



# DISASTERS

## Preparedness and Mitigation in the Americas

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News and Information for the International Community

Editorial

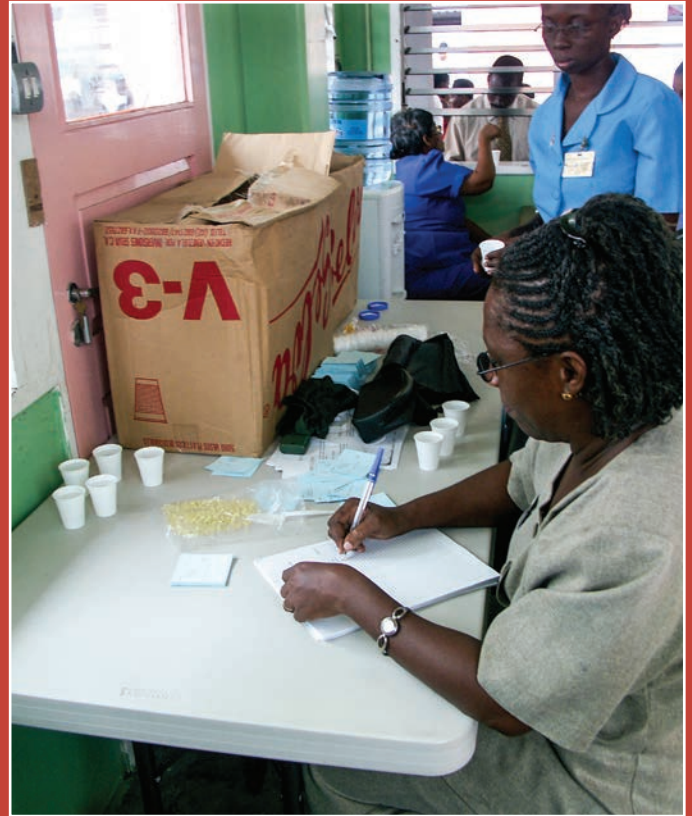
### Health, an Essential Element Now and Beyond 2015

A disaster, above all, relates to people as it affects their state of physical, mental and social wellbeing. Destruction, even if it is sudden and massive, is not a disaster unless there are repercussions for the population. In this context, health services are essential 24/7, for all women and men, anywhere in the world.

In disaster situations, the main responsibilities of the health sector are to save lives, reduce permanent disability, provide medical services to the injured, and reduce the risk of disease and death due to illness or other health risks. These responsibilities can only be carried out if the health services remain fully operational.

Protecting hospitals and other critical health infrastructure from disasters not only limits the damage and physical and economic losses, but also allows for the continuation of essential services in the affected communities. When people have guaranteed access to public health services, we are contributing to the eradication of poverty and hunger, as affected families will not have to use their scant resources for health care in locations far from home—adding to their burden the cost of transportation and lodging, or having to seek services in expensive private institutions.

*(continued on page 2) >>*



### Small Health Care Facilities Matter Enhancing the resilience of smaller health care facilities in Barbados

The vulnerability of health facilities in Latin America and the Caribbean to adverse events is well documented. Geographically, the region is at risk for natural hazards, but increasingly anthropogenic activity has created other concerns, including the potentiating effects of climate change on adverse weather events and increased risk from exposure to hazardous chemicals and ionizing radiation, some of which are routinely used in health facilities. Within the context of health facilities, vulnerability is amplified if there is insufficient integration of safety measures in the location, design, construction and operations.

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## Health, an Essential Element Now and Beyond 2015

(from page 1)

Since boys and girls are the most affected by disasters, having safe hospitals will reduce child mortality produced by adverse events. It will also ensure that maternity control and birth services continue functioning, which will contribute to two of the Millennium Development Goals that are most difficult to achieve.

Health services also help in the protection of other priority population groups, such as older people, the infirmed, displaced populations, native communities, and those living in extreme poverty. The main causes of death and disability in these groups are diseases like HIV/AIDS and malaria. Extending services to these groups will also continue the advances towards achieving other Millennium Development Goals.

Having a health post in a community, or a hospital in a large city, that is safe from disasters, will not only protect the population, but will also serve

*The main challenge in the framework for action post-Hyogo, is the definition of tangible and attainable objectives*

as an incentive for the protection and intervention of other critical infrastructure.

As of today, significant advances have been made. Countries have access to the Hospital Safety Index, a low-cost tool that assesses the likelihood that a hospital will continue functioning after a disaster. At least 10% of the 17,600 hospitals in Latin America and the Caribbean have been assessed, and action has been taken to improve those in the medium- and low-level categories of safety. In addition, the Ministers of Health adopted a regional plan to ensure that all new hospitals are built to be safe from disasters.

These advances, however, cannot hide the fact that there are still major challenges. The main one, in the framework for action post-Hyogo, is the definition of tangible and attainable objectives. Professionals working in disaster risk reduction should adopt practical and reasonable proposals that can gain sup-

port from authorities, the mass media and the communities. These proposals should not isolate the problems of the environment, but should consider it, which is imperative not only to understand, but also to reduce vulnerability.

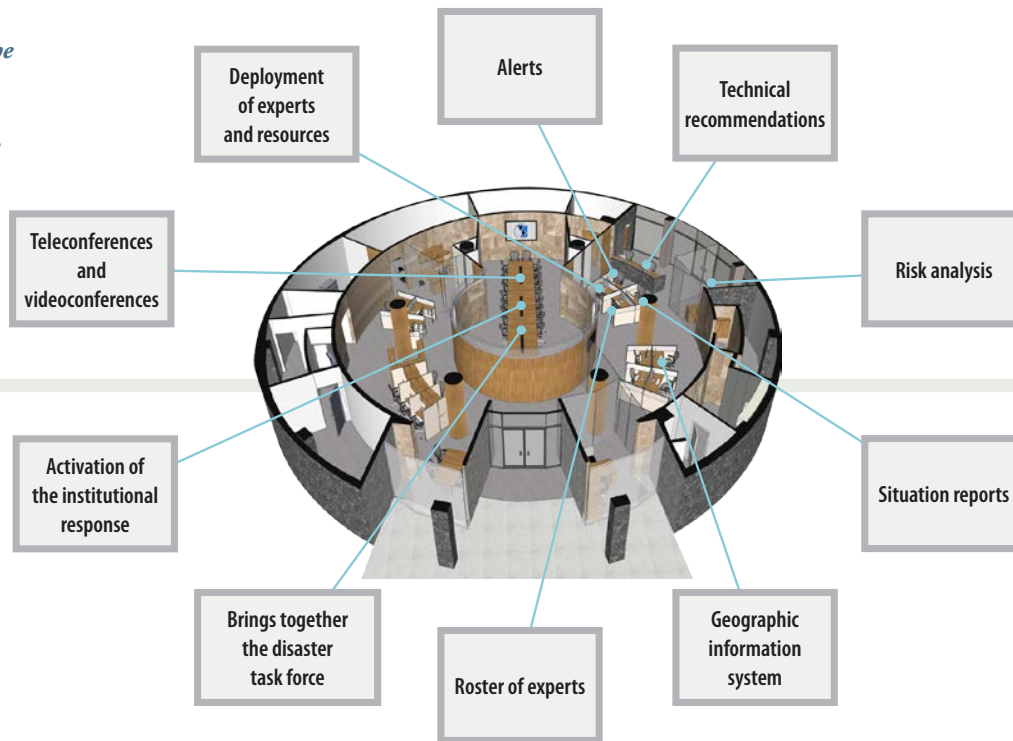
For this purpose, the health sector should include, in addition to traditional actors, others with whom to prepare multisectoral proposals with common objectives that will address the complexity of the problems, based on the multiple root causes of vulnerability. This will be the only way to build a society where community resilience is successful enough to coexist with natural hazards. PAHO/WHO is committed to a future with sustained and adequate capacity, led by the countries, which will reduce the risk of disasters to the health sector. In this way damage to the infrastructure and health services will be prevented, and the health sector will be able to provide timely and effective response after emergencies and disasters.

Disaster risk is unacceptable when it has a substantial and overwhelming effect on the health of people. This is why special attention should be given to these aspects, within the framework for action post-Hyogo.

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### Organization of the work areas of the Emergency Operations Center



## Emergency Operations Center of the Pan American Health Organization

The Emergency Operations Center (EOC) is where the activities of the Pan American Health Organization (PAHO) are coordinated to support the countries of the Region of the Americas in times of disaster.

The way the EOC operates has changed since its creation in 1998, to better respond to the growing impact of disasters and to improve effectiveness. In 2004, the Member States requested the strengthening of the Organization's response capacity (Resolution CD45/R8), and the EOC became a permanent office. In 2012, after a process where several areas of the Organization participated, the new model for organizational response to emergencies and disasters, based on the Incident Command System, was approved. The equipping of the new EOC facilities at PAHO Headquarters in an area, shared with the library, was also completed.

The EOC facilitates collaboration and communication among various technical areas. Staff from Alert and Response Operations (ARO) and the Disaster Program regularly work in these facilities. During emergencies, staff deployed from other areas

also use the space. Videoconference and teleconference services are used to connect the different areas working in the response with the ministries of health in the affected countries. The Disaster Task Force, which provides technical assistance, also meets there.



EOC activation is based on the level of the emergency, determined by criteria such as impact and the affected countries' response capacity. The incident manager directs all PAHO operations related to a specific event and coordinates the response between the PAHO Representative Office in the affected

country and the technical areas of the Organization. He or she also helps identify and contact experts who can be mobilized in the field or provide technical advisory services.

The EOC receives, analyzes and shares information on damage, actions taken, and health needs in response to emergencies. Maps, figures, and useful reports are issued and disseminated for decision-making purposes. Guides are identified and specific recommendations drafted, in collaboration with the technical areas. In addition, the mobilization of experts and resources is monitored.

On a daily basis the EOC staff monitor and receive information on emergencies and work to ensure that the Organization is prepared. They do so by conducting exercises and training sessions with the Representative Offices and technical areas to adapt and test contingency plans. They also identify and update the roster of candidates who can assume critical functions in emergencies.

For more information on this topic visit: [www.paho.org/disasters](http://www.paho.org/disasters).

## The LSS/SUMA Initiative: 20 Years after its Launch

Ensuring logistical support for adequate supplies has proven to be a strategic aspect in handling emergencies, for without the necessary supplies, even with the best response systems and medical facilities to tend to the victims, the response will be neither adequate nor effective. In light of this, since 1992 PAHO/WHO's Emergency Program promoted LSS/SUMA as a tool for managing supplies and humanitarian assistance.

Twenty years after it was launched and widely implemented in and outside the Region, LSS/SUMA has become a proven methodology that can be used as the basis for logistical organization during the preparedness phase and as a tool in response activities. The SUMA humanitarian supply management system was launched in 1992 under the auspices of PAHO/WHO as a joint effort by the Latin American and Caribbean countries. Since then, the system has evolved into LSS/SUMA, an initiative supported by five United Nations agencies (WFP, OCHA, UNICEF, UNHCR, and PAHO/WHO). This tool, deployed through a simple system that can be used by organizations large and small, makes it possible to oversee the entire supply chain when managing humanitarian assistance during emergencies and to properly manage humanitarian assistance on a day-to-day basis. The LSS/SUMA system is based on practical and field experience acquired



in dozens of emergencies of all types, natural and complex disasters, and public health crises.

LSS/SUMA is used extensively not only in Latin America and the Caribbean but worldwide—not just for immediate emergency response, but as an ongoing logistics coordination system. In Pakistan, for example, LSS/SUMA is still being used—long after the 2005 earthquake—in the WHO and Ministry of Health warehouses not only in Islamabad, but in remote sites such as Muzafarabat, where users trained by PAHO/WHO have been replicating the system in other nearby localities. The same has happened in places such as Lebanon, Somalia, Gaza, Egypt, Libya, and Indonesia.

In the Region of the Americas, PAHO has worked over the years with a wide array of agencies, ministries of health, emergency management organizations, NGOs, the Red Cross, armed forces, United Nations agencies, etc. These entities have contributed to the organization of humanitarian assistance during emergencies or to the day-to-day organization of supplies and logistics, as many of them manage assistance not only during emergencies.

The LSS/SUMA system has been used in every major emergency that has occurred in the Region in the last 20 years. Moreover, every country in the Region has received extensive training in the use of the system, enabling organizations and countries to take ownership of the tool and make it a standard part of their emergency preparedness and response plans. Some countries, such as Bolivia, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Mexico, Nicaragua, Panama, and Peru, have even issued official ministerial decrees making it an official tool for managing humanitarian assistance under their emergency response laws.

In the Dominican Republic, the use of the LSS/SUMA system has resulted in the creation of an entire national warehouse system used in cholera response. In Panama, the Ministry of Health uses the system to manage supplies on a daily basis. Similarly, during major emergencies, such as the H1N1 outbreak in Mexico, the system complemented existing systems in the states. The implementation of LSS/SUMA in the country's 32 states supported the management of supplies needed for that particular emergency, enabling the authorities to consolidate and share information at the national level.

### Use of the LSS/SUMA System inside and outside the Region



Developed by PAHO/WHO, with support from five United Nations agencies, the LSS/SUMA system provides a means to managing supplies and humanitarian assistance. This system has been deployed in numerous emergencies worldwide and is used extensively by organizations in a number of countries to manage supplies and humanitarian assistance.

## Updating the Andean Strategic Plan for Health Sector Disaster Risk Management

The XXXIII Meeting of Ministers of Health of the Andean Area (REMSAA), held on 21 November in Colombia, saw approval of the Andean Strategic Plan for Health Sector Disaster Risk Management 2013-2017. An update of the Strategic Plan 2005-2010, this plan was mandated by the XXXII REMSAA, held in Chile in April 2011.

This plan was drawn up in a series of virtual meetings and two in-person meetings held in Mexico and Peru with disaster risk management staff from the ministries of health of Bolivia, Chile, Colombia, Ecuador, and Peru.

The document that was approved contains the following strategic lines of action (SLAs) with their respective objectives, activities, and timelines.

- Policy position on health sector disaster risk management in and among the Andean Area countries.
- Disaster risk reduction in the health sector of Andean subregion countries
- Mutual assistance among the countries to facilitate cooperation mechanisms for health sector disaster risk management.
- Creation and upgrading of capacities and skills in health sector disaster risk management.

To facilitate implementation of the plan, the formation of a technical committee made up of the disaster program coordinators from the ministries of health of the Andean Area countries has also been approved. This committee will be responsible for monitoring the anticipated activities.

For more information visit [www.paho.org/disasters/southamerica](http://www.paho.org/disasters/southamerica).

## Central American Plan for Risk Management of Health Emergencies is Presented

The Technical Commission of Risk Management in Central America and the Dominican Republic (CTGERS) was created in August 2012 with the objective of achieving an adequate and permanent monitoring of the process of preparedness, response and mutual cooperation among countries of the region. The Commission was established as an advisory body of the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA) and to provide assistance to the The Center for the Prevention of Natural Disasters in Central America (CEPREDENAC), a member agency of the Central American Integration System (SICA).

One of the first actions at the regional level of the CTGERS has been the development of the “Central American Plan for Comprehensive Risk Management of Public Health Disasters and Emergencies, 2013 -2018.” This plan brings together the strategic elements for regional work in the field of integrated risk management in the health sector, the areas to work on, and the operating plan to be implemented in 2013.

The plan was presented at the XXXVII Meeting of the Council of Ministers of Health of Central America and the Dominican Republic held in Managua, Nicaragua in December 2012. Its implementation will guide the work plan of the health sector in the area of disasters and health.

The Pan American Health Organization, through its Program for Emergencies and Disasters, and CDC CAR (Centers for Disease Control and Prevention – Central American Region) have been providing technical and financial support throughout the process, thus promoting the development of regional strategies to further strengthen the management capacity for risk reduction and disaster preparedness.

For more information visit [www.paho.org/disasters/centralamerica](http://www.paho.org/disasters/centralamerica).



## Strengthening Comprehensive Disaster Management in the Caribbean

The Caribbean's 7th Conference on Comprehensive Disaster Management (CDM) was held from 3-7 December 2012 in Montego Bay, Jamaica. The annual region's premier event on disaster risk management is organized by the Caribbean Disaster Emergency Management Agency (CDEMA), in collaboration with partner agencies. This year's conference was convened under the theme “CDM: Building Disaster Resilience – A Shared Responsibility”. It is the Caribbean region's largest gathering of professionals in the fields of disaster management and professionals from sectoral and thematic fields who have specific responsibilities in this area. Among the focus of the event was to facilitate consensus building on the Regional Strategy on CDM beyond 2012.

At the Conference, the Pan American Health Organization (PAHO) convened the Caribbean Health Disaster Risk Reduction (CHDRR) Committee meeting which discussed the CDM Strategy beyond 2012, hospital safety index and database, response operations in health facilities, operational research in health DRR, and mass casualty management. PAHO also coordinated the thematic session on Disaster Resilience in the Health Sector which was attended not only by health sector actors but also disaster management specialists, academe and development partners. An exhibition booth was organized to showcase health disaster management initiatives and promote tools, publications and other education materials. These materials are also accessible in PAHO's new Knowledge Center on Public Health and Disasters at [www.healthanddisasters.info](http://www.healthanddisasters.info).

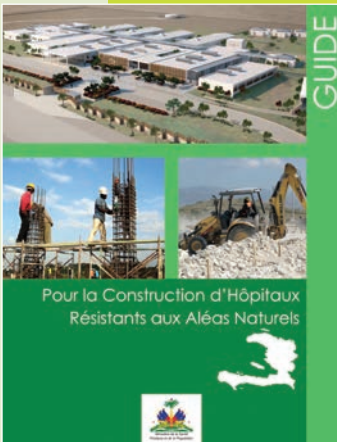


## New Self-Instruction Course for the Use of the Hospital Safety Index

The Hospital Safety Index, developed by PAHO/WHO in 2008, is a tool that determines the probability that a hospital will continue to function during and after a disaster. It has already been used in 32 countries and territories in the Americas. The results given by the tool allow for the establishment of priorities for interventions to improve the safety of health facilities in cases of disasters.

PAHO/WHO is now presenting this new self-instructing course, created to train professionals in the use of the Hospital Safety Index (HSI). The course uses an easy and dynamic methodology, without losing sight of the essential technical content. The material has been built as an interactive platform that illustrates the key issues with readings, games, reminders and assessments that, once completed, will allow the user to continue with the training. The expected time to complete the course is 30 hours and should be finished within a period not exceeding one week.

The course is available on CD and, for now, only in Spanish. It can be requested from [disaster-publications@paho.org](mailto:disaster-publications@paho.org).



## Guide for the Construction of Hospitals Resistant to Natural Hazards

As a result of the earthquake that struck Haiti on 12 January 2010, more than 50 health facilities were destroyed or damaged and 200,000 individuals required medical attention and emergency care. Beyond the seismic risk, every year hurricanes continue to cause many casualties in Haiti, while health facilities located in affected areas become inaccessible or unusable due to floods.

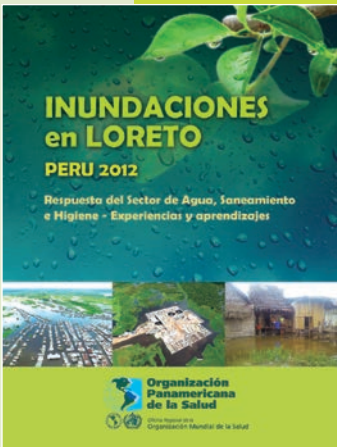
Given these facts, PAHO/WHO's Disaster Program, with the financial support of the World Bank, developed a project focusing specifically on the construction of health infrastructures, which are strategic buildings in Haiti. Not only must health facilities be able to ensure the safety of their personnel and patients, but they also must remain functional at all times to provide timely and quality assistance to the victims of an emergency.

Within the context of reconstruction of the country, this project has developed a *Guide for the Construction of Hospitals Resistant to Natural Hazards*, which provides contractors involved in the construction of hospitals (local and foreign) with specific recommendations to follow, to ensure the design and construction of infrastructures safe from natural hazards. Other tools complete this guide, including a survey for the evaluation of hospital safety (geographical, structural and functional), as well as didactic material to train professionals in the different requirements related to the seismic and cyclonic context.

All these tools are available (in French only) on PAHO's website at: <http://goo.gl/SjcQf>.

## Floods in Loreto, Peru, 2012

### Response by the Water, Sanitation and Hygiene Sector – Experiences and Lessons Learned



The heavy rains at the beginning of 2012 in Peru forced the government to declare a state of national emergency in 18 regions of the country. One of the most affected was the Loreto region, in the country's northeast. The population's vulnerability increased as a result of the collapse of the sanitation systems. In addition, the extending area of dispersion of pathogen agents increased the probability of transmission of diseases from river waters. For this reason it became imperative for the water, sanitation and hygiene sector to give an immediate response in order to control the associated risks and minimize the impact on the population.

This publication describes the process of implementing the humanitarian response activities, as well as the actions that contributed to the strengthening of local, sectoral, and regional communities, with special emphasis on lessons learned. To that end, primary and secondary sources were analyzed, technical and managerial staff from participating agencies were interviewed, and those who benefitted from the interventions were surveyed on the results.

More information at: <http://goo.gl/x8gg7>.

## Small Health Care Facilities Matter

### Enhancing the resilience of smaller health care facilities in Barbados

(from page 1)

#### Why do smaller health facilities matter in Barbados?

In Barbados a substantial proportion of health care is delivered from smaller facilities: polyclinics and out-patient clinics account for at least 50% of ambulatory primary care visits. Several other key services are delivered exclusively from smaller facilities including the Geriatric and Psychiatric hospitals and the Public Health Laboratory. Thus it is important to enhance the resilience of facilities, in addition to hospitals, ensuring that they are also likely to remain, accessible, structurally sound and capable of delivering basic services in the event of a crisis.

#### The Process

There are a number of guiding principles in the approach taken by Barbados: voluntarism coupled with appropriate training, collaboration and timely feedback.

The Health Disaster Coordinator organised training workshops in December 2011 and June 2012 for a multi-disciplinary target audience that included: public health doctors and nurses, nurse administrators and senior clerks. The PAHO Hospital Safety Index for Smaller Health Facilities was used to introduce the concept of disaster safety assessments, the rationale for and approaches to

evaluating smaller facilities.

In July 2012, 15 trained volunteers, divided into two multi-disciplinary teams were deployed to 21 facilities in the north and south of the island, respectively. Facilities were categorized as: ambulatory (14), residential (5) and other (2).

Buy-in was achieved by meeting with management, outlining the benefits of resilience building. Direct selling points included: use of a standardised assessment questionnaire; key informant interviews with varying categories of staff; and delivery of a final report with recommendations to guide preparation of the annual Estimates of Expenditure.

Assessments were conducted between July and August 2012, looking at hazard levels based on geographical location, structural elements, non-structural elements and functional elements. Individual facility assessment reports were disseminated and formed the basis of a Stakeholder Workshop held September 27 and 28, 2012. Each institution developed a bespoke Plan of Action (POA) based on the report, outlining areas for priority action, timelines and funding sources. Most facilities used the PoAs to prepare their estimates documents which were due for submission in October 2012.

#### Lessons identified

Challenges experienced included adapting the assessment tool to the wide variability of local settings; finding mutually agreeable visiting times; and balancing competing schedules.

The qualitative nature of the assessment tool limited the ability to rank needs within and between groups of facilities, and thus guide priorities at the national level. Therefore, a quantitative scoring system was developed to achieve this objective.

Keys to success included a high level of camaraderie amongst team members, the receptiveness of institutions to the participatory process, their willingness to implement solutions and the unstinting efforts of the Health Disaster Coordinator in championing the process.

This process enabled assessment of factors which, unlike natural hazards, are more amenable to direct intervention and when properly addressed can enhance the resilience of the facility. This is a major step in improving the capability of the health system to strengthen public health practice.

*By Dr. Heather Harewood, Medical Officer at the Ministry of Health in Barbados*

Photos: Ministry of Health of Barbados



*Examples of vulnerability in some health facilities in Barbados.*



The Regional Disaster Information Center's (CRID) mission is to promote the development of a culture of prevention in Latin American and Caribbean countries through the compilation and dissemination of disaster-related information and the promotion of cooperative efforts to improve risk management in the Region.

**Regional Disaster Information Center**

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CRID, within the framework of the DIPECHO South America's Plan of Action, has launched a website—in Spanish—that puts together useful tools for disaster risk management (Sistematización de Herramientas de Gestión de Desastres – <http://herramientas.cridlac.org>). It was created with the support from the United Nations Office for Disaster Risk Reduction (UNISDR) and the European Commission through its Humanitarian Aid and Civil Protection Unit (DIPECHO).



This portal is directed to national and international actors working in disaster risk reduction, and the tools offered have gone through a validation process to help these actors in their work.

Twenty-seven tools have been included on the following subjects: self-assessment for local governments, disaster risk analysis, awareness campaigns, communications kits, funding for demonstration projects, conformation of civil defense community groups, guidelines for the preparation of community plans for risk management and emergency response, early warning systems, hospital safety, tsunami preparedness, and educational games.

Contact Rocio Saenz ([saenz.rocio@gmail.com](mailto:saenz.rocio@gmail.com)) or Irene Cespedes ([irene.cespedes@cridlac.org](mailto:irene.cespedes@cridlac.org)).



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