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International Federation  
of Red Cross and Red Crescent Societies

Search :

## Publications World Disasters Report 2002



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Home

How to help



Who we are



What we do



Where we work



News



Meetings & events

Photo gallery

Publications



Directory



Jobs



Volunteers

Youth

Contact us

Search



◀ [Back to Publications main page](#)

### Chapter 2 - summary

## Disaster preparedness – a priority for Latin America

Hurricane Michelle ripped through Cuba in November 2001, the most powerful storm since 1944. But just five people died. Successful civil defence and Red Cross planning ensured that 700,000 people were evacuated to emergency shelters in time. Search-and-rescue and emergency health-care plans swung into action. In Havana, electricity and water supplies were turned off to avoid deaths from electrocution and sewage contamination. Cuba's population was advised in advance to store water and clear debris from streets that might cause damage. Later, the United Nations (UN) reported that the government's "high degree of disaster preparedness... was decisive in the prevention of major loss of life".



Yoshi Shimizu/  
International Federation,  
Honduras 1999

The contrast between events in Cuba and earlier disasters, such as Hurricanes Mitch and Georges in 1998 and the floods in Venezuela in 1999, is enormous. Mitch killed 20,000 people and put Honduras's economic development back 20 years. Without better disaster preparedness, the region's development will be knocked back by each succeeding disaster. But where are resources for disaster preparedness best invested?

Between 1960-1988, the United States logged 64 "natural" disasters in Central America alone. Communities are left increasingly vulnerable by poor construction and environmental degradation. During the earthquakes that shook El Salvador in 2001, 700 of the 1,100 who died were buried when a landslide engulfed poorly sited houses in Santa Tecla.

Moreover, governments and aid agencies are failing to prepare communities and themselves to cope with disaster. When Hurricane Mitch struck Honduras, the absence of simple evacuation procedures, search-and-rescue teams and relief stockpiles cost many lives. Have we lost sight of the real difference that disaster preparedness (DP) can make?

Following the three disasters of 1998-99, an independent team reviewed the Red Cross's performance. They charged National Societies and the International Federation's secretariat with being "not adequately prepared...to respond in a timely and effective manner to disasters". The team added that, while community-based DP is clearly

[WDR home page](#)

[How to order](#)

[Contents](#)

[Introduction](#)

[Chapter 1](#)

● [Chapter 2](#)

[Chapter 3](#)

[Chapter 4](#)

[Chapter 5](#)

[Chapter 6](#)

[Chapter 7](#)

[Chapter 8](#)

[Video](#)

[Press release](#)

[Opinion piece](#)

[Photo gallery](#)

[Previous issues](#)

important, National Societies themselves have a "fundamental obligation" to ensure that they too are "appropriately prepared".

The International Federation has responded by creating the Pan-American Disaster Response Unit (PADRU) to strengthen regional DP and response capability. PADRU is based in Panama, where good communications, security and a free trade zone mean it can procure and distribute relief supplies within 24 hours of a request.

PADRU's first priority is strengthening the capacities of Red Cross societies to prepare for and respond to disasters. It trains national intervention teams in a range of life-saving and relief disciplines. It also helps source relief materials locally. While every Red Cross branch would like its own relief warehouse, PADRU advocates for a combination of regionally available stocks plus "pre-contracts" with local suppliers to deliver materials rapidly when disaster strikes.

PADRU's overall aim is to ensure swift, effective delivery of relief aid while building capacity of local-level disaster preparedness and response. Some resources (e.g., search-and-rescue personnel) need to be locally based to be effective; while others (such as strategic stockpiles of relief aid) may be better sourced regionally or nationally. Some skills (for example, evacuation procedures) need to be embedded within communities themselves; while others (e.g., management expertise in handling massive international relief supplies) are best centralized.

Many argue that vulnerability to natural disasters is driven by poverty and therefore that economic development is the best form of disaster preparedness. Mostly, it is the poor who suffer most from disasters. But not always. During Peru's earthquake last year, some shanty dwellers survived where richer neighbours perished. And the 700 victims of the Santa Tecla landslide in El Salvador were mostly middle class.

Forces other than poverty are exposing people to disasters. Lack of land-zoning regulations may allow developers to build in high-risk areas. Corruption may allow them to ignore building regulations. Ignorance may mean that people move into substandard buildings blind to the risks. And without maps of high-risk areas, no amount of wealth will provide protection. Rich and poor died together when lava belched from a Colombian mountainside in 1985 and obliterated a city of 20,000 people. Riches would not have saved one of them; a decent prediction of the eruption and an evacuation procedure could have saved them all.

Experts agree that, while national governments should take the initiative to reduce risks, progress can be made at community and municipal levels. In Peru, 15 Red Cross emergency brigades, trained in evacuation and first aid and linked to local civil defence, came to the aid of 30,000 people during 2001's earthquake. According to one volunteer, people "knew what to do and where to go as their houses collapsed. They didn't panic. They worked together as neighbours, getting everybody to open spaces. The brigades definitely saved lives here".

While earthquakes cannot be accurately predicted, extreme weather events can; but forecasts are of little use unless communities are warned and know what to do. In Cuba, effective planning and dissemination of information through state-run media allowed the country's evacuation procedures to be activated before Michelle struck.

Few such systems were in place in Central America when Mitch hit. But some communities had devised their own early warning. In Guatemala, towns along the Coyolate River got together in the mid-1990s to map flood-hazard zones, build shelters and monitor river levels. An alarm, triggered by rainfall gauges in the mountains, alerts communities to check river flows and, if necessary, to evacuate. During Mitch, 300 people died in floods along other rivers. But along the Coyolate there was no loss of life.

Risk mapping is gaining popularity. But what risks do you map, and

how do you quantify risk? In southern Peru, geologists have drawn up detailed maps of earthquake and tsunami risks, following the 2001 quake. Meanwhile, volcanic eruptions and floods from glacial lakes are largely ignored. The biggest city in southern Peru, Arequipa, sits in the shadow of El Misti volcano. Experts say it is a "considerable hazard" to the city, which has extended up valleys that would carry any lava flow. The city's civil defence chief says, "We don't have a plan for that. But maybe we will." recovery:

Reducing the deadly effects of disasters in Latin America means:

- **Building risk reduction into development planning.** This long-term priority will reduce vulnerability to disasters. Championing development alone is not enough. Development can exacerbate disasters, by degrading the natural environment or moving people from quake-proof shanties to quake-vulnerable apartments.
- **Investing more resources into disaster preparedness.** Ensuring that development policies are risk resilient will take decades – but disasters hit the region every year. Priority DP measures include risk and vulnerability mapping, disaster awareness and education, early-warning and evacuation systems, stockpiling relief materials, training in response skills, and planning at all levels to ensure coordination of disaster response.

A culture of risk reduction needs to cut across the activities of both the disaster and development professions, as well as vulnerable communities and their governments. Riches alone won't save anyone from disaster. Yet you can be poor and still be well informed and well prepared.

### **Risk mapping and relocation get political**

Hazard risk mapping is an important step in preparing societies for future disasters. But, especially when accompanied by calls to relocate people, mapping can get very political. The people of Catas, a small community on Peru's Pacific coast, have been told to move. Half their village collapsed during the June 2001 earthquake. Sixty-three families out of the 71 in the village lost their homes. Three people died. Most of the survivors live in tents and are fed from a charity food kitchen.

Geologists compiling risk maps of the region say Catas is very vulnerable to future quakes. Villagers are confused about exactly why; they suspect another motive behind why the authorities want them gone. Having categorized the village as high risk, municipal authorities have earmarked new land nearby for resettlement. But the villagers must pay the price themselves – around US\$ 40,000. If they don't, the authorities warn that villagers won't get help with rehabilitation if they choose to stay. "For us this is a big dilemma," says the Red Cross's Freddy Gonzalez. "If they refuse to go to somewhere safer, should we help them? If we bring in housing modules, for instance, we would be encouraging rather than preventing a future disaster."

Community leader Fernando Herrera says they will agree to leave if they can keep title to their old land. "We want to continue farming; we might build summer houses here by the sea," he says. "The trouble is the survey people say they found oil here. Some people think that is why they want us to go." Red Cross volunteers smile ruefully. "Risk mapping is a very political process here," says the International Federation's information delegate Fernando Nuño.

*Principal contributor to Chapter 2 and box was Fred Pearce, who writes on science, the environment and development for numerous publications and is environment consultant for New Scientist magazine.*

