



## PRE-CONCEPT FOR A REGIONAL PROGRAMME

### PART I: PROGRAMME INFORMATION

Title of Programme: Improving the Resilience to Reduce the Impacts of Climate Change on Dryland Ecosystems for Food and Nutrition Security and Gender Equality.  
 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: Ministries of Environment of Colombia and Ecuador  
 Amount of Financing Requested: 14,000,000 U.S Dollars

#### Regional Background and Context:

The north western dry forest corridor expands from the northern Pacific Colombian coast to the southern Ecuadorian Pacific coast. Climate change and variability are already impacting these dry forest ecosystems in Colombia and Ecuador, and will continue to have medium and long term impacts, particularly on livelihoods and food and nutrition security. Extreme weather events are disrupting harvest patterns, crop yields, livestock herds and water supplies and important ecosystem services. Within this regional ecosystem, La Guajira is among Colombia's poorest and most climate-vulnerable departments, affected by long periods of drought (the current lasting 3 years), desertification processes and poor land use. In 2015, WFP consultants found that desertification threatens 92.2 percent of land in the department and the frequency and intensity of droughts is rising. Similarly in Manabí, Ecuador, the combination of rich biodiversity and endemism, fragile ecosystems, and prolonged annual droughts, extending on average 7-9 months, makes the province highly vulnerable to the impacts of climate change. According to the Second National Communication on Climate Change, Ecuador experienced an average temperature increase of 0.8°C during 1961-2006. In Colombia, projections consider that by 2100, the average temperature could rise by 2.3°C and rainfall could decrease by 40 percent compared to present rates.

In both departments, decreases in rainfall prevent communities from planting, contributing to high levels of acute malnutrition, insufficient food consumption, poor income-generating opportunities, and more pressure from fragile ecosystems to provide services. These effects are aggravated by poverty and inequalities, geographical location, topography, unequal distribution of resources and land-use practices. In La Guajira, chronic malnutrition in children under five is 28 percent, compared to 13 percent nationally, and poverty reached 53 percent compared to 23.3 percent nationally. In the same manner, Manabí, reports high levels of chronic malnutrition of children under 5 years old (up to 58 percent compared to 25 percent nationally), and poverty (76.84 percent locally compared to 60 percent nationally). More than 50 percent of the population in both targeted departments depends on agriculture. The "El Niño" phenomenon compounds these effects, and in both countries insufficient rains, strong winds and insufficient soil moisture have limited water for human and animal consumption, decreased crop production, contributed to disease and further degraded fragile natural resources. Climate events, compounded by El Niño, will likely increase the frequency of acute crop losses in the short term and food availability in the medium term. Climate variability is exacerbated by poor agriculture and land practices, limiting crop diversity, agricultural productivity and the ability of fragile dry ecosystems to absorb and recover from short-term shocks. Hunting, deforestation, mining at small and medium scale, have contributed to the degradation of ecosystems and the reduction of the species in both Colombia and Ecuador.

In both countries, while women are important agents of change, with skills and knowledge on adaptation and reduction of risks, they are often excluded from decision-making regarding managing natural resources and risks. Gender inequality, as measured by UNDP's Gender Inequality Index (2013), is 46.0 in Colombia and 42.9 in Ecuador well above the South American average of 41.6. Climate change puts further strain on the already heavy workloads of women, impeding their ability to provide food for their families. Changes in precipitation patterns will hurt agricultural and small livestock production, usually domains of women. Reduced incomes and economic

opportunities for women will negatively affect women's autonomy and health, and their children's health. Engrained cultural and gender roles require women to perform child-rearing, which means that climate change will impact children, increasing the risk of chronic malnutrition. Women's traditional knowledge, including about their environment, supports the introduction of flexible adaptation strategies to buffer livelihoods against climate impacts and help improve food and nutrition security. The indigenous Wayuu, a matriarchal society, are particularly vulnerable to food and nutrition insecurity due to climate change and variability, threatening their livelihoods and traditional ways of life. Government figures show that one child under five died every week in 2014 from malnutrition related causes, the majority Wayuu.

**Programme Objective:** Identify dry ecosystem adaptation strategies and share experiences to increase resilience of households in the Colombian-Ecuadorian dry forest corridor, enabling the most vulnerable to withstand the negative impacts of climate change and variability. The regional approach will generate cost-efficient results and knowledge management that empower the most vulnerable, women and indigenous communities, strengthen local institutions and promote the learning and replication of successful practices to inform public policy.

### **Project Components and Result Areas:**

**1. Capacity Development and Institutional Strengthening:** this component seeks to strengthen capacities at regional, national and local levels with the aim of managing risks and promoting local efforts in climate change adaptation. Food and nutrition security, gender equality, women's empowerment, and cultural/ethnic sensitivity are key elements of the regional approach. Expected results include: a) awareness raised on climate change threats developed at community and regional level, including through the introduction of early warning systems, communities and local officials trained to identify and manage climate risks, implement innovative resilient production techniques and technologies for small producers, and link adaptation measures with food and nutrition security strategies; and, b) local development and food security plans and budgets, including territorial and indigenous development plans and policies, include climate change adaptation and risk management.

**2. Knowledge Generation and Sharing:** the regional approach will put particular attention to developing adaptation measures for dry ecosystems in specific social contexts of Colombia and Ecuador. These measures will be developed concurrently in the two countries providing the opportunity to learn by doing and to incorporate this learning in the targeted regions of both countries. Evidence generated, monitoring and impact evaluations will relate managing climate risks to support ecosystem provisioning in support of food and nutrition security, and gender equality at local and regional levels. Particular focus will be put on recovering and recollecting traditional knowledge and practices to ensure sustainable agricultural and natural resource management. Concrete results will include: a) knowledge networks created for sharing lessons and best practices; b) climate data and project experiences systematized and made accessible for local decision making and public policy formulation; c) adequate integration of findings into country development plans, regional and national actions and communications on climate change, and discussions at the international level; and, d) links established between national and regional academic and public to promote discussions on climate risks, including from El Niño and the importance of strengthening climate services to manage individual, local, national and regional risks.

**3. Adaptation and Resilience Measure to Reduce Climate-related Impacts and Strengthen Food and Nutrition Security:** the regional approach will introduce measures to increase the resilience of vulnerable communities and the dry ecosystems upon which they depend, so they may better confront climate variability in the short and medium term. The Programme will support an integrated set of community-based (CbA) and ecosystem-based adaptation (EbA) interventions to reduce vulnerability and strengthen resilience, combining traditional knowledge and techniques with context-relevant technologies that help reorient livelihoods. CbA, with gender and ethnic perspective, and EbA are both pivotal elements of the regional strategy, as decreasing climate threat levels to dry ecosystems and increasing their resilience will have a direct impact on the livelihoods of agriculture and herder families. Expected results include: a) ecosystem services enhanced including support services such as improved soil integrity and nutrient recycling through reforestation, soil management, conservation, and water-retention; b) provisioning services in particular related to livestock and fodder provision, increased yield through the adoption of resistant crops and seeds, better crop selection and plant breeding for drought tolerance, and water harvesting, conservation and storage; c) regulation services through erosion control and reduction of natural risks; d) technology transferred such as renewable energy technologies (wind and solar)

and methods of advanced irrigation technologies (precision, sprinkle, gravity and drip irrigation, hydroponics); and, e) and livelihoods strengthened through the provision of sustainable ecological services raised awareness, improved capacities, and ownership of concrete adaptation measures at the community level.

In addition to the above expected outcomes, adaptation output level results benefits from this programme include: a) physical and natural assets developed and technologies implemented in approximately 5 parishes in Manabí and 4 municipalities in La Guajira; b) approximately 20,000 households benefit from the adoption of diversified, climate-resilient livelihood activities; c) risk and vulnerability assessments conducted at municipal level; d) at least 20,000 people participated in awareness raising action; e) 50 government officials and programme implementers trained to identify, plan, implement, and evaluate adaptation strategies; and, f) 1 regional platform strengthened to identify, prioritize and integrate adaptation strategies and measures.

## **PART II: PROGRAMME JUSTIFICATION**

The Governments of Colombia and Ecuador, and the two prioritized decentralized governments acknowledge the need for action to: 1) increase awareness of climate change threats; 2) generate more information and knowledge for adaptation planning to climate change threats at community level; 3) develop local adaptation plans, identifying community priorities and increase capacities to mitigate the impact of climate-related threats; and, 4) ensure that the poorest communities have the capacity to adapt to climate change impacts without further eroding their nutrition and food security and the integrity of the natural resources upon which they depend.

A significant contribution of the proposed regional approach is the emphasis on knowledge generation through the coordinated development of adaptation measures and technology transfer for dry ecosystems in parts of the Andean region that are already affected by climate change and the most recent El Niño phenomenon. Sharing and dissemination will be systematic and integrated in national and regional knowledge systems to promote replication of successful measures. By integrating relevant climate information into decision-making, strengthening capacity among entities to manage risks and develop cost-effective adaptation measures, a body of knowledge will become available. Sustainability of actions will be through gained through active participation of local communities and capacity strengthening of partners facilitating the gradual handover of responsibilities.

A coordinated regional programme, rather than two separate country interventions is more cost effective for a number of reasons. Since this project targets two areas that have a similar set of challenges, the set of solutions offered uses a common set of resources for e.g. one set of knowledge products, one common platform for knowledge sharing, a common monitoring system, technologies procured will benefit from economies of scale for one regional project rather than two disjoint national proposals. These exercises will directly feed into the efficiency of asset creation activities. It will avoid duplication which would occur if only a single country approach were implemented. As well, the regional approach will facilitate South-South cooperation and accelerate knowledge generation, dissemination and adoption within two countries of adaptation tools for dry ecosystems. The decentralized approach will strengthen existing relationships, structures and capacities of local institutions, and knowledge sharing will drive the exchange of best practices, methods and technologies between the countries. This regional project will generate savings on cost components related to producing research and analysis in the project areas. As a result, there is higher cost-efficiency from coordinating and integrating technical, intellectual and economic resources in both countries. Finally the regional approach offers an initial scaling up of actions, reaching a greater number of participants, a larger reach within different contexts of the same ecosystem, and the foundation to replicate interventions in other regions.

Innovative aspects of the regional strategy include the aim to implement concrete climate change adaptation activities in vulnerable areas that share common threats, promoting the replication and scaling-up of cost-effective measures in vulnerable communities. The ecosystems approach seeks to ensure an innovative, efficient and sustainable response by building the resilience of ecosystem services and through climate services such as; forecasting climate impact on livelihoods by incorporating data on weather as well as agricultural yields, seasonal weather forecasting with food and nutrition security analysis. The focus on gender analysis at all stages is also innovative. Despite comprising more than half the population, women have not yet achieved equal integration into the economic, social, political and cultural power structures of the two countries. Especially in rural areas

and indigenous communities, women have lower education levels, less access to credit, and less participation in government and decision-making mechanisms. In accordance with the Lima Work Programme agreed during the COP 20 Parties of the Convention, this joint proposal is an active implementation of gender-responsive climate policy through: a) training and awareness-raising for female and male participants on issues related to gender balance and climate change; b) incorporating expert organizations in gender-related activities; and, c) focusing in adaptation and capacity-building of women and men.

**Additional Cost Reasoning:** this programme is designed to increase the resilience and decrease the vulnerability of poor rural communities and their local institutions so they can better adapt to the negative impacts imposed by climate change. Assistance of the Adaptation Fund is sought to cover the additional costs necessary to strengthen and build institutional capacity on climate change issues (Outcome 1), implement concrete adaptation programs with vulnerable communities, and generate and disseminate knowledge (Outcome 2); and, execute tangible adaptation actions (Outcome 3).

**Regional Focus:** This programme integrates innovative processes to ensure sustainability, starting with ownership by local communities, support to decentralized governments and exchanges between two national governments. Special attention will be given to cost-sharing, the incorporation of adaptation actions in local development plans and budgets, and promoting the participation of regional entities such as CIAT and CIIFEN. As WFP already has established contacts with these regional institutes, they can play an important role in providing technical support, and promoting ownership of proposed actions in line with government priorities. In the region, CIAT has undertaken a major effort to develop and implement novel methods for generating information that can guide policies and decisions. This work includes the assessment of likely climate change impacts and of specific technological options such as drought resistant seeds, climate smart fodder and forage with the aim of informing national adaptation and mitigation plans. WFP, has worked since 2014 with CIIFEN (Centro Internacional para la Investigación del Fenómeno de El Niño) for the implementation and strengthening of an early warning system for Climate Change impact on food security in watersheds. In addition, within the region, WFP will look to strengthen coordination with national and regional institutions to promote the use of climate services systems to better prepare for disasters. This regional proposal is aligned with both government's strategies to increase resilience and adaptation to climate change, and achieve food and nutrition security. Given Colombia's high vulnerability and the absence of adaptation strategies in response to climate change, the National Plan of Climate Change Adaptation was created to reduce the vulnerability of the country and increase its ability to respond to climate threats and impacts. Food sovereignty and nutrition are integrated within national regulations and are part of national development strategies for both countries.

### **PART III: IMPLEMENTATION ARRANGEMENTS**

WFP will focus on capacity development, coordination, facilitation, programme supervision and financial oversight. While implementation will be through local governments and NGOs in close coordination with national partners. The WFP Regional Bureaux will facilitate the regional approach, working with WFP Country Offices, supporting system developments and knowledge networks, including the development of a sub-regional adaptation and food security platform. National government institutions will take full ownership of the programme, leading implementation at the national, provincial, municipal and community levels. Local governments will be part of the implementation of the programme in close coordination with provincial and national entities. National entities will be responsible for ensuring that the objectives and components of the programme are delivered effectively. WFP will seek technical advice from UN Women and NGOs to effectively mainstream gender, including a gender analysis, trainings on gender sensitive adaptation programing, and appropriate indicators to include in M&E processes. WFP will be responsible for developing M&E, ensuring implementation, and managing assigned resources. In order to avoid any institutional conflict or misunderstanding at regional, national or local levels, clear stakeholder roles will be defined. Regional, national, and local non-governmental, agricultural, and women's organizations will be consulted throughout the programme to provide information and assistance at various stages.

### Programme Components and Financing (3 year Duration):

Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Strengthen institutional and community capacities to minimize risks and adapt to the effects of climate change, incorporating traditional knowledge in decentralized processes that support food and nutrition security.	1.1 At the community level, increased awareness for women and men regarding the effects of climate change on food and nutrition security, with emphasis on gender-specific effects.	1.1.1. Small producers trained on climate-change risk management, adaptation strategies, food and nutrition security, gender empowerment: At least 90 percent of targeted small producers trained, of which at least half are women; four mechanisms to facilitate women's participation. At least 50 government staff trained.	Regional	584,000
	1.2. At the institutional level, local plans and budgets incorporate adaptation measures with a focus on improving food and nutrition security and empowering women.	1.2.1. Local vulnerability assessments carried out related to climate change, risk management, food and nutrition security and gender empowerment: at least 1 assessment per targeted area.	Regional	344,000
		1.2.2. Community and local plans incorporate climate change adaptation and risk management, related to food and nutrition security and gender empowerment: At least 20 local plans established.	Regional	520,000
2. Promote the generation of, access to, and dissemination of information related to climate change risks, food and nutrition security, and gender empowerment at local, national, and regional levels.	2.1 Increased dissemination of traditional knowledge, lessons and best practices regarding adaptation to climate threats, giving special attention to women's experiences and knowledge to improve food and nutrition security.	2.1.1. One regional platform developed to enable farmer to farmer knowledge sharing and best practices (including traditional knowledge) regarding adaptation to climate threats on food and nutrition security and gender. At least 20,000 households to participate.	Regional	874,000
	2.2. Regional, national and local institutions improve public policies based on evidence generated of impacts of climate change on food and nutrition security and gender, and the effectiveness of adaptation measures.	2.2.1. At least one yearly bi-national workshop and one regional study undertaken to gather information related to the risks and impacts of climate change on food and nutrition security and gender.	Regional	290,900
		2.2.2. At least one yearly bi-national workshop and one regional study undertaken to create inventories, manuals and guidelines produced and disseminated based on effective traditional adaptation measures and the knowledge of women.	Regional	282,900
		2.2.3. Climate services established to manage local, national and regional risks, forecasts and trends in dry ecosystems established.	Regional	286,500
	2.3. Monitoring system to track project results and lessons learned considering regional, national and local structures and results.	2.3.1. Monitoring system to track project results in placed.	Regional	952,870
2.3.2. Baseline scenario and Environment Impact Assessment carried out at national level: 1 study per country			352,000	
3. Adaptation and Resilience Measure to Reduce Climate-related Impacts and Strengthen Food and Nutrition Security	3.1. Increased adaptive capacity to manage risks and adapt to climate change in targeted rural communities increasing food and nutrition security with strong participation of women.	3.1.1. Ecosystem and climate services, and physical and natural assets created, improved or maintained at community level to build resilience in livelihoods and ecosystems, considering food and nutrition security and gender mainstreaming: At least 240 communities implement adaptation measure; 240 assets created/restored.	Regional	6,371,600
		3.1.2. At least 4 adaptation technologies identified and tested that strengthen resilience to climate threats on food and nutrition security.	Regional	925,000
4. Subtotal Programme Cost				11.783.770
5. Programme Execution cost (9.5 percent)				1.119.458
6. Total Programme Cost				12.903.226
7. Programme Cycle Management Fee charged by the Implementing Entity (8.5 percent)				1.096.774
<b>8. Amount of Financing Requested</b>				<b>14.000.002</b>

**ART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY**

**A. Record of endorsement on behalf of the government**

<i>Lorena Tapia, Minister, Ministry of Environment of Ecuador</i>	Date: 07/24/2015
<i>Gaia Hernandez Palacios Head of the Office of International Affairs, Ministry of Environment and Sustainable Development Colombia</i>	Date: 07/31/2015

**B. Implementing Entity certification**

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans of Ecuador and Colombia and subject to the approval by the Adaptation Fund Board, commit to implementing the 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 programme/programme.

*Kyungnan Park*  
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