Since 1983, the Organization of American States has supported work of national, sub-national, community, project, sector, and sector policy levels. Recovery is seen as to be the “window of opportunity” to introduce disaster mitigation measures. As, yes, as written with reconstruction after Hurricane Mitch in Central America, countries must include risk management in project loan cost and not as a stand-alone component dependent on grants. Public and private sector owners and operators of infrastructure should be held accountable for the levels of risk (of failure under natural hazard conditions) in the projects they design, build, and maintain.

Economic cost-benefit evaluations may not always justify risk reduction directed at the poor, other vulnerable groups, and the social sectors (water, health, education), but addressing the needs of these groups is in the broader national interest and is an essential part of any sustainable development strategy.

For further information, please contact Stephen Bender (sandra@usaid.gov) in the Unit for Sustainable Development and Environment with inputs from interns Valery Bode and Juan Domenech-Clar. The photographs above, taken by Pedro Bastidas in 1999, show members of a local community in El Salvador installing instruments for a flood early warning system as part of the OAS-led “Flood Vulnerability Reduction and Local Alert System in Small River Valleys Program in Central America.”


BOX 1. SELECT STATISTICS ON NATURAL DISASTER COSTS

(1) Hurricane Mitch inflicted losses totaling more than 10 percent of Central American GDP for 1998 and demonstrated the pronounced vulnerability of a number of sectors. 8.6 percent of total losses were in the private sector (64.4 percent) and in infrastructure destruction (20.7 percent). Agriculture, cattle, fishing and forestry agencies accounted for 4.0 percent of total losses, while destruction of highways, bridges, and train tracks, which rose to over a billion dollars, accounted for 17.8 percent of total losses. Mitch affected not only the most important economic sectors, but also urban and rural populations of all income levels.

(2) The El Salvador earthquakes in 2001 (beginning at 7.6 on the Richter scale) damaged 30 thousand farms and 20 percent of the coffee processing plants, severely affecting the means of income for rural families still recovering from Hurricane Mitch. Forty percent of the nation's schools were damaged and one-fourth of the health infrastructure network destroyed. The earthquakes interrupted transport on the Pan-American Highway, over 300 rural roads, and aggravated already severe environmental degradation. Among other things, these impacts resulted in a redrawing of the national poverty map.

(3) In Argentina, Ecuador, Honduras and Nicaragua costs associated with floods amount to more than one percent of GDP annually.

(4) Brazil, Chile, Venezuela, Ecuador, Colombia, Cuba, Nicaragua, El Salvador, Honduras, Guatemala and Mexico are among 28 countries worldwide that have suffered direct disaster losses of over $1 billion each in the past 20 years.

CHALLENGES

Risk and Vulnerability. Managing natural hazard risk is a long-term development issue, not solely a set of actions taken before, during, and after a disaster event. Entire communities can mitigate natural hazard risk in anticipation of such events through appropriate management of physical (political, social, economic, and environmental factors or processes that increase the susceptibility of a community to the impact of disasters). Per capita losses associated with natural disasters represent a higher percentage of the GDP in the developed world, mostly because conditions of underdevelopment and poverty are more likely to open the door to a variety of natural hazards and why disasters contribute to perpetuating poverty. Without addressing this unfortunate dynamic and vicious cycle, overcoming poverty and related Millennium Development Goals will not be possible.

Impeded Development. When a major natural disaster occurs, a substantial percentage of development leading to a given nation has to be replaced infrastructure, thus disrupting government resources away from disaster response activities. To avoid this, the risk of low death, indirect, and secondary costs, leading for disaster recovery represents a two-fold loss — both a loss of development resources and a loss of future capital due to development activities that have had to be postponed, sidelined, or delayed to address the emergency needs. In some countries, the development agenda is being set up to the years to come by the disaster recovery needs.

OVERCOMING OBSTACLES

Political Management. Land degradation, unsustainable agricultural and land-use policies, and weak local governance contribute substantially to increased risk and vulnerability of social and environmental management of natural resources in a powerful mechanism to reduce vulnerability to disasters. (See Organization of American States (OAS) Primer on Natural Hazard Management and USAID and United National International Strategy for Disaster Reduction “Living with Risk” publication for more information at http://www.oas.org/hsd/). Wetlands provide environmental services including flood mitigation, shoreline stabilization, erosion control, and a measure of protection from storms and tidal forces. Forest cover greatly reduces the probability of landslides, soil erosion, flood, and wildfire. Barrier reefs, barrier islands, and mangroves mitigate hurricane damage and storm and tidal forces. Policies and practices to promote environmental management of wetlands, ecosystems, and urban areas have been shown to reduce and buffer against the effects of natural disasters.

Sector Mainstreaming. Transportation, tourism, agriculture, water, energy, health, education and other sectors comprise core areas in which disaster risk management needs to be internalized and mainstreamed. National development plans should include natural hazard risk management as an investment rather than a cost. Funding, Accountability, and Incentives. Funding and assigning a responsible party (for project design, implementation, monitoring, evaluation, etc.) in the development activities. Natural hazard risk management is not an exception to this rule. The OAS has supported the development of disaster management, defined broadly — the emergency management community, the migration community, and the traditional development community — and to financial support yet there are few examples of a systematic, sustainable process for managing natural hazard as a part of the development process. The lack of funding for pre-disaster measures, misused funding (that is not given or lent to those who have the jurisdiction to make meaningful changes or who have a stake in reducing risk in their communities), and political decision-making that prioritizes short-term gains (accompanying regulations and directed at responsible parties) for mitigation and risk management have further contributed to the decision to publish on post-disaster response in LAC. This situation can be addressed by national governments, lenders and donors who

understand the dynamics of the communities vying for control of disaster-related funds;
encourage pro-disaster vulnerability reduction and mitigation measures;

promote and insist on sound land-use planning, environmental management, and construction standards in new development;
help design and promote incentives (such as technical support, benchmarks, certification, publicity, and awards) for better practices and attention to natural hazard risks.

ROLE OF INTERNATIONAL INSTITUTIONS

Multilateral lending institutions such as the Caribbean Development Bank, Inter-American Development Bank, and the World Bank continue to review and update their disaster assistance; together with the insurance sector, they are also examining new approaches to financial risk management for borrowing countries. The Andean Development Corporation, United Nations agencies, and bilateral development assistance agencies continue to work with specialized emergency management organizations and local entities to address disaster management issues. The International Federation of the Red Cross and Red Crescent Societies and Pan-American Health Organization are increasing their efforts to focus on vulnerability reduction at the local level, while the Organization of American States is assisting LAC countries and sector organizations with vulnerability and risk reduction (see Box 2). Regional organizations in the Caribbean, Central America, and the Andean Region are taking on roles of promoting and coordinating efforts in defined phases of disaster management.

International institutions need to systematically expand their focus on how their projects reduce or increase natural hazard risk. They also must continue to disseminate lessons learned, best practices, and empirical information in order to assist borrowing countries with policy options, technologies, capacity building, and technical inputs. In particular, institutions need to continue to identify vulnerabilities and their inclusion in the policies and project activities of international development lending institutions and appraisal processes in order to achieve genuine government and non-governmental organizations working on community development.