulletins (a total of five per month) will reach isolated communities in both Spanish and awapit, the language of the Awá. A community participatory agro-climatic climate services focused on the timing of crop planting and harvesting cycles will be developed jointly with the Afro and Awá, in accordance with their traditional experiences. These participatory climate services will monitor climate risks related to the following variables: shellfish productivity, crop growth, diversity and the cropping cycles. A needs assessment will be performed to analyze gaps in current information available to communities and the preferred medium for communication (radio, sms, etc).

Output 2.2.2. will conduct EPR trainings with regional community leaders and government officials in the Mira-Mataje and Guaitara-Carchi watersheds, with at least 120 community leaders trained. These trainings will be coordinated and implemented jointly with the National Risk Management Secretariat (SGR) in Ecuador and the National Risk Management Unit (UNGRD) in Colombia. They will link agricultural production with hydro-climatic threats, in order to build local capacity to identify and mitigate the impact of emergency situations. Mapping tools such as GIS will be used to view the potential social impact of natural disasters on the Awá and Afro-descendent populations. Activities with

leaders will also include participatory agro-climatic assessments and analysis of climate predictions and crop vulnerability at the local level, in order to build local capacities to conduct such assessments and disseminate results as a preventative mechanism and improve decision-making.

Output 2.2.3. will prioritize adjusting territorial planning with a food security and nutrition and climate change adaptation perspective, allowing local authorities to innovatively address climate threats through their governance structures, in line with national plans and priorities***.*** Lessons learned from adaptation actions in the territories will be gathered and shared with local authorities as well as the national governmental officials. Advocacy for including appropriate funding levels will form part of the projects sustainability strategy. Examples of possible plans include: Life Plans of the Awá, Territorial Development Plans of Carchi, Esmeraldas and Nariño, as well as Watershed Management Plans.[60] This activity targets binational community leaders as well as local authorities responsible for the development of the above political frameworks.

TABLE 3
Studies and Analyses in Component 2

Study Theme	Description
Climate	A gap analysis to identify the information needs in priority micro-watershed territories, involving local and regional institutions
	Analysis of climate variability and extreme events in the binational watersheds- both on the coast and in the Andean region, considering local climate scenarios
	Analysis of water provision and hydro-climatic risks in binational watersheds important for irrigation and aqueducts, to identify the most at-risk areas to climate variability. Special consideration will be paid to threats and risks in dry forest and mangrove ecosystems. This includes a multi-temporal analysis of land-cover as well as identification of risk scenarios or landslides flooding and forest fires
	Analysis of native crop risk to changing temperature regimes in binational watersheds. This includes an analysis on how native crops and shellfish important for dietary diversity will shift along altitudinal lines due to increasing temperatures
Baseline	Baseline scenarios and ecosystem status analyses carried out at binational watershed level

3) **Component 3:** Reduce recurrent climate vulnerabilities through innovative community- and ecosystem-driven adaption measures that reduce food insecurity

Objective: *Strengthen adaptive capacity of highly food insecure communities to reduce climate risks and food insecurity and improve community resilience in targeted populations through concrete adaptation measures*

This component will support community identification, planning, and implementation of concrete adaptation actions to enhance resilience to climate and environmental threats. Afro

[60] In the project area, Corponariño- has developed POMCAs in the Alto Mira and Guiza watersheds

and Awá territories are vulnerable not only to climate change and climate variability, but also to environmental damage from illegal commercial activities and the former conflict. While concrete adaptation activities are a means to improve ecosystem service provision, binational watersheds communities lack the capacity to implement large-scale conservation initiatives in their territories. All concrete adaptation activities will respond to the climate threats identified in component 2 and involve the participation of community youth, women and elders. In line with these climate threats and local priorities, communities will select from a portfolio of feasible concrete adaptation activities, which link scientific and traditional and local knowledge of Afro and Awá populations. These activities will be designed with support from local technical experts, including local universities, scientific research organizations and territorial government entities to ensure high technical capacity.

By focusing on activities that strengthen environmental integrity and productivity, this component will help construct resilient ecosystems and agricultural systems, improve ecosystem service provision and strengthen institutional and community capacities to implement such measures even after the project end-date. This component will thus enhance natural resource and ecosystem integrity and integrate traditional and local knowledge for adaptation and contribute to reconciliation and peace-building.

A methodology that interfaces scientific and traditional knowledge will be developed in ***Output 3.1.1.*** with the participation of communities and scientific actors, in accordance with the Paris Agreement Article 7. ***Outputs 3.1.2., 3.1.3., and 3.1.5.*** use a CbA approach, focusing on linking traditional and local knowledge with scientific information for climate change adaptation. Community members will engage in the following activities: introduction of community water harvesting, storage and management measures, recovery of traditional medicinal plants and sustainable land management practices, cultivation of traditional products like cacao, banana, chiro, chilman, beans, corn, yuyo, chiangua and papacun through the use of native seeds and traditional farming techniques and introduction of organic and agro-ecological crop production practices.

Community spaces will be created to encourage the production and sale of native seeds that are resilient to climate change and provide important nutrients for a diverse and healthy diet. Cost-benefit analyses of proposed adaptation measures will be conducted at the micro-watershed level to assess financial/technical viability of priority adaptation measures considering potential to reduce hydro-climatic risks on food security and nutrition (***Output 3.1.3.***). These adaptation activities will consider the climate threats and analyses in components 1 and 2, based on adjusted crop calendars considering climate variability and changes in rainfall patterns and temperatures (See Table 4). A methodology will be developed to interface scientific knowledge with traditional and local knowledge.

Outputs 3.2.1. and 3.2.2. consider an EbA approach, focusing on integrating culturally-sensitive scientific information into the design and implementation of adaptation actions such as rehabilitation and conservation of damaged land through reforestation, establishment of biological corridors and introduction of soil management activities, such as agro-forestry and native nitrogen-fixing species (see Table 4). These activities will align with national priorities and programmes for ecosystem restoration. Particular consideration will be paid to forest and mangrove rehabilitation through seed banks and nurseries for reforestation and forest rehabilitation. Communities will implement these measures jointly with technical experts from organizations such as Corponariño, decentralized autonomous governments and The Center for Tropical Agriculture (CIAT). These activities build on identified climate threats in

the binational watersheds and complement activities based in local and traditional knowledge above (Table 2). In the full proposal development process, incentives such as cash-based transfers (CBT) may be considered to incentivize the most food-insecure families to participate in project activities.

Lastly, a monitoring system will be established to ensure that project objectives are reached in an effective and timely manner (***Output 3.2.3.).*** Suitable environmental, social and economic indicators will be defined to track outcomes and measure the sustainability of prioritized community- and EbA adaptation mechanisms. This monitoring system will ensure compliance with territorial policies related to the use of sustainable agricultural production.

TABLE 4
Examples of Project Activities in Component 3

Sector	Ecosystem-driven	Community-driven
Water conservation	Establishment of protected areas around water sources in line with national and local government plans and priorities	Community water harvesting, storage and management
	Hydro-climatic early warning systems tailored to micro-watersheds	Sustainable forest management activities appropriated by communities for water provision
	Policies on sustainable fishing practices developed	Introducing non-invasive fishing practices (no dynamite, poison, etc)
Reforestation and restoration of degraded areas and protection of micro-watersheds	Restoration of degraded forest areas with climate resistant native species	Rehabilitation and restoration of degraded lands with agro-forestry and silvo-pastoral techniques
	Establishment of biological corridors	Greenhouses with mangrove and native tree seedlings for micro-watershed reforestation
	Soil management activities, including introduction of agro-forestry and native nitrogen-fixing species	Development of seed banks for native forest and crop species
		Community land protection activities, including live fences with native species
Introduction of climate-resilient species and agricultural practices	Introduction of organic and agro-ecological crop production practices	Traditional farming techniques and crop rotation
	Promotion of diversifying native species production and consumption	Production of resistant, native seeds for traditional products
	Integrated water management with technical experts	Community greenhouses and native seed banks
		Use of natural fertilizers
Commercialization and marketing of traditional species	Value added transformation actions Marketing assistance	Community spaces to sell traditional products, like medicinal plants, native crops and ocean products including shellfish

B. Innovative Solutions, Approaches and Technologies

As the border region is characterized by a multitude of challenges, innovative approaches that are sustainable and efficient are required. The proposed binational project has many pioneering aspects supporting the national strategies, international frameworks, geographical focus, targeted population groups and implementation mechanisms. The project's components have a potential to improve climate resilience, enhance levels of food security and nutrition, create economic opportunities, prolong peace, regenerate lost knowledge and provide an opportunity to combine scientific evidence with indigenous solutions.

The unique solutions provided by the project include: 1) leveraging climate and ecosystem services to strengthen community resilience with respect to food security and nutrition; 2) implementing solutions for adaptation, risk reduction and environmental recovery, combining traditional and local knowledge with scientific findings;[61,62] 3) strengthening culture and local economies by working with marginalized binational Afro and Awá communities to address their own climate threats and years of marginalization; 4) empowering women to be agents of climate change adaptation and identifying adaptation measures with gender considerations; and 5) using climate change adaptation as an approach for promoting reconciliation within watersheds impacted by the former conflict. In addition to the above, the following are the key features of the project:

- *Innovative approach* - This project creatively combines institutional and community empowerment to address the interrelated challenges posed by climate change and environmental degradation and their effect on food security and nutrition. The challenges of climate change and environment will be addressed through integrated approaches that promote resilience and peace-building. Strategically, introducing adaptation measures to support reconciliation and peacebuilding is ground-breaking, not only for Colombia and Ecuador but in and outside the Latin America and Caribbean (LAC) region. Knowledge and lessons learned from the implementation of the project can bring about a paradigm shift and be replicated and scaled-up in other regions.

- *Pioneering solutions* - Climate services will include the first binational EWS specifically tailored to Afro and indigenous community needs and government priorities in Colombia and Ecuador. Systems will be translated to local languages such as awapit, adapted to local hazard risks and used in community decision making for adaptation planning. The project will increase the number of meteorological stations in the project area that are able to record a larger number of meteorological variables possibly including solar radiation and wind speeds and direction, compared to conventional stations that only register precipitation data.

- *Generating climate information* – The project aims to expand and link regional monitoring networks with community risks, in order to improve both information quality at the national and global level and information access for decision making at the local level. These monitoring networks cover both mangrove and inland

[61] Berkes, F., Colding, J. and Folke, C. 2000.
[62] Bandaranayake, W.M. 1998.

ecosystems, allowing ecosystem detection of climate trends, anomalies and emergencies. Given the binational vulnerability to long term climate and short term weather phenomenon, and the importance of monitoring these events, the project proposes to strengthen and involve communities in the monitoring of marine indicators, providing valuable information for the Global Ocean Observing System (GOOS). The project will expand access to information that communities will be able to use for climate change adaptation planning, as the region has a low density of meteorological stations. New stations will integrate renewable technologies, to reduce their environmental impact and increase their long-term sustainability.

- *Capturing traditional knowledge* - This project will be the first initiative in Colombia and Ecuador which will use traditional knowledge from Afro and Awá communities for environmental conservation and adaptation planning.[63] In addition, the emphasis on reintroducing native species which are resilient in the face of diverse climate events will require a special focus on seed collection, propagation storage and dissemination. Other, similar efforts have only disseminated hybrid seeds, which in some cases has affected the ownership and sustainability of agricultural activities.

C. Economic, social and environmental benefits

Afro and Awá communities in the binational watersheds are vulnerable to the impacts of climate change and climate variability, with already evident damage to their livelihoods, and food security and nutrition. By rehabilitating degraded and disaster-prone areas through an EbA approach, vulnerable populations will have better access to ecosystem services and safe water that will improve well-being and nutrition outcomes. Using community participatory planning, reinforced with culturally and gender sensitive climate information, this project will inform in local adaptation as well as peace building, which are mutually reinforcing. The project will follow 'do no harm' principles and avoid any processes or activities that will fuel tensions in the binational territories. Enhanced local adaptive capacities will improve risk management and livelihood stability in the face of natural disasters and empower communities to cope with climate change.

The project will promote inter-sectorial coordination and territorial collaboration in line with binational agreements to ensure that economic, social and environmental benefits are integrated at all steps of project design and implementation. In the absence of this project, the baseline scenario would see continuing deterioration in ecosystem integrity and household food security and nutritional status, which could erode territorial stability in the post-conflict phase, affecting both sides of the border.

Economic benefits
Agricultural and productive activities occur in approximately 40 percent of the binational watersheds. Rising temperatures, decreasing precipitation, the increasing frequency of extreme events in micro-watersheds and sea level rise that floods agricultural lands threaten the sustainability of territorial agricultural economies through: 1) reduced crop yields of cacao and plantains; 2) reduced water access for livestock and human consumption; 3) reduced access to ecosystem services, including marine products; and 4) reduced market access due to flooding and landslide events. Through agro-forestry, agro-climatic early

[63] Ministerio del Medio Ambiente y Desarrollo Sostenible

warning systems and ecosystem rehabilitation with native species, the project will increase incomes in the short and medium term, generating the following economic benefits:

1. Reduction in harvest and post-harvest losses and waste due to lack of information on temperature/rainfall patterns
2. Increased capacity to diversify planting and other livelihood strategies, considering climate variability through improved access to agro-climatic information from EWSs
3. Improved incomes from the cultivation, transformation and sale of native crops and products in regional markets based on feasibility studies
4. Reduction in outmigration due to increased livelihood opportunities

Environmental benefits

Binational watersheds are vulnerable to the over use and degradation of soils, as 22.5 percent of the Mira watershed faces soil degradation and 4.3 percent registers soil over-use.[64] Thus, ecosystems are more vulnerable to climate threats and increasing climate variability through: 1) reduced absorptive capacity of ecosystems during extreme rainfall events; and 2) lowered ecosystem service provision of degraded ecosystems. Through reforestation of 3,000 ha of forest and 2,000 ha of mangroves as well as forest restoration and water conservation activities, Afro and Awá communities will prosper from the following benefits:

1. Reduction in erosion and soil loss due to extreme climate events
2. Increase in reforested and protected areas and forest related ecosystem services
3. Conservation of biodiversity
4. Rehabilitation of mangrove areas threatened by environmental degradation

Social benefits

This project prioritizes women and vulnerable ethnic populations, which is in line with the Paris Agreement and the Constitutions of Colombia and Ecuador. Afro and Awá communities have faced historic marginalization, damage to their lands from climatic and anthropic events as well as adverse impacts from Colombia's armed conflict. As mentioned above, in Afro and indigenous communities, women are particularly at risk due to gender inequality, gender-based violence and cultural barriers that affect their food security and nutrition. Despite comprising more than half the population, women have not yet achieved equality in the economic, social, political and cultural power structures of Colombia and Ecuador. The project will contribute to gender equality, through strategies to empower women and girls with concrete commitments to ensure equal rights, access and opportunities for participation and leadership in the project and in community decision-making.

The project will make a concerted effort to reduce the historical marginalization that has affected both Afro and Awá populations in the shared border regions of Colombia and Ecuador. In accordance with the Lima Work Programme, the project will proactively integrate gender-responsive climate actions and culturally sensitive programming through: a) training and awareness-raising for Awá and Afro female and male participants on issues related to climate change, culture and gender; and b) recovering traditional and local knowledge for natural resource management and food security and nutrition (Component 1). Through these actions the project will generate the following social benefits:

[64] According to WFP Colombia research team, 2016

1. Full participation of Afro and Awá women in decision-making process for identifying, planning and implementing climate change adaptation strategies and actions
2. Strengthened community organization and social cohesion
3. Increased capacities of women, youth and elders to rehabilitate and manage natural assets
4. Diversified diets and improved nutrition through the promotion of native species and traditional dietary practices
5. Contribution to reconciliation and peace-building
6. Improved water access and quality for human consumption, crop production and animal use

D. Cost-effectiveness of the regional approach

The project is cost-effective[65] and the regional approach supports cost-effectiveness in the following ways:

- *Resource efficiency* - Implementing concrete adaptation activities with community ownership is cost effective when properly executed and is the most sustainable means to achieve scalable and long-term results within the border watersheds. The cost-effectiveness of concrete adaptation activities, as outlined in Component 3, will be enhanced through a detailed cost efficiency analysis for each adaptation measure, using a methodology developed by WFP, which compares measurable outcomes with feasible options and risk analyses. This community-level analysis will help ensure that the most cost-effective options are implemented during project design and implementation.

  A financial feasibility study will be carried out to assess how to improve the profitability of marketing traditional and local species and products. The proposed project will build on and complement activities with the focus on food security and adaptation approaches such as CbA and EbA to address climate change threats. Through a regional approach, the co-benefits are doubled as one set of resources generate productive outcomes for two countries, which individual projects would have achieved using twice the resources (human as well as material resources).

- *CbA* - According to a study,[66] CbA makes strong economic sense, leading to social, environmental and economic improvements even in a volatile and evolving environment. Projects in communities in Kenya showed that "investing £1 ($1.68) in CbA generates between £1.45 ($2.44) and £3.03 ($5.09) of wealth for communities. In the most conservative scenario, the costs of intervention were still 2.6 times lower than doing nothing to counter the impacts of climate change and extreme events (and then having to respond to disasters)."

- *EbA* - Enhancing ecosystems resilience can restore natural protection against extreme climatic events. Several studies have suggested that EbA measures result in a greater ratio of benefit/cost compared to the implementation of hard

[65] Based on the project's preliminary budget
[66] Community-Based Adaptation In Practice: A global overview of CARE International's practice of Community-Based Adaptation (CBA) to climate change

infrastructure. EbA can complement, or be substitute for, more expensive measures to protect vulnerable settlements and sectors.[67] For example, as natural buffers, ecosystems are often cheaper to maintain, and often more cost-effective than physical engineering structures such as dykes or concrete walls.[68] A cost-benefit analysis of all EbA activities will ensure the long-term financial sustainability of project activities and outcomes.

- *Optimizing geographical reach* - Working at territorial levels will allow the regional project to reach approximately 30 additional communities in comparison with individual country projects. This project will determine the most efficient routes to access remote areas, facilitating access to populations that migrate across the border. WFP sub offices located on both sides of the border are familiar with various logistical options that will generate cost savings, such as accessing remote areas from either Colombia or Ecuador, depending on input and transport costs and exchange rates at the time of implementation. Additionally, cross border actions will allow both countries to share information and avoid duplication.

- *Multiple co-benefits* - Protecting and enhancing ecosystems and biodiversity can provide social, economic and environmental benefits.[69] The multiple-benefits offer the opportunity to integrate adaptation priorities with development processes, importantly the new Sustainable Development Goals and Agenda 2030, addressing many of the concerns identified by the most vulnerable countries and people. The regional project will not only lead to more resilient systems, but also to the development of new jobs and new ways of thinking for the community as well as national policy makers. In this sense, the project will lead to a win-win situation through adaptation, where strategies will address multiple objectives aimed at minimizing anthropogenic stresses that have degraded the condition of critical ecosystems, enhancing ecosystems resilience, reducing vulnerability and supporting human development.

- *Building national and regional capacities* - Working with binational territorial and regional institutions increases efficiencies and builds long-term capacities to respond to climate-change related disasters. The economic benefits generated from project interventions will be significant when compared to the initial investment, especially when considered over the next decades. The project will also address the issue of ad-hoc and small scale adaptation efforts through its binational watershed approach. The integrated focus on the management of natural resources, processes to recover ancestral knowledge to reduce and mitigate climate change related risks, and opportunities for income generation actions will increase the cost effectiveness (by using one set of resources to generate a menu of actionable solutions for communities in both countries) and local acceptability of the project. Strategically located adaptation assets, meteorological stations and early warning systems will lead to broader coverage and impact resulting in half the investment in time, resources and manpower (using one regional project for conducting analysis, baseline and installation than two separate projects).

[67] World Bank. 2009.
[68] Colls, et al. 2009.
[69] Piran, et al. 2009.

Coherent approaches at a watershed and binational level will help eliminate externalities and result in economies of scale which could be lifesaving in the case of responding to emergency situations. Finally, improvements in nutritional status generate savings for the family, community and national economies, especially if measured in disability adjusted life years (DALYs). As well, nutrition outcomes are crucial for achieving not only Sustainable Development Goal 2- Zero Hunger, but all other goals in the Agenda 2030.

E. National and subnational strategy alignment

The project supports binational and national climate change, development, food security and nutrition, and peace objectives in Colombia and Ecuador. Aligning with these objectives are a number of strategies and plans, including: the Binational Plan for Border Integration 2014-2022, the Colombian National Plan for Climate Change 2012-2018 and the National Climate Change Adaptation Plan (PNACC), Colombia's National Development Plan, the Ecuadorian National Strategy for Climate Change 2012-2025 and the Ecuadorian National Plan for Good Living. Relevant binational, national and territorial plans which the project will complement and support are presented in Table 5, with alignment identified at the component level.

The Governments of Colombia and Ecuador have developed a Neighbor and Integration Commission in order to more effectively coordinate binational agendas, initiatives and priorities. Under the framework of this commission, there are the following Binational Technical Committees: 1. Border affairs, 2. Energy and Infrastructure, 3. Environmental affairs, 4. Economic and Commercial affairs and 5. Social and Cultural affairs. This project aligns specifically with the Border affairs, Environment affairs and Social and Cultural affairs committees through its emphasis on environmental protection, rescuing traditional knowledge and promoting cross-boundary watershed management.

The project also aligns and supports the Environmental and Cultural Territorial Plan for the Awá and their local information collecting initiative, Traditional Knowledge Associated with the Conservation of Biodiversity.

Lastly, the proposed project supports WFP's global mandate and the following strategic objectives: SO2 which supports food security and nutrition and rebuild livelihoods in fragile settings following emergencies; and SO3 which reduces risk and enables people, communities and countries to meet their own food and nutrition needs. The project also aligns with: Sustainable Development Goals 2 (Zero Hunger), 5 (Gender Equality), 13 (Climate Action) and 17 (Partnerships for the Goals).

TABLE 5
Examples of Select Relevant Policies and Links with Project Components

BINATIONAL		
BINATIONAL	***Binational Plan for Border Integration Ecuador-Colombia 2014-2022*** *promotes poverty eradication, peace and territorial integration for the Border Integration Zone Ecuador-Colombia (ZIFEC).*	***Components 1, 2 and 3***
BINATIONAL	***Binational Development Plan Colombia-Ecuador*** *guarantees the rights of nature and promotes global and territorial environmental sustainability, mitigation and adaptation measures to reduce economic and environmental vulnerabilities.*	***Components 1, 2 and 3***
BINATIONAL	***Life Plan of the Grand Family Awá*** *recognizes the link between food security and nutrition and climate change and promotes the recovery of plants used in traditional medicine, ancestral farming practices and native seeds, as well as commercialization of native species.*	***Components 1 and 3***
NATIONAL		
Constitutions		
COLOMBIA	***Colombian Constitution (1991):*** *Article 80. Establishes as a duty of the State management of the planning and use of natural resources to ensure sustainable development, conservation, restoration and replacement. Chapter XI establishes the Rights of Indigenous People in Colombia. Specifically, Article 7 establishes that the State recognizes and protects the ethnic and cultural diversity of the Colombian nation*	***Components 2 and 3***
ECUADOR	***Ecuadorian Constitution (2008)****: Article 414 mandates that the State shall take appropriate and transversal measures for climate change mitigation and protect the population at risk. Chapter Four establishes the rights of communities, peoples and nations. Specifically, in Article 57, the Constitution outlines the right of Afro and Indigenous populations to freely uphold, develop and strengthen their identity, ancestral traditions and forms of social organization.*	***Components 2 and 3***
National Development Plans		
COLOMBIA	***The National Development Plan 2014-2018*** *defines peace as an opportunity to reduce the economic and environmental impacts from the armed conflict and generate social benefits for affected populations to drive sustainable use of natural resources and climate change mitigation and adaptation. This plan aims to strengthen the synergies between adaptation and mitigation, based on socio-ecosystem adaptation and resilience in sectorial and territorial planning. Importantly for this project it also sets the Goal of Zero chronic malnutrition in Colombia and identifies the importance of territorial and differential approaches with a strong focus on ethnic populations.*	***Components 1, 2 and 3***

ECUADOR	***The National Plan for Good Living 2013-2017*** *aims to promote the adaptation and mitigation of the variability of weather and climate with an emphasis on climate change. Several of the objectives of the plan are to build spaces for social interaction and strengthen national identity, diverse identities, pluri-nationality and interculturality, to guarantee the rights of Nature and promote environmental sustainability globally and to foster social and territorial equity, cohesion, inclusion and equality in diversity.*	***Components 1, 2 and 3***
National Climate Change Policies		
COLOMBIA	***The National Plan for Climate Change Adaptation (PNCC)*** *promotes the incorporation of climate change in agriculture, energy, transportation, housing and health sectors. Overall, it seeks to identify risks to climate change and prioritize actions to reduce vulnerabilities.*	***Components 1, 2 and 3***
ECUADOR	***The National Strategy for Climate Change (ENCC) through Ministry Agreement 095*** *promotes the incorporation of climate change and risk management in different economic sectors to enhance emergency preparedness, response and recovery capacities. The GADs present their plans, programs and strategies for climate change to the national government for approval in order to be incorporated into the national climate change plan.*	***Components 1, 2 and 3***
National Low-Carbon Development Policies		
COLOMBIA	***Strategy for Low Carbon Development and the REDD+ Strategy*** *encourages regional planning processes to prepare for and mitigate climate-related disasters and promote conservation and protection of natural ecosystems. This strategy holds Colombia to reduce carbon emissions by 20 percent under baseline by 2030.*	***Components 2 and 3***
ECUADOR	***Ministerial Agreement 033*** *promote the use of* ***REDD+*** *in national development mechanisms to reduce national carbon emissions.*	***Component 3***
LOCAL AND TERRITORIAL		
COLOMBIA	***The Safeguard Plan of the Awá*** *promotes education, health, inter-generational communication and cultural exchanges between different age groups. This plan identifies key priorities for the Awá, including food security and nutrition, human rights and mitigating environmental damage from the armed conflict and illegal economies. The plan emphasizes the important role that political autonomy and cultural development and preservation play in responding to external threats.*	***Components 1, 2 and 3***
COLOMBIA	***The Ethno-Development Plan of RECOMPAS*** *promotes political consolidation, human development and sustainable use of natural resources. This strategy is based on identity, sustainable human development, peace and coexistence and institutional and organizational capacity building.*	***Components 1,2 and 3***
ECUADOR	***Organic Code on Territorial Organization, Autonomy and Decentralization*** *supports the strengthening of decentralized government organizations to promote equitable sustainable development with community participation and empowerment.*	***Components 1, 2 and 3***

ECUADOR	***Life Plan of the Federation of Awá Centers of Ecuador (FCAE) -*** *outlines the objective and activities of FCAE, emphasizing the conservation of biodiversity and territorial strengthening as well as health and education*	***Components 1, 2 and 3***

F. Meeting relevant national technical standards

The proposed interventions will adhere to all national technical standards in both Colombia and Ecuador, particularly those relating to concrete adaptation measures, including mangrove protection, reforestation, water conservation and crop loss reduction. 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 the relevant national technical standards:

1. Ministry of the Environment and Sustainable Development (MADS) - Colombia
2. Ministry of the Environment (MAE) - Ecuador
3. The Autonomous Regional Environmental Authority of Nariño (CORPONARIÑO)
4. Autonomous Decentralized Governments of Carchi and Esmeraldas

The necessary safeguards will be incorporated into project design through environmental and social assessments and during implementation through the monitoring and evaluation components. The project will also 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 marginalized populations or harm the environment.

G. Duplication

During the design process, all stakeholders including donor- funded projects were consulted, in order to avoid any potential duplication of efforts, resources or geographical coverage and to ensure synergy between the ongoing initiatives and the proposed project. While Colombia and Ecuador both have a range of climate initiatives in place, there is a clear gap in CbA and EbA projects with a focus on food security and nutrition in Afro and Awá communities in a binational context. A review of current projects in the binational watersheds shows that there is no duplication of the proposal with other multinational, trans-boundary or national organizations. However, this project will strengthen and build on current and former initiatives and activities and territorial development plans that relate to climate change adaptation, food security and nutrition and peace:

The project will complement *The Plan Contract-Nariño.* This agreement between Colombia's national and Nariño department governments aims to strengthen territorial capacities to promote sustainable development by reducing inequity and Unmet Basic Needs in targeted sub-regions, including parts of the border area with Ecuador. This project promotes sustainable agricultural practices and water management, with a budget of US$112,797,992

for five years, ending in 2017. The proposed project will build on and complement Plan activities with the focus on food security and adaptation approaches such as CbA and EbA to address climate change threats.

The proposed project will coordinate and learn from other border initiatives including the Catholic Relief Services *Borderlands Coffee Project*, which targeted smallholder coffee farmers on both sides of the Colombia-Ecuador border. Also the project will coordinate with UNDP's small-scale work at micro basin level with the Awá to see how to replicate best practices at a larger scale.

In Ecuador, the Global Environment Facility project Ada*ptation to Climate Change through Effective Water Governance in Ecuador* will provide vital lessons learned on effective water conservation techniques with local communities. Lastly, this project will build on Conservation International's *Chocó-Manabí Conservation Corridor* project, which focused on territorial and cross-national environmental conservation to enhance ecosystem provision for marginalized communities. As well, lessons from the Ecuador Adaptation Fund project- "Enhancing Resilience Of Communities To The Adverse Effects Of Climate Change On Food Security, In The Province Of Pichincha And The Jubones River Basin" implemented by WFP, and identified through a midterm evaluation will be incorporated into the full project design and implementation.

H. Learning and Knowledge Management

The project will emphasize the collection, analysis and dissemination of lessons learnt and best practices that might be beneficial to the design and implementation of similar future projects. Key outputs of the proposed intervention include knowledge generation as well as increasing capacities. Specifically, under *Output 1.1.3.,* cultural spaces will be developed in Afro and Awá communities for elders and youth to engage in inter-generational dialogue about traditional practices for land management and food security and nutrition. Best practices on adaptation and risk reduction will be characterized and disseminated bi-nationally through the learning platform. (*Output 1.2.4.).* Study results on traditional knowledge as well as scientific climate vulnerability analyses will be shared at the community level in a culturally-appropriate manner, translated into local languages as required, as well as regionally and binationally (*Outputs 1.2.3. and 1.2.5.*). Early warning and climate information generated through scientific and economic analyses will be tailored to Afro and Awá communities and translated to the local context and disseminated broadly.

The creation of a knowledge-sharing platform to distribute climate research and analyses will streamline information-sharing, avoid duplication and extra costs and empower leaders and stakeholders at all levels to improve their strategic decision-making. By disseminating climate information to community leaders, regional decision makers and scientists, the project's investment will reach a wide audience and generate benefits for the entire LAC region. The project will also emphasize the generation, analysis and dissemination of lessons learned and best practices, with particular attention to adaptation responses most appropriate for indigenous and ethnic communities. Attention will be given to capturing the effectiveness of culturally sensitive adaptation approaches. Best practices will be shared through the binational knowledge platform as well as through local workshops and events. Of particular interest is capturing, documenting and sharing traditional knowledge and practices and their support for mitigating and improving food security and nutrition.

Furthermore, gender and adaptation approaches in culturally sensitive contexts will be documented and attention will be paid to documenting how CbA activities impact society and create an environment of harmony and contribute to peace building. Lessons and case studies will be disseminated within and beyond the project intervention through:

- Existing national information-sharing networks and forums
- Public media articles in both national print and electronic media
- Local media news in local language

Where possible, there will be close collaborations - including national and regional workshops - with the Ministries of Environment of Colombia and Ecuador for national capacity building. Through partnerships with universities and research institutes such as University of Nariño, Colombia, CIAT and the State University of Carchi, lessons learned will be documented through the lens of national development policies and strategies. These policy documents will enable both governments to better plan rural development interventions keeping in mind existing community knowledge and EbA approaches for climate change adaptation planning.

I. Consultative process

WFP has worked in close coordination with MADS in Colombia and MAE in Ecuador to develop this project concept in support of binational and regional policies related to climate change adaptation, development, marginalized populations and peace. WFP held two bi-national meetings with government counterparts to share views on the concept, and to jointly identify priorities for the development of the concept note. This process was complemented by a series of bi-weekly and/or monthly meetings with stakeholders at national, departmental and territorial level. In addition, WFP sub offices held meetings with other relevant actors including NGOs and UN Agencies to discuss ongoing sectorial activities and experiences relevant to the project strategy.

WFP engaged in a series of discussions with leaders of the Grand Family Awá, CANE and RECOMPAS to understand their perceptions of climate threats, their perceived vulnerabilities and possible opportunities to engage with WFP. A second meeting was held to jointly identify their priorities for climate change adaptation, food security and peace under this proposed project. During these discussions, WFP worked with Afro and Awá leaders to identify priority adaptation measures and potential roles of key territorial stakeholders for the development of this concept note (See Annex 2).

The pre-concept note was circulated in Spanish to Afro and Awá leaders and decision makers for their review during their annual planning meetings. The draft concept note was also circulated to leaders for comments which were considered in this concept note. In the full proposal stage, WFP will continue to engage in a range of consultations and will focus more at the community level in order to obtain a detailed view of priorities, capacities and activity plans. These community-level consultations will include participatory perception exercises to capture the views of elders, adolescents, women, men and community leaders to understand local climate, environmental and social threats as well as adaptation opportunities and solutions.

J. Full cost of adaptation reasoning

Component 1: Increase community awareness and knowledge on climate change risks and food security and nutrition in two border binational watersheds

Baseline scenario

The governments of Colombia and Ecuador have solid political frameworks to address climate change and food security threats in their respective National Communications to the UNFCCC. As well, the binational agenda on border integration institutionally and conceptually lays out priorities related to climate change, food security and rural development. However, these measures fail to concretely address local adaptation to climate change challenges, especially in Afro and indigenous areas. As well, the important role that traditional and local knowledge plays in reducing community vulnerabilities to climate variability is not specified. Additionally, climate change adaptation measures in both countries typically focus on rural farmers rather than marginalized smallholders and those living in disperse watersheds.

The baseline scenario results in climate change adaptation measures continuing to be developed at the national level without leveraging local and territorial capacities and the exclusion of traditional and local knowledge to improve the range of adaptation options, especially in Afro and Awá communities. Without this project, traditional practices for environmental management and food security will not be systematized in a shareable manner and there will continue to be a lack of cultural spaces in which Afro and Awá communities can bridge cultural and inter-generational gaps to improve their nutrition food security and environmental management, and reduce the very real risks that climate change and vulnerability poses. Without this project, climate change adaptation initiatives in this region will face low local acceptability.

Additionality (with AF resources)

AF resources would support the recovery and integration of traditional and local knowledge to address climate change and food security and nutrition risks at the local level. The proposed project would facilitate this process by involving communities, particularly youth, elders and women, in planning and designing local solutions and collecting traditional practices for environmental management and food security and nutrition. Through a participatory planning process and cultural spaces to encourage inter-generational dialogue, Afro and Awá populations will be empowered to drive local solutions to respond to climate threats. Additionally, conducting a feasibility study on the marketing of native species and products to territorial, regional and national markets will encourage livelihood diversification and a stronger family economy. Such actions will help increase the adaptive capacity of communities and the resilience of their cultural traditions and livelihoods.

Component 2: Increase binational, institutional and community capacities to sustainably address recurrent climate risks, particularly those that affect food security and nutrition

Baseline scenario

Afro and Awá communities are particularly vulnerable to the impacts of climate change, specifically rising sea levels and temperatures and rainfall reductions. However, accurate information upon which to make critical livelihood decisions is not available and there is limited capacity to analyze, access and incorporate information. Accurate and specific climate information is critical to build capacity to adapt agricultural production to climate variability. While meteorological stations that record temperature and precipitation patterns exist, there is incomplete coverage and lack of capacity and political will to analyze data on a micro-watershed level. Importantly, information is not distributed to local communities due to a lack of local technical capacity. Furthermore, the private sector has little incentive to invest in these regions.

Even when climate scenario information is available on a national-scale, it is often not accessible by Afro and Awá communities because it is: 1) extremely technical and not customized to the micro-watershed level; and 2) not disseminated in local languages like awapit, the local language of the Awá. There is limited coordination between scientific actors and local decision-makers in Afro and Awá communities and local institutions lack the capacity to analyze climate information and make informed decisions on climate vulnerability adaptation mechanisms.

Scientific information also is not analyzed in conjunction with local knowledge and traditional practices to arrive at feasible solutions. Thus, projects tend to introduce solutions that are not traditionally appropriate in the context of Afro and Awá culture.

Additionality (with AF resources)

AF resources will be used to improve the scientific information on climate threats available to Afro and Awá communities in the border region. Specifically, the project's activities will support the compilation of a portfolio of climate studies relevant for the food security and nutrition of vulnerable populations. This climate information will be linked to communities through the development of participatory EWS as well as emergency preparedness and response trainings that are customized to prevention of local climate threats. All climate studies will be condensed and published in local languages and all trainings will be conducted with the participation of community leaders, elders, youth and women, in local languages.

By improving the delivery and accuracy of climate information for Afro and Awá communities, this project will enhance institutional capacity to respond to threats in a tailored, effective manner. This increases the adaptive capacity of local institutions and the resilience of their constituent communities. The project will undertake specific studies to identify feasible climate resistant species and other adaptation solutions, combining scientific information on threats with traditional practices. This integrated focus will strengthen Awá and Afro institutional structures to address climate threats at the local level. WFP will work with community leaders to update territorial development plans with aspects of climate change adaptation and food security and nutrition based on the information generated in this component, in conjunction with component 1.

As well, WFP will assist government entities in strengthening their threat, risk and vulnerability analysis capabilities by expanding its current Vulnerability and Analysis methodologies to overlay climate threats and monitoring changes in landscapes using GIS technologies.

Component 3: Reduce recurrent climate vulnerabilities through innovative community- and ecosystem-driven adaption measures that reduce food insecurity

Baseline scenario

Without the concrete adaptation actions proposed in this project, the baseline scenario would see continued deterioration in ecosystem service provision, food security and livelihood resilience. These trends will worsen in the long term as climate change risks advance, and in the short term with recurring ENSO threats. Unless concrete adaptation measures are developed considering traditional and local knowledge and implemented jointly with targeted communities, Afro and Awá vulnerability to climate variability and food insecurity will increase.

Additionality (with AF resources)

AF resources will be used to implement concrete CbA and EbA initiatives with local communities, contributing to adaptive capacity, food security, and nutrition and livelihood resilience. In the border region, there is a lack of understanding of appropriate and cost-effective adaptation measures for specific local contexts. Through cost-effectiveness analyses of the above adaptation approaches and actions, this project will customize adaptation measures to the local context leading to project efficacy, considering lessons learned from previous ENSO phenomena.

Another constraint is ensuring ownership of adaptation measures by Awá and Afro communities, as well as ensuring all proposed actions are in line with their culture and world vision. AF resources would support the transition from a focus on centralized planning to the implementation of concrete actions at the local level identified through participatory and culturally sensitive processes. While sector-specific projects are under implementation, they do not always promote an adaptation focus. They do not consider the impact on food security and nutrition which is a community and government priority. The proposed project would help make this transition by bringing together the Grand Family Awá, RECOMPAS and CANE with other territorial environmental entities to help implement the appropriate adaptation actions.

To promote food security and nutrition, four categories of adaption interventions have been identified based on meetings and planning sessions with Afro and Awá participation. These activities were prioritized based on a common understanding of climate threats and possible local responses to these threats with a focus on securing diverse diets and reducing malnutrition rates. They include: 1) promotion of diversifying native species production and consumption including through the introduction of organic and agro-ecological crop production practices; 2) reforestation and natural resource conservation measures; 3) commercialization and marketing of traditional species to enhance livelihoods; and 4) water conservation and protection of water sources to provide clean water for consumption and irrigation. These interventions will be based on climate threats identified under component 2 and traditional and local practices and priorities identified under component 1. They will promote food security and nutrition by enhancing ecosystem quality, improving community resilience, agricultural productivity and the diversification of local incomes, taking into consideration both short-term and longer-term climate threats.

An important adaptation benefit comes from understanding how climate threats will impact the targeted watersheds and the related vulnerabilities of communities to these threats in their cultural context.

It is anticipated that AF resources will help to leverage additional resources from government entities or binational resources, and that documented successes, combined with awareness raising, will promote local spontaneous adaptation responses to climate change threats.

K. Sustainability of the Project

Several concrete strategies will help to achieve scalability and sustainability of project approaches and actions after the project end date. The most important element for achieving sustainability is building processes to guarantee ownership by the Awá and Afro institutions who will be implementing the project. Thus, ensuring that project approaches are culturally sensitive and derived from consensus within these population groups will determine the success of the project. Another important sustainability strategy relates to the importance given to capacity building in component 2 and coordination between local, national and regional institutions. Building capacities at multiple levels to generate and disseminate relevant climate information and then integrate said information in local decision making processes will help ensure that a range of actors have a stake in promoting local adaptation actions. Capacity building and coordination at the territorial and regional levels will provide a number of benefits after the project end-date, including trained government and community leaders in EWS management and emergency preparedness and response actions. After the project end-date, trained officials will be able to transfer their knowledge to other regional leaders in and outside of the binational watershed territories. To make certain that project initiatives continue after the proposed end-date, all adaptation initiatives will be implemented jointly between technical experts and communities, leaving the technical expertise in the community post-2022.

This project reinforces the binational framework and plans and thus replicable actions can be transitioned to binational plans and then coordinated by governmental institutions after the project is completed. The governments of Colombia and Ecuador prioritize decentralization and the role of departmental governments in peace construction and adaptation to climate change. Thus, the project will emphasize updating territorial and regional development plans with a food security and nutrition and adaptation perspective. The project will work to ensure that priorities are clearly set and that funding is allocate so that future leaders will be able to expand the successful adaptation approaches to new areas with marginalized populations.

Under component 3, environmental sustainability of proposed adaptation approaches and measures will be enhanced through detailed feasibility analyses, considering environmental, social and economic factors. Communities will be able to choose from the portfolio of adaptation interventions based on the local context and the potential of an intervention to produce a positive environmental and economic impact. This participatory approach will leverage local support for project implementation and help ensure project sustainability.

L. Environmental and social impacts and risks

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	X	**Low risk, high impact** – Relevant national, regional and territorial authorities will be consulted during the proposal development process to ensure compliance with all relevant laws.
Access and Equity	X	**Low risk, high impact –**Through environmental, social and risk assessments, this project will ensure that no activity will interfere with access to basic services. This project will promote the equitable access to activities by youth, elders and women in targeted communities.
Marginalized and Vulnerable Groups	X	**Low risk, high impact –** Marginalized and vulnerable groups – specifically Afro-descendants and Awá populations - will be consulted during the proposal development process to ensure that their identified threats, priorities and mitigation measures are reflected. This project will empower vulnerable groups to make decisions on concrete adaptation actions, valuing their traditional and local knowledge. This project will create a space for women, elders and youth to choose adaptation activities in a transparent and participatory manner. Additionally, this project will take into account traditional hunting and gathering practices of local communities and land property and customary rights.
Human Rights	X	**Low risk, moderate impact –** This project affirms the rights of all people in the binational watersheds does not violate any pillar of human rights.
Gender Equity and Women's Empowerment	X	**Low risk, high impact –** Through targeted consultations with Afro-descendent and Awá women, project design and implementation will ensure that gender considerations are integrated in each activity, particularly in activities under components 1 and 3. This project will promote women leadership in public spaces and decision-making power for climate change adaptation and food security and nutrition. In project formulation, gender experts such as UN Women will be consulted to ensure that the project effectively responds to the unique needs of women and girls and promotes gender equity.
Core Labour Rights	NA	NA
Indigenous Peoples	X	**Low risk, high impact –** Extensive consultations and participatory planning events with the targeted indigenous people– the Awá- will ensure that the project appropriately incorporates the priorities and needs of this population in all activities. These consultative events will include a representative sample of the Awá community, including women, elders and youth as well as territorial leaders.
Involuntary Resettlement	NA	NA
Protection of Natural Habitats	X	**Low risk, high impact –** By implementing ecosystem-based adaptation activities such as reforestation, water conservation efforts, land rehabilitation and restoration of ecosystem service

		provision, the project will ensure the protection of natural habitats in binational watersheds. Natural water sources to be conserved through this project will be provided protection from contamination from livestock (e.g. live fencing).
Conservation of Biological Diversity	X	**Low risk, high impact –** By working with Afro-descendant and Awá populations to rescue traditional and native plants and crop species, this project will support the conservation of biological diversity and increase ecosystem resilience. To ensure that project activities do not impact territorial biodiversity, the environmental assessment under component 2 will map potential risks to biodiversity in the project area. Additionally, this project will promote the storage of traditional and native varieties' seeds in seed banks to protect biodiversity.
Climate Change	X	**Low risk, high impact –** All project components and activities contribute to increasing local capacities to face climate change in the long-term and climate variability in the short and medium terms. Through component 1, traditional and local knowledge on adaptation will be harvested and systematized. Under component 2, climate change threats will be identified on a scientific level and transmitted to local leaders to improve local capacities to adapt to a changing climate. Through component 3, concrete adaptation measures will increase community resilience to climate threats and improve ecosystem service provision and food security and nutrition of vulnerable populations.
Pollution Prevention and Resource Efficiency	NA	NA
Public Health	X	**Low risk, moderate impact –** The project will ensure that the targeted populations will not face restrictions to their access to public healthcare. In fact, this project rescues knowledge on traditional medicine and opens cultural spaces for community elders to teach youth about medicinal plants and practices. By conserving watersheds and water provision in binational ecosystems, this project will promote improved access to fresh water, reducing population vulnerability to water-borne illnesses. Complementary efforts (e.g. provision of mosquito nets where mosquito-borne illnesses are endemic) will ensure that communities avoid potential health hazards from project water conservation activities.
Physical and Cultural Heritage	X	**Low risk, moderate impact –** Under component 1, traditional and local knowledge will be rescued for environmental management and food security and nutrition and cultural spaces will be created to encourage the presentation of Afro-descendant and Awá heritage. Through component 3, the identified knowledge and traditions in component 1 will be used to build community resilience to climate change in a culturally-sensitive manner.
Lands and Soil Conservation	X	**Moderate risk, moderate impact –** Through the ecosystem-based adaptation actions in component 3, this project will aim to rehabilitate

		lands and restore degraded soils through natural regeneration, planting of native nitrogen-fixing plants and reforestation. To ensure that soil protection activities will not impact food security and nutrition in the short-term, this project will perform cost-benefit analyses of all concrete adaptation measures and perform mapping analysis to ensure that conserved areas will not inhibit important agricultural activities. Additionally, this project will prioritize local species and multi-species plantations and avoid the use of non-native and invasive species.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for project implementation

Project management, financial monitoring and reporting to the AF will be coordinated by WFP, the Multilateral Implementing Entity (MIE). WFP will provide technical, fiduciary and managerial support throughout all stages of project implementation. The project will be coordinated at the national level through WFP Country Offices in Colombia and Ecuador and through WFP sub offices at territorial level. Additional technical support will be provided by WFP's Regional Bureau in Panama as required. MAE, MADS and the Neighborliness and Integration Commission and Binational Border Commission will provide technical guidance for project implementation under their respective policies and programmes**.** Concrete roles and responsibilities will be clarified during full project development. Colombia's Presidential Coordination Agency (APC) will ensure appropriate involvement of key national actors**.** All emergency preparedness and response trainings will be coordinated with the National Risk Management Secretariat (SGR) in Ecuador and the National Risk Management Unit (UNGRD) in Colombia. The project governance structure will include territorial, departmental and provincial governments and promote coordination and articulation to ensure that all appropriate territorial entities are involved in planning, implementation and monitoring (See Figure 1).

A project management team will be constituted to support effective project implementation and coordination. This team will be composed of national level actors including MADS, MAE, WFP and Afro and Awá leaders. The team will integrate project strategies, approaches and activities in binational plans and strategies for border integration and territorial development plans. Specific project management team responsibilities include: reviewing annual work plans, following up with national authorities to ensure that technical standards are maintained, reviewing monitoring reports and ensuring alignment with the Environmental and Social Policy of the AF.

As the project aims to integrate local and scientific knowledge to better plan, design and implement adaptation responses, territorial execution will be managed by local Afro and Awá organizations, including the Grand Family Awá, RECOMPAS and CANE. These organizations are umbrella associations of indigenous and Afro territorial authorities and have existing binational coordination mechanisms, operating in the two countries. These organizations will implement concrete activities under components 1 and 3, such as the collection and dissemination of traditional knowledge for food security and ecosystem service restoration. Technical assistance will be provided by organizations such as Corponariño and UN Women (see Table 6), with support from the departmental, provincial and municipal authorities such as the Autonomous Decentralized Governments of Carchi and Esmeraldas. Through the full project proposal development process, exact beneficiaries numbers will be determined.

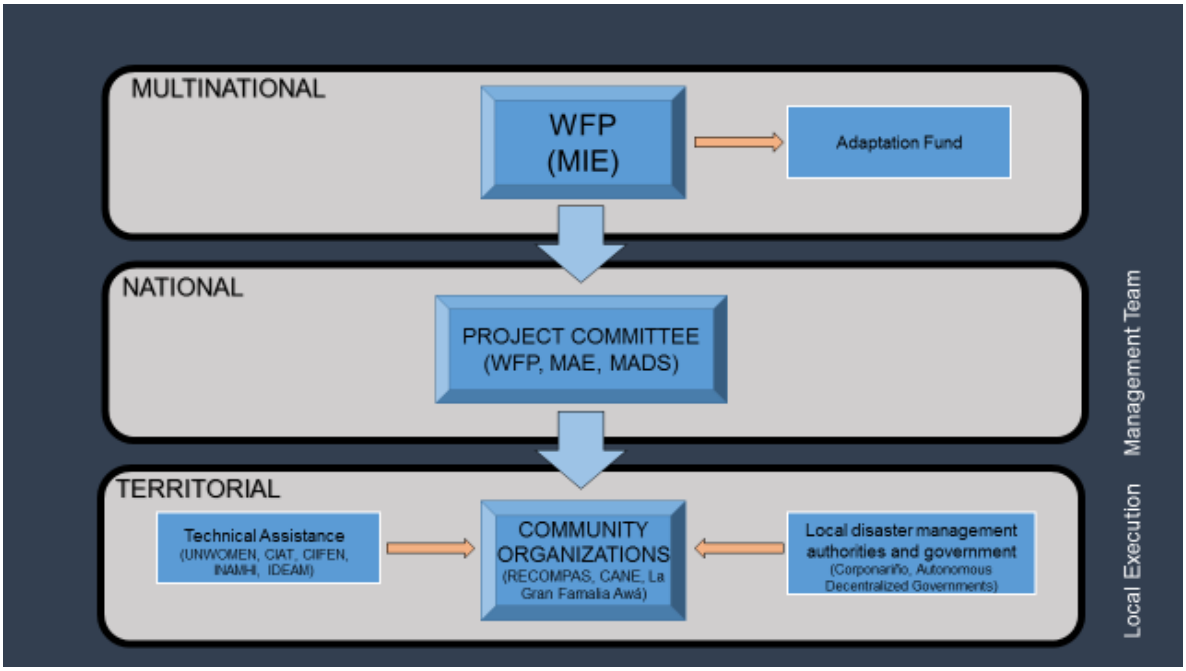
Specific departments and provinces within the two binational watersheds will be prioritized based on vulnerability to climate threats and food insecurity as well as border proximity and local capacity to implement large-scale adaptation activities. This

project will strengthen coordination among Afro and indigenous institutions and with national and local government institutions, promoting adaptation, peace building initiatives and the use of climate services to better prepare for disasters. The possible technical partners to accompany activity implementation under components 1, 2 and 3 are listed in Table 6.

TABLE 6
Examples of Possible Technical Actors and Links with Project Components

Country	Technical actor	Components	Role
Binational	CIAT	2	Climate information and mapping networks
	UN Women	1, 2, 3	Gender analyses, trainings and gender-sensitive adaptation programming
Colombia	Corponariño	2, 3	Early Warning Systems, seasonal forecasts, emergency preparedness and response trainings and the environmental impact assessments
	IDEAM	2	Climate, temperature and precipitation data for Colombia
	National Disaster Risk Management Unit (UNGRD)	2	Support to emergency preparedness and response trainings
	University of Nariño	1	Inventory on traditional practices and native plants and crops
Ecuador	International Center for ENSO Research (CIIFEN)	2	Seasonal forecasts and climate risk assessments
	INAMHI	2	Climate, temperature and precipitation data for Ecuador
	National Risk Management Secretariat (SGR)	2	Support to emergency preparedness and response trainings

FIGURE 1
Implementation Arrangements



B. Financial and risk management

Financial and project risk management measures will be assessed throughout project design and implementation. Potential risks and response measures are described in Table 7.

TABLE 7
Financial Risks and Response Measures

Risk	Category	Response Measure
Migration and abandonment of project by target populations.	Low	This risk is minimized by involving a wide range of national, regional and territorial actors as well as community members – men, women leaders, youth and elders –to take project ownership.
Changes in the Colombian and Ecuadorian governments may cause possible shifts in responsible persons for climate change adaptation initiatives.	Low	This risk is minimized through project coordination among stakeholders at national (MADS, MAE), departmental and local levels (Grand Family Awá, RECOMPAS and CANE).
Lack of territorial capacity to implement technical activities.	Low	The risk is minimized through the support of technical organizations like Corponariño, CIIFEN, IDEAM and CIAT, who have worked with Afro-descendants and Awá in the border regions in climate change adaptation, water management and agro-forestry. These entities will provide specialized assistance and technical capacity as required.

Scientific and technical information on climate change in the border region is incomplete	Medium	While precipitation and temperature trends in the border region are available, this information is raw and not analyzed. The project promotes the generation of scientific information, including micro-watershed vulnerability analyses and climate trend analyses.
Lack of coordination between different entities (regional, territorial and national governments).	Medium	By establishing a binational cross-sectorial project implementation team, communication between different stakeholders will be facilitated and streamlined.
Climate phenomena such as ENSO can lead to alterations in the scheduling of field activities or project implementation.	Medium	The border region faces extreme climate events each year, including impacts from ENSO. The rescue and replanting of native species resilient to climate variability (drought-resistant and flood-resistant strains) will help reduce this threats. Additionally, agro- and hydro-climatic early warning systems will reduce potential damage of extreme events.
Lack of local level information on climate information and threats.	Medium	Climate change awareness activities in local languages will take place with the executing entities before project implementation begins. These trainings will establish strong awareness at the community level on climate change threats.

C. Environmental and social risk management

Environmental and social risks will be measured and mitigated through the monitoring of specific indicators identified by environmental authorities and Afro and Awá organizations. These indicators will be incorporated in the project results framework. WFP Country Offices are responsible for tracking implementation progress and impacts on social and environmental concerns on a biannual basis. Given that the project emphasizes a participatory and transparent approach to activity selection and aims to reduce the vulnerabilities of communities and ecosystems to climate change in the two binational watersheds, there is a low risk of failure to comply with the Environmental and Social Policy of the AF (See Table 8). In line with the AF results framework, the following indicators will be measured: percentage of targeted population aware of predicted adverse effects of climate change and of appropriate responses, percentage of households and communities having improved access to livelihood assets and ecosystem services and natural resource assets maintained or improved under climate change and variability induced stress.

TABLE 8
Environmental and Social Risks and Response Measures

Risk	Category	Response Measure
Deforestation as a result of agricultural intensification.	Low	This risk is reduced by employing agro-forestry techniques as well as minimizing vegetation clearing and reclaiming wetlands, waterways,

		forests or woodlots. Land use will be matched to land capability.
Water-harvesting techniques such as water ponds result in contamination of groundwater from agricultural inputs and pose health hazards for the community through insect-borne diseases (malaria).	Medium	This risk is minimized through the following actions: 1) ponds will be located away from farm drainage and sewage lines; 2) ponds will be covered to prevent the proliferation of mosquitos; 3) ponds will be protected from contamination by livestock through fencing; and 4) communities will receive mosquito nets where malaria is prevalent and trainings on proper water management techniques.
Tree planting and reforestation activities impact local livelihoods and the rights of local people, and increase grazing pressure on nearby productive lands.	Medium	The risk is minimized by taking into account during project design traditional hunting and gathering practices of local communities and land property and customary rights. Additionally, this risk will be mitigated by working with local technical organizations to ensure adequate choice of species for reforestation activities and by prioritizing local species and multi-species (not monoculture) planting.

D. Monitoring and evaluation arrangements

Project monitoring and evaluation (M&E) will be carried out in accordance with WFP procedures, under WFP supervision. WFP will assume financial oversight of the project and provide information on a regular basis in conformance with AF operational regulations. To facilitate coordination on outcome monitoring and evaluation, project management team meetings will take place at least twice per year. During preparation of the complete project proposal a detailed and costed M&E plan will be developed.

In addition to quarterly reports, technical reports and a yearly financial audit, specific M&E activities to be undertaken include the following:

A **Project Inception Workshop** (IW) will bring together all stakeholders for project implementation within the first two months after project approval. Through this workshop, stakeholders and local leaders will build project ownership and identify priorities for first year of implementation. This workshop will involve local leaders and community youth, women and elders. A supervision plan will be agreed upon by relevant stakeholders during this workshop.

An **Annual Progress Report** (APR) will be prepared by the project management team and evaluate yearly project progress, using identified M&E indicators. The APR will identify yearly objectives and targets, lessons learned and risk mitigation measures, as well as relevant financial information.

A **Mid-term Evaluation** will take place at the mid-point of project implementation (October 2019). The MTE will determine progress made toward outcome achievements, assess financial, social and environmental risks and pinpoint corrective actions as required. It will

present initial lessons learned on project implementation and management. The findings of this review will be incorporated in a midterm report.

A **Final External Evaluation** (FEE) will be undertaken by the project team, WFP Country Offices and external consultants during the last six months of project implementation (September 2021 - March 2022). The FEE will analyze project impact and sustainability in improving binational capacities to reduce climate and food security and nutrition vulnerabilities. The findings of this review will be incorporated in a final report.

E. Results framework

Project strategy	Objectively verifiable indicators				
Goal	Reduce vulnerability and food and nutrition insecurity of Afro and Awá communities in the Mira-Mataje and Guaitara-Carchi binational watersheds to the adverse effects of climate change				
	Indicator	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
Impact: To reduce food and nutrition insecurity through climate change adaptation measures	Climate change vulnerability for mangroves, dry and humid forests ecosystems	Ecosystems rated as high vulnerability	Reduced ecosystem vulnerability	Ecosystem baseline scenario and follow-up study at end of project	Climate change measures are long-term and the project captures all changes in ecosystem vulnerabilities
	Dietary diversity score	Four items in household diet	Increased dietary diversity to seven items in household diet	Household surveys	Communities have access to diversified nutritious foods
	Binational capacity strengthening score	Adaptation and climate risks not in local plans	Institutions strengthened to incorporate adaptation and risk reduction measures in plans	Focus groups Final project report	Capacity-building is long-term and the project captures all changes in institutional capacity
Objective 1: Recover traditional knowledge and capacities to manage climate change risks and food security and nutrition in targeted Afro and Awá areas in the binational watersheds					
Outcome 1.1. Traditional and local knowledge recovered to support sustainable adaptation measures, food security and nutrition, and resilient livelihoods	Ancestral knowledge and practices recovered in support of adaptation and food security	Ancestral knowledge is being lost and not used in adaptation or development planning or implementation	By project end, ancestral knowledge and practices will be included in the design of adaptation measures and local planning	Focus groups Site visits Study on use of traditional species (baseline and end of project)	Communities willing to share traditional and local practices for adaptation and food security and nutrition

Output 1.1.1. One study per watershed produced on traditional and local practices, promoting resilience to climate change and variability in the targeted binational watersheds, with particular interest in ancestral and native plant and tree species that can improve dietary diversity and are resilient to climate change	Number of studies on traditional and native species	No studies related to traditional and native species and uses for resilience and dietary diversity	Two watershed-level studies produced on 1) tree and plant species resilient to climate change and variability in the binational watersheds; and 2) ancestral and native species that can improve dietary diversity and are resilient to climate change and variability	Monitoring system through community-level interviews	Communities willing to share traditional and local practices for adaptation and food security and nutrition
Output 1.1.2. Study produced on the feasibility of marketing native species for medicinal, artisanal, food and fodder related uses at regional, departmental and national levels	Number of studies on marketing traditional and native species	Limited knowledge on market opportunities for native species	At least three feasibility analyses of marketing native species	Monitoring system through community-level interviews	Communities willing to make available their traditional species for commercial purposes
Output 1.1.3. Workshops, dialogues and cultural events (for example fairs) organized to disseminate study results to 120 Afro and Awá communities, leaders and decision makers, in local languages. There will be equitable participation of men and women.	Number of events to disseminate information	No previous events to raise awareness and no existing use of traditional knowledge for adaptation and food security in the border region	At least 10 workshops and cultural events organized to share and disseminate study results with 120 Afro and indigenous communities, leaders and decision makers, in local languages There is an equitable participation of men and women.	Focus groups	Once information is shared, leaders at different territorial levels will use this information for planning purposes

Outcome 1.2. Traditional knowledge and adaptation practices integrated in community dialogues and decision-making processes	Traditional knowledge generated, disseminated and integrated into adaptation and development territorial planning processes	Traditional knowledge not used in adaptation or food security planning or activity implementation	By project end, ancestral knowledge will be incorporated into Life Plans, Safeguard Plans and Watershed Management Plans	Focus groups Site visits Updated territorial plans	Institutional capacity to introduce traditional knowledge in adaptation planning Outside influences do not reduce the importance of traditional knowledge and acceptability by communities Political will to update plans and processes
Output 1.2.1. In 120 communities, leaders, community members and women trained on climate change threats with culturally and gender sensitive methods. There will be equitable participation of men and women.	Number of communities and leaders trained Number of women trained	Limited awareness of climate change threats and impacts on gender	By project end, leaders and community members in 120 communities trained in climate change threats, using culturally and gender-sensitive methods There is an equitable participation of men and women.	Focus groups Surveys with community leaders	Community and leader participation in trainings is less than expected Communities agree to high levels of women participation
Output 1.2.2. Dialogues, fairs and exchanges involving 120 communities, leaders and community members on food security, nutrition and healthy living habits, considering climate threats, with special focus on diversifying diets and increasing incomes from the production and sale of native species and products. There will be equitable participation of men and women.	Number of communities trained Number of women trained	Limited awareness of food security, dietary diversity and diversifying livelihoods	By project end, 120 communities trained There is an equitable participation of men and women.	Focus groups Surveys with community leaders	Community and leader participation in trainings is less than expected Communities agree to high levels of women participation

Output 1.2.3. One binational web-based adaptation learning platform in use.	Number of learning platforms	Lack of information and learning sharing in binational watersheds	By project end, one binational learning platform in place and used by communities and local authorities	Community surveys Focus groups	Technical capacity to engage in the binational platform
Output 1.2.4. Compilations and sharing of best practices on risk reduction and risk management actions at binational watershed level, considering ecosystem type and emphasizing traditional and local knowledge.	Number risk reduction and management best practices Number risk reduction best practice sharing events	Lack of information on best practices in risk reduction and management in border region Lack of spaces to share knowledge on risks	By project end, twelve best practices compiled from each binational watershed on risk reduction and management By project end, one knowledge sharing event per watershed on risk reduction and management	Community surveys Focus groups	Community and leader participation in knowledge sharing events
Objective 2: Strengthen knowledge generation to effectively plan, design and implement adaptation responses in highly food insecure communities, considering emergency preparation and response actions					
Outcome 2.1. Increase scientific knowledge to manage climate change and risk, affecting food security and nutrition	Scientific studies tailored to binational contexts, considering traditional knowledge and community priorities	Limited scientific climate information accessible for Afro and Awá communities and decision-makers	By project end, 120 communities will have access to scientific climate risk information at the micro-watershed level	Monitoring system through community-level interviews	Scientific studies completed by external experts rather than community members
Output 2.1.1. Climate and environmental baseline scenarios carried out at watershed level analyzing level of degradation and vulnerability to climate change threats.	Number of climate and environmental baseline scenarios	No local baseline climate and environmental scenario available	By project end, one baseline climate and environmental scenario for each binational watershed	Baseline climate and environmental scenario reports	Information provided in a relevant form for communities to use Information incorporated into EWS

Output 2.1.2. Studies at the binational watershed level produced on: 1) water provision considering climate threats; 2) ecosystem vulnerability in the face of climate change and variability and extreme events; and 3) food security and nutrition in vulnerable communities.	Number of scientific studies	No knowledge of water provision and ecosystem threats due to climate change	By project end, at least one study on each of the following: 1) water provision and climate risks in two binational watersheds; and 2) ecosystem vulnerability due to climate change and variability and extreme events	Monitoring system through community-level interviews	Information provided in a relevant form for communities to use Information incorporated into EWS
Outcome 2.2 Risk reduction capacity of binational institutions and communities strengthened, including leveraging climate services	Disaster preparedness score	Limited disaster preparedness and response mechanisms	Disaster preparedness score equal to or greater than 7, indicating local government capacity in disaster preparedness ad food security information with WFP support	Focus group discussions Survey data on disaster risks Final project evaluation	Local government capacity increased sufficiently to manage climate change risks
Output 2.2.1 20 binational Early Warning Systems introduced, specifically tailored to inform the Afro and Awá communities about extreme events. Additionally, climate services will be introduced to include agro-meteorological data; vulnerability mapping, with a focus on crop yields and cycles; and climate risks in mangrove and high-mountain ecosystems.	Number of early warning systems Number of climate services	No Afro or Awá directed early warning systems or climate services for agro and hydro-climatic data	By project end, 20 systems in place and territorial organizations able to take appropriate response actions following protocols	Focus group discussions Site visits to see the EWS and climate services Final project evaluation	Technical community capacity to implement early warning systems tools and protocols as well as climate services

Output 2.2.2. 120 leaders trained in Emergency Preparedness and Response with disaster management authorities.	Number of EPR trainings	Limited Afro and Awá capacity to prepare or respond to emergencies	By project end, at least five trainings conducted targeting 120 leaders Training participants include equitable percentage of men and women	Site visits Community surveys	Information accepted by local communities and acted upon
Output 2.2.3. Climate change adaptation and risk management incorporated in regional and local planning instruments and budgets (ie Life Plans, Safeguard Plans, Watershed Management Plans, and Territorial Development Plans), considering national level plans and budgets	Number of adaptation plans with a vulnerability reduction and food security and nutrition approach	No adaptation plans for targeted communities with this focus	By project end, four Life Plans and Territorial Development Plans and budgets incorporate vulnerability reduction and food security	Adaptation plans Budgets	Willingness to adjust development plans
Objective 3: Strengthen adaptive capacity of highly food insecure communities to reduce climate risks and food insecurity and improve community resilience in targeted populations through concrete adaptation measures					
Outcome 3.1. Improved access to livelihood assets, enhanced resilience and reduced risks from climate shocks in food-insecure communities and households	Percentage of households and communities having more secure access to livelihood assets	Limited adaptive capacity in Afro and Awá binational watershed communities	By project end, 100 percent of targeted communities in the binational watersheds have reduced their risk to climate change and implemented concrete adaptation measures	Focus group discussions Survey data Final project evaluation	Activities planned taking into consideration community livelihood activities and without enforcing traditional gender roles Strong institutional coordination exists
Output 3.1.1. Methodology developed that interfaces scientific and traditional knowledge.	No methodologies produced	No methodology established	By project end, one methodology developed that is accessible to all targeted communities	Final project evaluation	Communities willing to make available their traditional knowledge

Output 3.1.2. Effective adaptation measures designed and implemented using methodology developed in 3.1.1. and incorporating traditional and local knowledge and the recovery of degraded ecosystems in 120 communities	No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	Adaptation measures not customized to local context	By the end of the project, 10 natural resource assets created per community, considering traditional and local knowledge and the recovery of degraded ecosystems	Survey data Field visits Final project evaluation	Participatory processes promote ownership of adaptation activities Sufficient technical assistance available to implement quality projects in territories
Output 3.1.3. Community water harvesting, storage and management measures introduced.	Number of communities with improved access to water for agriculture and consumption	Limited community access to water resources	By the end of the project, 60 communities adopt water management measures according to community plans	Survey data Field visits	Participatory processes promote ownership of water management activities
Output 3.1.4. Cost-benefit analysis of proposed adaptation measures at micro-watershed level.	Number of cost-benefit analyses	Little research completed on the cost or benefits of proposed adaptive measures	By the end of the project, cost-benefit analyses implemented for each adaptation measure, on a watershed level	Baseline and final project evaluations	Information from analyses incorporated into community-level planning and decision-making regarding the selection of adaptation measures Women are actively involved in decision making processes
Output 3.1.5. Native species reintroduced to diversify production and consumption and for commercialization, including introduction of organic and agro-ecological crop production practices and ocean species	Number of communities that reintroduce native species Type of income sources for households generated under climate change scenario	Low levels of utilization and protection for native species	By the end of the project, 120 communities increased land area dedicated to the cultivation of native crops Targeted households develop one alternate income source	Focus groups Field visits	Community is open to reintegrating native species into diets and economy

Outcome 3.2. Increased adaptive capacity and ecosystem resilience to respond to climate threats and food insecurity	Natural resources assets implemented	Limited number of natural assets in place to withstand or adapt to climate change events	Activities implemented according to community plans	Focus group discussions Field visits Final project evaluation	Communities will manage assets after project end
Output 3.2.1. Soil management activities implemented, including agro-forestry and native nitrogen-fixing species.	Number of ha	Limited soil management activities	3000 ha degraded land recovered using agro-forestry and nitrogen fixing species	Focus groups Field visits	Community is responsive to agro-forestry
Output 3.2.2. Conservation and recovery of 3,000 ha of forest ecosystems and 2,000 ha of mangroves threatened by climate change through tree planting and forest management actions, at the micro-watershed level, with species that are native and resistant to climate variability, in line with national plans	Number of ha	Lack of effective protection of native forests and mangrove populations	3,000 ha of forest and 2,000 ha of mangroves protected and recovered	Field visits and monitoring system	Special interest groups do not impede the introduction of protection and conservation measures
Output 3.2.3. Monitoring system to track project results developed and implemented.	Basic project-based system to capture project processes and results at the output level	No project monitoring system in place	By project end, one monitoring system functioning and information fed back into project implementation	Monitoring system	Information generated in a timely and useful manner to capture progress and results

F. Alignment with Adaptation Fund Framework

Project Objective(s)	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Objective 1. Recover traditional knowledge and capacities to manage climate change risks and food security and nutrition in targeted Afro and Awá areas in the binational watersheds	Dietary diversity score	**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	**2.1.** Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	1,456,500
		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	**3.1.** Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	
			3.2. Percentage of targeted population applying appropriate adaptation responses	
Objective 2. Strengthen knowledge generation to effectively plan, design and implement adaptation responses in highly food insecure communities, considering emergency preparation and response actions	Binational capacity strengthening score	**Outcome 1:** Reduced exposure to climate-related hazards and threats	**1.** Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	2,206,800
		Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	**2.1.** Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	
		Outcome 7: Improved policies and regulations that promote and enforce resilience measures	**7.** Climate change priorities are integrated into national development strategy	

Objective 3 Strengthen adaptive capacity of highly food insecure communities to reduce climate risks and improve community resilience in targeted populations through concrete adaptation measures	Community adaptation asset score (natural and physical)	**Outcome 5:** Increased ecosystem resilience in response to climate change and variability-induced stress	**5.** Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	8,120,500
		Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	**6.1** Percentage of households and communities having more secure access to livelihood assets **6.2.** Percentage of targeted population with sustained climate-resilient alternative livelihoods	
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	
Outcome 1.1. Traditional and local knowledge recovered to support sustainable adaptation measures, food security and nutrition, and resilient livelihoods	Ancestral knowledge and practices recovered in support of adaptation and food security	**Output 3:** Targeted population groups participating in adaptation and risk reduction awareness activities		655,800
Outcome 1.2. Traditional knowledge and adaptation practices integrated in community dialogues and decision-making processes	Traditional knowledge generated, disseminated and integrated into adaptation	**Output 2:** Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	**2.1.** No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	800,700

	and development territorial planning processes	**Output 6:** Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	**6.1.1**. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies **6.2.1.** Type of income sources for households generated under climate change scenario	
Outcome 2.1. Increase scientific knowledge to manage climate change and risk, affecting food security and nutrition	Scientific studies tailored to binational contexts, considering traditional knowledge and community priorities	**Output 1.1:** Risk and vulnerability assessments conducted and updated **Output 1.2:** Targeted population groups covered by adequate risk reduction systems	**1.1.** No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale) **1.2.** No. of early warning systems (by scale) and no. of beneficiaries covered **1.2.1.** Percentage of target population covered by adequate risk-reduction systems	1,001,300
Outcome 2.2. Risk reduction capacity of binational institutions and communities strengthened, including leveraging climate services	Disaster preparedness score	**Output 2:** Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	**2.1.1.** No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) **2.1.2.** No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	1,205,500
		Output 7: Improved integration of climate-resilience strategies into country development plans	**7.1.** No. of policies introduced or adjusted to address climate change risks (by sector)	

Outcome 3.1. Improved access to livelihood assets, enhanced resilience and reduced risks from climate shocks in food-insecure communities and households	Community adaptation asset score (natural and physical)	**Output 6:** Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	**6.1.1**.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies 6.2.1. Type of income sources for households generated under climate change scenario	5,560,000
Outcome 3.2. Increased adaptive capacity and ecosystem resilience to respond to climate threats and food insecurity	Community adaptation asset score (natural and physical)	**Output 5:** Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	**5.1.** No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	2,560,500

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

A. Record of endorsement on behalf of the government[70] *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project / programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:*

CLAUDIA VASQUEZ MARAZZANI *Head of the Office of International Affairs* *Ministry of Environment and Sustainable Development - Colombia*	***Date:*** *July 21, 2016*
MARIA VICTORIA CHIRIBOGA *National Designated Authority* *Climate Change Undersecretary* *Ministry of Environment – Ecuador*	***Date:*** *July 29, 2016*

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

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

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.
Deborah Hines Implementing Entity Coordinator - Colombia *Kyungnan Park* Implementing Entity Coordinator - Ecuador
Date: 28 July 2016 / Tel. and email: Deborah Hines: +57 1 346 9870; deborah.hines@wfp.org Kyungnan Park: +593 224 60330 kyungnan.park@wfp.org
Project Contact Persons: Adrian Storbeck (Colombia) and Carmen Galarza (Ecuador)
Tel. And Email: Adrian Storbeck: +57 1 346 9881; adrian.storbeck@wfp.org Carmen Galarza: +593 2 2460330 ext 1625; carmen.galarza@wfp.org

Annex 1: List of Acronyms Used in this Document

Acronym	*Expanded*
ACIPAP	Association of Indigenous People of the Awá Villages of Putumayo
AEI	Agriculture expansion index
AF	Adaptation Fund
ALP	Stuggle and Progress Association
APC	Presidential Coordination Agency
APR	Annual Progress Report
CAMAWARI	Major Awá Chapter of Ricaurte
CANE	The Afro-Ecuadorian Confederation of Northern Esmeraldas
CbA	Community based Adaptation
CBD	Convention on Biological Diversity
CBT	Cash-Based Transfer
CIAT	The Center for Tropical Agriculture
CIIFEN	International Centre for ENSO Research
COMBIFRON	Colombia-Ecuador Binational Border Commission
CORPONARIÑO	The Autonomous Regional Environmental Authority of Nariño
DALY	Disability Adjusted Life Year
EbA	Ecosystem based Adaptation
ENCC	National Strategy for Climate Change
ENSO	El Niño – Southern Oscillation
EPR	Emergency Preparedness and Response
EWS	Early Warning Systems
FARC	Revolutionary Armed Forces of Colombia
FCAE-GONAE	Federation of Awá Centers of Ecuador
FECONIC	Federation of Black Communities of Imbabura and Carchi
FEE	Final External Evaluation
GAD	Decentralized Autonomous Government
GIS	Geographic Information System
IDEAM	Institute of Hydrology, Meteorology and Environmental Studies
INAMHI	National Institute for Meteorology and Hydrology
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
ITZC	Inter-Tropical Convergence Zone
IW	Inception Workshop
LAC	Latin America and the Caribbean
MADS	Ministry of the Environment and Sustainable Development
MAE	Ministry of the Environment (Ecuador)
MASL	Meters Above Sea Level
M&E	Monitoring and Evaluation
MIE	Multilateral Implementing Entity
MOMUNE	Movement of Negro Women of North-Esmeraldas
MTE	Mid-Term Evaluation

NGO	Non-Governmental Organization
PNACC	National Climate Change Adaptation Plan
RECOMPAS	The Network of Southern Pacific Community Councils
REDD+	Reduce Emissions from Deforestation and Forest Degradation, and Foster Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks
SDG	Sustainable Development Goals
SGR	National Risk Management Secretariat
UNDP	United Nations Development Programme
UNIPA	The United Indigenous Organizations of the Awá People
UNFCCC	United Nations Framework Convention on Climate Change
UNGRD	National Disaster Risk Management Unit
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme
ZIFEC	Border Integration Zone Ecuador - Colombia

Annex 2: List of Stakeholders Consulted and Meeting Results

Country	Dates	Location	Participants	Meeting objectives	Main results
BINATIONAL	8 April 2016	Teleconference Bogotá-Quito	MADS, MAE, WFP COs	Discuss steps forward in concept note development	MADS and MAE agreed to share lessons learned from previous adaptation projects and draft a project development timeline
	16 May 2016	Teleconference Bogotá-Quito	MADS, WFP COs	Discuss advances from WFP in Colombia and Ecuador on concept note development	MADS agreed to follow up with MAE bilaterally
	28 June 2016	Teleconference Pasto - Bogotá - Tulcán - Quito	MADS, MAE, WFP COs	Follow up on technical advances for concept note development and consultation plans	WFP, MADS and MAE agreed that the concept note must reflect a binational focus and that to improve communication periodic teleconferences will take place. WFP agreed to give MADS and MAE the concept note draft by July 8 and MADS and MAE agreed to give comments within one week
COLOMBIA	8 April 2016	Cali	RECOMPAS, WFP	Socialize the pre-concept and evaluate interest in the AF process	RECOMPAS focal point agreed to present the AF pre-concept to RECOMPAS leaders for their review
	8 April 2016	Cali	CIAT, WFP	Learn about CIAT's innovative EbA and CbA tools and best practices	CIAT agreed to serve as technical support in project implementation, with their portfolio of innovative adaptation tools. CIAT shared information about former border-area projects
	14 April 2016	Pasto	UNIPA (one constituent governance structure of the GFAB), WFP	Socialize the pre-concept with one GFAB leader and evaluate interest in the AF process	UNIPA invited WFP to present the AF pre-concept in front of all GFAB leaders
	14 April 2016	Pasto	CORPONARIÑO, WFP	Learn about Corponariño's territorial adaptation projects and best practices	Corponariño agreed to be part of the concept note development process in technical support and provided information on current territorial projects and priorities

	20 April 2016	Pasto	GFAB, WFP	Socialize the pre-concept with all GFAB leaders and evaluate interest in the AF process	GFAB agreed to continue with the AF process and invited WFP to present the pre-concept at the binational Awá congress
	05 May 2016	Bogotá	MADS, WFP	Follow up on commitments between WFP and MADS, finalize the concept note development timeline and identify the role of each stakeholder	MADS agreed to organize a binational committee to improve the AF management process. WFP agreed to share an updated concept note development timeline
	11 May 2016	Tumaco	RECOMPAS, WFP	Follow up with RECOMPAS leaders on their comments on the pre-concept	WFP presented the AF pre concept to RECOMPAS leaders and presidents of community councils. RECOMPAS agreed to be part of the concept note development.
	23 June 2016	Bogotá	MADS, WFP	Review technical advances in CN development and consultative process	MADS agreed to discuss technical advances with MAE bilaterally
	27 June 2016	Pasto	GFAB, WFP	Learn about climate threats in the border region, identify community priorities for adaptation	Analyze climate risks and measures at the local level for the Awá territory
	28 June 2016*	Pasto	GFAB, Corponariño, Gobernacion de Nariño, WFP	Identify climate threats, priorities, traditional adaptation measures and potential stakeholder roles and responsibilities	GFAB agreed to continue with the AF process. Corponariño and the Gobernación of Nariño agreed to form part of technical assistance for project design and implementation
	6 July 2016	Bogotá	MADS, WFP	Share advances and information about the meeting with the Awá on the 28th; review alignment of the CN with priorities of the new MADS minister	MADS agreed to submit their endorsement letter by 25 July and to give us their consolidated comments on the CN by 15 July
	12 July 2016	Tumaco	Recompas, WFP	Learn about climate threats in the border region	Identified community priorities for adaptation.

ECUADOR	06 May 2016	Quito	MAE - WFP	Discuss including Sucumbíos as a targeted province	WFP and MAE concluded that Carchi and Esmeraldas are more feasible to cover through the project than Sucumbíos
	13 May 2016	Quito	MAE - WFP	Discuss how to accelerate the consultative process with community leaders	WFP and MAE agreed to hire Ecobiotec because of its knowledge in the field and good working relationship with the Awá and Afro-descendent populations
	21 May 2016	Quito	MAE - WFP	Share information about lessons learned and the legal frameworks for climate change in Ecuador	MAE agreed to send information to incorporate in the project
	16 June 2016	Quito	WFP-HIVOS	Learn more about HIVOS and its work with climate change in Esmeraldas	HIVOS will provide information about Afro-descendant groups in that area and its previous projects in the province – they are a potential technical or executing partner
	27 June 2016	Tulcan	WFP-GADPC	Discuss GADPC's work with climate change and interest in the development of the concept note (GADPC – Autonomous Governing Authority of Carchi)	GADPC agreed to participate in a consultation meeting June 28th and expressed interest in the project
	28 June 2016	Tulcan	MAE-WFP-GADPC-CANE-FECONA-MOMUNE (Afro de Esmeraldas)-FECONIC (Afro del Carchi) ECOBIOTEC	Learn about the climate threats in the territories and for the communities, especially for the Afro-populations	Local Afro-representatives from coastal and Andean zones expressed that they have experienced increases structural and environmental vulnerabilities due to climate change that have affected local communities. They agreed to have consultations at a community level
	28 June 2016	Ibarra	MAE-WFP-FCAE (AWA)-ECOBIOTEC	Learn about the climate threats in the Awá territories and communities	The Awá expressed that it is they few means to adjust to changes threatening food security due to climate change.

	05 July 2016	San Lorenzo	FETANE (Afro) - ECOBIOTEC	Learn how FETANE is organized	FETANE expressed that their community members lost their communal territories due to palm oil plantation expansion.
	06 July 2016	San Lorenzo	FEDARPON-CANE (Afro)-ECOBIOTEC	Learn how FEDARPON is organized, its socioeconomic ties with the municipal government and how community members perceive climate threats.	Communities lost land to palm-growers and are now co-proprietors/ labourers. Those not linked to palm-growers work in mangroves, competing with Colombians. The pressure on the ecosystem and in communities reduces prices and the quantity of products available to each family.
	07 July 2016	San Lorenzo	Lucha y Progreso-CANE - ECOBIOTEC	Learn how CANE is organized, its socioeconomic ties with the municipal government and how community members perceive climate threats.	Communities are interested in sustainability projects. In terms of climate changes, there has been an insurgence of long droughts and short, harsh winters that affect the communities, such as the drought in 2014.

Annex 3 – Governance Structure of the Afro and Awá

The Grand Family Awá

The Grand Family Awá is the binational, overarching governance structure of the Awá in Colombia and Ecuador. It is comprised of four organizations: CAMAWARI, UNIPA and ACIPAP (Colombia) and FCAE-GONAE (Ecuador). In Colombia these organizations are legally protected by Decree 1088 of 1993, and, in Ecuador, the organizations are articulated with the government through Executive Decree No. 386 of 1998. Each organization has its own internal governance structure, as described below.

The highest authority for the Awá is the Congress of the Grand Family, which convenes every three years with the participation of approximately 50 delegated from each constituent organization as well as community members and invited external partners. A lower-level assembly meets every year and involves 20 delegates from the constituent Awá organizations to make decisions regarding existing problems, to monitor objectives and to plan new working guidelines. The Awá are also governed by a coordination committee, which is comprised of the presidents of FCAE-GONAE, UNIPA, CAMAWARI, ACIPAP as well as coordinators and delegates including women and youth. The Grand Family Awá has a general coordinator, who represents the organization on a national level.

Organizations in Colombia: CAMAWARI, ACIPAP and UNIPA

CAMAWARI is governed through an assembly, in which authorities and members of the community convene to make decisions that impact the territory. CAMAWARI governance also involves decision-making meetings with traditional authorities to select and manage projects on health, sustainable production, justice, women and family and education. The UNIPA governance structure is made up of a president, a vice president, a secretary, a treasurer, an auditor and the project coordinators for programs in health, gender, education, production, communication and territorial governance. The smallest of the organizations, ACIPAP, is made up of a president, a secretary, an auditor, a treasurer and a coordinator for Grand Family Awá initiatives.

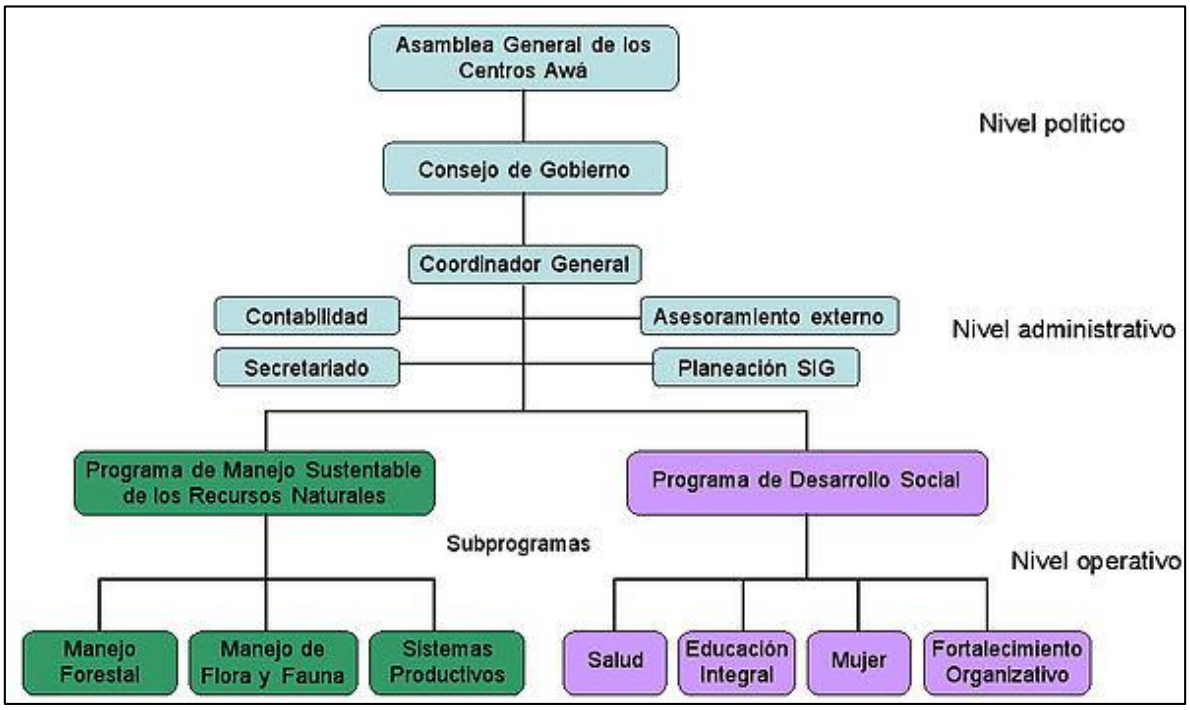
Organization in Ecuador: FCAE-GONAE

FCAE-GONAE is governed through an Assembly and a Governing Council. The Assembly meets every six months in order to make decisions regarding existing problems, monitor objectives and plan new working guidelines. The Governing Council is made up of 10 leaders who are elected every three years. FCAE-GONAE has a Main Coordinator, a Project Coordinator and administrative personnel. The political and administrative authorities are in charge of managing finances, national and international cooperation and coordination between FCAE-GONAE and the Grand Family Awá Governance Council. The highest authority within FCAE-GONAE is the president. Each community within FCAE-GONAE are organized into ‘centers,’ where decisions are made with respect to local land-use and agricultural projects.

This organization engages in two classes of community-based programmes, including sustainable natural resource management projects and social development projects.

Specifically, FCAE-GONAE implements activities on forestry management, flora and fauna conservation, education, organizational strengthening and health and family.

FIGURE 1
Political Structure of the FCAE-GONAE



Afro-descendant communities

Organizational structure of the Afro-descendants in Colombia

In Colombia, the first level of structure to Afro-descendant communities are the community councils, which, according to Decree 1745 of 1995 (Article 3), constitute the highest authority of internal administration black communities. They are composed of a general assembly (Article 4) and a board that directs, executes and manages the community internally. The Community Council Board expires on 31 December every three years. The functions of the Community Councils established by Law 70 of 1993 are to ensure the conservation and protection of the rights of collective property, preserve cultural identity, use and conserve natural resources and make feasible conciliators in conciliation of internal conflicts.

The Corporation Network Community Councils South Pacific (RECOMPAS) is located in southwestern Colombia. This organization consists of a general assembly, a board, a tax inspector, a legal representative, a council of elders and a technical unit comprised of a general coordinator, legal, administrative, social and organizational areas, and environmental, productive, financial and communication officers. Individual community councils are integrated into these larger governance structures.

Organizational structure of the Afro-descendants in Ecuador

Afro-descendant populations in Ecuador are similarly governed by community councils. The governance structure of these councils include a president, a vice president, a treasurer, a trustee and a secretary. The council represents judicial and extrajudicial affairs for the community and is responsible for summoning the assembly (members of the community) to meet on important community issues.

Communities are organized into federations, which are structured through second-tier organizations. The highest authority is the assembly, whose statutes are approved by the Minister of Agriculture and Livestock. In Carchi and Imbabura, FECONIC is regarded as second-level organizations.

Federations are structured in third level organizations. In northern Ecuador is the Afro-Ecuadorian Confederation of Northern Esmeraldas (CANE), which seeks to achieve territorial autonomy and decision-making power over the state and participate directly in the development of territorial projects. According to leaders of this group it is an ensemble of organizations representing local communities, women organizations, and productive associations.

Among the organizations that are part of CANE are the *Movimiento de Mujeres Negras del Norte de Esmeraldas* (Movement of Negro Women of North-Esmeraldas (MOMUNE)) and the *Asociación Lucha y Progreso* (Struggle and Progress Association (ALP)). MOMUNE encompass about 38 women grassroots organizations from San Lorenzo and Eloy Alfaro and ALP is an agribusiness organization.

The Afro communities articulate with the government through the Afro-Ecuadorian Development Corporation "CODAE", which was created by Executive Decree No. 244 of June 16, 2005

Annex 4 – Cosmo-vision of the Awá

The Awá consider that their territory (“Katsa su”) is structured into four independent worlds: the lower world (Maza Su= Ishkum Awá); the world where they live (Pas Su= Awaruzpa); the world of the dead (Kutña Su=irittuspa) and the world of the gods (Ampara Su= Katsamika). These worlds are spiritually interconnected.

Annex 5- Climate trends in Putumayo, Colombia and Sucumbíos, Ecuador (border departments that may be considered during full project development)

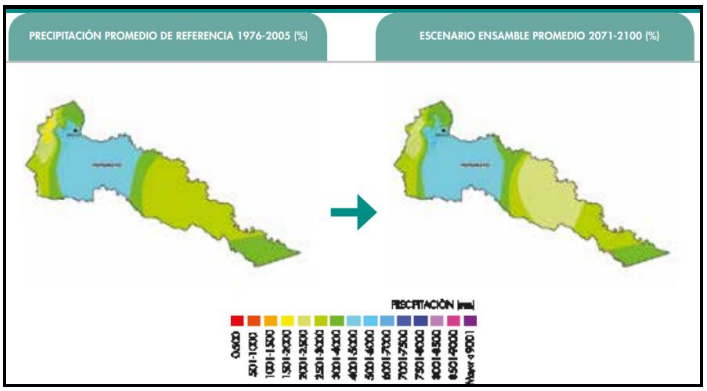
Precipitation in Putumayo: The average annual rainfall in the department ranges from 1155 mm to 5300 mm of rainfall per year. Rainfall is bimodal, meaning that there are two rainy seasons and two dry seasons. The heaviest rains, 300 mm per month, occur during the months of May, June and July. June is the wettest month with an average of 370 mm.

Temperature in Putumayo: The average maximum temperature ranges between 21.6°C in Colon to 31.9°C in Mocoa. The average minimum temperature varies between 10.6°C in the municipality of Colon to 20.9°C in Puerto Leguizamo in the Amazon region.

Precipitation Scenario for Putumayo: On average, the department’s rainfall may increase by 6.7 percent over baseline. In the municipalities of Sibundoy, Colon, Santiago, Orito, Valle del Guamuéz and San Miguel rainfall may increase by up to 20 percent. (IDEAM, 2015).

(Figure 2). Specifically, scenarios predict a 4.45 percent increase between 2011 and 2040; a 6.73 percent increase between 2041 and 2070; and 6.74 percent increase between 2071 and 2100, with the most drastic changes occurring in eastern mountains (IDEAM, 2015).

FIGURE 2
Precipitation Scenarios for Putumayo[71]



Temperature scenario for Putumayo: climate scenarios predict an increase of air temperature by 0.8°C between 2011 and 2040; an increase of 1.5°C between 2041 and 2070; and an increase of 2.2°C between 2071 and 2100 (IDEAM, 2015).

Precipitation in Sucumbíos: The months of December and January have the lowest levels of precipitation, but the area experiences rain year round. The predominant climate in the province is the rainy tropical, characterized by high temperatures and abundant rainfall. Rainfall exceeds 6,000 mm per year in the area of El Reventador (MAGAP / SIGAGRO / GPS 2008).

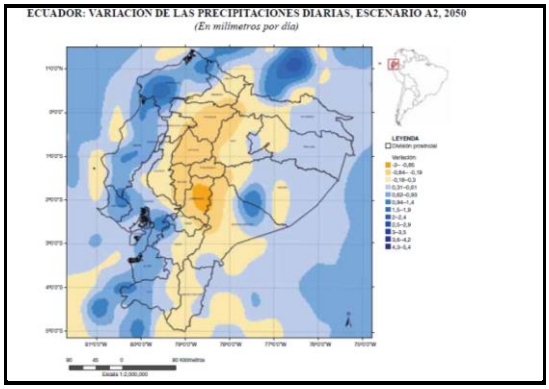
Temperatures in Sucumbíos: Temperatures vary widely, ranging from 4 °C in the upper parts of the region to 26.2°C. The lowest monthly average temperatures are in June and July and the highest temperatures are in December and January. The absolute maximum temperature recorded in 2003 was 35.6°C and the average maximum was 34.1°C. (MAGAP / SIGAGRO / GPS 2008).

Temperature scenario for Sucumbíos: The average temperature in the province of Sucumbíos is 21.9°C which is expected to rise by 5.26°C by 2090, with consistently rising temperatures each decade (CEPAL, 2012).

Precipitation scenario for Sucumbíos: The average rainfall in millimeters per day (5.85 mm) is expected to rise by 4.27 percent by 2090. In Sucumbíos, the Andean slope and central region areas are projected to have decreased precipitation, while increases of precipitation are expected in the Eastern region. (Figure 2).

Figure 3
Daily Rainfall Variation under the A2 – 2050 Scenario[72]

[71] IDEAM (2015)
[72] CEPAL (2012)



Annex 6 – Summary of results on climate change threats from community consultations (Ecuador)

Evidences of extreme events in the project area

Afro communities in the Sierra region note that they have a problem with recurrent drought, which is exacerbated when the levels of water of the El Angel River (a tributary of Mira River) fall considerably. When this happens, the river does not provide a sufficient amount of water to supply the surrounding communities, and their irrigation and consumption needs are not met.

In Afro communities within the Andean region, heavy rains last for short periods of time interspersing month-long dry periods. This leads to soil oversaturation and landslides that block the road, disrupting the transport sector.

An unusual phenomenon that has presented in recent years is historically low temperatures in the morning. This temperature drop causes thick fog that sometimes does not dissipate until almost noon. In addition, the Chota valley in the Andean region reported a strong hailstorm which damaged crops and the roofs of houses in the area. These two phenomena have been totally absent in this area for decades prior.

The most direct effect of climatic changes in this area is in the agriculture sector, where productivity is reduced and insufficient to ensure surpluses for trade and extra income. For this reason, a large proportion of the population have migrated to larger cities in order to find more stable employment.

In the Andean region, there have been long dry periods followed by weeks of constant rain. Torrential rains have also caused floods in vulnerable places such as the Parambas and San Jeronimo sectors. The floods occurred due to overflow of the Tululbí River in San Lorenzo. These problems have mainly occurred between December and June.

Another risk linked to climate change is the occurrence of forest fires in the dry months (July to November), especially in the Awá territory. The risk is especially high in the areas of the Hope commune and the Golondrinas hill. There have also been forest fires in various parts of the Mira River basin.

Furthermore, these climate trends (increased temperature and rainfall) will provide optimal conditions for mosquito population growth, which will influence the prevalence of mosquito-borne illnesses like malaria, dengue and chikungunya. There are already unusually high rates of infection with malaria and dengue in San Lorenzo.

Annex 7- Additional Relevant Policies

INTERNATIONAL LEVEL		
UNFCCC AND OTHER INTERNATIONAL AGREEMENTS RELATED TO CLIMATE CHANGE		
COLOMBIA ECUADOR	***Convention on Biological Diversity (CBD),*** *the* ***Development Agenda 2030****, the* ***Convention to Combat Desertification*** *(UNCCD) and the* ***Sendai Framework for Action 2015-2030****: In order to strengthen synergies between adaptation and mitigation, based on socio-ecosystem adaptation, articulate adaptation to climate change and risk management, adapting the basic infrastructure and sectors of the economy, incorporate adaptation and resilience in sectorial planning, territories and development, promote education and consolidate peace territories with climate change considerations.*	***Components 1, 2 and 3***
COLOMBIA ECUADOR	***Intended Nationally Determined Contributions*** *(INDCs)* *Colombia - the Government of Colombia completed 11 territorial adaptation plans and committed to develop climate change plans in 100 percent of national territory by 2030. The iNDCs of Colombia also propose a national system of adaptation in which there are indicators to guide, monitor and evaluate the implementation of adaptation measures and tools of water management for basins prioritized in the country* *Ecuador – the Government of Ecuador aims to restore and reforest 500,000 ha until 2017 and increase this total by 100,000 ha per year until 2025. Additionally, Ecuador's iDNC involves improving community water management, conservation of protected areas, strengthening the resilience of vulnerable communities with a focus on food security and vulnerability analysis of infrastructure and water availability.*	***Components 1, 2 and 3***
COLOMBIA	***Paris Agreement:*** *Under this agreement, Colombia pledged to: 1) reduce greenhouse gas emissions by at least 20% by 2030; 2) achieve 10 specific actions on adaptation to climate change, including protection of moorland and the creation of a national system of indicators to measure the traceability of climate change. Currently these commitments are being downscaled from a nationwide scale to a regional scale. Currently, six Departments are developing comprehensive plans for climate change.*	***Components 2 and 3***
BINATIONAL LEVEL		
BINATIONAL AGREEMENTS		
BINATIONAL	***Binational Framework for Hydrological Services Colombia-Ecuador (IDEAM – INAMHI)*** *strengthens binational actions in common basins for monitoring under the Binational Committee of Transboundary Basins and the Integrated Water Resources Integrated Management.*	***Components 2 and 3***
BINATIONAL	***Border Agreement between the Governments of Carchi, Imbabura, Esmeraldas and Sucumbíos and the Departments of Putumayo and Nariño*** *to develop a binational territorial development plan and define binational border area priorities.*	***Components 1, 2 and 3***
BINATIONAL	***Integral Management Water Resources Plan for the Transboundary Watersheds Carchi Guaitara and Mira-Mataje:*** *developed a binational network (´Water Guardians´) that links technical capacity and scientific and ancestral knowledge to protect vital water resources and share lessons learned and knowledge to territorial stakeholders.*	***Components 2 and 3***
BINATIONAL	***Andean Regional Programme for Strengthening the Meteorological and Hydrological Services and Development****: seeks to strengthen binational hydrological and meteorological services in the region and provide climatic hydro-meteorological information and services for risk management for the benefit of vulnerable communities.*	***Components 2 and 3***
NATIONAL LEVEL		
NATIONAL ENVIRONMENTAL POLICIES		

COLOMBIA	***Law 99 of 1993:*** *Integrates the National Environmental System with the National Risk Management System and guarantees the civil rights of the ethnic communities.*	***Components 1, 2 and 3***
ECUADOR	***National Environmental Policy:*** *3. Defines the goal of management of adaptation and mitigation of climate change, as to reduce social, economic and environmental vulnerability*	***Components 1, 2 and 3***
NATIONAL CLIMATE CHANGE INSTRUMENTS FOR POLICY IMPLEMENTATION		
COLOMBIA	***Financial Strategy for Disaster Protection.*** *National Strategy responsible for identifying sources of funding for risk prevention.*	***Components 2 and 3***
COLOMBIA	***Sectorial Adaptation Plans:*** *for six priority sectors (transport, energy, agriculture, housing, health, tourism and industry), educational strategies and awareness (IDEAM et al., 2015b), technical groups working on climate and agriculture and an increase in protected areas of more than 2.5 million hectares (Government of Colombia, 2015; IDEAM et al, 2015b.).*	***Components 2 and 3***
ECUADOR	***Executive Decree 1815:*** *by which adaptation and mitigation to climate change is defined as a state policy. Likewise, the guidelines of the National Climate Change Strategy are formulated and delivered.*	***Components 2 and 3***
ECUADOR	***Interinstitutional Climate Change Committee*** *by* ***Executive Decree 495****,* ***Official Register 302, October 20, 2010****: high-level political body for coordination of policies and measures for climate change. The members of this committee are Ministers and Secretaries of State. The Climate Change Secretariat serves as the technical secretariat.*	***Components 2 and 3***
TERRITORIAL LEVEL		
PROGRAMS, PROJECTS, INSTRUMENTS RELATED TO CLIMATE CHANGE		
COLOMBIA	***Departmental Climate Change Network of Nariño****: is coordinated by UNDP, regional universities, the Government of Nariño and the city of Pasto to advocate for protected areas, biodiversity and integrated management of binational watersheds.*	***Components 1, 2 and 3***
COLOMBIA	***Territorial Plan for Adaptation to Climate Change Nariño (PTAC – Nariño)*** *is under construction by WWF-CORPONARIÑO-Government of Nariño. The goal is to advocate for regional adaptation and mitigation to climate change to reduce carbon footprints via ecological restoration.*	***Components 1, 2 and 3***
LOCAL LEVEL		
DEVELOPMENT PLANS		
COLOMBIA	***Municipal Development Plan of Ricaurte 2016-2019****: aims to limit the agricultural frontier and protect natural areas, in order to contribute to climate change mitigation. It seeks to formulate four plans and projects in the context of adaptation and / or mitigation of climate change, in coordination with the PRICC-NARIÑO.*	***Components 1, 2 and 3***
COLOMBIA	***Municipal Development Plan of Tumaco 2016-2019:*** *Establishes programs on the issue of adaptation to climate change, including ecosystem protection and adaptation to climate change, recovery of water resources, awareness of environmental protection issues, increase hectares of protection for CO2 capture, creatinging monitoring systems, mangrove recovery systems. Additional activities include integrated risk management through research and studies, monitoring systems and provision of tools for emergencies.*	***Components 1, 2 and 3***

Annex 8 – Relevant Binational Commissions

BINATIONAL COMMISSIONS, BOARDS AND COMMITTES		
BINATIONAL – Related to disaster risk management	***Disasters Risk Management Board:*** *responsible for defining the binational actions that facilitate adequate responses to natural, anthropic and technological disasters, and the strengthening and promotion of risk management on a binational level.*	***Components 1, 2 and 3***
BINATIONAL – Related for forests	***Forests, Biodiversity and Protected Areas Board:*** *responsible for implementing the* ***Binational Action Plan for the Development of Forests, Biodiversity and Protected Areas*** *2013-2023. This plan promotes the sustainable use of biodiversity and forest resources, the control of illegal wildlife trafficking, the strengthening of the management of protected areas and the effective generation of governance. It also prevents, controls and monitors illegal fishing activities.*	***Components 1, 2 and 3***

BINATIONAL – Related to governance and populations	***Committee for Indigenous and Afro-Descendants Communities Affairs: s****trengthens binational agreements from the Afro-descendants bureau. It is divided into two working groups that develop strategies for: territory and environment, political, educational and institutional strengthening and civil rights and protection. The Grand Awá Family attends this committee with two representatives from Colombia and one from Ecuador*	***Components 1, 2 and 3***
BINATIONAL – Related to water	***Transboundary Watersheds Committee:*** *is responsible for the overall management of water resources in the transboundary basins Carchi-Guaytara and Mira-Mataje, guiding coordination and sustainable management.* ***Binational Forum*** *in* ***Esmeraldas:*** *The Neighborhood Commission called this forum in April 2015 between Afro-descendant communities and Awá communities in the border to strengthen coordination and governance. During this forum, the Grand Family Awá advocated for the recognition of their ancestral lands as a single territory.*	***Components 1, 2 and 3***

TODOS POR UN NUEVO PAÍS
PAZ EQUIDAD EDUCACIÓN

MINAMBIENTE

Al contestar por favor cite estos datos:

OAI-8150

Bogotá, July 21, 2016

THE ADAPTATION FUND BOARD
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for *Building adaptive capacity to climate change through food security and nutrition actions in vulnerable Afro and indigenous communities in the Colombia-Ecuador border area*

Dear Sirs,

In my capacity as Designated Authority of the Republic of Colombia to the Adaptation Fund I hereby confirm that the above regional project proposal is in accordance with the government's national and bilateral priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the border region between Colombia and Ecuador.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the United Nations World Food Programme (WFP) and executed with the Grand Family Awá, the Network of Southern Pacific Community Councils (RECOMPAS) and the Afro-Ecuadorian Confederation of Northern Esmeraldas (CANE).

Sincerely,

Firmado por: MARIA VASQUEZ MARAZZANI
JEFE DE OFICINA 0137 GRADO 21 Fecha firma: 27/07/2016 12:42:01

CLAUDIA VÁSQUEZ MARAZZANI
Head of the Office of International Affairs
Ministry of Environment and Sustainable Development

Proyectó: Santiago Uribe Saenz
Revisó: Claudia Vasquez Marazzani

Calle 37 No. 8 - 40
Conmutador (571) 3323400
www.minambiente.gov.co

Al contestar por favor cite estos datos:

Calle 37 No. 8 - 40
Conmutador (571) 3323400
www.minambiente.gov.co

ADAPTATION FUND

Letter of Endorsement by Government

Government of Ecuador
Ministry of Environment

Quito, 29th July, 2016

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

Subject: Endorsement for Building adaptive capacity to climate change through food security and nutrition actions in vulnerable Afro and indigenous communities in the Colombia-Ecuador border area

In my capacity as Designated Authority of the Republic of Ecuador to the Adaptation Fund I hereby confirm that the above regional project proposal is in accordance with the government's national and bilateral priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the border region between Colombia and Ecuador.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the United Nations World Food Programme (WFP) and executed with the Grand Family Awá, the Network of Southern Pacific Community Councils (RECOMPAS) and the Afro-Ecuadorian Confederation of Northern Esmeraldas (CANE).

Sincerely,

MARIA VICTORIA CHIRIBOGA
National Designated Authority
Climate Change Undersecretary
Ministry of Environment - Ecuador

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

A. Record of endorsement on behalf of the government[1]

Full Proposal Project: **Endorsement for *Building adaptive capacity to climate change through food security and nutrition actions in vulnerable Afro and indigenous communities in the Colombia-Ecuador border area.***	
CLAUDIA VÁSQUEZ MARAZZANI *Head of the Office of International Affairs* *Ministry of Environment and Sustainable Development - Colombia*	Date*: July 29, 2016*
MARIA VICTORIA CHIRIBOGA *National Designated Authority* *Climate Change Undersecretary* *Ministry of Environment - Ecuador*	Date*: July 29, 2016*

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