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# FEED THE FUTURE WEST / WINNER ANNUAL REPORT

**FISCAL YEAR 2012**

**OCTOBER 2011–SEPTEMBER 2012**

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## ACRONYMS

ADEBABO	Association pour le Développement de Bas Boen
ACIDEVTH	Association des Citoyens pour le Développement (Trou d'Eau)
ACPDD	Association des Citoyens Progressistes pour le Développement de Duvier
ADAIM	Association pour le Développement Agro-Industriel de Mirebalais
ADIM	Association pour le Développement de l'Intégration Massive
AGCRDD	Association de Gestion du CRDD
AIPA	Association des Irrigants de la Plaine de l'Arcahaie
AJAD	Association des Jeunes pour Alphabétisation et Développement Communautaire
AJBD	Asosyasyon Jen Baye wouj pou Devlopman Dwya Dasne
AJPD	Association des Jeunes Patriotes de Drouillard
ANAPAAAH	Association Nationale des Producteurs Agricoles pour l'Avancement de l'Agriculture Haitienne
AND	Autorité Nationale Désignée
APADAPC	Association des Planteurs en Action pour le Développement de l'Agriculture de la Plaine du Cul-de-Sac
APD	Association des Planteurs de Duval
APFCK	Association des Producteurs de Fleurs Coupées de Kenscoff
APPADAM	Association des Paysans Plus en Action pour le Développement
ASOJEDEP	Association des Jeunes pour le Développement de la Plaisance
ASPEK	Asosyasyon Peyizan Kwochi
ASV	Association de Solidarité de Vaudreuil
AT6	Association des Travailleurs de la 6ème Section St Marc
ATRADEM	Association des Travailleurs pour le Développement de Merceron
BIA	Boutique d'Intrants Agricoles
BRANA	Brasserie Nationale
CNC	Conseil National des Coopératives
COAGEL	Coopérative Agricole de Lefevre
CODECOF	Conseil Communautaire de Furcy
COEPDA	Comité des Organisations Evangéliques pour le Développement Agricole
CRDD	Centre Rural de Développement Durable
COTR	Contracting Officer Technical Representative
CUPEC	Coopérative de l'Union des Paysans Calous
DFSA	Delicious Fruits SA
DPC	Direction de la Protection Civile
EDAG	Economic Development Advisory Group
EDH	Electricité d'Haiti
ELITE	Ensemble des Personnes les Plus Reponsable d'un Groupe ou d'une Communauté
EMPR	Environmental Mitigation Plan and Report
FAMV	Faculté d'Agronomie et de Médecine Vétérinaire
FAPDG	Fédération des Agriculteurs pour le Développement de Goyavier
FEDEPAT	Fédération des Producteurs Agricoles de Thomazeau
FEWS	Flood Early Warning System

FTF	Feed the Future
GAP	Good Agricultural Practices
GARPRON	Groupe d'Appui pour le Remembrement de la Production Nationale
GIS	Geographical Information System
GRAFIDGRAPT	Groupement des Affaires Internes de la Grande Plaine de Thomazeau
HITSA	Haiti International Trader SA
HTG	Haitian Gourde
IFDC	International Fertilizer Development Center
JADEG	Jeunes en Action pour le Développement de Ganthier
KAPPG	Kooperativ Agricole pou Pwogre Peyizan Gwayavye
KEBJ3A	Kodinasyon Ekip Blok Jilbe 3eme Seksyon pou Suspen Te Ale
KOEPDA	Komité Evangelique pour le Développement Agricole
LEA	Lamardelle en Action
MARNDR	Ministère de l'Agriculture, des Ressources Naturelles, et du Développement Rural
MODEG	Mouvement pour le Développenent de Gros Balance
MOU	Memorandum of Understanding
MPDLMB	Mouvement Paysan pour le Développement de la Hatte Cotin Mme Bauge
ODAI – L	Organisation de Développement Agricole Intégré - Local
ODEMAR	Organisation pour le Développement des Enfants des Masses Rurales
OPVH	Organisation des Paysans Vaillants de la Hatte Cadette Thomazeau
OJEUDEC	Organisation des Jeunes pour le Développement de Célicourt
OPD8	Organizasyon Gwopman Peyizan pou Devlopman 8eme Seksyon Kominal Akaye Monwi
OPDD	Organisation pour le Développement de Dumisseau
OPADEC	Organisation des Paysans pour l'Avancement et de Développement de la CDB
OTPDBC	Organisation des travailleurs pour le Développement de Bois Cotin
ODCs	Other Direct Costs
ONADEV	Organisation Nationale des Agents de Développement
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PHASS	Association Passionante Haitienne pour le Service Social
RAPCOM	Regwoupman Asosyasyon pou Pwoduksyon ak Komesyalisasyon
RIG	Regional Inspector General
RPI	Research Planning International
SAPKO	Sosyste Agricole pou Pwoduksyon ak Komesyalisasyon
SOCOBELAM	Société Coopératives Bellevue la Montagne
SOCODEF	Société Coopérative pour le Développement de Fonds Baptiste
SOHARDEK	Solidarité Haitienne pour le Développement de Kenscoff
SRI	System of Rice Intensification
STTA	Short Term Technical Assistance
UF	University of Florida
USAID	United States Agency for International Development
WIF	Watershed Investment Fund
WINNER	Watershed Initiative for National Natural Environmental Resources

## SECTION I. OVERVIEW

Feed the Future West/WINNER's annual report for Fiscal Year 2012 covers the period from October 1<sup>st</sup> 2011 to September 30<sup>th</sup> 2012 and presents project activities and achievements under the new USG Strategy for Haiti: Toward Renewal and Economic Opportunity, the Presidential Feed the Future Initiative and the USAID/FORWARD framework. In line with this Strategy and Initiative, WINNER seeks to sustainably increase incomes for rural households in Haiti, specifically in the two target corridors of Cul de Sac and Matheux.

During FY12, Feed the Future West/WINNER reoriented its approach to focus investments along five key value chains within the two target corridors listed above, in accordance with our new results framework. WINNER implemented an integrated value-chain approach and intervened at each stage of value addition, working with thousands of small farmers, to expand production, processing and commercialization of key crops.

We continued to improve food security by introducing and disseminating technical innovations to modernize Haitian agriculture and bolster agricultural productivity while stabilizing hillsides. Main beneficiaries are small farmers grouped into well-structured associations and cooperatives that are increasingly linked to agribusinesses and other buyers through mutually rewarding and sustainable business relationships.

We helped farmers significantly increase their yields, we rehabilitated important irrigation systems, often in partnership with private enterprises and community associations, we maintained excellent relationships with the government at all levels and we provided continuous support to strengthen the organizational and managerial skills of 214 "Chanpyon" associations, representing more than 100,000 small growers who are our main partners and beneficiaries. Some important achievements deserve to be highlighted:

- FtF West/WINNER started the "*Greenhouse Revolution*" by selecting thousands of farmers, regrouped in more than 20 associations, to set up small green houses, with vertical agriculture, for high value crops in upstream areas of the Cul de Sac corridor. This is by far the most significant technical breakthrough ever experienced by beneficiaries, since they are learning not only to build greenhouses but also to install drip irrigation systems and layers of pots for vertical agriculture. This remarkable technological leap translates in huge productivity and income gains: the model of household greenhouse proposed by Feed the Future West/WINNER is 70 m<sup>2</sup> large and costs about \$3,000 (with drip irrigation and vertical agriculture), but generates more income than one hectare in traditional agriculture! In addition, this technology helps to free up spaces for agro-forestry and reforestation initiatives on hillsides that are environmentally vulnerable. The Government has decided to actively promote this technology, with a goal of 1 million m<sup>2</sup> of greenhouses built over the next 4 years.
- FtF West/WINNER rehabilitated the irrigation system of the Rivière Blanche in the Cul de Sac Corridor at a low cost (about \$450,000), after 17 years of no maintenance. 4,300 ha of agricultural lands are now irrigated and provide two crops a year. We are helping

farmers set up water-user associations that will have the responsibility to manage and maintain the irrigation system, under the supervision of the Ministry of Agriculture.

- In February 2012, FtF West/WINNER launched the first large-scale partnership with the private sector to promote agro-forestry initiatives, under the “Plante Lavni” program with DINASA. This program worked very well, since 830,000 seedlings have been sold to DINASA, at the end of September 2012, by FtF West/WINNER-supported organizations and transplanted in target areas located in our zones of intervention. The average survival rate was 74%. Farmers are encouraged to maintain and expand nurseries set up with FtF West/WINNER’s financial and technical assistance. This creates the conditions for a sustainable partnership between our associations and DINASA that will go beyond the end of FtF West/WINNER.
- FtF West/WINNER focused especially on post harvest operations and for the first time farmers receive tarps and moisture gauges, with appropriate training, to dry beans and cereals in better conditions and control moisture content, so that they can better store their products. They also benefited from mobile collection centers, including, tarps, drums and crates, which are used for the cleaning and commercialization of plantains, mangos and vegetables. Farmers are learning more modern ways to reduce post harvest losses, improve the presentation and sell their products at better prices. FtF West/WINNER-supported associations have reduced post harvest losses by 25% in the mango value chain.
- FtF West/WINNER helped 214 “Chanpyon Associations” create five regional cooperatives (Kenscoff, Cul de Sac, Matheux, Mirebalais, Saut d’Eau) to commercialize their products and buy agricultural inputs. Those cooperatives have been trained by the Conseil National des Cooperatives and were officially formed, in full compliance with Haitian laws and regulations. They have a legal status that enables them to conduct business with third parties and represent their members toward governmental institutions, donors, and private entities, for everything related to commercialization of agricultural products and inputs.
- FtF West/WINNER especially focused on improving and modernizing commercialization channels for our farmers: we successfully launched the “Chanpyon” brand and logo for natural, fresh, good quality products coming from “Chanpyon” associations and farmers supported by Feed the Future/WINNER. We organized farmers’ markets twice a month to show new, cleaner, healthier market displays and product presentations that resulted in higher prices for participants and great appreciation from customers. We connected Chanpyon associations with hotels, markets and agribusinesses to ensure stable outlets at higher prices for Feed the Future/WINNER supported associations.
- In the Cul-de-Sac corridor, FtF West/WINNER has established sustainable rural development centers (CRDDs) in Bas-Boen, Kenscoff, and Duvier (near Petionville). The Bas Boen center is already a catalyst for change and has received hundreds of visitors to date. This past year, the Bas Boen CRDD conducted field trials on different crops, including two varieties of in-vitro plants of plantain, resistant to prevalent disease and

these improved varieties will be transplanted to the Matheux region. FtF West/WINNER also made some important steps in preparing for the transfer of the Bas Boen CRDD to the Association de Gestion du CRDD de Bas Boen (AGCRDD). Specifically, we facilitated the establishment of the Bas Boen management committee. We also conducted in-depth assessment of the association's capacity and identified the support required for a smooth transfer and sound operation. FtF West/WINNER is also in the process of establishing a permanent CRDD in the Matheux corridor and signed a 15-year agreement for use of the land. The Matheux CRDD which will provide training to farmers in the communes of Cabaret and Archaie and focus on the dissemination of improved farming techniques, focusing on plantain production.

- For the spring-summer 2012 agricultural campaign 4,109 hectares were planted through June. Overall, nearly 4,400 farmers received technical assistance from 46 extension agents (REAs). Agricultural inputs were sold through 20 input supply stores (BIAs).
- To modernize the Haitian agricultural sector, FtF West/WINNER promoted mechanized soil preparation during the agricultural campaigns. During the spring-summer 2012 agricultural campaign 1,755 hectares were mechanically prepared (plowing, harrowing and furrowing) in the Cul-de-Sac plain, including 510 hectares of rice using SRI. In the Matheux corridor 504 hectares were mechanically prepared. In order to expand the use of mechanical soil preparation, FtF West/WINNER provided nine tractors to farmer associations (six (6) in the Cul-de-Sac plain and three (3) in the Matheux corridor). FtF West/WINNER provided 70 hours of technical and environmental training to tractor operators, and management training to leaders of the beneficiary farmer associations.
- As of September 2012, 1,582 Master Farmers have graduated from the program (including 858 Master Farmers graduating in FY 2012); and close to 950 Master Farmer candidates currently in training. Thus far, 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.). FtF West/WINNER also selected, and gave scholarships to eight Haitians enrolled in a 2-year master's program at the University of Florida in various agriculture and natural resources related disciplines, including agribusiness development, food technology, environmental management.
- The Duvier CRDD was inaugurated on June 8, 2012 and will become a model for training and demonstration of best farming practices at the national level. The CRDD includes an administrative office, a training center, and a demonstration farm. The Kenscoff CRDD was upgraded to include administrative offices, a training center, and a new 20,000 gallon water tank was also installed to provide water for irrigation.
- FtF West/WINNER continued to implement soil conservation and ravine treatment activities in Kenscoff, Petionville, Ganthier, Thomazeau and the Matheux corridor. 25 projects were implemented in FY 2012, with 36.3 kilometers of ravine treated; 63,000 m<sup>3</sup> of gabions and dry walls installed; 280,000 trees planted around ravines; and more than

2.6 million plants of vetiver installed. The treatment of these ravines resulted in the retention of 164,300 m<sup>3</sup> of sediments.

FtF West/WINNER completed the draft watershed management plan for the Cul de Sac which includes a detailed land use land cover map and met with municipalities from target corridors to prepare for trainings in land use. FtF West/WINNER also identified a US-based company, SUTRON Corporation, to install the flood warning system in the Cul de Sac plain to reduce damage and vulnerability from floods. The system will include water level stations, siren stations and control centers. SUTRON conducted a site visit in May to confirm the exact locations and equipment needs.

## SECTION II. AGRICULTURAL PRODUCTIVITY INCREASED

This section presents the progress made by Feed the Future West / WINNER during Fiscal Year 2012 in increasing agricultural productivity (Intermediate Result 1).

### 1. Market-driven access to agricultural inputs

Feed the Future West / WINNER supports increased access to agricultural inputs through agricultural input supply stores of BIAs (Boutiques d’Intrants Agricoles). In Fiscal Year 2012, BIAs received inputs for the winter bean campaign and for the spring/summer agricultural campaign in both the Cul-de-Sac and Matheux corridors. In the course of the year, 22 BIAs received inputs from the project. In April 2012, a team from USAID visited some BIAs in the Matheux corridor and noted some significant deficiencies with respect to environmental compliance. As a result, the project embarked on a program to assist and train BIAs to significantly improve environmental conditions and the occupational safety and health of employees. In August 2012, FtF West/WINNER evaluated the performance of all BIAs with respect to management and environmental compliance. As a result of this evaluation, sanctions were taken against 4 BIAs (AIPA, ONADEV, APADAPC and ATRADEM) that have been dropped from the program and will no longer receive assistance from FtF West/WINNER.

In order to ensure the sustainability of BIAs, FtF West/WINNER created a federation of BIAs (Federation des Boutiques Chanpyon d’Intrants Agricoles). A general assembly of the Federation was held on May 31<sup>st</sup> 2012 and an Administrative Council composed of 9 administrators and an oversight council of 3 members. Training sessions on management were organized for 7 new BIAs in 2012 (COAGEL and AVIH in Kenscoff; OPVH, LEA, and ANAPAAAAH in the Cul-de-Sac plain; and SOCODEF and FAPDG in the Matheux corridor”.

Table 1 presents the inputs received by FtF West/WINNER supported BIAs for agricultural campaigns of FY 2012 (the winter 2011-2012 bean campaign and the spring/summer 2012 agricultural campaign); and table 2 shows the financial statements of BIAs. Of note is that the WINNER-supported BIAs now have 12,626,469 gourdes (approximately \$308,000) in savings. As we transition towards sustainability, the BIAs will be required to provide a greater cost share and to buy inputs directly from local suppliers.

**Table 1. Inputs received by BIAs for the 2011/2012 winter bean campaign**

no	Association	Fertilizer				Seeds					Amount paid by WINNER	BIA Cost-share
		Fertilizer 20-20-10 (MT)	Fertilizer 12-12-20 (MT)	Urea (MT)	DAP (MT)	Red beans (MT)	Black beans (MT)	Corn (MT)	Rice (MT)	Potato (MT)		
<i>Kenscoff (Cul-de-Sac hillsides)</i>												
1	CODECOF	7.43	1.5	6.31		2.25	1.15				534,183	105,006
2	SOCOBELAM	26.78	4	14.33		4.76	2.38				1,492,608	378,657
3	COAGEL		2.5	9								
4	SOHADERK	72.45	5	32.54		11.92	5.96				3,931,044	1,024,601
5	ODEMAR	38.25	5	19.9		6.55	3.4				2,121,403	540,938
6	AVIH	14.4	2.5	8.48		2.56	1.3				1,002,317	0
	<b>Subtotal</b>	159.31	20.5	90.56		28.04	14.19	0	0		9,081,555	2,049,202
<i>Cul de Sac plain</i>												
7	APD	19.5		19.27		2	1.5	2			1,528,457	435,968
8	APDAPC	51		13.64		0.25	5	2			3,199,296	841,468
9	ACPDD	32.82		22.36		0.5	3.5	4.4			3,112,703	308,988
10	ANAPAAAH	128.64		35.64		0	12	13			9,647,480	800,852
11	LEA	57.45		26.82		1.65	6	4			4,582,630	281,068
12	OPVH			10	7			2.8	1.5		657,693	222,584
13	GFVCT	35.45		21.36	9	7.95	2.7	2	2		2,549,476	690,026
14	ATRADEM	58.55		17.73		12.65	6.1	3.5	2		4,330,085	1,163,198
15	OJEUDEC	36.23		18.82		6	3.8	2.8			2,835,846	798,846
	<b>Subtotal</b>	419.64	0	185.64	16	31	40.6	36.5	5.5		32,443,671	5,542,999
<i>Matheux</i>												
16	ONADEV	59.55		18.64		10.44	5.22	0.9			3,588,589	928,705
17	RACADAMA	38.45		27.09		6.72	3.36	3.9			3,000,959	793,373
18	GFVB	56.18		26.36		10	5	0.93			4,304,840	98,205
19	ATAIB	73.55		35.14	5	13	6.5	2.9	1		5,949,747	251,179
20	SOCODEF	56.18	2.5	18.23		10	5			10	3,969,488	
21	FAPDG	56.18	2.5	17.86		10	5			30	3,969,488	
22	AIPA	40.91		18.18		13.8	6.9				5,488,934	0
	<b>Subtotal</b>	381	5	161.5	5	73.96	36.98	8.63	1	40	30,272,046	2,071,463
<b>Grand total</b>		<b>959.95</b>	<b>25.5</b>	<b>437.7</b>	<b>21</b>	<b>133</b>	<b>91.77</b>	<b>45.13</b>	<b>6.5</b>	<b>40</b>	<b>71,797,272</b>	<b>9,663,664</b>

**Table 2. Financial Report of FTF West / WINNER supported BIAs**

No	Accociation	Total revenues	Expenses	Amount in bank	Line of credit	Cash on hand	Investment
<i>Kenscoff</i>							
1	CODECOF	441,200	85,000	229,841	160,000	8,550	288,000
2	SOCOBELAM	1,016,700	41,175	363,010	145,000	96,538	212,250
3	COAGEL (*)						
4	SOHARDEK	2,809,732	78,500	1,514,543	0	91,220	216,100
5	ODEMAR	581,997	98,400	30,410	83,475	84,178	567,250
6	AVIH	652,500	41,150	280,429	23,750	29,050	181,350
	<i>Subtotal</i>	<i>5,502,129</i>	<i>344,225</i>	<i>2,418,233</i>	<i>402,225</i>	<i>309,536</i>	<i>1,464,950</i>
<i>Cul de Sac plain</i>							
7	APD	644,866		204,680	37,000	4,000	54,270
8	APADAPC (**)						
9	ACPDD	419,900		376,044	166,500	10,000	110,500
10	ANAPAAAH	3,004,950		510,500			150,000
11	LEA	1,817,150		768,793	13,697	28,300	300,000
12	OPVH	168,680		14,900	18,000	400	
13	GFVCT	868,570		611,385	30,000	18,100	3,000
14	ATRADEM (**)						
15	OJEUDEC	739,160		635,755	100,000	5,000	75,000
	<i>Subtotal</i>	<i>7,663,276</i>	<i>-</i>	<i>3,122,057</i>	<i>365,197</i>	<i>65,800</i>	<i>692,770</i>
<i>Matheux corridor</i>							
16	ONADEV (**)			811,800			
17	RACADAMA	5,657,421	96,000	2,320,154	300,000	266,000	120,000
18	AIPA (**)						
19	GFVB	1,542,643	76,000	856,050	120,000	95,000	132,500
20	ATAIB	4,963,191	108,750	1,429,290	150,429	390,610	276,750
21	SOCODEF	1,722,500	65,000	460,000	134,735	43,745	43,000
22	FAPDG	1,430,936	55,000	1,208,885	55,000	35,000	30,000
	<i>Subtotal</i>	<i>15,316,691</i>	<i>400,750</i>	<i>7,086,179</i>	<i>760,164</i>	<i>830,355</i>	<i>602,250</i>
<b>Grand Total</b>		<b>28,482,096</b>	<b>-</b>	<b>12,626,469</b>	<b>1,527,586</b>	<b>1,205,691</b>	<b>2,759,970</b>

(\*) New BIA

(\*\*) Dropped by FtF West/WINNER

Of the two FtF West/WINNER target corridors, the Cul-de-Sac accounted for most of the inputs that have been sold to farmers. The rehabilitation of irrigation systems in the Cul-de-Sac plain, which resulted in agricultural land being put back into productive use resulted in an increased demand for agricultural inputs.

### **Training provided to BIAs in management**

The agricultural input supply store (BIA) staff from the Matheux and Cul-de-Sac corridors received training in management during FY12. In the Cul-de-Sac plain, the training was conducted between September 17<sup>th</sup> and 21<sup>st</sup> 2012 and reached 30 participants, including 7 women.

### **Environmental Evaluation of Agricultural Input Stores (BIAs)**

Following an inspection of BIAs in the Matheux corridor by a team including USAID environmental experts, we were notified that the environmental compliance of BIAs was lacking and that WINNER had to address environmental concerns at BIAs immediately. In this quarter, WINNER worked closely with BIAs to improve their environmental compliance. Activities undertaken in the quarter include:

- Preparing an umbrella EMPR for BIAs;
- An evaluation of all BIAs supported by WINNER to assess their performance with respect to the implementation of the environmental mitigation measures prescribed in the EMPR;
- Technical assistance and training for the BIAs to improve their environmental compliance;
- Removal of all the stocks of treated seeds and pesticides from the ADEBABA BIA in the (Cul-de-Sac) due to the poor sanitary conditions;
- WINNER will stop all assistance to three BIAs for environmental non-compliance and poor management. They are ATRADEM and APADAP-C in the Cul-de-Sac plain and ONADEV in the Matheux corridor;
- Warning letters sent to APD and LEA who will have to find an appropriate solution for the siting of their facilities that are located too close to schools;
- Prohibition for the selling pesticides in small quantities by SOHADERK, ODEMA, and GFVCT due to the close proximity of residences.
- Removal of stocks of pesticides which are expired or not approved in the PERSUAP.

Following the site visit inspections, many BIAs have significantly improved their environmental management and their compliance with respect to the mitigation measures prescribed in the EMPR. Four BIAs have changed facilities (RACADAMA, ATAIB and SOCODEF in the Matheux and APADAP-C in Bas-Boen ; and two BIAs have dramatically changed the physical aspects of their facilities (ANAPAAAH and ACPDD). Most of the BIAs are now equipped with First Aid kits. However, some BIAs still have improvements to make with respect to their infrastructures (e.g., installation of fences; purchase of appropriate equipment for the transfer of pesticides, fertilizer, or treated seeds; purchase of protective clothing for the employees).

The EMPR includes specific environmental mitigation measures on the storage and use of pesticides, management recommendations for the BIAs, measures to be taken in collaboration with the Haitian Government for the safe disposal of expired pesticides. The EMPR also recommended the promotion of integrated pest management (IPM), to the extent possible, as a strategy for limiting the impact of pests on crops. To this end, Sun Mountain is working to prepare an IPM field guide and to conduct a training of trainers in Haiti on IPM. The training will take place in August.

### **Administrative and Financial Capacity Building of BIAs**

Two consultants were hired by WINNER to provide financial and administrative training to BIA managers. Their terms of reference include the following tasks:

- Conduct an assessment of the management capacity of the BIAs;
- Assess the effectiveness of the BIA management committees;
- Implement a economic and accounting system using standard methods;
- Provide appropriate training to BIA management;
- Set up a system of credit to farmers;
- Set up a BIA network; and
- Recommend instruments for monitoring the management performance of BIAs.

From May to September, the BIAs supported by WINNER received training in administrative and financial management.

## 2. Support for agricultural campaigns

Two main agricultural campaigns were supported by WINNER in FY 2012, the winter 2011/2012 bean campaign, and the spring/summer 2012 campaign. As presented in the section above, agricultural input supply stores received a variety of inputs including seeds, fertilizer and pesticides.

In January 2012, WINNER provided nine tractors to farmer associations (6 in the Cul-d-Sac and 3 in the Matheux corridors). An additional four tractors were affected to the CRDDs (2 in the Cul-de-Sac and 2 in the Matheux). Tractor operators were trained in the proper use of the tractors in February 2012. The tractors were used extensively during the spring/summer agricultural campaign.



In September, at the end of the campaign, WINNER conducted an assessment of the use and management of the tractors. The assessment revealed that, in some associations, the tractors were not used in a transparent fashion and the fees collected for soil preparation were not returned to the associations. Thus, WINNER confiscated four tractors from two associations in the Cul-de-Sac corridor and two associations in the Matheux corridor.

### Soil preparation by private operators

In addition to the use of the tractors distributed to farmer associations of the Cul-de-Sac plain, and soil preparation activities conducted with the tractors of the Bas Boen CRDD, private tractor operators were engaged to plow 1,755 hectares of agricultural land for the spring 2012 campaign including 1,245 hectares of corn, and 510 hectares of rice using SRI. Overall, 799 hectares of land were prepared in the commune of Thomazeau, 409 hectares in the commune of Ganthier, and 550 hectares in the commune of Croix-des-Bouquets. Thirty seven farmer associations participated in soil preparation activities.

### Overall results

This section presents the results of the agricultural campaigns supported by FtF West/WINNER during FY 2012.

#### *Beans*

There were two campaigns for beans, a winter 2011 – 2012 campaign; and a spring/summer 2012 campaign. Table 3 presents the results of the bean campaigns supported by FtF West/WINNER in the Cul-de-Sac and Matheux (St Marc) corridors.

**Table 3. Summary of the winter 2011 bean campaign in the Cul de Sac and Matheux corridors**

Commune	Number of hectares supported	Number of hectares mechanically plowed	Number of hectares irrigated	Number of farmers assisted	Number of associations assisted	Number of BIAs assisted
<i>Cul de Sac hillsides</i>						
Kenscoff	1,072	-	-	1,310	35	6
<i>Cul de Sac plain</i>						
Croix des Bouquets	827	683	777	585	13	4
Thomazeau	907	230	897	1,038	11	2
Ganthier	450	194	420	450	5	1
Cité Soleil	100	90	50	50	2	1
<i>Subtotal</i>	<i>2,284</i>	<i>1,197</i>	<i>2,144</i>	<i>2,123</i>	<i>31</i>	<i>8</i>
<i>Matheux Corridor</i>						
Cabaret	130	85	97	206	3	1
Arcahaie	294	175	204	453	5	3
Saint Marc	98	48	59	184	2	1
<i>Subtotal</i>	<i>522</i>	<i>308</i>	<i>360</i>	<i>843</i>	<i>10</i>	<i>5</i>
<b>Grand total</b>	<b>3,878</b>	<b>1,505</b>	<b>2,504</b>	<b>4,276</b>	<b>76</b>	<b>19</b>

The average yield for beans was calculated from a sample of 129 farms in Kenscoff and a sample of 331 farms in the Cul de Sac plain. The table below summarizes the estimation of average yield for beans.

**Table 4. Sample yield results for the FY 2012 bean campaign**

Zone	Type	Sample size	Surface Area (Ha)	Total yield (T)	Average yield (T/ha)
Kenscoff	Red beans	53	24.79	37.02	1.49
CDS plain	Red beans	76	61.80	76.15	1.23
Total red beans	Red beans	129	86.59	113.17	1.31
Kenscoff	Black beans	70	40.79	45.4	1.11
CDS plain	Black beans	261	283.79	332.93	1.17
Total black beans	Black beans	331	324.58	378.33	1.17
<b>Total</b>		<b>460</b>	<b>411.15</b>	<b>491.5</b>	<b>1.20</b>

### Corn

Table 5 presents a summary of the spring/summer agricultural campaign in the Cul-de-Sac plain.

**Table 5. Summary of the 2012 agricultural campaign for corn in the Cul-de-Sac plain**

Commune	# of REAs	# of hectares assisted	# of hectares plowed with tractors	# of hectares irrigated	Number of farmers assisted	Number of associations assisted	Number of BIAs assisted	Average area assisted per REA (Ha)
Croix des	6	768	547	2,500	594	15	4	128

Bouquets								
Ganthier	4	556	409	700	519	9	1	139
Thomazeau	4	341	289	1,500	559	13	3	85
<b>Total</b>	<b>14</b>	<b>1,665</b>	<b>1,245</b>	<b>4,700</b>	<b>1,672</b>	<b>37</b>	<b>8</b>	<b>119</b>

Overall, 1,665 hectares were planted in corn in the Cul-de-Sac plain for the spring/summer 2012 campaign. The initial area planted was only 1,141 hectares (69% of the planned area of 2000 hectares for the campaign). The campaign was extended through the summer to reach 83.2% of the objective.

The average yields for corn was calculated based on a sample of 92 farms in the Cul-de-Sac plain. The table below summarizes the estimation of average yield for corn.

<b>Zone</b>	<b>Type</b>	<b>Sample size</b>	<b>Surface Area (Ha)</b>	<b>Total yield (T)</b>	<b>Average yield (T/ha)</b>
CDS plain	Hybrid seeds	65	56.77	229.19	4.04
CRD plain	Local seeds	27	20.46	43.2	2.11
<b>Total</b>		<b>92</b>	<b>77.23</b>	<b>272.39</b>	<b>3.53</b>

### *Rice*

**Table 6. Summary of the 2012 rice campaign using SRI in the Cul-de-Sac plain**

<b>Commune</b>	<b>Number of REAs</b>	<b>Number of hectares assisted</b>	<b>Number of hectares mechanically plowed</b>	<b>Number of farmers assisted</b>	<b>Number of farmer associations assisted</b>	<b>Number of BIAs assisted</b>	<b>Average area assisted by an REA (Ha)</b>
Thomazeau	4	381	510	451	8	3	95.25
<b>Total</b>	<b>4</b>	<b>381</b>	<b>510</b>	<b>451</b>	<b>8</b>	<b>3</b>	<b>95.25</b>

With respect to SRI, 381 hectares out of 510 that were mechanically plowed (74.7%) were planted as of the end of September 2012. Eight farmer associations belonging to the FEDEPAT federation are participating in the rice campaign.

The average yield for rice was calculated based on a limited sample of 18 small farmers in different parts of the rice growing areas of the Cul-de Sac plain, on a total surface area of 38.5 hectares. The average rice yield for the FY 2012 campaign was **5.03** tons per hectare.

### *Plantain*

Plantain is the most important crop in the Matheux corridor. In FY 2012, FtF West/WINNER trained farmers of the Matheux corridors in techniques for controlling sigatoka and in new plantation techniques that are expected to significantly increase yields. The widespread adoption of these new practices will have significant impacts on the revenues of farmers in the Matheux corridor. However, FtF West/WINNER was not able to collect yield data for comparisons with previous years. First, tropical storm Isaac in the spring of 2012 had a significant impact on plantain production in the Matheux (St Marc) corridor, destroying much of the crops; second, the plantain fields where new techniques of plantain production with higher densities were introduced by the project had not yet been harvested by September 2012 to be able to estimate yields. Table 7 presents a summary of the 2012 plantain campaign in the Matheux (St Marc) corridor.

**Table 7. Summary of the 2012 plantain campaign in the Matheux (St Marc) corridor**

Area	# of Hectares Assisted	# of hectares mechanically plowed	# of hectares irrigated	# of farmers assisted	# of farmer associations assisted
Matheux	1,053	257	1,053	1,211	22

### 3. Farmer training

One of the keys to increasing agricultural productivity is the training of farmers on modern techniques of production and the sustainable management of agricultural resources. In FY 2012, FtF West/WINNER continued the training of Master Farmer candidates. In all 858 Master Farmers graduated in FY 2012, including 230 women (26.8%). Table 8 summarizes the training provided during the year in all FtF West/WINNER regions by topic. Table 9 presents a summary of the graduating master farmers.

**Table 8. Graduating Master Farmers in FY 2012 (by quarter)**

Region	Q1			Q2			Q3			Q4			Year		
	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
Cul-de-Sac plain	-	-	-	13	44	57	20	33	53	8	51	59	41	128	169
Kenscoff	-	-	-	25	51	76	26	36	62	32	40	72	83	127	210
Matheux	4	38	42	24	84	108	7	34	41	18	46	64	53	202	255
Mirebalais	25	32	57	8	21	29	-	-	-	-	-	-	33	53	86
Gonaïves	14	54	68	6	64	70	-	-	-	-	-	-	20	118	138
<b>Total</b>	<b>43</b>	<b>124</b>	<b>167</b>	<b>76</b>	<b>264</b>	<b>340</b>	<b>53</b>	<b>103</b>	<b>156</b>	<b>58</b>	<b>137</b>	<b>195</b>	<b>230</b>	<b>628</b>	<b>858</b>

**Table 9. Training Provided by FtF West/WINNER in FY 2012**

Training Topic	Men	Women	Total	% Women
<b>Core Courses</b>				
Basic agricultural principles	378	146	524	27.9%
Sustainable environmental management	359	148	507	29.2%
Management of small farms	449	172	621	27.7%
Family planning	417	156	573	27.2%
<b>Electives<sup>43</sup></b>				
Vegetable crops	25	18	43	41.9%
Rice cultivation using SRI	97	18	115	15.7%
Phyto-sanitary treatment	238	75	313	24.0%
Soil conservation techniques	170	70	240	29.2%
Cultivation of vetiver grass	219	80	299	26.8%
Tree nurseries and agro-forestry	156	63	219	28.8%
Cereals and pulses	295	71	366	19.4%
Livestock (small animal husbandry)	125	29	154	18.8%
Management of agro-supply stores	33	15	48	31.3%
Prophylactics and animal health	188	62	250	24.8%
Aquaculture	26	10	36	27.8%
Poultry/egg production	143	67	210	31.9%
Production and harvesting of plantain	240	26	266	9.8%
Rabbit production	83	35	118	29.7%
Construction of greenhouses and production under greenhouse	545	284	829	34.3%
Techniques for the storage and conservation of cereals	143	54	197	27.4%
Irrigation techniques	77	20	97	20.6%
Operation and maintenance of tractors	20	5	25	20.0%
Quality control of agricultural products	30	16	46	34.8%

Techniques for grafting mango trees	34	2	36	5.6%
Financial and administrative management	614	242	856	28.3%
Management of irrigation systems	28	4	32	12.5%
<b>TOTAL</b>	<b>5,132</b>	<b>1,888</b>	<b>7,020</b>	<b>26.9%</b>

\* Note: Some individuals took multiple courses and are counted several times.

#### 4. Sustainable Rural Development Centers (CRDDs) and Technological Innovation

##### Cul de Sac Corridor

##### Bas Boen CRDD

The results of the technical and economic performance of the crops tested at the Bas Boen CRDD are generally positive. These results show that significant gross margins could be realized by farmers if they applied to correct technical itineraries (more than 100,000 HTG (\$2,500) per hectare for high value vegetable crops and about 60,000 HTG (\$1,500) per hectare for cereals.

Field trials were conducted for corn to test the performance of different varieties (30K73, 3031, and hybrids (P3862, P3523, 30F35 and 3041). The trials produced yields between 6.1 and 8 tons per hectare, which are significantly higher than those obtained using traditional methods.

Field trials for beans at the Bas Boen CRDD produced yields of 1.55 tons/ha for the « Noir les Anglais » variety which is widely used in the Cul-de-Sac plain. Other varieties, such as « Arifi Wirifi » and « X-RAV-40 », that are resistant to the golden mosaic virus were also tested at the CRDD. The yields obtained with these varieties were between 2.36 and 2.88 tons per hectare, which is significantly higher than for « Noir les Anglais ». The use of these varieties should be encouraged in future agricultural campaigns.

Trials were also conducted for several high value vegetable crops including cucumber, pepper, swiss chard, and watermelon.

One of the key activities on the Bas Boen farm in this reporting period was the development of in-vitro plants of plantain. In collaboration with the French Development Agency in Haiti (AFD), the French firm VITROPIC sent 584 in-vitro plantain plants to Haiti so that they could be developed under greenhouse at the Bas Boen CRDD prior to field transplantation. The in-vitro plants were from three varieties: 239 of the Musqué Bois Blanc (*Musa x paradisiacal*) variety, 271 of the Musqué bois Noir variety, and 74 of the Musa Cavendish variety. Overall, 543 of the in-vitro plants (92.9%) were successfully developed at the CRDD. These plants will then be transplanted in the field where they should be resistant to the cykatoga virus. The table below summarizes the development of the in-vitro plantain plants at the Bas Boen CRDD.

**Table 10. Development of plantain in-vitro plants at the Bas Boen CRDD**

	<b>Bois Blanc</b>	<b>Bois Noir</b>	<b>Musa Cavendish</b>	<b>Total</b>
Quantity of in-vitro plants received	239	271	74	584
Quantity of plants developed as of September 28 <sup>th</sup>	224	251	68	543
Success rate (%)	93.7%	92.6%	91.8%	92.9%

### **Guided visits of the Bas Boen CRDD**

At total of 929 people visited the Bas Boen CRDD during FY 2012. There were 52 days of visits, or an average of one per week. The visitors to the CRDD were diverse groups interested in discovering modern agricultural practices in Haiti. The table below summarizes the visits to the CRDD in FY 2012

**Table 11. Guided visits at the Bas Boen CRDD from October 2011 to September 2012**

<b>Period</b>	<b>Number of CRDD visits</b>	<b>Number of visitors</b>	<b>Type of visitors</b>
October - December 2011	10	270	<ul style="list-style-type: none"> <li>✓ Farmers</li> <li>✓ Master farmers</li> <li>✓ Agribusinesses</li> <li>✓ Agronomy students, University professors</li> <li>✓ Haitian government officials</li> <li>✓ International consultants</li> <li>✓ USAID staff</li> <li>✓ Local and foreign NGOs</li> <li>✓ Professionals</li> <li>✓ Youth groups</li> </ul>
January - March 2012	10	237	
April - June 2012	15	199	
July - September 2012	17	223	
<b>Total</b>	<b>52</b>	<b>929</b>	

### **Field demonstration trials on farmer plots**

During FY 2012, 96 field demonstration plots were installed in the Cul-de-Sac plain for beans and corn; and 29 demonstration plots were established for the System of Rice Intensification (SRI). The table below summarizes the results of field demonstrations in the Cul the Sac plain during this reporting period.

**Table 12. Summary of field demonstration trials for target crops in the Cul de Sac plain during FY 2012**

<b>Crop</b>	<b>Planting Season</b>	<b># of plots</b>	<b>Area (Ha)</b>	<b>Yield (tons / hectare)</b>	
				<b>Traditional</b>	<b>Improved technical itinerary</b>
Beans	Winter 2011	25	4.5	0.67	1
Corn	Fall 2011	36	6.7	4.39	6.47 – 6.67
Corn	Spring 2012	35	6.7	2.6	4.71 – 4.77
Rice	Fall 2011	8	2.0	-	5.39
Rice	Spring 2012	21	2.5	-	4.75

## Laboratory activities

The Bas Boen laboratory was very active this year with the performance of tests and analyses and the management of many visits. During the year, the lab received new equipment and is now nearly fully equipped. The lab started charging for some tests, generating revenues of 53,150 gourdes for the CRDD.

### *Analyses conducted*

#### **Soil fertility**

Soil fertility tests were conducted at the Bas Boen laboratory on both physical characteristics (pH, conductivity, Total Dissolved Solids (TDS)), and chemical characteristics (Nitrogen, Phosphorus, Potassium, Sulfate, Calcium, Magnesium, Chloride, Iron, Aluminum, and organic matter). The table below presents the number of samples analyzed and their origin

**Table 13. Soil samples analyzed at the Bas Boen laboratory in FY 2012**

<b>Origin of the samples</b>	<b>Number of samples</b>
Cul-de-Sac plain	128
Cul-de-Sac hillsides	18
Matheux corridor	45
Research papers (student theses)	18
Private sector	51
Faculty of Agronomy	28
International organizations	40
Total	328

#### **Plant diagnostics clinic**

The plant diagnostic clinic part of the Bas Boen laboratory was also active this year. The clinic analyzed 16 samples of corn, beans, pepper, and tomato leaves and roots coming from the Cul-de-Sac plain and from Cul-de-Sac For the hillside areas.

#### **Water quality**

The laboratory tested 2 water samples from the Cul de Sac plain. The tests included measurements of pH, conductivity, total dissolved solids, harshness, turbidity, ammonium nitrate, nitrite, fecal coliforms, and E. Coli. In addition, samples from the CRDD fish ponds and from the CRDD wells are tested on a weekly basis.

### **Transfer of the Bas Boen CRDD and sustainability plan**

In FY 2012, we started planning the transfer of the Bas Boen CRDD and developed a long term sustainability plan for CRDD operations. The project help create an entity that will take over the CRDD and which includes representatives from the Ministry of Agriculture, farmer associations, local authorities, and the private sector. We also prepared a detailed business plan for the Bas Boen CRDD. This plan takes into account the operating costs of the facility and the potential sources of revenues that can be used to defray those costs, Revenue sources include tractors, the greenhouses, the training facility, and the laboratory. In time, the CRDD could also provide extension services to farmers for a fee, as well as other services.

The transition plan for the Bas Boen CRDD includes providing a grant in the coming year to the entity that will take it over, so that it can start managing some of the CRDD operations. The facility's sustainability plan also includes increased cost efficiency.

## **Introduction of new technologies in conjunction with the SRI system**

To improve the performance of the SRI system, two new technologies were introduced in FY 2012. The first is a conical weeder that allows for weed control in the rice fields; and the second is a machine that marks the points where the rice pockets should be placed with appropriate spacing, thereby saving labor time and ensuring an even distribution of rice plants. Both innovations were very well received by the rice farmers of Thomazeau.

### *Matheux corridor*

For the Matheux corridor, we identified a very suitable site for the implementation of a CRDD that will focus on the target crops of the area, particularly plantain. The site is very accessible and FtF West/WINNER signed an MOU with the land owner for a long term lease of the facility to be used as a CRDD. In addition, a cooperative made up of local farmer associations was constituted that will be part of the management committee of the CRDD.

In FY 2012, we also made initial plans for the development of the site and launched a bid for the detailed engineering design of the CRDD facilities. The design firm has been selected and will start work in the first quarter of FY 2013. We expect the Matheux CRDD to be built over a six month period. The experience gained by the project with the implementation of the Bas Boen CRDD will greatly help in reducing the time needed to make the Matheux CRDD operational.

## **Introduction of new technologies for the production of plantain**

During FY 2012, Feed the Future West/WINNER fielded international consultant Carlos Cespedes to assist plantain farmers in the Matheux region to improve their productivity. New management practices for the growing and harvesting of plantain were introduced and farmers received hands on training on how to better plant, harvest and prepare their product for commercialization.

## **5. Irrigation**

During FY 2012, FtF West/WINNER continued to make significant improvements to irrigation systems in target corridors. In particular, a significant portion of the irrigation systems of the Rivière Blanche was rehabilitated in this reporting period, paving the way for 4,400 hectares of land that had been lying fallow to be irrigated and back into productive use. The project also started the design of a diversion dam on the Rivière Grise, completed the rehabilitation of the Bas Boen thermal plant and rehabilitated six irrigation pumps in the Cul de Sac plain.

### *Cul de Sac Corridor*

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

WINNER conducted several activities related to the temporary diversion structure to provide water to the Tête morte canal from the Bassin General of the Rivière Grise. These works were necessary to strengthen the irrigation and drainage systems of the irrigated perimeters and to provide water to 1,100 hectares of land that were lying fallow. This project was implemented in partnership with the confederation of farmer associations Association Nationale de Producteurs Agricoles pour l'Avancement de l'Agriculture Haïtienne (ANAPAAA). Under this partnership, ANAPAAA provided equipment, while WINNER paid for the services of operators and for fuel.



## Rehabilitation of the Bas Boen thermal power plant and of six irrigation pumps in the Cul de Sac plain

The Bas Boen thermal power plant was inaugurated on January 13<sup>th</sup>. The inauguration ceremony included Lewis Tatem of USAID, Jean-René Jumeau, Undersecretary of Energy, and Arnoux Severin, Regional Director of the Ministry of Agriculture. The plant will provide alternative power to 19 pumping stations that irrigate 2000 hectares (each pump has the capacity to irrigate between 100 and 150 hectares). The plant will be managed initially, for one year, by the company that implemented the rehabilitation. After this period, the MARNDR will take over the management of the Bas Boen power plant. In the meantime, WINNER will be working with EDH, the MARNDR and water-user associations to ensure the profitability and sustainability of this investment.

### Impacts of irrigation system rehabilitation

Besides the agricultural campaigns that provide a package of material and technical assistance, farmers grew a broad range of crops on lands that have access to water, thanks to investments made by WINNER to rehabilitate irrigation systems, mainly in the plain of Cul de Sac. The table below shows that 8.6 kilometers of canals were rehabilitated this quarter on 4,300 hectares. With this land put back into productive use, farmers of the area planted a variety of crops in addition to the WINNER target crops of corn and beans. Other crops included: sorghum, leeks, tomato, onion, beets, plantain, yucca, potato, and peas.

**Table 14: Rehabilitation of irrigation systems in the Cul-de-Sac plain**

Name of the perimeter	Length (meters)	Irrigated area (hectares)	Amount Spent (HTG)	Number of beneficiaries	Jobs created			
					Number of days	Female	Male	Total
Works on the Rivière Blanche (Left Bank)	1,200	2,500	289,783	4,500	5	-	15	75
Rivière Grise/Overpass La Serre	14		5,122,313		72	-	12	864
Rivière Blanche/Curise of Ti Sous Intake	7,400	1,800	1,114,582	3,500	96	40	120	15,360
<b>TOTAL</b>	<b>8,614</b>	<b>4,300</b>	<b>6,526,678</b>	<b>8,000</b>	<b>173</b>	<b>40</b>	<b>147</b>	<b>16,299</b>

### Rehabilitation of the irrigation system of the Rivière Blanche

In its program to rehabilitate and maintain irrigation canals, WINNER conducted works this quarter to provide water to 4,300 hectares of agricultural land in the Rivière Blanche irrigated perimeter. The launch of the rehabilitation of the irrigation canals on the Rivière Blanche irrigated perimeter was held on December 5<sup>th</sup> 2011, in presence of the Minister of Agriculture.





**Table 15. Contracts issued for the rehabilitation of the Rivière Grise irrigation system**

<b>Description</b>	<b>Nature of intervention</b>	<b>Number of beneficiaries</b>	<b>Number of hectares irrigated</b>	<b>Contractor</b>	<b>Amount (Gourdes)</b>
Contract to rehabilitate a segment of the Rivière Grise irrigation system- <b>Lot 1</b>	8,760 meters + construction of 6 distribution structures and rehabilitation of the existing distribution structure + construction of an overpass	<b>1500</b>	<b>4500</b>	<b>ECSA</b>	<b>11, 422,182</b>
Contract to rehabilitate a segment of the Rivière Grise irrigation system - <b>Lot 2</b>	8,660 meters + construction of 6 distribution structures and rehabilitation of 4 existing distribution structures + construction of two overpasses			<b>ECSA</b>	
Contract to rehabilitate a segment of the Rivière Grise irrigation system - <b>Lot 3</b>	4,400 meters + construction of 6 distribution structures and rehabilitation of the existing distribution structure + construction of an overpass			<b>CECA</b>	<b>3,156,680</b>
Contract to rehabilitate a segment of the Rivière Grise irrigation system - <b>Lot 4</b>	3,600 meters + construction of 5 distribution structures and rehabilitation of 5 existing distribution structures + construction of an overpass			<b>CES Group</b>	<b>3,232,000</b>





## *Matheux corridor*

In the Matheux corridor, FtF West/WINNER worked on the rehabilitation of the Bethel irrigation system, the Courjolle river irrigation system, and the Torcelle river irrigation system. Bids were launched for these rehabilitation works and firms were selected. We are conducting further hydraulic studies to ensure that there is sufficient flow in these rivers during the dry season for the rehabilitated irrigation systems to be fully functional.

### **Bethel irrigation system**

The works on the Bethel irrigation system include the cleaning of the intake, including a 60m<sup>3</sup> intake basin ; the curing of canal tête morte on 51 meters between the intake and the main canal ; the cleaning of the main canal with the building of masonry walls on 1,640 meters ; the cleaning of secondary canals with masonry walls on 2,625 meters; and the plugging of breaches in the secondary canals to facilitate water flow. This system will enable the irrigation of 600 hectares and will benefit 800 farmers.

### **Courjolle irrigation system**

The works on the Courjolle irrigation system include the curing of 1,441 meters of the primary canal; the cleaning of 1,913 meters of secondary canals; the construction of 47 meters of secondary canals in concrete; and the plugging of breaches in the secondary canals on 139 meters to facilitate water flow. This system will enable the irrigation of 1,500 hectares and will benefit 500 farmers.



### **Torcelle irrigation system**

The works on the Torcelle irrigation system include the cleaning of the intake, including a 75m<sup>3</sup> intake basin ; the cleaning of 65 meters of canal between the intake and the main canal ; the curing of the main canal with the building of masonry walls on 1,720 meters ; the raising of the primary canal on 200 meters; the cleaning of secondary canals with masonry walls on 2,700 meters; and the plugging of breaches in the secondary canals on 190 meters to facilitate water flow. This system will enable the irrigation of 1,500 hectares and will benefit 500 farmers.

## *Gonaïves Region*

### **Installation of the irrigation pump number 34 in Tarasse area**

As part of the transition plan out of Gonaïves adopted following the recommendations of the RIG audit, FTF West/ WINNER ordered a new pump to replace the F34 pump, which is used to irrigate part of the Gonaïves plain. The pump was purchased abroad and sent to Haïti. It was installed in the third quarter of FY 2012. This pump allows for the irrigation of the Tarasse CRDD as well as a section of the Gonaïves plain.

### *Maintenance of irrigation infrastructure*

In FY 2012, the federation of water users associations of the Rivière Grise perimeter (Association des Irriguants de la Rivière Grise (AIRG)) became operational. The association receives its legal recognition and a management committee was selected at the first general assembly. The association includes 1,029 members. In FY 2012, members of the association cleaned 23,532 meters of canals. Although dues for the maintenance of the Rivière Grise irrigation system were set at 1,000 gourdes per hectare per year; AIRG has found it difficult to

collect fees so far. Over time, as members experience the value of well maintained irrigation canals, the fee collection should increase. FtF West/WINNER will continue to raise the awareness of farmers on the importance of maintaining irrigation canals.

## SECTION III. WATERSHED STABILITY IMPROVED

### 1. Hillsides protected

#### a. Soil conservation and ravine treatment

During Fiscal Year 2012, FtF West/WINNER implemented 25 soil conservation and ravine treatment projects. As of the end of September 2012, 15 of these projects were completed and 10 are still ongoing.

In total, 19 soil conservation and ravine treatment projects were implemented in the Cul-de-Sac corridor, 5 were implemented in the Matheux corridor and 1 in the Mirebalais region.

Overall, these projects have resulted in the treatment of 36.3 kilometers of ravines through the installation of 62,565 cubic meters of dry walls gabions; and the stabilization of 280 hectares of hillsides through the plantation of 280,569 trees (with 80% fruit trees) and the installation of 2.6 million plants of vetiver. The impact of these projects has been very positive on both the management of the sub-watersheds around the ravines and the protection of agricultural infrastructures in the productive plains downstream from the critical ravines. For example, in Mirebalais, the treatment of the Cana ravine, has allowed 28.9 hectares of hillsides to be stabilized and has contributed to the development of agricultural production on 375 hectares of irrigated land. Because the irrigation system is no longer threatened by sedimentation, the farmers of the area of Pilon Marcellin can now cultivate their land all year around.

In all regions, the dry walls and gabions installed in the middle of ravines have had very positive impacts. In fact, taking into account their length, their width, and their height, we estimate that around 164,300 m<sup>3</sup> of sediments have been trapped between the anti-erosive structures. In the absence of these structures, a large portion of these sediments would have threatened the productive plains and rivers downstream of the ravines. In addition, the land between the gabions and dry wall is reclaimed by farmers for agricultural production. In fact, in all areas of the FtF West/WINNER project, farmers benefit from the sediments trapped by the anti-erosive structures installed for ravine treatment, as shown in the pictures below.

The soil conservation activities, including the trees and vetiver planted on hillsides, and the gabions installed in the middle of ravines, have greatly contributed to increasing the infiltration of water in the soil, resulting in new water springs. This is notably the case in the Sarthe ravine, where water has resumed in a spring following the implementation of soil conservation and ravine treatment activities by FtF West/WINNER.

The table below summarizes the main achievements of the FtF West/WINNER project in soil conservation and ravine treatment activities in Fiscal Year 2012 (October 2011 – September 2012).

**Table 16 . Summary of soil conservation and ravine treatment activities by FTF West /WINNER in Fiscal Year 2012 (October 2011 – September 2012)**

Region	Cul de Sac Corridor			Mirebalais	Matheux corridor		Total
	Pétion-Kenscoff	Thomazeau	Ganthier		Ravine treatment	River bank stabilization	
Number of projects	12	4	3	1	2	3	25
# of people trained	445	142	129	32	64		812
M <sup>3</sup> of dry	9,065	20,844	13,785.8	4,584.9	7,087.5	7,198	62,565.2

walls and gabions installed							
Kms of ravines treated	9.6	12.5	7.5	2.5	4.2		36.3
M <sup>3</sup> of sediments trapped	76,800	30,000	42,000	5,000	10,500		164,300
Trees planted	41,138	122,319	61,167	16,000	39,945		280,569
# of plants of vetiver installed	381,000	1,163,150	443,950	157,400	487,000		2,632,500

The pictures below illustrate the impacts of soil conservation activities

*Structures and gauges installed to measure the volume of sediments trapped*



*Agricultural production between anti-erosive structures*



*Resurgence of water springs due to the installation of gabions in the ravine beds*



*Water flowing in the main irrigation canal as a result of the ravine treatment implemented above the Pilon Marcellin irrigation system in Mirebalais*



## **b. Sustainable hillside agriculture**

### **Kenscoff CRDD**

- Construction of an access road to the CRDD
- Completion of the construction of the training center.
- Construction of the new 20.000 gallon capacity storage tank.
- Reconstruction of 7 tin covers for the vegetable nurseries after tropical storm ISAAC.
- Organization of 5 meetings with members of the Kenscoff CRDD steering committee to present the sales reports of farm products and in preparation of the transfer of the CRDD operations to the future cooperative.
- Repair of the CRDD fence.

### **Research and demonstration activities undertaken at the Kenscoff CRDD**

- Experimental plot of 800 m<sup>2</sup> to test the condor potato variety. Yields of 23,17 t/ha were obtained.
- Test of organic fertilizer (compost coming from Jamaica) on the growing of cabbage in an experimental plot. Yields of 35 t/ha were obtained with the organic fertilizer as opposed to 27 t/ha with chemical fertilizer.
- Installation of a tunnel to dry grains resulting in a decrease in the drying time from 5 days to two days.

- Installation of an orchard of 1000 coffee plants.
- Field trials to test two potato varieties (granola and IDIAP).
- Field trial of the violet cabbage variety.
- Trial of the economic profitability of small scale chicken farming.
- Installation of a nursery for agro-forestry including 1,200 cedar; 1,145 coffee and 523 avocado tree seedlings.
- Plantation and harvest of 859 bulbs of gladiolas and 2,312 chrysanthemum cuttings.

## **Duvier CRDD**

- Activation of the Duvier CRDD management committee;
  - Eight meetings were organized with members of the management committee to prepare the transfer of the Duvier CRDD to the future cooperative.
  - The construction of the Duvier CRDD was completed in 2012 and the CRDD was inaugurated on June 8<sup>th</sup> 2012, in the presence of the mayor of Petionville and the regional Director of the Ministry of Agriculture.
  - A plot was installed for field trials of the production of Anthurium flowers.
  - The CRDD experimented with the production of chickens and rabbits to show farmers of the Duvier area the potential for alternative sources of revenues from small scale animal production.
  - 15 open field days were organized in the reporting period to show farmers of the area good agricultural practices. Overall, about 1,000 farmers attended these field days.
- Research and demonstration activities at the CRDD.
  - Field trial of the Monsanto cabbage variety to compare the use of chemical vs. organic fertilizer. The results of the trials showed yields of 36 t/ha without fertilizer, yield of 56 t/ha with organic compost, and yields of 85 t/ha with the application of 15-15-15 chemical fertilizer combined with urea.

## **Development of greenhouses in hillside areas**

One of the major accomplishments of the FtF West/WINNER program in FY 2012 was the dissemination of greenhouses in hillside areas. The flagship greenhouse installation is that of APFCK in Furcy. With assistance from the project, APFCK installed 10 greenhouses equipped with drip irrigation and hooked to solar panels. With the greenhouses, APFCK has increased flower production, is able to produce quality products for a high value local market, and is providing technical assistance to build greenhouses for other farmer associations of the area.

In the third quarter of FY 2012, FtF West/WINNER started the implementation of 156 greenhouses (78m<sup>2</sup> each) in the commune of Kenscoff. More than 20 associations have been identified for receiving the greenhouses. The goal of this project is to provide sources of income to hillside farmers from high value agriculture under greenhouse and to free up land currently being cultivated on steep slopes for agro-forestry. This project is expected to help more than 16,700 farmers to increase their income in the Kenscoff area. The greenhouses will be used for vegetable and flower production. With the use of drip irrigation and vertical and protected agriculture, yields per hectare can be twenty time as high as they are in open field conditions. The materials to build the greenhouses have been distributed and we expect the greenhouses to be fully installed by the end of December 2012. With the installation of greenhouses, farmers in the Kenscoff are will significantly increase their agricultural income. Producers of flowers will be able to prepare products based on market conditions. Vegetable producers will be linked to conditioning centers that will establish contracts with supermarkets, hotels and restaurants for the sale of high quality local products.

## **2. Watershed governance improved**

### **a. Watershed management plans**

The draft watershed management plan for the Cul-de-Sac watershed was completed in July 2012. The plan includes a detailed diagnostic of the key factors affecting watershed degradation; presents a land use land cover map of the Cul-de-Sac that shows precisely how the land is currently used; identifies specific strategies for stemming watershed degradation; and proposes specific actions to address the key drivers.

The draft plan has been shared with CIAT and FtF West/WINNER will organize a large workshop in November 2012 to present the plan to the Haitian Government and to stakeholders.

The major use of the watershed management plan will be to develop zoning policies at the communal level. WINNER will organize communal workshop to help decision makers make informed zoning choices based on the most judicious use of available resources, the respect of existing laws and regulations, and economic efficiency.

For the Matheux watershed management plan, subcontractor RPI has acquired the satellite images of the Matheux regions and has digitalized them into a GIS platform. The Matheux land use land cover map will be available in November 2012 and we will start drafting the Matheux watershed management plan soon thereafter.

### **b. Disaster preparedness**

In FY 2012, we completed the disaster contingency plans for Thomazeau, Tabarre, and Arcahaie. The plans that had been in place for the Cul-de-Sac plain were activated by the Direction de la Protection Civile (DPC) during the passage of tropical storm ISAAC in August 2012. The local civil protection committees were fully activated in Croix-des-Bouquets and Thomazeau, and they used the plans to warn the population, prepare shelters, and ensure coordination during the tropical storm.

This year, we also launched an international bid for the installation of a Flood Early Warning System (FEWS) for the Cul-de-Sac plain. The firm SUTRON was selected and they had a reconnaissance trip to Haiti in the Spring of 2012. The technology has been selected and the equipment has been purchased and is in Haiti. The WINNER team also identified the locations for the installation of the equipment and secured authorizations from the Ministry of Interior. The installation of the FEWS for the Cul de Sac will start before the end of 2012.

### **c. Support to the government**

In FY 2012, Feed the Future West/WINNER continued to provide support to the Haitian Government. With the Ministry of Agriculture, FtF West/WINNER prepared a draft law on seeds that sets a regulatory framework for the certification and distribution of quality seeds. The project also worked with the International Fertilizer Development Center (IFDC) to conduct a study on the constraints to the development of the fertilizer industry in Haiti. This study made recommendations on how to improve the availability and distribution of fertilizer in Haiti. During this reporting period, FtF West WINNER supported and sponsored several events with the Ministry of Agriculture including the agricultural fair, the launch of agricultural campaigns, and the rehabilitation of irrigation systems.

The FtF West/WINNER project worked with the Ministry of Environment to launch the Autorité Nationale Désignée as part of the Clean Development Mechanism. This work fell under the climate change adaptation

earmark. The project also worked with the Ministry of Environment to provide equipment for the wardens of the Agence Nationale des Aires Protégées for the monitoring of Parc La Visite.

FtF West/WINNER worked with the CIAT on the preparation of the Cul-de-Sac watershed management plan; with the Département de la Protection Civile of the Ministry of Interior and municipal civil protection committees on the preparation and implementation of disaster contingency plans. In FY 12, FtF West/WINNER also shared with Municipalities of the Cul-de-Sac corridor GIS maps of land use and land cover that can be used to prepare zoning decrees.

### 3. Tree cover increased

Table 16 presents a summary of the 2012 agro-forestry campaign. Overall, FtF West/WINNER worked with 47 nurseries to produce 2.2 million tree seedlings. As of September 30<sup>th</sup> 2012, over 900,000 trees had been transplanted.

**Table 16. Summary of the 2012 agro-forestry campaign**

Zone	# of nurseries	# of tree seedlings produced	# of trees transplanted
Cul de Sac (Kenscoff)	13	1,177,250	715,016
Cul de Sac (Croix des Bouquets)	12	572,000	180,328
Matheux	22	461,000	6,430
<b>Total</b>	<b>47</b>	<b>2,210,250</b>	<b>901,774</b>

#### *Cul-deSac plain*

In the Cul-de-Sac plain, 11 associations were selected to manage nurseries and produce tree seedlings for the upcoming agro-forestry campaign. The table below provides key data on these associations.

**Table 17. Associations participating in the 2012 agro-forestry campaign in the Cul-de-Sac plain**

No	ASSOCIATION	NUMBER OF MEMBERS			Area to be planted with trees (Ha)
		Men	Women	Total	
1	AJAD	64	137	201	777.87
2	ACIDEVTT	125	75	200	774
3	ASPEK	300	350	650	3225
4	ASOJEDEP	95	205	300	677.25
5	OPVH	62	38	100	193.5
6	JADEG	115	65	180	580.5
7	M. P. D. L. M. B	130	200	330	1161
8	GARPRON	56	45	101	325.725
9	APPADAM	73	56	129	416.025
10	BELAD	70	80	150	483.75
12	MKZPB	263	290	553	1548

Total	1833	1701	3534	10794.72
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Overall, 572,000 tree seedlings are planned for production in the Cul-de-Sac plain (341,000 forest trees and 231,000 fruit trees) with the 11 associations presented above. Five agronomists have been recruited by FtF West/WINNER to assist the associations with the establishments of the nurseries and to monitor the transplantation operations.

As of the end of September 2012, 180,328 tree seedlings were ready for transplantation. The transplantation will start in October.

**Table 18. Tree seedlings ready for transplantation in the Cul-de-Sac plain as of September 2012**

Association	Seedling Production target	Seedlings ready to be transplanted					Area to be reforeste	Beneficiaries		
		Mango	Grapefruit	Cedar	Oak	Total		H	F	T
AJAD	50000			7000		7000				
ASPEK	50000	13300				13300				
ASSOJEDEP	50000			15000		15000	121.47	40	67	107
ACIDEVTT	50000	7350		1276		8626	9.09	20		20
OPVH	50000	2780				2780	11.67	25		25
JADEG	50000	8250	0	6000	10000	24250				
MPDLMB	50000	8000	0	5000	4000	17000				
APPADAM	60000	14000	0	14977		28977		168	65	233
GARPRON	61000	13576	0	12321		25897		170	54	224
BELAD	50000	8000	0	8000	6000	22000				
MKZPB	51000	7000	0	5498	3000	15498				
<b>TOTAL :</b>	<b>572000</b>	<b>82256</b>		<b>75072</b>	<b>23000</b>	<b>180328</b>	<b>142.23</b>	<b>423</b>	<b>186</b>	<b>609</b>

## Kenscoff

Table 19 presents a summary of the winter 2011 agro-forestry campaign in Kenscoff, table 20 presents the FtF West/WINNER partnership with DINASA in Kenscoff, and Table 21 presents a summary of the 2012 agro-forestry campaign in Kenscoff.

**Table 19. Summary of the winter 2011 agro-forestry campaign in Kenscoff**

	Cedar	Capable	Oak	Mahogany	Frêne	Grevilia	Jimpa	Total Forest trees	Orange	Corrossol	Lime	Cachiman	Grape
<b>Objective</b>	302,486	84,660	125,012	27,500	70,000	14,500	8,000	632,158	191,512	5,000	160,700	36,950	141,900
<b>Transplantation /Production</b>	99,882	125,986	124,371	30,031	83,782	31,870	3,087	499,009	19,230	3,188	119,830	36,906	26,550
<b>% of tree seedlings transplanted</b>	33%	148%	99%	109%	119%	219%	38%	79%	10%	64%	74%	99.8%	19%
<b>Beneficiaries</b>								609 Women					
<b>Area ( Hectares)</b>													

**Table 20. FtF West/WINNER-DINASA partnership in Kenscoff - 2012**

Region	Associations	Tree seedlings sold	Sales price (HTG)	Tree seedlings transplanted	Tree seedlings in nurseries	Aera planted (hectares)	# of beneficiaries
Kenscoff	13	572,417	4,293,127.5	572,417	0	612.71	1774 (1377M+397F)

**Table 21. Summary of the 2012 agro-forestry campaign in Kenscoff**

	Cedar	Mahogany	Oak	Grevilia	Capable	Total Forest trees	Orange	Grapefruit	Total Fruit trees	Grand total
<b>Objective</b>	98,000	58,500	78,000	18,000	5,000	257,500	298,000	362,000	660,500	918,000
<b># of seeds used</b>	102,900	61,425	81,900	18,900	5,250	270,375	318,860	387,875	706,735	977,110
<b># of seeds germinating</b>	56,972	28,619	72,741	25,648	2,000	185,980	97,067	19,187	116,254	302,234
<b>Germination rate</b>	55%	47%	89%	136%	38%	69%	30%	5%	16%	31%

### Coffee campaigns in Kenscoff

In the fall and winter of 2011, 82,640 coffee plants were transplanted in the Kenscoff area. For the 2012 campaign, materials were provided to nine farmer associations with the objective of producing 2 million coffee plants.

Table 22 provides a summary of the agro-forestry campaign in the Matheux corridor

**Table 22. Summary of the 2012 agro-forestry campaign in the Matheux corridor**

Association	Tree seedlings to produce		Quantity in nurseries		Qty ready to transplant	Observations
	Forest trees	Fruit trees	Forest trees	Fruit trees		
OFATA	10,000	20,000	6,720	4,350		Missing seeds to be collected
ATAIB	6,000	14,000	5,560	5,100	830	Cedar trees are ready to transplantation
EUDA	6,000	19,000	6,510	3,920		Missing seeds to be collected
MCDG	10,000	15,000	11,269	0		Citrus seeds to be collected
KAPPG	6,000	19,000	7,337	2,263		Citrus seeds to be collected
AT6	5,000	7,000	6,345	9,448	5,600	60% of mango trees are ready to transplant.
UPG	6,000	14,000	8,562	0		Citrus seeds to be collected
GVADK	9,000	21,000	3,600	2,040		Missing seeds to be collected
OPADH	10,500	14,500	1,320	8,378		
VDC	10,000	20,000	3,730	4,800		Citrus sees to be collected
GRADC	3,000	7,000				Seeding in process
JPODA	3,000	7,000				Installation phase
JMA	3,000	7,000	2,180			Seeding in process for fruit trees
REIDEC	6,000	14,000		1,560		Citrus and avocado seeds being collected
ONADEV	6,000	19,000				Installation phase
AFLA	5,000	10,000				Seeds being collected
ASSEMA	6,000	19,000				Seeding of fruit trees
KODEP	10,000	20,000	3,646	0		Seeds being collected
OPD8	10,000	20,000	5,470			Seeds being collected
AJADCO	6,000	19,000		1,000		Seeding and some seed collection in process
ACOP	3,000	7,000	926	1,700		
CODCOA	3,000	7,000	1,800	6,502		
<b>TOTAL</b>	<b>142,500</b>	<b>318,500</b>	<b>74,975</b>	<b>51,061</b>		

WINNER organized three days of training for nurserymen in August 2012. Fruit tree seeds are being collected, particularly to replace grapefruit seeds with poor germination rate and to find mango seeds that were not available at the start of the campaign.

**Coffee agro-forestry campaign in the Matheux corridor**

Six coffee nurseries are already operational in the Matheux corridor and 4 new ones are in the process of installation. The table below summarizes coffee agro-forestry activities in the Matheux corridor.

**Table 23. Coffee nurseries in the Matheux corridor**

Area	Associations	Coffee Plants sold	Price	Coffee plants transplanted	Plants un nurseries	Area planted (ha)	Progress to date
Terre nette	KODEP			10,574	20,000		Plants transplanted
Goyavier	KAPPG				40,000		Plants transplanted

Area	Associations	Coffee Plants sold	Price	Coffee plants transplanted	Plants un nurseries	Area planted (ha)	Progress to date
	AT6			12,000	30,000		Plants transplanted
	KEBJ3A				20,000		Plants transplanted
	MCDG				30,000		Plants transplanted
8 <sup>e</sup> Montrouis	OPD8			11,000	30,000		Plants transplanted
Délices	MOJEPRELAD A				20,000		Installation phase
	MJPD				20,000		Installation phase
Fonds-Bapt.	CUPEC				80,000		Installation phase
	SOCODEC				40,000		Installation phase

## Partnership with DINASA

On February 27<sup>th</sup> 2012, we launched the first large-scale partnership with the private sector to promote agro-forestry initiatives, under the “Plante Lavni” program with DINASA. This program worked very well, since 830,000 seedlings have been sold to DINASA, at the end of September 2012, by WINNER-supported organizations and transplanted in target areas located in our zones of intervention. Farmers are encouraged to maintain and expand nurseries set up with WINNER’s financial and technical assistance. This creates the conditions for a sustainable partnership between our associations and DINASA that will go beyond the end of WINNER.



## Support the development of the mango value chain

### a) Mango harvesting

For this year’s harvesting of francisque mangoes, WINNER provided grants of equipment to farmer associations selling mangoes to exporters in order to reduce the number of rejected mangoes at the factory gates, and to improve the hygienic conditions under which post-harvest operations occur. In this quarter, WINNER assisted 10 associations, including 2 in Mirebalais, 3 in Saut-d’Eau and 5 in Cabaret. A total of 1,600 mango farmers were assisted in reducing post-harvest losses. In the Matheux corridor, 4 associations received equipment to help them reduce post-harvest losses including mobile collection centers, tents, crates, sorting tables, scales and water storage drums. (Table 9).

### b) Grafting activities

- 17,417 mango trees were grafted (5,117 in Mirebalais and 12,300 in Saut d’Eau).
- An assessment is underway to determine the success rate of grafting operations.

**Table 24. Materials and equipment for mango handling provided to farmer associations**

#	Associations	Number of mobile collection centers	Tents	50 kg scales	Number of crates	Sorting tables	Water drums
<b>Mirebalais-Saut d'Eau</b>							
1	AJBS	2	2	1	1000	2	4
2	CODAF	2	2	1	500	2	4
3	MJPM	2	2	1	300	2	4
4	OFPDD	2	2	1	500	2	4
5	KDMC	2	2	1	500	2	4
6	ASCUDEC	2	2	1	500	2	4
7	APWOMOPA	5	5	1	1000	5	10
8	VDC	2	2	1	500	2	4
9	APAM	3	3	1	1000	3	6
10	MOSOPA	4	4	1	1000	4	8
<b>Subtotal</b>		<b>26</b>	<b>26</b>	<b>10</b>	<b>6800</b>	<b>26</b>	<b>52</b>
1	APWOMOPA	5	5	1	1000	5	10
2	ASCUDEC	2	2	1	500	2	4
3	APAM	3	3	1	1000	3	6
4	VDC	2	2	1	500	2	4
<b>Subtotal</b>		<b>12</b>	<b>12</b>	<b>4</b>	<b>3000</b>	<b>12</b>	<b>24</b>
<b>Grand Total</b>		<b>38</b>	<b>38</b>	<b>14</b>	<b>9800</b>	<b>38</b>	<b>76</b>

Table 25 shows the quantity of mangoes sold to exporters by WINNER supported farmer associations in the 2012 campaign. Overall, WINNER supported associations sold 105,000 dozen mangoes to exporters (compared to 52,000 dozen in 2011). The rejection rate was reduced from an average of 20% in 2011 to 14% in 2012. The relatively low rejection rate compared to previous years (up to 25%) was due, in part, to the provision of crates and mobile collection centers by WINNER. However, the associations that were supported by WINNER last year in the Mirebalais / Saut d'Eau region sold fewer mangoes to exporters than last year. This is because (1) the prices of mangoes increased in the local market, and (2) the major exporter JMB, who is used to source mangoes from this region, did not operate this year.

**Table 25. Quantity of mangoes sold to exporters by WINNER supported farmer associations (2012 campaign)**

Association	Quantity purchased in 2011 (dozens)	Quantity sold to exporters in 2011 (dozens)	Percentage sold	Quantity purchased in 2012 (dozens)	Quantity sold to exporters in 2012 (dozens)	Percentage sold
<b>RAPCOM</b>	8,500	7,500	88.2%	3,400	3,400	100.0%
<b>SAPKO</b>	20,000	15,000	75.0%	16,134	16,134	100.0%
<b>COEPDA</b>	16,000	14,469	90.4%	13,915	13,380	96.2%
<b>CETPA</b>	20,000	15,000	75.0%	13,000	13,000	100.0%
<b>AJBS</b>				7,000	5,000	71.4%
<b>CODAF</b>				3,059	300	9.8%
<b>MJPM</b>				14,589	11,518	78.9%
<b>OFPDD</b>				10,559	10,500	99.4%
<b>KDMC</b>				10,500	5,002	47.6%
<b>APWOMOPA</b>				343	343	100.0%
<b>VDC</b>				11,126	10,000	89.9%
<b>MOSOPA</b>				3,138	2,559	81.6%
<b>Total</b>	<b>64,500</b>	<b>51,969</b>	<b>80.6%</b>	<b>106,763</b>	<b>91,136</b>	<b>85.4%</b>

## SECTION IV. AGRICULTURAL MARKETS STRENGTHENED

This section presents FtF West/WINNER's progress in FY 2012 in strengthening agricultural markets, including road rehabilitation, public-private producer partnerships, value chain integration, and the reduction of post-harvest losses.

### 1. Transportation systems improved

On November 23<sup>rd</sup> 2011, the rehabilitated road between Williamson and Fonds Baptiste in the Matheux corridor was inaugurated. This 17.2 km road provides an important outlet for the agricultural products of the Fonds Baptiste area. The productive plains of Montrouis and Arcahaie can be protected by increasing sustainable agriculture in Fond Baptiste.

This fiscal year, FtF West/WINNER conducted detailed cost-benefit analyses for the Dumay and Merceron roads in the Cul-de-Sac plain using a USAID-sanctioned methodology. In addition, a beneficiary analysis was conducted for these roads, as well a vehicle count. The detailed technical drawings and bid documents for the Dumay road rehabilitation were prepared, the bid was launched and the contractor was selected. For the Merceron road, the detailed bid documents were prepared and the bid was launched. We expect the bid evaluations by the end of October. Both roads will provide critical infrastructure for the evacuation of agricultural goods to the intended markets.

FtF West/WINNER built a 600 meter access road to the Kenscoff CRDD. This road construction started at the end of 2011. However, due to heavy rains and poor drainage conditions, this road will require further rehabilitation to ensure safe access to the CRDD.

FtF West/WINNER participated in several meetings chaired by the Haitian First Lady as part of the Aba Grangou initiative. At these meetings, the rehabilitation of roads leading to mango producing areas in FtF West/WINNER's corridors was discussed. The Ministry of Public Works is taking the lead in identifying the priority roads targeted for rehabilitation.

#### *Maintenance of road infrastructure*

The Fonds Baptiste road maintenance association was also created and has been active in the maintenance of the rehabilitated Fonds Baptiste road. As FtF West/WINNER embarks on major infrastructure developing in the coming year (Dumay and Merceron roads; Rivière Grise diversion dam), the commitment and involvement of the Haitian Government in the maintenance of critical infrastructure will become even more important.

### 2. Partnerships with the private sector

<b>Kenscoff</b>			
<b>Region/Activities</b>	<b>General Information</b>	<b>Progress to date</b>	<b>Next steps</b>
<b>EDAG</b>	This is project to rehabilitate, clean, and reuse wastes from the Kenscoff and Fermathe rural markets. EDAG's objective is to create alternative sources of income through the collection and recycling of plastic waste products in these markets.	In this quarter, a plastic compacting unit was installed at the Kenscoff market and was inaugurated in April. EDAG trained youth in Kenscoff on opportunities in the collection and recycling of plastics and on the use of the compacting unit. Once plastics are compacted, they are sent to recycling centers that pay for the compacted	The Kenscoff market was rehabilitated with the help of Mexico. In order to ensure a sustainable management of the Kenscoff and Fermathe markets, a system for managing and reusing organic wastes should be set up, as well as a better organization of sellers on modern techniques for displaying and selling products.

		plastic. The system is experimenting with the use of mobile money for financial transactions.	
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***Continue collaboration between producer groups and private enterprises***

Ken Michel of HITSA, a distributor of agricultural products, provided training to farmers in FtF West/WINNER areas of intervention on the quality control of their products and the management of the revenues they derive from farming. The table below summarizes the trainings provided.

<b>Region</b>	<b>Number of people trained</b>	<b>Content</b>
Kenscoff	23 people: 11 women and 12 men	Quality control and management of revenues
Cul-de-Sac	80 people : 45 women and 35 men	Quality control and management of revenues
Matheux	56 people : 19 women and 37 men	Quality control and management of revenues

**Partnership with Rhum Barbancourt**

With the assistance of the University of Florida, FtF West/WINNER assisted Rhum Barbancourt in installing a center for the multiplication of new sugar cane varieties on 3 hectares. This initiative seeks to provide farmers with varieties that are more adapted to the needs of the distillery.

***Experimental plots for the multiplication of new sugar cane varieties in the Cul-de-Sac plain at the farm of Rhum Barbancourt***



### 3. Commercialization of agricultural products

#### Mache Peyizan

During FY 2012, FtF West/WINNER provided technical assistance to farmers in its areas of intervention for the commercialization of their products. In January 2012, WINNER launched a farmers market called « Mache Peyizan ». This market provides an opportunity for farmers of the Cul-de-Sac and Matheux corridor to sell their produce directly to consumers in Port-au-Prince.

#### Key achievements in the commercialization of agricultural products

- Implementation of a data base that tracks the products available for sale from each farmer association interested in selling at the « Mache Peyizan » and other venues (quantity of product available, characteristics (e.g., color, size), and price). The data base is updated every fifteen days and is used to organize the sale of products at the « Mache Peyizan » and in supermarkets.
- FtF West/WINNER keeps permanent contact with the farmer associations with respect to the availability of products. Several meetings were organized at the Bas Boen CRDD and the Kenscoff office on the importance of product quality and presentation.
- Planification and coordination of the participation of farmers to six regional fairs in Pétiyon ville, Delmas, Damien, Kenscoff, and Mirebalais.
- Organization of 17 « Marche Paysan » from January to September 2012.
- Organization of the commercialization day on May 17th 2012.
- Organization of two training workshops on the control of product quality.
- Meetings with the federation of associations in the Cul-de-Sac plain.
- Coordination of orders between the farmer associations and supermarkets (Giant, Big Star, Caribbean, Kompa mini market, Provigo), restaurants (La Coquille, The View, Coin des Artistes), hotels (Kinam, Villa Créole) and other large buyers (Jehova's witnesses in Santo) .

**Table 26. Summary of commercialization activities from October 2011 to September 2012**

Associations	Value of sales (Gourdes)				Total
	Nov-Dec 2011	Jan-March 2012	April-June 2012	July-Sep 2012	
ADEBABO	5,075	30,673	525	6,545	42,318
OPADEC	2,829	49,003	8,580	12,890	73,302
ACPDD	1,110	26,183	9,402	282,912	319,607
MITH		7,068			7,068
OPDAK		3,780	1,505		5,285
OPVH		36,645	17,370	12,392	66,407
ACIDEVTT	2,303	56,107	109,462	94,189	262,061
OJUDO		15,180		423,920	439,100
FEPBSH		36,949			36,949
AAS		36,163		40,534	76,697
AJDCGD		8,597	6,100	2,830	17,527
0TPDBC		5,535	10,515	39,884	55,934

Associations	Value of sales (Gourdes)				Total
	Nov-Dec 2011	Jan-March 2012	April-June 2012	July-Sep 2012	
APDAPH		2,410	1,581	4,175	8,166
OPTDC		625		3,225	3,850
ORFEB		25,800			25,800
FEDEPAT	205,350	28,750			234,100
GRAFIDGRAP	6,140	8,441		7,525	22,106
ADIM		12,805	15,565	25,190	53,560
OJEDEC		4,365	19,047	22,850	46,262
AJPD		1,150	13,275	1,244,005	1,258,430
ORP				2,075	2,075
AJHAD			12,000		12,000
PHASS			6,350		6,350
ASV			11,760	9,225	20,985
AAEB/D			1,590		1,590
MOPROF			2,500		2,500
MODEG			578	1,080	1,658
ODEB			1,250		1,250
ELITE			1,100		1,100
CODCT				1,835	1,835
OPDMO				1,500	1,500
GFVCT				10,131	10,131
MITH				12,350	12,350
PHASS				2,950	2,950
CRDD				23,324	23,324
PLTFTK				26,876	26,876
	222,807	396,229	250,055	2,314,412	<b>3,183,503</b>

**Table 27. List of products sold by the various associations**

<u>Association</u>	<u>List of products</u>
1. OPVH	Cassava, eggplant, shallots, grapefruit, lemon, sour orange, black beans.
2. ADEBABO	Sorghum.
3. FEPBSH	Beans, breadfruit.
4. ACIDEVTT	Beans, rice, thyme.
5ACPDD	Manioc, peppers, hot peppers, potatoes.
6. OPDAC	Potatoes, Eggplant, Okra, Plantain, Papaya.
7. OPDM/O	Okra, Papaya.
8. AAS	Rice, shallots, tomato, beans.
9. OTPDBC	Coconut, shallots.
10. MITH	Okra, spinach, beans, lime.
11. ORFEB	Corn meal, sour oranges, bananas, avocado, lime, mangoes, onion, peppers, beans, cherries.
12. OPADEC	Mangue, Epinard, mais moulu, noix de coco sèche,

13. GRAPHIGRAP	Potatoes, hot peppers, grapefruit, shalots.
14. AJPD	Papaya, breadfruit, spinach, beans, sour oranges.
15. OJEUDEC	Beans, lime.
16. FEDEPAT	Rice, beans.
17. OPTDC	Peppers.
18. OJUDO	Peppers, eggplant.
19. AJDCGD	Yuca, breadfruit, coconut.
20. APDAPHCT	Hot peppers, eggplant.
21. ADIM	Yuca, plantain, lime.
22. PHASS	Breadfruit, pepper, lime, sour orange, avocado, shallots, beans, eggplant, plantain, hot peppers.
23. ORP	Plantain, okra.
24. ASV	Beans, cornmeal, Sorghum, spinach.
25. AAEB/G	Plantain, yuca, papaya.
26. CODCT	Shallots, okra.
27. GFVCT	Rice, corn.
28. PLTFTK	Avocado, pumpkin.
29. MOPROF	Plantain, corn.
30. MODEG	Pumpkin, papaya.
33. ODEB	Lime, shallots.
34. ELITE	Yuca, shallots, sour orange.
35. AJHAD	Corn.

**Table 28. Sales Peyizan in the September 2012**

**at Mache period July –**

Dates	Cul de Sac Plain (Gourdes)	Kenscoff (Gourdes)	Matheux (Gourdes)	Total (Gourdes)
July 7 <sup>th</sup> and 8 <sup>th</sup> 2012	74,563	7,330	47,680	204,135
July 21 <sup>st</sup> 2012	40,494	21,876	18,195	80,565
July 27 <sup>th</sup> 2012 (MINUSTAH)	21,025	16,056	12,505	49,586
August 4 <sup>th</sup> 2012	39,138	12,585	13,135	64,858
August 18 <sup>th</sup> 2012	36,520	16,063	25,210	77,793
August 31 <sup>st</sup> 2012 (MINUSTAH)	15,795	8,322	22,470	46,587
September 1 <sup>st</sup> 2012	29,676	13,993	24,410	68,079
September 15 <sup>th</sup> 2012	38,595	12,715	30,675	81,984
September 28 <sup>th</sup> 2012 (MINUSTAH)	25,240	3,576	20,665	49,481
<b>Grand Total (gdes)</b>	<b>321,046</b>	<b>112,515</b>	<b>214,885</b>	<b>793,006</b>

**Table 29. Sales outside of the « Mache Peyizan » facilitated by FtF West/WINNER in the period July – September 2012**

<b>(Buyer/Seller)</b>	<b>Date des transactions</b>	<b>Cul de Sac Plain (Gourdes)</b>	<b>Kenscoff (Gourdes)</b>	<b>Matheux (Gourdes)</b>	<b>Total (Gourdes)</b>
	July 2012	252,954	36,1134	205,060	819,148
	August 2012	270,230	523,092	148,230	941,552
	September 2012	248,377	222,338	168,760	887,852
Contract between MFT and CRDD	September 2012				78,068
Contract between MFT and ACPDDD	September 2012				282,912
<b>Grand Total (gdes)</b>		<b>771,562</b>	<b>1,106,564</b>	<b>522,050</b>	<b>2,761,156</b>

<b>Region/Activities</b>	<b>General Information</b>	<b>Progress to Date</b>	<b>Next Steps</b>
Public markets of Arcahaie and Cabaret	In order to help improve the organization of vendors in the public markets of Arcahaie and Cabaret, FtF West/ WINNER obtained a demonstration space in the markets where we showcased modern techniques for displaying and arranging products.	The municipalities of Arcahaie and Cabaret have been contacted and have provided a space in each market for FtF West/WINNER to work with sellers of plantain on the proper conditioning and display of products. The public has seemed very interested in the new ways of showcasing products.	Disseminate techniques for the proper display and packaging of products in the Cabarat and Arcahaie markets.

#### **4. Reduction of post-harvest losses**

In this reporting period, post-harvest equipment was distributed by FtF West/WINNER to 21 associations in the Cul-de-Sac plain. The materials distributed included:

- 3060 tarps were distributed to 21 associations for the benefit of 340 farmers that also received technical assistance on post-harvest practices ;
- 70 humidity gauges were provided to the associations ;
- One thresher was provided to the OJEUDEC association
- As of September 20th 2012, 17 silos were distributed in the Cul-de-Sac plain.

These materials are expected to reduce post-harvest losses for corn, beans and rice in the Cul-de-Sac plain.

Region/Activities	General Information	Progress to Date	Next Steps
Mobile collection centers for plantain	Plantain farmers have a challenge in preserving product quality and face important post-harvest losses. However, simple techniques can help significantly reduce losses. FtF West/WINNER provided farmers of the Matheux corridor with mobile collection centers for the plantain harvest..	Seven farmer associations of the Matheux corridor received the necessary equipment for 21 mobile collection centers.  These associations are now equipped to install mobile collection centers near the production areas that will provide shade and allow for better sorting and conditioning of plantain before taking them to market.	With the use of mobile collection centers, farmers will need to continue to be trained on better product display in order to reach more valuable markets.

Region/Activities	General Information	Progress to Date	Next Steps
<b>Mirebalais, Saut d'Eau and Matheux corridor</b>			
<b>ADAIM &amp; DFSA (3.4.3)</b>	ADAIM is a farmer association in the Mirebalais / Saut d'Eau region that has activities which includes the transformation of agricultural products such as the preparation of jams and liquors. It works closely with producer organizations of the area. ADAIM signed an MOU with DFSA, a company involved in the export of dried fruits, for the implementation of a mango drying unit in Mirebalais. WINNER provided a grant to ADAIM for the implementation of the mango drying unit.	ADAIM received a grant from FtF West/WINNER for the implementation of a mango drying center. As of September 30 <sup>th</sup> 2012, the construction of the facility was complete and tests were underway to ensure that the production line was installed and working properly.	Inauguration of the facility.  Production of dried mangoes initially for the local market.  Production of other dried fruits to take full advantage of the facility and maximize revenues.

***Install conditioning and commercialization centers for hillside agricultural products***

Region/Activities	General Information	Progress to Date	Next Steps
<b>Kenscoff</b>			
<b>ODAI-L (3.4.3)</b>	ODAI-L is an association based in Kenscoff that received a grant from FtF West/WINNER to install a center for the pre-conditioning of fruits and vegetables from the area.  The association has a network of about 1,000 farmers that it will support through the center by providing a central place of aggregation and quality control of farm products.	The center has been built. However, some technical modifications are necessary to ensure that it is functioning properly. Once the technical modifications are made, the center will be ready to function. It is expected to be ready by the end of 2012.	Ensure that the center is completed properly and is functional.  Train ODAI-L in the proper conditioning of fruits and vegetables.  Assist with the development of linkages between ODAI-L and large buyers of fruits and vegetables (supermarkets, hotels, restaurants).

## SECTION V. PROJECT LEVEL ACTIVITIES

### 1. Scholarship Program

The eight scholarship students at the University of Florida received an extension of their J-1 visas this quarter. Isnel Pierreval is expected to graduate in August 2012 and 5 others are expected to graduate in December 2012.

On March 21<sup>st</sup> 2012, a team from WINNER and the USAID COTR visited the eight Haitian students working on their Masters degrees at the University of Florida in Gainesville. The students made a presentation of their research and the results are very encouraging.

One of the Haitian scholarship students, Isnel Pierreval, was admitted to the Honors program of the Food and Resource Economics Department of the University Florida's School of Agronomy.



During the visit to the UF, the WINNER staff took the opportunity to work on furthering the distance education program that will be implemented at the Bas Boen CRDD.

In this reporting period, WINNER signed an MOUs with the Université Quisqueya to provide support for three senior students to undertake research in WINNER's areas of intervention using CRDD resources. We also conducted interviews with candidates from the Université Episcopale d'Haïti, and we are proceeding with the selection process. Interviews are planned in the next quarter to select students from the Faculté d'Agronomie et de Médecine Vétérinaire (FAMV)..

This year, we also worked to develop the program to support Haitian agronomy students to do applied research at WINNER facilities in Haiti. Under this program, WINNER is working with the Faculté d'Agronomie et de Médecine Vétérinaire (FAMV), the Quisqueya University, the Episcopale University, and Notre Dame University. Students are selected based on an interview process and faculty members of each institution provide technical guidance to the students. The goal of this program is to build the capacity for graduating agronomists to gain valuable field experience and to learn about modern production techniques that can be applied in the Haitian context.

### 2. Capacity building of “Asosyasyon Chanpyon”

Last year, FtF West/WINNER launched the Asosyasyon Chanpyon (champion associations in creole) initiative to build the capacity of community-based organizations that practice modern agricultural practices and are good stewards of the environment. In FY 2012, FtF West/WINNER worked to federate the associations into cooperatives and to develop their capacities.

The first step in the development of the Asosyasyon Chanpyon was for them to adopt 10 principles of modern agricultural practices and good environmental stewardship. As of mid-December 2011, 272 associations had integrated the ten principles into their charter, making them eligible to become Asosyasyon Chanpyon. The table below summarizes the types of associations by area. Overall, these associations include over 108,000 members.

**Table 30. Distribution of “Asosyasyon Chanpyon” by Area**

<b>Area</b>	<b>Number of Associations</b>	<b># of members</b>	<b>Domains of activity</b>
Cul de Sac plain	124	38,824	Agriculture, soil conservation, commercialization
Cul de Sac hillsides	69	44,001	Agriculture, environment, commerce, infrastructure, livestock, flowers, construction, agro-forestry
Matheux corridor	30	16,264	Agriculture, mangoes, agro-forestry
Mirebalais / Saut d’Eau	49	8,947	Mangoes
<b>Total</b>	<b>272</b>	<b>108,036</b>	

In FY 2012, the « asosyasyon chanpyon » were regrouped into five regional cooperatives and 5 provisional committees were selected. Starting in April 2012, FtF West/WINNER provided training in administrative management, financial management, and accounting to 474 members of the associations. Overall, 65 days of training were provided by two consultants.

Specific training topics included:

- For administrative management
  - Learn how to hold regular general meetings;
  - Prepare regular meetings and follow-up on adopted resolutions;
  - Preparing a calendar of activities;
  - Learn how to draft statutes, internal regulations and keep books;
  - Learn to respect existing laws;
  - Learn to apply good agricultural practices.
- For financial management
  - Management of bank accounts;
  - General accounting principles;
  - Business plans preparation;
  - Annual budget preparation;
  - Management of assets (e.g., inputs, agricultural equipment);
  - Sales techniques;
  - Organization of office space.

A training session was organized from July 30<sup>th</sup> to August 4<sup>th</sup> 2012, in collaboration with the Conseil National des Coopératives (CNC), for the five provisional committees of the five regional cooperatives of Asosyasyon Chanpyons. Following the training, the cooperatives drafted the necessary documents to become officially recognized by the CNC as cooperatives.

As of the end of September 2012, the CNC was processing the requests for the five regional cooperatives of Asosyasyon Chanpyons to have full legal status.

### **3. Policy support**

In FY 2012, FtF West/WINNER worked on two important policy initiatives to support the development of agriculture: the preparation of a draft law on seeds and a detailed technical analysis of the fertilizer sector with specific policy recommendations.

The draft law on seeds was prepared in close consultation with the Ministry of Agriculture and provides definitions of seeds, conditions for the production and distribution of quality seeds recognized by the Government, and identifies the roles of the Haitian Government in regulating the seeds sector.

The fertilizer study, conducted by an IFDC expert, analyses the current state of fertilizer imports in Haiti, constraints to the development of the sector, and makes policy recommendations for the Government to liberalize the sector and increase efficiency in the distribution and use of fertilizer.

#### **4. Value chain analysis**

FtF West/WINNER conducted an analysis of the target value chains to identify the key constraints and opportunities in the corn, beans, rice and plantain value chain. Dr. James Stearns from the University of Florida was fielded to prepare the analyses. In the summer of 2012, FTYF West/WINNER conducted field surveys in key wholesale markets on the circuits for commercializing the target products and the price points at different level of the value chain. As of the end of September 2012, the draft report was being prepared using the results of the field data collection.

#### **5. Gender strategy**

In August 2012, a team of consultants was fielded to prepare a gender strategy for FtF West/WINNER. The draft strategy includes an assessment of gender integration in the project so far, results from field data collection and focus groups, and specific recommendation on how to better integrate gender considerations systematically in FtF West/WINNER activities moving forward.

#### **5. Environmental Compliance**

During FY 2012, FtF West/WINNER was very active in working on environmental compliance issues. In addition to the upgrading of the agricultural input supply stores to bring them into compliance with the requirements of Regulation 216 (discussed in Section II above), FTF West WINNER prepared an environmental assessment (EA) for mechanized soil preparation; two scoping statements for USAID review (Dumay road and Rivière Grise diversion dam); and three umbrella EMPRs (BIAs, irrigation, and soil conservation and ravine treatment).

In addition, FtF West/WINNER entered into a subcontract with Sun Mountain International to revise and update the PERSUAP; and to prepare and deliver trainings on integrated pest management (IPM). As of the end of September 2012, the revised PERSUAP was completed, and the IPM training curriculum was being finalized. In the next quarter, Sun Mountain will come to Haiti to provide a training of trainers on IPM principles.

Following the recommendations of last year's RIG audit, FtF West/WINNER reinforced its environmental compliance staff by adding an environmental specialist. A dozen staff members attended the USAID-sponsored training on environmental compliance at Moulin sur Mer in April 2012. Following this training, project field staff were trained in June and July of 2012 on Regulation 216 compliance.

Finally, in August 2012, FTF West /WINNER conducted an assessment of the implementation of Global GAP certification for the target value chains. The report identifies the features of Global GAP certification that are applicable to the FtF West/WINNER target value chains and makes recommendations on how to move forward with the application of Global GAP principles.

## SECTION VI. COMMUNICATIONS

Communications continued to be very important to FtF West/WINNER. The project organized many high profile events, produced success stories, newsflashes, and an e-newsletter. In FY 2012, the project received extensive media coverage including print, radio and television. FtF West/WINNER was featured in Frontlines, the Global Waters magazine, and the Feed the Future newsletter. The notable events of 2012 include:

- Visit of the Bas Boen CRDD by President Martelly
- Inauguration of the irrigation rehabilitation of the Rivière Blanche
- Participation in the “agricultural, industrial, and crafts fair”
- Inauguration of the Bas Ben thermal power plant
- Launch of soil conservation and ravine treatment activities in Petionville
- Launch of the FtF West/WINNER-DINASA partnership for agro-forestry
- Inauguration of the Duvier CRDD.



*Haitian President Michel Martelly surrounded by Master Farmers during the visit of the Bas Boen CRDD in February 2012*

## SECTION VII. MONITORING AND EVALUATION

This section presents the results achieved in FY 12 for the FtF West/WINNER indicators. For the key indicators of average yield and gross margins, we used sample data from FtF West/WINNER's zones of intervention.

### *Average yield*

The average yield for beans was calculated from a sample of 129 farms in Kenscoff and a sample of 331 farms in the Cul de Sac plain. The overall average yield was 1.2 tons per hectare.

The average yields for corn was calculated based on a sample of 92 farms in the Cul-de-Sac plain. The average yield was 3.53 tons per hectare.

The average yield for rice was calculated based on a limited sample of 18 small farmers in different parts of the rice growing areas of the Cul-de Sac plain. The average yield was 5.03 tons per hectare.

For plantain, the new management systems introduced by WINNER have not yet resulted in harvests and measurable results. Next year, we will have data on the increase in yield for plantain resulting in the management practices introduced by WINNER.

### *Gross margins*

For gross margin, our estimates are based on field data for corn and beans, and on estimated values based on average yield for rice and plantain.

The gross margin per hectare was calculated based on the prescribed FTF methodology using five data points: (1) surface area (hectares), (2) production, (3) value of sales (USD), (4) quantity of sales, and (5) purchased input costs.

Price = value of sales / quantity of sales

Gross revenue = price x production

Net revenue = gross revenue – purchased input costs

Gross margin / ha = Net revenue / surface area

Using these formulas, the calculated gross margins were \$1,023/ha for beans; \$1,248/ha for corn; and \$1,371/ha for rice.

Table 31 presents a summary of progress toward key indicators in FY 2012.

**Table 31. Summary of Progress Toward Key Indicators in this Reporting Period (October 2011 – September 2012)**

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
	Per capita expenditures (proxy for income) of USG targeted beneficiaries									Increases in annual income are tracked on an annual basis. Results will be reported in the annual report.
	Per capita expenditures (proxy for income) of project- assisted rural households in USG target corridors									Increases in annual income are tracked on an annual basis. Results will be reported in the annual report.
4.5-4 F & FtF outcome	Gross margin per unit of land, kilogram, or animal of selected product (crops/animals/fisheries selected varies by country)	Corn: 551 Beans: 907 Rice: 960 Plantain: 2,340		Beans: 1,023		Corn: 1,249 Rice: 1,371	Corn: 760 Beans: 1,104 Rice: 1,311 Plantain: 3,048	Corn: 1,248 Beans: 1,023 Rice: 1,371		Gross margins for beans and corn from sample data bases of farmers. Gross margins estimated for rice and plantain based on average yields and costs of production. For plantain, the new management practices introduced by FtF West/WINNER have not yet resulted in harvested crops. We could not calculate gross margins for plantain because we did not have data on volume and value of sales in the Matheux (St Marc) corridor.
Outcome	% increase in yield per hectare in the targeted corridors	Corn: 368% Beans: 85% Rice: 118% Plantain: 21%					Corn: 22% Beans: 34% Rice: 15% Plantain: 12%	Corn: 341% Beans: 100% Rice: 129%		Cul de Sac corridor : Calculated based on FY 12 yields compared to the baseline: Beans (1.20), corn (3.53), rice (4.75) Yields for plantain were not collected in the Matheux corridor and are not reported
Outcome	Yield per hectare in the target corridors	Corn: 3,260 Beans: 1,044 Rice: 4,786 Plantain: 29,400		Beans: 1.20		Corn: 3.53 Rice: 5.03	Corn: 4.0 Beans: 1.2 Rice: 5.5 Plantain: 33.0	Beans: 1.20 Corn: 3.53 Rice: 5.03		Cul de Sac corridor : Calculated based on FY 12 yields: Beans (1.20), corn (3.53), rice (5.03)  Yields for plantain were not collected in the Matheux corridor and are not reported

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
4.5.2.17 F	Percent change in value of international exports of targeted commodities as a result of USG assistance	5%		75.3%			25%	75.3%		Difference in the value of exports from associations supported by FTF West/WINNER between FY 11 and FY 12. FY 2011 value of export was reported for all regions supported by FTF West/WINNER, and not just for associations directly supported by the project. The actual percentage increase is greater than the target because WINNER went from supporting four mango producer associations in FY 11 to 11 associations in FY 12.
4.5.2-36 FTF	Value of exports of targeted commodities as a result of USG assistance	\$2.38M		\$262,472			\$2.97M	\$262,472		FY 2011 value of export was reported for all regions supported by FTF West/WINNER. FY 12 number only includes associations supported by the project. Using the value of exports derived from associations supported by WINNER in FY 11, the target for FY 12 should have been \$187,000 (25% increase).
4.5.2.2-FTF	Number of hectares under improved technologies or management practices as a result of USG assistance	19,285			264	4,574	10,000	4,838		Hectares (4,300) in the Rivière Blanche irrigated perimeter put back into productive use with irrigation systems, New(537.71) ha under cultivation during agricultural campaign. The number achieved is lower than the target because it only reflects the new hectares under improved technologies or management practices. There are more than 10,000 hectares continuing to apply improved management practices.
4.5.2.4 F	Number of agriculture-related firms benefitting directly from USG-supported interventions	7					4	2		HITSA, APFCK

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
4.5.2.39-FTF	Number of technologies or management practices in one of the following phases of development: § ...in Phase I: under research as a result of USG assistance § ...in Phase II: under field testing as a result of USG assistance § ...in Phase III: made available for transfer as a result of USG assistance	21					4	10		Conical weeder (rice), roller marker (rice), pack frame (mango), cutter (mango), plantain management, mobile collection centers for plantain, in-vitro plantain plants silos, tarps, humidity gauges
4.5.2.5-FTF	Number of farmers and others who have applied new technologies or management practices as a result of USG assistance	20,826	3,750				10,000	13,668		All farmers supported by WINNER have applied at least one new management practice. Beans (6,300), corn (1,853), rice (451), plantain (1,211), mangoes (3,733), greenhouses in Kenscoff (120)
4.5.2.6-FTF	Number of individuals who have received USG supported long-term agricultural sector productivity or food security training							T : 33 M : 24 F : 9		University of Florida scholarships (8), Université Notre Dame (7), FAMV (10), Université Quisqueya (3), Université Episcopale (5)
4.5.2.7-FTF	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	T: 2,940 M: 2,075 F: 865	T: 2,038 M: 1,540 F: 498	T:2,156 M: 1,545 F: 611	T:1,754 M: 1,334 F:420	T: 2,085 M: 1,507 F: 578	T: 1,500 M: 1,050 F: 450	T: 8,033 M: 5,926 F: 2,107		The number of individuals trained is much higher than the target because it includes all attendees to training events supported by FtF West/WINNER. Master Farmer candidates attend multiple trainings. This will be adjusted in FY 13 to avoid double counting. There were 858 graduating Master Farmers in FY 12 (628 males and 230 females).
PL1	Number of hectares of hillsides protected thanks to USG assistance	9,327.40	284.8	82			11,590	4,413		Number of hectares of hillsides protected by ravine treatment (280) and number of hectares of hillsides planted with trees in FY 12 (4,133)
PL2	Volume of soil preserved in upper watershed areas	TBD <sup>1</sup>				164,300		164,300		Estimation of volume of soil trapped in gabions and dry walls installed by WINNER as part of ravine treatment
PL3 BSC	Number of kilometers of mechanical structures built/rehabilitated	45.81				36.3	80	36.3		36.3 kilometers of ravines treated in FY 12 using 62,565 m <sup>2</sup> of gabions.
PL4	Number of policies/laws and land use regulations implemented	1					1	0		No new policies were implemented in FY 12 as a result of WINNER assistance.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
12	Number of subwatershed management bodies formed and strengthened	0					4	1		Creation of AIRG – water users associations of the Riviere Grise.
PL6	Number of hectares covered with high value tree crops (fruit trees and noble forest wood) with project assistance	9,283	2,433			1,700	11,190	4,133		For Q4, 1.7 million trees planted, assuming an average density of 1,000 trees per hectare
Cust 4.8.1.4	Number of hectares under improved natural resource management as a result of USG support	9,283					4,300	4,413		Number of hectares of hillsides protected by ravine treatment (280) and number of hectares of hillsides planted with trees in FY 12 (4,133)
PL7	# of hectares in areas of natural resources showing improved biophysical conditions as a result of USG assistance	54.4					500	0		The agro-forestry program has not yet resulted in improved biophysical conditions. For other WINNER activities (e.g., areas of farmland of hillsides abandoned for greenhouses), we have not measured improvements in biophysical conditions.
Cust 4.8.1.5	Number of people receiving USG supported training in natural resources management and/or biodiversity conservation	T: 2,575 M: 1,731 F: 844	T: 136 M: 103 F: 33	T: 650 M: 448 F: 202	T: 260 M: 198 F: 62	T: 186 M: 126 F: 60	T: 1,500 M: 1,050 F: 450	T: 1,222 M: 875 F: 357		Trainings in environmental management, agro-forestry, BIAs, soil conservation
4.8.1.6 F	Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance	T: 56,083 M: 34,243 F: 21,840					T: 1,250 M: 875 F: 375	T: 60 M: 38 F: 22		Members of APFCK in Kenscoff having abandoned unsustainable farming practices on steep hillsides receiving economic benefits from greenhouses. The greenhouse program is expected to significantly scale up in FY 13, reaching considerably more farmers.  The actual results are much lower than the target because economic benefits cannot yet be demonstrated for beneficiaries of agro-forestry programs.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
4.5.2.23 FTF	Value of incremental sales attributed to FTF implementation or Value of farm sales	Corn: 3,069,000 Bean: 3,121,000 Rice: 900,000 Banana: 0					Corn: 3,489,000 0 Bean: 3,316,000 0 Rice: 1,650,000 0 Plantain: 1,121,000 0	Corn: 2,770,152 Beans: 9,754,200 Rice: 704,495		Value of incremental sales estimated based on the value of sales in FY 12 for target crops less the value of sales for target crops in the baseline.  The actual results vary significantly from the targets because the areas planted in corn and rice were lower than anticipated due to weather conditions that delayed the start of soil preparation. For beans, the total area planted was higher than expected. Value of sales was not calculated for plantain and thus incremental sales could not be estimated.
4.5.2.38 FTF	Value of new private sector investments in the agricultural sector and food chain leveraged by FTF implementation.	767,500					800,000	1,086,114		Investments by DINASA(\$250,000), SONAPA (\$250,000), CETAI (\$550,000), and HITSA /FEDEPAT(\$36,114).  There were more agribusiness investments linked to FtF West/WINNER activities than anticipated.
4.5.2.29 F	Value of agricultural and Rural loans	0					500,000	550,000		Approved loan from FDI to CETAI conditional on WINNER participation in an agro-industrial project in the Matheux corridor to process beans and plantain.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
PL8	Value of Ag Business Sales (post harvest operations (including storage – processing and packaging))	0					1,000,000	138,122		Sales from Mache Peyizan (\$46,529), “chanpyon” brand (\$53,764), and rice from FEDEPAT/HITSA (\$37,829). WINNER started the distribution of silos for storage in September 2012. Increased sales from improved storage conditions will be assessed in FY 13. The value of agribusiness sales were lower than expected because some large contracts between producers and agribusinesses could not be concluded in FY 12. They are expected in FY 13.
PL9 BSC	Number of farmers using market information through project assistance	0					1,000	3,765		Farmers receiving and using sms messages sent by WINNER to inform them of agricultural practices, availability of inputs, and information on prices. The data base contains 7,731 phone numbers, of which 200 are not farmers. Of the farmers (7,531), we assume that 50% use market information based on a survey conducted of 226 farmers.
4.4.3.3 F	Kilometers of roads improved or constructed	22.7					25	0		In FY 12, we completed cost-benefit and beneficiary analyses for the Dumay and Merceron roads; prepared technical bid documents for the Dumay and Merceron roads; launched the bids and selected the contractor for the Dumay road. Both roads will be rehabilitated in FY 13.
F-4.4.3.7	Number of beneficiaries receiving improved transport services due to USG	T: 41,000 M: 24,600 F: 16,400					T: 15,000 M: 9,000 F: 6,000	0		In FY 12, we completed cost-benefit and beneficiary analyses for the Dumay and Merceron roads; prepared technical bid documents for the Dumay and Merceron roads; launched the bids and selected the contractor for the Dumay road. Both roads will be rehabilitated in FY 13.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
Custom	Number of kilometers of irrigation systems repaired	134.788					100	23.12		Rehabilitation of the Riviere blanche irrigation system.
4.5.1.9 FTF	Numbers of Policies/Regulations/Administrative Procedures in each of the following stages of development as a result of USG assistance in each case: Stage 1: Analyzed Stage 2: Drafted and presented for public/stakeholder consultation Stage 3: Presented for legislation/decreed Stage 4: Passed/approved Stage 5: Passed for which implementation has begun	3		1		1	2	2		Draft seed law (Stage 2) IFDC fertilizer study (Stage 1)
4.5.1 FTF	Average percent change in score on key areas of organization capacity amongst USAID direct and indirect local implementing partners	0%					20%	0		Baseline score established based on an assessment of the capacity of 94 associations using the PIVA methodology. The average baseline score was 36%. Future progress will be assessed against this baseline. Although WINNER supported substantial training activities for farmer associations, the baseline capacity score for associations was established in FY 12. Thus, an assessment of the percent change in the capacity score could not be made for FY 12.
4.5.2.43 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	2					10	7		BIAs evaluated and operating more profitably due to improved management and cost control.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
4.5.2.11 FTF	Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance.	360	221				54	273		Producer associations supported by WINNER in agriculture, environment, and agro-forestry (272). All of these associations can also be considered CBOs. One water users association (AIRG)
4.5.2.28-FTF	Number of private enterprises, producers 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	184	79				20	38		Producer organizations (38): Greenhouses (APFCK, SOHARDEK), rice technologies (FEDEPAT), plantain mobile centers (JMA, CODCOA, KOFAM, ACOP, ATAIB, and OFATA), mangoes (11 associations), BIAs (18). All of these associations can also be considered CBOs.
4.5.2-12 F	Number of public-private partnerships formed as a result of FTF assistance	8					4	4		ADAIM/DFSA; HITS/FEDEPAT; BRANA/sorghum producers; CETAI/Mathoux associations
4.5.2-13 F	Number of rural households benefiting directly from USG interventions	91,424	5,988				30,000	27,416		Individuals in rural areas benefiting from WINNER include: agro-forestry (3,534); agricultural campaigns – beans (6,300), corn (1,893), rice (451), plantain (1,211); training (8,033); greenhouses (120); Rivière Blanche rehabilitation (1,954); jobs in irrigation works (187); and mango producer associations (3,733). However, a household survey has not yet been conducted and we do not know how many beneficiaries share a household with another beneficiary. Thus, there is some overlap that is not accounted for.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
PL10	Number of rural households who have increased farm income thanks to USG government	20,826					10,000	14,451		Individuals supported by WINNER with increased farm due to increased yields and reduced post-harvest losses include: agricultural campaigns – beans (6,300), corn (1,893), rice (451), plantain (1,211); mango produce associations (3,733); greenhouses (120); and farmers with an additional crop due to the Rivière Blanche rehabilitation (1,954). However, a household survey has not yet been conducted and we do not know how many beneficiaries share a household with another beneficiary. Thus, there is some overlap that is not accounted for.
4.5.2 FtF	# of jobs attributed to FTF implementation	N/A=0	230				1,500	T: 216 M: 139 F: 77		Jobs in soil preparation due to tractors, ravine treatment, BIAs supported by WINNER, and irrigation rehabilitation. One returning students with scholarship at UF created a consulting firm. Other jobs that could be attributable to FTF West/WINNER implementation, but for which we do not have specific information, include: graduating Master Farmers finding jobs outside of WINNER; members of farmer associations in Kenscoff providing greenhouse building services to other groups; farmers from the Rivière Blanche who worked during the spring/summer agricultural campaign as a result of the rehabilitation of the irrigation systems. These groups include hundreds of jobs that would not have existed without the project.

#	Indicators	Up FY11 (actual)	Results Q1	Results Q2	Results Q3	Results Q4	FY12 target	FY12 actual	Results to FY 12	Remarks
4.8.2-26	Number of stakeholders with increased capacity to adapt to the impacts of climate variability and change as result of USG assistance					301,950		301,950		Arcahaie contingency Plan: 118,500 Tabarre Contingency Plan: 170,000 Irrigation system protected : 1,450

## **SECTION VIII. WATERSHED INVESTMENT FUND**

FtF West/WINNER activities are financed through the WIF using a variety of instruments. These include grants, subcontracts, direct procurement, training, and short-term technical assistance (STTA).

Proprietary information redacted

## SECTION XI. ADMINISTRATION

- The Mirebalais office was closed on January 22, 2012 and integrated Montrouis office
- A small office in Cabaret was opened on January 4<sup>th</sup>, 2012 to support the development of the mango value chain in the Matheux corridor. However, this office will be closed at the end of December 2012, as all Matheux operations will be consolidated in the Montrouis office.
- One project vehicle was lost as a result of a car accident (the insurance paid for current value of the car).
- Staff was reduced by 26 people,
  - September 2011 : 124 staff members and 5 expatriate staff
  - September 2012 : 99 staff members and 4 expatriate staff
- Staff distribution

Date	Expatriate staff	Long Term Professional staff	Support staff	TOTAL
September 2011	5	61	63	129
September 2012	4	50	49	103

**SECTION XII. FINANCIAL REPORT**



Proprietary information redacted







**ANNEX A. ANNUAL INVENTORY**