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REAL IMPACT: HAITI

FEED THE FUTURE WEST

USAID's **Real Impact** series highlights examples of water sector projects around the world. Each case example provides from-the-field insights about successful approaches, challenges faced, and lessons learned.

CHALLENGE

About 60 percent of Haiti's 10 million people are farmers, yet the country still imports more than 50 percent of its food. According to the Food and Agriculture Organization (FAO), approximately 80 percent of Haiti's population lives below the poverty line, and more than 60 percent cannot access sufficient food to eat due to lack of purchasing power. Local demand for food is expected to grow approximately 10-15 percent over the next five years.

Closely linked to its combination of mountainous topography, powerful storms, and severe environmental degradation, agricultural productivity and food security in Haiti have systematically declined in the last three decades.

Sixty percent of Haiti's land has a slope of at least 20 percent, and a shift to annual cropping on steep slopes

destroys crops, furthers erosion, reduces the availability of ground water for irrigation in the fertile plains, and depletes basic nutrients required for increased production. Approximately 85 percent of the country's watersheds are degraded, the result of deforestation and other erosive farming practices. Haiti's farmers needed help protecting their land against extreme weather, preventing soil erosion, and improving agricultural productivity.

Feed the Future West



LOCATION: Haiti
DURATION: 2009-2014
FUNDING: \$127 million
IMPLEMENTING PARTNER:
Chemonics International

APPROACH

Feed the Future West, formerly Watershed Initiative for National Natural Environmental Resources or WINNER, is a project under the U.S. Government's Feed the Future initiative. It is a multi-sector program that

gathers farmers, non-governmental organizations, agribusinesses, and government actors to comprehensively increase productivity and post-harvest efficiency through integrated activities in two development corridors. Producer groups and other beneficiaries work together to improve the management and protection of the corridors' key watersheds and to strengthen agricultural markets. Activities are designed to have positive impacts on the environment and improve farmers' abilities to cope with weather-related shocks such as variable rainfall and seasonal hurricanes. Through agricultural intensification, the introduction of new technologies, rehabilitation of rural infrastructure, and good governance of natural resources, Feed the Future West improves the livelihoods of targeted farmers in the Cul-de-Sac and St. Marc/Matheux corridors.

Increase Agricultural Productivity: The program trains farmers in modern farming techniques and provides them with access to inno-

vative scientific and technological advances, in addition to seeds, fertilizers, and tools. The program introduced vertical agriculture and greenhouses, mostly on the hillsides, which use drip irrigation in smaller areas to gain higher yields and reduce erosion. Feed the Future West also provides communities with information on the correct use of agricultural inputs, such as fertilizers and pesticides, through local training centers. The program works with nearly 300 farmers associations that are grouped into five cooperatives. In collaboration with the Haitian government, the project links farmers associations and cooperatives with private sector distributors, processors, and exporters to foster value chain integration and boost farmer incomes through Public-Private Partnerships.

The program focuses on specific crops: rice, corn, beans, plantains, and mangoes as export crops, depending on the local characteristics. Demonstration plots show farmers the differences between the traditional methods

“I used to barely scrape by. I am producing a lot more since I received WINNER assistance and my products are of better quality.”

Ronald Champagne, member of a farmer's association in Duvivier

of production and sound agricultural practices. “We had to see it to believe it!” confessed Pierre Paul Jules, now cultivating in rows after visiting the model farm.

Stabilize Watersheds: Reforestation and grass planting efforts are critical to stabilizing hillsides and keeping rivers and canals flowing downstream. The establishment of gully plugs, dry wall terracing, contour plantings, and contour ditches control soil erosion. This complements the efforts to dredge irrigation canals, widen waterways, and protect riverbanks in the valleys. Part-



ners work together to develop watershed management plans to help local governments and stakeholders understand the challenges ahead and properly manage their agricultural and forest lands. Generally, the project promotes perennial tree crops on the upper slopes, as these do not disturb the soil and annual or seasonal crops in the lower, leveler plains where erosion from cultivation is less severe. Training sessions use a participatory approach in watershed management, contingency planning, and rural development for community and local government capacity building.



Strengthen Agricultural

Markets: The program uses a value chain approach to make focus crops in the productive plains more competitive – from planning to meeting end market demand. This approach increases crop output and sales by improving harvests and post-harvest operations, processing, and transport methods to reduce post-harvest losses including rehabilitation of rural roads, and access to markets. To help farmers reach potential markets on a greater scale and supply large distributors, the project helps farmers associations organize into legally designated cooperatives and works with financial institutions to scale up their businesses. The project has also conducted intensive training programs for the farmers in administrative and financial management, accounting, and marketing their produce. It also provides legal guidance to strengthen farmers' knowledge of the laws that govern their agricultural businesses. Feed the Future West has also built and strengthened relationships between the farmers' cooperatives and private sector partners to create lasting business partnerships.

KEYWORDS

**Agriculture Sustainable
Watersheds Environment
Water Reforestation
Partnerships Farming**

IMPACT

Activities to increase agricultural productivity have been very successful. In 2012, average yield of corn increased by 341 percent, beans by 100 percent, and rice by 128 percent. The program has established five Rural Centers for Sustainable Development that provide agricultural research, training, and extension services to farmers in the project corridors. So far, close to 1,500 farmers have earned “master farmer” certificates, of whom 26 percent are women. Getting farmers to change their practices required convincing. For instance, long-established rice-growing techniques used large clumps of seeds and vast amounts of water and pesticides. At first, farmers were not willing to stake their farms on new techniques, but demonstration plots have proved to be a very effective, risk-free way to show farmers how to gain significantly higher rice yields with half of the seeds, dramatically less water, and fewer pesticides. So far, five Public-Private Partnerships reaching about 2,000 households and covering different aspects of agricultural value chains have been implemented.

Reversing Haiti's environmental and agricultural deterioration has required focused efforts across its watersheds. More than 36 kilometers of ravines were treated and 63,000 cubic meters of gabions (cages

filled with rocks) and dry wall installed to prevent erosion, resulting in the retention of 164,300 cubic meters of sediments. The rehabilitation of riverbanks and irrigation systems in the Cul-de-Sac plain close to Port-au-Prince and the planting of fruit bearing trees on hillsides through Feed the Future West helped minimize the impact of Tropical Storm Isaac on crops and homes in August 2012.

Feed the Future West activities generated increases in productivity that yielded \$9 million in gross margins for farmers and total sales of over \$14 million in 2012. For export crops, 38 mobile collection centers (including tents, scales, and sorting tables) and 9,800 crates were provided to mango producer associations of the Matheux corridor and the Mirebalais/Saut d'Eau region. As a result, rejection rates of mangoes decreased from 25 percent to 15 percent and Feed the Future West supported sales to mango exporters increased by 78 percent in Fiscal Year 2012.

Since March 2012, five regional cooperatives, including over 108,000 farmers, have been established with U.S. Government help in the Cul-de-Sac plain, the Matheux corridor, Kenscoff, Mirebalais, and Saut d'Eau. “The direct contact that I have with distributors is the best thing that has ever happened to me,” said Béliard Miracle, farmer in the Kenscoff region.



All images by Kendra Helmer

LESSONS LEARNED

Integrated activities to boost agriculture and enhance watersheds under Feed the Future West have simultaneously increased food production, strengthened hillsides, protected the productive plains, and generated income. The program has also learned other lessons as it continues:

- ◆ Market-driven approaches with a private-sector orientation bring more sustainable benefits than conservation- or supply-driven approaches.
- ◆ Reversing watershed degradation is a necessity for protecting and raising food production; it requires widespread changes in attitudes and practices.
- ◆ Farmers require hard and compelling evidence that investments in agricultural production and sound land management can reduce their risks and improve their livelihoods before changing their behavior.
- ◆ Effective, visible demonstration plots promote the adoption of better techniques.
- ◆ Measures to mitigate destructive runoff will not be sufficient or effective if done only at the plot level; such stabilization interventions must address entire slopes, ridges, and sub-watersheds in order to effectively reduce threats, where the watershed is the unit of focus.
- ◆ Local governments and communities must buy in to investments in infrastructure and public works if they are to be maintained after a program ends.

ADDITIONAL RESOURCES

To learn more about the Feed the Future West program, contact:

Feed the Future Haiti:

www.feedthefuture.gov/country/haiti-0

WINNER:

www.winnerhaiti.com/index.php/en/

Chemonics:

<http://www.chemonics.com/OurWork/OurProjects/Pages/Haiti%20Watershed%20Initiative%20for%20National%20Natural%20Environmental%20Resources.aspx>

USAID | Haiti Feed the Future Partnership - West:

http://haiti.usaid.gov/work/docs/economic/120611-fff_west.pdf