



## HURRICANE MATTHEW EMERGENCY

### FAO RESPONSE PLAN

#### Haiti

Duration	<b>12 months</b>
Beneficiaries	<b>600 000 people (120 000 households)</b>
Execution Agency	<b>Food and Agriculture Organization of the United Nations (FAO)</b>
Counterpart National Institutions	<b>Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) Ministry of Environment (MDE)</b>
Programme budget	<b>USD 30 million</b>

#### HIGHLIGHTS

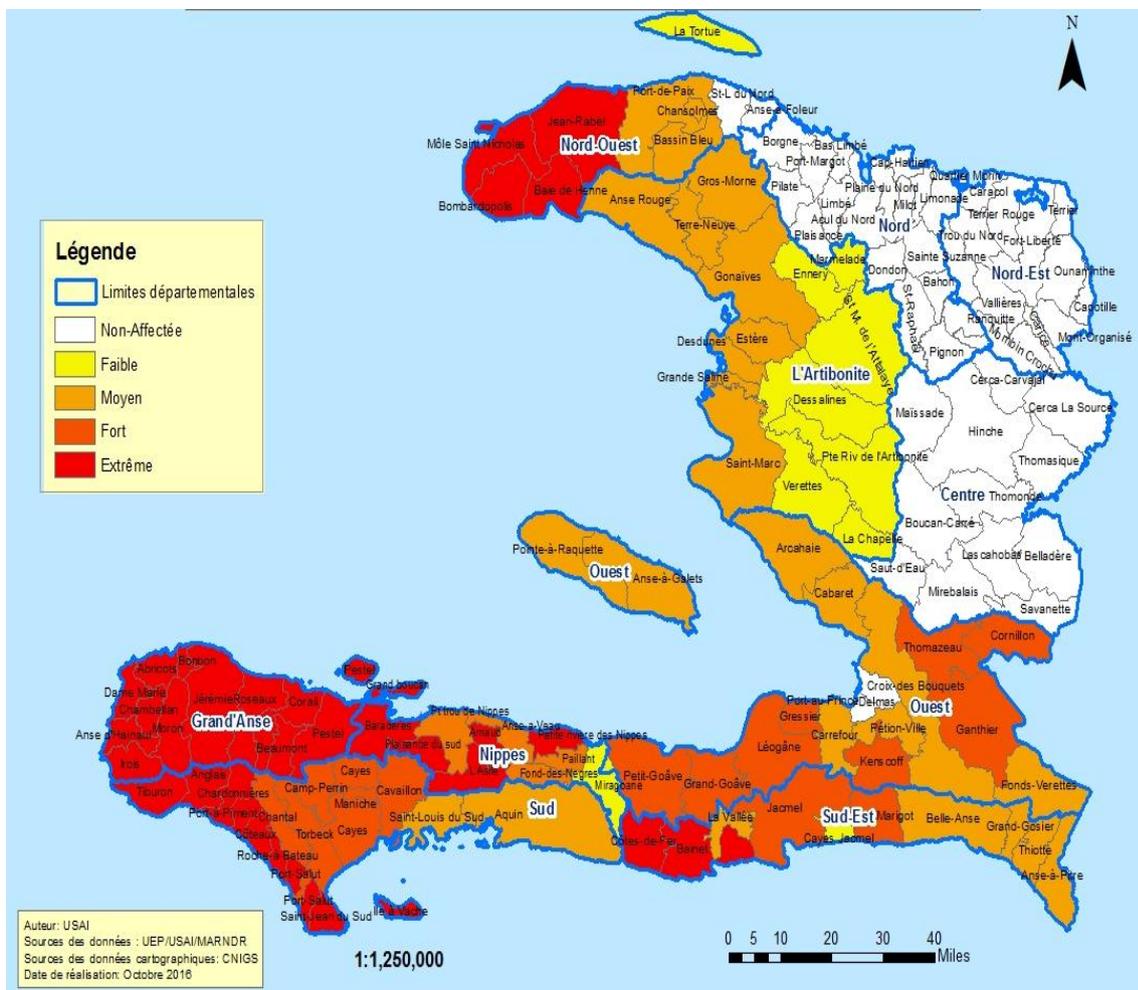
On 3 and 4 October 2016, Category 4 Hurricane Matthew cut a path of destruction across the Republic of Haiti. Its devastating winds and heavy rainfall caused widespread and extensive damage in the southwest part of the country. The departments of Grand Anse, Sud, Sud-Est and Nippes were the most impacted as they were directly in the trajectory of the Hurricane and exposed to winds of between 90 km/h to 120 km/h. Some areas were also affected in the departments of Ouest (Leogane, Grand Goave and Petit Goave), Artibonite (Anse Rouge, Terre Neuve and Gros Morne) and Nord-Est (Jean Rabel, Baie de Henne, Mole Saint Nicolas and Bombardopolis).

The Hurricane had a strong impact on food security and livelihoods of communities living in the affected areas. Social, productive and commercial infrastructures, including houses, roads and bridges have been damaged. Agricultural harvests and assets have been lost. Rapid assessment reports point to agricultural, livestock and fishery losses reaching almost 100 percent in the most impacted territories.

A Flash Appeal was launched by the United Nations agencies in Haiti on 10 October to provide immediate support to 750 000 food insecure affected people for the first three months. Within this framework, the Food and Agriculture Organization of the United Nations (FAO) required USD 9 million to provide immediate support to 300 000 accessible Hurricane-affected people in the recovery of their livelihoods through agricultural, livestock and fishery activities.

The extensive damages and losses to the agriculture sector and the effects to local economies require a longer-term approach based on food security and livelihoods restoration, productive and commercial infrastructures rehabilitation, landscape, ecosystem recovery and resilience building.

Map 1: Impact of Hurricane Matthew on food security



Source: USAI, 2016

### PRE-HURRICANE CONTEXT

The humanitarian context of Haiti is complex due to multiple inter-linked risk factors, namely: political instability and insecurity, persistence of cholera and other endemic diseases, bi-national island migration crisis, remaining caseloads of internally displaced people from the 2010 earthquake (around 60 000 people) and the country’s high vulnerability and exposure to natural disasters and climate change. During the last three years, Haiti has been hit by severe climatic disturbances characterized by repeated episodes of drought followed by erratic rainfall. In 2015 and 2016, the impact of the El Niño phenomenon has worsened the already critical food security situation. The prolonged drought had led to a reduction of more than 50 percent of crop production for the 2015 main cropping season, resulting in the lowest annual agricultural harvests in a decade. The sharp drop in production output resulted in prices of locally grown food commodities to rise significantly during the first half of the year, with some reaching record levels, thereby increasing the dependency on food imports. As the Haitian gourde – the national currency – continues to lose value against the United States dollar, prices of imported food commodities have also risen sharply in local markets.

According to the Integrated Food Security Phase Classification (IPC) analysis, carried out by FAO, WFP and its partners in December 2015<sup>1</sup>, before the Hurricane between 1 and 3 household out of 10 had an unacceptable food consumption (IPC Phases 2 and 3); 56 percent of rural households had to apply negative coping strategies to supply their basic needs; 3.2 million people were food insecure, of which 1.5 million were severely food insecure.

<sup>1</sup> <http://www.ipcinfo.org/ipcinfo-detail-forms/ipcinfo-map-detail/en/c/446523/>

## EFFECTS AND IMPACT OF THE HURRICANE



**1.5 million people in need of humanitarian assistance**



**806 000 people need immediate food assistance**



**90 to 100 percent of crops damaged in hardest-hit areas**

The passage of Hurricane Matthew is the most devastating disaster in Haiti since the 2010 earthquake and the strongest hurricane since Felix in 2007. Strong winds and excessive rainfall have caused catastrophic impacts to the food security and livelihoods of communities living in affected areas. Where the Hurricane hit with the strongest winds, 100 percent of staple crop harvests<sup>2</sup> were lost and most of perennial crops and trees<sup>3</sup> were literally eradicated. Agricultural plots are flooded or full of different kind of rubbles, and most of the irrigation canals are not operational as they have been either destroyed or filled with sand and debris.

Preliminary reports undertaken by the Government with the support of the humanitarian agencies indicate that 3.3 million people have been touched by the impact of the Hurricane and 1.5 million people are in need of immediate humanitarian assistance. According to the emergency food security assessment, 806 000 people are in need of urgent food assistance. The three departments most impacted by the Hurricane – Grand Anse, Nippes and Sud – represent close to 19 percent of the country's 736 200 ha of usable agricultural land (FAO, 2015). Some communes of other departments such as the Nord-Ouest, Ouest, Artibonite and Sud-Est were also severely affected. With at least 75 percent of the affected population relying on agriculture, livestock and fishery for their livelihoods in the affected department, the effects of Hurricane Matthew are having a direct impact on the lack of income from crop, livestock and fishery value chains, as well as income-generating opportunities for at least 600 000 rural people (about 120 000 households) which constitute the target number of beneficiaries of the programme.

A rapid evaluation report developed by the Ministry of Agriculture (October 27, 2016), with the support of FAO, Inter-American Development Bank and World Bank on losses and damage caused by the Hurricane on the agricultural sector, shows that local production has been strongly impacted:

- (i) Annual crops losses are estimated at 116 000 tonnes of foods and about 16 500 tonnes of food in stock. Most important crops losses are: around 18 000 tonnes of different kinds of beans, 20 000 tonnes of cassava, 23 500 tonnes of bananas and 6 000 tonnes of maize;
- (ii) Perennial crops (fruits, coffee, cocoa and their shade trees, etc.) have been severely damaged and in the most affected areas the trees have been eradicated or damaged. Fruit losses until recovery are estimated at over 100 million tons of fruit: 538 000 tonness of mango, 520 000 tonness of breeding tree fruits, 290 000 tonnes of avocado and 4 500 tonnes of coffee;
- (iii) Several animals were killed by the Hurricane: about 2 million birds, 500 000 goats, 163 000 pigs, 102 000 heads of cattle, 74 000 sheep and 23 000 horses. Those still alive are suffering from the lack of feed and pastures as well as poor health conditions and thereby a drastic reduction in milk production as well as eggs and honey;
- (iv) Irrigation infrastructures of approximately 16 000 hectares of irrigated areas and 4 000 km of rural roads were damaged;
- (v) Production, stocking and processing facilities (mills, milk processing units and silos) were severely damaged and in most cases, will not be operational without external support. Noteworthy is the partial destruction of community based milk processing infrastructure, equipment and inputs. These processing units served as a daily as well as an alternative source of income for milk producers and a positive distraction from forest exploitation for charcoal;
- (vi) Fishers were also impacted by the Hurricane having lost all their equipment and gear, including boats engines and fishing nets. Subsequently, fish and seafood prices are expected to further increase in the next three months.

<sup>2</sup> Bean, cassava, maize, rice, sweet potatoes, pigeon beans and yam

<sup>3</sup> Avocado, banana, plantain, coconut, cacao, coffee, breeding tree and mango

It is estimated that the cost of the agricultural losses and damages is about USD 560 million. Agriculture is the most affected sector, with losses representing 30 percent of the agricultural GDP.

## FAO'S 12-MONTH RESPONSE



FAO requires  
**USD 30 million**



To assist  
**120 000 affected families (600 000 people)**

To contribute to the Ministry of Agriculture's response plan, FAO in Haiti will implement an integrated and flexible operational strategy combining immediate emergency assistance with medium-term interventions to address basic needs, facilitate rapid increases in food availability and access, and protect the overall food production capacity in the country.

FAO's response will focus on strengthening the resilience of disaster-affected households to future climate shocks through livelihoods and assets recovery. FAO aims to reach 120 000 rural households (600 000 people) in need of urgent humanitarian assistance and depending on agriculture, livestock and fisheries for their livelihoods.

FAO will apply an integrated approach based on gender equality. Gender analysis will allow to better understand how men and women were affected by the Hurricane and address their specific needs and priorities to rehabilitate their livelihoods and build their resilience, taking into account their access to productive resources and services, and their specific roles and responsibilities in the agricultural activities. Through this response plan, FAO will work particularly in the rehabilitation and empowerment of rural women affected by the Hurricane, which play a key role in managing natural resources and agricultural production. This will imply the planning of gender-responsive interventions and the inclusion of gender-sensitive indicators in the monitoring and evaluation system. Special efforts will be required to involve women and youth in planning and decision-making to ensure that their priorities are adequately identified and addressed, also through specific targeted interventions.

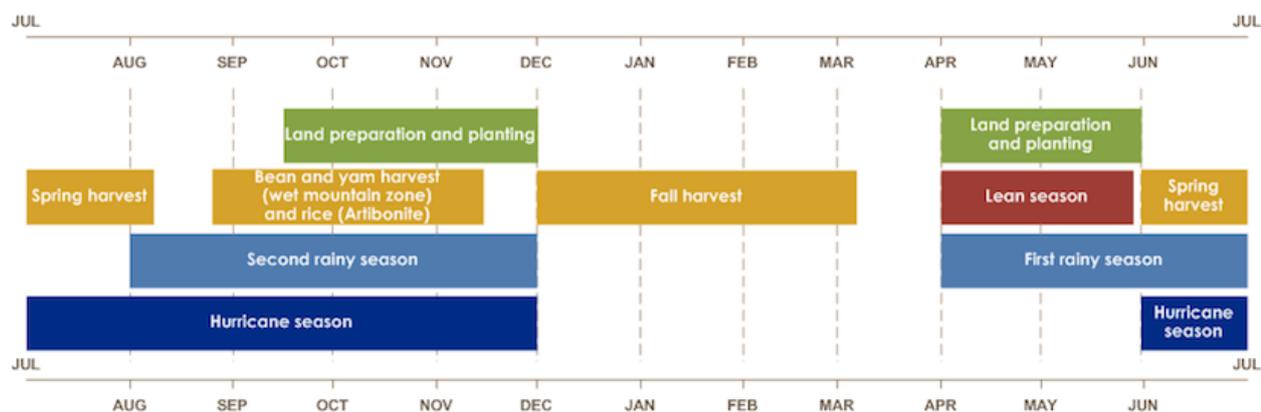
In the implementation of the plan, FAO will ensure that its seven commitments to accountability to affected populations (AAP)<sup>4</sup> will be mainstreamed in the various phases of the project cycle and special attention will be paid to opportunities to collaborate at the inter-agency level to ensure complementarities and coherence when engaging with communities.

In order to respond to the immediate needs of post Hurricane Matthew disaster-affected populations, FAO is undertaking emergency rapid response interventions to ensure the access to time-critical inputs to restore and protect the livelihoods and food security of affected populations. FAO will provide livelihood support in order to take advantage of the forthcoming agricultural spring season starting in April 2017 (Figure 1), which is the main source of food for rural households along the year, contributing to 60 percent of annual production in the country. To achieve this, FAO will combine the provision of inputs (seeds and tools) with the Cash+ approach, including cash transfers, technical training and/or extension services. Other activities, such as input trade fairs will be implemented in a second phase to support markets rehabilitation and strengthen local market value chains. Same approach will be addressed to livestock holders and fishers who have lost their assets and productive capacity, ensuring equal benefits for affected men and women.

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<sup>4</sup> 1) Leadership 2) Transparency 3) Feedback and complaints 4) Participation 5) Design, monitoring and evaluation 6) Protection from Sexual Exploitation and Abuse (PSEA) 7) Collaboration with peers and partners  
([http://www.fao.org/fileadmin/user\\_upload/emergencies/docs/Guidance%20Note\\_Accountability\\_Publi.pdf](http://www.fao.org/fileadmin/user_upload/emergencies/docs/Guidance%20Note_Accountability_Publi.pdf))

Figure 1: Agricultural calendar in Haiti



Source: Famine Early Warning System Network, 2013

Based on the results of the Post Disaster Needs Assessment and on the needs and priorities expressed by targeted communities (both men and women), productive cash-for-work interventions will be implemented aiming to build and rehabilitate productive community-based infrastructures while providing income support to protect livelihoods and assets and build resilience to future shocks. These activities will take into account community needs, seasonal calendar and women workload peaks, ensuring community ownership and building their capacities to maintain the assets and make the interventions sustainable. Activities will include cleaning and rehabilitating of community irrigation canals and water facilities, recovering of milk processing units, fodder banks, stocking and fish processing infrastructures as well as rural markets and roads. Special efforts will be made to ensure women’s involvement in the rehabilitation and reconstruction activities as part of their empowerment process.

One of the FAO strategic intervention will be the strengthening of the operational capacity of local groups of seed producers to improve the availability and accessibility of quality declared seeds and planting material of both food crops (cereals, pulses and tubers) and agroforestry (fruits, coffee, cacao, etc.) in the affected area, taking into account the existing local knowledge of men and women and their specific needs. Other priority activities include the establishment of livestock fodder associated with actions to reduce soil erosion and increase the biomass necessary for the implementation of conservation agriculture.

FAO will also give special attention to strengthening the resilience of farmers and their livelihoods through capacity development and training sessions of community based organizations and rural leaders on the application and dissemination of climate-resilient practices and technologies, taking into account their gender-related implications. This will help to adapt agricultural and nutritional practices to the projected impacts of climate change and associated extreme weather events that more and more are affecting Haiti on a regular basis. This approach would lead to increased and more stable incomes, build more resilient livelihoods and improved food and nutrition security, as well as it will reduce the pressure on, or promote the conservation of, natural resources, and contribute to addressing existing inequalities. Environmental restoration in turn helps reduce the vulnerability to extreme weather events at the farm and landscape levels. FAO has a long-standing history in Haiti on providing support to sustainable participatory and integrated management of natural resources and livelihoods, in particular in the watersheds and mountainous areas. The large emergency program implemented by FAO in Haiti in recent years included a participatory and integrated watershed management approach.

FAO in Haiti will adopt the *caisses de résilience* approach, which focuses on engaging and empowering rural smallholders, especially poor women and youth, to leverage their existing capacities through systematic actions, to better manage risks and shocks during crises and improve their livelihoods. The main objective is to diversify and accumulate assets that are essential to improve resilience in an equitable manner.

FAO will work in close collaboration and coordination with local authorities and concerned ministries (Ministry of Agriculture, Natural Resources and Rural Development, Ministry of the Environment, Civil Protection Directorate, Ministry of Interior, Ministry of Public Health and the Population and the Ministry of Planning) and in partnership with other actors providing food assistance to the most vulnerable populations to ensure that they can implement agricultural activities considering that food and basic nutrition needs are met at least during the period of the intervention.

Joint programming with other stakeholders especially the other Food Security Cluster organizations, WFP, international and national local Non-governmental Organizations (NGOs) will be implemented, when necessary, enabling FAO to provide timely support to the most affected populations with a special emphasis on women and youth (by involving women's and youth associations and groups). Local procurement<sup>5</sup> and partnerships with government institutions and local associations will be prioritized. The local and ancestral knowhow will be integrated into the actions to be developed which will ensure ownership of planned interventions by local men and women farmers.

FAO will rely on the involvement of local implementing partners – both NGOs and institutional partners – that are present and actively working in identified departments. The selection of implementing partners will be carried out according to FAO procedures, which are aimed at guaranteeing transparency and fairness<sup>6</sup>.

FAO is committed to ensure visibility and valorization of the impact of the results of the Response Plan, through a planned and coordinated communication strategy.

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<sup>5</sup> As armed groups are attacking humanitarian convoys that are delivering humanitarian packages, FAO, when possible, will procure inputs locally and work in close collaboration with the Government, the United Nations Stabilization Mission in Haiti and national police forces.

<sup>6</sup> Selection criteria will include past experience of the partner in the agriculture sector and the length of presence and activity in the area of intervention.

## LOGICAL FRAMEWORK

<b>Impact:</b> Contribute to protect, rehabilitate and improve the food security of vulnerable rural populations affected by Hurricane Matthew.	
<b>Outcome:</b> The livelihoods of 120 000 rural households affected by Hurricane Matthew in the departments of Grande Anse, Nippes, Sud, Nord-Ouest, Artibonite and Sud-Est are restored, enhanced and diversified.	
<b>Output 1:</b> The livelihoods and food security of the most vulnerable households are restored through the recovery of agricultural and seed production – USD 10 million.	
<b>Planned activities</b>	
<b>Title</b>	<b>Description</b>
Analysis of the availability and accessibility of quality seeds in the country	Conduct a seed security assessment
Provision of agricultural inputs and technical assistance	<p>Provide seed and plant material for staple crops to vulnerable households through in-kind or cash-based interventions</p> <p>Organize seed fairs through vouchers accompanied by technical assistance in the communities where quality seeds are available</p> <p>Provide vegetable seeds and technical assistance to groups of vulnerable women to improve their food diversification and income generation through vegetable production and marketing</p> <p>Provide agricultural tools to vulnerable households</p>
Improvement of the availability and accessibility of quality seeds and planting material in local markets	<p>Strengthen the operational capacity of groups of seed producers in quality declared seeds and planting material production near farming families in cooperation with the National Seed Service and the municipal agricultural offices</p> <p>Strengthen availability of local planting material and seed systems for multiplication and dissemination of quality seeds and planting material of climate-resilient crop varieties</p>
Boosting the production of perennial crops	<p>Provide technical support to farmers' associations to establish community-based nurseries of fruit and shade trees (avocado, cocoa, coffee, mango, citrus etc.) through cash-for-work activities for both men and women</p> <p>Provide fruit and shade trees seedlings to vulnerable households to resume fruit production</p> <p>Establish agroforestry systems to planting fruit, cash crops and shade trees</p>
<b>Output 2:</b> The incomes of vulnerable households are improved through livestock protection and restocking and the recovery of the fishery sector – USD 6 million.	
<b>Planned activities</b>	
<b>Title</b>	<b>Description</b>
Protection of livestock	<p>Establish veterinary support teams and provide mobile veterinary kits and services</p> <p>Provide emergency fodder for livestock</p>
Restocking of livestock	Purchase and distribute livestock to vulnerable households

Improve the availability of food and water for livestock	Support farmers for the establishment of fodder banks (inputs and technical support) Establish adequate watering infrastructure
Recovery of the fishing sector	Provide sustainable fishing equipment and technical support
Improve the quality of fishery products	Provide construction material for the rehabilitation of community infrastructure for fish processing and selling
<b>Output 3:</b> Agricultural infrastructure and processing facilities are rehabilitated – USD 7 million	
<b>Planned activities</b>	
<b>Title</b>	<b>Description</b>
Rehabilitate the irrigation canals to resume irrigated agriculture	Clean and rehabilitate irrigation canals damaged by the Hurricane through cash-based interventions, involving also women
Improve the quality of stored agricultural products	Rehabilitate community grain storage facilities
Improve dairy production and dairy transformation	Rehabilitate community infrastructures for milk collection, and transformation  Provide equipment for transformation and commercialization of milk and dairy products;  Provide technical assistance to dairy management staff
Restoring the marketing of local agricultural products	Rehabilitate rural markets and roads through cash-based interventions
<b>Output 4:</b> Landscapes and watershed are gradually restored – USD 3 million	
<b>Planned activities</b>	
<b>Title</b>	<b>Description</b>
Forest restoration and promotion of agroforestry	Provide technical support to farmers associations to establish community-based nurseries of agroforestry and forest trees through cash for work  Implement cash for work and technical assistance for planting and protection of forest trees in community plots  Provide technical assistance and provide agroforestry plants to vulnerable family farmers
Recovery of the local ecosystems	Provide technical assistance for landscape restoration and recovery of ecological corridors  Strengthen the surveillance capacity of the Ministry of the Environment for forbidden charcoal production and/or conservation activities
<b>Output 5:</b> The resilience of vulnerable households and institutions affected by Hurricane Matthew is enhanced – USD 4 million	
<b>Planned activities</b>	
<b>Title</b>	<b>Description</b>
Disaster Risk Management (DRM) capacity building	Provide technical assistance for implementing the integrated and participatory watershed management approach (land use planning, soil and water conservation/management techniques, conservation agriculture,

	<p>reforestation, livestock management, etc.)</p> <p>Develop and implement community-based DRM plans for local agricultural production</p> <p>Create or reinforce local DRM committees developed with the civil protection;</p> <p>Provide contingency stock to prepare or respond to natural disasters</p> <p>Establish and train post-disaster units of the Ministry of Agriculture in collaboration with the Civil Protection Directorate (tools and technical support)</p> <p>Carry out field testing and replication of climate-resilient practices for climate risk management in agriculture</p> <p>Promote the application and dissemination of climate-resilient agricultural technologies and practices through farmer field schools and lead farmers' initiatives, taking into account the gender implications</p>
Strengthen policies at central and decentralized level	Develop and integrate DRM and climate change adaptation plans and approaches into agricultural policies, programs and institutions (including Country Programming Framework).
Diversification of income-generating activities and DRM financial mechanisms for the resilience of rural communities	<p>Implement community contingency funds (<i>caisse de résilience</i>) approaches among affected rural communities</p> <p>Provide critical working capital for restocking of inputs for transformation units (dairies, cassava units, fruits etc.)</p> <p>Rehabilitate ponds for sea-salt production</p>

## ESTIMATED BUDGET

BUDGET ITEM	COST (USD)
PERSONNEL (staff, consultants, technical support and travel)	5 819 000
SUPPLIES AND INPUTS (to be distributed)	11 090 000
CONTRACT (with implementing partners)	9 272 000
OPERATIONAL DIRECT COST (communication, logistic, security, office)	1 273 545
INDIRECT COSTS (not more than 10 %)	2 545 455
<b>TOTAL</b>	<b>30 000 000</b>