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GIS APPLICATIONS FOR NATURAL HAZARDS MANAGEMENT
IN LATIN AMERICA AND THE CARIBBEAN

ABSTRACT: Geographic information systems (GIS) have been used successfully in Latin America and the Caribbean to assist development planners in natural hazards assessments. Individual and multiple hazards analysis have been combined with information on natural resources, population, and infrastructure using PC-based GIS technology to assess vulnerability of sectoral development projects as well as to support emergency preparedness and response activities. Applications have been at the national, regional, and local levels. The design of databases, selection of GIS software and computer hardware, and introduction of spatial analysis into integrated development planning and emergency planning processes have been carried out in accordance with counterpart agency skill and experience levels. Participants in technical assistance, training, and technology transfer activities have been drawn from the development planning, emergency preparedness, and engineering/natural science research communities.

BACKGROUND

In 1983, the Organization of American States, through its Department of Regional Development (OAS/DRD), and with the support of the United States Agency for International Assistance, Office of Foreign Disaster Assistance (USAID/OFDA), initiated the Natural Hazard Risk Assessment and Disaster Mitigation Pilot Project in Latin America and the Caribbean Basin (NHP). The fundamental objective of the NHP is to reduce vulnerability to natural disasters by incorporating natural hazard risk assessment and mitigation measures into integrated regional development planning. From the

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