



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



99th Meeting
Washington, D.C.
June 1987

Provisional Agenda Item 4.5

CE99/11 (Eng.)
5 May 1987
ORIGINAL: ENGLISH

EMERGENCY PREPAREDNESS AND DISASTER RELIEF COORDINATION

This working document on Emergency Preparedness and Disaster Relief Coordination is submitted in compliance with Resolution XXIII of the XXXI Meeting of the Directing Council (1985).

It reviews the progress made in implementing this resolution in light of the orientation and program priorities of PAHO during the quadrennium 1987-1990 adopted by the XXII Pan American Sanitary Conference.

It reemphasizes that preparing for the appropriate provision of primary health care to vulnerable groups prior to disasters is an intersectoral country activity that requires an unwaivering national commitment.

Although many Member Countries have made progress in preparing their health sector to face disasters, efforts must continue for preparedness programs to be truly effective. The national health sectors and the Organization may have to adopt a more assertive role in ensuring that relief assistance is consistent with the priorities defined at the country level or collectively by the Governing Bodies. In support of improved international relief in health, the Executive Committee is also requested to review the recommendations made on international health relief assistance contained in the Annex, with a view to making a recommendation concerning their endorsement to the XXXII Meeting of the Directing Council.

CONTENTS

	<u>Page</u>
Introduction	1
1. Emergency Preparedness and Strengthening of the Health Services Infrastructure	1
1.1 Strengthening the Ministry of Health and Intersectoral Cooperation	1
1.2 Emergency Preparedness and the National Health System	2
1.3 Development of Health Sector Resource Management Capabilities	2
1.4 Emergency Preparedness, Community Participation, and Health Manpower Education and Training	3
1.5 Emergency Preparedness and National Health Information Systems	4
2. Emergency Preparedness and Priority Health Problems . . .	4
3. PAHO's Technical Cooperation in Emergency Situations . . .	5
3.1 Objectives and Priorities of the Organization . . .	5
3.2 Role of the Organization	6
3.2.1 PAHO Country Offices	6
3.2.2 Centers and Field Staff	6
3.2.3 PAHO Headquarters	7
4. Disaster Relief Coordination and the International Response	7
5. Conclusions	8
Annex: Recommendations Approved at the Meeting of International Health Relief Assistance in Latin America	

EMERGENCY PREPAREDNESS AND DISASTER RELIEF
COORDINATION PROGRAM

Progress Report

Introduction

In 1985 a devastating earthquake struck Mexico several days before the opening of the XXXI Meeting of the Directing Council, and although Emergency Preparedness and Disaster Relief Coordination was a scheduled agenda item (Document CD31/18), the resolution emanating from this meeting seemed all the more urgent.

In Resolution XXIII, the Council called upon the Director to present a progress report to the XXXII Meeting of the Directing Council in 1987.

From the time of approval of Resolution XXIII to the present, we have witnessed additional earthquakes in El Salvador and Ecuador, and the eruption of the Nevado del Ruiz Volcano in Colombia, reminding us of the pressing need to continue health sector preparedness planning and training.

1. Emergency Preparedness and Strengthening of the Health Services Infrastructure

1.1 Strengthening the Ministry of Health and Intersectoral Cooperation

The insufficiency of institutional solutions and the limited resources available to face the deterioration of health conditions, as observed in Document CSP22/6 "Orientation and Program Priorities for PAHO during the Quadrennium 1987-1990," approved by the XXII Pan American Sanitary Conference, are also the main determinants of the countries' response to emergency situations caused by natural, technological or social (man-made) disasters. The emergency preparedness activities of the Organization focus on strengthening the Ministry of Health and coordinating with other sectors to integrate preparedness into development policies.

In the health sector, subregional meetings of nationals responsible for emergency preparedness programs were held in the Caribbean, Central America and the Andean Region. Country progress was reviewed and stress was placed on the need to emphasize the coordinating/promoting role of these programs so that health services would be included in emergency planning at the central and local level.

In almost all Member Countries, the leading responsibility for overall national preparedness lies outside the health sector. It often is entrusted legally to the civil defense, the national emergency committee or another entity under the Ministry of Interior or Defense, or the Office of the President.

The medium-term economic, social or environmental consequences of disasters are often of more critical importance to the well-being of the affected population than the immediate and more visible health consequences. PAHO has increased intersectoral technical cooperation and support to social security and public health institutions, civil defense, armed forces health services, and nongovernmental organizations (NGOs).

This cooperation has taken the following forms:

- Meetings, workshops and seminars supported by PASB have become more multisectoral in nature;
- Liaison between emergency preparedness subregional advisors and PAHO/WHO Representatives and national civil defense organizations and emergency committees has increased;
- Joint activities with bilateral or UN agencies responsible for, or interested in, national or regional disaster preparedness activities, such as contingency planning for chemical accidents or air crashes, have been carried out;
- Regional health-related activities undertaken by national institutions such as civil defense or NGOs in consultation with the Ministry of Health have been supported;
- Participation in the multisectoral Pan Caribbean Disaster Preparedness and Prevention Project, headquartered in Antigua, West Indies, has continued.

1.2 Emergency Preparedness and the National Health System

Prior to disasters, the establishment of an Emergency Preparedness and Disaster Relief Coordination Program or Office within the Ministry of Health is regarded as a critical step and a key indicator that countries are planning the development of primary health care services and improving their management, taking into full consideration the extraordinary circumstances under which these services may be called upon to operate in emergency situations. Considering the multidisciplinary and inter-institutional nature of this Office and its broad coordination functions, it should have direct access to and a structural relationship with the policy and decision-making levels rather than with a single, specific program area.

After natural disasters, structural and institutional deficiencies in the health sector are strikingly underscored. There is an opportunity, and the challenge, of reconstructing and reorganizing national health systems. With adequate planning, backed by the political will to support change, reconstruction can result in strengthened health systems, better use of existing resources, decentralization, and improved coverage.

1.3 Development of Health Sector Resource Management Capabilities

At the national level, it is unrealistic to expect that Member Countries facing economic recessions and external debts can mobilize a substantial amount of national resources such as stock piles, field hospitals, and so on, to face all possible catastrophes. Rather, emphasis should be placed on rationalizing costs and expenditures before and during emergency situations. This requires the country's full political commitment and a modest investment in terms of human resources and an operating budget prior to disaster.

National emergency operations should adopt a similar austere and cost-minded approach in their appeals for external assistance to ensure the most efficient expenditure of health resources. In the past, too much national or international emphasis has been placed on the immediate and most visible needs. This has distracted attention and resources from the more serious need for a prompt shift to rehabilitation and reconstruction.

At the regional level, the Organization has actively pursued its offer to seek extrabudgetary resources to complement regular support to national programs on emergency and disaster preparedness.

Five-year extensions (to 1992) of existing grants are currently being negotiated with governments that have been supporting this program in the past, e.g. Canada and the United States of America. Also, PAHO is playing a significant role in stimulating bilateral contributions to national emergency preparedness and disaster relief coordination programs, as in the case of Italy and Japan to Peru.

It is expected that this diversification of direct support to national health sector programs will accelerate their development, independently of the extent of national support and cooperation from the Organization. The Program also has been highly flexible in adjusting, on short notice, its budgetary resources, procedures and managerial response to the changing needs generated by the economic, social and political situation of each country.

Credit for this considerable flexibility must be shared with the funding agencies who have entrusted to PAHO and the Program the use of external resources in the countries' best interests. As a result, the programming and budgetary process has been able to respond rapidly to emerging national priorities and take advantage of new opportunities congruent with the objectives determined by the Governing Bodies.

1.4 Emergency Preparedness, Community Participation and Health Manpower Education and Training

Since 1985, health manpower education and training, particularly for managing services at the intermediate and higher levels, has been a program priority, and increased resources have been assigned to these activities.

Improving health workers' potential to manage disasters remains the major contribution of the regional program to health sector emergency preparedness. An average of 100 meetings, workshops or courses are organized, cosponsored or supported by the Program, the majority being initiated at the national level by the Ministry of Health or other institutions with only minimal funding and technical support from PAHO.

More importantly, most public health schools and a growing number of medical facilities are formally including emergency preparedness in the pre- or postgraduate curriculum. Similar efforts will be carried out to achieve the same results in schools of nursing, engineering and other health-related professions.

To support this initiative, the Program has developed a large variety of audiovisual materials. Within the last 18 months, video programs on recent natural disasters have been widely distributed. These include programs on the earthquake in Mexico; the eruption of the Nevado del Ruiz volcano in Colombia; the earthquake in El Salvador; and a general program that addresses the issue of international health relief assistance.

The dissemination of existing PAHO publications and other technical literature has also increased considerably. Decentralization of this distribution to the subregional disaster preparedness officers in the Caribbean (Antigua, West Indies), Central America (Costa Rica) and South America (Peru) is near completion.

In the future we expect to continue this trend toward placing emphasis on training for better disaster management.

1.5 Emergency Preparedness and National Health Information Systems

Simply stated, it can be said that disaster management is information management--the diagnosis of health problems matched to an inventory of existing resources. And emergency activities will be effective to the extent that managers have prompt access to reliable and comprehensive information.

Basic information on vulnerability to natural or technological hazards must be routinely integrated into the epidemiological bases used for planning health programs and facilities. Progress in this area has been slow at the regional and national level. Improving links between health information systems and those developed in other sectors, such as public works, geology and civil defense, is indispensable.

Similarly, in the aftermath of disasters, a greater effort and higher priority should be assigned to rapidly assessing the situation and determining the affected population's needs.

2. Emergency Preparedness and Priority Health Problems

Providing effective health coverage to vulnerable groups has become an Organization priority. During disaster situations, these same groups--children, mothers, and the poor--are also at highest risk, particularly in marginal urban areas where standards of health care and housing are more deficient.

Persistent health problems such as communicable diseases in general and vector-borne diseases have worsened as a result of floods, hurricanes and other disasters. Violence and the migration of large numbers of people have also created additional high risk groups. The Emergency Preparedness and Disaster Relief Coordination Program has addressed these issues in close coordination with other PAHO technical programs that have a primary responsibility in this field.

Because the consequences of all types of disasters on environmental health and in particular on the water supply are often more subtle, yet significant, than the more sensational aspects of the impact, close coordination has been maintained with the Environmental Health Program at regional and national levels. To deal with these specific problems, multidisciplinary national technical staff have been trained.

Certain groups, such as displaced persons and refugees, have received special attention. However, the lack of success in fundraising, has dramatically limited practical technical cooperation achievements. A five-year project for technical cooperation in Central America is still largely unfunded.

In contrast, satisfactory progress has been made in raising the awareness of and preparedness for chemical accidents. Between 1985-1987, workshops were organized jointly by the Pan American Center for Human Ecology and Health (ECO) and the Program in six countries.

3. PAHO's Technical Cooperation in Emergency Situations

3.1 The Organization's objectives and priorities in the aftermath of a disaster include:

- Maintaining and strengthening normal technical cooperation to the health sector in order to minimize the impact on the development activities;
- Providing technical guidance and support to the affected country and the international community willing to assist. This includes:

- a) Diagnosis of the impact of the disaster on public health and the operational capacity of the health services;
 - b) Assessment of genuine requirements for external assistance;
 - c) Technical and managerial aspects of relief and rehabilitation operations.
- Cooperating with the national authorities and relief agencies to rapidly shift from emergency relief to rehabilitation and reconstruction;
 - Documenting emergency situations and applying lessons learned to future preparedness activities. This includes gathering photographic and video material for training purposes;
 - Liaising with principal governments or NGOs in order to direct this assistance toward primary health care priorities.

3.2 The recent major natural disasters have caused the Organization to review its role and identify its limitations.

3.2.1 The role of the PAHO Country Office is critical to the Organization's emergency response. Several measures are being adopted to strengthen its managerial capacity. These include:

- a) Defining the basic technical and administrative functions of the Country Offices in case of disasters. As necessary, additional personnel from the Centers, neighboring countries or Headquarters in Washington will be assigned on a temporary basis to complement the PAHO/WHO Representative's office.
- b) Organizing one-day orientation sessions on disaster management and the role of the Country Office in the aftermath of disasters in 15 countries. Follow-up sessions will most likely be required in the most vulnerable countries.
- c) As appropriate, integrating into the PAHO local emergency response team, health disaster experts sent by bilateral or multilateral government agencies or major NGOs. Major donors traditionally send their own fact-finding or assessment "team"; the results are scattered resources, duplicated efforts, and multiple or conflicting conclusions.
- d) Drawing up contingency plans for the use of an existing portable satellite telephone system to reestablish communications between the disaster site and the outside world. Experiences in Mexico and El Salvador have taught us that reliable voice, teletype, and data communications are invaluable assets in managing and coordinating the disaster response.

In line with its mandate as a specialized health agency, PAHO should provide, in consultation with the Ministry of Health, a framework for and technical support to these "experts." When possible and appropriate, they should also be integrated into an international health team. By distributing tasks and allocating specific responsibilities, more complete and homogeneous support from the international health community can be achieved. A concerted effort in this regard was made in the aftermath of the earthquake in Ecuador. The positive result was a minimum of duplication or overlapping, and individual reports to sponsoring agencies that were more attuned to national and collective (regional) priorities.

Obviously, full cooperation of external agencies and the Ministry of Health is a prerequisite for further progress in this area.

3.2.2 PAHO's cooperation during emergency situations is not limited to mobilizing its in-country staff. The support of the Organization's training and research centers, regional programs, and staff stationed in neighboring countries remains an integral part of this response.

3.2.3 The responsibility for mobilizing and coordinating this overall response lies with PAHO's Emergency Preparedness and Disaster Relief Program. In addition, it maintains liaison with the headquarters of major relief or cooperation agencies and monitors the technical aspects of the Bureau's response.

To facilitate coordination at the Pan American Sanitary Bureau's Headquarters in Washington, the following measures have also been adopted:

- a) An emergency center has been established where, in case of a major acute disaster, communication and computer equipment can be installed quickly; and
- b) A multidisciplinary interprogram emergency response team has been designated. This team will also facilitate a smooth transition from emergency response to technical cooperation for rehabilitation and reconstruction.

4. Disaster Relief Coordination and the International Response

Sudden-impact disasters, especially earthquakes, generate a considerable and generous response at the regional level. Coordinating this response is the primary responsibility of national authorities.

Coordination of this aid in past disasters has presented several problems. These were comprehensively reviewed by high-level representatives from Latin America and donor countries at a meeting in Costa Rica in March 1986. The conclusions of this meeting are annexed, and are submitted for review, consideration, and eventual endorsement by the Governing Bodies.

The roots of the problems experienced in past disasters are complex and can be summarized as follows:

- The desire of donor countries--a category that includes many of PAHO's Member Countries--to be perceived as "the first" to respond to the emergency needs of affected countries, results in inappropriate assistance before needs can be identified.
- An overreaction to the most publicized aspects of disasters, selectively reported by the mass media, results in sending mobile hospitals, medical or rescue personnel, blood or vaccine supplies, and so forth--all generally either unneeded or counterproductive.
- Insufficient participation by the Ministry of Health and its Disaster Preparedness Program in the decision-making process for requesting or donating health assistance.
- The increasing trend of developed countries worldwide to establish and airlift disaster response teams (medical and rescue personnel). This results in a large number of foreign teams (42 were reported to have been present after a recent earthquake in the Region) that often arrive too late to save lives. Too often, these teams also operate independently vis-à-vis the local authorities and even compete with each other and local personnel for visibility.

5. Conclusions

Many Member Countries have made progress in health sector preparedness to face all types of disasters. However, further efforts are required to ensure that all national-level health sector programs in disaster-prone countries are given the necessary authority, resources and support required of their multisectoral responsibility. The potential of national emergency preparedness activities to promote multidisciplinary and intersectoral cooperation in primary health care cannot be underestimated.

The major recent disasters in Chile, Mexico, Colombia, El Salvador and Ecuador have also highlighted the importance of asserted leadership on the part of the Ministry of Health to ensure that national and international health relief is consistent with the priorities defined at the country level or identified collectively by the Governing Bodies. The health sector and the Organization may have to adopt a more assertive role in this regard.

CE99/11 (Eng.)
ANNEX

RECOMMENDATIONS APPROVED AT THE
MEETING OF INTERNATIONAL HEALTH RELIEF ASSISTANCE
IN LATIN AMERICA

San José, Costa Rica, 10-12 March 1986

I. Consultation with Health Authorities and International Agencies

The Participants,

Concerned that international health relief assistance offered or provided by governmental or nongovernmental organizations be in compliance with the immediate and long-term priorities established by national health authorities;

Convinced that the negative impact of disasters on long-term health development may be more important than the immediate visible consequences; and

Recognizing the experience acquired by the Pan American Health Organization/World Health Organization (PAHO/WHO) in the field of health management following disasters and relief coordination,

Recommend that:

1. Foreign health relief assistance always be provided following consultation with the Ministry of Health official having responsibility/authority for coordination and management of the health relief effort or an organization which each country designates at the national level (National Health Disaster Coordinator). Prospective donors should refrain from acting upon requests or information received from unauthorized sources. Upon request of the affected country, the United Nations Disaster Relief Coordinator Office (UNDRO) and PAHO/WHO will assist in ensuring that proposed assistance meets genuine needs and complies with the health priorities and WHO scientific norms.
2. National health authorities designate a National Health Disaster Coordinator who will liaise with national and voluntary organizations and the international community.
3. Countries/agencies anxious to provide effective relief assistance and avoid duplication in the health field refrain from sending donations or personnel without prior consultation with the Ministry of Health, or organization designated by each country, UNDRO, or PAHO/WHO Representative, which will act as an information clearing-house.
4. Immediate specific assistance may be provided on some occasions as necessary, taking advantage of the experience of donor countries in very special problems (e.g., utilization of highly specialized rescue teams).

II. Assessment of Health Needs

The Participants,

Recognizing that it is the responsibility of the affected country to determine its own health needs for outside assistance;

Aware of domestic pressures which may compel external governmental and nongovernmental organizations to commit their relief resources without delay; and

Taking into consideration that possible donors must have, as quickly as possible, the information regarding immediate or future needs,

Recommend that:

1. The national health authorities assign high priority to the immediate assessment of needs for external assistance and promptly make known the specific type of assistance which is, or is not, needed.
2. Governmental and nongovernmental organizations considering it necessary to send "fact finding" or "assessment" teams instruct those teams to develop and coordinate their efforts with the National Health Disaster Coordinator designated by the Ministry of Health or the designated department and/or the PAHO/WHO Representative on all matters relevant to health.
3. The recipient government, through its department in charge of emergencies, coordinate the assistance offered by accredited nongovernmental organizations.

III. Donation of Equipment and Supplies

The Participants,

Recognizing that Latin American countries will deplete much of their financial and material resources during a disaster;

Concerned that inappropriate donations divert scarce national and international resources; and

Stressing the fact that Latin American countries are both potential recipients and providers of international relief assistance,

Recommend that:

1. Disaster-stricken countries establish and communicate to donor countries firm policies with regard to the acceptance of unsolicited or inappropriate supplies.
2. Recipient governments inform their diplomatic missions of their policy on accepting or requesting assistance. Diplomatic missions should be kept informed of the current situation regarding requests made or assistance needed.

3. Authorities in donating countries launch continuous campaigns, through the mass media and other means, with their NGOs and the public to assure that their contributions are channeled toward needs recognized by the health authorities of the affected country, and that they refrain from collecting medical supplies, clothing, and other health/welfare items unless a definite need has been confirmed by the appropriate authorities of the affected country.
4. Donations consist, to the extent possible, of cash or credit provided directly to health authorities or to international agencies, or through other mutually agreed channels.
5. Donations in cash or kind be used, whenever possible, for replacement of national resources diverted from essential programs and used for the emergency.
6. Donations initially be aimed at restoring the level of health care to pre-disaster conditions.
7. Shipments of perishable or short-life supplies (e.g., blood, biologicals) be made only on request from or with the approval of the National Health Disaster Coordinator or other authorized official of the Ministry of Health or designated department in close consultation with PAHO/WHO.
8. Authorities and the nongovernmental organizations of the country of origin ensure, to the extent possible, the control of quality (e.g., expiration date of drugs) of private donations intended for shipment, taking into account that high cost, retail-purchased drugs or samples are not appropriate.
9. The WHO model list of essential drugs and supplies be used as a guideline by the requesting and donating countries/agencies, unless there is a specified, confirmed need for other drugs.
10. Recipient countries improve their distribution systems to ensure the best utilization of the resources.

IV. Health Personnel

The Participants,

Aware that medical assistance to victims should be provided within a few hours by health personnel familiar with the local situation;

Convinced that health services in Latin America are able to respond to these initial needs with the assistance of civil defense and voluntary organizations;

Observing that in past disasters unsolicited foreign medical teams and volunteers arrive unprepared or too late to be of real assistance to the victims and, therefore, constitute an unnecessary burden on the relief efforts; and

Noting with satisfaction that Latin American countries are increasing their training efforts in order to prepare their health personnel to face emergency situations caused by any type of disaster,

Recommend that:

1. Disaster-stricken countries continue to give high priority to the preparation of their own health resources to respond to the emergency needs of the affected population.
2. Countries and nongovernmental organizations willing to assist send medical teams or health personnel only in response to specific request by the National Health Disaster Coordinator or other authorized representative from the Ministry of Health or governmental official, taking advantage of the experience of PAHO/WHO.
3. Other countries educate the public and professional associations that offer assistance on why the affected country's own human resources should provide emergency health care and of the often counterproductive impact of unsolicited foreign health volunteers or medical teams in disaster areas of Latin America.
4. Priority be placed on cooperation between neighboring communities and countries whenever additional resources are needed for disaster management.

V. Role of International Agencies

The Participants,

Taking note of the mandates of UNDRO and PAHO/WHO and the extensive material developed by them; and

Appreciative of the increased coordination which is taking place among agencies before and after disasters in Latin America,

Recommend that:

1. The disaster-affected country and the international community, to avoid duplication, make full use of the clearinghouse function of UNDRO and PAHO/WHO in order to inform other donors of pledged contributions and determine genuine outstanding health needs.

2. Agencies provide technical cooperation in joint assessment of needs.

3. PAHO/WHO, in cooperation with other donor agencies and experts in the Region, continue establishing technical guidelines for international health assistance in case of disaster and disseminate them to countries/agencies willing to offer emergency relief.

VI. Appeals for International Assistance

The Participants,

Believing that one of the main problems in post-disaster health management is the often conflicting quality of the information available from the various sources for rapid decision-making by potential donors;

Recognizing the importance that requests or appeals for international assistance reflect genuine emergency health needs of the entire population affected by the disaster; and

Encouraged to note the considerable improvement in this regard following the disasters in 1985 in Latin America,

Recommend that:

1. Affected countries continue efforts to limit their appeals for international assistance in the health field to genuine needs for the emergency, clearly identifying the priorities but making a distinction between needs for rehabilitation and reconstruction.
2. Information on what has been requested or pledged be shared among all donors.
3. Affected countries take into account the time required to provide assistance from the international community and, therefore, carefully request assistance that has the greatest probability of arriving in time to be used.
4. Affected countries specify, to the extent possible, the most urgently needed items (e.g., drug dosage, the manufacturer and the model of equipment) in order to avoid delays or misunderstandings.
5. All appeals for health assistance be endorsed or issued by or through the Ministry of Health.

VII. Preparedness

The Participants,

Stressing the need for the countries to be self-reliant in the provision of immediate health care to disaster victims;

Considering the need to grant to disaster preparedness the importance it deserves; and

Taking into consideration the resolutions adopted by the PAHO Directing Council,

Recommend that:

1. PAHO Member Countries increase their efforts to comply with the resolutions adopted by the PAHO Directing Council.
2. Donor countries and organizations support, to the extent possible, the activities of international agencies, national health services, and other groups in disaster preparedness activities.
3. Countries and international organizations, taking advantage of acquired experiences, support field investigations in order to determine the needs related to the different types of disaster.
4. Countries develop, to the extent possible, bilateral collaboration projects between neighboring countries in order to provide timely regional assistance.
5. Training of emergency preparedness in case of disaster be encouraged at all educational levels.

VIII. Disaster Management

The Participants,

Recognizing the health focus of this meeting;

Aware that disaster management and related political aspects have a significant impact on the provision of short and medium-term health care;

Recognizing that disaster relief in its initial phases often requires other technologies associated with the health;

Referring to the United Nations General Assembly's resolutions giving UNDR0 the responsibility to support country preparedness plans and prevention programs; and

Aware of the fact that the establishment of a communication system can be no longer postponed,

Recommend that:

1. All countries identify their vulnerability to natural and man made disasters;
2. All countries establish appropriate measures to mitigate the impact of disasters on the most vulnerable populations;
3. International agencies and countries encourage the development of common relief management systems;
4. These management systems include on-site management of the emergency, as well as the support systems of communications, search, rescue, and logistics and their related technologies;
5. Countries and international agencies, develop plans, training methods, and simulation exercises as part of their preparedness activities; and
6. Countries promote and carry out, in collaboration with the International Telecommunication Union, the establishment of a quick, continuous and permanent communication system among the countries of the Americas.