

EMERGENCY PREPAREDNESS PROGRAM, Costa Rica, 1984 - 1985

Report No. 1, 10 August, 1984

BACKGROUND

Although a Civil Defense Office has been in existence in Costa Rica since 1962, its major role following the crisis of the eruption of the Irazú Volcano was the reforestation of the southern slopes of Irazú.

In October, 1982, OFDA provided a grant of \$353,818. to the University of California, Santa Cruz, for the purpose of establishing a permanent Seismograph Network in Costa Rica, and to establish a hazards reduction program.

In July, 1983, an earthquake of magnitude 6.5 Richter scale struck the Canton of Perez Zeledon, in the vicinity of San Isidro del General. Subsequently the Government initiated a response, without the participation of Civil Defense, which eventually cost more than 100 million colones (U.S. \$2,325,000.)

During the month of August, 1983, in an oral report to USAID on the progress of the OFDA grant to the University of California, Santa Cruz, Dr. Karen McNally advised the Mission of a possibility that a major earthquake could strike the meseta central of Costa Rica within the next two years. This report was also made to the Government of Costa Rica. As a result of the alarming report, the Government of Costa Rica requested that USAID provide some radio communications equipment in order to provide better communications in emergencies. After consultation with OFDA, it was determined that before committing funds for radio equipment, it would be wise to have an analysis of the overall preparedness level of the Government of Costa Rica.

Four experts were recruited by OFDA, and the assessment was made in late September, 1983. The Team consisted of one expert in communications, one in government organization, one in emergency management training, and one in emergency preparedness. The Team recommended a series of measures, which were subsequently accepted by the Government of Costa Rica. The Team recommended a reorganization and re-vitalization of the Office of Civil Defense, and a comprehensive program for the years 1984-1985. The Program is summarized in Annex A.

PROGRESS TO DATE - 10 August, 1984:

Beginning in December, 1984, consultant Paul Bell has made periodic visits to Costa, as an advisor to the Office of Civil Defense. The new Director General of Civil Defense, Dr. Lenín Sáenz, was named in February, and has been serving on a half-time basis. Most of the efforts to date have concentrated on planning, the organization of the Emergency Operations Center and installation of communications equipment, and the development of Procedures and systems.

Plans are being completed for the establishment of a Team of Trainers to provide training to local committees. It is expected that as various training workshops are conducted, representatives from other Latin American countries will also participate. With the location of a Pan American Health Organization regional Emergency Advisor in Costa Rica, it should be possible for Costa Rica to become a regional training resource.

Listed below is an outline of progress to date, and a summary of problems:

1. POLICIES AND LEGAL BASE

1.1 Reform Emergency Law - The new Law has been drafted, and submitted to the National Assembly. The new law would remove Civil Defense from the Ministry of Public Works and place it directly under the Ministry of the Presidency. No date has yet been set for debate.

1.2 New Decrees - The President has signed the Decree naming the new Director General of Civil Defense (Dr. Lenin Saenz). Another Decree, making the Plan Sumario official, has been drafted, but not signed.

PROBLEMS - There have been no significant problems in this area, except lengthy delays in getting action. e.g. the Decree naming the Director was drafted in February, and promptly lost. It was finally signed in March, but not officially published in the Gazette until early May.

2. ADMINISTRATION AND ORGANIZATION

2.1 Naming of a new Director of Civil Defense - done (May, 1984).

2.2 Naming of new National Emergency Commission - pending.

2.3 Naming of Technical Advisory Committee - pending.

2.4 Establishment of Emergency Operations Center, and installation of communications equipment. The EOC has been established at the Casa Presidencial, with furniture and equipment purchased by ~~the~~ Government. The radio communications equipment was purchased by OFDA and has been installed and tested.

2.5 Organization of local Emergency Committees - pending, and expect to begin in September.

PROBLEMS There have been incredible delays in the installation of the communications equipment in the E.O.C. The equipment provided by OFDA arrived in February. The Government had agreed to pay for the costs of the antenna towers, and the installation. Although instructions were given in February for work to begin, it was not until August 6 that the equipment was finally installed and tested. Procurement is always a problem for the Government of Costa Rica. If Civil Defense is to be able to respond rapidly in the event of an emergency, it must find a way to improve the procurement process.

A second problem in administration has been the lack of one central location for all of the functions of Civil Defense. At the present time there are five different locations; the Director is located at the Ministry of Health, the day-to-day operations of the old Civil Defense continue at the old building, the E.O.C. is located in a building adjacent to the Casa Presidencial, the Deputy for Administration and the OFDA advisor are located within the Casa Presidencial, and there is a fifth office on the third floor of the Costa Rica Red Cross. The Vice-President has talked of building a building adjacent to the Casa Presidencial, and large enough to accommodate everything, including the Training Center. However, it is doubtful that such an expenditure could be justified at this time. Nevertheless, it is essential that the physical operation be consolidated.

A third problem has been the decision to place several persons in the Civil Defense Program due to problems with their previous government assignment. This is a common problem in any government, but it is especially critical for Civil Defense at this time.

A fourth problem, and one which had been anticipated from the beginning, is that the Director of Civil Defense, (Dr. Lenin Saenz) is more of a planner than an operations person, or administrator. The OFDA Advisor, in a discreet fashion, has attempted to fill this gap. Dr. Saenz is a thorough planner, and this asset has been most important during these early months. However, the program is entering the critical phase of organization, and a qualified leader and Administrator is essential. (The OFDA Advisor is attempting to work out a solution with Vice-President Arauz and ad-hoc Advisor Jorge Manuel Dengo).

The naming of the new National Emergency Commission and the Technical Advisory Committee have been delayed pending action by the Vice-President. Although it has been helpful to have the support of the Vice-President, at times, when a decision depends on his Office, there can be frustrating delays.

3. PLANNING

- 3.1 Development of Interim Emergency Plan - completed April, 1984.
- 3.2 Preparation of National Basic Plan - pending
- 3.3 Preparation of Sector Plans - Health Sector completed. Others pending.
- 3.4 Design of data bank system - pending.
- 3.5 Reforestation plan ~~for Perez Zeledon~~ - completed and awaiting funding.

PROBLEMS

There have been no significant problems in planning. From the beginning it was planned that the Health Sector would be completed first, in order to serve as a model for the other sectors.

4. PROCEDURES

- 4.1 Operations Manual - completed May, 1984.
- 4.2 Administrative Manual - first draft completed.
- 4.3 Communications Manual - completed July, 1984.
- 4.4 Alert and Alarm System - pending.

PROBLEMS

There have been no significant problems in developing procedures.

5. TRAINING

The only training program which has been implemented thus far has been the Hospital Administrator's workshop (5.3.4.1)

Plans have been developed for the establishment of a 5 person training unit, but funding is pending. This Unit will concentrate on training local Emergency Committees.

Until the OFDA Advisor is able to be present for lengthy periods of time, it is likely that little will be done in the training area.

6. PREVENTION AND MITIGATION

- 6.1 Vulnerability Analysis - During the first week of August, Ing. José

Sandoval, member of the Comite Tecnico Asesor, and Director of the Faculty of Engineering, University of Costa Rica, met with INTERTECT in Dallas, to discuss the scope of the Comprehensive Hazard Management Program which is scheduled to begin later this year. (see ANNEX F)

6.3 Completion of Seismograph Network and Strong Motion Network - To date 10 seismographs have been installed, and 10 strong motion instruments have also been installed. The project is progressing more or less on schedule. A report "Summary of Accomplishments" was prepared in May, and is available through OFDA. Some additional comments and observations are attached in ANNEX F.

CONCLUSION: Although a number of the actions and activities which were planned, have actually been accomplished, it is much too early to evaluate the effect which these inputs will have. It is important (and alarming) to note the significant expenditures which have been made on behalf of this program. Perhaps by the end of two years, it will be possible to determine the benefit of this kind of investment and effort. In absolute terms, only a major emergency or disaster can accurately indicate the value of such an investment.

Paul Bell
OFDA Advisor
San Jose, Costa Rica
10 August, 1984

ANNEX A

EMERGENCY PREPAREDNESS PROGRAM, Costa Rica, 1984 - 1985

1. POLICIES AND LEGAL BASE

- 1.1 Review of Emergency Law (Ley de Emergencias No. 4374)
- 1.2 Reform of Emergency Law, and new Decretos (same as Executive Order)

2. ADMINISTRATION AND ORGANIZATION

- 2.1 Naming of new Director of Civil Defense, with rank of Vice-Minister.
- 2.2 Naming of new National Emergency Commission.
- 2.3 Naming of Technical Advisory Committee.
- 2.4 Establishment of Emergency Operations Center, and installation of communications equipment.
- 2.5 Organization of Local Emergency Committees.

3. PLANNING

- 3.1 Development of Interim Emergency Plan
- 3.2 Preparation of National Basic Plan
- 3.3 Preparation of Sector Plans
- 3.4 Design of data bank and resource inventory system
- 3.5 Reforestation plan for Pérez Zeledón area (landslides from recent earthquake)

4. PROCEDURES

- 4.1 Development of Procedures Manual for Emergency Operations Center
- 4.2 Development of Administrative Manual, EOC
- 4.3 Development of Communications Manual
- 4.4 Development of System for Alert and Alarm

5. TRAINING

5.1 General

- 5.1.1. Executive Level, Ministers, Vice-Ministers, and National Emergency Commission.
- 5.1.2. Technical Advisory Committee
- 5.1.3. Ministry & Agency Coordinators
- 5.1.4. Local Committees and Community Coordinators. (See Annex C)

5.2 Specialized

- 5.2.1. Emergency Operations Center Staff
- 5.2.2. Damage Assessment Team
- 5.2.3. Special training for Amateur Radio Operators
- 5.2.4. Health Training
 - 5.3.4.1. Hospital Administrators & Emergency Room Staff
Mass Casualties.
 - 5.3.4.2. Health Auxiliares - community level preparedness
 - 5.3.4.3. Disasters and environmental sanitation problems.

5.3 Specialized Training outside Costa Rica

- 5.3.1 Airport safety
- 5.3.2 Oil Spills
- 5.3.3 Other

6. PREVENTION AND MITIGATION

6.1 Vulnerability Analysis

6.2 Hazards Mapping

6.3 Completion of Seismograph Network and Strong Motion Network.

EXPENDITURES IN U.S.\$ - EMERGENCY PREPAREDNESS, Costa Rica, 1983-1984 (actual and projected)

Item	TOTAL	GOCR	USAID	OFDA	G. of Korea	PAHO	OTHER
Seismic Project - UCSC	996,782.	78,000.		918,782.			
Radios & Communications Equipment & Installation	25,505.	10,505.		15,000.			
Technical cooperation Bell, Berrey, et al	25,000.			25,000.			
Furniture & equipment Emergency Oper. Center (all new equipment)	11,260.	11,260.					
Vehicles (15)	104,000.				104,000.		
Uniforms, boots, & field equipment	6,500.	2,000.			4,500.		
Workshops (local)	13,000.	3,000.		2,000.		8,000.	
Seminars, USA	13,200.	1,200.		12,000.			
Seminars, other countries	7,500.	1,500.		3,000.		3,000.	
Training - see* below	(50,000.) [#]	(10,000.)	(40,000.)				
Technical Advisor Bell, Aug.-Dec.	22,000.		11,000. (incl. housing)	11,000.	(including moving expense and travel)		
TOTALS	1,224,747.	107,465.	11,000.	986,782.	108,500.	11,000.	
Totals, not inc. Seismic Proj.	(227,965.)	(29,465.)	(11,000.)	(68,000.)	same	same	

* This item has been requested, but not yet approved. Would provide for a Team of 5 Trainers, & costs.
 # Totals do not include this item.

Note: This list includes cash inputs only - no "in-kind" contributions, nor salaries paid by GOCR, nor \$70,000. on-going expense of Civil Defense Office, nor does it include \$2,325,000. spent for San Isidro recovery paid by GOCR.

TRAINING UNIT - OFFICE of CIVIL DEFENSE, Costa Rica

I. OBJECTIVE:

1. To train local Emergency Committees throughout Costa Rica
2. To provide a permanent training unit for all types of Emergency Management Training.
3. To prepare Public Awareness materials for the Office of Civil Defense

II. COMPOSITION OF THE TEAM:

1. Training Chief
2. Four Training specialists
3. One specialist in Graphic Arts

III. MINIMUM REQUIREMENTS: (in addition to emergency experience).

1. Bacalareate Degree or Teachers Diploma
2. Five years experience as a promoter of Community Development, Teacher, or other relevant experience.

IV. TRAINING OF TRAINERS:

1. Introduction to basics of Disasters, Emergency Management, and Civil Defense.
2. Simulations (2)
3. Exercises and practice

V. CURRICULUM FOR TRAINING PROGRAM (see Annex)

VI. CALENDAR:

- August - secure funding
- September - Recruit and employ personnel
- October - Initiate Training of Team.
- November - Prepare Materials
- December - Exercises and testing
- January, 1985 - Begin Training schedule

REPORT OF WORKSHOP FOR HOSPITAL DIRECTORS,
SURGEONS, and EMERGENCY ROOM PERSONNEL
San José, Costa Rica, July 9-13, 1984

Venue: Hotel Ambassador, San José

Organizers:

Dr. Lenín Sáenz, Director of Civil Defense
Dr. Fernando Urbina, Director of Hospital Calderón Guardia, and Chairman
of Emergency Health Committee, Comité Técnico Asesor.
Dr. Oscar Arrea, Director, Hospital de Niños
Dr. Oscar Alfaro, Director General, Ministry of Health

Participants:

A total of 57 participants, representing every hospital in Costa Rica.

Participants included Directors of Hospitals, Emergency Surgeons, and
Chiefs of Nursing Services; also two persons from the Dominican Republic.*

Cost: \$8,000. provided by a grant by PAHO. Costs included conference room,
6 hotel rooms (for 1 day simulation), lunch every day for all participants,
and reproduction of materials. (Follow-up costs will also come from grant.)

Agenda:

The Workshop was begun with a 9 hour simulation on the first day. PAHO
provided its simulation - Aviation Accident in Mita, Capitol of Róda. The
simulation was followed exactly as directed in the guidelines. The
simulation was followed by a blend of presentations, small working groups,
and discussions. At the end, the feed-back from participants was overwhelm-
ingly positive.

Follow-up:

Within a few weeks, a committee of four will begin follow-up visits
for one-day workshops with staffs of each hospital in the country. At that
time each Hospital's Emergency Plan will be reviewed.

* Director of National Emergency Committee, and Director of Nursing Services.

August 10, 1984

To: General Becton

From: Paul Bell

Subject: Costa Rica Seismic Project; University of California, Santa Cruz.

In 1982 OFDA approved a first year grant of \$353,818. for this project. In 1983 a continuation grant of \$564,964. was approved. Dr. McNally is now requesting \$668,590. for the third year. According to her original proposal, this is planned as a five year project. The total cost for the first three years is \$1,587,372. One can assume that Dr. McNally will expect to receive at least \$500,000. per year for the fourth and fifth years, making a total of more than \$2,500,000. for the five year life of the project.

From a scientific and academic perspective, this is a great project. There is no question that everything that has been done has been done well. The equipment purchased has all been "state-of-the-art," and the professional expertise of Engineer John Lower is unquestioned. However, it is important to place this grant in perspective, and to assess the relative benefit to Costa Rica and to Emergency Preparedness in Costa Rica.

My concerns can be divided in four areas:

- 1) Equipment - While it is true that the equipment becomes the property of the Universities, and while it is true that technicians are being trained to maintain the equipment, the cost of sophisticated replacement parts and components will likely be a serious problem. A University which is short of funds for essential basic operating expense can hardly be expected to have funds for maintenance of exotic equipment which it did not request, but rather was offered to the University as a gift.

- 2) Trained Personnel - Although some Costa Rican personnel are being trained, no provisions have been made for the assumption of the personnel costs once the grants have terminated. (In addition, the training costs represent a relatively minor portion of the total grant.)
- 3) Involvement and Commitment of the two Universities - Thus far there has been very little involvement between the Project and the Administration of the University of Costa Rica, and no evidence of commitment. There has been quite a bit of involvement between the Project and the Administration of the UNIVERSIDAD NACIONAL in Heredia, and there has also been visible evidence of commitment (partial payment of salaries, construction of building to house seismic equipment, and partial use of a vehicle.) However, there is no written agreement, or convenio which details the responsibilities of each party, in either of the University projects.
- 4) Direct Benefit to Emergency Preparedness in Costa Rica - From the perspective of Emergency Preparedness, this is a scientific project designed to gather data on earthquakes and volcanoes. Such data is useful in planning and in pre-event decisions, but only if there is a mechanism within the project which can facilitate the application of the data. Implementation and decision-making are political areas, and require close links between the source and type of data, and use of that data by key officials. No mechanism exists in this Project for such linkage, and thus far no personal or institutional bridges have been established to facilitate the transfer and application of data gathered.

Unfortunately, it is now too late to back out of this project. To stop the project now would create serious personal and institutional problems with the two Universities. Also, to stop the project now would mean that most of the funds invested to date (\$918,782.) would be lost. Therefore, we have no choice but to continue. It is my opinion, however, that much less than \$668,590. would be sufficient to continue the project this year without jeopardizing the effectiveness of the project. I certainly do not have the expertise to determine which expenditures are essential, but I believe that OFDA should seek advice from a competent neutral expert.

While I am quite concerned about the Costa Rica grant, I am also very much concerned about the grants to USGS for Panama, El Salvador, and Guatemala. It is especially disappointing that USGS has done so little. We are fortunate that the grants (or PASAs) were for much less money than one year's grant to UCSC. However, I believe that OFDA should carefully review its policy of making grants for scientific or technological projects. It is my opinion that those are activities more suited to the mandate of the Science and Technology Bureau.