



G l o s s a r y

Hazard – An external risk factor: the latent danger that a natural or man-made phenomenon may adversely affect people, assets, or the environment.

Mitigation – A set of measures to reduce or neutralize the impact of natural hazards by reducing social, functional, or physical vulnerability.

Preparedness – The organization, education, and training of the population and all relevant institutions to facilitate effective control, early warning, evacuation, rescue, relief and assistance operations in the event of a disaster or emergency.

Prevention – The elimination or reduction of the likelihood that natural events may endanger human beings, their goods, their social assets, or their environment.

Reconstruction – A set of activities aimed at achieving the medium- and long-term recovery of the components and structures that have been affected by a disaster or emergency.

Rehabilitation – A set of measures aimed at restoring normal living conditions through the repair and reestablishment of vital services interrupted or degraded by a disaster or emergency.

Risk – The likelihood of damage to a given element or component with an intrinsic degree of vulnerability as the result of an adverse event of specific intensity.

Simulation – A drill or other exercise aimed at testing and reinforcing the capacity of an organization or community to withstand the impact of an adverse event, including its decision-making capacity in real time.

State of Alert – The time between the recognition that an adverse event is likely to affect a given population or system, and the actual event itself. A state of alert is normally declared officially by a relevant authority.

Vulnerability – An internal risk factor affecting a population, infrastructure, or system exposed to a given hazard. While the likelihood of being affected by the phenomenon increases as a function of its intensity, which cannot be controlled, it is also a function of the degree of vulnerability, which can be reduced through prevention and mitigation efforts.



Selected Reference Material

The following reference material may be obtained from the Regional Disaster Information Center for Latin America and the Caribbean (CRID) by writing to the following address: Apdo. Postal 3745, San José 1000, Costa Rica, or crid@crid.or.cr. The material is also available in full text at the CRID's Web site (www.crid.or.cr).

- Bolivia. Aguas del Illimani. *Plan de prevención de emergencias: Sistema El Alto y Tilata*. La Paz, Bolivia, 1998.
- _____. *Plan de prevención de emergencias: Sistema Achachicala*. La Paz, Bolivia, 1998.
- Cánepa de Vargas, Lidia. *Manual del curso sobre abastecimiento de agua potable en situaciones de desastre*. Lima, Octubre 1982.
- Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente (CEPIS). *Guías para la elaboración del análisis de vulnerabilidad de sistemas de abastecimiento de agua potable y alcantarillado sanitario*. Lima: CEPIS, 1996.
- _____. *Plan de emergencia para un sistema de agua potable*. San José, Costa Rica, July 1990.
- Corporación del Acueducto y Alcantarillado de Santiago (CORAASAN). *Programa de atención de emergencias y desastres en las empresas de abastecimiento de agua potable y saneamiento de la República Dominicana*. November, 1988.
- Farrer Crespo, Herbert. *Preparación de los servicios de agua potable y alcantarillado para situaciones de desastre producidas por terremotos*. September, 1985.
- Sikich, Geary W. *Emergency Management Planning Handbook*. Mc Graw Hill, 1996.
- St. George, Hamilton. *Disaster mitigation guidelines for water supply and sewage systems in the Caribbean*.
- Guzmán Chinchilla, Guillermo. *Preparativos en ingeniería sanitaria y ambiental para situaciones de desastres*. Universidad de San Carlos, Guatemala and the Organización Panamericana de la Salud OPS/OMS, Guatemala, 1982.
- Mariño, Manuel G. *Problemas sanitarios del abastecimiento de aguas de consumo en las inundaciones*. San Sebastián (Spain), March 1984.
- Martínez H. Raúl, Ll. Luis Quijada, José M. Vergara. *Aplicación de sistemas de información geográfica, ante la ocurrencia de procesos de origen natural o antrópico*. [Thesis]. Universidad de Playa Ancha, Valparaíso (Chile) 1997.
- Mexico. Comisión Nacional del Agua. *Curso/taller: Prevención y control de emergencias en redes de agua potable y alcantarillado*. Jiutepec, Mexico. May 1992.
- Nuñez Robles, Lito Luis. *Comportamiento de fuentes de agua potable frente a emergencias de sequía*. [Thesis]. Universidad de Playa Ancha, Valparaíso (Chile), 1998.

- Office of Foreign Disaster Assistance, United States Agency for International Development (OFDA/USAID) *Curso de evaluación de daños y análisis de necesidades EDA; Manual del participante*. San José, Costa Rica: OFDA, 1995.
 - _____. *Manual de campo, Evaluación de daños y análisis de necesidades*. San José, Costa Rica: OFDA, 1995.
 - Organización Panamericana de la Salud (OPS/OMS). *Estudio de caso : Vulnerabilidad de los sistemas de agua potable frente a deslizamientos*. Lima: OPS/OMS, 1997.
 - _____. *Administración de emergencias en salud ambiental y provisión de agua. Cuaderno Técnico 17*. Washington, D.C., OPS/OMS, 1988.
 - _____. *Manual sobre preparación de los servicios de agua potable y alcantarillado para afrontar situaciones de emergencia*. Washington, D.C., OPS/OMS, 1990.
 - _____. *Planificación para atender situaciones de emergencia en sistemas de agua potable y alcantarillado. Cuaderno Técnico 37*. Washington, D.C., OPS/OMS, 1993.
 - Pan American Health Organization (PAHO/WHO). *Seismic vulnerability analysis of water systems in Mexico*. Washington, D.C.: PAHO/WHO, April 1985.
 - _____. *Natural Disaster Mitigation in Drinking Water and Sewerage Systems: Guidelines for Vulnerability Analysis*. Washington, D.C.: PAHO/WHO, 2000.
 - Pan American Health Organization, Caribbean Basin Water Management Program, and Caribbean Environmental Health Institute. *Proceedings of the Regional Workshop on Disaster Mitigation Techniques in the Water Supply Sector*. St. Lucia, 28-29 June 1995.
- Plaza N., Galo; Hugo Yepéz A. *Manual para la mitigación de desastres naturales en sistemas rurales de agua potable*. Quito: Organización Panamericana de la Salud, 1998.
- Servicio de Agua Potable y Alcantarillado de Lima. *Plan de emergencia para situaciones de desastre*. Lima, 1990.
 - Soto Valenzuela, Benjamín Alberto. *Análisis de riesgo sísmico del acueducto de Las Vegas a través de un enfoque de líneas vitales*. [Thesis]. Universidad de Playa Ancha, Valparaíso (Chile) 1989.
 - Taller para la Preparación del Proyecto Subregional de Preparativos para casos de Desastres y Emergencias en Sistemas de Agua Potable y Saneamiento. *Plan de preparativos para casos de desastres y emergencias en sistemas de agua potable y saneamiento*. Tegucigalpa, August 1985.



Program on Emergency Preparedness and Disaster Relief



**Pan American Health Organization
Regional Office of the
World Health Organization**

In 1976, the Pan American Health Organization created this Program in response to a call by the Member Countries to establish a technical unit to strengthen health sector disaster preparedness, response and mitigation activities.

Since then, the Program's main objective has been to support the health sector to strengthen their national disaster preparedness programs and its interaction with all the sectors involved in disaster preparedness. This support has been channeled to the countries of Latin America and the Caribbean in three principal areas:

In **disaster preparedness**, in addition to constant promotion of a strong health disaster preparedness program, PAHO regular activities include training (through hundreds of courses and workshops) and the preparation and distribution of training materials (books, slides and videos).

Disaster mitigation is just as important. An investment in disaster preparedness can be rendered useless if hospitals or health centers cannot withstand the impact of a disaster and collapse at exactly the moment they are most needed. PAHO promotes and supports the inclusion of disaster mitigation in natural disaster reduction programs and legislation.

In **disaster response**, PAHO works with the affected countries to identify and assess damages and needs, carry out epidemiological surveillance, monitor drinking water, and mobilize international relief, and manage humanitarian supplies. PAHO has established the Voluntary Emergency Relief Fund that collects money to support post-disaster activities.

The Program also has several special technical projects: Disaster Mitigation in Hospitals and Drinking Water Systems; Humanitarian Supply Management System; Use of the Internet for Disasters and Emergencies; and the Regional Disaster Information Center (CRID).

Offices of the Program on Emergency Preparedness (information updated in August 2002).

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¿What is SUMA?

At the beginning of the 1990s, the countries of Latin America and the Caribbean pooled their efforts, with the support of the Pan American Health Organization (PAHO), the government of the Netherlands and the Colombian Red Cross, to develop SUMA—the Humanitarian Supply Management System.

SUMA is an information management tool that helps governments improve the management of humanitarian assistance and ensure efficiency and transparency in the reception and distribution of relief supplies. SUMA also helps disaster managers to provide donors and humanitarian agencies with the information they need to guarantee accountability.

¿What does SUMA do?

- It streamlines the identification, sorting and classification of arriving humanitarian supplies.
- It helps to assign different priorities to the incoming supplies based on the needs of the affected population.
- It consolidates all the information about incoming shipments and existing stocks into a single database.
- It provides a clear picture of the circulation of donated supplies from the point of arrival until they get to the final beneficiaries.
- It eases and encourages the preparation of reports and exchange of information among all stakeholders (governments, NGOs, donors, etc.).

¿Who handles SUMA?

SUMA trains national teams and promotes self-sufficiency by ensuring that countries can manage humanitarian assistance employing their own resources. The national teams comprise volunteers from health agencies, civil defense or emergency committees, the armed forces, the local Ministry of Foreign Affairs, customs, the Red Cross, NGOs and other bodies. Over 2,000 volunteers have already been trained in Latin America and the Caribbean.

SUMA—Towards a Global Standard for Humanitarian Supply Management

SUMA is accepted throughout Latin America and the Caribbean as *the* standard in the management of relief supplies. The countries of the Region are now exporting the model to other parts of the world that have requested assistance and training in the use of the SUMA System to meet their disaster management needs.

For more information please contact:

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Regional Disaster Information Center (CRID)

Disaster management is, above all, the management of information. The goal of CRID is to provide the countries of Latin America and the Caribbean with access to the best disaster information sources and resources available so that users can make well-informed decisions when managing disasters and trying to prevent or reduce their impact.

CRID enjoys the support of six organizations and agencies¹. Its objectives are:

- To improve the compilation, processing, and dissemination of disaster information.
- To strengthen local and national capacity in setting up and maintaining disaster information centers.
- To promote the use of information technologies.
- To support the development of the Regional Disaster Information System.

Services Provided by CRID

CRID provides the following services:

- The ability to conduct bibliographic searches over the Internet, on CD-ROMs, or by contacting the Center directly.
- The publication and distribution of specialized bibliographies and reviews of the literature (*Bibliodes*).
- Direct access over the Internet to a wide collection of full-text documents on disasters and disaster reduction in general and in the Region.
- Distribution of publications and training material.
- Mass distribution of public and technical information.
- Technical advice and training on how to set up and manage disaster information centers.
- CRID promotes and supports the consolidation of a Regional Disaster Information System for Latin America and the Caribbean through technical support for national and local information centers, the development of a unified methodology and tools, and the establishment of uniform information services.

For more information please visit: www.crid.or.cr

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**CRID, the best source of disaster information
in Latin America and the Caribbean**

¹ The Pan-American Health Organization / Regional Office of the World Health Organization (PAHO/WHO), the United Nations International Strategy for Disaster Reduction (UNISDR), the National Risk Prevention and Emergency Response Commission of Costa Rica (CNE), the International Federation of Red Cross and Red Crescent Societies (IFRC), the Center for the Prevention of Natural Disasters in Central America (CEPREDENAC), and the Regional Office for Emergencies of Médecins Sans Frontières (MSF).