IV. EVALUATION FINDINGS

At the outset of presenting the evaluation findings, it should be stated that the extensive efforts and inputs of PAHO/EPD are showing positive results. Prior to the Program intervention, activities were almost exclusively directed to provision of relief supplies and personnel. In the early stages of the PAHO/EPD Program, activities in the field of disaster preparedness began to shift to relief effort preparedness. As the assistance provided by the Program began to take hold, a notable and observable outcome has been a re-orientation of activities of many of the participating agencies and organizations to include prevention as an important component of preparedness.

A. Program Administration, Planning and Monitoring

1. Inter-agency Planning and Collaboration

Description and Accomplishments

The problem of planning, implementing, and coordinating project activities among countries finds a corollary in the promotion of joint inter-agency projects or programs in the disaster preparedness and response area. Up to 1990 it was difficult just to affirm that PAHO/EPD was the major (if not only) multilateral regional program in preparedness. After 1990, given the range of demands on the Program and the fact that health sector preparedness is conditioned by so many non-health related factors (e.g., housing quality, land use controls, logistics and transport resources), there is a need for a formal approach to interagency planning in which policies, guidelines and standards are formalized.

A challenge for the mid-1990s will be to plan and implement joint multi-sectorial/multi-agency schemes at a time when other U.N. and bi- or multilateral agencies are showing an increasing interest in the disaster problem. The efficient use of scarce resources demands a multi-agency planning process, inevitably requiring the participation of PAHO/EPD with other agencies or organizations. The hospital mitigation project is an example of where collaboration, in this case, between PAHO, United Nations Development Program (UNDP), the Organization of American States (OAS) and the international development banks, could be highly beneficial.

Issues and Recommendations

Participating countries need to continue giving attention to general administration and planning, though with a particular focus on the institutionalization of interagency planning of disaster health preparedness activities. With the institutionalization of such planning policies, guidelines, and standards there is a greater chance of acceptance by a broader group of countries. PAHO/EPD sub-regional and national offices would then be able to tailor the planning approach to each country's specific needs according to an agreed-upon, region-wide set of health preparedness planning criteria.

2. Decentralized Program Design and Administration

Description and Accomplishments

The PAHO/EPD program is promoted and administered on a decentralized basis in Latin America, through sub-regional offices located in San Jose, Costa Rica (for Central America) and Quito, Ecuador (for South America). The sub-regional representatives work in close liaison with assigned EPD counterparts at PAHO headquarters and with local and national program coordinators designated by the Ministries of Health in each country.

Decentralization is an effective approach on the part of PAHO/EPD to management and control of activities and the needed flexibility in program formulation, budgetary design and financial outlays. An intimate knowledge of the different countries within the sub-region and close links between PAHO/EPD sub-regional representatives and their local counterparts effectively facilitates the identification and implementation of program activities.

the sub-regional offices have only one permanent scientific/technical appointee (the representative) who is complemented by project-designated (SUMA and Hospital Mitigation) or general support professionals, financed through bilateral agreements with countries (e.g., Dutch, Italian, Belgian) on a short to medium term basis (2-4 years).

The permanent sub-regional representative acts as a liaison with the central PAHO/EPD office in Washington D.C., as general coordinator of EPD projects and activities implemented from or related to the sub-regional office, and liaison with the national counterparts in the member sub-regional countries.

Country-based activities (and budgetary allocations) are 'negotiated' on an annual basis by the sub-regional representative and national coordinators. The principal requests for technical assistance and training courses now originate from the national level. Once national budgetary allocations are decided, finances are transferred to and executed by the local PAHO representative.

Issues and Recommendations

The number of countries covered by the sub-regional offices and the increasing range of activities promoted places considerable strain on the limited human resources available at the sub-regional office level. This is particularly the case for South America, where the number of countries covered is complicated by distances and the geographical size of many of these countries. In accord with the CIDA evaluation recommendation, the opening of a sub-regional office for the Southern Cone countries should be carefully considered, though the source of funding at this time is not clear.

Coordination and promotion activities among sub-regional offices are highly dependent for their continuity on the present sub-regional representatives. Changes by or absence of these

professionals can have significant repercussions on program development, given the lack of additional medium-to-long-term appointments. The efficient promotion and implementation of activities requires an intimate knowledge of the countries covered by the sub-regional offices and close personal and professional relationships between sub-regional and national coordinators. Therefore, reliance on one or two professionals is a potential problem.

The increased range of activities and the need for increased levels or coordination on a global project and inter-project level may require a permanent assistant representative at the sub-regional office level. This position could be designed so as to be responsive to the need for increased evaluation and monitoring activities proposed later in the report.

The location of the sub-regional offices in only a few, selected countries clearly has an important impact in terms of PAHO/EPD program development. The positive reputation of PAHO, in general, and EPD, in particular, as well as the more permanent presence of staff in these sub-regional offices is an important stimulus to activity development. Countries where national authorities give a low priority to disaster preparedness in fact need more permanent technical and organizational support than is presently possible for the sub-regional coordinators to provide.

One constraint of emphasizing low priority countries, though, is the very limited number of professional counterparts to work with PAHO staff and consultants.

Options for resolving the above type of problem are clearly related to financial resources and logistics. One option is the appointment of short or medium-term appointment of PAHO/EPD staff in countries where there is a coincidence between a low commitment to health disaster preparedness and high disaster vulnerability.

Questions of supply and demand, however, must be separated for our purposes. The development of PAHO/EPD-promoted activities is partly dependent on technical support requests from national coordinators and authorities. It is they who plan disaster preparedness organization and activity. Complicating the issue of local demand is the fact that in some countries the annual programming and budgeting procedures are not designed from a medium or long-term planning perspective. Therefore, there is little likelihood that a strategy or program will be established over, for instance, a 3-5 year period with activities in subsequent years building on present or previous year activities.

Besides the absence of a mid- to long-term planning capability from the administrative side, some of the countries lack an institutional capacity to evaluate and monitor progress or problems in their emergency preparedness programs. Because it is difficult to deal with dozens of country programs all of which have different standards and sophistication, PAHO/EPD -- given its limited financial and personnel resources -- has taken the approach of standardizing its assistance.

In light of the above situation, consideration could be given to promoting increased diagnostic, evaluation and monitoring capabilities and to strategic planning at the national level. Such an approach would address all health preparedness activities (whether PAHO/EPD-promoted or not). Despite obvious difficulties related to guaranteed financial availability and other difficulties, the preparation of formal 3-5 year strategic plans should be encouraged at the national level, which parallel the 3-5 year cycles of PAHO/EPD financing.

3. Sub-regional versus National-Level Activities

Description and Accomplishments

An important observation concerns the distinction of managing and coordinating national preparedness activities and PAHO-supported sub-regional activities. PAHO/EPD sub-regional offices have their own concept, logic, rationale and functions. These offices provide more than the simple coverage of the sum of countries included within their scope. They must also develop opportunities to promote bilateral or multi-lateral activities. Excellent examples of this type of activity, for which PAHO/EPD is particularly well-placed to promote, are the agreements established and/or signed between Chile and Peru and Ecuador and Colombia in cross-border disaster health management.

Issues and Recommendations

The dominant focus of PAHO/EPD activities is still understandably directed at the national level. During the 1990s, with presumed increasing levels of national self sufficiency in the promotion and implementation of health preparedness and mitigation schemes, opportunities for bi- and multi-national or sub-regional and regional activities will probably increase.

Consideration should be given to the increased promotion of trans-national collaboration schemes, including:

- Border region, bi-national disaster management programs.
- Sub-regional disaster health management programs (e.g., for the Central American or Andean Countries).
- Sub-regional 'postmortem' meetings to discuss and evaluate responses to disasters that occur in the respective countries, based on disaster response assessments.

B. Education and Training

1. Materials and Resources

Description and Accomplishments

Many manuals and informational materials (video cassettes, bulletins, news letters, etc.) are produced by the Program. Much of this is done through coordination with other external agencies, including Italian Cooperation, national affiliates of the Red Cross Society and universities within the region.

In the field of disaster preparedness in Latin America, PAHO/EPD is recognized as a leader in development of educational materials. Interviews with personnel in all sectors revealed a high level of appreciation for PAHO/EPD material and the value of it as a training tool. In addition to the audiovisual training materials, which cover all of the sub-components of disaster prevention, mitigation and preparedness activities, as well as recent disasters, the Program has developed a full set of teaching slides and manuals covering the project sub-components. They are available on request from the country program personnel.

The PAHO/EPD Documentation Center, begun in 1990, and located in San Jose, Costa Rica, provides an excellent and unique service to Latin American users. An increasingly comprehensive and wide-ranging collection of educational materials has been stored and classified. It is available to interested professionals on request, using free photocopying and distribution facilities. Classified indices of publications are prepared and distributed regularly. The majority of the publications stored are donations from institutions and individuals, covering both health and non-health disaster topics.

Issues and Recommendations

The majority of the health preparedness educational manuals was originally prepared in the early 1980s and has been reprinted since. These should be revised and updated, where appropriate.

The Documentation Center, normally taxed beyond its operating capacity (due to limited resources), is nevertheless presently under-utilized. At the same time, there is increased external demand for photocopied materials and other services. Photocopies are provided free of charge to all persons or institutions that solicit them. However, no system presently exists for controlling or prioritizing such requests and, given the demand levels, inevitable delays are experienced in responding to requests.

Given the excellent services offered by the Center, offering a unique and indispensable resource for the preparedness community of the LAC region, the following recommendations are made:

- -- Increased resources should be allocated for the Center, on a multi-agency basis.
- -- Short-term prioritization of the distribution of materials should be considered; here, health and disaster preparedness institutions in general (as opposed to individuals) should be given priority for free distribution, and for individuals, some sort of nominal cost should be charged to cover reproduction costs.
- -- Consideration might be given to the establishment of an official reference documentation service in each country, which would receive copies of the most frequently requested or important documents, in order to avoid multiple transmission of the same documents to any one country.
- -- Copies of important documents should be sent automatically to key health preparedness personnel throughout the region.

2. Training Courses

Description and Achievements

The PAHO/EPD Program continues to support a large number of educational and training activities in disaster preparedness and relief management. These activities are predominantly the result of demands generated at a national level, by local authorities. They are developed at a low per capita cost to the program and are concentrated mainly in the areas of general health and hospital preparedness (including mass casualty management).

An unequal distribution of educational activities occurs across the region, particularly in South America. This situation reflects different levels of the following: consciousness and motivation of national authorities; institutional consolidation in the health preparedness area; and direct communication with sub-regional office staff.

The Program has amply supported national demands for training support in "traditional" areas and stimulated innovative approaches in others. The disaster management courses conducted for personnel of the Ministries of Foreign Affairs are a good example of the latter, having contributed to the production of manuals detailing procedures for Embassy and other Ministry of Foreign Affairs staff in the case of national emergencies.

Interviews of disaster officials in the four countries suggest that the countries now count on trained national staff to teach health preparedness courses. PAHO/EPD support is still required for material and financial support, reflecting both the limited budgetary resources available to many countries and the priority given to these by the health sector.

Increasing attention has been given to incorporating disaster preparedness in permanent educational modules in university curricula in LAC countries. Presently, plans developed by the Central University in Ecuador to include curricula development are probably the most advanced and comprehensive in coverage (including a degree in emergency management).

Some medical schools have a community medicine/social medicine track as part of the basic curriculum. The experience of the University of Costa Rica is instructive. There, students undertake their community work in disaster-prone communities. At the University of El Salvador, a community-based approach to disaster preparedness has been part of the Medical Faculty curriculum for several years. These are both good candidates for replication in other parts of the region.

From an overall perspective, there is no doubt about the impact of the program in heightening the level of consciousness and technical ability of disaster management health personnel.

A review of available documents and discussions with professional personnel revealed a high level of knowledge by health officials of disaster health preparedness and relief management. Internationally accepted technical norms were found to be well understood by the field personnel in the countries visited.

The contribution health professionals can make to an efficient and effective disaster management capability is subject to several intervening variables. Some of these include real levels of institutionalization and the priority and commitment given to disaster management by national authorities. These conditions vary country by country and period by period, dictated by changing economic and political conditions over which PAHO/EPD has no control.

Issues and Recommendations

The following areas of education and training should be subjected to continuous evaluation and monitoring; there should be follow-up on these areas on an annual or short-term planning basis:

- -- appropriateness of the type and distribution of courses i.e., concentration in some areas and few courses in others. (Only in the case of Costa Rica did some health authorities suggest a need for increasingly more specialized, higher level training, given the level of basic training now achieved.);
- -- impact of the educational and training activities on real response to disaster events;
- -- impact of activities on the development of health preparedness instruments (e.g, plans, programs) and their actual implementation;
- -- coverage offered by the courses to personnel at a local, regional or national level or, according to type or hierarchy of health installation.
- -- follow-up given to training courses in terms of refresher courses, updating of informational materials, etc.

Evaluation results should offer important inputs to the planning process and course design procedures. Although the scientific and technical base in preparedness in the different countries could be seen as generally adequate, potential problems relate to the logistics of coordination and implementation of activities. Most noted were the perceived deficiencies in preparedness due to limited resources.

3. Public Awareness and Community Participation Programs

Description and Achievements

In the Central American sub-region, most of the countries began training in the schools and in the development of community awareness programs. Through Italian Cooperation assistance in El Salvador, a manual on community preparation for disasters (including the community identification of high risk zones and mitigation and prevention activities) was prepared and distributed to all country program coordinators. This project has been successful in several communities in El Salvador, having originally been developed in the Philippines.

In the countries visited, posters identifying disaster risks and outlining what to do in the event of earthquakes or volcanic eruptions were seen in public places. In all countries there were billboards around the cities with cholera prevention messages. PAHO/EPD began work with the Ministries of Education in developing school disaster preparedness. The focus is on what to do in school if a disaster occurs, and the more general topic of what to do anywhere if a disaster occurs, with the idea that children are excellent diffusers of information to the larger population through their families.

Issues and Recommendations

Community-level approaches to disaster preparedness and mitigation, including health related aspects, are of critical importance. This is possibly the least developed and most difficult area of work in which to have impact. Given the level of the Program's financial and personnel resources, it is difficult to recommend increased attention to community-based approaches in the future. This will require inter-institutional collaboration schemes using such intermediaries as non-governmental organizations, universities and community development associations.

C. National and Regional Programs

1. National Priority of Health Preparedness

Description and Accomplishments

The level of priority assigned to health preparedness activities at a national level can only be directly ascertained or indirectly inferred using such indicators as the level of institutionalization achieved, human and budgetary resources allocated, and organizational and logistical structures established.

In general, the impetus and resources assigned to health preparedness can not be divorced from a consideration of the priority assigned to disaster preparedness and mitigation in general in the countries visited. In this sense, it is difficult to contemplate a well-developed health sector program in a context where the government assigns a low overall priority to the

disaster problem as a whole, and vice versa. A high level of personal and professional motivation and commitment to health preparedness on the part of the specialized health personnel dedicated to such tasks (as is the case in the countries visited), is not in itself sufficient to overcome a low level of commitment to disaster preparedness by high government authorities, where this is the case.

The countries included in this evaluation exhibit different levels of institutionalization of disaster preparedness in general and health preparedness in particular, as described briefly in the following country descriptions.

a) Costa Rica

Costa Rica exhibits the highest level of institutionalization and budgetary allocations for disaster preparedness. A permanent, inter-agency health technical advisory committee exists at the level of the established National Emergency Commission. This Committee meets on a regular weekly basis and is comprised of representatives of all health agencies or organizations involved in disaster management. Furthermore, the Social Security hospital and clinic system has a well established Emergency Committee.

Another useful indicator is the PAHO/EPD's location in offices provided, at no-cost, by the Social Security and the Documentation Center location in no-cost facilities at the National Emergency Commission. All overhead costs (e.g., water, electricity, maintenance) are covered in both cases.

b) El Salvador and Honduras

El Salvador and Honduras have created specialized disaster units in the Ministries of Health (MOH), but with very limited budgetary resources. In Honduras the MOH allocated only $4,000 to the disaster preparedness unit for 1993. In El Salvador there is no designated full-time program director of the unit. The program director works on a voluntary basis, having a full time position as the Director of the Planning and Normative Division of the MOH. No health sector inter-agency committee for disasters exists in either country, although some of the functions are undertaken by a voluntary based inter-agency technical committee for disasters in El Salvador, and in Honduras an inter-agency committee.

c) Ecuador

In Ecuador, neither a specialized MOH disaster unit, nor inter-agency health committee exists in any meaningful sense.

Issues and Recommendations

The priority assigned to disaster health preparedness at a national level is clearly a function of such intervening variables as the country's vulnerability to disasters, experience with recent

disasters, particularly where the health sector was involved, and the existence of other, more permanent or urgent health priorities. In those countries where high levels of vulnerability are accompanied by relatively low levels of prioritization, as is the case in El Salvador, Honduras and Ecuador, more emphasis must be given to raising awareness levels among high level authorities. This objective can be accomplished, at least in part, by using educational resources which highlight the benefits of disaster mitigation for overall national development, the links between disasters and development, and the links between the resolution of many basic health problems with a high priority for health preparedness, and disaster preparedness and mitigation. However, one thing that is clear is that PAHO/EPD needs to be able to decide at which point to stop putting significant levels of resources into countries with high vulnerability/low priority and to shift to those with high vulnerability/high priority. Even though such a critical-decision process is complicated by the necessary inclusion of all LAC countries in the Program, it is nevertheless essential that the Program aim for optimal cost effectiveness measures.

2. Support for Country-level Health Disaster Preparedness Programs

Description and Accomplishments

Support to national programs through technical assistance (TA) is generally excellent. None of the countries visited had major concerns that TA had not been met. All country disaster personnel interviewed, immediately identified PAHO/EPD as the principle source of TA, indicating that it is both responsive and flexible.

Issues and Recommendations

While TA is readily available, some of the country program offices do not even have computers. Since SUMA is a computer-based inventory program, it is difficult for country program managers to remain current on the SUMA without access to computer hardware. In addition, report-generation, production of manuals, and data analyses are difficult for country program offices in the absence of computers. At a minimum, each country office should have a computer as well as audiovisual equipment that can be used in training exercises.

It was learned that Honduras had requested a computer under PAHO/EPD funding but the request went unfilled. However, the provision of computers to country programs is not necessarily the role of the Program. In fact, it is probably incumbent on the country programs to have the material support of their governments, it for no other reason than as a sign of national leadership's commitment to disaster preparedness.

3. Preparedness Policy and Coordination

Description and Achievements

National emergency commissions (or their equivalent) exist in all four countries. These have multi-agency representation (including the health sector). In Costa Rica the Commission is a civilian-run institution, while in Honduras, El Salvador and Ecuador, lead status is assigned to the military or police-- the armed forces, Ministry of the Interior and Civil Defense, respectively.

These Commissions are responsible for the formulation of national disaster policy, plans and guidelines, as well as the overall coordination of disaster relief efforts. National disaster or emergency plans exist in most of the countries. Health preparedness plans exist in general, prepared by the institutions involved in emergency activities (Red Cross, MOHs, hospitals and University Medical Faculties). Since these plans are often agency-specific, they have not always been reviewed by the national emergency commissions.

Routine monitoring and evaluation of preparedness programs in the four countries is simply not done. This results in the absence of country priority to preparedness and, therefore, limited or no assignment of financial resources to the activity. Any evaluation of existing plans is limited by the lack of recent post-disaster evaluation studies. In the case of the recent 'La Josefina' landslide and flooding disaster in Cuenca, however, it was noted that the lead role for relief activities was placed in the hands of the military; for the post-disaster reconstruction efforts the President of the Republic assigned the lead to the Archdiocese of Cuenca. In both cases, Civil Defense was replaced as the coordinator of disaster efforts, illustrating the incipient development of a national coordination system.

Issues and Recommendations

With the clear exception of Costa Rica, no evidence was uncovered to suggest that disaster policy guidelines, programs and plans translate into an efficient, coordinated response in the face of a major sudden onset disaster. Deficiencies in logistics, coordination and even material resources are complicated by the fact that many public sector plans and policies are not amply disseminated among potential participants in disaster management. Plans have a tendency to be shelved or remain in the hands of a restricted number of persons with little follow-up in terms of implementation procedures, including simulation exercises. NGOs, such as the Red Cross, seem far better prepared to deal with emergency situations.

Based on the above conclusion, it is recommended, once PAHO has ascertained the level of member country government commitment to emergency health preparedness through a formal assessment, that it should focus on promoting activities that increase the planning, coordination, and implementation capacity of disaster assistance agencies in as many countries as possible. That is to say, it is essential to set in place the resources that enable disaster managers to convert plans into reality.

4. Intra-Regional Cooperation and Post-Disaster Evaluation

Description and Accomplishments

There appears to be extensive technical cooperation among countries in the region which results from PAHO/EPD technical assistance. An example is the immediate aftermath of last year's tidal wave in Nicaragua. Technical support for that came principally from El Salvador, Honduras and Costa Rica. During the course of the four country visits it was learned that consultants from each of the countries in the region were providing TA to other countries in training activities, and preparation of training material. This was also observed in the South American sub-region where local technical consultants were used. In addition, in that same sub-region there are bilateral activities conducted between Venezuela and Colombia; Colombia and Ecuador, Peru and Brazil; Ecuador and Peru; and Peru, Bolivia and Chile. Formal accords have been signed between Andean neighboring countries for technical cooperation in the field of disaster preparedness.

Issues and Recommendations

A major gap is the absence of a system for post-disaster "postmortem" evaluations. Cross-fertilization and participation of neighboring sub-regional countries in a second country's implementation of disaster relief is not routinely done. Thus there is the missed opportunity to learn from others' mistakes. The undertaking of in-depth, post-disaster postmortem studies would be very instructive. These would examine closely the response of the health sector in particular, and of other sectors in general, in the functioning of health institutions and personnel (logistical and transportation aspects, food distribution, refugee management, etc.). Such studies would optimally be multi-sectoral, and implemented on a inter-agency basis, with PAHO/EPD possibly taking the lead.

The results of postmortem evaluations would offer important orientations for ongoing EPD activities. These should be discussed in sub-regional or regional-level seminar work group sessions, thus guaranteeing their utility beyond the country where a disaster occurred. Such evaluations, jointly with training evaluations, would comprise part of a formal, permanent system of monitoring and evaluation, oriented to identifying and measuring impact indicators.

At present, what are labeled as EPD semester, annual, or biannual "evaluations" can more appropriately be called "activity reports". These reports concentrate on the process of assistance in contrast to measurable program results. A focus on periodic results and indicators of achievement would greatly facilitate reporting, as well as interim, end-of-program, and impact evaluations undertaken by donor agencies (e.g., OFDA, CIDA). Such a performance monitoring approach would become integral to the management process and also encourage more convincing reporting of results.

Contributing to the absence of a formal system for post-disaster evaluations is the unavailability of reporting generally on post-disasters. Thus, while there have been recent

disasters in each of the countries visited, formal post-disaster reports were not available for official review. The evaluation team learned that such reports were in preparation and others had been produced, but copies of the reports were unavailable.

D. Mass Casualty Management

1. Coordination of Health Sector Response to Emergency Situations

Description and Accomplishments

Traditionally PAHO/EPD works closely with Ministries of Health within the region, mainly in providing TA, training to health-specific programs, and human resource development. The PAHO/EPD program has expanded the traditional role of PAHO through its work with a range of participants in the health sector, many of whom are outside PAHO's usual channels. Thus, PAHO/EPD activities have included TA and training support for private sector organizations (Surgical Societies), non-governmental organizations (Red Cross, Partners of the Americas, Doctors Without Borders), in addition to the MOHs, Social Security and medical schools. By expanding the traditional role of PAHO in its work with a variety of participants, it has acknowledged that an MOH cannot possibly provide all the expertise necessary for an adequate preparation and response to disaster situations.

In none of the countries visited was the MOH the lead agency for coordination of health preparedness and relief activities. In Costa Rica, clinical care is provided primarily through Social Security, with the MOH playing a normative role. Thus, the clinical care providers in Costa Rica do not fall under the jurisdiction of the MOH, as in most of the other countries. While the MOH does serve a normative role for public health recommendations, any recommendations that relate to clinical care decisions and practice must be done in conjunction with the Social Security system. In keeping with this, the chairman of the national medical technical advisory group to the national Emergency Commission (CATSS) is from the Social Security Hospital system and not the MOH. In Honduras, El Salvador and Ecuador, clinical care is provided by the MOH with Social Security and the private sector playing much smaller roles. In Ecuador the MOH has developed health preparedness guidelines.

The Red Cross (or Green Cross in El Salvador) in most countries is responsible for pre-hospital attention. This includes ambulance and para-medic personnel for the country. While the Red Cross often participates on the National Emergency Committee, the MOH does not determine Red Cross activities and norms.

The move towards technical standardization and coordination in the health sector is most advanced in Costa Rica (through CATSS). El Salvador is moving in this direction through the existing inter-agency technical committee for disasters (COTIDE) and Honduras, through COPECO's inter-agency technical committee. While Costa Rica is the most advanced, Ecuador is least advanced in this respect.