

Section II: Activities by Country

A) *The Dominican Republic*

Hurricane Georges struck the Dominican Republic. The hurricane killed more than 200 people and temporarily drove 100,000 people from their homes. Seventy percent of the nation's bridges were impacted, and many roads were washed away or heavily damaged. Damage estimates exceed \$1 billion. The agricultural industry was severely impacted. Around 90 percent of the banana crop was lost and other crops also sustained heavy losses.

FEMA contributed to the USAID mission's Intermediate Result #5 "Disasters Mitigated" by working to "increase the capability of local and national level organizations to cope with future disasters."

1. National Emergency Management System

FEMA's goal was to assist the Dominican Republic in strengthening its emergency management system by working with the country's national emergency management organizations, Defensa Civil (Civil Defense) and the Technical Secretariat of the Presidency (STP), and at the municipal level with La Oficina Municipal Para Manejo de Emergencias (Office of Emergency Management) for the City of Santo Domingo. FEMA attended coordination meetings conducted by the USAID and completed its first needs assessment visit to Santo Domingo in May 2000. FEMA then hosted the STP and Civil Defense Staff at an Emergency Management Summit in June 2000 to discuss emergency management functions in the U.S. and to further develop plans for FEMA's technical assistance. The institutional issues that were considered were the national response plan, national emergency management laws and regulations and emergency operations centers.

Initially, FEMA proposed working with Civil Defense to review the existing national response plan, emergency management laws and regulations governing the National System for Disaster Prevention, Mitigation, and Response, and to design and help establish emergency operations centers (EOC) to help create an improved capability to respond to emergencies. Unfortunately, all of these activities were not completed during the project for several different reasons. First and foremost, there was a change in the leadership of Civil Defense halfway through the project, accompanied by internal disagreement within the GODR about the appropriate agency with which FEMA should work. Second, USAID's Office of Foreign Disaster Assistance developed a project to help countries develop plans and standard operating procedures (Management and Control at Emergency Operation Centers -- MACOE) and expressed interest in assuming responsibility for these activities. Third, Civil Defense indicated that they did not need FEMA's assistance in several of the areas mentioned above, including analyzing the

emergency management laws and regulations. Finally, there were communication problems between the USAID mission in Santo Domingo and FEMA that were never adequately resolved.

In spite of these issues, FEMA, Civil Defense, and the City of Santo Domingo were able to make progress in enhancing emergency management capabilities. One of the most crucial tools for coordination of disaster response and recovery is a functional emergency operations center (EOC). In the Dominican Republic, this facility could serve as a focal point for receiving information about disaster situations, coordinating the government's response, and disseminating information to the public. FEMA therefore produced design plans to improve the operational facilities and plans for both Civil Defense and the City. (There were actually two different plans prepared for Civil Defense, precipitated by the leadership change, and the choice of a different location for the EOC). These plans were developed to be the most efficient possible based on the Dominican Republic's existing emergency management system, and FEMA believes the organizational and structural changes, equipment purchases, and operational suggestions contained in them would serve to help modernize and improve emergency management capabilities in the Dominican Republic.

FEMA then participated in discussions with other organizations such as USAID and the Inter American Development Bank to attempt to secure funding for the equipment needed for the national EOC. Because of the communications issues mentioned above, FEMA does not know if the EOCs were established and was not asked to return to help set them up. FEMA would urge that modern and effective EOCs be established, both at the National and City of Santo Domingo level.

FEMA also studied the City of Santo Domingo's emergency management system and plans. Based on this review, FEMA developed an outline of a municipal emergency management response plan for the City to use as a tool to develop a more comprehensive emergency management plan addressing all four phases of emergency management – mitigation, preparedness, response, and recovery.

FEMA also provided technical assistance from a disaster operations expert to Civil Defense during a disaster alert period, and provided the GODR with hurricane tracking software.

2. Building Disaster Resistant Communities

In the Dominican Republic, the USAID mission recommended that FEMA partner with the Asociación Dominicana de Mitigación de Desastres (ADMD). This organization has a strong background in emergency preparedness in the Dominican Republic and proved a very effective facilitator of FEMA's Project Impact efforts.

Two communities were chosen, Haina and the Jaquimeyes, Tamayo and Vicente Noble region. Haina is the main port for the Dominican Republic, and its project benefited from strong private sector support. This community focused on business continuity planning and mitigation construction projects. The challenge that Haina faced was to include the public sector in the decision making process. Jaquimeyes, Tamayo and Vicente Noble, was a more rural area that focused on community education and preparedness activities. The challenge this project faced was to enlist private sector support, as well as the support of the local elected leadership. Taken together, these two projects, with their strengths and weaknesses, provide an excellent model of how to effectively execute Project Impact in the Dominican Republic to create more disaster resistant communities. FEMA is therefore encouraged that USAID mission in Santo Domingo has made mitigation a funded item in their proposed five-year plan.

Despite the many losses, there is optimism that projects such as Project Impact will be catalysts in changing the philosophy from response and recovery to mitigation and preparedness. The following projects have been accomplished under Project Impact in the Dominican Republic:

Haina

The Haina Project Impact initiative involves many private sector partners. This is due in large part to the involvement of the Haina Industrial Association, including the Association's President and Executive Director. The Haina Industrial association is motivated because its leaders are aware that among its members there are businesses that provide critical services and products to the entire country. This includes both of the country's electrical power plants, the only oil refinery, the most important port, important chemical companies, important factories, etc. By nature of their close proximity to each other and by their exposure to natural disasters such as hurricanes, flooding and earthquakes, the Association leadership realized that a large event in Haina would paralyze, not only their own businesses and community, but also the entire country.

Projects

Implemented Hazards and Effects Management Process (HEMP), – this contingency planning tool is helping businesses become better prepared for future disasters. The process not only teaches

businesses where they are vulnerable, but also helps them develop a contingency plan, with an exercise component, which will minimize future damages and ensure that businesses resume operations with minimal disruption.

Delivered a two-day Contingency Planning Seminar, which was attended by 20 local businesses.

Developed a Hazardous Materials Safety Route –the route was identified in to keep trucks from carrying hazardous cargo in certain parts of the industrial section. Signs were made and posted along the route.

Developed an evacuation route.

Held workshops and training seminars on subjects such as First-aid, Search and Rescue and Risk Management.

Installed lamps and cement posts in front of Felix Peña School – this project provides light in a high traffic area that has a high amount of pedestrian activity and has a high vulnerability to accidents due to the lack of visibility at night.

Reinforced the Quitasueños School –this project included structural repairs to make the school more resistant to hurricane force winds. New windows were installed with hurricane shutters and new doors were added. Additional cosmetic repairs were made in the bathrooms and in the hallways to make the building an acceptable shelter.

Built drainage projects in the Vietnam and Ñagá neighborhoods – these projects will improve drainage and will reduce the annual flooding problems.

Constructed a footbridge –this footbridge will enhance the city’s ability to evacuate a section of town vulnerable to flooding.

Constructed a perimeter wall to isolate the Fomento neighborhood from future illegal and hazardous development –squatters have set up homes in a vacant lot, adjacent to the chemical plant that makes bleach. The ground is contaminated and is not safe for residential use. The wall isolates the parcel and helps the city keep it vacant.

Jaquimeyes, Tamayo and Vicente Noble

The three communities of Jaquimeyes, Tamayo and Vicente Noble are very vulnerable to disasters. Many floods have occurred over the years, and many sections of these three communities suffer flood damages following every event. Some flood control projects that were put in place on the Yaque del Sur River following Hurricane Georges, were determined to not sufficiently protect the three communities. Many residents in these areas believe that there is not much they can do to protect themselves from flooding. Residents were also unwilling to move to areas that are less vulnerable to flooding. In addition, the flood control measures

necessary to improve the projects built along the river were cost-prohibitive for the Project Impact effort.

Therefore, Project Impact changed its focus from trying to prevent future damages to trying to protect the residents from flash floods and rising water. ADMD recommended that the communities use Project Impact to identify and upgrade shelters and warehouse storage centers, educate the people on evacuation routes, provide evacuation route signage and develop CERT teams in each community. These projects were more preparedness than mitigation, but these were the items that were deemed important priorities by the communities themselves.

Projects

Created Community Emergency Response Teams (CERT) –these three communities have trained several CERT teams in each community. Between 50 and 60 CERT members have completed the training and have participated in exercises. These CERT teams will enable the communities to evacuate quickly, provide search and rescue, provide first-aid and help the communities accomplish a variety of emergency management tasks.

Wrote an Emergency Plan –each community has an emergency plan and a town mitigation committee. Additionally, a region-wide mitigation committee exists.

Developed an Early Flood Warning System –signs have been posted in visible spots, next to bridges and in other locations near the river, providing information on flood levels. The signs help the communities decide when they should consider evacuation.

Implemented an education program –every house received a poster, providing information on what to do before, during and after a disaster. Many residents have placed the posters on walls in their houses. Evacuation signs have been placed around town, providing information on how and where to evacuate.

Developed shelters and warehouses –shelters have been identified in each community. Each shelter has been carefully selected for its location, away from the floodplain. Signs have been posted, showing the direction to a shelter, and signs are posted on the shelters themselves. Locations have been identified for the stockpiling of emergency supplies; each warehouse location has a sign posted.