# U. S. Agency for International Development Haiti



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## Hurricane Georges Recovery Program Final Report

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## Acronyms

ATRADEM	Association des Travailleurs pour le Développement de Merceron			
CA	Cooperative agreement			
CACEDRF	Central American and Caribbean Emergency Disaster Recovery Fund			
CBO	Community-based organization			
CDRH	Centre de Développement des Ressources Humaines			
CECI	Centre Canadien d'Etudes et de Coopération Internationale			
CERT	Community Emergency Response Team			
CHF	Cooperative Housing Foundation			
CIAT	International Center for Tropical Agriculture			
CRS	Catholic Relief Services			
DPC	Civil Protection Directorate/Direction Protection Civile			
ESF	Economic Support Funds			
EU	European Union			
FAO	Food and Agriculture Organization			
FAVA/CA	Florida Association of Voluntary Agencies for Caribbean Action			
FEMA	U. S. Federal Emergency Management Agency			
FY	Fiscal year			
GAO	General Accounting Office			
GOH	Government of Haiti			
HAP	Hillside Agriculture Program			
HGRP	Hurricane Georges Recovery Program			
IAA	Interagency agreement			
IDB	Inter American Development Bank			
IR	Intermediate result			
KPMG	Klynveld Peat Marwick Goerdeler			
KPSL	Kòmite Pwoteksyon Sivil Lokal			
LAC	Latin America and the Caribbean Bureau			
M & E	Monitoring and evaluation			
MT	Metric tons			
NGO	Non-governmental organization			
OFDA	U. S. Office of Foreign Disaster Assistance			
ORE	Organization for the Rehabilitation of the Environment			
PADF	Pan American Development Foundation			
PASA	Participating Agency Service Agreement			
PMP	Performance monitoring plan			
PRIDE	Program for the Reduction of the Impacts of Disastrous Events			
RIG	Regional Inspector General			
SECID	South-East Consortium for International Development			
SpO	Special Objective			
TĂ	Technical assistance			
TPTC	Ministry of Public Works			
UNDP	United Nations Development Programme			
USACE	U. S. Army Corps of Engineers			
USDA	U. S. Department of Agriculture			
USAID	U. S. Agency for International Development			
USC	United States Government			

#### Hurricane Georges Recovery Program Final Report

#### **Executive Summary**

Hurricane Georges swept across Haiti in September 1998, leaving 400 casualties and \$180 million in damages. The US Government responded in three phases: 1) \$1.25 million for immediate relief items and emergency food assistance, 2) \$12.5 million for rehabilitation of damaged infrastructure such as irrigation systems and provision of planting materials to affected farmers, and 3) \$9.8 million for longer-term recovery. The third phase, called the Hurricane Georges Recovery Program (HGRP), was funded from supplemental funds appropriated by Congress in May 1999. Activities under the HGRP ended December 31, 2001.

#### **Major Activities and Results**

Designed to help targeted rural communities, mainly in the Southeast but also in the South and West Departments, become more resilient in the face of recurring disasters, the HGRP met or exceeded its targets. Targeted communities received an integrated package that included raising agricultural productivity and revenues; rebuilding infrastructure; protecting small watersheds; and providing training and public awareness on disaster mitigation, preparedness and response. By the end of the HGRP, twenty-two rural communities had improved their ability to cope with the economic effects of disasters and reduced their vulnerability to recurring natural disasters.

#### **Agricultural Production**

The greatest accomplishment under this component is the increased use of improved, commercial quality bean, corn and sorghum seeds. According to a target area survey conducted in October 2001, the use of these seeds among households in the HGRP assisted communities increased from a baseline of 1% to 19%. Farmers have reported healthier plants and higher production from improved seeds. The HGRP produced 708 metric tons (MT) of commercial quality seeds of a cumulative target of 715 MT. The difference of 7 MT is due to unfavorable weather conditions. Because of the timing of the planting seasons in Haiti, of the total seed production, only 463 MT were distributed to farmers by December 2001. An estimated 41,000 families received these seeds mainly in the West, South and Southeast Departments of Haiti. The remaining 272 MT of seeds have been transferred to the local non-governmental organization (NGO) implementing the seed program in order to continue seed production and distribution after the end of the HGRP. This local NGO was an active partner under HGRP, receiving institutional support and technical assistance to build its capacity to produce and distribute seeds.

Research carried out in conjunction with the seed production activity resulted in two new bean seed varieties being introduced to Haiti. In field trials, these varieties had higher yields than the commercial seeds currently being produced and distributed in Haiti. They are drought and disease resistant. Research activities initiated under the HGRP will continue under the USAID/Haiti Hillside Agricultural Program (HAP). Finally, twenty farmer volunteers from the U. S. shared their expertise in aquaculture, coffee production, corn grit processing, and vegetable and garlic production with individual farmers, community groups and farmers associations in ten locations. Overall, 1,888 farmers directly benefited from this two-year exchange program.

#### Infrastructure

Two farm to market roads (22.5 km), 7 irrigation systems enabling irrigation of over 3,090 hectares of land, 10 potable water systems benefiting approximately 33,750 people, and 25 schools benefiting approximately 7,500 students (at an average of 300 per school) were rehabilitated. The school rehabilitation program has generated a great deal of interest among private U. S. companies conducting business in Haiti, who contributed over \$45,000 to repair four additional schools. The social and economic benefits of this component include being able to farm irrigated land during the dry season; get produce to market during the rainy season; hold classes in safe, dry schools; transport patients more quickly to health facilities; and have access to safe drinking water. The program raised awareness of the need for maintenance of the repaired infrastructure.

#### Environment

Over 1,000 hectares of land and 85 km of ravines were protected with improved soil and water conservation structures. Though not measurable under the short timeframe of this program, it is anticipated that these structures will reduce rainwater runoff and potential local impacts from flooding as well as increase agricultural productivity as they have in other USAID/Haiti programs. The US Department of Agriculture will implement a study in Haiti in FY 2002 to monitor the impacts of these structures.

#### **Disaster Preparedness and Mitigation**

More than 5,000 people were trained in disaster preparedness & mitigation. Seven volunteers from Florida came to Haiti to help with training at the local level and to refine a National Disaster Response Plan. Twenty-two disaster mitigation and preparedness committees (called civil protection committees) were established. These committees have developed disaster action plans for their communities and are formally linked to the national Civil Protection Directorate (DPC) through departmental committees. Not only are these committees established but, according to a household survey conducted in October 2001, 50% of the respondents were aware of the committees and 25% were aware of the contents of the disaster plan. In those communities where the HGRP has been implemented, 90% of the participants in the household survey were able to name at least one action that can reduce the effects of a natural disaster; 33% could name three or more. People in these resilient communities now know that they can help themselves to be more resistant to the whims of nature and will take action both before and after a disastrous event. Building on the success of this component, the Mission has funded a follow-on award for technical assistance to local and municipal committees to begin implementing their action plans before the beginning of next year's hurricane season.

#### **Program Management**

The special objective (SpO) for the HGRP was authorized on September 9, 1999. USAID/Haiti signed a Cooperative Agreement with PADF on September 27, 1999 to manage the HGRP, who in turn entered into 10 sub-agreements with U. S. and local NGOs. PADF and its sub-grantees worked at the local level with fifteen strong community-based organizations (CBOs).

USAID/Haiti also signed a personal services contract for the program manager at USAID and a contract with Mérové Pierre, a local CPA firm affiliated with Klynveld Peat Marwick Goerdeler (KPMG), for a concurrent audit.

A direct Participating Agency Service Agreement (PASA) with the U. S. Army Corps of Engineers (USACE) was signed for engineering TA and river basin studies. The U. S. Federal Emergency Management Agency (FEMA) and the U. S. Department of Agriculture (USDA) signed Interagency Agreements (IAAs) with the USAID/LAC Bureau in Washington for activities in six countries affected by Hurricanes Georges and Mitch. FEMA allocated \$500,000 to Haiti to implement disaster mitigation and preparedness activities. USDA had \$171,000 with which to implement watershed protection activities in Haiti. USAID/Haiti collaborated closely with other USG agencies to ensure synergy with the HGRP. Thus, their results contributed to and/or added value to the HGRP objectives.

#### **Monitoring & Evaluation**

A separate contract was signed with the Southeast Consortium for International Development (SECID) to carry out household surveys in the program-assisted areas, hold focus group sessions and conduct a final evaluation in order to monitor progress toward meeting the objectives and develop lessons learned and recommendations. SECID's surveys provided quantitative data on program accomplishments. The focus group sessions provided valuable insight into how the beneficiaries perceived the impact of the program in their communities.

The Regional Inspector General conducted a performance audit in January 2001, which had only one recommendation pertaining to the U. S. Army Corps of Engineers (USACE). Because USACE was so far behind schedule, the RIG recommended shortening the life of and reducing the budget for the USACE PASA. USAID/Haiti modified the PASA in compliance. The GAO reviewed the program in Haiti in March 2001 and gave a positive report of the program.

#### **Constraints & Challenges**

The HGRP was hindered, but not prevented, from accomplishing its objectives by constant concerns for security of outside technical experts and local staff due to political unrest and high crime. Congressional holds on ESF funds affected HGRP partners and caused a delayed start up of some activities. The challenge of ensuring sustainability was

met through maintenance training and capacity building of CBOs and local disaster committees.

#### Lessons Learned & Recommendations

The SECID final evaluation, partners' reports, as well as retreats and meetings among partners and SpO team members have generated several lessons learned. Among these are: 1) the value of the umbrella grant mechanism for a short-term reconstruction program, 2) the need for a strong SpO team, 3) the value of working with strong, experienced, community based organizations and NGOs and contractors already established in country. Close coordination among partners was essential to the successes achieved by the program. The generation of community funds using the 3-2-1 formula (See Annex 3) was an innovative means of ensuring ownership of the activities by the communities and a resource for community based organizations. It has been recommended that these positive aspects of the program be repeated in another reconstruction program.

USAID learned that start-up takes time no matter how short a timeframe has been set for completion of the program. USAID and its partners also learned that a concerted effort was needed to increase interest in and usage of commercial seeds. In future reconstruction programs, more care needs to be put into planning expenditures and early communication with beneficiaries about the program.

Overall, the program was a success.

## Hurricane Georges Recovery Program

## **Final Report**

#### I. Background

In September 1998, Hurricane Georges swept across Haiti causing approximately 400 casualties and an estimated \$180 million in damages, including indirect and secondary losses. The US Government responded immediately by providing \$1.25 million for relief for the victims. Emergency funds from USAID's Office of Foreign Disaster Assistance (OFDA) provided \$100,000 for shelter, potable water and other relief supplies such as blankets and clothing. A grant to the Pan American Health Organization for \$300,000 provided medicines and health surveillance for the prevention of disease epidemics that benefited over 285,000 people. PL 480 Title II Food Assistance in the amount of \$850,000 fed more than 16,000 families.



Heavy rains and flooding from Hurricane Georges affected the whole island of Hispaniola

USAID/Haiti subsequently obtained an additional \$1.7 million from OFDA and, partnering with the Government of Haiti (GOH), reprogrammed \$10.8 million in PL 480 Title III local currency funds for a rehabilitation phase that lasted several months. Twenty-five activities for provision of seeds and plantain cuttings to farmers and repair to damaged infrastructure such as rural roads, irrigation systems, drainage canals, and erosion control structures were completed in 1999.

In September 1999, the third phase of the USG response began with reconstruction funds specially appropriated by Congress. Hurricane Georges was one of two devastating hurricanes that made landfall in 1998. After Georges hit in September 1998, Hurricane Mitch, which was a much larger and more powerful category 5 hurricane, hit Central America in October causing immense loss of life and suffering. In response to calls for a greater USG response to the six countries affected by both Georges and Mitch, Congress passed the FY 1999 Emergency Supplemental Appropriations Act providing \$621 million for the Central American and Caribbean Emergency Disaster Recovery Fund (CACEDRF) in May 1999. Of that amount, \$9.8 million was designated for Haiti.

To make the best use of the CACEDRF funds, USAID/Haiti obtained authorization for a special reconstruction objective (SpO) called the Hurricane Georges Recovery Program (HGRP). While elaborating the SpO for Haiti, the USAID Mission took into consideration that Haiti is one of the most disaster prone countries in the Caribbean. From 1900 to 1999, 20 hurricanes, 25 floods, one major earthquake and seven droughts affected the country. Nearly every year large segments of the population suffer from losses related to recurring, localized events including fires as well as heavy rains and

flooding or drought. These events have dramatic and long-term consequences. In the spirit of the May 1999 Stockholm Consultative Meeting, where emphasis was placed on investing in measures to mitigate the impact of natural disasters by reducing environmental and social vulnerability, the Mission determined that the SpO would address the high vulnerability of Haitians in the face of recurring natural disasters. Several factors have made Haitians very vulnerable. Among these are poverty, environmental degradation and a very weak capacity to prepare for or mitigate against natural disasters. Thus the HGRP was designed to help targeted rural communities, mainly in the Southeast but also in the South and West Departments, become more resilient in the face of recurring disasters. The HGRP not only brought the communities the assistance needed to return to pre-disaster levels, but also to build back better and to strengthen their capacity to reduce the impacts of future disasters.

The SpO was authorized by the USAID/Haiti Mission Director on September 9, 1999 and a Cooperative Agreement (CA) was signed with the Pan American Development Foundation (PADF) to manage the program on September 27, 1999.

### II. Overview of the Program

The Special Objective "Communities recover from Hurricane Georges' impact and reduce their vulnerability to future natural disasters", under which the HGRP was authorized, had five key intermediate results (IRs):

- 1) life-threatening conditions mitigated,
- 2) capacity for agricultural production improved,
- 3) damaged infrastructure restored,
- 4) environmental impact of future natural disasters reduced, and
- 5) local capacity to mitigate and prepare for natural disasters increased.

The first intermediate result was attained in the relief phase immediately after the hurricane. Intermediate results 2 through 5 were accomplished under the HGRP. The program was implemented through the CA with PADF, which entered into several subagreements with U. S. and Haitian NGOs. See Annex 1 for a chart of sub agreements and activities. The focus of the HGRP was on community self-reliance. Local communitybased organizations prioritized and helped to implement small projects to rehabilitate farm-to-market roads, irrigation systems, soil and water conservation structures, potable water systems and schools. Local community labor, both voluntary and paid, was used in these rehabilitation activities. The intent of the HGRP was to implement an integrated program that would result in a recovery for rural households and better resiliency to natural disasters. At the completion of the HGRP, twenty-two rural communities had received an integrated package that included raising agricultural productivity and revenues; rebuilding infrastructure; protecting small watersheds; and providing training and public awareness on disaster mitigation, preparedness and response. They have improved their ability to cope with the economic effects of disasters and reduced their vulnerability to recurring natural disasters. The HGRP met or exceeded it targets as described on pages 4 to 12. A table of targets and results is provided in Annex 2.

## **III. Budget and Funding Mechanisms**

As mentioned above, \$9.8 million of the CACEDRF funds was designated for Haiti. These funds were obligated as follows:

- \$8.4 M Cooperative Agreement with PADF
- \$0.5 M Contract with the South East Consortium for International Development (SECID) for Monitoring & Evaluation
- \$0.5 M Participating Agency Service Agreement (PASA) with US Army Corps of Engineers (USACE)
- \$0.35 M Personal Services Contract for the USAID Program Manager
- \$0.05 M Contract with Mérové Pierre for a concurrent financial audit

USAID/Haiti signed the Cooperative Agreement with PADF on September 27, 1999 to manage the HGRP. Between December 1999 and May 2000, USAID/Haiti approved ten sub-agreements under its CA with PADF. These sub-grantees were:

- Catholic Relief Services (CRS)
- Centre Canadien d' Etudes et de Coopération Internationale (CECI)
- Centre de Développement des Ressources Humaines (CDRH)
- Cooperative Housing Foundation (CHF)
- Florida Association of Voluntary Agencies for Caribbean Action (FAVA/CA)
- International Center for Tropical Agriculture (CIAT)
- Organization for the Rehabilitation of the Environment (ORE)
- Plan International
- Winrock International (2 sub-agreements)

Activities of each partner were:

- PADF overall management of the program; repair of irrigation systems, soil and water conservation, rural roads; public awareness program and technical assistance for disaster mitigation/preparedness
- CRS repair of potable water, soil and water conservation, and irrigation systems
- CECI repair of irrigation systems
- CDRH disaster mitigation/preparedness training and technical assistance
- CHF- school repairs, repair of potable water systems
- FAVA/CA technical assistance for disaster mitigation/preparedness
- CIAT research & development of new seed varieties; training and capacity building for seed production in Haiti
- ORE seed production and distribution Plan International repair of potable water systems, soil and water conservation
- Winrock International farmer to farmer program, school repairs

ORE and CDRH are local NGOs. ORE was responsible for seed production; and CDRH conducted training in disaster preparedness and mitigation. PADF and its sub-grantees worked at the local level with fifteen strong community-based organizations (CBOs) to implement activities in infrastructure repair and soil and water conservation. PADF also entered into several contracts with private firms for engineering work on roads, maintenance training, and studies.

USAID/Haiti entered into a Participating Agency Service Agreement (PASA) with the U. S. Army Corps of Engineers (USACE) on September 30, 1999 to provide support to USAID, NGOs and others implementing reconstruction activities in Haiti. See page 14 for further discussion of USACE activities.

In September 1999, USAID awarded a contract to the Southeast Consortium for International Development (SECID) for monitoring and evaluation. SECID carried out a series of three household surveys in the program-assisted areas in order to monitor progress toward meeting the objectives. SECID also conducted focus group sessions and a final evaluation to develop lessons learned and recommendations. See page 17 for more details.

Two other funding mechanisms were executed in 1999. A personal services contract was signed for the program manager at USAID. A contract was signed with Mérové Pierre, a local CPA firm affiliated with Klynveld Peat Marwick Goerdeler (KPMG) for a concurrent audit.

In addition to the direct PASA with USACE mentioned above, two other USG agencies implemented hurricane reconstruction activities in Haiti: the U. S. Federal Emergency Management Agency (FEMA) and the U. S. Department of Agriculture (USDA). FEMA and USDA signed Interagency Agreements (IAAs) with the USAID/LAC Bureau in Washington for activities in the six countries affected by Hurricanes Georges and Mitch. FEMA allocated \$500,000 to Haiti to implement disaster mitigation and preparedness activities. USDA had \$171,000 with which to implement watershed protection activities in Haiti. USAID/Haiti collaborated closely with both agencies to ensure synergy with the HGRP. Thus, their results contributed to and/or added value to the HGRP objectives. Information on their activities is presented in Section V – Coordination and Synergies.

#### **IV. Major Activities and Results**

#### A. Capacity for Agricultural Production Improved (IR2)

The targets for IR2 were based on the premise that recovery from the impacts of Hurricane Georges and the ability to recover more quickly from future natural disasters would depend to a large extent on farmers' access to improved seeds and agricultural technologies, as well as on the strengthening of the capacity for commercial seed production in the country. "Improved seeds" are higher yielding commercial quality varieties. Most farmers in Haiti use grain saved from previous harvests or purchased in the local market. These traditional seeds have very low germination rates, are highly vulnerable to diseases and weather extremes, and give low yields. Additionally, there was a shortage of seeds immediately following Hurricane Georges. Thus, there were three main activities implemented by three PADF sub-grantees: 1) seed production and distribution, 2) strengthening of seed production capacity in country, and 3) agricultural technology exchange.

#### A1. Seed Production and Distribution

Per SECID's household survey conducted in October 2001, the use of improved, commercial quality bean, corn and sorghum seeds among households in the HGRP-assisted communities increased from a baseline of 1% to 19%. The target was 20%.

By the end of the HGRP, ORE had produced 708 metric tons (MT) of commercial quality seeds. The target was 715 MT. The difference of 7 MT is due to unfavorable weather, i.e, drought one season and flooding the next.

Even though ORE was able to produce close to the targeted tonnage, the timing of the planting seasons in Haiti allowed only 463 MT to be distributed to farmers by December



Seed being harvested at ORE site

2001. Distribution was nationwide but concentrated in HGRP assisted communities in the West, South and Southeast Departments of Haiti. An estimated 41,000 farming families benefited from the seeds that were distributed. These farmers have reported healthier plants and higher production after using the ORE seeds. The 272 MT of seeds remaining at the end of the program were transferred to ORE, which will continue seed distribution after the end of the HGRP.

USAID and its partners also learned that a concerted effort was needed to increase the interest in and usage of commercial seeds. Even though the commercial quality seeds were sold at grain prices, the demand in the first year was lower than expected. A SECID survey in November 2000 reported that seed use had only increased by 3%, from 1% to 4%. In the second year of the program, an active campaign was implemented to increase awareness of and demand for the seeds in the project-assisted areas. Thus, though the targeted volume of seeds was not distributed, in the HGRP assisted areas, usage increased from 4% in 2000 to 19% in 2001.

#### A2. Improved Capacity to Produce Seeds

ORE is one of only a few organizations in Haiti that produce commercial quality seeds, and the only organization that produces foundation seed<sup>1</sup> and conducts field trials of new varieties. In 1999, ORE had the capacity to produce commercial seeds but many of the varieties it was producing dated from the 1980s and its stock of basic seeds was not sufficient for a rapid recovery after an event like Georges. Thus, the agreement with ORE included the funding for the purchase of equipment. By the end of the program, ORE had increased its revolving stock of basic seeds from 10 MT to 25 MT.

Tasked with providing technical assistance on seed production and multiplication of planting materials, CIAT trained ORE staff both in Haiti and in Colombia and sponsored a two-week seminar in June 2001 for approximately 25 Haitian agronomists working throughout the country. The seminar covered improved varieties and seed multiplication of beans, manioc, corn, banana, and forages.

CIAT was also tasked with developing new varieties of seeds adapted to the climatic conditions of Haiti. CIAT conducted 51 field trials in the South, Southeast and West departments and was quite successful in identifying two varieties of bean seeds. Both USAID and CIAT had anticipated being able to identify only one variety in the short time frame of the HGRP. These two varieties, Bat 304 and Tio Canela, have shown extremely promising results in field trials, producing 200% greater than traditional seeds and 20% greater than commercial seeds currently being distributed in Haiti. They are drought and disease resistant. ORE has begun production of these new varieties. CIAT is continuing research on other seed varieties such as forages and cover crops under USAID's ongoing Hillside Agriculture Program (HAP).

#### A3. Agricultural Technology Exchange

A farmer-to-farmer program implemented by Winrock International was intended to provide hands-on training and assistance mainly in the HGRP-assisted communities. Winrock brought 20 volunteers from the U. S. to Haiti to share their expertise with individual farmers, farmers associations, NGOs and community groups on aquaculture; coffee, garlic, vegetable, bamboo and banana production; cooperative management and micro credit; corn grit processing; rabbit and goat breeding; bee keeping; and citrus marketing in Cayes Jacmel, Camp Perrin, Grande Anse, Despuzeau, Cap Rouge, Palmiste à Vin, Cajeun, and Musac. Overall 1,888 farmers directly benefited from this exchange program. Small, yet significant successes were accomplished, e.g, better rabbit cages, improved bee hives, a switch to a more profitable crop. Many of these volunteers maintain contact with the farmers after their return to the U. S. and continue to keep in

<sup>&</sup>lt;sup>1</sup> Foundation seeds are the first generation of high potential germplasm material used to produce commercial seeds. They are planted to produce basic seeds, which constitute the second generation of improved material used to produce commercial seeds. ORE produces foundation seeds and basic seeds at its own sites under proper isolation conditions.

touch long after consultants depart and projects terminate. The SECID final evaluation states that these volunteers "were able to provide relevant low-cost technical advice".

## B. Damaged Infrastructure Restored (IR3)

Activities under IR3 repaired damaged infrastructure in order to bring productive assets such as roads and irrigation systems back to active use. Farmers are now able to farm more irrigated land during the dry season and get their produce to market during the rainy season. Repairs to roads, schools and potable water systems benefited public health and education. Teachers can hold classes in safe dry classrooms. Community members can transport patients more quickly to health facilities. Local populations have access to safe drinking water. To assure sustainability of the repaired structures, the program included maintenance training and capacity building for users' associations.

#### **B1.** Schools

The HGRP repaired twenty-five schools in communities that were affected by the storm. Many of the schools had incurred damages from the storm. At most schools, repairs were made to the roofs, walls, floors, doors and windows. Three schools were completely rebuilt. For an average of \$5,000 to \$10,000 per school, the school buildings were restored to almost new condition providing a safe, pleasant environment more conducive to learning. In almost every repaired school, enrollment increased significantly. Approximately 7,500 students (at an average of 300 per school) benefited from this component of the HGRP.



Students at rehabilitated Savane Zombi School

To the extent possible, schools were repaired in a way that would strengthen them to better resist hurricanes in the future, such as installing hurricane clips along the rafters and roofing beams. (See page 15 for a discussion of a USACE study of the school repairs). Parents and other members of the communities volunteered the unskilled labor needed to repair the schools. The students often also contributed by transporting materials.

The school rehabilitation program has generated a great deal of interest among private U.S. companies conducting business in Haiti, such as Citibank, Texaco and Esso. They have contributed funds for repair of four additional schools.

## **B2.** Irrigation Systems

Hurricane Georges caused some of its heaviest damage to irrigation systems. Floodwaters pouring down the mountains left heavy deposits of sediment in irrigation canals and damaged canal walls and reservoirs. PADF, CECI and CRS implemented seven activities, in partnership with CBOs, to repair nine irrigation systems. These are the Despuzeau, Cajeun, Anse à Pitres, Dory, Cyvadier, Meyer, Oranger, Ka David, and Desmarthe systems covering a total of 3,090 hectares of land. Each of the irrigation rehabilitation activities included working with local water users associations to improve management, ensure equitable usage, and encourage maintenance after the repairs were completed. In June, PADF sponsored a series of workshops on the management and maintenance of irrigation systems. Several of the users' associations are now charging a user's fee to cover maintenance costs.

#### **B3.** Roads

The HGRP has rehabilitated two farm-to-market roads for a total of 22.2 km. The Thomazeau Road was completed in January 2001 and the Cap Rouge Road was completed in September 2001.

The Association des Travailleurs pour le Développement de Merceron (ATRADEM) is the CBO that partnered with PADF to implement the manual labor component of the Thomazeau Road repairs. ATRADEM has been established since 1992 and has over 500 active members. When in June 2001, PADF provided road maintenance training for the people from the communities along the road, the question of how to finance road maintenance came up. The idea of collecting funds from the road users gained broad support from the Thomazeau Road communities. Since then, the collection and management of these funds has been carried out by ATRADEM. These funds are being used for maintenance.



The Thomazeau Road continues for 11.7 kilometers from Carrefour Beaugé to Thomazeau in the central plains area of Haiti. It traverses a large irrigated area linking eight communities along it to the main highway and markets in secondary towns such as Thomazeau and Croix des Bouquets. In the Thomazeau area, flooding from the heavy rains in the mountains surrounding the plains caused most of the damage from Hurricane Georges. The plains are a natural basin and the heavy rains of Hurricane Georges caused water to collect across the entire region to an average depth of one meter. The Thomazeau road, already in poor condition, became practically impassable such that only an occasional 4wheel vehicle could traverse it. Without the use of this road, farmers were not able to get their products to market and sick people had to be transported to the main road on stretchers. The HGRP program has rehabilitated the whole length of the road using manual labor from the communities

and a sub-contract with a local firm, Nacose, for heavy equipment work. The repair work included 25,000 m<sup>3</sup> of quality fill and the installation of 15 culverts to allow better drainage.

Since rehabilitation was completed, traffic has increased tremendously. The Thomazeau road now carries from 75 to 100 vehicles a day. Residents along the road have even felt it necessary to construct speed bumps. A number of agribusinesses including a refrigeration plant for perishable goods and a mill have sprung up along the road.

In December 2000, when it became clear that the falling value of the gourde<sup>2</sup> might create a surplus of funding, the HGRP undertook the rehabilitation of a second road. The Cap Rouge Road, connecting Jacmel to Cap-Rouge in the South East Department, is about 16 kilometers long. It was badly damaged by Hurricane Georges. Transporting crops had become so difficult that often an entire season's output would be left to rot. The Cap Rouge area produces a good deal of coffee, including coffee for the USAID-supported Haitian Bleu® Brand. This and other products from the area are being marketed with support from the Hillside Agriculture Program (HAP). Farmers in the area have also benefited from the USAID-funded Productive Land Use Systems project.



Cap Rouge Road

Thus, USAID's current and prior investment in the area and the importance of the road to the rural economy led to its being selected for rehabilitation. Due to budgetary constraints, only 10.5 kilometers of the most difficult section leading up to the Cap Rouge Plateau was rehabilitated under the HGRP. PADF awarded a construction contract to a private engineering firm, G&P.

The work performed included the concrete pavement of about 350 meters of road, regrading and backfilling about 9,900 meters of gravel road, the repair and construction of the longitudinal and transversal drainage system and some gabion work. Since completion of the 10.5 km of the Cap Rouge Road, heavy trucks can now reach the plateau.

Before beginning the rehabilitation of that portion of the road, USAID and PADF requested a commitment from the Government of Haiti (GOH) Ministry of Public works (TPTC) to repair the remaining 5.5 kilometers. Failure by the TPTC to make good on that commitment prompted USAID to initiate a dialogue with the GOH Bureau de Gestion. In January 2002, the latter agreed to fund the repair of 2.4 km, using PL 480 Title III generated funds.

<sup>&</sup>lt;sup>2</sup> When the program began in October 1999, the exchange rate was 16 gourdes to \$1. The value of the gourde continued to depreciate over the following 12 months until it averaged 23 gourdes to the dollar in September 2000 and 25 by September 2001. Most expenditures for the HGRP were in gourdes. Many were constant or did not quickly adjust to currency depreciation. Even the cost of materials did not fully keep pace with the rise of the exchange rate and many partners were able to purchase materials before prices rose. Thus, PADF and its partners found that they had not expended as many dollars as had been anticipated based on budgets in gourdes. The Cap Rouge Road project was possible due to this "windfall".

#### **B4.** Potable Water

Ten potable water systems in the South East Department were repaired under the HGRP comprising 36 km of piping. The repairs ranged from improving the spring capping or rebuilding reservoirs to replacing pipes and public fountains. Approximately 33,750 people in Lafond, Macary/Moril, Mahotière, Charette, L'Artigue/Lime, Bodarie, Mapou, Mare Mirand, Kakont, and Cajeun now have access to potable water.



New water fountain at Mahotière

The project in Lafond also included the construction of gabions along a ravine to protect the pipes from heavy erosion due to recurring floods.

#### C. Environmental Impact of Future Natural Disasters Reduced (IR4)

Anecdotal evidence from Hurricane Georges and events in other countries have shown that where farmers use improved soil and water conservation practices, far less damage occurs from flooding. Activities under IR4 promoted environmentally sustainable agricultural practices while installing structures that slow rainwater runoff and reduce soil erosion in critical ravines. They included the use of physical and biological barriers such as hedgerows, rock walls and check dams and the planting of tree seedlings and other plants such as bamboo and elephant grass. Overall 41,000 m<sup>3</sup> of check dams were built along 85 km of ravines. About 15 km of contour canals, 494 km of hedgerows and 99 km of rock wall were built on the hillsides next to the ravines and over 600,000 trees were planted. The micro-watersheds that were protected encompassed over 1,100 hectares.



Ravine Protection at Palmiste à Vin

Though not measurable under the short timeframe of this program, it is anticipated that these structures will reduce rainwater runoff and potential local impacts from flooding. The types of soil and water conservation structures installed on the hillsides have resulted in increased agricultural productivity in other USAID/Haiti programs and they are expected to have the same impact at HGRP sites. The USDA will conduct a study in Haiti in FY 2002 to measure the impacts of these structures.

USAID funded eight IR4 activities in Lafond, Palmiste à Vin, Musac, Charettes, Nan Plezi, Belle Anse, Ravine Matwala, and Dory. Several of the soil and water conservation activities were implemented in conjunction with irrigation repair projects so that runoff to and sedimentation in these nearby irrigation systems would be reduced.

USDA activities brought the total number of hectares treated under the HGRP in Haiti to over 1,160 hectares. See page 13 for more details on the USDA program in Haiti.

#### D. Local Capacity to Mitigate and Prepare for Natural Disasters Increased

Every time a community is impacted by a disaster, it results in a reduced capacity of the population to sustain their livelihoods. Damaged roads and infrastructure, destroyed crops and cropland and loss of livestock (which is often the "savings account" for rural families) result in the loss of access to markets, productive capacity, and income. Damaged social infrastructure such as schools and potable water systems bring increased social costs to the community. The HGRP sought to address these problems not only by bringing communities back to pre-disaster levels, but also by building back better through emphasizing maintenance and prevention, and incorporating disaster mitigation and preparedness activities into the program. IRs 2 - 4 restored agricultural production and repaired damages. Activities under this "disaster" IR concentrated on the development of community level capacity to mitigate the effects of natural disasters. Preferred beneficiaries were members of the communities where IR 3 and IR 4 activities into an assistance package. Activities included community mobilization, training, technical assistance, and public awareness.

PADF signed a sub-agreement with the CDRH on March 8, 2000 for a communitydisaster-preparedness-training program. This program trained people on how to identify risks, what to do to reduce the impacts of disasters and what to do in case a hurricane is

Twenty-two communities received an integrated assistance package under the HGRP. They are more resilient to natural disasters. For example, the community of Meyer received assistance for rehabilitation of an irrigation system, repairs to a school, availability of improved seeds, and training and TA for the establishment of a disaster mitigation committee and development of a disaster action plan. The Meyer Kòmite Pwoteksyon Sivil Lokal (KPSL) is one of the stronger committees. They mobilized very quickly when Hurricane Iris threatened the country in early October 2001 and got the warning out to the population in good time. Below two women prepare a hazards map for their community.



threatening. CDRH conducted its training through several meetings and seminars that 1) introduced the concept of community disaster preparedness and mitigation, 2) reinforced and followed up with more information and activities including hazards assessment and risk mapping, 3) established committees and elaborated disaster preparedness and mitigation action plans. This program trained over 5000 people. PADF also funded a video for use in the seminars, production and distribution of at least 50,000 brochures, and production of a song for a disaster awareness campaign. PADF distributed 100 compact discs with the song and radio spots to community radio stations.

Seven FAVA/CA volunteers came to Haiti to help with training at the local level and to refine a National Disaster Response Plan. FAVA/CA volunteers worked with various ministries of the GOH to help them understand their functions under the National Response Plan.

To date, twenty-two local community disaster committees or Kòmite Pwoteksyon Sivil Lokal (KPSL) are established and twenty-two disaster

mitigation action plans have been developed. These committees are formally linked to

the national Civil Protection Directorate (DPC) through municipal and departmental committees. The disaster mitigation and preparedness action plans have been distributed to municipal officials and to the DPC. These plans represent a totally new approach for these communities in dealing with natural hazards.

Not only are these committees established but, according to the SECID household survey conducted in October 2001, 50% of the respondents were aware of the committees and 25% were aware of the contents of the disaster plan. In those communities where the HGRP has been implemented, 90% of the participants in the household survey were able to name at least one action that can reduce the effects of a natural disaster; 33% were able to list 3 or more<sup>3</sup>. When asked if they felt better prepared for disasters, 34% of the respondents in the October 2001 survey replied positively. People in these resilient communities now know that they can help themselves to be more resistant to the whims of nature and will take action both before and after a disastrous event.

Building on the success of this component, the Mission has funded a follow-on award to PADF for the Program for the Reduction of the Impacts of Disastrous Events (PRIDE). Under PRIDE, PADF will provide training and technical assistance to the local committees, and to the municipal committees formed under the FEMA program, to begin actualizing their disaster action plans before the beginning of the 2002 hurricane season.

## V. Coordination and Synergies

A major challenge of the program was the need to implement rapidly and yet achieve measurable, meaningful, and sustainable results. With over ten partners and three USG agencies implementing hurricane recovery activities, coordination and a clear understanding of the objectives of the program were imperative in order to meet the challenge.



#### A. Partners

Mid-term Retreat

USAID and its partners held monthly coordination meetings to review the status of implementation and progress toward achieving objectives. In September 2000, USAID organized a three-day mid-program retreat with all HGRP partners, including the other USG agencies working in Haiti. The objective of this retreat was to provide a forum for all the participants to review implementation progress, discuss the objectives of the program and how all the players contributed to them, and examine how best to achieve

<sup>&</sup>lt;sup>3</sup> Only 16% of respondents in HGRP-assisted communities were able to name three out of the seven possible answers listed in the USAID/Haiti Performance Monitoring Plan (PMP). The target was 20%. However, if one analyzes the data to include two other equally appropriate responses not listed in the PMP, 33% of the respondents were able to name three or more actions they can take to protect themselves. Reducing flooding through soil and water conservation management on the hillsides was cited by 63% of the respondents.

sustainability and to some degree replicability of the program. Problems and bottlenecks were identified that had led or could lead to delays in implementation. Increased emphasis was placed on coordination among partners, particularly on the overarching seed distribution and disaster awareness components of the program.

In June 2001, as many of PADF's sub-agreements were coming to completion, the partners decided to hold another retreat to discuss lessons learned, sustainability and replicability. Participants at this retreat included project coordinators from all of the NGO partners, USAID HGRP team members, USDA representatives and PADF staff. The participants at this day-long retreat agreed that overall coordination and communication had been quite good, especially in Port au Prince, though communication in the field could have been better. The establishment of the community funds was considered one of the best aspects of the program. The participants agreed that these funds have served to build the capacity of the CBOs through experience gained in managing the funds. See Annex 3 for further discussion of community funds and the "3-2-1" formula.

## **B.** Other Donors

USAID was the only donor funding a major recovery program in Haiti. The UNDP and the EU provided some assistance to enhance disaster management in Haiti in 1999 and 2000. The World Bank and the InterAmerican Development Bank (IDB) suspended activities in Haiti due to the political impasse in the country. Thus, the IDB did not fund a planned reconstruction project in the Artibonite Valley.

USAID/Haiti coordinated the HGRP disaster mitigation and preparedness activities, in particular assistance to the DPC, closely with the UNDP and the EU to avoid duplication and enhance synergies.

#### C. Other USG Agencies

## C1. U. S. Department of Agriculture (USDA)

The USDA signed two agreements, one with CRS and one with a CBO in Musac, for soil and water conservation/ravine protection activities in Haiti. USDA also provided funds to Peace Corps for several small projects in watershed recovery, nursery management and soil conservation. These three activities brought over 60 hectares of land under improved management, constructed 3,600 m<sup>3</sup> of check dams in ravines, planted 95,000 seedlings, constructed 38,000 meters of hedgerows and contour terraces, and built 2000 meters of rock walls on hillsides surrounding the ravines. The USDA activities brought the total number of hectares treated under the HGRP in Haiti to over 1,160 hectares.

USDA staff periodically visited Haiti to provide technical assistance and monitoring. The USDA sponsored a Soil and Water Conservation Workshop in December 2001 to encourage more coordination and synergies among various organizations active in this sector in Haiti. More than 50 representatives from local and international NGOs, the Ministries of Agriculture and the Environment, U. S. and Haitian universities, USAID,

and the FAO attended. Participants exchanged experiences and lessons learned on the technical aspects of soil and water conservation structures and site characteristics, as well as on the implementation and social aspects of these activities in Haiti from the perspective of sustainability and replicability. The proceedings are expected in March 2002.

#### C2. Federal Emergency Management Agency (FEMA)

In August 2000, FEMA signed an agreement with PADF to begin a municipal level disaster mitigation activity in Jacmel similar to FEMA's U.S. based "Project Impact". This activity ended in December 2001. A municipal civil protection committee for Jacmel was established that is closely linked to the departmental civil protection committee. They have prepared an action plan that identifies hazards in and around the city and prioritizes mitigation projects to address them. The plan also defines roles and responsibilities for response in case of a disaster. Several mitigation projects have been completed including bank stabilization along the Grand Rivière de Jacmel at the entrance to the city and a soil and water conservation project to protect the hydroelectric dam. As part of this activity, PADF, in conjunction with the DPC, held seminars in the South East department and helped to establish ten municipal committees who have developed disaster action plans. A FEMA consultant conducted Community Emergency Response Team (CERT) training to twenty-one participants from Jacmel and Lafond, a nearby community. CERT training allows ordinary citizens to take immediate action to save lives after a disaster occurs.

FEMA also worked at the national level directly with the DPC to build its capacity to prepare for and respond to disasters. In compliance with a congressional mandate, USAID/Haiti ESF-funded programs in FY 2001 did not provide direct support to the national government. However, approval was given for FEMA to work directly with the DPC. FEMA did this through a series of meetings and technical visits. They held a week-long Emergency Management Summit in Emmitsburg, Maryland in June 2000 for representatives from host governments, NGOs, the private sector and USAID program managers from all six countries receiving CACEDRF funds. In April 2001, FEMA hosted a delegation from the Haitian Ministry of Interior at FEMA headquarters in Washington for three days. A legal expert, an expert on emergency operations centers, and a consultant on emergency response came to Haiti several times throughout the twoyear program. FEMA also purchased approximately \$15,000 worth of equipment for DPC operations. A National Response Plan has been drafted and relevant ministries within the GOH understand their functional roles and responsibilities in the case of a disaster. The DPC now has a legal framework that can be taken to parliament in order to have the necessary laws and regulations on the books.

## C3. U. S. Army Corps of Engineers (USACE)

The main component of the USACE PASA was to conduct studies of the Grande Rivière de Jacmel and Grande Rivière de Marigot river basins. These two rivers have historically caused major flood damage in the southeast. USAID intended that the river basin reconnaissance studies would provide valuable data for assessments of natural hazards,

delineation of flood plains and prioritizing disaster mitigation activities as the recovery program progressed. USACE technical assistance team visits were quite regular at the beginning of the PASA period. USACE sent an expert to assist in the development of criteria for choosing sites for sub-projects in November 1999. Another expert came in early 2000 to assess geological hazards along a road repaired in 1999. Unfortunately, the timing of a necessary aerial survey and subsequent field surveys caused delays in the river basin studies. In October 2000, a new timeline for completion of these studies was approved. In June 2001, per a recommendation of the Regional Inspector General (RIG), the entire scope of work for the PASA was revised to comprise the following: the river basin studies, a schools mitigation component and the technical assistance already provided. USACE submitted draft river basin reconnaissance studies in May and June of 2001, almost a year behind the original schedule. After careful review by partners and technical experts, the Mission expressed serious concerns with data sources and assumptions used to prepare the reports and asked USACE to address them. USACE submitted revised reports in February 2002.

The concept for a USACE funded assessment of the repaired school structures for their resistance to hurricanes came out of the mid-term retreat in September 2000. USACE contracted with Hernandez Klein Design International, a private architectural/engineering firm, to come to Haiti in late April. Hernandez Klein submitted their report in June. It identified additional needs for mitigation measures to provide protection against high winds and seismic forces. Though Hernandez Klein found that most school structures did not meet International Building Code standards for resistance to hurricane force winds above a category two, they did note that the schools are stronger than before. The authors also noted that most of the school buildings were one of (or the only) better-built buildings in the community and therefore would still offer the best protection for people in the event of a major storm or low category hurricane. Certain of the additional mitigation measures advised by Hernandez Klein were implemented at the school sites by PADF and its partners. This report was made available to the GOH DPC and Ministry of Education.

Hernandez Klein also developed a design for a disaster resistant six-room school using the Government of Haiti standards for classroom size. This design was presented in a seminar on disaster resistant construction in June 2001. Hernandez Klein organized the seminar and brought an expert to Haiti from the International Building Code Organization. Engineers and architects from the Haitian public and private sector discussed natural hazards in Haiti and design factors for building to withstand them. Follow-up meetings have established a committee under the management of the Ministry of Public Works to help develop a code for Haiti.

#### **D.** Other USAID Programs and Offices

The USAID/Haiti HGRP team made every effort to coordinate with the education, environment, agriculture, democracy and PL 480 Title II and Title III teams and where possible to enhance synergies with existing or newly designed USAID funded programs. USAID/Haiti kept OFDA well informed about HGRP activities. OFDA sent several experts to Haiti to consult with USAID staff and partners, especially during the start up of program. Last year, OFDA provided approximately \$80,000 to the UNDP in Haiti for a community-level disaster mitigation program quite similar to the HGRP in approach.

## E. Government of Haiti (GOH)

The Government of Haiti (GOH) was not a direct recipient of USAID/Haiti's CACEDRF funds. However, every effort was made to keep the GOH informed of the status of the program. An advisory committee was formed of several key ministries including agriculture, environment and education that met with PADF staff about HGRP activities. As mentioned earlier, PADF and FEMA collaborated very closely with the DPC on the disaster mitigation and preparedness activities, which ensured that the newly formed local and municipal committees were linked to the national emergency response system.

## VI. Expenditures

The CACEDRF funds underwent a great deal more scrutiny than normal development programs. Overall expenditure rates were used as a rapid indicator of a Mission's progress in implementing its program. Unfortunately, the USAID/Haiti Mission over estimated its expenditure rate in a report sent to USAID/Washington in April 2000.



Cumulative Expenditures - Projected vs Actual

As can be seen in the graph above, actual expenditures did not match these projected expenditures until the end of June 2001. There are several reasons for the slower than anticipated expenditure rate. In March 2000, the U. S. Congress put a hold on all obligations for Haiti. Uncertainty about funding for other programs caused one potential partner to withdraw from implementing a \$300,000 activity, which in turn caused a

substantial delay while PADF and USAID searched for an activity(ies) to replace it. A rapid fall in the value of the gourde also affected the expenditure rate. PADF and its partners found that they had not expended as many dollars as had been anticipated based on budgets in gourdes. Finally, though all sub-agreements were in place by May 2000, the amount of time for activities to get to full implementation took longer than anticipated.

The graph above compares expenditures projected by the Mission in April 2000 to actual expenditures as of December 31, 2001. Note that, in April 2000, USAID/Haiti estimated that a total of \$9.8 million would be expended by September 30, 2001. Subsequent to that report, the program was extended to December 2001. \$36,000 was de-obligated from the USACE PASA at the RIG's recommendation. Total CACEDRF obligations/expenditures as of December 31, 2001 are \$9,764,000.

## VII. Monitoring and Evaluation

### A. South-East Consortium for International Development (SECID)

The South-East Consortium for International Development (SECID) was contracted to provide independent and reliable monitoring and evaluation (M&E) data on HGRP achievements and impacts as well as a final evaluation of the HGRP. SECID's principal activity was the collection, analysis and reporting of baseline, mid-term impact and final impact field survey data. Information was collected on income<sup>4</sup>, knowledge and use of improved seeds, and disaster preparedness and mitigation. SECID used a longitudinal study design that collected information three times during the life of the HGRP. Data was collected through three series of interviews with over 1,000 households in the HGRP intervention area. In May 2000, SECID conducted a baseline survey of 1,079 households in the HGRP intervention area to establish initial household indicator levels. The reference year was 1999. A mid-term impact survey was conducted in November 2000 to measure the progression of selected indicators in HGRP assisted communities. SECID surveyed 1,071 households in 29 communities. HGRP activities were implemented in 22 of these communities; 7 were controls. A final impact survey of the same households was conducted in October 2001. SECID produced written reports after each of these surveys.

SECID also conducted focus group sessions with project participants obtaining and recording the views of representative beneficiaries from target communities. The objectives of these sessions were to assess the beneficiaries' satisfaction with the HGRP activities; assess the level of participation of the community members; and determine the potential for replicability/sustainability of the HGRP activities. The qualitative information gathered from the reports of these focus group sessions was used in the preparation of the final evaluation.

<sup>&</sup>lt;sup>4</sup> Income was not used as a direct impact indicator for the HGRP. Nevertheless, valuable information on income levels and sources was gained from these surveys.

SECID submitted the final evaluation report in January 2002. A two-person team reviewed all the documents generated by the program and conducted field visits. They drew upon the focus group and survey reports to support conclusions. Lessons learned and recommendations from this final evaluation are included in Section IX below.

#### B. USAID's Regional Inspector General (RIG) Performance Audit

The USAID RIG conducted a performance audit of the HGRP from January 16 to February 2, 2001. The RIG performed this audit in order to determine whether the USAID/Haiti HGRP activities were on schedule to achieve planned outputs and whether the Mission had implemented an adequate monitoring system. After reviewing documentation and conducting eleven site visits, the RIG found that all but 4 of 31 ongoing activities were on schedule to achieve planned outputs. Because USACE was so far behind schedule, the RIG's only recommendation was to shorten the life of and reduce the budget for the USACE PASA. USAID modified the PASA to comply with the RIG recommendation. The RIG found that USAID/Haiti had an adequate monitoring system in place.

## C. General Accounting Office (GAO)

The U. S. Congress mandated the General Accounting Office (GAO) to monitor the assistance provided under the CACEDRF. A team from the GAO came to Haiti in March 2001 to ensure that funds were being used for their intended purposes and that the programs were viable and sustainable. The also looked at coordination issues and actions being taken to minimize the impacts of future natural disasters. The GAO team determined that the program was running well and saw nothing that would prevent the completion of the program on time. The team commented on the benefits of the infrastructure repairs, in particular the Thomazeau Road, and noted that communities were actively participating in the implementation of the program. The GAO did not submit a written report on Haiti; but will include information on the Haiti program in its final report to Congress.

## D. Financial Audit

USAID/Haiti signed a contract with Mérové Pierre, a local CPA firm, to conduct a concurrent audit of PADF and its sub-partners. USAID/Haiti maintained a close liaison with the RIG in El Salvador on the conduct of these audits. RIG staff came to Haiti often to monitor the audit activities. In May 2001, two staff from the RIG visited several HGRP sites near Jacmel including two schools, two potable water systems and the Cap Rouge road. They were satisfied that the funds were being used to accomplish the objectives of the program. Based on the sound financial management system used, after several quarterly audit reports, the RIG agreed that the concurrent audit could be reported on a semi-annual basis in lieu of quarterly. A close-out audit report is expected in March 2002.

## VIII. Constraints & Challenges

In addition to the challenge of coordinating myriad players discussed above, the difficulty in reaching remote areas on nearly impassable roads sometimes presented a constraint to implementing the program. For example, travel to sites in the far southeast was often accomplished only by traveling through the Dominican Republic. To address this constraint, with USAID approval, PADF established a satellite office in one particularly difficult area that had several ongoing activities. A project coordinator and administrator remained in the area and worked closely with the CBOs there.

Throughout the life of the program, civil unrest and insecurity due to high crime hindered implementation of certain activities, especially those that relied on technical assistance from foreign experts. During most of the period of November 2000 to March 2001, travel to Haiti was restricted for security reasons related to political violence and unrest. In fact, there was a voluntary evacuation for USG dependents during this period. Though political tensions eased in mid-2001, crime has been a more pervasive problem. Car jackings, robberies and more recently kidnappings occurred almost daily. Security of USAID staff and partners could not be taken lightly and required a high level of management. In spite of these concerns, the HGRP met its targets.

Another challenge for the HGRP was to ensure sustainability of such a short-term program. Maintenance training and hands-on training of CBO staff in management and accountability was implemented with this objective in mind. The community funds generated under the 3-2-1 formula for the IR3 and IR 4 activities have ensured some means of continuing activities of priority to the CBOs.

Some aspects of the HGRP are being replicated and/or continued. USAID/Haiti has funded a follow-on program to further the strides made under the HGRP with local and municipal level committees. The Hillside Agriculture Program is continuing to support research in seed production. The PL 480 Title III will soon begin an extension of the Cap Rouge Road rehabilitation. The USDA has awarded a Food for Progress grant to PADF to implement a program very similar to the HGRP in the north and south of the country.

## IX. Lessons Learned & Recommendations

The SECID final evaluation, partners reports, retreats and meetings among partners and SpO team members have generated several lessons learned.

• The umbrella grant mechanism was probably the best implementation mechanism, considering the short timeframe and the myriad small activities to be implemented in over 20 locations. Having one main grantee with several subs created a ready network that eased communications and established a "chain of command" that facilitated progress reporting and accountability. Most activities were implemented by CBOs, supervised by U. S. NGOs that were in turn supervised by PADF. Though this required tight coordination, the HGRP was able to benefit from the expertise at each

level without becoming bogged down by the weight of the structure. By relying on this network of organizations, USAID was able to benefit from a broad range of experience while having to deal with only one main grantee.

- Working with strong, experienced CBOs was crucial for this reconstruction program. Again, the short time frame of the HGRP did not allow for the time to create new organizations.
- NGOs and contractors already in country were able to design activities and begin implementation sooner than an organization that had not worked in Haiti before. Nevertheless, another lesson learned was that even these organizations needed a month or more to be fully mobilize after an agreement was signed.
- Close coordination among partners enhanced communications. Progress towards meeting targets was freely shared and a joint sense of involvement and investment in the program was developed.
- Taking the time to form a strong SpO team that clearly understood the roles and responsibilities of each member helped to facilitate the technical and financial oversight needed with such a visible, highly scrutinized program. Every team member worked hard to facilitate approvals and provide support to field staff implementing the activities.
- The generation of community funds using the 3-2-1 formula was an innovative means of ensuring ownership of the activities by the communities and a resource for community based organizations. Annex three discusses the community funds and the 3-2-1 formula, which was implemented under the HGRP.
- USAID and its partners learned that a concerted effort was needed to increase the interest in and usage of commercial seeds. Even though the commercial quality seeds were sold at grain prices, the demand in the first year was lower than expected. In the second year of the program, an active campaign was implemented to increase awareness of and demand for the seeds in the project-assisted areas, which helped to increase use from 4% to 19% in one year.
- Success in managing the other USG agencies whose agreements originated from Washington was good but could have been better. Though these agencies brought unique and valuable expertise to the program and made every effort to collaborate closely with the USAID Mission and complement USAID/Haiti's program, the fact that program managers were based in Washington made coordination more difficult. These agencies never became full partners in the program as the other USAID partners did. Having a full time representative in country would have been helpful. The question of to whom they were responsible and how their programs would be monitored was not clear. A more direct relationship such as a PASA with the USAID Mission with clear lines of authority is recommended for another reconstruction program.

# ANNEX 1- HGRP Sub-Agreements & Activities



# ANNEX 2.

Table 1- HGRP Targets & Results Achieved by December	er 31, 2001	
Indicator	Target	Result
Number of communities more resilient to disasters	20	22
Percent of households using improved seeds	20	19
Volume of Improved seeds distributed	715	463
Volume of basic seeds in reserve	25	25
Number of schools repaired	24	25
Number of kilometers of roads rehabilitated	12	22.2
Number of hectares of land under rehabilitated irrigation systems	1700	3090
Number of kilometers of pipes of potable water systems repaired	27	36
Number of hectares of land under improved soil and water conservation practices	900	1103
Percent of households with increased awareness of disaster mitigation and preparedness	20	33
Number of communities with functioning disaster committees	20	22
Number of participants at disaster preparedness & mitigation seminars	2440	5000

#### **ANNEX 3**

#### **Community Focus**

The crux of the Hurricane Georges Recovery Program (HGRP) was community participation. There was a high level of ownership of the activities in the communities. The identification, design and implementation of many local activities were accomplished in partnership with community based organizations (CBOs). In some cases, the activities emanated directly from the CBOs. Experienced CBOs implemented all IR3 and IR4 activities, except the school repairs. The involvement of these groups in the recovery process of their respective communities contributed not only to the success of the local activity but also to its sustainability

Another aspect of community involvement was the significant contribution of voluntary labor to the infrastructure repair and soil and water conservation activities. Of six days worked, half were paid, two were voluntary, and one day's pay was deposited into a community fund. This came to be known as the "3-2-1 formula". The utilization of these funds has been an excellent experience for the CBO managers and the communities they serve. Each CBO determined how to use these funds and used them in very innovative ways. One used them to purchase a corn mill. One set up a seed bank. Another established a training center. Another group held a seminar on the environmental problems of the Southeast Department and another paid for fuel to have the road to their community graded.

Equaling a value of \$300,000, the unpaid labor reduced the cost of the program and ensured that the local community was willing to invest in the project. Participants at a HGRP retreat in June 2001 agreed that the establishment of the community funds was one of the best aspects of the program. The participants agreed that these funds had served to build the capacity of the CBOs through experience gained in managing the funds. The SECID final evaluation states that "the '3-2-1 formula' for community labor was a success in developing community spirit, teaching basic construction skills to rural men and women, adding money to CBO coffers, teaching NGO and CBO leaders the principles of management, and encouraging a community spirit and self-reliance among participants."