

# DISASTERS



## PREPAREDNESS AND MITIGATION IN THE AMERICAS



Issue No. 63

News and Information for the International Disaster Community

July 1995

### A New Phase for SUMA: Beyond the Inventory

**M**anaging relief supplies is an immense challenge that national authorities face after a disaster. Finding key supplies that need special handling or are urgently needed among the tons of items typically sent after a large-scale disaster is a daunting task that consumes valuable time and occupies essential personnel. Sorting priority items and listing what has been sent and by whom is a necessary first step, but disaster managers have to go beyond the inventory to get supplies to the people who need them. Countries and organizations need a comprehensive relief supply management system.



SUMA helps authorities identify, prioritize, and inventory relief supplies at ports of entry of a disaster-affected country. Expanded SUMA capacity should assist in a range of supply management functions.

The Supply Management Project (SUMA) was started in 1991 to help sort and inventory large amounts of relief supplies at the point of entry in a disaster-affected country. To date, nearly 1,000 people have been trained in SUMA in Latin America, the Caribbean, and other regions, and SUMA software has been tested in natural disaster and complex emergency situations.

In response to the demand for unified relief supply management, SUMA will be expanded. It will include modules for managing warehoused stock and its distribution to the affected communities, and modules to keep

(cont. on pg. 7)

### Do the Cobbler's Children Have Shoes?

**P**AHO/WHO actively promotes adopting disaster prevention and mitigation measures in health facilities throughout the Region. It champions the establishment of permanent positions for disaster coordinators in the health and other sectors, and their ongoing training. It also works with Member Countries to update and implement national emergency plans. But what's being done to ensure that the "culture" of disaster prevention is being adopted in PAHO/WHO's own facilities, among its own staff, and with its own procedures? PAHO/WHO is working in three areas to prepare its staff for disasters:

- **Making procedures flexible.** As crafters of national emergency plans know, administrative procedures have to be flexible enough to allow supplies, staff, and funds to move rapidly to a disaster-affected population. WHO has developed a system of checks and balances to govern financial management, supply purchases, and staff recruitment for delivering technical cooperation during "normal" circumstances. Based on evaluations of response to the crises in Haiti and the former Yugoslavia, a WHO Task Force is looking for ways to change their procedures to better mobilize resources for humanitarian assistance.

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# News from PAHO/WHO

## Costs of disaster mitigation measures in hospitals

PAHO works actively with Member Countries to assess and reduce the vulnerability of their hospitals to natural disasters. Three areas of focus are: the cost-effectiveness of retrofitting structures to better withstand earthquakes or hurricanes; preparedness of hospital staff for emergency situations; and ways to prevent non-structural damage (i.e., to the contents of the building). Following are observations made by specialists doing research in these areas:

### *Reducing vulnerability to hurricanes*

In his presentation at the 1995 Hurricane Conference in Miami, Mr. Tony Gibbs reported "preliminary results from the past five years (i.e., post-Hurricane Hugo) in the Caribbean indicate that most buildings can be made virtually invulnerable to damage in category-3 hurricanes for expenditures of less than one-year's catastrophe insurance premiums. Further, to bring such improved buildings up to category-4 hurricane standards would require the equivalent of about four-years' worth of catastrophe insurance premi-

ums. These are very favorable figures for medium- to long-term planners."

### *Value of preparedness*

Dr. Nicholas Jones, Johns Hopkins University (Maryland, USA), is one of a team specializing in "earthquake engineering epidemiology." The purpose of their research is to determine how best to prevent disaster-related morbidity in hospitals. Their methodology involves assessing the major causes of morbidity following the Loma Prieta (California, 1989) and Kobe (Japan, 1995) earthquakes. Preliminary results appear to indicate that a major portion of disaster-related morbidity results from inappropriate responses by those affected. This suggests to Jones that the most cost-effective investment may be in preparedness programs.

### *Low cost of non-structural mitigation*

For hospitals, the non-structural environment (which includes items such as ceilings, windows, medical and laboratory equipment and supplies, computers, electrical fittings, etc.) is critical. The Northridge earthquake (California, 1994) showed that while the hospitals remained structurally sound, they had to be abandoned because of damage to the infrastructure that supported essential services. When teaching emergency preparedness in hospitals, Mr. Bob Reitherman, Director, California Universities Consortium on Earthquake Engineering, presents some 24 low-cost non-structural mitigation measures that can be undertaken. According to Mr. Reitherman's experience in the U.S., priority measures can be implemented in the space of six months for as little as US\$5,000. □

## Disaster Mitigation in Hospitals and Health Care Facilities An International Meeting

Mexico City  
26 February-1 March 1996

Please note the change of venue for the international conference, "Disaster Mitigation in Hospitals and Health Care Facilities: Formulation of Guidelines for Latin America and the Caribbean", being organized by PAHO/WHO. It will take place in *Mexico City from 26 February to 1 March 1996*. The purpose of the Conference is twofold: first, to formulate a regional policy on national disaster reduction measures in existing and new health facilities; and second, to prepare guidelines for the development and adoption of building standards for health care facilities. Representatives from PAHO Member Countries, the UN system, cooperating or sponsoring agencies, international and bilateral funding agencies, and experts and representatives from technical and scientific institutions will attend.

For more information, please contact: Conference Coordinator, Emergency Preparedness Program, PAHO/WHO, 525 23rd St., NW, Washington DC, 20037, USA; Tel: (202) 861-4325; Fax: (202) 775-4578; e-mail: [disaster@paho.org](mailto:disaster@paho.org) □

## CDD Cooperates with African Center

The Regional Disaster Documentation Center in San José recently welcomed Mr. Joshua Chigadora from the Environment Resource Centre for Southern Africa. The Resource Center, in cooperation with the International Federation of Red Cross and Red Crescent Societies, will soon open a documentation center on disasters. Mr. Chigadora spent three weeks reviewing CDD bibliographic and distribution procedures that can be applied at the new center in Zimbabwe. □

# Other Organizations

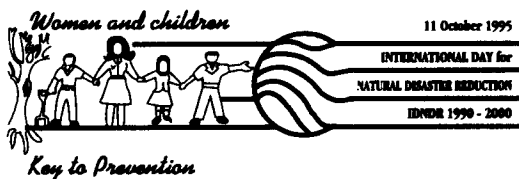
## CEPREDENAC Advances Regional Plan

In 1993, the Central American Presidents mandated CEPREDENAC (Center for the Coordination of Natural Disaster Prevention in Central America) to develop a Regional Disaster Reduction Plan. Since that time, CEPREDENAC has brought together ministries, emergency management organizations, universities, and scientific institutions to draft disaster reduction plans for the energy, communications, agriculture, and education sectors, among others. By the end of May 1995, the Congresses of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama had ratified agreements with CEPREDENAC. In addition to the support given by these countries, the organization enjoys the backing of Sweden, Norway, and Denmark. A newsletter on CEPREDENAC activities is available in Spanish from Mr. Luis Diego Morales, Exec. Secretary, CEPREDENAC, 7 Av. 14-57, Zona 13, Guatemala City, Guatemala; Tel: (502-2) 348318; Fax: (502-2) 348317; e-mail: cprednac@uvg.edu.gt □

## Reminder to Search and Rescue Teams...

**T**he International Search and Rescue Advisory Group (INSARAG) was formed in 1991 by UN/DHA to coordinate relief operations at a disaster site. The INSARAG Directory contains information on governmental and non-governmental SAR teams with experience in search and rescue. Some of the criteria for teams to be entered in the Directory are: proven ability in SAR; self-sufficiency of team; ability to perform search, rescue, and medical roles; a governmental or NGO affiliation. To receive more information about being registered in the INSARAG Directory, contact: Mr. Robert Souria, Chief, Relief Coordination and Preparedness Branch, DHA, Palais des Nations, CH-1211, Geneva 10, Switzerland, Fax: (41-22) 917-0023. □

## Celebrate IDNDR Day!



**D**uring the 1990s, the U.N. has set aside the second Wednesday of October each year to increase public awareness about measures that countries can take before disaster strikes. The 1995 IDNDR Day takes place on Wednesday, 11 October. This year's theme is Women and Children—Key to Prevention.

### What You Can Do...

If you are interested in celebrating IDNDR Day in your country, here are a few ideas:

- *Organize a roundtable* on proactive roles that women and/or children play before disaster strikes, during emergencies, or in reconstruction. Tell the IDNDR secretariat in Geneva about your plans by 15 September, and your roundtable will be publicized in the IDNDR Women and Children Roundtables Calendar.

- *Test the new IDNDR publication*, "Learning about Natural Disasters: Games and Projects for You and Your Friends." This booklet will feature maps, games, and projects based on ideas used by children around the world. It will be available in August, and will be mailed as a supplement to the IDNDR magazine, *Stop Disasters*.
- *Send success stories* related to women and children (e.g., community programs where women and/or children have played specific roles).
- *Work with your local media*. Distribute information to local and national newspapers. Arrange for the media to provide information about your city's or your country's efforts to reduce the impact of disasters.

If you have contributions, ideas, want more information, or seek contacts in your country, please write: Promotion Officer, IDNDR Secretariat, UN/DHA, Palais des Nations, Geneva, Switzerland; Tel:(41-22) 798-6894; Fax: (41-22) 733-8695; e-mail: dhagva@un.org or IDNDR Regional Office, Box 3745-1000, San José, Costa Rica; Fax: (506) 257-2139; Tel: (506) 257-2141; e-mail: cddcor@paho.org □



# Member Countries

## Caribbean: Tradewinds 1995

The simulation of a multi-hazard event affecting the entire population of the islands of St. Kitts and Nevis took place in May 1995. This exercise, known as "Tradewinds," occurs annually in the Caribbean and involves several hundred participants.

A vital part of the exercise is the interface with external agencies. The Regional Security System (RSS) participated with their Caribbean Disaster Response Unit; the Caribbean Disaster Emergency Response Agency (CDERA) installed their supply

tracking system and ensured participation of National Disaster Coordinators; the US Army participated with Metrodade, a radio communications team. PAHO's cooperation focused on mass casualty management and relief supply management (SUMA). The French Army participated with a response team that included physicians, firemen, helicopter pilots and defense force personnel. □

## Ecuador: The Role of Communication in Disaster Reduction

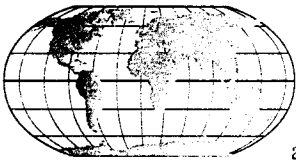
"Population and Natural Disasters: The Role of Communication" was the topic of a seminar attended by some 100 persons in Quito at the end of June. The international seminar was organized by UNESCO, UNFPA, and Ecuador's National Polytechnic School. Communications and public reaction were the subject of case studies on the Mexico City earthquake, the Nevado del Ruiz eruption in Colombia, Josefina landslide in Ecuador, and flooding in Asunción. The relationship between mass media and national agencies charged with disaster preparedness and response was the focus of much discussion and underscored the importance of mutual cooperation between these sectors before, during, and after natural disasters.

A document containing summaries of presentations and the Declaration of Quito can be obtained from Mr. Alejandro Alfonzo, UNESCO, Foch 265, Quito, Ecuador; Fax (593-2) 504435. □

## Cuba: Experts Look at Seismic Risk

Cuba's first national workshop on seismic risk took place in Santiago de Cuba from 19 to 22 June. The workshop was organized by the Government of Cuba with the support of the IDNDR, UN/DHA, and PAHO/WHO. The participants, who represented a variety of ministries and institutions, made recommendations for improving emergency plans, preparing the health sector for earthquakes, and implementing mitigation measures through engineering and land use planning. There was a special session for municipal leaders from the western region of the country, which has

## Peru Hosts International Conference



Twenty-five years ago, an estimated 67,000 people were killed as the result of an earthquake in the Callejón de Huaylas, Peru. To observe the anniversary of this catastrophe, and to discuss efforts to reduce the chance of losses of such magnitude occurring again, disaster reduction experts met at the International Conference on Disaster Management at the end of May. Peru's Institute of Civil Defense (INDECI), Ministry of Health, and Geophysical Institute hosted over 300 participants in Huaraz, a town that was completely rebuilt after the earthquake.

Participants discussed research in the area of natural hazards, vulnerability of different types of infrastructure and population groups, promotion of disaster prevention in the health and education sectors, the role of women and children in disaster prevention, and international cooperation projects in disaster reduction.

The group adopted the "Declaration of Huaraz" which calls on the international community to work with countries to reduce risk to disasters and to include these considerations in development programs. It stresses cooperation at the community level, and cooperation and mutual assistance between neighboring countries. To receive a copy of the Declaration, please contact General Carlos Tafur Ganoza, INDECI, Esq. Calles 1 y 21, Urb. Córpac, San Isidro, Lima 27, Peru; Fax 441-3277. □

## Health Disaster Coordinators Meet in Huaraz

Disaster coordinators from the Ministries of Health of Latin America planned their annual meeting to coincide with the International Natural Disaster Reduction Conference in Huaraz, Peru. They looked at efforts in the health sector—as well as other sectors represented at the Conference—to institutionalize national disaster programs and acquire legal and financial backing for these programs. The coordinators agreed to increase training activities between neighboring countries, and to support a network of mutual assistance for disasters in the Region. □

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the highest propensity for seismic activity. Also, participating in the workshop were experts from the National Center for Seismic Research (Centro Nacional de Investigaciones Sismológicas), which has its headquarters in Santiago. For information on the outcome of the Workshop, please contact the Estado Mayor Nacional de Defensa Civil, Oficina de Desastres, Calle 18, Esq. a 7ma Avenida Miramar, Havana, Cuba; Fax: (537) 33-2780. □

## Regional Parliaments Work Toward Disaster Reduction Legislation

There has been a lot of activity among legislators since the April meeting of the Latin American Parliament's (PARLATINO) Health Commission in Tegucigalpa (see issue No. 62 of this newsletter). Members of PARLATINO, the Central American Parliament (PARLACEN), and the Andean Parliament (PARLANDINO) are working to create model legislation that will assist member countries to update national disaster reduction laws. In addition to encouraging national enactment of laws, these groups are striving to reach accords on disaster reduction among countries that share vulnerability to natural disasters.

To support an initiative of the Central American Parliament (PARLACEN), PAHO/WHO collaborated in preparing a review of current legislation that will serve as a guide to legislators at the PARLACEN meeting in Panama in August. Members of PARLANDINO will meet in November in La Paz to discuss similar legislation for their members. Representatives from PARLATINO will attend both meetings to ensure regional coordination of legislation. □

## Canada: Conference on Earthquakes, Volcanoes, and Tsunamis

The Canadian Government, in support of the IDNDR, is sponsoring the Pan-Pacific Hazards Conference from 29 July-2 August 1996 in Vancouver, Canada. Of particular interest to those living and working in the "Ring of Fire" countries, it will go beyond conventional discussions of

response stories and risk analysis to explore strategies for preparedness and mitigation. Persons interested in presenting a paper or poster session should submit an abstract for review to the Program Committee, Pan Pacific Hazards '96 Conference, Univ. of British Columbia, Disaster Preparedness Resources Centre, 2206 East Mall, 4th Floor, Vancouver, B.C. V6T 1Z3; Tel: 604-822-5518; Fax: 604-822-6164; e-mail: dprc@unixg.ubc.ca. The conference language is English. Deadline for submissions of abstracts is 1 November 1995. □

## Costa Rica's MATPEL Initiative

In 1992 Costa Rica formed an interagency steering group to examine the use of hazardous materials as part of an initiative known as "MATPEL" (*materiales peligrosos* or hazardous materials). In August they will finalize guidelines for legislation on the use of these materials. The Ministries of Health and Labor, the National Emergency Commission, and others will review their respective responsibilities and interinstitutional coordination of the use and control of these substances. □

## Floods in Paraguay



Flooding has displaced an estimated 40,000 persons in settlements and towns along the Paraguay River since April. The Government declared a national emergency and requested international assistance in providing generators, water storage and treatment equipment, and shelter to the affected communities.

Serious annual flooding occurs along specific stretches of the Paraguay River, but this year's floods affected the entire River basin. Floods of such magnitude occur in Paraguay every 5 to 10 years. The Government has invested over \$5 million in building dikes and walls to protect the cities of Asunción, Concepción, and Pilar, and is building embankments to reduce the vulnerability of the road system connecting river towns. These settlements are isolated by flooding, complicating relocation and rehabilitation efforts.

During the early phase of the emergency Paraguay's National Emergency Committee and PAHO/WHO convened a special workshop on the country's flood warning system. Experts reviewed emergency procedures during floods, placement of monitoring stations, systems of data retrieval and transmission, and consistency and dissemination of information. □

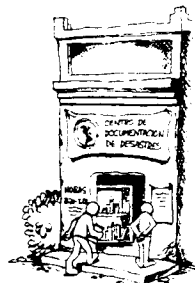


# Review of Publications

## CORRECTION

Please note the correct e-mail address for the Regional Disaster Documentation Center:

[cddcor@paho.org](mailto:cddcor@paho.org)



## Two new BIBLIO-DES available....

BIBLIO-DES is a periodic bibliographic bulletin issued by the Regional Disaster Documentation Center that contains the listing of all documentation in the DISASTERS database on a particular subject. Two new BIBLIO-DES are available:

- *Public Information on Disasters* (No. 17) provides citations for documents on public awareness about disasters and media coverage.

- *Legislation for Disaster Reduction* (No. 18) contains references to legal initiatives on disaster preparedness and prevention in the Region.

To date there are 18 BIBLIO-DES available on topics ranging from earthquakes to the effects of disasters on hospitals. To receive the BIBLIO-DES or other material on disaster related issues, write to the Regional Disaster Documentation Center, Apartado postal 3745-1000, San José, Costa Rica; Tel: (506) 296-3952; Fax: (506) 231-5973; e-mail: [cddcor@paho.org](mailto:cddcor@paho.org) □

## Issues, analysis, tools and facts: World Disasters Report 1995

It is the only annual, global report on disasters, from armed conflict to economic crisis, earthquakes to epidemics, and the growing millions of people vulnerable to them.

Published in English, French, Spanish, Arabic and Japanese, the World Disasters Report 1995 is backed by the resources and expertise of the International Federation of Red Cross and Red Crescent Societies, the most experienced and extensive global humanitarian agency.

The four-part World Disasters Report 1995 - key issues, methodologies, the year in disasters and disasters database - includes humanitarian issues amid conflict, impact of sanctions, early warning systems, effective evaluations, and studies from Ethiopia, Mozambique, Rwanda, Bangladesh, Haiti, Serbia, Iraq and the former Soviet Union.

Fully illustrated, 160pp. ISBN (English) 90-411-0038-5. 60 Swiss francs.

To order or for more details, please mail, fax or call:  
World Disasters Report 1995, International Federation of Red Cross and Red Crescent Societies, P.O. Box 372, 1211 Geneva 19, Switzerland;  
fax +41 22 733 03 95; tel +41 22 730 42 22, e-mail: [walker@ifrc.org](mailto:walker@ifrc.org)

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## SUMA (from pg. 1)

track of whether pledges made by donor countries match requests made by authorities in the disaster-stricken country.

One of the most important characteristics of SUMA is its flexibility. It will be fairly simple to modify the SUMA software to changing requirements. But adapting supply management procedures to the needs and realities of different countries in crisis situations is more complicated. By providing a way to interface a range of management functions, the expanded capability of SUMA will be a helpful tool for national authorities when monitoring and distributing relief supplies. □

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## Cobbler's Children (from pg. 1)

• **Ensuring staff safety.** Emergency and security measures taken in PAHO/WHO offices located in highly seismic or hurricane prone areas are impor-

tant. Increased efforts are being made to review the physical security of PAHO/WHO buildings, and to train staff in emergency procedures. During the recent decision to relocate the offices of PAHO/WHO's Ecuador Representation, for example, staff safety was given high priority in choosing the new building.

• **Training disaster "focal points".** In the same way that PAHO/WHO encourages appointing and training disaster coordinators in key institutions in Member Countries, each PAHO/WHO country office has a person designated as the "focal point" for disaster-related issues. PAHO/WHO Representatives and the disaster focal points gathered in May and June in Costa Rica, Guyana, and Peru for special training sessions on their responsibilities in the event of disaster. Participants also worked on ways to promote, develop, and maintain the disaster reduction approach used by authorities in health and other sectors at the national level. □

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# Upcoming Meetings

## September

Directors of emergency medical services, nurses, radio operators, and EMS technicians will exchange experiences and attend specialized training sessions at the First Latin American Congress on Prehospital Medical Emergencies, sponsored by Integrated System of Medical Emergencies (SIEM), in Buenos Aires, Argentina, from 25 to 27 September 1995. Specialized courses will be offered prior to the Congress and by correspondence. Contact: Dr. Luis Otero Vida, Ana Juan Congresos, Sarmiento 1562, Piso 4 "F", 1042 Buenos Aires, Argentina; Tel: (541) 381-1777; Fax: (541) 382-6703.

## October

The Third Regional Congress on Radiological and Nuclear Safety

(Regional International Radiation Protection Association Congress) will take place in Cusco, Peru, from 23 to 27 October. In addition to the Congress there will be a technical exhibit and interna-

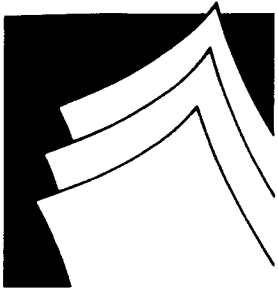
tional book fair. Contact: III Congreso Regional sobre Seguridad Radiológica y Nuclear, Casilla postal 18-0260, Lima, Peru; Tel: (511) 470-5167; Fax: (511) 472-8081; e-mail: congres@ciplim.org.pe



### Call for Papers

## October 1996

The Department of Geology, University of the West Indies, is pleased to announce the Second Caribbean Conference on Natural Hazards and Disasters from October 15-19, 1996, Kingston, Jamaica. Papers and posters presenting work on all aspects of natural hazards, disasters, and their management are invited. Interested parties should contact Dr. B. Carby, Coordinator, 2nd Caribbean Conference on Natural Hazards and Disasters, Dept. of Geology, Univ. of the West Indies, Mona, Kingston, Jamaica, W.I. Tel: (809) 927-2781; Fax: (809) 927-2156; e-mail: bcarby@geology.uwi.edu □



# Selected Bibliography

The articles listed in this section may be of interest to health professionals and others responsible for disaster preparedness, mitigation and relief. They have been reproduced and recently added to the collection of articles available from the Editor of this Newsletter. A complete list of reprints is available upon request. Please quote the reference code listed to the left of the publication title when requesting articles.

- P.9** Jeney-Gammon, Patricia, et al., "Children's coping styles and report of depressive symptoms following a natural disaster," *The Journal of Genetic Psychology*, Vol. 154, No. 2, pp. 259-67.
- P.10** Busuttill, A. and J.S.P. Jones, "The certification and disposal of the dead in major disasters." *Med Sci Law*, Vol. 32, No. 1, pp. 9-13, 1992.
- Q.1** Petri, Roland W., et al., "The effect of prehospital transport time on the mortality from traumatic injury," *Prehospital and Disaster Medicine*, Vol. 10, No. 1, pp. 43-48, Jan.-Mar., 1995.
- Q.2** Suserud, Björn-Ove, "Acting at a disaster site: views expressed by Swedish nursing students," *Journal of Advanced Nursing*, No. 18, pp. 613-20, 1993.
- Q.3** Noji, Eric K., "Analysis of medical needs during disasters caused by tropical cyclones: anticipated injury patterns." *Journal of Tropical Medicine and Hygiene*, No. 96, pp. 1-7, 1993.
- Q.4** Kirk, Mark A., et al. "Emergency department response to hazardous materials incidents." *Emergency Medicine Clinics of North America*, Vol. 12, No. 2, pp. 461-81, May 1994.

**Disasters: Preparedness and Mitigation in the Americas** is the Newsletter of the Emergency Preparedness and Disaster Relief Coordination Program of the Pan American Health Organization, Regional Office for the Americas of the World Health Organization. The reported events, activities and programs do not imply endorsement by PAHO/WHO, nor do the statements made necessarily represent the policy of the Organization. The publication of this *Newsletter* has been made possible through the financial support of the Canadian International Development Agency (CIDA) and the Office of Foreign Disaster Assistance of the U.S. Agency for International Development (OFDA/AID).

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