



**USAID | WINNER**  
FROM THE AMERICAN PEOPLE      WATERSHED INITIATIVE FOR NATIONAL  
NATURAL ENVIRONMENTAL RESOURCES

# Haiti WINNER

**Work Plan: October 2011 - September 2012**

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Watershed Initiative for National Natural Environmental Resources

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# CONTENTS

<b>ACRONYMS</b>	<b>iv</b>
<b>SECTION I. PROLOGUE</b>	<b>1</b>
<b>SECTION II. GENERAL APPROACH</b>	<b>2</b>
<b>A. Vision and Key Principles</b>	<b>2</b>
<b>B. Results Framework</b>	<b>7</b>
<b>C. Work Planning Methodology</b>	<b>9</b>
<b>D. Value Chain Approach</b>	<b>9</b>
<b>E. Operations and Management [SENSITIVE INFORMATION REMOVED]</b>	<b>16</b>
<b>F. Watershed Investment Fund</b>	<b>18</b>
<b>G. Budget Summary [SENSITIVE INFORMATION REMOVED]</b>	<b>20</b>
<b>H. Geographic Information Systems and Support</b>	<b>25</b>
<b>I. Gender Issues</b>	<b>23</b>
<b>J. Communications Plan</b>	<b>27</b>
<b>K. Monitoring and Evaluation</b>	<b>28</b>
<b>L. Environmental Compliance</b>	<b>29</b>
<b>SECTION III. CUL DE SAC</b>	<b>35</b>
<b>A. Introduction</b>	<b>31</b>
<b>B. Strategy for the Cul-de-Sac corridor</b>	<b>31</b>
<b>C. Progress to date</b>	<b>33</b>
<b>D. Activities by Key Results for Cul-de-Sac</b>	<b>34</b>
<b>SECTION IV. MATHEUX CORRIDOR</b>	<b>46</b>
<b>A. Progress to date</b>	<b>46</b>

<b>B. Project's Fundamental Objective for Work in the Watershed</b>	<b>46</b>
<b>C. Strategies for Work in the Matheux Corridor</b>	<b>46</b>
<b>D. Selected Zones of Intervention</b>	<b>47</b>
<b>E. Activities by Key Results for Matheux Corridor</b>	<b>48</b>
<b>SECTION V. MIREBALAIS AND SAUT D'EAU REGION</b>	<b>60</b>
<b>A. Context</b>	<b>60</b>
<b>B. Selected Zones of Intervention</b>	<b>63</b>
<b>C. Strategies for the development of the mango value chain in the Mirebalais/Sau d'Eau Region</b>	<b>63</b>
<b>D. Activities by Key Results for Mirebalais/Saut d'Eau</b>	<b>65</b>
<b>SECTION VI. GONAIVES REGION</b>	<b>70</b>
<b>A. Project's Fundamental Objective for Work in the Region</b>	<b>70</b>
<b>B. Activities by Key Results for Gonaives</b>	<b>70</b>
<b>SECTION VII. PROJECT LEVEL ACTIVITIES</b>	<b>72</b>
<b>A. Project Level Activities by Key Results</b>	<b>72</b>
<b>ANNEX A: TIMELINE OF ACTIVITIES</b>	
Cul de Sac	
Gonaives	
Cabaret-Arcahaie	
Mirebalais-Saut d'Eau	
<b>ANNEX B: ACTIVITIES AND FOCUS CROPS</b>	

## ACRONYMS

AFD	Agence Française de Développement
ANEM	Association Nationale des Exportateurs de Mangue
ASEC	Assemblée des Sections Communales
BIA	Boutique d’Intrants Agricoles
CASEC	Conseil d’Administration de la Section Communale
CBOs	Community-Based Organizations
CFET	Centre de Formation et d’Encadrement Technique
CHF	Cooperative Housing Foundation
CIAT	Comité Interministériel d’Aménagement du Territoire
CETPA	Centre de Stockage et de Transformation des Produits Agricoles
CNIGS	Centre National de l’Information Géospatiale
COEPDA	Comité Evangélique pour la Production et le Développement Agricole
COP	Chief of Party
COTR	Contracting Officer’s Technical Representative (USAID)
CPC	Civil Protection Committees
CRDD	Centre Rural de Développement Durable
CRS	Catholic Relief Services
DDA	Direction Départementale Agricole
DEED	Développement Economique pour un Environnement Durable
DPC	Direction de la Protection Civile (part of MICT)
DQA	Data Quality Assessment
EA	Environmental Assessment
FAMV	Faculté d’Agronomie et de Médecine Vétérinaire
FDI	Fonds de Développement Industriel
FENAPCOM	Fédération Nationale pour la Production et la Commercialisation de la Mangue
FGBF	Fédération Groupements de Belle Fontaine
FTF	Feed the Future
GIS	Geographic Information System
GOH	Government of Haiti

GPS	Global Positioning System
IDB	Interamerican Development Bank
INAGHEI	Institut National d'Administration, de Gestion, et des Hautes Etudes Internationales
IR	Intermediate Result
LCB	Local Capacity Building
LOC	Letter of Credit
LULC	Land Use Land Cover
MARNDR	Ministere de l'Agriculture, des Ressources Naturelles et du Développement Rural
MDE	Ministere de l'Environnement
M&E	Monitoring and Evaluation
MICT	Ministère de l'Intérieur et des Collectivités Territoriales
MOU	Memorandum of Understanding
MTPTC	Ministère des Travaux Publics, Transport et Communication
NGO	Non-Governmental Organization
NRM	Natural Resources Management
PEA	Programmatic Environmental Assessment
PIA	Programme d'Intensification Agricole (IDB-funded project)
PMP	Performance Management Plan
PPAs	Public-Private Agreements
PPPP	Public-Private-Producer Partnership
RFP	Request for Proposals
SHAISA	Société Haitienne Agro-Industrielle S. A
SBRI	Small Business Recovery Initiative
SRI	System of Rice Intensification
UF	University of Florida
USAID	United States Agency for International Development
USG	United States Government
WIF	Watershed Investment Fund
WINNER	Watershed Initiative for National Natural Environmental Resources

## SECTION I. PROLOGUE

This plan, prepared by the team while carrying out Year 3 activities, reflects the new strategy of USAID/Haiti and the new purpose of WINNER, as stated in our Task Order, amended in August 2011. The plan serves to align the WINNER project with the Post-Earthquake USG Haiti Strategy: Toward Renewal and Economic Opportunity and with the USG Presidential Feed the Future Initiative. In line with this Strategy and Initiative, the highest level outcome WINNER now seeks to achieve is to sustainably increase incomes for rural households.

This plan represents both a building upon many of WINNER's past achievements as well as a meaningful reorientation. WINNER will now take a value-chain approach, which will augment its past successes at the farm-level through analysis and investments at each stage of value addition, including input markets, storage and processing, local and international wholesale and end markets, and support services (transport, communications, etc.). It will also take a greater look at policy and enabling environment issues. Such an approach will increase the likelihood of sustainability through greater engagement of the private sector and local and national government. WINNER will also focus its investments to achieve deeper impact, both geographically—phasing out of Gonaives—as well as in terms of focus crops, concentrating the great majority of its resources in the corn, rice, bean, plantain, and mango value chains.

This fourth work plan covers the October 2011/September 2012 period and is based on the new Results Framework, following modification #10 to the WINNER Task Order, which includes three Intermediate Results: 1) Agricultural Productivity Increased; 2) Watershed Stability Improved. 3) Agricultural Markets Strengthened. New activities have been identified and will be implemented under this revised framework. Relevant interventions from the third work plan (January 2011/May 2012) will continue with some adjustments. Activities related to the “Earthquake Recovery Enhanced” key result have been terminated, with only a few remaining under the Small Business Recovery Initiative (SBRI) that will be soon completed.

We will contribute to improved food security by introducing and disseminating technical innovations to modernize Haitian agriculture, bolstering agricultural productivity while stabilizing hillsides. We will simultaneously strengthen value chains and engage the private sector to find markets for and add value to the increased production. Our key beneficiaries will be small farmers grouped into well-structured associations and federations that will be increasingly linked to agribusinesses through mutually rewarding and sustainable business relationships.

The project has based this plan on a \$36.8 million budget through September 2012, with 22.4% allocated to operation expenses.

# SECTION II. GENERAL APPROACH

## A. Vision and Key Principles

The long-term vision of the WINNER program is the following: *People living within targeted corridors will have sustainably increased incomes, driven by agricultural development, reduced threat from flooding, and a stronger private sector. Their experience will serve as a model approach to replicate both within and beyond the targeted corridors.*

To achieve the project vision, our new approach represents an augmentation from previous years, broadening to focus not only on farmers but on entire value chains. It is aimed at reversing the course of economic and environmental decline in targeted corridors. We recognize the central role farmers must play to revitalize the Haitian rural economy. We are helping farmers acquire the resources and capacity to become more productive and generate higher incomes in a sustainable manner that protects the environment. We also work with the government at all levels, the private sector and other stakeholders to promote and protect productive investments, improve and enforce the legal and regulatory framework. We create strong economic linkages between farmer organizations and private enterprises that foster new business opportunities and lead to improved livelihoods.

<p style="text-align: center;"><b>A Value Chain-Centered Approach</b></p> <p>WINNER is centered on value chains and aimed at reversing the course of economic and environmental decline in targeted corridors.</p> <p>We will help farmers acquire the resources and the capacity to become more productive and generate higher incomes in a sustainable manner that protects the environment.</p> <p>We will work with the private sector, national and local government, and civil society organizations to build capacity and form sustainable relationships.</p>
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Our approach rests on six principles.

- *Speed and focus.* Intervene rapidly and generate tangible results, while remaining focused on the project purpose.
- *Impact.* Concentrate efforts and resources where we can maximize impact in terms of risk reduction, food production and improved livelihoods.
- *Hope and empowerment.* To stop environmental degradation and expanding poverty, provide farmers with enough resources and training to give them hope and a chance to improve their lives.
- *Support for good governance.* Work in partnership with the government, making sure activities advance its plans and approaches, while promoting compliance with laws and regulations.
- *Productive partnerships.* Foster strong and profitable partnerships between farmers and private enterprises at all stages of value chains to valorize lands, maximize production and ensure large scale commercialization.
- *Sustainability.* Strengthen farmer organizations and set up structures and mechanisms that will continue to operate after WINNER ends.

We have selected our activities to be perfectly in line with USAID overall strategy under Pillar B, Food and Economic Security, and to take into account lessons learned after two years of project implementation. Here are some of the key criteria and goals we kept in mind while preparing this work plan.

*Focus on a few value chains in the plains, while promoting sustainable agriculture on hillsides (IR 1 and 2).*

- WINNER will focus on the corn, beans and rice value chains in the Cul-de-Sac corridor; and on corn, beans, and plantain value chains in the Matheux corridor. In addition, we will support the mango value chain as an export crop in all corridors, as well as in the Mirebalais/Sat d'Eau region. We will devote at least 80 percent of project resources to these focus crops.
- Our primary goal is to significantly increase the production of key food crops in selected corridors, working with small farmers, larger land owners and agribusinesses to apply modern techniques and intervene at all stages of value chains. One of our key findings, after two years, is that small farmers should continue to be the main beneficiaries of our support, but we cannot rely only on farmer organizations to expand production and change the landscape in our zones of intervention. This is why we will systematically promote innovative partnerships between small land holders, local institutions and agribusinesses.
- We will build on the renewed interest of private companies in the agricultural sector, to forge more productive links with farmers and set up the conditions for a real modernization of Haitian agriculture in selected corridors.
- In the same spirit, we will support the creation and expansion of processing facilities that will serve as natural outlets for small farmer production.
- We will also strive to convert thousands of hectares of fallow land in the Cul de Sac and Matheux corridors into productive agricultural lands. In addition to visible production gains, we will generate thousands of new jobs and revitalize the agricultural vocation in targeted plains.

*Promote productive investments through sound policy measures (IR 1, 2 and 3)*

- We will work with the Ministry of Agriculture and institutions from the private sector to well define the respective roles of the Government and private enterprises and determine the best policy measures to promote and protect private investments in the agricultural and agribusiness sectors. We believe for instance that rural enterprises should have a new corporate status that will facilitate their creation, provide automatic tax exonerations, and enable authorized representatives to legally open bank accounts on behalf of their enterprises.

*Improve commercialization of agricultural products (IR 3).*

- We will devote more time and resources to help WINNER-assisted farmers store and sell their products at the best possible conditions. We will create and/or strengthen federations of farmer associations, which will sign raw material supply agreements with agribusinesses that will buy their products at mutually agreed prices and payment terms.

It will also be essential to help set up better storage facilities, by financing the construction of silos warehouses that will belong to farmer federations or agribusinesses.

- We will also launch a major study and rehabilitation works to modernize key rural markets in selected corridors. We will help local governments and communities manage rehabilitated markets in a sustainable way that will also include improved garbage collection and treatment.

*Ensure greater access to capital and inputs (IR 1, 2 and 3).*

- We will continue to strengthen the managerial and marketing skills of our network of Farmer Stores (Boutiques d’Intrants Agricoles or BIA) and will expand the supplier credit system that was recently started. The goal is to enable farmers to buy a broad range of inputs and pay back after harvesting and selling their products. Interest rates are much lower than micro-finance rates (10% per year). The challenges of agricultural finance are such that traditional micro-finance solutions are not practical for production. WINNER will work with Hi FIVE to identify creative financial solutions that may apply to small farmers in our focus value chains and areas of intervention. The use of supplier credit mechanisms or other tools such as warehouse receipts will improve the ability of farmers to secure credit for the agricultural campaigns. As they get better integrated in value chains (with access to storage facilities, and contracts with processors or distributors), their ability to repay loans and to secure income streams throughout the year will improve. We will federate community-based associations so that they can make bulk purchases directly from suppliers that can be financed at commercial lending rates. Farmer stores can then become reliable retail outlets for larger input suppliers.
- We will work with the Haitian government to liberalize the input markets by reducing the high levels of subsidies that inhibit the development of a market-based system for inputs. New policies will encourage the private sector to improve quality and will reduce input shortages at critical times.
- We will use more broadly the Agribusiness Equipment Fund, which already exists and provides affordable financing to farmer organizations and agribusinesses willing to purchase productive equipment. The fund operates through a combination of grants from WINNER and long term loans from the Industrial Development Fund (FDI). The list of eligible equipment includes tractors, pumps, hullers, mills, silos, etc.

*Provide more effective extension and technical support services (IR 1 and 2).*

- We will train and certify more than 500 Master Farmers over the work plan period and will increasingly work with them in our agricultural campaigns to provide proximity extension services to small farmers. We will introduce a nutrition course in the master farmer curriculum and will propose new specializations such as irrigation and drainage, or integrated pest management. We will carefully monitor the post-certification performance and needs of master farmers and will help market their services to other projects, NGOs, agribusinesses and public institutions.
- Our CRDDs became important demonstration and training centers regularly visited by hundreds of farmers and agribusinesses eager to learn new practices, see improved varieties and try modern equipment. The Bas Boen CRDD has a plant clinic, a soil fertility laboratory and a distance learning center linked to the University of Florida, which will be fully operational before the end

of 2011. The CRDD will offer an ideal environment for students and researchers to conduct studies and undertake research activities in many fields. We intend to sign an agreement with the main public and private universities to provide scholarships to final year students who need assistance to conduct research and write their thesis. In January 2012, we will transfer the management of the Bas Boen CRDD to a cooperative including representatives of the Government, the private sector, local authorities and farmer organizations. We will follow the same pattern with the Kenscoff CRDD, when it will be ready next year. Lastly, we will establish a Matheux CRDD. We will hire an international expert to provide quality advice and training on post-harvest operations, from threshing to storage and processing of key crops, like maize, rice and beans, to reduce losses, increase productivity and improve the quality of commercialized products. Following the recently completed seed sector assessment, we will provide technical and financial assistance to selected firms and organizations already involved in seed production and commercialization, to modernize their installations and improve the quality of commercial seeds. In addition, we will partner with a private group to develop a feasibility study and set up a mixing plant for both, chemical and organic fertilizers.

*Introduce innovative production systems that both increase incomes and reduce degradation (IR 1 and 2).*

- In upstream areas of the Cul de Sac and Matheux corridors, we will promote sustainable agriculture, under I.R. 2 of the new Results Framework: Watershed Stability Improved. We will especially focus on protected and vertical agriculture through small, drip-irrigated, green houses that can generate revenues of more than US\$1,000/year. We will help farmers grow annual crops on terraces and flat lands or under low cost greenhouses to increase farmers' income and free up space for agro-forestry and soil conservation activities.
- In low lands, we will focus on corn, rice and beans in the Cul de Sac corridor. In the Matheux corridor, we will focus on plantain, corn and beans. We will work with farmers, especially in the Cul de Sac plain, to expand the System of Rice Intensification (SRI) as a way to increase rice yields while reducing input consumption and significantly decreasing production costs, to make Haitian rice more competitive.
- We will pursue our agro-forestry campaign in upper watersheds, mainly based on fruit trees and other income-generating species such as coffee, to stabilize hillsides, protect irrigation systems and other downstream investments, and foster additional revenues for small farmers. We will work with more than 100 associations to transplant 2 million seedlings and will continue to strengthen the sense of ownership and commitment of beneficiaries. We will also combine soil conservation activities with agro-forestry campaigns by helping farmers plant thousands of trees around gullies that will be treated with dry walls and gabions to reduce water velocity and increase sedimentation. We will better map and target hillside locations for transplantation, to be sure that we will maximize the benefits for downstream farmers and investments.
- In Mirebalais and the USG-supported development corridors, we will adopt a value chain approach to develop mango production and commercialization, with the goal to increase mango exports by 20% for the 2012 harvest. We will intervene at five levels: i) organizational capacity building of farmer organizations and training of mango producers; ii) production expansion through improved practices, rehabilitation of irrigation systems, access to inputs, etc.; iii) modernization of commercialization channels by facilitating direct contacts between exporters and farmer associations and setting up mobile collection centers. We will also rehabilitate key rural roads that link production areas to markets. We will team up with agribusinesses to build processing centers that will valorize mango rejects to make mango puree and concentrate; iv) We will help producer organizations build up their cash flow and eliminate unnecessary

intermediaries, through timely and adequate financial support; v) We will work with stakeholders to build pilot processing facilities that can be easily replicated to produce juice, dried mangoes, etc.

*Rebuild and maintain critical infrastructures (IR 1, 2 and 3)*

- We will work to rehabilitate key infrastructure in the Cul-de-Sac and Matheux corridors. The main priorities will be the irrigation and drainage systems of the Riviere Grise and Riviere Blanche, and key rural roads in the Cul de Sac corridor. We will also intervene in the Matheux corridor to rehabilitate irrigation systems near Cabaret and Arcahaie and will invest in strategic infrastructures that will contribute to boost mango production and commercialization in the Mirebalais region. We will consider the costs and benefits of various options for large infrastructure projects before starting implementation.
- We will implement carefully selected ravine treatment interventions and flood protection works to protect lives and investments in productive plains. We will install reliable flood early warning systems that will also help us monitor and quantify water flows for irrigation purpose. We already helped set up the water-user associations of the Rivière Grise and Rivière Blanche irrigation systems and worked with stakeholders to commit labor and resources for road maintenance. We will build up on those achievements to create new road-user and water-user associations and reach our goal of cost-sharing with private enterprises whenever possible.

*Strengthen local governance structures (IR 2)*

- One of our key tasks will be to finalize the watershed management plans for the Cul de Sac and Matheux corridors. We will especially focus on land use/land cover maps and plans at the commune level to help local governments and stakeholders understand the challenges ahead and properly manage their urban, agricultural and forest lands. We will help communes develop and enforce zoning and construction codes that will protect agricultural lands.
- Local government structures need serious training to build up their managerial, financial and administrative skills, particularly at a time when they have a key role to play in the reconstruction of the country. WINNER will organize a series of training sessions through a participatory approach, in watershed management, contingency planning, and rural development.

*Reverse the “dependency” attitude (IR 1 and 2).*

- We believe that farmer organizations that benefit from our technical and financial assistance must develop and demonstrate an entrepreneurial spirit. They must also respect fundamental principles that reflect their commitment to modern agricultural practices and sustainable management of natural resources. In that perspective, we will help set up the “Associations Champions”, which will officially include in their bi-laws ten key principles, such as the interdiction to cut trees, or the need to make compost out of vegetal residues and to develop a business plan. In the future, only the “Associations Champions” that are increasingly self-reliant and proactive will receive our support. Our main goal will be to strengthen the organizational structure and managerial skills of those associations that will behave like small enterprises with many sources of income: BIAs, tractors and other equipment, small corn or rice mills, etc. We will also assist these associations with responding to specific market demands and to be able to meet market requirements in terms of quantity, quality, and timeliness of delivery.
- WINNER will help develop a management system and a business plan for each CRDD and Boutique d’Intrants Agricoles (BIA), and will phase out the subventions to both entities. The Bas Boen CRDD should have a status of cooperative and generate enough revenues to cover 50% of its expenses by October 2012.

- We will negotiate with the Ministry of Agriculture to progressively eliminate subsidies on fertilizers and key seeds like beans and hybrid corn. Farmers will buy inputs at market prices and thus will contribute to ensure the financial viability of BIAs. The same pattern will apply to mechanized operations (especially land tilling) that must be paid at market prices, through a competitive process.

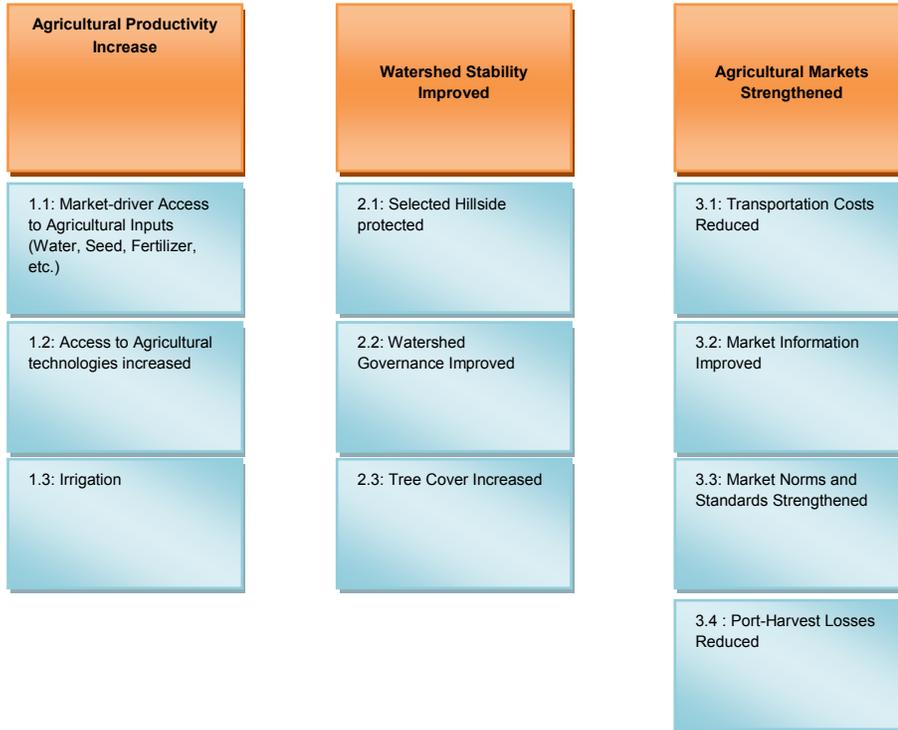
## **B. Results Framework**

Per modification #10 to the WINNER Task Order, WINNER's four initial Key Results have changed to include three revised Key Results/Intermediate Results. The new Results Framework and Key Results/Intermediate Results are directly below. New activities related to the previous "Earthquake Recovery Enhanced" key result have been terminated as of September 30<sup>th</sup> 2011, with only a few activities remaining under the Small Business Recovery Initiative (SBRI).

- 1. Agricultural Productivity Increased.**
- 2. Watershed Stability Improved.**
- 3. Agricultural Markets Strengthened**

The WINNER results framework by Key Result areas is presented in the chart below.

## WINNER Results Framework



### **C. Work Planning Methodology**

In identifying the activities in this work plan, we included activities carried over from the previous work plan that were not completed, deleted completed activities and activities that no longer fit the new scope of work and USAID strategy, and included new activities in line with the new strategy and scope of work.

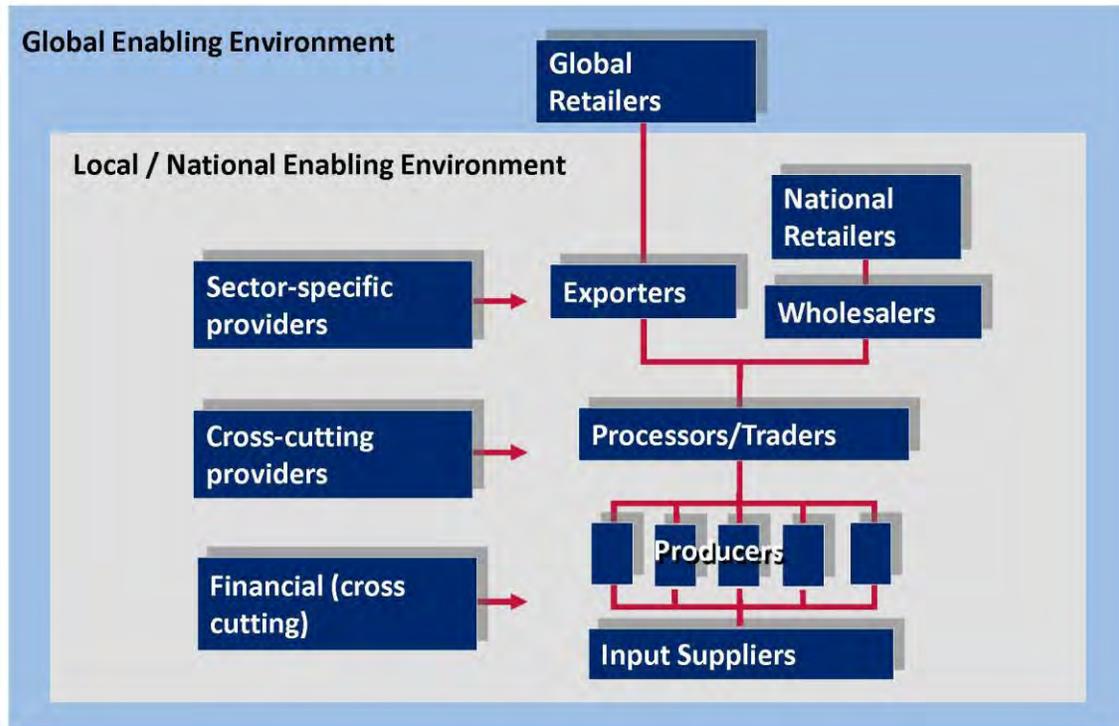
In selecting activities, we used an integrated approach, combining increased agricultural productivity, improved watershed stability, and strengthened agricultural markets as to mutually reinforce the effects of each component on the enhancement of target value chains in the selected corridors and areas of intervention. The previous components of WINNER are included in this work plan as follows: Livelihoods (included in IR1 – Agricultural Productivity Increased); Infrastructure (Included in all three IRs through Sub IR1.3 – Irrigation; Sub IR2.1 – Selected hillsides protected; Sub IR3.1 – Transportation costs reduced; and Sub IR3.4 Post-harvest losses reduced); Governance (Included in Sub IR2.2 – Watershed governance improved); and Public-Private-Producer-Partnership (included in IR3 – Agricultural markets strengthened). The activities in this work plan reflect a combination of the continuation of WINNER programs to date and a new focus on the corridors of Cul-de-Sac and the Matheux, as well as the mango value chain in Mirebalais; with the ultimate goal of increasing farmer incomes.

This work plan also focuses on the use of the value chain approach to achieve expected results. The key features of our value chain approach are presented below.

### **D. Value chain approach**

In the context of USAID’s new Haiti strategy, WINNER will emphasize a value chain approach. We will be using the value chain framework developed by USAID and summarized in the figure below. Under this framework, we consider the end markets for each value chain, the business enabling environment, vertical linkages (relationships between firms at different levels of the value chain), horizontal linkages (relationships between firms within each level of the value chain), and supporting markets (including financial services and business development services).

## THE FRAMEWORK: WHAT IS A VALUE CHAIN?



USAID's value chain approach emphasizes: a market system perspective, a focus on end markets, understanding the role of value chain governance, the recognition of the importance of relationships, facilitating changes in firm behavior, transforming relationships, targeting leverage points, and empowering the private sector.

WINNER will spend 80% of its resources on one export crop (mango) and three focus crops for the domestic market in each corridor: corn, rice and beans in the Cul de Sac; plantain, corn and beans in the Matheux. We will spend the remaining 20% on a limited number of support crops, likely sorghum and vegetables in the Cul de Sac; rice and vegetables in the Matheux. For all crops, we have adopted a value chain approach and have identified key interventions at each phase of the supply chain, based on our solid knowledge and experience of agricultural constraints and opportunities in our intervention zones. We now need to conduct a more thorough analysis of selected value chains to gather additional data, improve our assessment of the baseline situation and better quantify our goals. To that end, we will apply to each crop, in the WINNER corridors, a three step methodology:

### Value chain market evaluation

We will collect and analyze the following information

- Demand: situation and trends in volume and value
- Supply: situation and trends in volume and value
- Number of growers and production areas

- Post harvest operations
- Rural markets and transport
- Number and characteristics of intermediaries and processors
- Linkages with broad-based farmer associations

### **Value chain development and competitiveness analysis**

We will then identify key constraints that hamper the development and competitiveness of selected value chains:

- Inefficient input supply and distribution
- Lack of extension services
- Lack of mechanized soil preparation
- Low yield and production
- Bad rural infrastructures (irrigation, drainage, transport, markets)
- Obsolete storage and processing
- Inadequate financing
- Non-competitive prices
- Inefficient marketing
- Absence of norms
- Non-conducive business environment
- Negative environmental impact.
- Value chain integration

Preliminary studies and field experience have shown that the lack of inputs, tractors and extension services, low yields, high percentage of non productive lands, poor rural infrastructures, inadequate financing, an obsolete processing base, bad governance and the absence of value chain integration are the main constraints that translate into weak production, high transaction costs and low farm-gate prices. They are the root causes of the stagnation or decline of selected products in targeted corridors.

### **Activity selection**

Knowing the principal constraints to the modernization and expansion of key value chains in targeted corridors, we have tailored our activities to maximize our impact at each stage of the product chain. There are two main types of intervention:

#### *Activities at the value chain level*

We will provide access to inputs, extension and mechanized services, market information, technology transfer, technical assistance, training and funding to farmer associations and enterprises. We will consolidate the relationships between buyers and suppliers along value chains and increase the sales of all parties involved. Our goal is to improve the overall performance of value chains, so that small producers can earn more and be encouraged to increase production, while processors and traders will become more efficient and expand their markets. We will have better chances to reach our goals if the following conditions are met:

- Real potential to increase raw material and finished product supply, in response to market demands, within the project time frame.

- Strong commitment from all actors to make the necessary efforts and investments.
- Existence of enterprises and organizations that can play a catalytic role to promote growth and productive partnerships along the value chains.
- Existence and maintenance of infrastructures that facilitate the production, transport, processing, and marketing of raw material and finished products.
- Promotion of good governance by national and local authorities; existence of a legal and regulatory environment that is favorable to farmer and business development or can be rapidly improved.
- Positive contribution to environmental protection and sustainable management of natural resources.

#### *Cross-cutting activities*

These interventions will help remove critical constraints affecting all selected commodities. Potentially, this kind of activity can have the broadest impact and result in the highest benefit/cost ratio, in that it can have a positive effect on most value chains. Examples include the rehabilitation and maintenance of key rural infrastructures or the liberalization and development of the seed and fertilizer market that will lead to increased yields, lower production costs and expanded production.

#### **Synthesis**

The following tables summarize our planned interventions and the expected results of our activities at each step of the value chain for focus food crops (corn, beans, rice, plantain) and for the export crop (mangos).

**Value Chain Interventions  
Food Crops for Domestic Market  
(Cul de Sac : Corn, Beans, Rice;  
Matheux : Corn, Beans, Plantain)**

Value Chain Phases	Baseline Situation	WINNER Interventions	Expected Results	
			Cul de Sac	Matheux
Access to inputs	Direct import and sales by the Government; heavy subsidies; lack of good seeds; very low and inaccurate utilization of fertilizers	Modernization of seed industry; liberalization and development of fertilizer market (including organic fertilizer); strengthening of farmer stores.	Private imports of inputs; reduced subsidies; stronger farmer stores linked to importers.	Same results
Production	Yields: Corn: 0.8T/ha (2009) 2.5T/ha, (WINNER assisted farmers 2011) Beans: 0,7T/ha (2009) 1.2T/ha: WINNER, 2011 Rice: 3T/ha Plantain: 28T/ha 25% of agricultural lands non productive	Access to tractors and extension services; training of master farmers; rehabilitation and maintenance of irrigation and drainage systems. Rice in rotation with plantain to fight diseases and parasites; introduction of new varieties	Yields: Corn: 3.5T/ha Rice: 5T/ha Beans: 1.5T/ha 20% of fallows in production 9,000 ha, 13,000 farmers assisted; overall sales: \$19.3M	Same yields for corn and beans; Plantain: 32T/ha. 6,000 ha, 8,000 farmers; sales: \$15.7M
Post harvest Operations	10 % to 20% of losses; archaic methods; poor quality of products	Promotion of tarps for drying at farmer level; threshers and other equipments to reduce losses for associations	50% loss reduction; higher quality and quantities traded.	Improved preparation of harvested plantain; reduced loss
Storage	10% to 20% of losses; archaic methods; difficulty of long term storage	Construction of silos and warehouses for farmer associations and agribusinesses	Increased prices after longer storage	Same results
Processing	Small and outdated mills; very low yields; weak linkages with agribusinesses	Development of modern corn and rice mills; strong linkages with grower organizations	Higher yields; improved quality; greater production	Same results

Transport	Key rural roads in poor conditions; no maintenance system;	Rehabilitation and maintenance of key feeder roads; creation of, and assistance to, road-user associations	Increased investments; lower losses; easier product evacuation	Same results
Marketing	Rural markets: losses and poor sanitary conditions; low farm gate prices; weak linkages between farmers and end buyers	Rehabilitation of rural markets; TA to improve business relationships between buyers and sellers; creation of a “national product” label	Higher prices; forward contracts with processors and end buyers; better branding	Same results
Good Governance	Very weak state authority; government intervention in input supply and distribution; no maintenance of rural infrastructures; no enforcement of laws and regulations; anarchic constructions in productive plains.	New measures to encourage national production; improved maintenance of rural infrastructures; liberalization of input market; good governance of farmer associations; land use planning with municipalities	Improved maintenance of infrastructures; incentives for agricultural production; new seed law; zoning regulations for constructions	Same results
Norms and phytosanitary measures	No norms and sanitary control;	Quality control training for farmers and small mills; HACCP norms for larger processors.	Nascent food industry with international norms.	Same results
Credit and financing	2% of farmers have credit; micro finance rates inadequate to agricultural production; no commercial lending to farmers.	Supplier credit for inputs through farmer stores; agribusiness equipment financing; community warehouse financing with stock as collateral.	Expanded access to inputs new equipment for associations warehouse financing set up	Same results

**NB: Breakdown of expected production:**

**Cul de Sac:** Beans: 3,500 ha; 5,250T at \$1,500/T; sales: \$7,875,000  
 Corn: 4000ha; 14,000T at \$ 500/T; sales: \$7,00,000  
 Rice: 1,500ha; 7,500T at \$600/T; sales: \$4,500,000

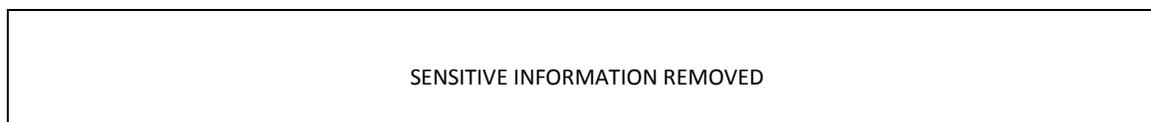
**Matheux:** Beans: 2,000ha; 3,000T; sales: \$4,500,000  
 Corn: 3,000 ha; 10,500T; sales: \$5,250,000  
 Plantain: 1,000 ha; sales: \$6,000,000

**Value Chain Interventions  
Export Crop (mangos)**

<b>Value Chain Phases</b>	<b>Baseline Situation</b>	<b>WINNER INTERVENTIONS</b>	<b>Expected Results All regions (Mirebalais, Cul-de-Sac, Matheux)</b>
Access to inputs	Nurseries established with the help of international donors	Establishment of nurseries; capacity building; training on production.	Expand the production of francisque mangos in our areas of intervention.
Production	Local populations of mangos growing spontaneously in target areas.	Establishment of orchards; grafting and pruning training; Mirebalais CRDD focused on the mango value chain.	Expand the production of francisque mangos in our areas of intervention. Improve the quality and quantity of mangoes ready for export.
Post Harvest Operations	One collection center in Saut d'Eau and one in Cabaret	Crates; mobile and fixed collection centers; Mirebalais CRDD demonstrating post-harvest best practices.	Reduce post-harvest losses. Increase the quantity of mangoes ready for export.
Processing	One mango drying facility; one mango juice production facility; one mango jam processing facility; conditioning centers at exporters facilities.	Modernization of processing facilities; demonstration of mango processing techniques at the Mirebalais CRDD; support for a mango juice facility; support for a mango cold storage unit; support for HACCP certification of processing facilities.	Increase economic opportunities in the value chain by adding value to mangos that are not export ready in our zones of intervention; increase rural incomes.
Transport	Roads in poor condition; mangos piled in trucks.	Rehabilitation of critical roads; improved donkey saddle bags; plastic crates for transport.	Reduce losses due to bruising and crushing of fruit during transport.
Commercialization	Export of Francisque mangos to the US; 1.6 million dozen mangos exported in 2011.	Diversification of export markets.	Increase mango exports by 20% in our zones of intervention; find market outlets for mango processed products.

Good Governance	No traceability system; no national norms for mango production.	Work with ANEM to implement a traceability system; raising awareness of local authorities and farmer associations to control animal grazing in mango orchards and burning practices.	Meet FDA and international buyer requirements; increase the value of exports with the implementation of a traceability system; improve value chain efficiency.
Norms and Phytosanitary Measures	Problems with antrachnose and fruit flies.	Program to control antrachnose; fruit fly traps in Mirebalais; implementation of orchards with different mango varieties to reduce the spread of diseases.	Reduce losses of mangoes due to antrachnose and fruit flies.

## E. Operations and Management



## F. Watershed Investment Fund

The Watershed Investment Fund (WIF) continues to be the principle funding source of WINNER’s work plan activities. The WIF is a dynamic and flexible funding mechanism which offers a variety of contractual instruments, including grants, subcontracts, short-term technical assistance, service contracts, memoranda of understanding, and direct procurement/direct implementation. The choice of contractual instrument is determined by the type of partner (s), and the type and complexity of the activity to be implemented. Often, the WIF will employ more than one instrument simultaneously to implement one activity. For example, for a grant in-kind, in addition to the grant itself, the WIF team will enter into contracts for purchases of products and services to complete the donation. For multi-faceted activities such as agricultural campaigns, the WIF may award numerous contracts to different suppliers in order to obtain materials needed.

The WIF’s four management principles are central to successful work processes and implementation of WINNER activities. These principles include:

1. Promote constant communication and interaction between technical and WIF team members so that WIF funds can be programmed and disbursed quickly.
2. Ensure compliance with required U.S. government regulations and Chemonics’ policies and procedures, which ensures transparency and procurement integrity.

3. Work closely with field partners so that they understand the project's purpose and what they can expect.
4. Deliver on promises.

During the last fiscal year, the WIF team has maintained a steady output of contractual documents (grants and contracts) to support WINNER's various activities across four components, ranging from complex *dossiers* for large agriculture and re-forestry campaigns, involving 40 or more grantees, to grants for ravine treatments, to infrastructure contracts, to indefinite quantity contracts for communication services, to name a few. Capacity building of the WIF team continues to be a priority, and is implemented through periodic training sessions, as well as ongoing, one on one coaching, and mentoring. This past year's capacity building efforts have yielded improved results, and enabled the WIF team to handle a large volume of work. Since there is always room for improvement, WIF Director will ensure continuous capacity building throughout the next year.

During this last fiscal year, WINNER's senior management team decided to put the procurement unit under the supervision of the WIF, thus adding four additional team members to its forces. The move of the procurement unit to the WIF has proven to be a good decision as it increased efficiency by keeping the work processes within the WIF team, and resulted in much improved communication and coordination between the WIF unit who depends on the procurement unit for all pricing and purchasing services. Another change which took place this past year was to move the management of the Letter of Credit (LOC) to WINNER's central accounting unit, therefore keeping all accounting functions in one place, and more integrated, as opposed to having the LOC managed separately within the WIF. One positive result of this second change is that it freed up valuable time for the WIF Director and her Deputy to concentrate solely on contracting processes. Further, financial reports are prepared in one place.

In addition to internal capacity building, the WIF will spend more time working with its field partners, especially rural associations, to improve their management capacities, especially on the context of applying for, and the management of WINNER grants. These activities will compliment other more in-depth capacity building efforts implemented by WINNER. WIF Managers will make more frequent field visits, and conduct awareness and orientation meetings before activities are launched. The WIF team will also be conducting grantee audits, both financial and performance.

Finally, in an effort to continue to streamline and shorten the time in which it takes to finalize contractual documents and get activities off the ground, the WIF will work closely with various technical team leaders to put in place several Indefinite Quantity Contracts (IQCs) for certain types of services that are used repeatedly. These services include, but are not limited to, capacity building services, access and operating of heavy machinery such as backhoes, mechanical shovels and bulldozers (used for clearing irrigation canals and preliminary road repair), masonry services, and communication services.

The 12-person WIF team is led by WIF Director Jennifer Brinkerhoff, with the assistance of Deputy Director Carine Bourjolly. The WIF Managers will be reorganized according to Intermediate Result Area.

This work plan envisions about \$27,370,000 of WIF-funded activities, as shown below.

Activity Budget October 2011 – September 2012							
	Cul de Sac	Matheux	Mirebalais	Gonaïves	Project level	Total	Percent
<b>Agricultural productivity</b>	\$5,455,000	\$2,505,000	\$415,000	\$240,000	\$2,890,000	<b>\$11,505,000</b>	<b>42.0%</b>
<b>Watershed stability</b>	\$4,340,000	\$2,390,000	\$150,000	\$0	\$570,000	<b>\$7,450,000</b>	<b>27.2%</b>
<b>Agricultural markets</b>	\$4,650,000	\$2,690,000	\$775,000	\$0	\$300,000	<b>\$8,415,000</b>	<b>30.7%</b>
<b>Total</b>	<b>\$14,445,000</b>	<b>\$7,585,000</b>	<b>\$1,340,000</b>	<b>\$240,000</b>	<b>\$3,760,000</b>	<b>\$27,370,000</b>	
<b>Percent</b>	<b>52.8%</b>	<b>27.7%</b>	<b>4.9%</b>	<b>0.9%</b>	<b>13.7%</b>		

WINNER is committed to spending most of the WIF resources on focus crops in targeted corridors. We will spend 80.5% of WIF resources on focus crops across all Intermediate Results. For IR 1 (agricultural productivity improved) and IR3 (agricultural markets strengthened), 87% of the WIF spending will be on focus crops. The table below summarizes projected expenditures on focus crops.

#### Projected Expenditures on Focus Crops

Expenditures by crops	Cul de Sac	Matheux	Mirebalais	Gonaïves	Project Level	Total	Percent
Focus crops	\$11,341,000	\$6,030,000	\$1,340,000	\$120,000	\$2,966,000	\$22,989,000	49.6%
Other crops	\$3,104,000	\$1,555,000	\$0	\$120,000	\$794,000	\$5,381,000	20.4%
<b>Total</b>	<b>\$14,445,000</b>	<b>\$7,585,000</b>	<b>\$1,340,000</b>	<b>\$240,000</b>	<b>\$3,760,000</b>	<b>\$27,370,000</b>	
<b>% focus crops</b>	<b>78.5%</b>	<b>79.5%</b>	<b>100.0%</b>	<b>50.0%</b>	<b>78.9%</b>	<b>79.6%</b>	

#### G. Budget Summary

WINNER's projected expenditures for the period covered in this work plan include WIF expenses that are used to finance the project's technical activities; operations expenses that includes long term staff salaries, the project's other direct costs, transportation costs, travel and per diem for WINNER staff, and staff allowances; and subcontract expenses that cover the technical assistance provided to WINNER through our subcontractors CH2MHill, RPI, and the University of Florida. Overall, we expect to spend \$36,838,732 in the period from October 2011 through September 2012, with 22.4% spent on operations and 77.6% spent on field implementation. The table below summarizes the WINNER budget for this period.

SENSITIVE INFORMATION REMOVED

## H. Geographic Information Systems and Support

WINNER aims to affect changes appropriate to each site, taking into consideration terrain, economic conditions, microclimate, soils, market access, population and a variety of other factors that are geographic by their very nature. For this reason, a geographic information system (GIS) was conceived to be an integral part of the project from its earliest phases. The WINNER GIS team has been producing maps and Google Earth products since the inception of the project. We have acquired 2010 satellite imagery of project zones, and the team will continue to produce maps for the project on a regular basis to highlight interventions and results. In this year's work plan, we will put greater emphasis on the use of GIS for monitoring and evaluation. We will use GIS tools to illustrate improved integration of the target value chains within the selected corridors, and to demonstrate the links between project activities and the protection of the productive plains.

We will be undertaking three major activities that will rely extensively on the use of GIS:

- *Development of the Cul-de-Sac and Matheux watershed management plans:* We have already started preparing the Cul-de-Sac watershed management plan and we have developed land use maps based on satellite images. We will continue to produce maps at the Communal level in the Cul-de-Sac. For the Matheux corridor, we will acquire high-resolution recent satellite images to facilitate the development of the watershed management plan. We will produce land use maps based on these images.
- *Preparation of GIS maps of the Cul-de-Sac and Matheux irrigation systems:* We will conduct this activity jointly with the CNIGS (Centre National d'Information Géospatiale). Under this activity, WINNER and CNIGS plan to develop detailed maps of the irrigation systems in the Cul-de-Sac plain and in the Matheux plain. The maps produced will identify primary, secondary, and tertiary canals and will be applicable to a wide variety of uses.
- *Use of GIS for the mango traceability system:* We will use GIS tools to develop a practical mango traceability system. We will work with the association of mango exporters (ANEM) and with mango producers to implement a pilot mango traceability system in the Mirebalais and Cabaret regions. We will use GIS and work with farmer associations to delineate mango producing areas and to assign zip codes to specific one kilometer areas with unique coordinates.

The use of GIS will be a powerful tool for institutional partners to use. We have already provided map-making equipment and training to some municipalities, and we will provide GPS equipment to the CNIGS to identify irrigation networks. We will continue to build the capacity of institutional partners in using GIS technology for planning purposes and to implement the watershed management plans, particularly zoning laws. The WINNER GIS team and our subcontractor, RPI, will provide hands-on, practical training to municipalities and other government entities in the use of GIS tools for analyzing spatial data and the potential impacts of various watershed management options.

## I. Gender Issues

In October 2009, WINNER signed an MOU with the Ministry of Women's affairs committing the project to be sensitive to gender issues and to foster the role of women in project activities. Since the project's inception, we have tried to involve women as much as possible as project beneficiaries. About 30% of the Master Farmers receiving training are women. Of the community-based associations supported by WINNER in our targeted corridors, 55% have women in their executive committees (albeit rarely in leadership positions), and 52% of the members of these associations are women. However, we need to continue to provide targeted assistance to women so that they can assume greater leadership roles within farmer associations. In addition, our assistance to women groups will feature prominently in the activities under IR3 related to the marketing of agricultural products and the rehabilitation of rural markets. In particular, we will work with women intermediaries to foster value chain integration and commercial linkages between farmers and markets.

## J. Communications Plan

In light of the project's various components, our communications plan uses a multi-faceted communications approach that documents and supports the visible impacts the project seeks to create. While traditional communications tools are still a critical component of WINNER's approach, the project also incorporates innovative video, photography, and social media tools. The communications plan has several objectives: (1) make the public aware of WINNER activities and achievements; (2) foster replication and scaling up of best practices and results; (3) develop outreach and communication tools to strengthen the capacity of beneficiaries, particularly community-based groups; (4) develop communication training tools that will continue to be used after WINNER; and (5) showcase the achievements of beneficiaries to inspire others. All of these objectives foster the sustainability and adoption of WINNER best practices to scale up the project results. The specific communications activities that WINNER will undertake are listed below.

***WINNER web site and social media presence.*** The project has developed a web site as a tool for sharing project results and technical information. The web site has been recently updated and the new version will be available online in October 2011. We will continue to ensure that the language and messaging on the web site reflects the overall philosophy of the project. We will also develop a set of posters, illustrative of our approach, results or messages, to be placed in partner's and beneficiaries offices, with a particular attention to farmers associations.

***WINNER communications toolkit.*** The project has a well-designed brochure, which describes the purpose and mission of the project. We have prepared more detailed brochures highlighting specific aspects of the programs that can be placed in USAID-branded folders for different audiences. The kit can be repurposed, serving as a press, marketing, or informational kit as required.

The project will also update and expand its brochures to reflect the latest results and impacts. The communications toolkit can also include success stories and the latest project videos on a DVD.

We have also developed a series of banner-ups that can be easily set up for fairs, conferences, workshops, and press events.

***Project-generated videos.*** In light of the low literacy level of most our beneficiaries, the project will privilege the use of videos to "tell our story". The project has already begun documenting its work and has generated positive attention for the videos already produced. The project will also develop short audio video on major events, accomplishments and educative "how-to" documentaries on new proven agricultural production techniques.

**Radio show.** The project will keep on sharing its approach and results through its weekly radio show —*Agri et Développement*?. The program will showcase activities directly linked to WINNER’s statement of work.

**Project participation in external video and radio productions.** The project will consider opportunities to partially fund or participate in video and radio productions led by other groups with same vision of disseminating new techniques and approaches aiming at intensifying agriculture.

**Success stories.** The project is required to deliver one success story to USAID each month. The project will share additional successes each month through

**News flashes.** Project staff will be trained to capture news worth sharing. In addition, ebulletins will be sent to USAID, partners and will also be posted on our website.

## K. Monitoring and Evaluation

Our monitoring, evaluation, and reporting helps the project stay on track with our work plan activities, identify needed adjustments, report to USAID, and share lessons and successes with the larger community. We will prepare a revised Performance Monitoring Plan (PMP) to align indicators and targets to the project’s revised results framework. We have instituted a comprehensive filing system for monitoring and evaluation data to ensure full compliance with the Data Quality Assessment (DQA) process. In the coming year, given the greater emphasis on M&E, we will develop an M&E data base linking activities to indicators and results. We also plan to make greater use of GIS tools to present results and potential long-term impacts of WINNER activities.

The updated list of WINNER indicators that conform to USAID’s new USAID Haiti strategy and to the objectives of the Feed the Future initiative are presented in the table below.

Indicator Code	Indicator	Unit of measure	Disaggregated by
<b>Pillar B Objective: Inclusive Agricultural Sector Growth</b>			
4.5-1	Per capita income (as proxied by expenditures or assets) of USG assisted beneficiaries	\$	Gendered household type
<b>IR1: Agricultural Productivity Increased</b>			
IR1.1	Gross margin per hectare of selected crops in targeted corridors	#	Commodity and corridors
4.5-4			Gendered household type
IR1.2	% increase in yield per hectare in the targeted corridors	%	Commodity and corridor

### Program Element 5.5.1. Agricultural Enabling Environment

#### Agricultural Services and Institutional Strengthening

<b>Indicator Code</b>	<b>Indicator</b>	<b>Unit of measure</b>	<b>Disaggregated by</b>
4.5.1.9 FTF	Number of policies/administrative procedures analyzed as a result of USG assistance	#	None
<b>Program Element 4.5.2 Agricultural Sector Capacity</b>			
4.5.2.16 F Gender	Number of women's organizations/associations assisted as a result of USG supported interventions	#	None
4.5.2.17 F	Percent change in value of international exports of targeted commodities as a result of USG assistance	#	None
4.5.2.36 FTF	Value of exports of targeted commodities as a result of USG assistance	\$	Commodity Regional trade & non-regional trade
4.5.2.2 FTF	Number of additional hectares under improved technologies or management practices as a result of USG assistance	#	Corridor and outside corridor Technology type
4.5.2.40 FTF	Number of hectares of agricultural land (fields, rangeland, agro-forests) showing improved biophysical conditions as a result of USG assistance	#	No/low till Permanent soil cover
4.5.2.4 F	Number of agricultural-related firms benefiting directly from USG-supported interventions	\$	None
4.5.2.8 FTF	Number of new technologies or management practices made available for transfer as a result of USG assistance	#	Corridor and type of technology
4.5.2.5 FTF	Number of farmers or others who have applied new technologies or management practices as a result of USG assistance	#	Producers People in government People in firms Other rural people

<b>Indicator Code</b>	<b>Indicator</b>	<b>Unit of measure</b>	<b>Disaggregated by</b>
4.5.2.7 FTF	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	#	Gender Types of persons
<b>IR2: Watershed Stability Improved</b>			
WINNER 1	Number of hectares of hillsides protected thanks to USG interventions	#	Subwatershed and corridor
WINNER 2	Volume of soil preserved in upper watershed areas	#	Subwatershed and corridor
<b>Program Element 4.8.1: Natural Resources and Biodiversity</b>			
WINNER 3	Kilometers of mechanical structures built/rehabilitated	#	Corridor
WINNER 4	Number of policies, laws and land use regulations implemented	#	Corridor
WINNER 5	Number of sub-watershed management bodies formed and strengthened	#	None
WINNER 6	Number of trees planted	#	Type of tree
4.8.1.4	Number of hectares under improved natural resources management as a result of USG support	#	Hillside Foothills Plain/valley Plateau
4.8.1.6 F	Number of hectares of natural resources showing significant improvement as a result of USH assistance	#	Hillside Foothills Plain/valley Plateau
4.8.1.2 F	Number of hectares in areas of biological significance under improved management as a result of USG assistance	#	Hillside Foothills Plain/valley Plateau
4.8.1.5 F	Number of people receiving USG supported training in natural resources management and/or biodiversity conservation	#	Male / Female by corridor

<b>Indicator Code</b>	<b>Indicator</b>	<b>Unit of measure</b>	<b>Disaggregated by</b>
4.8.1.6 F	Number of people with increased economic benefits derived from sustainable resource management and conservation as a result of USAID assistance	#	Male / Female by corridor
<b>IR 3: Agricultural Markets Strengthened</b>			
4.5.2.23 FTF	Value of incremental sales (collected at farm level) attributed to FTF implementation	\$	Targeted agricultural products
4.5.2.38 FTF	Value of new private sector investments in the agricultural sector and food chain leveraged by FTF implementation	\$	None
WINNER 7	Value of agriculture business sales	\$	Input store Storage
WINNER 8	Number of farmers using market information generated through project assistance	#	Processing/packaging Male / Female and by corridor
<b>Program Element 4.4.3: Transport Services (Infrastructure and Rural Roads)</b>			
4.4.3.3 F (former) and 4.5.1.17 FTF	Kilometers of roads improved or constructed	#	Corridor Improved vs. constructed
WINNER 9	Number of kilometers of irrigation systems repaired	#	Corridor
<b>Cross Cutting Indicators</b>			
<b>Program Element 4.5.1: Enabling Environment</b>			
4.5.1.7 FTF	Number of institutions/organizations undergoing capacity/competency assessments as a result of USG assistance	#	Corridor
4.5.1.3 FTF	Number of institutions/organizations with assessments presented for consultation as a result of USG assistance	#	Corridor

<b>Indicator Code</b>	<b>Indicator</b>	<b>Unit of measure</b>	<b>Disaggregated by</b>
4.5.1.8 FTF	Number of institutions/organizations undertaking capacity/competency strengthening as a result of USG assistance	#	Corridor
4.5.1.5 FTF	Number of institutions/organizations making significant improvements based on recommendations made via USG supported assessment	#	Corridor
4.1.5.6 FTF	Number of institutions/organizations that are mature/viable as a result of USG assistance	#	Corridor
<b>Program Element 4.5.2: Agricultural Sector Productivity</b>			
4.5.2.39 FTF	Number of firms (excluding farms) or civil society organizations engaged in agricultural and food-security-related manufacturing and services now operating more profitably (at or above cost) because of USG assistance	#	Type or organization (new vs. continuing)
4.5.2.11 FTF	Number of private enterprises, producer organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	#	Type or organization (new vs. continuing)
4.5.2.28 FTF	producer organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance	#	Type or organization (new vs. continuing)

<b>Indicator Code</b>	<b>Indicator</b>	<b>Unit of measure</b>	<b>Disaggregated by</b>
4.5.2.12 FTF	Number of public-private partnerships formed as a result of USG assistance	#	Types of partnerships: Agricultural production Agricultural post-harvest Transformation Corridor
4.5.2.13 FTF	Number of rural households benefiting directly from USG interventions	#	Gender household tyoe
4.5.2 FTF	Number of jobs attributed to FTF implementation	#	Gender of job holder New vs. continuing

For the indicators related to institutional/organizational capacity building (4.5.1) we will use the Partner Institutional Capacity Assessment (PIVA) tool developed by USAID. Under this methodology, organizations will be evaluated in six areas of competency (governance and leadership, operations and management systems, human resources development, financial management, program and service delivery, and external relations and advocacy). For each of these competency areas, organizations are scored based on their stage of development (nascent, emerging, consolidating, and viable). We have developed a data base of community-based organizations supported by WINNER and we will provide a baseline score for each organization in the first quarter of FY 2012. We will then follow the progress of these organizations and update their scores on a regular basis to capture the impact of our capacity building activities.

## **L. Environmental Compliance**

As with all USAID projects, WINNER is responsible for the implementation of the provisions of Regulation 216 concerning environmental compliance in the execution of its activities. In 2011, WINNER prepared a Programmatic Environmental Assessment (PEA) that identifies environmental issues and recommended mitigation measures for cluster of activities described in our work plan. The PEA was approved by the USAID Environmental Officer and is being used to determine the environmental mitigation measures to be included in our activities. Further, we are monitoring the implementation of these mitigation measures and we report on them in the Environmental Monitoring Reports (EMRs).

In the coming year, we will continue to identify mitigation measures that apply to all WINNER activities and to monitor the implementation of these measures in the field. Further, we will prepare full environmental assessments (EAs) prior to starting major infrastructure projects (e.g., roads) or projects deserving special considerations (e.g., large-scale plantation of jatropha). WINNER will work closely with the Regional Environmental Advisor and the Mission Environmental Officer to identify specific projects that might require EAs over and beyond the provisions of the PEA.

WINNER is already training Master Farmers in environmental management. In addition, we plan to train farmers in the proper use and application of pesticides and fungicides. We will also be implementing

demonstration plots showcasing sustainable agriculture and Integrated Pest Management at our Sustainable Rural Development Centers (CRDDs). WINNER will strictly follow the mission-wide PERSUAP to promote the safe and reliable use of pesticides and fungicides. We have included a project-level activity (see Project Level 1.1.5) to train beneficiaries in the safe use of pesticides and fungicides. This activity will be implemented through a subcontract with Sun Mountain.

## SECTION III. CUL DE SAC

### A. Introduction

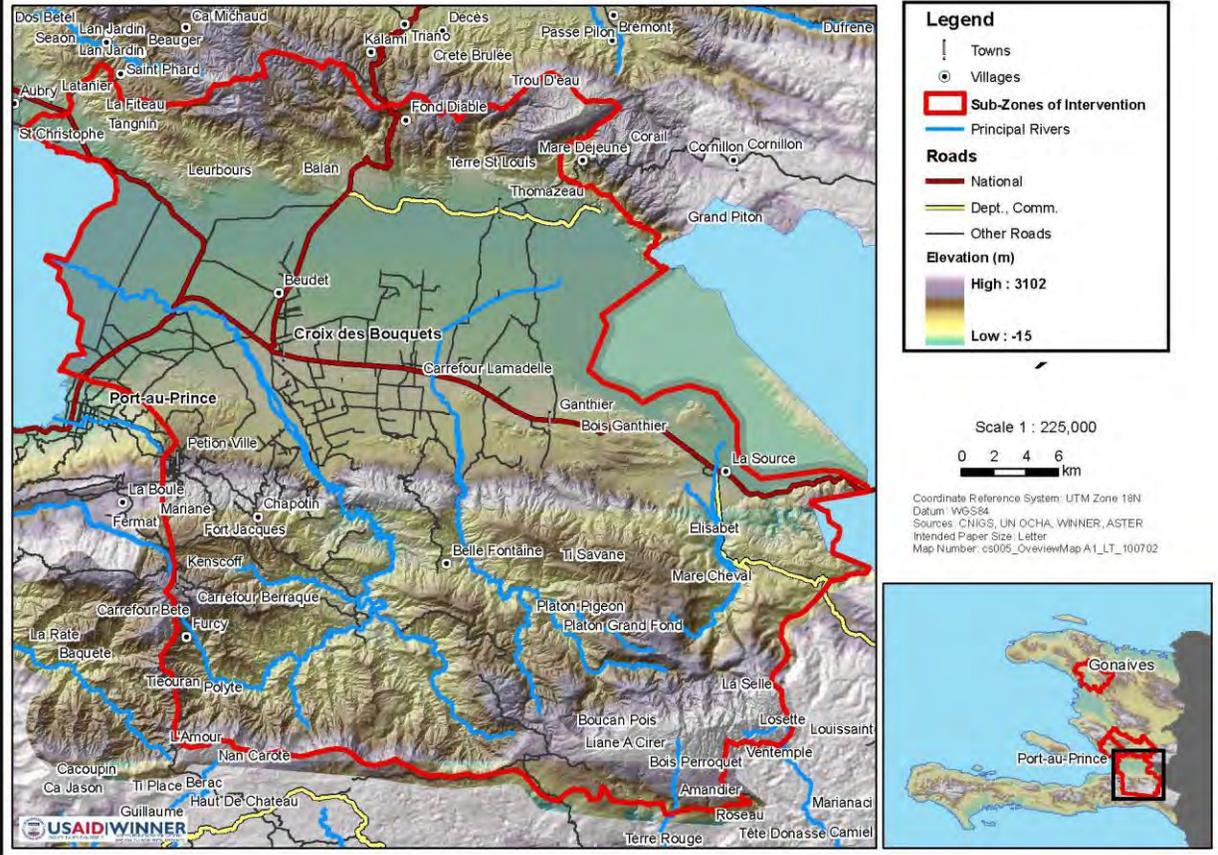
Because the Cul-de-Sac corridor is part of the greater Port-au-Prince area, where 80% of the country's economic activity takes place, it has a central role in the development of Haiti. The Cul-de-Sac plain is one of the main productive plains in Haiti and it is vulnerable to flooding. In addition, urban sprawl has been encroaching on productive agricultural land. There are also significant areas of land that lie fallow due to the abandonment of large scale sugar cane production. These lands can be revitalized for high value agriculture. The hillside areas of Kenscoff and Petionville are also important zones for developing sustainable agriculture and agro-forestry activities that can protect the productive plains as well as increase rural incomes. Finally, the mountainous areas of the Cul-de-Sac corridor are heavily eroded, with many ravines and steep slopes. They endanger the productive plain with the risk of flooding and sedimentation.

### B. Strategy for the Cul-de-Sac Corridor

In the Cul-de-Sac corridor, WINNER's strategy, in light of the contract modification is to:

- Consolidate WINNER's results to date;
- Increase rural incomes through agricultural modernization;
- Protect the productive plain;
- Foster value chain integration through effective PPAs;
- Transition towards sustainability by building the capacity of farmer associations and local institutions;
- Ensure good corridor governance through the preparation of watershed management plans and capacity building; and
- Increase food security through improved agricultural productivity for the local market.

## WINNER PROJECT AREA OVERVIEW - CUL-DE-SAC



## C. Progress to Date

*Establishment of Sustainable Development Centers (CRDD) in all WINNER regions:* In the Cul-de-Sac corridor, WINNER has established sustainable rural development centers (CRDDs) in Bas-Boen, Kenscoff, and Duvier (near Petionville). CRDDs are organized as demonstration and training centers, independently managed by committees that include representatives of the MARNDR, local governments, and producer groups. CRDDs are essential to training master farmers; introducing new varieties, like the Pioneer and Monsanto hybrid corn; demonstrating new techniques, like protected and vertical agriculture in low-cost green house on the Wynne farm in Kenscoff; and disseminating modern equipment like the urea-briquette machine in Bas Boen.

The Bas Boen and Kenscoff centers are already catalysts for change in their respective zones and the Bas Boen CRDD, was inaugurated on May 1<sup>st</sup> 2011 and will become a model for training and demonstration of best farming practices at the national level.

*Implementation of Agricultural Campaigns:* To date, WINNER has supported four agricultural campaigns in the Cul-de-Sac corridor (Winter 2009, Spring and Winter 2010, and Spring 2011). In this corridor, we have assisted close to 5,000 farmers working on nearly 4,000 hectares. This partnership enabled farmers to benefit from mechanized plowing and harrowing, which is cheaper and more efficient than the traditional, man-based technique applied for soil preparation. WINNER provided a technical package to participants, including extension services through more than 200 young agronomists, and access to agricultural inputs in farmer stores managed by producer organizations. The overall results were remarkable: on average 75% productivity increase, with peaks at 118% for maize and 139% for sorghum.

*Agro-forestry activities:* We developed and implemented a vast agro-forestry program as a key feature of WINNER interventions in order to help small farmers plant mainly fruit trees that will rapidly generate incomes. The goal is to expand the perennial cover on hillsides to reduce erosion and improve soil conservation, while promoting alternative energies to lower the demand for charcoal and fuel wood. We worked with farmer associations in priority in areas where we can combine agro-forestry activities with ravine treatments to reduce run-offs and stabilize eroded hillsides.

*Master Farmer Training:* As of September 2011, nearly 700 Master Farmers have graduated from the program there are close to 1,200 Master Farmer candidates in training. Thus, we have trained close to 2,000 farmers in four basic courses (agriculture, environment, small farm management and family planning), as well as specialized courses (cereals, vegetables, soil conservation, etc.). Candidates were presented by farmer associations and passed a test to take the courses. We also selected, and gave scholarships to, eight Haitians enrolled in a 2-year master's program at the University of Florida in various disciplines, including agribusiness development, food technology, environmental management, etc.

*Technical Innovation:* We teamed up with the University of Florida to introduce technical breakthroughs and modernize Haitian agriculture. Experts from the UF analyzed 1200 soil samples, designed fruit processing centers, and set up the first low-cost, green house with drip irrigation in Kenscoff. This technique of protected and vertical agriculture can generate more money per year on 70 m<sup>2</sup> than a farmer usually makes on one hectare with traditional practices. This innovative technology will free up spaces on hillsides for soil conservation and agro-forestry in the broader landscape. We also set up the first briquette machine for deep urea placement that reduces fertilizer consumption by 25%.

One of the most successful and spectacular innovations was the introduction of SRI (System of Rice Intensification), which is a new technique that significantly increases rice yields with less seeds (20%), less water (70%) and less fertilizers (50%). It is based on 5 principles: i) early transplantation of rice seedlings (one week); ii) transplantation of one slip only per seedling; iii) frequent weeding; iv) utilization

of compost to provide organic matter to the soil; v) drainage of rice fields to maintain soils humid but not submerged. First results show that yields increased from 2.5 T/ha on average to 4.5 T/ha, with a peak at 11 T/ha in Bayonnais and Mirebalais. Net farmer income jumped from \$933/ha to \$1,913/ha. With SRI, we introduced the conic weeding machine, unknown in Haiti, to clean rice fields more rapidly and more effectively. One of the clear results of this technical innovation is to drastically cut production costs and make Haitian rice very competitive compared to imported rice.

## **D. Activities by Key Results for Cul-de-Sac (River Grise and River Blanche Watersheds)**

The activities in this section are grouped according to WINNER Results Framework and implementation strategies.

### **D1. Increase Agricultural Productivity**

#### **1.1 Promote market-driven access to agricultural inputs.**

##### **1.1.1 Strengthen agro-supply stores in the Cul de Sac Plain**

*Description:* WINNER has been supporting eight agricultural supply stores in the Cul-de-Sac plain. These stores are managed by farmer associations and provide the appropriate agricultural supplies, tools, materials and light equipment to farmers for the production systems of the plain. Over the last two years, WINNER has supported input supply stores with the purchase of seeds, fertilizer, tools, and pesticides. This has allowed the input supply stores to generate income through the sale of these items during the agricultural campaigns. WINNER has also conducted an assessment of the input supply stores to determine their needs for capacity building. In the period of this work plan, we will provide technical assistance and capacity building to the agro-supply stores to ensure their sustainability. Specifically, we will provide business skills training to agro-supply store staff including finance, accounting, management, and business plan development. We will also work to federate the agro-supply stores of the Cul-de-Sac plain so that they can plan to make group purchases of inputs in the future that will result in lower costs, and so that they can share information about products in stock to enable trades from one store to another based on demand. The capacity of the input supply stores will be gradually increased so that they can purchase seeds and inputs directly themselves. The WINNER contribution to purchase inputs for the agricultural campaigns will decrease by 50% this year.

<i>Zone:</i>	Cul de Sac
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, producer groups
<i>Responsible staff:</i>	Cul de Sac sub-region Director and Livelihoods Component Leader
<i>WIF cost:</i>	\$30,000

##### **1.1.2 Support agro-supply stores in the Cul de Sac Plain with agricultural inputs materials**

*Description:* WINNER will continue to assist the eight agro-supply stores both in terms of management and agricultural supplies, soil preparation, materials and light equipment. The agro-supply stores will respond to the farmers' needs for quality seeds, fertilizer, and other inputs, light agricultural equipment and materials. They will serve to decentralize the availability of appropriate tools and inputs for the production systems and agricultural production packages promoted under the CRDD/master farmers' extension program. WINNER will provide 50% of the initial funds for the procurement of these goods and commodities as in-kind grants to the associations managing the stores. WINNER is providing a 50% support for supplies because during the previous year the project provided an initial grant for startup costs

which is expected to revolve into a sustainable business model. Seeds will be sold at reduced prices set forth by the Ministry of Agriculture.

<i>Zone:</i>	Cul de Sac
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, producer groups
<i>Responsible staff:</i>	Cul de Sac sub-region Director and Livelihoods Component Leader
<i>WIF cost:</i>	\$150,000

## **1.2 Increase access to agricultural technologies**

### **1.2.1 Complete construction and ensure sustainability of the CRDD in Bas Boen**

*Description:* The Bas Boen CRDD was inaugurated on May 1<sup>st</sup> 2011. While all the buildings have been completed and the CRDD is operational, there are still a few adjustments to be made to ensure that the CRDD is complete. We will add more bathrooms for the visitors and trainees at the CRDD. We will also complete the implementation of the distance learning center and of the plant diagnostics laboratory. Therefore, we will purchase and install additional equipment and furniture. We expect the Bas Boen CRDD to be fully completed by the end of 2011. We will hire a laboratory manager and provide training to CRDD staff on managing the facility. At the beginning of 2012, we plan to transfer the operation of the CRDD to a mixed cooperative including farmer associations of the Cul-de-Sac plain, the Ministry of Agriculture, local authorities, and agri-businesses operating on the Cul-de-Sac plain. After the cooperative is officially established, we will transfer funds from the sale of products from the Bas Boen farm, which are held in trust at WINNER, as start-up capital for the cooperative. The technical staff currently working on the Bas Boen CRDD will be transferred to the cooperative as part of the grant for operating the CRDD.

<i>Zone:</i>	Bas Boen
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, Local Authorities, master farmers, farmers associations
<i>Responsible staff:</i>	Regional Director and Civil Engineer
<i>WIF cost:</i>	\$150,000

### **1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for beans, vegetables, corn and rice.**

*Description:* WINNER will continue to work with the existing producer groups of the Cul-de-Sac plain to support agricultural campaigns in the target value chains: corn, rice, and beans. While 80% of the resources for this activity will be applied to the focus crops; we will use up to 20% of the resources to support the production of vegetables, that will be intercropped with focus crops, in the Cul-de-Sac plain. WINNER's support will include soil preparation and the provision of extension agents to accompany farmers in the implementation of the proper technical itineraries aimed at maximizing yields. The beneficiaries will be responsible for financing 50% of the agricultural campaign costs.

<i>Zone:</i>	Cul de Sac
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Consultant, farmers associations, agribusiness, NGOs, UF/IFAS, REAs
<i>Responsible staff:</i>	Cul de Sac sub-region Director and Livelihoods Component Leader
<i>WIF cost:</i>	\$500,000

### **1.2.3 Create the Agribusiness Equipment Fund.**

*Description:* See General Activities

#### **1.2.4 Certification and capacity-building of Champion Associations.**

Description: See General Activities

#### **1.2.5 Provide capacity building support to university students in agriculture sector management and research.**

Description: Building local capacity at the university level is important in ensuring the continued use of sustainable agricultural practices. WINNER will collaborate with local universities to provide financial support to students completing their research thesis. Specifically, these students will learn to utilize the services and equipment at the Bas Boen and Kenscoff CRDD laboratories to complete their research.

Zone:	Plain/Piedmont
Timing:	October 2011 – September 2012
Partners:	Faculty of Agronomy, INAGHEI, Quisqueya, Université d’Etat d’Haiti
Responsible staff:	Training Director, UF, Livelihoods Component Leader, Regional Director, Cul de Sac sub-region Director
WIF cost:	\$200,000

#### **1.2.6 Support the clearing of 500 acres of land in the plain.**

*Description:* There is a significant amount of land lying fallow in the Cul-de-Sac plain. As long as this land is not being used productively for agriculture, it risks becoming a target of unplanned urban sprawl. With the rehabilitation of irrigation and drainage systems (described below in Section 1.3), valuable agricultural land in the Cul-de-Sac plain can be returned to productive agriculture. WINNER will support the clearing of 500 hectares of land in the plain. The clearing will involve the removal of shrubs and wild vegetation. We will include the clearing of agricultural land in the environmental assessment (EA) that will be prepared for the use of mechanized agriculture. The EA will be submitted for approval to the Mission Environmental Officer and the Regional Environmental Advisor.

Zone:	Cul de Sac Plain
Timing:	October 2011 – September 2012
Partners:	Farmer associations, Regional Department of Agriculture
Responsible staff:	Cul de Sac sub-region Director
WIF cost:	\$100,000

### **1.3 Rehabilitate and maintain irrigation and drainage systems.**

#### **1.3.1 Build and rehabilitate Basin General and reinforce the primary canals of Rivière Grise**

*Description:* WINNER has undertaken a temporary rehabilitation on the banks of the Riviere Grise. The banks were destroyed by hurricane Tomas. We will expand the rehabilitation works to ensure that a permanent intake is built for the Rivière Grise irrigation system. We will also expand the irrigation system to extend the number of productive hectares. As part of this work, we will contract a study of the irrigation system, especially the diversion structure, in order to assess the technical feasibility, the environmental impacts and the cost/benefits ratio of installing more permanent water diversion structures. This will include rehabilitating irrigation canals in masonry to ensure that they are not obstructed in the future. We will continue to work with the Federation of Water Users of the Rivière Grise irrigation system to ensure that the rehabilitated irrigation systems are properly maintained and managed.

Zone:	Cul de Sac Plain
Timing:	October 2011 – September 2012
Partners:	MARNDR, MICT, MTPTC
Responsible staff:	Civil Engineer

*WIF cost:* \$3,000,000

### **1.3.2 Repair thermal station of Bas Boen and six irrigation pumps in the plain and support the management committees.**

*Description:* Most irrigation systems in the Bas Boen area are fed by pumping ground water. In close collaboration with the Ministry of Agriculture and the farmers associations, we have identified nineteen irrigation pumping and power stations in need of repair and rehabilitation, as agricultural production increase in the area rests on their sound operation. WINNER has already repaired four pumps in the Cul-de-Sac plain. In the period covered by this work plan, WINNER will repair an additional six pumps, as well as rehabilitate the Bas Boen thermal power plant. This firm engaged to do the rehabilitation will also manage the plant and train technicians for one year before turning it over.

*Zone:* Cul de Sac Plain  
*Timing:* October 2011 – September 2012  
*Partners:* Contractor, MARNDR, MICT, MTPTC, agribusiness, farmer associations  
*Responsible staff:* Civil Engineer and Infrastructure Maintenance specialist  
*WIF cost:* \$650,000

### **1.3.3. Rehabilitate the irrigation system for Rivière Blanche**

*Description:* Deposit of sediment from the upper watershed has significantly reduced the carrying capacity of the Rivière Blanche, and has resulted in severe bank erosion, frequent bank breaches and flood events. WINNER will acquire the services of an engineering firm to study the river banks containment and protection works necessary to reduce flood frequency and magnitude, and protect producer plains and physical infrastructure. WINNER will then launch bids for contractors to implement flood prevention and drainage infrastructure works in the Rivière Blanche subwatershed. The cost presented below includes both the study and the implementation of the infrastructure works.

*Zone:* Cul de Sac  
*Timing:* October 2011 – September 2012  
*Partners:* Contractors, MTPTC  
*Responsible staff:* Civil Engineer  
*WIF cost:* \$300,000

### **1.3.4 Rehabilitate the irrigation system at Source Zabèt.**

*Description:* We have identified an independent irrigation system from the Rivière Grise and Rivière Blanche that is linked to Source Zabèt near Ganthier. We will rehabilitate this irrigation system to allow the development of agricultural land suitable for producing corn, beans and vegetables.

*Zone:* Cul de Sac  
*Timing:* October 2011 – March 2012  
*Partners:* Contractors, Private sector  
*Responsible staff:* Civil Engineer  
*WIF cost:* \$150,000

### **1.3.5 Clear and clean drainage canals and build overpasses in the areas of Thomazeau, Laserre et Boukanbou.**

*Description:* In addition to the rehabilitation of irrigation canals, it is essential to also to clear and clean drainage canals in the Cul-de-Sac plain to ensure that agricultural land will be protected from waterlogging after heavy rains. This work will continue the initial cleaning and clearing of drainage canals begun by WINNER. In addition, we will build overpasses on canals in the areas of Thomazeau,

Laserre and Boukanbou to ensure that vehicles and people can move unimpeded within the agricultural areas.

<i>Zone:</i>	Cul de Sac
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Contractors, Farmer associations
<i>Responsible staff:</i>	Civil Engineer
<i>WIF cost:</i>	\$225,000

## **D2. Improve Watershed Stability.**

This section presents the proposed WINNER activities in the Cul-de-Sac corridor linked to Intermediate Result 2 (Improve watershed stability).

### **2.1 Protect Selected Hillside.**

#### **2.1.1 Implement soil conservation activities and reduce sedimentation, including ravine treatments**

*Description:* In the period covered by this work plan, WINNER will treat 10 ravines in the Cul de Sac area. This will continue the program of stabilization of priority ravines identified to protect the productive plains and reduce erosion and sedimentation. Stabilization works include physical infrastructure such as check dams and gully plugs, as well as biological structures like bamboo, vetiver or elephant grass filter strips. These structures will be selected strategically to ensure the protection of nearly 14,000 hectares of potentially productive farmland in the Cul-de-Sac plain. The treatment of ravines will be closely coordinated with the agro-forestry program to ensure maximum hillside protection.

<i>Zone:</i>	Piedmont & Mountains
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Watershed management groups, farmers associations, community organizations and local NGOs
<i>Responsible staff:</i>	Soil Conservation Specialist, Regional Director and Cul de Sac sub-region Director
<i>WIF cost:</i>	\$1,500,000

#### **2.1.2 Strengthen agro-supply stores in the Cul de Sac Hillside**

*Description:* We will provide capacity building to the six agricultural supply stores located in the Cul-de-Sac hillsides so that they can be financially viable to continue to support sustainable hillside agriculture. Assistance will be provided in finance, accounting, management, and the development of business plans to ensure financial viability. The capacity of the input supply stores will be gradually increased so that they can purchase seeds and inputs directly themselves. The WINNER contribution will decrease by 50% this year.

<i>Zone:</i>	Kenscoff, Duvier
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, Local Authorities, master farmers, farmers associations
<i>Responsible staff:</i>	Livelihoods Component Leader and Regional Director
<i>WIF cost:</i>	\$20,000

#### **2.1.3 Support sustainable hillside agriculture and alternative income generation**

*Description:* WINNER will provide technical assistance and support to hillside farmers to implement sustainable agricultural practices on hillsides. Our assistance will focus on improving production

techniques on terraces or under greenhouses to increase yields and improve farmer incomes. We will encourage farmers to abandon farming on steep slopes and to plant trees where they used to farm. We will support the growing of cash generating hillside crops such as cabbage, leeks, potatoes and carrots; as well as products suitable for greenhouse production (lettuce, flowers). WINNER's assistance will include access to high quality inputs, technical assistance to prepare terraces and implement greenhouses, access to extension agents to implement proper technical itineraries, and linkages to valuable markets to improve product sales (see IR 3).

<i>Zone:</i>	Kenscoff, Duvier
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, Local Authorities, master farmers, farmers associations
<i>Responsible staff:</i>	Livelihoods Component Leader and Regional Director
<i>WIF cost:</i>	\$280,000

#### **2.1.4 Complete construction and ensure sustainability of the CRDDs of Kenscoff and Duvier**

*Description:* The CRDDs are a critical piece of WINNER's approach. We will finalize the construction of the Kenscoff and Duvier CRDDs in the spring of 2012. They will serve as training centers and demonstration sites, as well as platforms for outreach. They are being structured as a public-private shared management structure. The construction of the Kenscoff CRDD is well advanced. We will finish building the offices, as well as an eco-lodge that will serve as a dormitory for trainees. We will also install a third greenhouse and an access road to the CRDD. The Duvier CRDD is nearly complete, and we plan to have it finalized by December 2011. We plan to transfer operation of the Kenscoff CRDD to a mixed cooperative including representatives from farmer organizations, the Wynn farm, the Ministry of Agriculture, and local authorities. The CRDD should be ready for transfer in the second quarter of 2012.

<i>Zone:</i>	Kenscoff/Duvier
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, Local Authorities, master farmers, farmers associations, Wynn farm
<i>Responsible staff:</i>	Regional Director and Civil Engineer
<i>WIF cost:</i>	\$410,000

#### **2.1.5 Implement a demonstration farm for sustainable hillside agriculture in Lefevre**

*Description:* In addition to the Kenscoff and Duvier sites, we will set up a demonstration farm of sustainable hillside agriculture in Lefevre. This is an area of the Cul-de-Sac watershed that is fairly isolated from Kenscoff. Therefore, it will be more practical to train farmers directly in Lefevre. For longer training sessions, the Kenscoff facility and dormitory could be used for farmers from the Lefevre area.

<i>Zone:</i>	Lefevre
<i>Timing:</i>	January 2012 – September 2012
<i>Partners:</i>	MARNDR, Local Authorities, farmers associations
<i>Responsible staff:</i>	Regional Director and Civil Engineer
<i>WIF cost:</i>	\$25,000

#### **2.1.6 Help set up conditioning and commercialization centers for products from sustainable hillside agriculture**

*Description:* In addition to ensure the sustainability of hillside agriculture and ensure that hillside farmers generate sufficient incomes to permanently adopt production practices that protect the productive plains, we will help set up conditioning and commercialization centers to sort and sell products from sustainable

agriculture. We have already identified opportunities for setting up two centers: one with ODAI in Kenscoff and one with ANC in Lefevre. WINNER will provide technical and material assistance, as well as training to the associations to ensure that products are differentiated according to quality and sold in valuable markets.

<i>Zone:</i>	Kenscoff and Lefevre
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	ODAI, ANC, private sector
<i>Responsible staff:</i>	PPP Specialist and Regional Director
<i>WIF cost:</i>	\$50,000

## **2.2 Improve Watershed Governance.**

### **2.2.1 Finalize and implement the watershed management plan for the plain of Cul de Sac**

*Description:* WINNER has prepared a draft watershed management plan and developed land use land cover (LULC) maps of the Cul-de-Sac watershed. We have also identified the key drivers for watershed degradation. We will use an international consultant to finalize the watershed management plan based on the data already collected; the final LGL study on the hydrology of the Cul-de-Sac; the land use land cover maps developed by RPI, and meetings with key stakeholders at the sub-watershed level. We will coordinate with CIAT in the preparation of the final document and we will organize a workshop to present the draft Cul-de-Sac watershed management plan. WINNER has prepared a draft watershed management plan and developed land use land cover (LULC) maps of the Cul-de-Sac watershed. We have also identified the key drivers for watershed degradation. We will organize stakeholder meetings at the sub-watershed level to present the draft plan and LULC maps in specific areas, and to seek community feedback constraints to implementation of the plan and on their engagement for the plan’s implementation at the local level. The feedback received at the local levels will be used in the preparation of the final plan and in the identification of key actors in its implementation. In particular, WINNER will help organize sub-watershed management bodies at the Communal level. These sub-watershed entities will include representatives from the local government, community-based organizations, and the private sector and will be responsible for the implementation and monitoring of the application of the watershed management plan. We will then federate these organizations to ensure the proper coordination in the application of the watershed management plan.

<i>Zone:</i>	Cul de Sac
<i>Timing:</i>	October 2011 – March 2012
<i>Partners:</i>	Watershed management committees, MICT, CIAT, MDE, MARNDR, ASEC, CASEC, Municipal authorities
<i>Responsible staff:</i>	DCOP and Governance and Environment Officer
<i>WIF cost:</i>	\$50,000

### **2.2.2 Increase the capacity of local institutions in watershed management**

*Description:* WINNER will strengthen the capacity of municipalities, ASECs, and CASECs to improve watershed management. We will train local institutions in key provisions of the rural code and the environmental decree of 2006 related to watershed management. We will emphasize capacity building in land use planning and zoning issues and the need to preserve land for agricultural development and curtail unplanned urban sprawl. We will assist local authorities in developing tools for better public awareness and enforcement mechanisms to protect watershed assets.

<i>Zone:</i>	Kenscoff, Petionville, Croix-des-Bouquets, Ganthier, Thomazeau, Tabarre, Cité Soleil
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<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Municipalities, ASECs, CASECs
<i>Responsible staff:</i>	DCOP and Disaster Management Specialist
<i>WIF cost:</i>	\$20,000

### **2.2.3 Develop contingency plans and install flood warning systems**

*Description:* WINNER has already prepared disaster contingency plans for the communes of Croix-des-Bouquets, Kenscoff and Ganthier. This coming year, we plan to prepare a contingency plan for Thomzaeau. We will also focus on installing an early flood warning system for the Cul-de-Sac plain, which is prone to flooding due to the severe erosion in the Rivière Grise and Rivière Blanche watersheds. WINNER will procure rainfall and river flow meters for an early warning flood system for the watershed. These will be installed at strategic points according to guidance from the CH2MHill consultants and in close collaboration with the Directorate for Civil Protection (DPC) of the Ministry of Interior, the Ministry of Agriculture, local authorities, and the community organizations. WINNER will also train its local field partners for the operation, reading and maintenance of these instruments in order to ensure their long-term operations beyond the life of the WINNER Project. The system will be managed by the local Civil Protection Committees (CPCs) that have been created with WINNER’s assistance as part of the development of disaster management plans. We will provide capacity building to ensure that the CPCs can maintain the flood warning systems.

<i>Zone:</i>	Cul de Sac Plain
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MICT/DPC, Municipal authorities
<i>Responsible staff:</i>	DCOP, Disaster Management Specialist, and Infrastructure Component Leader
<i>WIF cost:</i>	\$580,000

### **2.2.4 Contain and protect the banks of Riviere Grise between Tabarre and Route Neuf Bridges**

*Description:* Flood events of the last few years have significantly changed the configuration of River Grise, causing important riverbank erosion and riverbed accretion. Faced with the increasing threat and frequency of floods and the exceptional and unplanned urbanization of the target area, river bank protection and containment has become a top priority for the protection of human lives, valuable economic and cultural assets, and productive or residential physical infrastructure. WINNER will extend the installation of gabions to protect the banks of Rivière Grise and repair the work that was damaged by hurricane Tomas. The work will take place along a stretch of approximately 12-km from the Tabarre Bridge (October 15 Boulevard) to the Route Neuf Bridge. It will contribute to reducing the frequency, magnitude and impacts of flash flood in the target area. WINNER will acquire the services of construction engineering firms to implement the activities, while a design and supervision firm will supervise the works, and assist in monitoring the implementation of the environmental mitigation measures. WINNER has worked with the Ministry of Agriculture, the Ministry of Environment, the Ministry of Interior, the Bureau of Mines and Energy, and the Communes of Tabarre and Croix des Bouquets to raise the issues of governance in the exploitation of the river bed. A decree was issued by the Ministry of Environment to limit the anarchic exploitation of the river bed, but further governance steps must be taken to ensure that the infrastructure works to protect the banks of the river will not be compromised. WINNER will continue to engage with the responsible Government authorities to improve the governance of the river.

The successful implementation of the works will contribute to (1) Protecting the life of the estimated 12,000 people living in the target area against general river flood; (2) Protecting important productive infrastructure (bridges, agricultural lands), homes, businesses located downstream of the Tabarre bridge against flood risks; and (3) Reducing the frequency and magnitude of river flood.

*Zone:* Plain (Croix des Missions, Riviere Grise)  
*Timing:* October 2011 – September 2012  
*Partners:* Contractors, MTPTC  
*Responsible staff:* Infrastructure Component Leader  
*WIF cost:* \$650,000

### **2.2.5 Installation of 2 water catchments in the piedmont and mountains**

*Description:* WINNER has identified several sites for the construction of cement hillside water catchments and communal water cisterns for rainwater collection and runoff reduction. Two (2) cement hillside impluviums will be built this period in close collaboration with the farmers associations, who will be trained in their daily operation and management. These cement hillside water catchments will have an average capacity of 40,000 gallons.

*Zone:* Piedmont & Mountains  
*Timing:* October 2011 – September 2012  
*Partners:* Contractors, MTPTC  
*Responsible staff:* Civil Engineer, Regional Director et Cul de Sac sub-region Director  
*WIF cost:* \$200,000

### **2.2.6 Develop land use plans and support communes to enforce construction zoning**

*Description:* One of the biggest threats to the development of productive agriculture in the Cul de Sac plain is the massive and uncontrolled urban sprawl that continues to reduce the amount of available land. WINNER will support the municipalities of the Cul de Sac plain (Croix des Bouquets, Thomazeau, Ganthier, and Tabarre) in preparing land use plans that clearly identify agricultural areas in which construction is forbidden. We will provide GIS maps and GPS coordinates to the municipalities and train them in the application of zoning laws in reviewing applications for construction permits.

*Zone:* Cul de Sac Plain  
*Timing:* October 2011 – September 2012  
*Partners:* Municipalities of Croix des Bouquets, Thomazeau, Ganthier and Tabarre  
*Responsible staff:* DCOP, Governance and Environmental Advisor  
*WIF cost:* \$30,000

## **2.3 Increase Tree Cover**

### **2.3.1 Implement agro-forestry campaigns**

*Description:* WINNER will implement agro-forestry campaigns in the mountain areas of the Cul-de-Sac in order to ensure soil stability and protect investments made in the plain. Based on the lessons learned from previous campaigns, we will provide incentive-based grants to agro-forestry associations to develop nurseries and plant trees. We will also design contiguous areas with a high density of plantation to achieve a measurable impact on soil erosion. The agro-forestry campaign will be closely coordinated with the ravine treatment and soil conservation activities to ensure maximum impact on soil stabilization. Finally, we will foster commercial linkages between producers and buyers of fruits and timber (see IR 3).

*Zone:* Piedmont & Mountains  
*Timing:* October 2011 – September 2012  
*Partners:* MARNDR, producer groups, NGOs  
*Responsible staff:* Natural Resource Management specialist  
*WIF cost:* \$300,000

### **2.3.2 Support the protection of Parc La Visite.**

*Description:* WINNER will provide a grant to Fondation Séguin and associations around Parc la Visite in a program for the protection of the park. The program includes the deployment of auxiliary environmental protection agents, the implementation of water catchments and greenhouses in areas adjacent to the park to substitute for agricultural production inside the park, and reforestation of areas currently cultivated within the park. WINNER will also work with the Ministry of Environment to provide guards to prevent wood cutting for charcoal in the park and to enforce current environmental regulations.

<i>Zone:</i>	Piedmont & Mountains
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	SAH, FEH, international conservation donors, MDE, farmer associations
<i>Responsible staff:</i>	Governance and Environmental Officer, Regional Director and DCOP
<i>WIF cost:</i>	\$100,000

### **2.3.3 Support the development of the mango value chain.**

*Description:* WINNER will support the development of the mango value chain in the Cul-de-Sac corridor through the implementation of mango orchards, the training of farmers on mango growing techniques, the development of a mango-grafting program, and training on harvesting techniques. We will also foster direct commercial linkages between mango producers of the Cul-de-Sac and mango exporters (see IR 3), and we will test the mango traceability system in the Cul-de-Sac region (see Project Level section).

<i>Zone:</i>	Piedmont & Mountains
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Associations of mango producers, private sector
<i>Responsible staff:</i>	Natural Resource Management specialist and Cul de Sac sub-region Director
<i>WIF cost:</i>	\$100,000

### **2.3.4 Strengthen agro-forestry associations.**

*Description:* WINNER will provide training in management and organization to strengthen the agro-forestry associations of the Cul-de-Sac corridor. Specifically, we will provide training in finance and accounting, bookkeeping, grants management and organizational management. We will also provide technical training in tree management and the prevention of grazing from animals.

<i>Zone:</i>	Piedmont & Mountains
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Associations
<i>Responsible staff:</i>	Natural Resource Management specialist
<i>WIF cost:</i>	\$25,000

## **D3. Strengthen Agricultural Markets.**

### **3.1 Reduce Transportation Costs**

#### **3.1.1 Rehabilitate key farm to market feeder roads**

*Description:* As part of our infrastructure survey, we will include key farm to market feeder roads. In particular, we will implement the construction of the road between Nouailles and Dumay in the commune of Croix de Bouquets (9 kilometers), and we will conduct the study and start the construction of the Merceron road in the commune of Thomazeau (12 kilometers). We will also conduct a study of the

rehabilitation of the Cotin road in the commune of Ganthier (6 kilometers). WINNER will also temporarily rehabilitate the critical sections of these rural roads while performing its studies to facilitate access to markets for agricultural products and increase the accessibility of certain zones. The studies for the roads to be rehabilitated will include a cost-benefit analysis that will allow us to choose the most economically feasible option for rehabilitation given the project's objectives of fostering greater value chain integration for key products. We will coordinate with the TPTC and we will set up road management committees with community based organizations and local governments to ensure the proper maintenance of the rehabilitated roads with appropriate cost recovery mechanisms.

<i>Zone:</i>	Piedmont & Mountains
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Ministry of Public Works, farmer associations, water/road user groups
<i>Responsible staff:</i>	Senior Advisor: Infrastructure
<i>WIF cost:</i>	\$3,000,000

### **3.1.1 Strengthen community groups to perform road maintenance**

*Description:* We will help set up road management committees and we will provide training for routine road maintenance and repairs. For the Dumay road, one of the key sources of revenue for the maintenance of the road will be a fee collected from the trucks transporting sand and gravel from the Rivière Grise. A modest road user fee from these trucks will be sufficient to provide funds for maintaining the road and conducting repairs during the rainy season.

<i>Zone:</i>	Piedmont & Mountains
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Road user associations, MTPTC
<i>Responsible staff:</i>	Infrastructure Maintenance Specialist
<i>WIF cost:</i>	\$25,000

## **3.2 Improve Market Information**

### **3.2.1 Value Chain Assessments**

*Description:* See General Activities

### **3.2.2 Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation**

*Description:* The private sector is taking an increasing interest in agricultural production in the Cul-de-Sac plain. WINNER will continue to act as a catalyst to foster effective linkages between producers and private sector actors downstream of the target value chains (distributors, processors, exporters). WINNER will provide technical and financial assistance, as needed, to facilitate the implementation of PPAs between producer groups and private sector concerns. We have already identified significant opportunities in the corn, rice, and vegetable value chains. These partnerships will ensure that farmers secure markets at interesting prices and that the private sector is encouraged to make productive investments in agriculture and agribusiness. These partnerships will enhance food security and increase farmer incomes in the Cul-de-Sac.

<i>Zone:</i>	Cul de Sac corridor
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Farmer associations, private sector
<i>Responsible staff:</i>	PPPP Component Leader and PPPP Specialist
<i>WIF cost:</i>	\$300,000

### **3.3 Strengthen Market Norms and Standards**

*Description:* See General Activities

### **3.4 Reduce Post-Harvest Losses**

#### **3.4.1 Build post-harvest facilities and provide technical assistance and equipment.**

*Description:* In collaboration with USDA and the Ministry of Agriculture, WINNER will provide technical and material assistance to associations and private companies to improve post-harvest handling. Specifically, WINNER will provide assistance for the construction of silos and structures for storage, drying and distribution related to post-harvest activities.

<i>Zone:</i>	Cul-de-Sac plain
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Farmer associations, private sector
<i>Responsible staff:</i>	PPPP Specialist, Regional Director and Cul de Sac sub-region Director
<i>WIF cost:</i>	\$700,000

#### **3.4.2 Rehabilitate rural markets and ensure appropriate management.**

*Description:* Rural markets are a key link in the value chains for focus crops because it is where wholesalers interact directly with farmers. The poor conditions of rural markets affect the quality of the products and reduce the value accruing to small farmers. By rehabilitating key rural markets, we will improve product quality, reduce waste and environmental impacts resulting from poor market conditions, improve the efficiency of key value chains, and allow producers to reach more buyers. In the Cul-de-Sac corridor, WINNER will rehabilitate the rural markets of Kenscoff and Croix-des-Bouquets and ensure adequate management. Based on the results of the post-earthquake surveys, WINNER will work with the municipal authorities of Croix des Bouquets and the targeted community leaders on the rehabilitation of the rural markets of Croix des Missions and Croix des Bouquets. WINNER will also acquire the services of a short-term consultant to assist the market management committee in developing a simple, practical but sound management plan, which will address the key issues of market organization and sanitary issues.

<i>Zone:</i>	Croix des Bouquets and Tabarre
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Municipal authorities of Kenscoff, Croix des Bouquets and Tabarre, producer groups, farmers associations
<i>Responsible staff:</i>	Infrastructure Deputy Director
<i>WIF cost:</i>	\$600,000

#### **3.4.3 Improve the organization of vendors in selected rural markets.**

*Description :* In addition to the physical rehabilitation of markets, it will be critical to improve the organization of vendors within markets. We will conduct a detailed study of the current organization of the markets to be rehabilitated (number of vendors, types of products, customer flows, types of customers, vehicles, access to vendors) and make recommendations on how to better organize vendors to improve the efficiency of the markets.

<i>Zone:</i>	Croix des Bouquets, Tabarre, and Kenscoff
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Municipal authorities of Croix des Bouquets, Tabarre, and Kenscoff; producer groups; farmers associations
<i>Responsible staff:</i>	Infrastructure Deputy Director
<i>WIF cost:</i>	\$25,000

## SECTION IV. MATHEUX CORRIDOR

The Matheux corridor comprises a region from Cabaret to St Marc including the coastal plain along the Arcadin coast bordered by the Matheux mountain range to the east. It includes the communes of Cabaret, Arcahaie, Montrouis and St Marc. WINNER started working in the Cabaret and Arcahaie commune in March of 2011, and has taken over activities from the DEED project in the area between Montrouis and St Marc.

### A. Progress to date.

Since March 2011, WINNER has established a CRDD in Cabaret; supported agricultural and agroforestry campaigns in the communes of Cabaret and Arcahaie; trained master farmers; worked on infrastructure rehabilitation for flood protection; and identified critical roads, ravines, and irrigation canals to be rehabilitated.

### B. Project's Fundamental Objective for Work in the Corridor

In the Matheux Corridor, WINNER's goal is to revitalize an extensive resource for productive agriculture in the plains area, increasing incomes and water management, while providing solutions for hillside conservation and income generation.

### C. Strategies for Work in the Matheux Corridor

The Matheux Corridor is the newest target area for the WINNER team and is characterized by a vast network of rivers and ravines concentrated in a relatively small area, like Courjolle, Bretelle, Torcelle, Manègue, Montrouis, Lanzac, Délugé, and Pierre Payen, which represent serious threats of flooding for the towns of Cabaret, Arcahaie and Montrouis Village. WINNER will intervene throughout the Matheux Corridor, in the littoral plain and in upstream areas of the Matheux mountains. The main goals will be to prevent flooding of the coastal area, improve livelihoods through large-scale agricultural modernization and non-farm economic opportunities, and promote continuous reforestation of hillsides combined with ravine treatments, soil conservation and good governance.

#### C-1 Mountain strategies

1. Support the development of sustainable agriculture to increase rural incomes and protect the productive plains, particularly Goyavier, Fond-Batiste and Délices.
2. Protect hillsides through the treatment of priority ravines for water flow control and runoff reduction, while implementing an agroforestry campaign based mainly on fruit and coffee trees, and working directly with farmer organizations and local authorities; and
3. Create non-farm economic opportunities and strengthen linkages between agribusinesses and farmer organizations.

#### C-2 Coastal and plain area strategies

1. Intensify agricultural systems and modernize farming techniques for corn, beans and plantain;
2. Rehabilitate and maintain priority irrigation systems;
3. Develop and implement watershed management and contingency plans with farmer associations and local authorities; set up a flood early warning system;
4. Create employment and new economic opportunities for non-farm income-generating activities, especially in the construction and alternative energy sectors;
5. Propose new technologies to process and add value to key agricultural products such as mango and plantain, support agribusiness investments, and strengthen linkages with farmer associations;

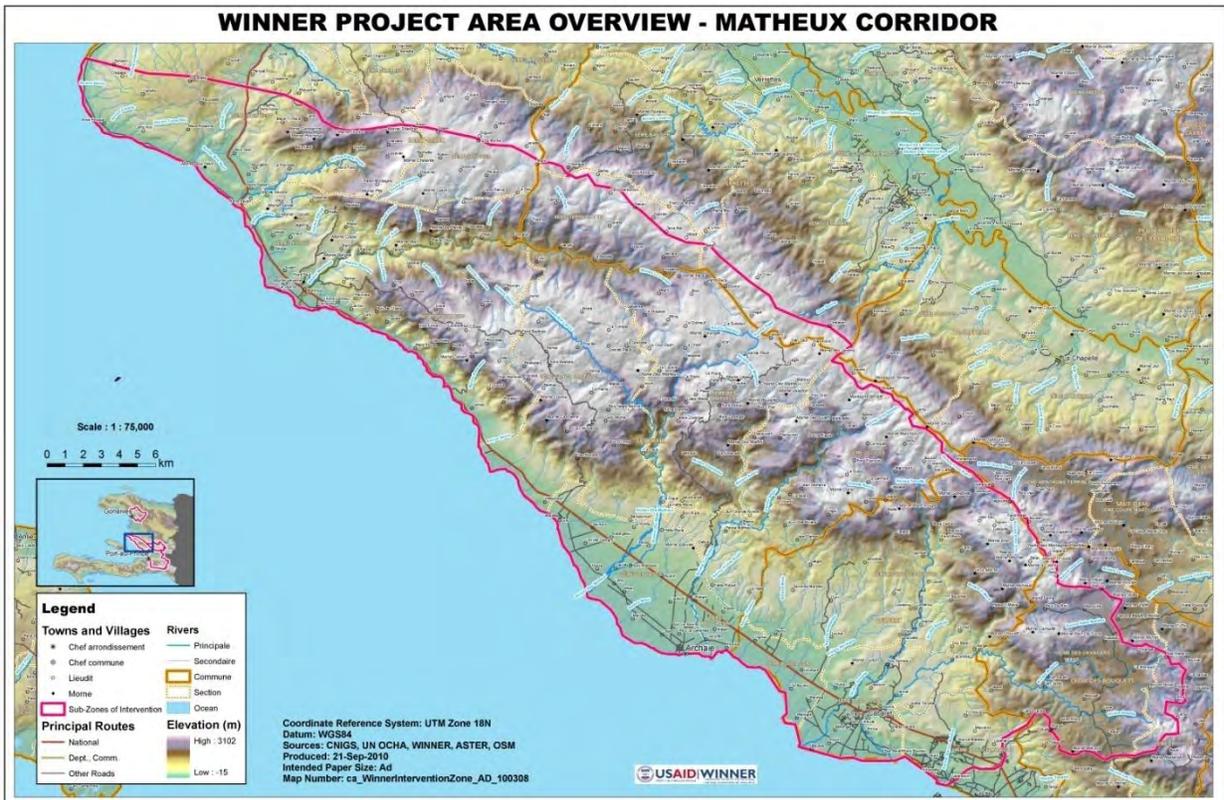
6. Promote and strengthen organizations

#### D. Selected Zones of Intervention

The primary zones of intervention will be the plain between Cabaret and St Marc, as well as Source Matelas and the hillsides of the Matheux mountains as Fond-Baptiste, Goyavier, and Délices.

In addition to the areas where WINNER already started working between Cabaret and Arcahaie, WINNER will work in areas previously covered by the DEED project in the communes of St Marc, Verrettes and Arcahaie.

In the commune of St Marc, we will work in the communal sections of Bois Neuf (2<sup>nd</sup> section), Goyavier (3<sup>rd</sup> section), and Délugé (1<sup>st</sup> section). In the commune of Verrettes we will work in the communal sections of Terre Nette (6<sup>th</sup> section), and Desarmes (4<sup>th</sup> section). In the commune of Arcahaie, we will work in Des Vases (2<sup>nd</sup> section), Des Matheux (8<sup>th</sup> section), and Montrouis (8<sup>th</sup> section).



## **E. Activities by Key Results for Matheux Corridor**

The activities in this section are grouped according to WINNER Results Framework and implementation strategies

### **E1. Increase Agricultural Productivity**

#### **1.1 Promote market-driven access to agricultural inputs.**

##### **1.1.1 Strengthen agro-supply stores in the Matheux Corridor**

*Description:* WINNER will strengthen the capacity of agro-supply stores (BIAs) in the Matheux corridor with technical assistance and training. Training will be provided in finance, accounting, management, and the development of business management plans by consultants to ensure their sustainability. These supply stores will serve to decentralize the availability of appropriate tools and inputs for the production systems and the agricultural production packages promoted through the CRDD/master farmers' extension program.

<i>Zone:</i>	Matheux corridor (Cabaret-Arcahaie-Montrouis-St Marc)
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local farmer supply stores (BIA, CFET, local organizations)
<i>Responsible staff:</i>	Regional Deputy Director
<i>WIF cost:</i>	\$30,000

##### **1.1.2 Support agricultural campaigns with inputs, soil preparation and extension agents**

*Description:* WINNER will continue to support agricultural campaigns in the productive plains of the Matheux corridor for the target value chains of corn, rice, plantain, and beans. WINNER will provide inputs through agro-supply stores (seeds, fertilizer, pesticides, fungicides and tools); as well as mechanized soil preparation and extension services to farmers. The WINNER technical teams and extension agents will assist the farmers in the application of efficient technical itineraries to significantly improve yields per hectare.

<i>Zone:</i>	Matheux corridor (Cabaret-Arcahaie-Montrouis-St Marc hillsides and lowland areas)
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local farmer supply stores, farmer associations, Ministry of Agriculture
<i>Responsible staff:</i>	Deputy CRDD Director and Regional Deputy Director
<i>WIF cost:</i>	\$300,000

#### **1.2 Increase access to agricultural technologies**

##### **1.2.1 Identify site and build permanent CRDD and demonstration sites in the agricultural zone**

*Description:* The CRDD site identified in Cabaret on which we started a model farm has a land tenure conflict. WINNER has identified a new site near Montrouis of about five hectares and will sign a contract with the land owners. This year, we will build essential structures for the CRDD (training center, administrative office, dormitory, cafeteria, and a facility for equipment storage) that will showcase best practices for the production of target crops in the Matheux corridor (corn, beans, rice, and plantain). We will also dig a well to ensure the supply of water for the demonstration fields and make sure the site is protected. The CRDD will eventually operate as a public-private shared management structure.

<i>Zone:</i>	Matheux corridor (lowland areas)
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local association, Ministry of Agriculture and lo farmers
<i>Responsible staff:</i>	Infrastructure Component Leader, Regional Director, and Deputy CRDD Director
<i>WIF cost:</i>	\$400,000

### **1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for plantain, corn and beans.**

*Description:* WINNER will work with farmer associations involved in the production of target crops (plantain, corn, and beans) in the Matheux corridor to improve their access and use of appropriate technologies. We will use the agribusiness investment fund (see project level activities) to increase access to improved technologies for crop maintenance and harvesting, and we will provide technical guidance to farmers on how to increase yields and revenues with better use of technologies. We will not only emphasize agricultural mechanization, but also the use of sustainable agricultural practices.

<i>Zone:</i>	Matheux plain areas
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	Local associations, Ministry of Agriculture and local farmers
<i>Responsible staff:</i>	Infrastructure Component Leader and Regional Director
<i>WIF cost:</i>	\$200,000

### **1.2.3 Create the Agribusiness Equipment Fund**

*Description:* See General Activities

### **1.2.4 Train operators in soil preparation techniques**

*Description:* Through the agribusiness equipment fund, we will provide tractors and other mechanized equipment to farmer associations. It will also be important to train tractor operators belonging to the beneficiary associations on the proper use of the tractors and associated equipment, so that they can implement sustainable and efficient soil preparation services. We will subcontract the training to a competent organization.

<i>Zone:</i>	Plain areas of the Matheux corridor
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local organizations
<i>Responsible staff:</i>	Regional Deputy Director
<i>WIF cost:</i>	\$20,000

### **1.2.5 Establish SRI demonstration plots**

*Description:* While rice is not a focus crop in the Matheux region, we will support some rice production primarily as a rotation crop with plantain to control nematodes and other diseases that affect the plantain value chain. The system of rice intensification (SRI) has already been successfully introduced by WINNER in the Cul-de-Sac, Mirebalais, and Gonaives regions. The Matheux corridor plains are also conducive for rice production. WINNER will continue with the establishment of SRI demonstration plots of an average size of 1,000 m<sup>2</sup> throughout the corridor. Our experience thus far has shown very quick adoption of this technique by farmers once the first crop is ready and they can compare yields with the traditional production methods. With the continued adoption of SRI, we expect rice yields to increase significantly in the Matheux corridor.

<i>Zone:</i>	Matheux corridor lowland areas
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Farmer associations
<i>Responsible staff:</i>	Regional Deputy Director
<i>WIF cost:</i>	\$50,000

### **1.2.6 Certification and capacity-building of Associations Champions**

*Description:* See General Activities

## **1.3 Rehabilitate and Maintain Irrigation and Drainage Systems**

### **1.3.1 Rehabilitate Torcelle and Bretelle irrigation systems**

*Description:* To support agricultural production in the area, WINNER will work with the Ministry of Agriculture and the farmers groups on the rehabilitation and replacement of selected irrigation systems along Brettelle and Torcelle Rivers. WINNER will fund the rehabilitation of the Bretelle irrigation system, the replacement of the Garricher-Prince intake (rivière Bretelle), the construction of the Cameau-Dame Fortune intake irrigation system (rivière Torcelle) and the implementation of minor canal repair works. WINNER will also provide technical assistance to the users on the sound management of the irrigation systems in order to ensure its continued operations beyond the life of the WINNER Project. WINNER will coordinate with the French cooperation through AFD that has been working on irrigation systems in the Matheux corridor. WINNER will also update the study recently conducted by CHF to protect the Torcelle irrigation system, and in close collaboration with the Ministry of Agriculture and local authorities, will define priorities for river banks containment. Subsequently, WINNER will acquire the services of a design and supervision engineering firm to assess the different options, prepare the technical specifications for each one, evaluate the environmental impacts of the preferred one, and recommend mitigation measures. Through subcontracts with engineering construction firms, WINNER will undertake the banks containment works in the areas of Cameau, Coutenceau and Cazale to protect the Torcelle river irrigation system. This work will include, but not be limited to: (1) reshaping the banks slope in the Cameau area over 1.4 km, installing 400 ml of gabions baskets at critical points, protecting of upper river banks with planting of vetiver, and planting forest tree species; (2) installing 100 ml of gabions baskets at critical points in the Coutenceau area, and protecting the upper Torcelle river banks with planting of vetiver; and (3) installing 150 ml of gabions baskets at critical points in the Cazale area, and protecting the river banks with planting of vetiver.

<i>Zone:</i>	Arcahaie/Cabaret
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local associations, MARNDR, French cooperation (AFD)
<i>Responsible staff:</i>	Consultants, Regional Engineer and Regional Director
<i>WIF cost:</i>	\$980,000

### **1.3.2. Rehabilitate irrigation and drainage canals**

*Description:* In addition to the rehabilitation of the Bretelle and Torcelle rivers irrigation systems, we will also rehabilitate and extend other irrigation and drainage canals that are essential to expand agricultural production in the plain areas of the Matheux corridor for WINNER's target crops ( corn, plantain and beans). Many systems are in disrepair and water is not reaching farmers on a consistent basis. WINNER will work to rehabilitate irrigation canals in the plain areas of Cabaret, Arcahaie, and Montrouis. We will coordinate with the Ministry of Agriculture to identify canals that are not being rehabilitated by the AFD, but that are critical to enhancing agricultural productivity. We will work with farmer associations and water users associations to ensure that the irrigation and drainage canal rehabilitation works provide the greatest benefits to the communities. We will prepare detailed cost-benefit analyses that will serve as the basis for selecting the preferred options for canal rehabilitation.

<i>Zone:</i>	Matheux corridor lowland areas
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Ministry of Agriculture, AFD, Farmer associations
<i>Responsible staff:</i>	Civil Engineer
<i>WIF cost:</i>	\$500,000

### **1.3.3. Help establish and build capacity of water users associations in irrigated areas of the Matheux corridor**

*Description:* We will work with local farmer associations in the irrigated areas of the Matheux corridor to help establish a federation of water user associations for the maintenance of the irrigation canals that have already been rehabilitated by DEED and other programs, and that will be rehabilitated by WINNER. We will provide training and technical assistance to determine cost recovery mechanisms and maintenance needs to ensure the sustainability of the irrigation networks. We will work with the Ministry of Agriculture and the French cooperation through the AFD to coordinate capacity building of irrigation water users associations.

<i>Zone:</i>	Cabaret-Arcahaie
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local farmer organizations, private sector operators, local authorities, AFD, Ministry of Agriculture
<i>Responsible staff:</i>	Infrastructure Maintenance specialist
<i>WIF cost:</i>	\$25,000

## **E2. Improve Watershed Stability**

### **2.1 Protect Selected Hillside.**

#### **2.1.1. Implement soil conservation activities and reduce sedimentation, including ravine treatment**

*Description:* WINNER has identified five priority ravines that need to be treated in the Matheux corridor. Three ravines in Pierre Payan, Délugé, and Bois Neuf are to protect the irrigation systems in the plain, and two ravines need to be treated to protect the Cazale and Torcelle irrigation system. We will work with local NGOs and the target areas community-based organizations to stabilize these ravines through gully stabilization works, the installation of gabions, and the planting of vetiver. This work is essential for the protection of the productive plains in the corridor and is complementary to work already undertaken by the Agence Francaise de Développement (AFD) on the rehabilitation of irrigation systems in the Arcahaie and Cabaret region.

<i>Zone:</i>	Cabaret-Arcahaie
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local authorities, Ministry of Agriculture, Ministry of Environment
<i>Responsible staff:</i>	Soil Conservation Specialist and Regional Director
<i>WIF cost:</i>	\$750,000

#### **2.1.2 Conduct river banks stabilization**

*Description:* Based on the work that was undertaken in the river banks last year, WINNER has identified additional river bank sections that must be stabilized with biological structures and minor gabion works to protect the productive plains of Arcahaie and Cabaret. WINNER will provide grants to local organizations to undertake additional bank stabilization work on rivers Courjolles (to protect the Arcahaie plain irrigation system), Torcelle (to protect the Cabaret plain irrigation system), Montrouis (to protect the

water intake of Bois Blanc), and ravine Manègue (to protect the Torcelle river and Cabaret plain) with plant materials, and the plugging of critical weak points with gabion baskets. The grants will also include the production and plantation of tree seedlings on the buffer strips along the river banks and in critical areas of the sub-corridor. Project activities will include, but not limited to:

1. Rivière Courjolles – Install 800 m<sup>3</sup> of gabion baskets at critical points, protect upper river banks with planting of vetiver, and plant forest tree species.
2. Rivière Torcelle/Cabaret - Plug 50 ml of breached river banks with gabions, protect river banks with planting of vetiver, and plant forest tree species.
3. Rivière Montrouis – Install 200 ml of breached river banks with gabions in the area of Bois Blanc to protect the productive investment of the plain.
4. Ravine Manègue/Cabaret - Plug breaches of the ravine by reinforcing over 100 ml of the banks with gabion baskets, and planting of forest species.

<i>Zone:</i>	Arcahaie - Cabaret
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Ministry of Environment, Ministry of Agriculture, local authorities
<i>Responsible staff:</i>	Soil Conservation Specialist and Civil Engineer
<i>WIF cost:</i>	\$750,000

### **2.1.3 Promote sustainable agriculture on hillsides**

*Description:* WINNER will promote sustainable agriculture in hillside areas to protect the productive plains and to increase rural incomes. In hillside areas with gentle slopes and with terraces, we will promote the sustainable production of crops such as potatoes, cabbage, carrots, and leeks. As a complementary activity to the agro-forestry program in the hillsides of the Matheux corridor (see Section 2.3), we will work also with hillside farmers to install greenhouses in mountain zones. These greenhouses will enable farmers to implement high value agriculture and will help free land currently cultivated on steep slopes for reforestation.

<i>Zone:</i>	Matheux corridor lowland areas
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Farmer associations
<i>Responsible staff:</i>	Rural Engineer and Civil Engineer
<i>WIF cost:</i>	\$150,000

### **2.1.4. Install four water catchments and drip irrigation systems (Goyavier, Fond Baptiste, Délice)**

*Description:* We plan to install four water catchments in the areas of Goyavier, Fond Baptiste and Délice in order to provide water to irrigate terraces and greenhouses in support of sustainable agriculture. The water catchments will be linked to drip irrigation systems for the greenhouses. In addition to irrigation, the water catchments will also provide potable water to isolated populations.

<i>Zone:</i>	Matheux corridor lowland areas
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Farmer associations
<i>Responsible staff:</i>	Rural Engineer and Civil Engineer
<i>WIF cost:</i>	\$250,000

### **2.1.5. Implement a demonstration farm of sustainable hillside agriculture in Goyavier**

*Description:* In order to ensure the development of sustainable hillside agriculture to protect the productive plains of the Matheux corridor, it will be important to train farmers in the proper techniques of

sustainable hillside agriculture. We will implement a demonstration farm of sustainable hillside agriculture in Goyavier. This farm will showcase the growing of crops in terraces, the cultivation of high value crops under greenhouse, and appropriate agro-forestry practices to stabilize hillsides.

<i>Zone:</i>	Goyavier
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Farmer associations
<i>Responsible staff:</i>	Regional Director and Senior Agronomist
<i>WIF cost:</i>	\$50,000

## **2.2 Improve Watershed Governance**

### **2.2.1. Develop watershed management plan for the Matheux corridor (Bretelle, Torcelle, Courjolle, Matheux, Montrouis)**

*Description:* WINNER will conduct a training needs assessment of the ASEC, CASEC and municipal authorities of Cabaret, Arcahaie, Montrouis and Saint Marc) with focus on natural resources management, and will develop a small assistance program responding to the identified needs. Subsequently WINNER will provide training in natural resource management and land use planning, and basic equipment and materials for internet access, map drawing, and rainfall measurement. WINNER will work with mayors, local representatives, watershed management groups, producer groups, ASEC/CASEC representatives and CIAT (the Comité Interministeriel pour l’Aménagement du Territoire) to support the development of watershed management plan for the Matheux corridor. The first step will be to organize small group discussions to increase awareness of the issues and select the main topics to be addressed. We will acquire high resolution satellite images of the Matheux corridor and our GIS team will prepare land use land cover maps (LULC) based on these images. Based on the methodology used in the Cul-de-Sac watershed, we will prepare a draft watershed management plan for the Matheux corridor.

<i>Zone:</i>	Cabaret, Arcahaie, Montrouis, Saint Marc
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local authorities, CIAT
<i>Responsible staff:</i>	DCOP, Governance and Environmental Officer and GIS Specialist
<i>WIF cost:</i>	\$50,000

### **2.2.2. Increase the capacity of local institutions in watershed management**

*Description:* We will collaborate with farmer groups and governance-focused NGOs to increase the capacity of local authorities to manage land use planning. WINNER will work with watershed management groups, including producer organization representatives, ASEC/CASEC representatives, and mayor representatives to develop watershed governance structures, as well as to train, accompany and guide them in basic land use planning exercises, principles of zoning, etc. The technical assistance will also cover support in developing enforcement strategies.

<i>Zone:</i>	Cabaret, Arcahaie, Montrouis, Saint Marc
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local authorities
<i>Responsible staff:</i>	Training Director and Regional Director
<i>WIF cost:</i>	\$25,000

### **2.2.3. Prepare disaster contingency plans for St Marc**

*Description:* The Matheux corridor is prone to flooding. The communes of Cabaret and Arcahaie have already received support from the IDB for the preparation of disaster contingency plans. WINNER will work with the Civil Protection Direction (DPC) of the Ministry of Interior to develop a disaster

preparedness contingency plan for the commune of Saint Marc. We will also help set up communal civil protection committee that will be responsible for the implementing the plan at the local level.

<i>Zone:</i>	Commune of Saint Marc
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Ministry of Interior (DPC), local authorities and local organizations
<i>Responsible staff:</i>	Disaster Management Specialist
<i>WIF cost:</i>	\$20,000

## **2.2 Increase Tree Cover**

### **2.3.1. Support agro-forestry campaign**

*Description:* WINNER will support agro-forestry campaigns in the Matheux corridor to increase tree cover. Based on the lessons learned from previous campaigns, we will provide incentive-based grants to local associations to install and maintain greenhouses, produce tree seedlings, plant the seedlings and maintain them until they become productive. We will focus primarily on mangoes, other income-generating fruit trees, as well as on coffee and jathropa plants for transplantation in marginal areas of the Matheux corridor.

Once the seedlings are ready for planting, after about six months of growth in the nursery, the project will work with the nursery managers to transplant the seedlings in critical areas in the watershed. For vetiver, the project will establish a nursery at the CRDD. The vetiver will be ready for transplanting after about three months. The project will use the vetiver for erosion control and will encourage other groups to do the same for the protection of the productive plain.

<i>Zone:</i>	Matheux corridor (Hillside areas)
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local associations
<i>Responsible staff:</i>	NRM Specialist and NRM and M&E specialist
<i>WIF cost:</i>	\$200,000

### **2.3.2. Support the development of the mango value chain**

*Description:* The mango value chain is prevalent in the Cabaret – Arcahaie region, particularly around Cazale. Mangos from this area can come into production early and can be exported in a market window during which there is little international competition. We will work with mango producers in the area to improve production techniques and to ensure that the mangoes produced in this area meet the requirements for exports. Technical assistance will be provided to build the capacity of producer associations, apply appropriate technical production schedules, and reduce post-harvest losses.

<i>Zone:</i>	Cabaret – Arcahaie area
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local producer associations, mango exporters
<i>Responsible staff:</i>	PPPP Component Leader, PPPP Specialist and regional NRM and M&E specialist
<i>WIF cost:</i>	\$100,000

### **2.3.3. Strengthen agro-forestry associations**

*Description:* In order to ensure the sustainability of agro-forestry campaigns, we will provide training and capacity building to agro-forestry associations of the Matheux corridor. Specifically, we will provide training in finance, management, organization, and marketing.

<i>Zone:</i>	Arcahaie, Cabaret, Montrouis, Saint Marc
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Agro-forestry associations
<i>Responsible staff:</i>	NRM specialist, and regional NRM and M&E specialist
<i>WIF cost:</i>	\$25,000

### **2.3.4. Identify local seed suppliers**

*Description:* One of the constraints to the development of sustainable agro-forestry in Haiti is the timely availability of quality seeds. We will identify local seed suppliers in the Matheux corridor and we will provide them with training and capacity building to improve their ability to collect, sort, and store quality seeds that could then be sold to local agro-forestry associations.

<i>Zone:</i>	Cabaret, Arcahaie, Montrouis, Saint Marc
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Seed producers, agro-forestry associations
<i>Responsible staff:</i>	NRM specialist, and regional NRM and M&E specialist
<i>WIF cost:</i>	\$20,000

## **E3. Strengthen Agricultural Markets**

### **3.1 Reduce Transportation Costs**

#### **3.1.1. Rehabilitate critical sections of 18 kilometers of rural feeder roads**

*Description:* WINNER has started the rehabilitation of critical sections of about 9 kilometers of feeder roads from Williamson to Fond Baptiste, based on their importance for agricultural trade. We will continue the rehabilitation of this road, after conducting cost-benefit analyses of various rehabilitation options. Following the selection of the road segments to be rehabilitated, we will issue RFPs for the execution of the work.

<i>Zone:</i>	Arcahaie- Fond Baptiste road
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Local authorities and local associations
<i>Responsible staff:</i>	Infrastructure Component Leader and Civil Engineer
<i>WIF cost:</i>	\$750,000

#### **3.1.2. Perform ad-hoc interventions on rural roads to support target value chains**

*Description:* Many roads in the Matheux corridor are in disrepair, including those that are important to the transport of agricultural products in target value chains. Local authorities have asked for WINNER's help in repairing key road segments. In addition to the rehabilitation of critical sections of about 9 kilometers of feeder roads from Williamson to Fond Baptiste, WINNER will conduct studies, including cost-benefit analyses of rehabilitation options for other roads. Following the selection of road segments to be rehabilitated, we will perform the necessary interventions to rehabilitate these segments of road.

<i>Zone:</i>	Arcahaie- Fond Baptiste road
<i>Timing:</i>	October 2011-September 2012

*Partners:* Local authorities and local associations  
*Responsible staff:* Infrastructure Component Leader and Civil Engineer  
*WIF cost:* \$150,000

### **3.1.3. Strengthen community groups to perform road maintenance.**

*Description:* We will provide technical assistance to create a road users association for the maintenance of the rehabilitated Fond Baptiste road. The association will include representatives from farmer associations that are able to better evacuate their products, transportation agents (trucking companies and moto taxis), and other beneficiaries of the road. We will provide training on road maintenance and on the conducting of minor repairs.

*Zone:* Arcahaie  
*Timing:* October 2011-September 2012  
*Partners:* Road users associations, community groups  
*Responsible staff:* Infrastructure Maintenance specialist  
*WIF cost:* \$25,000

## **3.2 Improve Market Information**

### **3.2.1 Partner with hotel association of the Arcadin coast to sell regional products**

*Description:* On August 24<sup>th</sup> 2011 WINNER facilitated the signature of an MOU between agricultural producer associations of the Matheux region and the hotel association of the Arcadin coast to provide hotels with local products. We will provide technical support to the farmer associations to ensure that they meet the quality standards and the quantity requirements of the hotel owners on a consistent basis. We will also encourage the producer associations to invest part of the proceeds from this commercial relationship into continuing to improve their productivity and their product presentation.

*Zone:* Region of Matheux  
*Timing:* October 2011-September 2012  
*Partners:* Farmer associations, Arcadin coast hotel association  
*Responsible staff:* PPPP Component Leader, PPPP Specialist, and Regional Director  
*WIF cost:* \$20,000

### **3.2.2. Strengthen associations on market standards.**

*Description:* One of the ways to increase the value derived by farmers from the sale of their products is to educate them on markets standards and on the difference in retail prices based on product quality, size, taste and presentation. In general, farmers sell their products in bulk and intermediaries reap the benefits of product differentiation. We will provide training to farmer associations on market standards and we will develop strategies for them to practice greater product differentiation to increase their added value and their income.

*Zone:* Matheux corridor (lowland area)  
*Timing:* October 2011-September 2012  
*Partners:* Farmer associations, Arcadin coast hotel association  
*Responsible staff:* Commercialization/marketing specialist  
*WIF cost:* \$20,000

### **3.2.3. Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation**

*Description:* The agreement signed between producer groups and the hotel owners of the Arcadin coast is an example of one successful PPA. However, there are many more opportunities to expand commercial linkages between producers and the private sector in the target value chains. We will continue to foster PPAs for products such as mangoes, beans, rice, and plantains. These PPAs will help increase farmer incomes and attract productive investments in agriculture in the corridor.

*Zone:* Matheux corridor  
*Timing:* October 2011-September 2012  
*Partners:* Farmer associations, private sector  
*Responsible staff:* Commercialization/marketing specialist, PPPP Component Leader, and Regional Director  
*WIF cost:* \$100,000

### **3.2.4. Add value to the corn value chain for animal feed**

*Description:* In the Matheux corridor, there is an opportunity to add value to the corn value chain by encouraging the transformation of corn into animal feed, particularly for poultry production. WINNER has already distributed chicken coops to farmer associations in the Cabaret and Arcahaie areas. By developing the feed production industry, farmers could buy quality feed and increase their egg production. This activity will help enhance rural incomes in the Matheux corridor.

*Zone:* Matheux corridor  
*Timing:* October 2011-September 2012  
*Partners:* Feed production units, farmer associations  
*Responsible staff:* Livelihoods Component Leader and Regional Deputy Director  
*WIF cost:* \$100,000

## **3.3 Strengthen Market Norms and Standards**

### **3.3.1. Reduce the impact of plant diseases in the plantain value chain**

*Description:* The plantain value chain is a key crop in the Matheux corridor. However, plantains are very susceptible to disease (black Cygotoka and nematodes) and productivity is affected. We plan to expand the zones of production of plantains. WINNER will introduce the system of rice intensification (SRI) in alternating with plantain production in order to cut the cycle of nematodes. We will also implement demonstration plots at the CRDD and on selected farmer fields to demonstrate best practices for plantain production, with the assistance of plantain experts from the University of Florida. WINNER will assist with the phyto-sanitary treatment of plantain plantations and will facilitate post-harvest operations with the provision of crates. WINNER has already been in contact with several partners (FAMV, MARNDR, VITROPIC/PLANTURA, ARD) for a coordinated response to support the plantain value chain in the Matheux corridor. WINNER will also work with the French cooperation, through AFD on the development of the plantain value chain in the Matheux corridor.

*Zone:* Matheux corridor (lowland area)  
*Timing:* October 2011-September 2012  
*Partners:* Local associations, FAMV, MARNDR, AFD  
*Responsible staff:* Livelihoods Component Leader and Regional Deputy Director  
*WIF cost:* \$100,000

## **3.4 Reduce Post-Harvest Losses**

### **3.4.1. Build post-harvest facilities and provide technical assistance and equipment**

*Description:* WINNER will support the improvement of post-harvest practices in the Matheux corridor by building collection centers that can serve for mangos, cereals, and other crops in the area. WINNER has been working on a PPP with Carifresh for dried mangoes that require the availability of collection centers. We will identify opportunities for building post-harvest centers for other key value chains in the Matheux corridor.

*Zone:* Matheux corridor  
*Timing:* October 2011-September 2012  
*Partners:* Farmer associations, private sector  
*Responsible staff:* Regional Director and Civil Engineer  
*WIF cost:* \$700,000

### **3.4.2 Strengthen associations to benefit from the Comeau collection center**

*Description:* A collection center for mangoes was built by CHF in Comeau in the commune of Cabaret. This center is ready to be used. We will work with farmer associations of the Cabaret region to use the center for mangoes during the mango season and for other crops the rest of the year. This center is ideal for sorting and preparing plantains, corn, and vegetables for sale to valuable markets. It is also a site where the traceability system for mangoes can be implemented.

*Zone:* Matheux corridor  
*Timing:* October 2011-September 2012  
*Partners:* Farmer associations, private sector  
*Responsible staff:* Regional Director  
*WIF cost:* \$50,000

### **3.4.3. Rehabilitate rural markets, and ensure appropriate management.**

*Description:* Rural markets are a key link in the value chains for focus crops because it is where wholesalers interact directly with farmers. The poor conditions of rural markets affect the quality of the products and reduce the value accruing to small farmers. By rehabilitating key rural markets, we will improve product quality, reduce waste and environmental impacts resulting from poor market conditions, improve the efficiency of key value chains, and allow producers to reach more buyers. In the Matheux corridor, WINNER will rehabilitate the rural markets in Cabaret and Titanyen and ensure adequate management. WINNER will work with the municipal authorities of Cabaret, and community leaders on the rehabilitation of the rural markets of Cabaret and Titanyen. WINNER will also acquire the services of a short-term consultant to assist the market management committee in developing a simple, practical but sound management plan, which will address the key issues for access, solid waste management, and product flow.

*Zone:* Matheux corridor (lowland area)  
*Timing:* October 2011-September 2012  
*Partners:* Municipal authorities of Cabaret and Titanyen, producer groups, farmers associations  
*Responsible staff:* Regional Director, , Civil Engineer  
*WIF cost:* \$650,000

### **3.4.4 Improve the organization of vendors in selected rural markets**

*Description:* In addition to the physical rehabilitation of markets, it will be critical to improve the organization of vendors within markets. We will conduct a detailed study of the current organization of the markets to be rehabilitated (number of vendors, types of products, customer flows, types of customers, vehicles, access to vendors) and make recommendations on how to better organize vendors to improve the efficiency of the markets.

*Zone:* Matheux corridor  
*Timing:* October 2011-September 2012  
*Partners:* Farmer associations, private sector  
*Responsible staff:* PPPP specialists, Regional Director, and Regional Deputy Director  
*WIF cost:* \$25,000

## SECTION V. MIREBALAIS AND SAUT D’EAU REGION

WINNER will focus its activities in the region of Mirebalais and Saut d’Eau on the mango value chain, particularly for the export of the francisque mango variety.

### A. Context

The mango value chain, particularly the francisque mango variety, is one of the main value chains in Haiti with significant potential for export growth. The table below summarizes the export of mangos from Haiti in 2011, and identifies mango exports in the WINNER areas of intervention.

<b>Production Areas</b>	<b>2011 mango exports (dozens)</b>
Cul de Sac	
Cul de Sac plain	41,680
Croix des Bouquets	75,233
<i>Total Cul-de-Sac</i>	<i>116,913</i>
Mirebalais/Saut d’Eau	
Mirebalais	190,300
Saut d’Eau	295,962
<i>Total Mirebalais/Saut d’Eau</i>	<i>486,262</i>
Matheux	
St Marc	4,059
Cabaret	20,195
Arcahaie	6,652
Montrouis	14,670
<i>Total Matheux</i>	<i>45,576</i>
<b><i>Total WINNER Areas</i></b>	<b><i>648,751</i></b>
Other regions	
Gros Morne	462,603
Verettes	85,227
Gonaives	54,628
Petite Rivière de l’Artibonite	220,252
Lascahobas	17,471
Saint Michel	28,199
Boucan Carre	10,312
Pont Sonde	6,610
Ennery	25,019
Leogane	8,444
Marchand	10,556
Terre Neuve	13,875
Jacmel	3,794
La Chapelle	6,056
Saint Jean	850
<b><i>Total Other Regions</i></b>	<b><i>953,896</i></b>
<b>GRAND TOTAL</b>	<b>1,602,647</b>
<b>Percent in WINNER regions</b>	<b>40.5%</b>

*Source: ANEM*

As can be seen from the table, the Mirebalais/Saut d’Eau region accounts for 30% of all mango exports, and the WINNER corridors produces 10% of the mangoes exported this year. The mango value chain is

strategically important for Haiti to increase revenues from exports. However, the efforts to date to develop the mango value chain have been scattered and intermittent. The full development of the value chain at the regional level, taking into account all the elements of the value chain in an integrated way, has not been done before.

Over the past 25 years, francisque mango exports have been stable at around 13,500 metric tons per year, whereas worldwide demand has been steadily increasing. This means that Haiti is losing market share with respect to other producing countries.

Until the mid-1990's, the francisque mango did not have much value in the marketplace and was sold for a very low price (between 3 and 9 gourdes a dozen) according to the FENAPCOM (Fédération Nationale pour la Production et la Commercialisation de la Mangue). The mango production was primarily for local consumption and many farmers used mango trees to produce wood charcoal. With the increase in the worldwide demand for fresh mangoes, mango prices gradually increased. A successful grafting operation on 5,000 mango trees in the Mirebalais / Saut d'Eau area by an international organization in the late 1990s provided a boost to local production.

### **A1. The mango production system in the Mirebalais / Saut d'Eau region**

Mango is cultivated along with other staple crops (rice, maize), beans, sugar cane, plantains, and fruit trees. There is no precise data on the mango production in the Mirebalais and Saut d'Eau communes because the value chain is not well organized. There are four major mango producer associations in the area, but most producers do not belong to associations. Among the associations are COEDPA, regrouping 216 producers with 102,000 trees, capable of selling up to 900,000 dozen mangoes per year to exporters. In Saut d'Eau, RAPCOM's 250 members have 3,000 mango trees and SAPCO regroups 300 producers. Partial data from the Saut d'Eau region indicates that there are at least 1,628 mango producers in the rural sections of Rivière Canot, Coupe Mardigras and la Selle with an average of 5 mango trees per producer. The biggest local producer is in the Coupe Mardigras section with 60 mango trees.

During the mango production season, all the value chain actors are mobilized: producers, pickers, transporters, washers, wholesalers, truckers, retailers, temporary collection centers (usually in private homes), and street vendors. The truckers make frequent round trips between the Mirebalais / Saut d'Eau area and Port-au-Prince where the buyers are concentrated.

Therefore, mango production is a key agricultural value chain in this region. Each year, nearly 400,000 cases of mangoes are sent to Port-au-Prince for the export market. Currently, a dozen mangoes sell for an average of 53 gourdes directly to exporters and for between 37 and 47 gourdes to local wholesalers. However, mangoes rejected for the export market are sold at very low prices in the local market (around 10 gourdes a dozen) and many are wasted.

### **A2. Regional assets for expanding the francisque mango value chain**

It is estimated that 20% of national francisque mango production for export comes from the Mirebalais/Saut d'Eau region, despite the high rate of rejected fruits due to anthracnose in highly humid areas. There are several assets of the region that favor the expansion of mango production:

- Grafting opportunities for export ready mango varieties, in addition to mango francisque;
- Favorable agro-climatic conditions;
- Knowledge of producers of the region of the importance of mango francisque;
- Rehabilitation of National road #3 and completion of the new Saut d'Eau – Titanyen road;

- Economic importance in the area of revenues generated by mango production;
- High local consumption of rejected mangos for export;
- Importance of mango trees as land cover in the area.

However, despite these assets, there are some key constraints to the development of mango production.

### **A3. Constraints of the value chain**

Although there is a clear market for Haitian mangoes, Haitian exports have been stagnant at around 1.5 to 2 million cases per year. Problems in production are exacerbated by a rejection rate of 25% to 50% of the mangoes that reach the export conditioning plants. This results in lower margins all along the value chain.

The primary constraints in the mango value chain are presented below.

#### **Production**

There are many issues with mango production. Farmers are poorly educated on best practices, the mango trees are subject to disease and receive no phytosanitary treatment, and there is a general lack of post-harvest facilities near the production sites.

Mango production in the Mirebalais region is scattered. In general, producers own between 3 and 5 trees, which is an inefficient quantity to pick, as pickers must make arrangements with many small farmers. In addition, poor picking practices result in many fruits being bruised or damaged.

Mangos are also very susceptible to anthracnose due to high humidity levels. This is one of the major causes for the high number of rejected mangos because of the dark spots on the fruits.

#### **Transport**

The transport of mangos from the production areas to the major exporting facilities also exacerbates post-harvest losses. Mangos are primarily transported on donkeys from the fields, in sacks of ten dozens, towards makeshift collection centers. Because of poor road conditions and the types of burlap sacks used, there is a high level of bruising as the fruits rub against each other. This is exacerbated by mangoes ripening too quickly during the rainy season.

Since the optimal time between harvesting the fruits and their delivery at the exporters conditioning plants in Port-au-Prince is less than three days, the poor modes of transportation and aggregation of the fruits create huge logistical problems. To gain time, local wholesalers use private homes near the areas of production as makeshift collection centers. Mangos are then transported from the temporary collection centers to aggregation centers where trucks belonging to the exporters pick up the fruits. This transport is often done in pick-up trucks on roads in poor condition.

#### **Tools**

The tools used in mango harvesting and handling are very rudimentary and do not prevent high post-harvest losses.

#### **Organization**

The majority of mango farmers operate within a very disorganized value chain. This hampers productivity and makes traceability difficult. There are currently three associations of mango producers in the region.

### **Marketing**

Most producers of francisque mango seek to sell their fruits to exporters. Unfortunately, more than half of the production does not meet export requirements. Due to lack of phyto-sanitary treatment of mango trees, and poor post-harvest and transportation conditions, the rejection rate is more than 50%. After selling the mangos that meet international requirements, the rejected mangos are sold at very low prices in the local market because they are perishable.

### **Lack of processing facilities**

There are only five small processing units for mangos in the communes of Mirebalais and Saut d'Eau. Product losses can be significantly diminished by increasing the number of post-harvest and processing facilities in the region.

### **Financial constraints**

Although market opportunities are important in the mango value chain, producers face financial constraints to further develop production. Generally, mango francisque are sold in advance at a set price to intermediaries. Producers do not generally negotiate prices directly with exporters. There are many intermediaries in the value chain. These intermediaries ensure the harvesting, transportation on donkeys and mules, and temporary storage of the mangos. There is a primary sorting of mangoes in temporary collection centers with the final sorting done at the exporter's facility.

There is very little investment in the value chain for the purchase of improved tools, and the building of collection centers, or of processing facilities. Mango producers have little access to credit and mango farmer associations are not well organized and are generally weak.

## **B. Selected Zones of Intervention**

In Mirebalais and Saut d'Eau, due to the mountainous regions and the importance of soil erosion control practices being widespread, as well as the relatively limited overall area of the watershed, WINNER will focus activities in the mango producing areas. However, some infrastructure work, such as ravine treatment, will be done upstream of mango producing areas to protect them from sedimentation and flooding.

## **C. Strategies for the development of the mango value chain in the Mirebalais/Saut d'Eau Region**

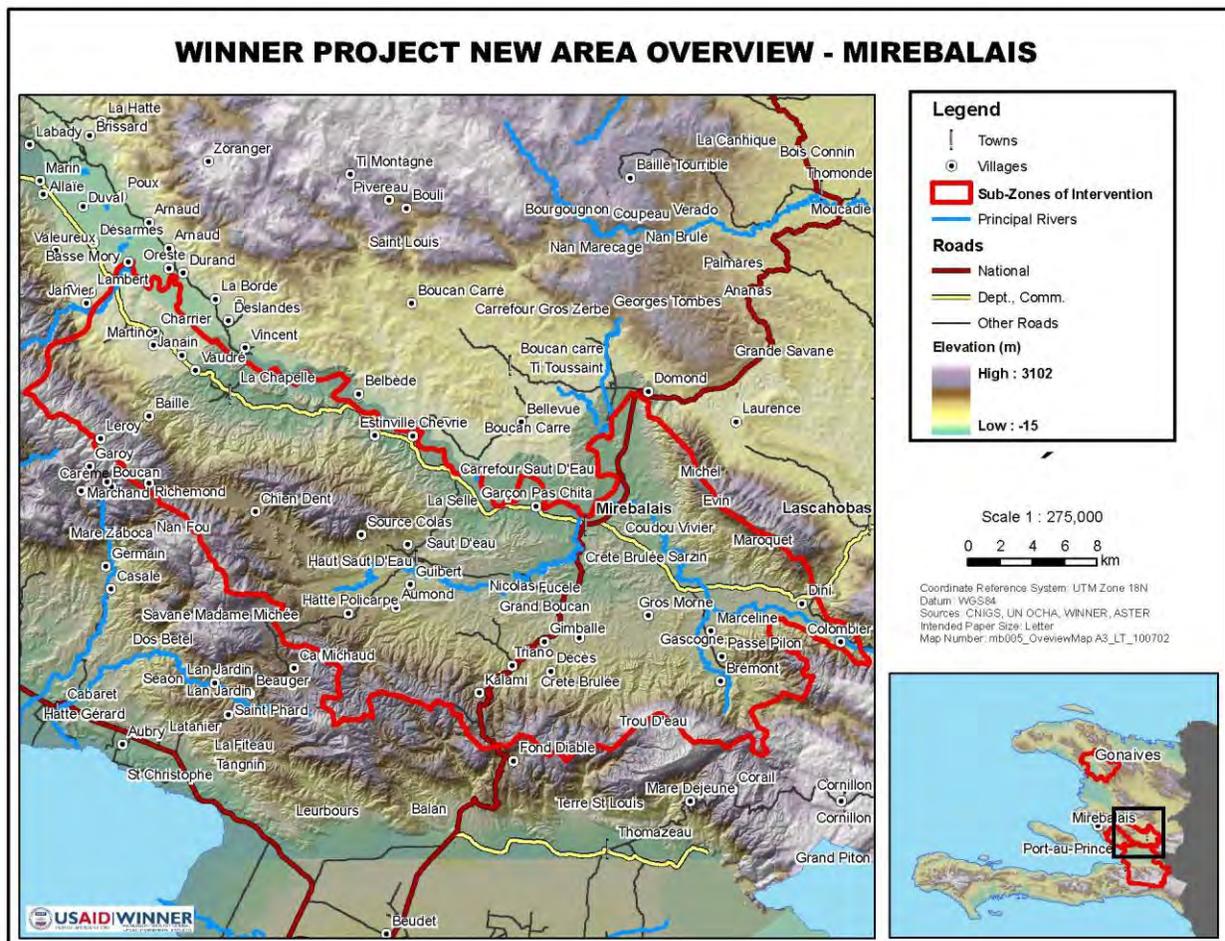
The WINNER interventions in the two communes will be focused in high mango production areas in the sections of Gascogne, Sarazin, Crête Brulée in the commune of Mirebalais; and Rivière Canot, Coupe Mardigras and la Selle in the Commune of Saut-d'Eau. We will also work in zones of potential extension of mango production.

## **Objectives**

The main objective of the WINNER project is to help producers of francisque mangoes in the communes of Mirebalais and Saut d'Eau to increase the production of mangoes for export while increasing their revenues.

More specifically, WINNER interventions will contribute to:

- Increase the production of exportable mangoes in the two communes by 10% to 15% compared to last year;
- Control and reduce the propagation of diseases during production;
- Improve local roads to better evacuate mango production;
- Build collection and processing centers;
- Reduce losses by 15% to 20%;
- Assist producer associations in marketing and selling their products.



## **D. Activities by Key Results for Mirebalais/Saut d'Eau**

This section describes the activities WINNER plans to undertake in the Mirebalais/Saut d'Eau region. These activities are exclusively linked to the development of the mango value chain. The activities are selected on the basis of the added value that can be provided by WINNER, given that many other groups are providing support to the mango value chain in the Mirebalais/Saut d'Eau region (Technoserve, CRS, Concern International, IICA, Mercy Corps).

### **D1. Increase Agricultural Productivity**

#### **1.1 Promote market-driven access to agricultural inputs**

##### **Strengthen agro-supply stores in the Mirebalais and Saut d'Eau region**

*Description:* Although WINNER will no longer provide direct assistance to agro-supply stores in the Mirebalais and Saut d'Eau region, we will provide basic financial and management training to the agro-supply stores located in mango producing areas. Since mango producers are both co-owners and customers of these stores, the improved capacity of the stores to serve their farming communities will benefit the mango value chain.

<i>Zone:</i>	Communal sections of Mirebalais and Saut d'Eau
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, producer groups, farmers associations, NGOs
<i>Responsible staff:</i>	Regional Director
<i>WIF cost:</i>	\$5,000

#### **1.2 Increase access to agricultural technologies**

##### **1.2.1. Complete the establishment of a CRDD in Wanny focused on the mango value chain**

*Description:* WINNER has started the implementation of a CRDD in Wanny in the commune of Mirebalais. We will transform this CRDD into a model training center of best practices for mango production, post-harvest handling, and processing. We plan to call this CRDD —*La maison de la mangue*?. We will establish model mango orchards featuring mango francisque production, as well as other varieties suitable for export. We will demonstrate the optimal use of water through drip irrigation, and showcase innovating post-harvest and processing tools and technologies for mangoes. We will work closely with experts from the University of Florida to identify appropriate production, post-harvest, and processing technologies for mangoes that can be showcased at the CRDD.

<i>Zone:</i>	Wanny (Commune of Mirebalais)
<i>Timing:</i>	October 2011 – September 2012
<i>Partners:</i>	MARNDR, agribusinesses, Mango Producers, UF
<i>Responsible staff:</i>	Regional Director and Civil Engineer
<i>WIF cost:</i>	\$200,000

##### **1.2.2. Phyto-sanitary control of diseases affecting mango trees (Anthrachnose and fruit flies)**

*Description:* Following the suspension of mangoes for export in 2008 due to the discovery of Caribbean fruit flies in Haitian mangoes, the Ministry of Agriculture created a program for the detection and quarantine of trees infested with fruit flies. This program is efficient but costly. WINNER will work with the Ministry of Agriculture and the USDA to expand the mango fruit fly trapping program in the Mirebalais/Saut d'Eau area. In addition, the anthracnose disease is affecting mangoes located in humid plains. WINNER will support pruning activities as well as the drainage of mango production areas to

reduce the prevalence of this disease. We will also assist the Ministry of Agriculture with fruit fly control in affected areas.

*Zone:* Mirebalais et Saut d'Eau  
*Timing:* February 2012 – July 2012  
*Partners:* MARNDR/DDAC, USDA, Master farmers, farmers associations, UF  
*Responsible staff:* Regional Director  
*WIF cost:* \$100,000

### **1.2.3. Installation of orchards based on plants produced in nurseries**

*Description:* Mango production in the two communes contributes to 20% of the total national production for export. In order to increase this percentage over the next three years, we will put in place new mango orchards. We plan to produce and transplant 150,000 mango trees.

*Zone:* Communal sections of Mirebalais and Saut d'Eau (hillsides)  
*Timing:* January 2012 - September 2012  
*Partners:* MARNDR, producer groups, farmers associations, NGOs  
*Responsible staff:* Regional Director, NRM Specialist, Regional NRM and M&E specialist, Athis  
*WIF cost:* \$50,000

### **1.2.4. Train farmers to increase mango production**

*Description:* While Master Farmers will be trained in the Mirebalais / Saut d'Eau region on best agricultural practices according to the standard training curriculum established in all regions, there will be an additional training program focused on the mango value chain in this region for 200 farmers. The training will focus on the proper care of mango trees and orchards to maximize production, as well as grafting and pest control.

*Zone:* Mirebalais, Saut d'Eau  
*Timing:* November 2011 - July 2012  
*Partners:* Existing mango groups, mango exporters, MARNDR  
*Responsible staff:* Regional Director  
*WIF cost:* \$60,000

## **1.3 Rehabilitate and Maintain Irrigation and drainage systems**

Given the exclusive focus on the mango value chain, no activity is planned in the Mirebalais / Saut d'Eau region for this Sub-Intermediate result.

## **D2. Improve Watershed Stability**

### **2.1 Protect Selected Hillsides**

#### **2.1.1 Implement soil conservation activities and reduce sedimentation at Ravine Cana**

*Description:* Using the preliminary results of the watershed management plan, the technical experience and local knowledge of its field team, its GIS capacities, and in close collaboration with the various stakeholders, WINNER has identified and prioritized ravine Cana as a critical ravine to be stabilized. WINNER will work with local NGOs and the target areas community-based organizations to initiate the gully stabilization works. The ravine was selected on a priority basis to protect mango producing areas.

<i>Zone:</i>	Communal sections of Mirebalais and Saut d'Eau
<i>Timing:</i>	October 2011 – March 2012
<i>Partners:</i>	Watershed management groups, farmers associations & NGOs
<i>Responsible staff:</i>	Regional Director, Soil Conservation Specialist, Regional NRM and M&E Specialist
<i>WIF cost:</i>	\$150,000

#### **2.2 Improve Watershed Governance**

Given the exclusive focus on the mango value chain, no activity is planned in the Mirbalais / Saut d'Eau region for this Sub-Intermediate result.

#### **2.3 Increase Tree Cover**

Given the exclusive focus on the mango value chain, no activity is planned in the Mirbalais / Saut d'Eau region for this Sub-Intermediate result.

## **D3. Strengthen Agricultural Markets**

### **3.1 Reduce Transportation Costs**

#### **3.1.1 Conduct study and repair and stabilize critical sections of farms to markets roads in Gascogne and Sarazin, Mirebalais**

*Description:* Farm to market roads are a vital element of the productive infrastructure necessary to support the sustainable management of the region's natural resources, and particularly in improving the efficiency of the mango value chain. They provide, among other aspects, for the evacuation of mangoes and associated crops to processing centers and markets. A good feeder road system also contributes to reducing post harvest losses. We will conduct cost-benefit analyses of rehabilitation options for these roads, with a focus on benefits for the mango value chain. Based on the results of these analyses, we will work with the target population, farmers associations, and local authorities on the repair, stabilization and protection of key sections of critical farm to market roads in the communal section of Mirebalais.

<i>Zone:</i>	Gascogne, communal section of Mirebalais
<i>Timing:</i>	December 2011 – September 2012
<i>Partners:</i>	Farmers associations, CASEC and ASEC
<i>Responsible staff:</i>	Regional Director and Deputy Infrastructure Component Leader
<i>WIF cost:</i>	\$200,000

### **3.1.2 Repair and stabilize critical rural roads in Saut d'Eau**

*Description:* Like in 3.1.1 above, WINNER will identify critical farm to market roads to be rehabilitated in the commune of Saut d'Eau, conduct cost-benefit analyses, and implement repairs on critical sections if significant benefits can be demonstrated for the mango value chain.

<i>Zone:</i>	Coupe Mardi Gras, Saut d'Eau
<i>Timing:</i>	January 2012 – September 2012
<i>Partners:</i>	Farmers associations, CASEC and ASEC
<i>Responsible staff:</i>	Regional Director and Deputy Infrastructure Component Leader
<i>WIF cost:</i>	\$200,000

### **3.2 Improve Market Information**

Given the exclusive focus on the mango value chain, no activity is planned in the Mirbalais / Saut d'Eau region for this Sub-Intermediate result.

### **3.3 Strengthen Market Norms and Standards**

#### **3.3.1 Inventory of mangos and implementation of a traceability system**

*Description:* In order to prepare for the implementation of a mango traceability system, we will provide grants to producer groups so that they can develop a database containing the GPS coordinates of mango production area members and regular mango sellers from the region that are not members. This database will then be used at strategic collection points during the mango season to identify the origin of the fruits being sold to exporters. The pilot project will be tested during the spring 2012 mango production season.

<i>Zone:</i>	Communal sections of Mirebalais and Saut d'Eau
<i>Timing:</i>	November 2011 - May 2012
<i>Partners:</i>	MARNDR, USDA, mango producer groups, mango exporters
<i>Responsible staff:</i>	Regional Director, DCOP, GIS Specialist
<i>WIF cost:</i>	\$50,000

### **3.4 Reduce Post-Harvest Losses**

#### **3.4.1 Train farmers on harvest and post-harvest methods for mangoes**

*Description:* Farmers will also receive training on harvest and post-harvest methods to improve the quality and quantity of mangoes sold. Training modules include external transport, mango harvest skills, mango internal transport and mango collection. More than 20 training sessions on harvest and post-harvest methods will be carried out in the selected localities.

*Progress to date:* A detailed training curriculum has been developed and animators have been recruited.

<i>Zone:</i>	Mirebalais, Saut d'Eau and other communes in the Plateau Central
<i>Timing:</i>	November 2011 - July 2012
<i>Partners:</i>	Existing mango groups, mango exporters, MARNDR (training content), NGOs (coordination of trainings), UF, women's groups
<i>Responsible staff:</i>	Regional Director, Livelihoods Deputy Component Leader
<i>WIF cost:</i>	\$25,000

#### **3.4.2 Support for mango post-harvest handling**

*Description:* In order to reduce losses in the harvesting of mangoes for the 2012 season, WINNER will procure plastic crates for the efficient transportation of mangoes, and mobile collection centers for the sorting of mangoes at the source. These measures will ensure that we significantly reduce post-harvest

losses, thus increasing the quantity of export-ready mangoes from the Mirebalais/Saut d'Eau area immediately.

*Zone:* Mirebalais et Saut d'Eau  
*Timing:* March 2012 – June 2012  
*Partners:* MARNDR, Master farmers, farmers associations  
*Responsible staff:* Regional Director and PPPP Component Leader  
*WIF cost:* \$100,000

### **3.4.3 Pursue collaboration with Carifresh and ADAIM for dried mango processing**

*Description:* WINNER has been working on a PPPP with Carifresh to work with mango producers of the Mirebalais/Saut d'Eau region for the processing of dried mangos. WINNER will build a facility to process mangos into dried mangos with the ADAIM mango producer association. WINNER will also help finance equipment for the facility. Carifresh will then purchase and market the dried mango products through its established distribution channels.

*Zone:* Mirebalais  
*Timing:* October 2011 – September 2012  
*Partners:* AGRITEC, mango growers, sugar cane producers  
*Responsible staff:* PPPP Specialist and Regional Director  
*WIF cost:* \$100,000

### **3.4.4 Support the implementation of a mango pulp processing plant**

*Description:* WINNER will provide technical assistance to Agritec for the implementation of a mango pulp processing plant in the Mirebalais area. Specifically, WINNER will field University of Florida mango processing experts to advise on the design of the plant and on equipment specifications. WINNER will also link producer groups on the Mirebalais / Saut d'Eau region with Agritec to test the transformation of locally produced mangoes not suitable for export into mango pulp.

*Zone:* Mirebalais  
*Timing:* October 2011 – October 2012  
*Partners:* AGRITEC, mango growers, sugar cane producers  
*Responsible staff:* PPPP Specialist and Regional Director  
*WIF cost:* \$100,000

## SECTION VI. GONAIVES REGION

### A. Project's Fundamental Objective for Work in the Region

The Gonaïves region is not one of the corridors included in the new USAID strategy. In our last work plan, WINNER kept a few selected activities in Gonaïves to protect USG investments (sustainable rural development centers (CRDDs), agricultural input supply stores (BIAs), and ongoing PPAs). With this work plan, WINNER will completely phase out of Gonaïves and we will transfer the operations of the Tarasse and LaBranle CRDDs to established community groups. Thus, the remaining activities in Gonaïves will aim to ensure an orderly and sustainable transfer of activities from WINNER to beneficiaries.

### B. Activities by Key Results for Gonaives

The activities in this section are organized according to the WINNER Results Framework and the implementation strategies reflecting the complete phase-out of support in Gonaives.

#### B1. Increase Agricultural Productivity

##### 1.1 Promote market-driven access to agricultural inputs

###### 1.1.1 Complete facilities and ensure sustainability of the hillside satellite CRDDs in La Branle and Tarasse.

*Description:* We will prepare the transfer of the Tarasse CRDD to the Ebenezer Foundation and the transfer of the LaBranle CRDD to OPLA. In Tarasse, after the installation of the pump #34 that provides water to the facility, we will resume agricultural demonstration plots that will generate revenues for the operating costs of the CRDD; we will complete the training of Master Farmers currently enrolled in the program; and we will help set up the cooperative that will take over CRDD operations as of January 2012. In the LaBranle CRDD, we will complete the construction of a training center and of the drip irrigation system.

<i>Zone:</i>	Tarasse and LaBranle
<i>Timing:</i>	October 2011 – December 2011
<i>Partners:</i>	Local Authorities, Eben Ezer Foundation, OPLA, farmer associations
<i>Responsible staff:</i>	Deputy CRDD Director
<i>WIF cost:</i>	\$40,000

###### 1.1.2. Provide grants to the Ebenezer Foundation and to OPLA for CRDD management

*Description:* As of January 2012, we will provide a grant to the Ebenezer foundation for the management of the Tarasse CRDD and to OPLA for the management of the LaBranle CRDD. Under these grant agreements, the organizations will receive material and financial support to manage the CRDDs and will have clear deliverables with respect to the training of master farmers, the operation of demonstration farms, and the provision of soil preparation and extension services. The CRDDs will be required to demonstrate their capacity to take over these tasks and to achieve some level of financial self-reliance. As part of the grants, WINNER will pay the salaries of technical staff that will be affected to the CRDDs.

<i>Zone:</i>	Tarasse and LaBranle
<i>Timing:</i>	October 2011 – December 2011
<i>Partners:</i>	Local Authorities, Eben Ezer Foundation, OPLA, farmer associations

*Responsible staff:* Deputy CRDD Director  
*WIF cost:* \$100,000

## **1.2 Increase access to agricultural technologies**

### **1.2.1. Master Farmer Program**

*Description:* See General Activities

### **1.2.2. Support demonstration plots in Tarasse at the CRDD and in surrounding areas.**

*Description:* WINNER will support the development of demonstration plots at the Tarasse CRDD that will include the growing of crops suitable for the Gonaïves area including cereals, vegetables, and beans. The development of these plots will be linked to the installation of the new pump #34 that will provide water to the CRDD on a permanent basis. The CRDD staff will be provided will materials detailing the proper technical itineraries for the selected crops. We will also implement demonstration plots in other areas of the Gonaïves plain that are served by pump #34.

*Zone:* Gonaïves plain and Tarasse CRDD  
*Timing:* October 2011 – September 2012  
*Partners:* Ebenezer, AIZ1, AIZ2, AIZ3, AIZ4  
*Responsible staff:* Deputy CRDD Director  
*WIF cost:* \$30,000

## **1.3 Rehabilitate and Maintain Irrigation and Drainage Systems**

### **1.3.1. Rehabilitate the irrigation pump number 34 in Tarasse area**

*Description:* The Tarasse CRDD has a six-hectare farm for demonstration activities, however, a key challenge is the lack of water for irrigation. As a last activity, WINNER will plane to rehabilitate four irrigation pumps in Gonaïves Plain. In this year WINNER will Rehabilitate the pump #34 only which will be used to irrigate the CRDD Farm and the same time used by the farmers neighbor plantation from the area. We will strengthen the water user associations, develop updated bi-laws and increase the collection rate of water fees. This is part of our infrastructure maintenance and management ongoing activity aimed at building up the capacity of beneficiaries and setting up the conditions for long term sustainability.

*Zone:* Gonaïves Plain  
*Timing:* October 2011 – December 2011  
*Partners:* MARNDR, Local Authorities, farmer associations, AIZ, DDAA  
*Responsible staff:* Gonaïves CRDD Director, infrastructure and livelihoods components leaders  
*WIF cost:* \$70,000

## **B2. Improve Watershed Stability**

There are no remaining activities in Gonaïves under this Intermediate Result

## **B3. Strengthen Agricultural Markets**

There are no remaining activities in Gonaïves under this Intermediate Result

## SECTION VII. PROJECT LEVEL ACTIVITIES

The following activities will be implemented in all our zones of intervention and will have a project level impact. The Port au Prince office will manage project-level activities in close collaboration with regional teams and partners.

### A. Project Level Activities by Key Results

#### A1. Increase Agricultural Productivity

##### 1.1 Promote market-driven access to agricultural inputs and seeds

###### 1.1.1. Support the government to develop a market for agricultural inputs

*Description:* One of the key constraints to the development of Haitian agriculture is the poor quality and lack of availability of inputs. This is partly due to low agricultural incomes, but also to the lack of incentives of the private sector to invest in inputs due to government policies that heavily subsidize inputs and fail to offer border protection for imported inputs competing with local products. In addition, some agricultural inputs provided at very low costs by donor agencies make their way across the border to be resold in the Dominican Republic. WINNER will provide technical assistance to the appropriate Haitian government agencies to promote policies that develop a market for agricultural inputs and to develop a system for certifying quality seeds.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2012- September 2012
<i>Partners:</i>	Local authorities and local associations
<i>Responsible staff:</i>	COP
<i>WIF cost:</i>	\$30,000

###### 1.1.2 Provide technical and financial support to input producers and providers

*Description:* The WINNER project will finalize the assessment on agricultural seeds/inputs in Haiti, and present a roadmap to seed producers and collectors for improving the quality and availability of seeds and other inputs to farmers on a timely basis. We will provide assistance on seed production, selection, testing, storage, and distribution.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011-February 2012
<i>Partners:</i>	Farmer associations, Businesses, Financial Institutions
<i>Responsible staff:</i>	COP
<i>WIF cost:</i>	\$40,000

###### 1.1.3 Support the local seed industry

*Description:* Last year, a group of international partners, including USAID, produced a security seed assessment for Haïti. It is clear that one of the key constraints to the development and modernization of Haïtian agriculture is that lack of quality certified seeds available locally. As imported seeds tend to be more expensive, small Haitian farmers often rely on lower quality local seeds that have low germination rates and hamper agricultural productivity. Following the completion of the inputs assessment (activity 1.1.2), we will provide technical and financial assistance to local companies to expand the production and commercialization of certified seeds of beans and cereals.

*Zone:* All regions  
*Timing:* January 2012 – September 2012  
*Partners:* Farmer associations, Businesses, Financial Institutions  
*Responsible staff:* COP and Livelihoods Component Leader  
*WIF cost:* \$500,000

#### **1.1.4 Conduct a market assessment of fertilizer in Haiti**

*Description:* As with seeds, the timely availability of fertilizer in Haiti during agricultural campaigns is inconsistent. Because all chemical fertilizer is imported and quality natural fertilizer is not produced consistently, farmers often have to wait past the ideal period to apply fertilizer, resulting in lower yields. We will conduct a market assessment of the fertilizer industry and propose ways to improve the timely availability of quality fertilizer in Haiti.

*Zone:* All regions  
*Timing:* October 2011-February 2012  
*Partners:* Farmer associations, Businesses, Financial Institutions  
*Responsible staff:* COP and Livelihoods Component Leader  
*WIF cost:* \$50,000

#### **1.1.5 Provide training to farmers on the proper use and application of pesticides and fungicides.**

*Description:* Haitian farmers are usually not aware of the proper way to handle, apply, and dispose of pesticides and fungicides. There are widespread issues with occupational safety and health of farmers manipulating these products. We will provide training to farmers on the proper use and application of pesticides and fungicides through a subcontract with Sun Mountain. The training will be geared to improving the safe use of pesticides and to ensuring that the provisions of the PERSUAP are fully applied.

*Zone:* All regions  
*Timing:* November 2011 – June 2012  
*Partners:* Farmer associations, Sun Mountain  
*Responsible staff:* DCOP, Governance and Environmental Officer and Livelihoods Component Leader  
*WIF cost:* \$100,000

#### **1.1.6 Provide technical assistance for the development of organic fertilizer.**

*Description:* Given the widespread availability of organic materials (e.g., farm waste, organic solid waste, agro-forestry byproducts), Haiti has potential for the development of the production of quality organic fertilizer. WINNER will work with the assistance of US companies to introduce new techniques for the production of organic fertilizer, including conducting trials with micro-organisms that increase the speed of the composting process. Given the high cost and difficulties of transport of compost, we will facilitate the establishment of composting units near areas of agricultural production. We will also implement demonstration sites of best practices for the production of organic fertilizer at our CRDDs.

*Zone:* All regions  
*Timing:* December 2011 – September 2012  
*Partners:* Private sector  
*Responsible staff:* Livelihoods Component Leader  
*WIF cost:* \$50,000

## **1.2 Increase access to agricultural technologies**

### **1.2.1 Certification and capacity-building of Champion Associations**

*Description:* In accordance with WINNER's key principles, farmer organizations benefiting from our technical and financial assistance must develop and demonstrate an entrepreneurial spirit, and respect fundamental principles that reflect their commitment to modern agricultural practices and sustainable natural resource management. In that perspective, we will help set up the "Associations Champions", which will officially include in their bi-laws ten key principles that they must adhere to and fully adopt in order to receive financial and technical support. Our main goal will be to strengthen the organizational structure and managerial skills of those associations that will behave like small enterprises with many sources of income: BIAs, tractors and other equipment, small corn or rice mills, solar energy units, etc.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011-September 2012
<i>Partners:</i>	Farmer associations, Businesses, Financial Institutions
<i>Responsible staff:</i>	Association Capacity Building Component Leader
<i>WIF cost:</i>	\$70,000

### **1.2.2 Implement the Scholarship Program**

*Description:* Last year WINNER sent to the University of Florida in Gainesville eight carefully selected Haitian students for a two-year Master's degree in areas related to agriculture, agribusiness, the environment, etc. They will acquire new skills and will apply their knowledge to find concrete solutions to rural development problems in Haiti. Over the course of the next year, they will finalize their studies and complete their research thesis. They will come back after a total of 24 months. In an effort to support local Haitian students and universities, WINNER will partner with a selected few Haitian universities to support students with their research thesis under activity 1.2.5 under Cul de Sac activities.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011 - September 2012
<i>Partners:</i>	University, School of Agronomy, Businesses
<i>Responsible staff:</i>	Training Director
<i>WIF cost:</i>	\$300,000

### **1.2.3 Expand SMS extension services**

*Description:* One important WINNER activity is to work with farmer associations to increase productivity and expand incomes through agricultural intensification, which involves improving use of inputs, labor, water, know-how, and equipment, while protecting the environment. There is a need for a sustainable system that will provide well-targeted extension and market information, on a continuous and timely basis, to a much larger number of small farmers, using modern technology that covers the whole country. WINNER will team up with local mobile phone companies and other key stakeholders to use SMS technology to provide large-scale extension and marketing services to farmers. WINNER has already established SMS capability in Cul de Sac and will expand to all the targeted regions. In order to provide farmers with updated market information, WINNER will work with Digicel, Voilà and the Ministry of Agriculture to expand the current SMS extension service.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011 - September 2012
<i>Partners:</i>	Digicel, Voilà, farmer associations, Ministry of Agriculture
<i>Responsible staff:</i>	Senior Economist and Livelihoods Component Leader
<i>WIF cost:</i>	\$50,000

#### **1.2.4 Create the Agribusiness Equipment Fund**

*Description:* The *Agribusiness Equipment Fund* will provide affordable financing to farmer organizations and agribusinesses that want to purchase productive equipments, through a combination of grants from WINNER and long term loans from the Industrial Development Fund (FDI). The Fund will be used to provide modern equipment to farmer associations to ensure that they can continue to be engaged in productive modern agriculture at the end of WINNER. We will work closely with the beneficiary associations to ensure that the benefits of the equipment are shared within the community and that fees for services are reinvested in the farmer associations to further agricultural development.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011 - September 2012
<i>Partners:</i>	Farmer associations, Businesses, FDI
<i>Responsible staff:</i>	COP and Senior Economist
<i>WIF cost:</i>	\$1,500,000

#### **1.2.5 Master Farmer Program**

*Description:* The master farmers are key members of the extension system for the producer groups. With the production systems described for each zone, we will continue to develop and implement training programs for the master farmers to increase their expertise in certain crops. Each master farmer will develop a specific expertise in one or two crops, with a combination of master farmers serving a producer group in order to cover all of the activities of the group. WINNER will develop cycles of training for the master farmers to increase their expertise in the production of crops in the WINNER target value chains. We will provide incentives for the graduating Master Farmers to be productively engaged as extension agents or as human resources for the expansion of modern agriculture in WINNER's corridors through private sector investment.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011 - September 2012
<i>Partners:</i>	Farmer associations, Businesses, FDI, University of Florida
<i>Responsible staff:</i>	Training Director, and Livelihoods Component Leader
<i>WIF cost:</i>	\$200,000

### **1.3 Rehabilitate and maintain irrigation and drainage systems**

There are no general project activities under this Sub-Intermediate Result.

## **A2. Improve Watershed Stability**

### **2.1 Protect Selected Hillside**

There are no general project activities under this Sub-Intermediate Result.

### **2.2 Improve Watershed Governance**

#### **2.2.1 Develop the regulations for the 2006 Decree on the Environment**

*Description:* WINNER has hired a consultant to develop key regulations on natural resource management, environmental protection, and selected aspects of the 2006 Decree. The goal is to help create a legal and regulatory framework that will stop and reverse environmental degradation in the country.

<i>Zone:</i>	Port-au-Prince
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*Timing:* October 2011 - September 2012  
*Partners:* MDE, MARNDR, local authorities  
*Responsible staff:* DCOP, and Governance and Environmental Officer  
*WIF cost:* \$50,000

### **2.2.2 Develop maps of irrigation systems with the CNIGS**

*Description:* WINNER will collaborate with the CNIGS to prepare detailed GIS maps of the irrigation systems of the Cul-de-Sac and Matheux corridors. These maps will be used by the Haitian government to support agricultural and irrigation policies in these areas and to channel investments in these productive plains. WINNER will use the maps and GIS tools to improve the management of irrigation water with local water users associations. The GIS maps will identify primary, secondary, and tertiary canals, as well as average and peak flows of the irrigation systems. The maps will also identify the agricultural areas potentially irrigated by each system. The database will be managed by the CNIGS at the end of WINNER to ensure sustainability.

*Zone:* All regions  
*Timing:* October 2011 - September 2012  
*Partners:* CNIGS, MARNDR, local water users associations  
*Responsible staff:* DCOP and GIS Specialist  
*WIF cost:* \$150,000

### **2.2.3 Develop a national policy on carbon trading**

*Description:* The decree creating the Haitian Designated National Authority in charge of the Clean Development Mechanism (CDM) of the “Kyoto Protocol on Global Climate Change” was prepared by a WINNER consultant in December 2009 and published on May 31<sup>st</sup> in the Official Journal of the Haitian Government. We will recruit an international expert to design a national policy on carbon trading and train all stakeholders including representatives of the government and members of the private sector.

*Zone:* Port-au-Prince  
*Timing:* October 2011 - September 2012  
*Partners:* MDE, MARNDR, CIAT,  
*Responsible staff:* DCOP and Governance and Environmental Officer  
*WIF cost:* \$70,000

### **2.2.4 Provide material and technical support to the Government**

*Description:* WINNER will continue to provide material and technical support to the Haitian Government to improve the enabling environment for target value chains. Specifically, we will support the Government in preparing laws and decrees concerning the legal status of farmer associations so that they can fully operate as SMEs; in collaboration with USDA we will support technical assistance for liberalizing markets for inputs and for providing incentives to increase the use agricultural and food processing equipment. WINNER will be responsive to Government requests for assistance as the new Haitian administration develops its agricultural development policies.

*Zone:* Port-au-Prince  
*Timing:* October 2011 - September 2012  
*Partners:* MARNDR, MDE, USDA Prime Minister  
*Responsible staff:* COP and Governance and Environmental Officer  
*WIF cost:* \$300,000

## **2.3 Increase Tree Cover**

There are no general project activities under this Sub-Intermediate Result.

### **A3. Strengthen Agricultural Markets**

#### **3.1 Reduce Transportation Costs**

There are no general project activities under this Sub-Intermediate Result.

#### **3.2 Improve Market Information**

##### **3.2.1 Publish and disseminate agricultural prices at the farm and in the markets**

*Description:* WINNER will conduct a study to determine the types of information to publish and how best to diffuse the information so that it reaches the maximum amount of stakeholders. Once the study is completed, the project will put in place a system to disseminate important market information to producers and agri-businesses so that they can make strategic decisions about production and partnerships.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011 - September 2012
<i>Partners:</i>	CNSA, FewsNet, MARNDR, Farmer's Associations
<i>Responsible staff:</i>	Senior Economist
<i>WIF cost:</i>	\$50,000

##### **3.2.2 Update value chain assessments**

*Description:* The IDB had conducted assessments of key agricultural value chains in Haiti several years ago. While many of the conditions described in these assessments are still valid today, it is important to update the assessment of the WINNER target value chains (corn, rice, beans, and plantain). While we will conduct detailed value chain assessments for the target value chains, we will also update information on the value chains for some vegetables that are prevalent in the WINNER corridors. We will use USAID's value chain analysis methodology that includes a mapping of the value chains, an identification of the relationships between value chain actors, an assessment of the governance of the value chain, an estimation of the added value throughout the chain from producer to consumer, and an identification of opportunities for significant value chain enhancement.

<i>Zone:</i>	All regions
<i>Timing:</i>	October 2011 - September 2012
<i>Partners:</i>	MARNDR
<i>Responsible staff:</i>	DCOP and Economist
<i>WIF cost:</i>	\$100,000

### **3.3 Strengthen Market Norms and Standards**

#### **3.3.1 Implement a traceability system for mangos**

*Description:* Last year, WINNER conducted a study for the implementation of a traceability system for mangos. This year, we will implement the key recommendations of this report to develop a grid to identify the areas of production of mangos for export and to implement an effective coding system. We will work closely with the Association of Mango Exporters (ANEM) to develop this system and we will test the system in the Mirebalais region on a pilot basis.

<i>Zone:</i>	All regions
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*Timing:* October 2011 - September 2012  
*Partners:* ANEM, MARNDR, Mango Associations  
*Responsible staff:* DCOP and PPPP Component Leader  
*WIF cost:* \$100,000

### **3.3.2. Implement Metric System**

*Description:* Agricultural prices in Haiti are displayed in variety units and weight measurements which vary for each product. This creates confusion and makes it difficult to track sales and revenues. It is important to harmonize how measurements and units are displayed for agricultural inputs and prices and to train farmers on the value of using a single measurement system. We will organize a pilot program in agro-supply stores and wholesale markets to display prices in the metric system and to harmonize weights and measurements.

*Zone:* All regions  
*Timing:* October 2011 - September 2012  
*Partners:* National and local government, Farmer Associations  
*Responsible staff:* Livelihoods Component Leader  
*WIF cost:* \$50,000

### **3.4 Reduce Post-Harvest Losses**

There are no general project activities under this Sub-Intermediate Result.

**ANNEX A: TIMELINE OF ACTIVITIES**

**ANNEX A: Budget Summary**

Summary Table by region/corridor													
Cul de Sac	\$	13,885,000											
Matheux	\$	7,185,000											
Mirebalais/Saut D'Eau	\$	1,750,000											
Gonaives	\$	240,000											
General	\$	3,710,000											
<b>TOTAL</b>	<b>\$</b>	<b>26,770,000</b>											
Summary Table by intermediate result													
Intermediate Results	Cul de Sac	Matheux	Mirebalais	Gonaives	Project Level	Total							
Agricultural productivity	\$	5,455,000	\$	2,305,000	\$	825,000	\$	240,000	\$	2,840,000	\$	11,665,000	43.6%
Watershed stability	\$	3,780,000	\$	2,340,000	\$	150,000	\$	-	\$	620,000	\$	6,890,000	25.7%
Agricultural markets	\$	4,650,000	\$	2,540,000	\$	775,000	\$	-	\$	250,000	\$	8,215,000	30.7%
<b>TOTAL</b>	<b>\$</b>	<b>13,885,000</b>	<b>\$</b>	<b>7,185,000</b>	<b>\$</b>	<b>1,750,000</b>	<b>\$</b>	<b>240,000</b>	<b>\$</b>	<b>3,710,000</b>	<b>\$</b>	<b>26,770,000</b>	
Summary Table by type													
			%										
Ops	\$	8,268,732	22.8%										
WIF	\$	26,770,000	73.9%										
Institutional Subs	\$	1,200,000	3.3%										
<b>TOTAL</b>	<b>\$</b>	<b>36,238,732</b>											

# Haiti WINNER Work Plan Chart

## October 2011-September 2012 - Cul de Sac

	Responsible	Zone	Budget	Year Three											
				N	O	D	J	F	M	A	M	J	J	A	S
<b>1. Increase Agricultural Productivity</b>															
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Strengthen agro-supply stores in the Cul de Sac Plain	Cul de Sac sub-region Director and Livelihoods Component Leader	Cul de Sac	\$ 30,000												
1.1.2 Support agro-supply stores in the Cul de Sac Plain with agricultural inputs materials	Cul de Sac sub-region Director and Livelihoods Component Leader	Cul de Sac	\$ 150,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Complete construction and ensure sustainability of the CRDD in Bas Boen	Regional Director and Civil Engineer	Bas Boen	\$ 150,000												
1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for beans, vegetables, corn and rice.	Cul de Sac sub-region Director and Livelihoods Component Leader	Cul de Sac	\$ 500,000												
1.2.3. Create the Agribusiness Equipment Fund- General Activities	General Activities	General Activities													
1.2.4 Certification and capacity-building of Champion Associations - General Activities	General Activities	General Activities													
1.2.5 Provide capacity building support to university students in agriculture sector management and research.	Training Director, UF, Livelihoods Component Leader, Regional Director, Cul de Sac sub-region Director	Plain/Piedmont	\$ 200,000												
1.2.6 Support the clearing of 500 acres of land in the plain.	Cul de Sac sub-region Director	Cul de Sac Plain	\$ 100,000												
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
1.3.1 Build and rehabilitate Basin General and reinforce the primary canals of Rivière Grise	Civil Engineer	Cul de Sac Plain	\$ 3,000,000												
1.3.2 Repair thermal station of Bas Boen and six irrigation pumps in the plain and support the management committees	Civil Engineer and Infrastructure Maintenance specialist	Cul de Sac Plain	\$ 650,000												
1.3.3. Rehabilitate the irrigation system for Rivière Blanche	Civil Engineer	Cul de Sac	\$ 300,000												
1.3.4. Rehabilitate the irrigation system a Source Zabèt.	Civil Engineer	Cul de Sac	\$ 150,000												
1.3.5 Clear and clean drainage canals and build overpasses in the areas of Thomazeau, Laserre et Boukanbou.	Civil Engineer	Cul de Sac	\$ 225,000												



2.3.2 Support the protection of Parc La Visite	Governance and Environmental Officer, Regional Director and DCOP	Piedmont Mountains	&	\$ 100,000															
2.3.3 Support the development of the mango value chain	Natural Resource Management specialist and Cul de Sac sub-region Director	Piedmont Mountains	&	\$ 50,000															
2.3.4 Strengthen agro-forestry associations	Natural Resource Management specialist	Piedmont Mountains	&	\$ 25,000															
<b>Subtotal Watershed Stability</b>				<b>\$ 3,780,000</b>															
<b>3. Strengthen Agricultural Markets.</b>																			
<b>3.1 Reduce Transportation Costs</b>																			
3.1.1 Rehabilitate key farm to market feeder roads	Senior Advisor: Infrastructure	Piedmont Mountains	&	\$ 3,000,000															
3.1.2 Strengthen community groups to perform road maintenance	Infrastructure Maintenance Specialist	Piedmont Mountains	&	\$ 25,000															
<b>3.2 Improve Market Information</b>																			
3.2.1 Value Chain Assessments- General Activities	General Activities	General Activities																	
3.2.2 Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation	PPPP Component Leader and PPPP Specialist	Cul de Sac corridor		\$ 300,000															
<b>3.3 Strengthen Market Norms and Standards</b>																			
3.3.1. See General Activities	General Activities	General Activities																	
<b>3.4 Reduce Post-Harvest Losses</b>																			
3.4.1 Build post-harvest facilities and provide technical assistance and equipment	PPPP Specialist, Regional Director and Cul de Sac sub-region Director	Cul-de-Sac plain		\$ 700,000															
3.4.2 Rehabilitate rural markets and ensure appropriate management.	Infrastructure Deputy Director	Croix des Bouquets and Tabarre		\$ 600,000															
3.4.3 Improve the organization of vendors in selected rural markets	Infrastructure Deputy Director	Croix des Bouquets. Tabarre, and Kenscoff		\$ 25,000															
<b>Subtotal Agricultural Markets</b>				<b>\$ 4,650,000</b>															
<b>TOTAL</b>				<b>\$ 13,885,000</b>															

# Haiti WINNER Work Plan Chart

## October 2011-September 2012 - Matheux

	Responsible	Zone	Budget	Year Three											
				N	O	D	J	F	M	A	M	J	J	A	S
<b>1. Increase Agricultural Productivity</b>															
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Strengthen agro-supply stores in the Matheux Corridor	Regional Deputy Director	Matheux corridor (Cabaret-Arcahaie-Montrouis-St Marc)	\$ 30,000												
1.1.2 Support agricultural campaigns with inputs, soil preparation and extension agents	Deputy CRDD Director and Regional Deputy Director	Matheux corridor (Cabaret-Arcahaie-Montrouis-St Marc hillsides and lowland areas)	\$ 300,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Identify site and build permanent CRDD and demonstration sites in the agricultural zone	Infrastructure Component Leader, Regional Director, and Deputy CRDD Director	Matheux corridor (lowland areas)	\$ 200,000												
1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for rice, plantain, corn and beans	Infrastructure Component Leader and Regional Director	Matheux plain areas	\$ 200,000												
1.2.3 Create the Agribusiness Development Fund -General Activities	General Activities	General Activities													
1.2.4 Train operators in soil preparation techniques	Regional Deputy Director	Plain areas of the Matheux corridor	\$ 20,000												
1.2.5 Establish SRI demonstration plots	Regional Deputy Director	Matheux corridor lowland areas	\$ 50,000												
1.2.6 Certification and capacity-building of Champion Associations - General Activities	General Activities	General Activities													
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
1.3.1 Rehabilitate Torcelle and Bretelle irrigation systems	Consultants, Regional Engineer and Regional Director	Arcahaie/Cabaret	\$ 980,000												
1.3.2. Rehabilitate irrigation and drainage canals	Civil Engineer	Matheux corridor lowland areas	\$ 500,000												
1.3.7. Help establish and build capacity of water users associations in irrigated areas of the Matheux corridor	Infrastructure Maintenance specialist	Cabaret-Arcahaie	\$ 25,000												
<b>Subtotal Agricultural Productivity</b>			<b>\$ 2,305,000</b>												

<b>2. Improve Watershed Stability.</b>																				
<b>2.1 Protect Selected Hillsides.</b>																				
2.1.1. Implement soil conservation activities and reduce sedimentation, including ravine treatment	Soil Conservation Specialist and Regional Director	Cabaret-Arcahaie	\$ 750,000																	
2.1.2 Conduct river banks stabilization	Soil Conservation Specialist and Civil Engineer	Arcahaie - Cabaret	\$ 750,000																	
2.1.3 Promote sustainable agriculture on hillsides	Rural Engineer and Civil Engineer	Soil Conservation Specialist and Civil Engineer	\$ 150,000																	
2.1.4. Install four water catchments and drip irrigation systems (Goyavier, Fond Baptiste, Délice)	Rural Engineer and Civil Engineer	Matheux corridor lowland areas	\$ 250,000																	
2.1.5 Implement a demonstration farm of sustainable hillside agriculture in Goyavier	Regional Director and Regional Deputy Director	Goyavier	\$ 50,000																	
<b>2.2 Improve Watershed Governance.</b>																				
2.2.1. Develop watershed management plan for the Matheux corridor (Bretelle, Torcelle, Courjolle, Matheux, Montrouis)	DCOP, Governance and Environmental Officer and GIS Specialist	Cabaret, Arcahaie, Montrouis, Saint Marc	\$ 50,000																	
2.2.2. Increase the capacity of local institutions in watershed management	Training Director and Regional Director	Cabaret, Arcahaie, Montrouis, Saint Marc	\$ 25,000																	
2.2.3. Prepare disaster contingency plans for St Marc	Disaster Management Specialist	Commune of Saint Marc	\$ 20,000																	
<b>2.3 Increase Tree Cover.</b>																				
2.3.1. Support agro-forestry campaign	NRM Specialist and NRM and M&E specialist	Matheux corridor (Hillside areas)	\$ 200,000																	
2.3.2. Support the development of the mango value chain	PPPP Component Leader, PPPP Specialist and regional NRM and M&E specialist	Cabaret – Arcahaie area	\$ 50,000																	
2.3.3. Strengthen agro-forestry associations	NRM specialist, and regional NRM and M&E specialist	Arcahaie, Cabaret, Montrouis, Saint Marc	\$ 25,000																	
2.3.4. Identify local seed suppliers	NRM specialist, and regional NRM and M&E specialist	Cabaret, Arcahaie, Montrouis, Saint Marc	\$ 20,000																	
<b>Subtotal Watershed Stability</b>			<b>\$ 2,340,000</b>																	

3. Strengthen Agricultural Markets.																			
<b>3.1 Reduce Transportation Costs</b>																			
3.1.1. Rehabilitate critical sections of 18 kilometers of rural feeder roads	Infrastructure Component Leader and Civil Engineer	Arcahaie- Fond Baptiste road	\$ 750,000																
3.1.2. Strengthen community groups to perform road maintenance	Infrastructure Maintenance specialist	Arcahaie	\$ 25,000																
<b>3.2 Improve Market Information</b>																			
3.2.1 Partner with hotel association of the Arcadin coast to sell regional products	PPPP Component Leader, PPPP Specialist, and Regional Director	Region of Matheux	\$ 20,000																
3.2.2. Strengthen associations on market standards.	Commercialization/marketing specialist	Matheux corridor (lowland area)	\$ 20,000																
3.2.3. Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation	Commercialization/marketing specialist, PPPP Component Leader, and Regional Director	Matheux corridor	\$ 100,000																
3.2.4. Add value to the corn value chain for animal feed	Livelihoods Component Leader and Regional Deputy Director	Matheux corridor	\$ 100,000																
<b>3.3 Strengthen Market Norms and Standards</b>																			
3.3.1. Reduce the impact of plant diseases in the plantain value chain	Livelihoods Component Leader and Regional Deputy Director	Matheux corridor (lowland area)	\$ 100,000																
<b>3.4 Reduce Post-Harvest Losses</b>																			
3.4.1 Build post-harvest facilities and provide technical assistance and equipment	Regional Director and Civil Engineer	Matheux corridor	\$ 700,000																
3.4.2 Strengthen associations to benefit from the Comeau collection center	Regional Director	Matheux corridor	\$ 50,000																
3.4.3. Rehabilitate rural markets and ensure appropriate management.	Regional Director, Ravine Vegetalization Director	Matheux corridor (lowland area)	\$ 650,000																
3.4.4. Improve the organization of vendors in selected rural markets	PPPP specialists, Regional Director, and Regional Deputy Director	Matheux corridor	\$ 25,000																
<b>Subtotal Agricultural Markets</b>			<b>\$ 2,540,000</b>																
<b>TOTAL</b>			<b>\$ 7,185,000</b>																

# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Mirebalais/Saut d'Eau

	Responsible	Zone	Budget	Year Three											
				O	N	D	J	F	M	A	M	J	J	A	S
<b>1. Increase Agricultural Productivity</b>															
<i>1.1 Promote market-driven access to agricultural inputs.</i>															
1.1.1 Strengthen agro-supply stores in the Mirebalais and Saut d'Eau region	Regional Director	Communal sections of Mirebalais and Saut d'Eau	\$ 5,000												
<i>1.2 Increase access to agricultural technologies</i>															
1.2.1. Complete the establishment of a CRDD in Wanny focused on the mango value chain	Regional Director and Civil Engineer	Wanny (Commune of Mirebalais)	\$ 200,000												
1.2.2. Phyto-sanitary control of diseases affecting mango trees (Antrachnose)		Mirebalais et Saut d'Eau	\$ 30,000												
1.2.3. Installation of orchards based on plants produced in nurseries	Regional Director, NRM Specialist, Regional NRM and M&E specialist, Athis	Communal sections of Mirebalais and Saut d'Eau (hillsides)	\$ 50,000												
1.2.4. Train farmers to increase mango production	Regional Director	Mirebalais, Saut d'Eau	\$ 60,000												
<i>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</i>															
1.3.1 Study and Rehabilitation of irrigation system in mango producing areas	Regional Director, and Civil Engineer	Communal sections of Mirebalais and Saut d'Eau	\$ 480,000												
<b>Subtotal Agricultural Productivity</b>			<b>\$ 825,000</b>												
<b>2. Improve Watershed Stability.</b>															
<i>2.1 Protect Selected Hillsides.</i>															
2.1.1 Implement soil conservation activities and reduce sedimentation at Ravine Cana	Regional Director, Soil Conservation Specialist, Regional NRM and M&E Specialist	Communal sections of Mirebalais and Saut d'Eau	\$ 150,000												
<i>2.2 Improve Watershed Governance.</i>															
<i>2.3 Increase Tree Cover.</i>															
<b>Subtotal Watershed Stability</b>			<b>\$ 150,000</b>												
<b>3. Strengthen Agricultural Markets.</b>															
<i>3.1 Reduce Transportation Costs</i>															
3.1.1 Conduct study and repair and stabilize critical sections of farms to markets roads in Gascogne and	Regional Director and Deputy Infrastructure Component	Gascogne, communal section of Mirebalais	\$ 200,000												

Sarazin, Mirebalais	Leader																			
3.1.2 Repair and stabilize critical rural roads in Saut d'Eau	Regional Director and Deputy Infrastructure Component Leader	Coupe Mardi Gras, Saut d'Eau	\$ 200,000																	
<b>3.2 Improve Market Information</b>																				
<b>3.3 Strengthen Market Norms and Standards</b>																				
3.3.1 Inventory of mangos and implementation of a traceability system	Regional Director , DCOP, GIS Specialist	Communal sections of Mirebalais and Saut d'Eau	\$ 50,000																	
<b>3.4 Reduce Post-Harvest Losses</b>																				
3.4.1 Train farmers on harvest and post-harvest methods for mangoes	Regional Director , Livelihoods Deputy Component Leader	Mirebalais, Saut d'Eau and other communes in the Plateau Central	\$ 25,000																	
3.4.2 Support for mango post-harvest handling	Regional Director and PPPP Component Leader	Mirebalais et Saut d'Eau	\$ 100,000																	
3.4.3 Pursue collaboration with Carifresh and ADAIM for dried mango processing	PPPP Specialist and Regional Director	Mirebalais	\$ 100,000																	
3.4.4 Support the implementation of a mango pulp processing plant	PPPP Specialist and Regional Director	Mirebalais	\$ 100,000																	
<b>Subtotal Agricultural Markets</b>			<b>\$ 775,000</b>																	
<b>TOTAL</b>			<b>\$ 1,750,000</b>																	

# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Gonaives

1. Increase Agricultural Productivity	Responsible	Zone	Budget	Year Three											
				O	N	D	J	F	M	A	M	J	J	A	S
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Complete facilities and ensure sustainability of the hillside satellite CRDDs in La Branle and Tarasse.	Deputy CRDD Director	Tarasse and LaBranle	\$ 40,000												
1.1.2 Provide grants to the Ebenezer Foundation and to OPLA for CRDD management	Deputy CRDD Director	Tarasse and LaBranle	\$ 100,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Master Farmer Program- General Activities	General Activities	General Activities													
1.2.2 Support demonstration plots in Tarasse at the CRDD and in surrounding areas.	Deputy CRDD Director	Gonaives plain and Tarasse CRDD	\$ 30,000												
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
1.3.1. Rehabilitate the irrigation pump number 34 in Tarasse area	Gonaives CRDD Director, infrastructure and livelihoods components leaders	Gonaives Plain	\$ 70,000												
<b>Subtotal Agricultural Productivity</b>			<b>\$ 240,000</b>												
<b>2. Improve Watershed Stability.</b>															
<b>2.1 Protect Selected Hillsides.</b>															
<b>2.2 Improve Watershed Governance.</b>															
<b>2.3 Increase Tree Cover.</b>															
<b>Subtotal Watershed Stability</b>			<b>\$ -</b>												
<b>3. Strengthen Agricultural Markets.</b>															
<b>3.1 Reduce Transportation Costs</b>															
<b>3.2 Improve Market Information</b>															
<b>3.3 Strengthen Market Norms and Standards</b>															
<b>3.4 Reduce Post-Harvest Losses</b>															
<b>Subtotal Agricultural Markets</b>			<b>\$ -</b>												
<b>TOTAL</b>			<b>\$ 240,000</b>												

# Haiti WINNER Work Plan Chart

## October 2011-September 2012 - Project Level Activities

	Responsible	Zone	Budget	Year Three											
				O	N	D	J	F	M	A	M	J	J	A	S
<b>1. Increase Agricultural Productivity</b>															
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Support the government to develop a market for agricultural inputs	COP	All regions	\$ 30,000												
1.1.2 Provide technical and financial support to input producers and providers	COP	All regions	\$ 40,000												
1.1.3 Support the local seed industry	COP and Livelihoods Component Leader	All regions	\$ 500,000												
1.1.4 COP and Livelihoods Component Leader	COP and Livelihoods Component Leader	All regions	\$ 50,000												
1.1.5 Provide training to farmers on the proper use and application of pesticides and fungicides.	DCOP, Governance and Environmental Officer and Livelihoods Component Leader	All regions	\$ 100,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Certification and capacity-building of Champion Associations	Association Capacity Building Component Leader	All regions	\$ 70,000												
1.2.2 Implement the Scholarship Program	Training Director	All regions	\$ 300,000												
1.2.3 Expand SMS extension services	Senior Economist and Livelihoods Component Leader	All regions	\$ 50,000												
1.2.4 Create the Agribusiness Equipment Fund	COP and Senior Economist	All regions	\$ 1,500,000												
1.2.5 Master Farmers Program	Training Director, and Livelihoods Component Leader	All regions	\$ 200,000												
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
<b>Subtotal Agricultural Productivity</b>			<b>\$ 2,840,000</b>												
<b>2. Improve Watershed Stability.</b>															
<b>2.1 Protect Selected Hillside.</b>															
<b>2.2 Improve Watershed Governance.</b>															
2.2.1 Develop the regulations for the 2006 Decree on the Environment	DCOP, and Governance and Environmental Officer	Port-au-Prince	\$ 100,000												
2.2.2 Develop maps of irrigation systems with the CNIGS	DCOP and GIS Specialist	All regions	\$ 150,000												



## ANNEX A: Budget Summary

Summary Table by region/corridor							
Cul de Sac	\$13,965,000						
Matheux	\$ 7,585,000						
Mirebalais/Saut D'Eau	\$ 1,820,000						
Gonaives	\$ 240,000						
General	\$ 3,760,000						
<b>TOTAL</b>	<b>\$27,370,000</b>						
Summary Table by intermediate result							
Intermediate Results	Cul de Sac	Matheux	Mirebalais	Gonaives	Project Level	Total	
Agricultural productivity	\$ 5,455,000	\$ 2,505,000	\$ 895,000	\$ 240,000	\$ 2,890,000	\$ 11,985,000	43.8%
Watershed stability	\$ 3,860,000	\$ 2,390,000	\$ 150,000	\$ -	\$ 570,000	\$ 6,970,000	25.5%
Agricultural markets	\$ 4,650,000	\$ 2,690,000	\$ 775,000	\$ -	\$ 300,000	\$ 8,415,000	30.7%
<b>TOTAL</b>	<b>\$13,965,000</b>	<b>\$ 7,585,000</b>	<b>\$ 1,820,000</b>	<b>\$ 240,000</b>	<b>\$ 3,760,000</b>	<b>\$ 27,370,000</b>	
	51.0%	27.7%	6.6%	0.9%	13.7%		
Summary Table by type							
		%					
Ops	\$ 8,268,732	22.4%					
WIF	\$27,370,000	74.3%					
Institutional Subs	\$ 1,200,000	3.3%					
<b>TOTAL</b>	<b>\$36,838,732</b>						

# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Cul de Sac

	Responsible	Zone	Budget	Year Three											
				O	N	D	J	F	M	A	M	J	J	A	S
<b>1. Increase Agricultural Productivity</b>															
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Strengthen agro-supply stores in the Cul de Sac Plain	Cul de Sac sub-region Director and Livelihoods Component Leader	Cul de Sac	\$ 30,000												
1.1.2 Support agro-supply stores in the Cul de Sac Plain with agricultural inputs materials	Cul de Sac sub-region Director and Livelihoods Component Leader	Cul de Sac	\$ 150,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Complete construction and ensure sustainability of the CRDD in Bas Boen	Regional Director and Civil Engineer	Bas Boen	\$ 150,000												
1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for beans, vegetables, corn and rice.	Cul de Sac sub-region Director and Livelihoods Component Leader	Cul de Sac	\$ 500,000												
1.2.3. Create the Agribusiness Equipment Fund- General Activities	General Activities	General Activities													
1.2.4 Certification and capacity-building of Champion Associations - General Activities	General Activities	General Activities													
1.2.5 Provide capacity building support to university students in agriculture sector management and research.	Training Director, UF, Livelihoods Component Leader, Regional Director, Cul de Sac sub-region Director	Plain/Piedmont	\$ 200,000												
1.2.6 Support the clearing of 500 acres of land in the plain.	Cul de Sac sub-region Director	Cul de Sac Plain	\$ 100,000												
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
1.3.1 Build and rehabilitate Basin General and reinforce the primary canals of Rivière Grise	Civil Engineer	Cul de Sac Plain	\$ 3,000,000												
1.3.2 Repair thermal station of Bas Boen and six irrigation pumps in the plain and support the management committees	Civil Engineer and Infrastructure Maintenance specialist	Cul de Sac Plain	\$ 650,000												
1.3.3. Rehabilitate the irrigation system for Rivière Blanche	Civil Engineer	Cul de Sac	\$ 300,000												
1.3.4. Rehabilitate the irrigation system a Source Zabèt.	Civil Engineer	Cul de Sac	\$ 150,000												
1.3.5 Clear and clean drainage canals and build overpasses in the areas of Thomazeau, Laserre et Boukanbou.	Civil Engineer	Cul de Sac	\$ 225,000												
<b>Subtotal Agricultural Productivity</b>			<b>\$ 5,455,000</b>												



2.3.2 Support the protection of Parc La Visite	Governance and Environmental Officer, Regional Director and DCOP	Piedmont Mountains	&	\$ 100,000															
2.3.3 Support the development of the mango value chain	Natural Resource Management specialist and Cul de Sac sub-region Director	Piedmont Mountains	&	\$ 100,000															
2.3.4 Strengthen agro-forestry associations	Natural Resource Management specialist	Piedmont Mountains	&	\$ 25,000															
<b>Subtotal Watershed Stability</b>				<b>\$ 3,860,000</b>															
<b>3. Strengthen Agricultural Markets.</b>																			
<b>3.1 Reduce Transportation Costs</b>																			
3.1.1 Rehabilitate key farm to market feeder roads	Senior Advisor: Infrastructure	Piedmont Mountains	&	\$ 3,000,000															
3.1.2 Strengthen community groups to perform road maintenance	Infrastructure Maintenance Specialist	Piedmont Mountains	&	\$ 25,000															
<b>3.2 Improve Market Information</b>																			
3.2.1 Value Chain Assessments- General Activities	General Activities	General Activities																	
3.2.2 Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation	PPPP Component Leader and PPPP Specialist	Cul de Sac corridor		\$ 300,000															
<b>3.3 Strengthen Market Norms and Standards</b>																			
3.3.1. See General Activities	General Activities	General Activities																	
<b>3.4 Reduce Post-Harvest Losses</b>																			
3.4.1 Build post-harvest facilities and provide technical assistance and equipment	PPPP Specialist, Regional Director and Cul de Sac sub-region Director	Cul-de-Sac plain		\$ 700,000															
3.4.2 Rehabilitate rural markets and ensure appropriate management.	Infrastructure Deputy Director	Croix des Bouquets and Tabarre		\$ 600,000															
3.4.3 Improve the organization of vendors in selected rural markets	Infrastructure Deputy Director	Croix des Bouquets, Tabarre, and Kenscoff		\$ 25,000															
<b>Subtotal Agricultural Markets</b>				<b>\$ 4,650,000</b>															
<b>TOTAL</b>				<b>\$ 13,965,000</b>															

# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Matheux

	Responsible	Zone	Budget	Year Three													
				O	N	D	J	F	M	A	M	J	J	A	S		
<b>1. Increase Agricultural Productivity</b>																	
<b>1.1 Promote market-driven access to agricultural inputs.</b>																	
1.1.1 Strengthen agro-supply stores in the Matheux Corridor	Regional Deputy Director	Matheux corridor (Cabaret-Arcahaie-Montrouis-St Marc)	\$ 30,000														
1.1.2 Support agricultural campaigns with inputs, soil preparation and extension agents	Deputy CRDD Director and Regional Deputy Director	Matheux corridor (Cabaret-Arcahaie-Montrouis-St Marc hillsides and lowland areas)	\$ 300,000														
<b>1.2 Increase access to agricultural technologies</b>																	
1.2.1 Identify site and build permanent CRDD and demonstration sites in the agricultural zone	Infrastructure Component Leader, Regional Director, and Deputy CRDD Director	Matheux corridor (lowland areas)	\$ 400,000														
1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for plantain, corn and beans	Infrastructure Component Leader and Regional Director	Matheux plain areas	\$ 200,000														
1.2.3 Create the Agribusiness Development Fund -General Activities	General Activities	General Activities	\$ -														
1.2.4 Train operators in soil preparation techniques	Regional Deputy Director	Plain areas of the Matheux corridor	\$ 20,000														
1.2.5 Establish SRI demonstration plots	Regional Deputy Director	Matheux corridor lowland areas	\$ 50,000														
1.2.6 Certification and capacity-building of Champion Associations - General Activities	General Activities	General Activities	\$ -														
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>																	
1.3.1 Rehabilitate Torcelle and Bretelle irrigation systems	Consultants, Regional Engineer and Regional Director	Arcahaie/Cabaret	\$ 980,000														
1.3.2. Rehabilitate irrigation and drainage canals	Civil Engineer	Matheux corridor lowland areas	\$ 500,000														
1.3.7. Help establish and build capacity of water users associations in irrigated areas of the Matheux corridor	Infrastructure Maintenance specialist	Cabaret-Arcahaie	\$ 25,000														
<b>Subtotal Agricultural Productivity</b>			<b>\$ 2,505,000</b>														



<b>3.1 Reduce Transportation Costs</b>										
3.1.1. Rehabilitate critical sections of 18 kilometers of rural feeder roads	Infrastructure Component Leader and Civil Engineer	Arcahaie- Fond Baptiste road	\$ 750,000							
3.1.2 Perform ad-hoc interventions on rural roads to support target value chains	Infrastructure Component Leader and Civil Engineer	Matheux corridor	\$ 150,000							
3.1.2. Strengthen community groups to perform road maintenance	Infrastructure Maintenance specialist	Arcahaie	\$ 25,000							
<b>3.2 Improve Market Information</b>										
3.2.1 Partner with hotel association of the Arcadin coast to sell regional products	PPPP Component Leader, PPPP Specialist, and Regional Director	Matheux corridor	\$ 20,000							
3.2.2. Strengthen associations on market standards.	Commercialization/marketing specialist	Matheux corridor (lowland area)	\$ 20,000							
3.2.3. Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation	Commercialization/marketing specialist, PPPP Component Leader, and Regional Director	Matheux corridor	\$ 100,000							
3.2.4. Add value to the corn value chain for animal feed	Livelihoods Component Leader and Regional Deputy Director	Matheux corridor	\$ 100,000							
<b>3.3 Strengthen Market Norms and Standards</b>										
3.3.1. Reduce the impact of plant diseases in the plantain value chain	Livelihoods Component Leader and Regional Deputy Director	Matheux corridor (lowland area)	\$ 100,000							
<b>3.4 Reduce Post-Harvest Losses</b>										
3.4.1 Build post-harvest facilities and provide technical assistance and equipment	Regional Director and Civil Engineer	Matheux corridor	\$ 700,000							
3.4.2 Strengthen associations to benefit from the Comeau collection center	Regional Director	Matheux corridor	\$ 50,000							
3.4.3. Rehabilitate rural markets and ensure appropriate management.	Regional Director, Ravine Vegetalization Director	Matheux corridor (lowland area)	\$ 650,000							
3.4.4. Improve the organization of vendors in selected rural markets	PPPP specialists, Regional Director, and Regional Deputy Director	Matheux corridor	\$ 25,000							
<b>Subtotal Agricultural Markets</b>			<b>\$ 2,690,000</b>							
<b>TOTAL</b>			<b>\$ 7,585,000</b>							

# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Mirebalais/Saut d'Eau

	Responsible	Zone	Budget	Year Three															
				O	N	D	J	F	M	A	M	J	J	A	S				
<b>1. Increase Agricultural Productivity</b>																			
<b>1.1 Promote market-driven access to agricultural inputs.</b>																			
1.1.1 Strengthen agro-supply stores in the Mirebalais and Saut d'Eau region	Regional Director	Communal sections of Mirebalais and Saut d'Eau	\$ 5,000																
<b>1.2 Increase access to agricultural technologies</b>																			
1.2.1. Complete the establishment of a CRDD in Wanny focused on the mango value chain	Regional Director and Civil Engineer	Wanny (Commune of Mirebalais)	\$ 200,000																
1.2.2. Phyto-sanitary control of diseases affecting mango trees (Antrachnose and fruit fly)		Mirebalais et Saut d'Eau	\$ 100,000																
1.2.3. Installation of orchards based on plants produced in nurseries	Regional Director, NRM Specialist, Regional NRM and M&E specialist, Athis	Communal sections of Mirebalais and Saut d'Eau (hillsides)	\$ 50,000																
1.2.4. Train farmers to increase mango production	Regional Director	Mirebalais, Saut d'Eau	\$ 60,000																
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>																			
1.3.1 Study and Rehabilitation of irrigation system in mango producing areas	Regional Director, and Civil Engineer	Communal sections of Mirebalais and Saut d'Eau	\$ 480,000																
<b>Subtotal Agricultural Productivity</b>			<b>\$ 895,000</b>																
<b>2. Improve Watershed Stability.</b>																			
<b>2.1 Protect Selected Hillside.</b>																			
2.1.1 Implement soil conservation activities and reduce sedimentation at Ravine Cana	Regional Director, Soil Conservation Specialist, Regional NRM and M&E Specialist	Communal sections of Mirebalais and Saut d'Eau	\$ 150,000																
<b>2.2 Improve Watershed Governance.</b>																			
<b>2.3 Increase Tree Cover.</b>																			
<b>Subtotal Watershed Stability</b>			<b>\$ 150,000</b>																



# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Gonaives

1. Increase Agricultural Productivity	Responsible	Zone	Budget	Year Three											
				O	N	D	J	F	M	A	M	J	J	A	S
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Complete facilities and ensure sustainability of the hillside satellite CRDDs in La Branle and Tarasse.	Deputy CRDD Director	Tarasse and LaBranle	\$ 40,000												
1.1.2 Provide grants to the Ebenezer Foundation and to OPLA for CRDD management	Deputy CRDD Director	Tarasse and LaBranle	\$ 100,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Master Farmer Program- General Activities	General Activities	General Activities													
1.2.2 Support demonstration plots in Tarasse at the CRDD and in surrounding areas.	Deputy CRDD Director	Gonaives plain and Tarasse CRDD	\$ 30,000												
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
1.3.1. Rehabilitate the irrigation pump number 34 in Tarasse area	Gonaives CRDD Director, infrastructure and livelihoods components leaders	Gonaives Plain	\$ 70,000												
<b>Subtotal Agricultural Productivity</b>			<b>\$ 240,000</b>												
<b>2. Improve Watershed Stability.</b>															
<b>2.1 Protect Selected Hillsides.</b>															
<b>2.2 Improve Watershed Governance.</b>															
<b>2.3 Increase Tree Cover.</b>															
<b>Subtotal Watershed Stability</b>			<b>\$ -</b>												
<b>3. Strengthen Agricultural Markets.</b>															
<b>3.1 Reduce Transportation Costs</b>															
<b>3.2 Improve Market Information</b>															
<b>3.3 Strengthen Market Norms and Standards</b>															
<b>3.4 Reduce Post-Harvest Losses</b>															
<b>Subtotal Agricultural Markets</b>			<b>\$ -</b>												
<b>TOTAL</b>			<b>\$ 240,000</b>												

# Haiti WINNER Work Plan Chart

## October 2011-September 2012 - Project Level Activities

	Responsible	Zone	Budget	Year Three											
				O	N	D	J	F	M	A	M	J	J	A	S
<b>1. Increase Agricultural Productivity</b>															
<b>1.1 Promote market-driven access to agricultural inputs.</b>															
1.1.1 Support the government to develop a market for agricultural inputs	COP	All regions	\$ 30,000												
1.1.2 Provide technical and financial support to input producers and providers	COP	All regions	\$ 40,000												
1.1.3 Support the local seed industry	COP and Livelihoods Component Leader	All regions	\$ 500,000												
1.1.4 Conduct a market assessment of fertilizer in Haiti	COP and Livelihoods Component Leader	All regions	\$ 50,000												
1.1.5 Provide training to farmers on the proper use and application of pesticides and fungicides.	DCOP, Governance and Environmental Officer and Livelihoods Component Leader	All regions	\$ 100,000												
1.1.6 Provide technical assistance for the development of organic fertilizer	Livelihoods component leader	All regions	\$ 50,000												
<b>1.2 Increase access to agricultural technologies</b>															
1.2.1 Certification and capacity-building of Champion Associations	Association Capacity Building Component Leader	All regions	\$ 70,000												
1.2.2 Implement the Scholarship Program	Training Director	All regions	\$ 300,000												
1.2.3 Expand SMS extension services	Senior Economist and Livelihoods Component Leader	All regions	\$ 50,000												
1.2.4 Create the Agribusiness Equipment Fund	COP and Senior Economist	All regions	\$ 1,500,000												
1.2.5 Master Farmers Program	Training Director, and Livelihoods Component Leader	All regions	\$ 200,000												
<b>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</b>															
<b>Subtotal Agricultural Productivity</b>			<b>\$ 2,890,000</b>												
<b>2. Improve Watershed Stability.</b>															
<b>2.1 Protect Selected Hillside.</b>															
<b>2.2 Improve Watershed Governance.</b>															
2.2.1 Develop the regulations for the 2006 Decree on the Environment	DCOP, and Governance and Environmental Officer	Port-au-Prince	\$ 50,000												



## ANNEX B: ACTIVITIES AND FOCUS CROPS

Summary Table

Intermediate Results	Cul de Sac	Matheux	Mirebalais	Gonaives	Project Level	Total	
Agricultural productivity	\$ 5,455,000	\$ 2,505,000	\$ 895,000	\$ 240,000	\$ 2,890,000	\$ 11,985,000	43.79%
Watershed stability	\$ 3,860,000	\$ 2,390,000	\$ 150,000	\$ -	\$ 570,000	\$ 6,970,000	25.47%
Agricultural markets	\$ 4,650,000	\$ 2,690,000	\$ 775,000	\$ -	\$ 300,000	\$ 8,415,000	30.75%
<b>TOTAL</b>	<b>\$ 13,965,000</b>	<b>\$ 7,585,000</b>	<b>\$ 1,820,000</b>	<b>\$ 240,000</b>	<b>\$ 3,760,000</b>	<b>\$ 27,370,000</b>	
	51.02%	27.71%	6.65%	0.88%	13.74%		

Line Item	Projected Expenditures	Percentage
Operations	\$ 8,268,732	22.4%
WIF	\$ 27,370,000	74.3%
Institutional Subs	\$ 1,200,000	3.3%
<b>TOTAL</b>	<b>\$ 36,838,732</b>	<b>100.0%</b>

Expenditures by crops	Cul de Sac	Matheux	Mirebalais	Gonaives	Project Level	Total	%
Focus crops	\$ 11,101,000	\$ 6,030,000	\$ 1,820,000	\$ 120,000	\$ 2,966,000	\$ 22,037,000	80.5%
Other crops	\$ 2,864,000	\$ 1,555,000	\$ -	\$ 120,000	\$ 794,000	\$ 5,333,000	19.5%
Total	\$ 13,965,000	\$ 7,585,000	\$ 1,820,000	\$ 240,000	\$ 3,760,000	\$ 27,370,000	
% focus crops	79.5%	79.5%	100.0%	50.0%	78.9%	<b>80.5%</b>	

Expenditures for IR1 & 3	Cul de Sac	Matheux	Mirebalais	Gonaives	Project Level	Total	%
Focus crops	\$ 8,892,000	\$ 4,475,000	\$ 1,670,000	\$ 120,000	\$ 2,636,000	\$ 17,793,000	87.2%
Other crops	\$ 1,213,000	\$ 720,000	\$ -	\$ 120,000	\$ 554,000	\$ 2,607,000	12.8%
Total	\$ 10,105,000	\$ 5,195,000	\$ 1,670,000	\$ 240,000	\$ 3,190,000	\$ 20,400,000	
% focus crops	88.0%	86.1%	100.0%	50.0%	82.6%	<b>87.2%</b>	

# Haiti WINNER Work Plan Chart - Expenditures by Focus Crops

October 2011-September 2012 - Cul de Sac

	Budget	% focus crops	% other crops	Value focus crops	Value other crops
<b>1. Increase Agricultural Productivity</b>					
<i>1.1 Promote market-driven access to agricultural inputs.</i>					
1.1.1 Strengthen agro-supply stores in the Cul de Sac Plain	\$ 30,000	90%	10%	\$ 27,000	\$ 3,000
1.1.2 Support agro-supply stores in the Cul de Sac Plain with agricultural materials and soil preparation	\$ 150,000	90%	10%	\$ 135,000	\$ 15,000
<i>1.2 Increase access to agricultural technologies</i>					
1.2.1 Complete construction and ensure sustainability of the CRDDs	\$ 150,000	80%	20%	\$ 120,000	\$ 30,000
1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for cereal, beans, vegetables, corn and rice.	\$ 500,000	90%	10%	\$ 450,000	\$ 50,000
				\$ -	\$ -
1.2.4 Certification and capacity-building of Champion Associations - General Activities				\$ -	\$ -
1.2.5 Provide capacity building support to university students in agriculture sector management and research.	\$ 200,000	90%	10%	\$ 180,000	\$ 20,000
1.2.6 Support the clearing of 500 acres of land in the plain.	\$ 100,000	90%	10%	\$ 90,000	\$ 10,000
<i>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</i>					
	\$ 3,000,000	90%	10%	\$ 2,700,000	\$ 300,000
1.3.1 Build and rehabilitate Basin General and reinforce the primary canals of Rivière Grise					
1.3.2 Repair thermal station of Bas Boen and four irrigation pumps in the plain and support the management committees.	\$ 650,000	90%	10%	\$ 585,000	\$ 65,000
1.3.3. Rehabilitate the irrigation system for Rivière Blanche	\$ 300,000	90%	10%	\$ 270,000	\$ 30,000
1.3.4 Rehabilitate the irrigation system a Source Zabèt.	\$ 150,000	90%	10%	\$ 135,000	\$ 15,000
1.3.5 Clear and clean drainage canals and build overpasses in the areas of Thomazeau, Laserre et Boukanbou.	\$ 225,000	90%	10%	\$ 202,500	\$ 22,500
<i>Subtotal Agricultural Productivity</i>	<i>\$ 5,455,000</i>			<i>\$ 4,894,500</i>	<i>\$ 560,500</i>
<b>2. Improve Watershed Stability.</b>					
<i>2.1 Protect Selected Hillsides.</i>					
2.1.1 Implement soil conservation activities and reduce sedimentation, including ravine treatments	\$ 1,500,000	80%	20%	\$ 1,200,000	\$ 300,000
2.1.2 Strengthen agro-supply stores in the Cul de Sac Hillside	\$ 20,000	20%	80%	\$ 4,000	\$ 16,000
2.1.3 Support sustainable agriculture in the hillsides	\$ 280,000	10%	90%	\$ 28,000	\$ 252,000
2.1.4 Complete construction and ensure sustainability of the CRDDs	\$ 410,000	20%	80%	\$ 82,000	\$ 328,000

2.1.5 Implement a demonstration farm in Lefevre	\$ 25,000	20%	80%	\$ 5,000	\$ 20,000
2.1.6 Help set up conditioning and commercialization centers for hillside products	\$ 50,000	20%	80%	\$ 10,000	\$ 40,000
<b>2.2 Improve Watershed Governance.</b>					
2.2.1 Finalize and implement the watershed management plan for the plain of Cul de Sac	\$ 50,000	50%	50%	\$ 25,000	\$ 25,000
2.2.2 Increase the capacity of local institutions in watershed management	\$ 20,000	50%	50%	\$ 10,000	\$ 10,000
2.2.3 Develop contingency plans and install flood warning systems	\$ 100,000	50%	50%	\$ 50,000	\$ 50,000
2.2.4 Contain and protect the banks of Riviere Grise between Tabarre and Route Neuf Bridges	\$ 650,000	90%	10%	\$ 585,000	\$ 65,000
2.2.5 Installation of 2 water catchments in the piedmont and mountains	\$ 200,000	20%	80%	\$ 40,000	\$ 160,000
2.2.6 Develop land use plans and support communes to enforce construction zoning	\$ 30,000	50%	50%	\$ 15,000	\$ 15,000
<b>2.3 Increase Tree Cover.</b>					
2.3.1 Implement agro-forestry campaigns	\$ 300,000	0%	100%	\$ -	\$ 300,000
2.3.2 Support the protection of Parc La Visite	\$ 100,000	50%	50%	\$ 50,000	\$ 50,000
2.3.3 Support the development of the mango value chain	\$ 100,000	100%	0%	\$ 100,000	\$ -
2.3.4 Strengthen agro-forestry associations	\$ 25,000	20%	80%	\$ 5,000	\$ 20,000
<i>Subtotal Watershed Stability</i>	\$ 3,860,000			\$ 2,209,000	\$ 1,651,000
<b>3. Strengthen Agricultural Markets.</b>					
<b>3.1 Reduce Transportation Costs</b>					
3.1.1 Rehabilitate key farm to market feeder roads	\$ 3,000,000	90%	10%	\$ 2,700,000	\$ 300,000
3.1.2 Strengthen community groups to perform road maintenance	\$ 25,000	90%	10%	\$ 22,500	\$ 2,500
<b>3.2 Improve Market Information</b>					
3.2.1 Value Chain Assessments- General Activities	\$ -	100%	0%	\$ -	\$ -
3.2.2 Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation	\$ 300,000	90%	10%	\$ 270,000	\$ 30,000
<b>3.3 Strengthen Market Norms and Standards</b>					
3.3.1. See General Activities					
<b>3.4 Reduce Post-Harvest Losses</b>					
3.4.1 Build post-harvest facilities and provide technical assistance and equipment	\$ 700,000	90%	10%	\$ 630,000	\$ 70,000
3.4.2 Rehabilitate rural markets and ensure appropriate management.	\$ 600,000	60%	40%	\$ 360,000	\$ 240,000
3.4.3 Improve the organization of vendors in selected rural markets	\$ 25,000	60%	40%	\$ 15,000	\$ 10,000
<i>Subtotal Agricultural Markets</i>	\$ 4,650,000			\$ 3,997,500	\$ 652,500
<b>TOTAL</b>	<b>\$ 13,965,000</b>			<b>\$ 11,101,000</b>	<b>\$ 2,864,000</b>
				79.5%	

# Haiti WINNER Work Plan Chart - Expenditures by Focus Crops

October 2011-September 2012 - Matheux

	Budget	% focus crops	% other crops	value focus crops	value other crops
<b>1. Increase Agricultural Productivity</b>					
<i>1.1 Promote market-driven access to agricultural inputs.</i>					
1.1.1 Strengthen agro-supply stores in the Matheux Corridor	\$ 30,000	90%	10%	\$ 27,000	\$ 3,000
1.1.2 Support agro-supply stores with agricultural materials and soil preparation	\$ 300,000	90%	10%	\$ 270,000	\$ 30,000
<i>1.2 Increase access to agricultural technologies</i>					
1.2.1 Identify site and build permanent CRDD and demonstration sites in agriculture zone	\$ 400,000	90%	10%	\$ 360,000	\$ 40,000
1.2.2 Provide technical assistance and guidance to farmer associations and producers for the agricultural campaigns in the plains for plantain, corn and beans.	\$ 200,000	90%	10%	\$ 180,000	\$ 20,000
1.2.3 Facilitate access to mechanized agriculture and modernized equipment through the Agriculture Development Fund -General Activities				\$ -	\$ -
1.2.4 Train operators in soil preparation techniques	\$ 20,000	90%	10%	\$ 18,000	\$ 2,000
1.2.5 Establish SRI demonstration plots	\$ 50,000	0%	100%	\$ -	\$ 50,000
1.2.6 Certification and capacity-building of Champion Associations - General Activities					
<i>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</i>					
1.3.1 Rehabilitate Torcelle and Bretelle irrigation systems	\$ 980,000	90%	10%	\$ 882,000	\$ 98,000
1.3.2. Conduct drainage of plain Maleriche	\$ -			\$ -	\$ -
1.3.3. Perform a system rehabilitation study	\$ -			\$ -	\$ -
1.3.4. Develop a map of the irrigation systems in the Matheux corridor (project level)	\$ -			\$ -	\$ -
1.3.5. Rehabilitate existing systems on an ongoing basis	\$ -			\$ -	\$ -
1.3.6. Rehabilitate irrigation and drainage canals	\$ 500,000	90%	10%	\$ 450,000	\$ 50,000
1.3.7. Help establish and build capacity of water users associations in irrigated areas of the Matheux corridor	\$ 25,000	90%	10%	\$ 22,500	\$ 2,500
<i>Subtotal Agricultural Productivity</i>	<i>\$ 2,505,000</i>			<i>\$ 2,209,500</i>	<i>\$ 295,500</i>
<b>2. Improve Watershed Stability.</b>					
<i>2.1 Protect Selected Hillides.</i>					
2.1.1. Implement soil conservation activities and reduce sedimentation, including ravine treatment	\$ 750,000	80%	20%	\$ 600,000	\$ 150,000
2.1.2 Conduct river banks stabilization	\$ 750,000	80%	20%	\$ 600,000	\$ 150,000
2.1.3 Promote sustainable agriculture in the hillides	\$ 150,000	20%	80%	\$ 30,000	\$ 120,000

2.1.4. Install four impluviums with drip irrigation systems (Goyavier, Fond Baptiste, Delice)	\$ 250,000	20%	80%	\$ 50,000	\$ 200,000
2.1.5 Implement a demonstration farm for sustainable hillside agriculture in Goyavier	\$ 50,000	20%	80%	\$ 10,000	\$ 40,000
<b>2.2 Improve Watershed Governance.</b>					
2.2.1. Develop watershed management plan for Matheux (Bretelle, Torcelle, Courjolle, Matheux, Montrouis)	\$ 50,000	70%	30%	\$ 35,000	\$ 15,000
2.2.2. Increase the capacity of local institutions in watershed management	\$ 25,000	70%	30%	\$ 17,500	\$ 7,500
2.2.3. Prepare disaster contingency plans for St Marc	\$ 20,000	50%	50%	\$ 10,000	\$ 10,000
<b>2.3 Increase Tree Cover.</b>					
2.3.1. Support agro-forestry campaign	\$ 200,000	40%	60%	\$ 80,000	\$ 120,000
2.3.2. Support the development of the mango value chain	\$ 100,000	100%	0%	\$ 100,000	\$ -
2.3.3. Strengthen agro-forestry associations	\$ 25,000	50%	50%	\$ 12,500	\$ 12,500
2.3.4. Identify local seed suppliers	\$ 20,000	50%	50%	\$ 10,000	\$ 10,000
<i>Subtotal Watershed Stability</i>	<i>\$ 2,390,000</i>			<i>\$ 1,555,000</i>	<i>\$ 835,000</i>
<b>3. Strengthen Agricultural Markets.</b>					
<b>3.1 Reduce Transportation Costs</b>					
3.1.1. Rehabilitate critical sections of 9 kilometers of rural feeder roads	\$ 750,000	80%	20%	\$ 600,000	\$ 150,000
3.1.2. Perform ad-hoc interventions on rural roads to support target value chains	\$ 150,000	80%	20%	\$ 120,000	\$ 30,000
3.1.3. Strengthen community groups to perform road maintenance	\$ 25,000	50%	50%	\$ 12,500	\$ 12,500
<b>3.2 Improve Market Information</b>					
3.2.1 Partner with hotel association of the Arcadin coast to sell regional products	\$ 20,000	50%	50%	\$ 10,000	\$ 10,000
3.2.2. Establish and strengthen associations on market standards.	\$ 20,000	90%	10%	\$ 18,000	\$ 2,000
3.2.3. Pursue collaboration between producers groups and private companies, and provide relevant technical and financial assistance for agreement implementation	\$ 100,000	90%	10%	\$ 90,000	\$ 10,000
3.2.4. Valorize the corn value chain for animal feed	\$ 100,000	100%	0%	\$ 100,000	\$ -
<b>3.3 Strengthen Market Norms and Standards</b>					
3.3.1. Reduce the impact of plant diseases in the plantain value chain	\$ 100,000	100%	0%	\$ 100,000	\$ -
<b>3.4 Reduce Post-Harvest Losses</b>					
3.4.1 Build post-harvest facilities and provide technical assistance and equipment	\$ 700,000	90%	10%	\$ 630,000	\$ 70,000
3.4.2 Strengthen associations to benefit from the Comeau collection center	\$ 50,000	90%	10%	\$ 45,000	\$ 5,000
3.4.3. Rehabilitate rural markets and ensure appropriate management.	\$ 650,000	80%	20%	\$ 520,000	\$ 130,000
3.4.4. Improve the organization of vendors in selected rural markets	\$ 25,000	80%	20%	\$ 20,000	\$ 5,000
<i>Subtotal Agricultural Markets</i>	<i>\$ 2,690,000</i>			<i>\$ 2,265,500</i>	<i>\$ 424,500</i>
<b>TOTAL</b>	<b>\$ 7,585,000</b>			<b>\$ 6,030,000</b>	<b>\$ 1,555,000</b>
				79.5%	

# Haiti WINNER Work Plan Chart - Expenditures by Focus Crops

October 2011-September 2012 - Mirebalais/Saut d'Eau

	Budget	% focus crops	% other crops	value focus crops	value other crops
<b>1. Increase Agricultural Productivity</b>					
<i>1.1 Promote market-driven access to agricultural inputs.</i>					
1.1.1 Strengthen agro-supply stores in the Mirebalais region	\$ 5,000	100%	0%	\$ 5,000	\$ -
<i>1.2 Increase access to agricultural technologies</i>					
1.2.1. Complete the establishment of a CRDD in Wanny focused on the mango value chain	\$ 200,000	100%	0%	\$ 200,000	\$ -
1.2.2. Phyto-sanitary control of diseases affecting mango trees (Antrachnose)	\$ 100,000	100%	0%	\$ 100,000	\$ -
1.2.4. Installation of orchards based on plants produced in nurseries	\$ 50,000	100%	0%	\$ 50,000	\$ -
1.2.7. Train 200 farmers to increase mango production	\$ 60,000	100%	0%	\$ 60,000	\$ -
<i>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</i>					
1.3.1 Study and Rehabilitation for the Marcelin irrigation system	\$ 480,000	100%	0%	\$ 480,000	\$ -
<i>Subtotal Agricultural Productivity</i>	<i>\$ 895,000</i>			<i>\$ 895,000</i>	<i>\$ -</i>
<b>2. Improve Watershed Stability.</b>					
<i>2.1 Protect Selected Hillside.</i>					
2.1.1 Implement soil conservation activities and reduce sedimentation at Ravine Cana	\$ 150,000	100%	0%	\$ 150,000	\$ -
<i>2.2 Improve Watershed Governance.</i>					
<i>2.3 Increase Tree Cover.</i>					
<i>Subtotal Watershed Stability</i>	<i>\$ 150,000</i>			<i>\$ 150,000</i>	<i>\$ -</i>
<b>3. Strengthen Agricultural Markets.</b>					
<i>3.1 Reduce Transportation Costs</i>					
3.1.1 Conduct study and Repair and stabilize critical sections of farms to markets roads in Gascogne and Sarazin, Mirebalais	\$ 200,000	100%	0%	\$ 200,000	\$ -
3.1.2 Repair and stabilize critical rural roads in Saut d'Eau	\$ 200,000	100%	0%	\$ 200,000	\$ -
<i>3.2 Improve Market Information</i>					
<i>3.3 Strengthen Market Norms and Standards</i>					
3.3.1 Inventory of mangos and implementation of a traceability system	\$ 50,000	100%	0%	\$ 50,000	\$ -
<i>3.4 Reduce Post-Harvest Losses</i>					
3.4.1 Train farmers on harvest and post harvest methods for mangoes	\$ 25,000	100%	0%	\$ 25,000	\$ -
3.4.2 Support for mango post-harvest handling	\$ 100,000	100%	0%	\$ 100,000	\$ -
3.4.3 Pursue collaboration with Carifresh and ADAIM for dried mango processing	\$ 100,000	100%	0%	\$ 100,000	\$ -
3.4.4 Support the implementation of a mango pulp processing plant	\$ 100,000	100%	0%	\$ 100,000	\$ -
<i>Subtotal Agricultural Markets</i>	<i>\$ 775,000</i>			<i>\$ 775,000</i>	<i>\$ -</i>
<b>TOTAL</b>	<b>\$ 1,820,000</b>			<b>\$ 1,820,000</b>	<b>\$ -</b>

# Haiti WINNER Work Plan Chart

October 2011-September 2012 - Gonaives

	Budget	% focus crops	% other crops	value focus crops	value other crops
<b>1. Increase Agricultural Productivity</b>					
<i>1.1 Promote market-driven access to agricultural inputs.</i>					
1.1.1 Complete facilities and ensure sustainability of the hillside satellite CRDDs in La Branle and Bassin Mangnan	\$ 40,000	50%	50%	\$ 20,000	\$ 20,000
1.1.2 Provide a grant to the Ebenezer foundation for the CRDD management	\$ 100,000	50%	50%	\$ 50,000	\$ 50,000
<i>1.2 Increase access to agricultural technologies</i>					
1.2.1 Master Farmer Program- General Activities					
1.2.2 Support demonstration plots in Tarasse at the CRDD and in surrounding areas.	\$ 30,000	50%	50%	\$ 15,000	\$ 15,000
<i>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</i>					
1.3.1. Rehabilitate the irrigation pump number 34 in Tarasse area	\$ 70,000	50%	50%	\$ 35,000	\$ 35,000
Subtotal Agricultural Productivity	\$ 240,000			\$ 120,000	\$ 120,000
<b>2. Improve Watershed Stability.</b>					
<i>2.1 Protect Selected Hillside.</i>					
<i>2.2 Improve Watershed Governance.</i>					
<i>2.3 Increase Tree Cover.</i>					
Subtotal Watershed Stability	\$ -				
<b>3. Strengthen Agricultural Markets.</b>					
<i>3.1 Reduce Transportation Costs</i>					
3.1.1 Complete activity to organize up to 250 laying hens units	\$ -				
<i>3.2 Improve Market Information</i>					
<i>3.3 Strengthen Market Norms and Standards</i>					
<i>3.4 Reduce Post-Harvest Losses</i>					
Subtotal Agricultural Markets	\$ -				
<b>TOTAL</b>	<b>\$ 240,000</b>			<b>\$ 120,000</b>	<b>\$ 120,000</b>

# Haiti WINNER Work Plan Chart

## October 2011-September 2012 - General Project Activities

	Budget	% focus crops	% other crops	Value focus crops	Value other crops
<b>1. Increase Agricultural Productivity</b>					
<i>1.1 Promote market-driven access to agricultural inputs.</i>					
1.1.1. Support the government to develop a market for agricultural inputs	\$ 30,000	80%	20%	\$ 24,000	\$ 6,000
1.1.2 Provide technical and financial support to input producers and providers	\$ 40,000	80%	20%	\$ 32,000	\$ 8,000
1.1.3 Support the local seed industry (study and material support to producer associations)	\$ 500,000	90%	10%	\$ 450,000	\$ 50,000
1.1.4 Conduct a market assessment of fertilizer in Haiti	\$ 50,000	50%	50%	\$ 25,000	\$ 25,000
1.1.5 Provide training to farmers on the safe use of pesticides	\$ 100,000	80%	20%	\$ 80,000	\$ 20,000
1.1.6 Provide technical assistance for the development of organic fertilizer	\$ 50,000	80%	20%	\$ 40,000	\$ 10,000
<i>1.2 Increase access to agricultural technologies</i>					
1.2.1 Certification and capacity-building of Champion Associations	\$ 70,000	50%	50%	\$ 35,000	\$ 35,000
1.2.2 Implement the Scholarship Program	\$ 300,000	50%	50%	\$ 150,000	\$ 150,000
1.2.3 Expand SMS extension services	\$ 50,000	80%	20%	\$ 40,000	\$ 10,000
1.2.4 Create the Agribusiness Equipment Fund	\$ 1,500,000	90%	10%	\$ 1,350,000	\$ 150,000
1.2.5 Master Farmers Program	\$ 200,000	70%	30%	\$ 140,000	\$ 60,000
<i>1.3 Rehabilitate and Maintain Irrigation and drainage systems.</i>					
<i>Subtotal Agricultural Productivity</i>	<i>\$ 2,890,000</i>			<i>\$2,366,000</i>	<i>\$ 524,000</i>
<b>2. Improve Watershed Stability.</b>					
<i>2.1 Protect Selected Hillides.</i>					
<i>2.2 Improve Watershed Governance.</i>					
2.2.1 Develop the regulations for the 2006 Decree on the Environment	\$ 50,000	50%	50%	\$ 25,000	\$ 25,000
2.2.2 Develop maps of irrigation systems with CNIQS	\$ 150,000	80%	20%	\$ 120,000	\$ 30,000
2.2.3 Develop a national policy on carbon trading	\$ 70,000	50%	50%	\$ 35,000	\$ 35,000
2.2.4 Provide material and technical support to the Government	\$ 300,000	50%	50%	\$ 150,000	\$ 150,000
<i>2.3 Increase Tree Cover.</i>					
<i>Subtotal Watershed Stability</i>	<i>\$ 570,000</i>			<i>\$ 330,000</i>	<i>\$ 240,000</i>
<b>3. Strengthen Agricultural Markets.</b>					
<i>3.1 Reduce Transportation Costs</i>					
<i>3.2 Improve Market Information</i>					
3.2.1 Publish and disseminate agricultural prices at the farm and in the markets	\$ 50,000	90%	10%	\$ 45,000	\$ 5,000
3.2.2 Update value chain assessments	\$ 100,000	100%	0%	\$ 100,000	\$ -
<i>3.3 Strengthen Market Norms and Standards</i>					
3.3.1 Implement a traceability system for mangos	\$ 100,000	100%	0%	\$ 100,000	\$ -
3.3.2. Implement Metric System	\$ 50,000	50%	50%	\$ 25,000	\$ 25,000
<i>3.4 Reduce Post-Harvest Losses</i>					

Subtotal Agricultural Markets	\$ 300,000			\$ 270,000	\$ 30,000
<b>TOTAL</b>	<b>\$ 3,760,000</b>			<b>\$ 2,966,000</b>	<b>\$ 794,000</b>
				78.9%	