HUD'S POST-DISASTER RECONSTRUCTION IN THE DOMINICAN REPUBLIC

Project Overview

In the fall of 1998, hurricanes Georges and Mitch battered Central America and the Caribbean, causing unprecedented damage. USAID transferred to HUD $10 million as part of a $621 million assistance bill. HUD used its expertise in housing and community redevelopment to rebuild communities in the region and help them become better able to resist the forces of natural disasters. All of the appropriated money was spent by January 31, 2002, including $2.7 million for the Dominican Republic.

HUD's experimental program has been well received by local officials and communities; provided model projects in land use planning, disaster preparedness, housing construction training and housing finance; illustrated the critical importance of housing and land use planning in any effective reconstruction program; and highlighted how new and creative partnerships between the federal government and private technical expertise can contribute to the effectiveness of American intervention abroad for post-disaster recovery.

Dominican Republic

Community Revitalization

HUD focused much of its work on the informal settlement of Nueva Isabela located on an abandoned sugar cane plantation in the northern part of Santo Domingo, the capital city. The settlement, which has existed for 40 years on the banks of the Osama River, grew as people moved to the city to find work. As the new residents did not have title to the land, the community was established without any planning and organization. HUD contracted with US-based technical planners Steven Winter Associates to study Guaricano, a depressed neighborhood in the settlement. The contractor created a comprehensive development plan to organize everything from the location of homes, roads and public space to making optimal use of existing resources. The contractor also undertook risk mapping to locate areas of great risk to flooding and landslides and drafted emergency action plans, including specific evacuation strategies.

With the long-term plans established, HUD contracted with CII Viviendas, a local organization specializing in community organization and development, to undertake some of the most pressing needs as identified by the development plans. With the guidance of technical experts, CII Viviendas organized the community to: 1) build 30 new homes; 2) repair and pave main access roads; 3) build six pedestrian streets, one of which measures 350 feet, ensuring adequate escape routes; 4) build a network of public lighting; 5) create a water treatment plant, thus providing potable water for the first time; and 6) create playgrounds and other common areas. The contractor also created a municipal agreement for garbage disposal, and ran a series of workshops on planning and management of new micro-enterprises, as well as on nutrition, health care, and the role of citizens in a democratic society. This pilot project was designed to show the success of public-private cooperation. The government was so pleased with the results that it is now studying this model for rebuilding other communities and solving social problems in five other cities.

Land-Use and Site Planning

HUD's largest site-planning work in the Dominican Republic was the creation of a comprehensive training manual for instruction on basic land use planning techniques, *Los Fundamentos de Planificacion de Sitios*. People without legal title to land are usually forced into building on whatever land they can find – often on flood plains or other areas susceptible to natural disasters. The manual, prepared by the American Planning Association, incorporates the latest thinking on land use development principles, particularly site planning guidelines, as well as cost-effective ways to incorporate ecological and social factors in the post-disaster reconstruction plans. The manual is available from the Office of International Affairs.

In Santiago and Santo Domingo, APA trained 80 municipal officials, planners, engineers and architects in the fundamentals of site planning. The workshops stressed the importance of site planning as a way to reduce the future effects of natural disasters. Topics included issues such as community orientation, existing site conditions, site preparation, soil mechanics and the relation to the existing community. The 80 participants will conduct training sessions for other professionals.

At the request of the US Agency for International Development, HUD also conducted a soil engineering study of three communities – La Surza, Capotillo, and Simon Bolivar – along the Osama river. HUD contracted with Steven Winter and Associates to highlight the dangerous places in the riverbank communities in order to guide developers to safer areas.

Housing Construction

The poor in the Dominican Republic, as in most other countries in the developing world, frequently build their own shelters using whatever materials are readily available – such as corrugated tin or wood pallets. As a result, these basic structures are exceptionally vulnerable to strong winds, heavy rains and other natural forces. To help teach people how to build sturdier and safer homes, HUD and the National Association of Home Builders (NAHB) Research Center developed a training manual to illustrate basic safe and durable construction practices for lower income families building their own homes. The Spanish language manual, *Reforzar y Conectar para Proteger: Ideas para Construir Mejor Desastres Naturales,* covers design, materials, technology and management. Written in user-friendly terms and advocating the use of local materials, such as cinder blocks, this manual helps the average resident build safer and more durable dwellings for his family. The manual is available from the Office of International Affairs. NAHB has also produced a companion video to reinforce the lessons in the book for both training sessions and for general television viewing in order to make the general public more aware of the need for building safely. The video was shown on the national television network in late August 2001.

HUD and NAHB developed simple, low-cost housing construction technologies that strengthen the structural integrity of the home, increasing the chances that it will survive a hurricane. The basic methods being taught include: 1) using "hurricane clips," which attach the various structures of a home together to withstand high winds; 2) doubling the number of nails used on the roof to minimize the chance that the roof will be blown off; 3) using "U" blocks on windows and doors, which reinforce the openings without needing additional materials; and 4) stressing that concrete should only be mixed

with gravel and sand – foreign materials will weaken the mixture. NAHB trained over 300 construction supervisors in three workshops through a partnership with CII Viviendas, the same local organization used in the Guaricano project. The construction supervisors have become trainers in these methods, thus multiplying HUD's impact on the local industry.

Housing Finance

HUD created a micro-finance program to reach the impoverished majority of the people unable to access any funds to repair homes or to start small enterprises. Working through its cooperative agreement with US-based Accion International, HUD worked with the Fundacion Dominicana de Desarrollo (FDD), a local lending institution in Santo Domingo, to capitalize a revolving loan program for both housing reconstruction and micro-enterprise development. The average size of the loans is about $1,600. More than 400 poor families have already benefited from these loans, using the funds for replacing zinc roofs with reinforced concrete, substituting concrete blocks for rotted wood walls and investing in the growth of their microenterprises. As this is a sustainable loan fund, HUD's funds will continue to have an impact, eventually helping thousands of poor households to strengthen their homes against disasters and pull their way out of poverty. FDD also received funding to support technical training in the loan management operations and training and in borrower counseling in basic debt management and property maintenance practices. Additional funds were dedicated to grants for 40 very poor households living in Guaricano, a HUD community revitalization project.

As part of an effort to strengthen the housing finance system in the Dominican Republic, HUD worked with the Overseas Private Investment Corporation (OPIC) in an experimental project to introduce new sources of mortgage capital into the Dominican system. HUD's effort was concentrated on the development of model manuals, or guidelines, in mortgage origination, underwriting and servicing that could be adapted for use by an OPIC private banking affiliate in the country. These model mortgage finance manuals were developed by Societas-International Institute for Real Estate Finance, a consultant to the prime contractor, Accion International, and are expected to be adapted for similar projects in other countries.