# HONDURAS SURVEY NATURAL DISASTERS EDUCATION IN LATIN AMERICA January 8, 1990

# DISASTER PREPAREDNESS INFORMATION:

The organization that is responsible, by law, for disaster response and preparedness is COPEN (Fuerzas Armadas De Honduras Consejo Permanente De Emergencia Nacional). They are in the process of training community leaders in disaster response and preparedness. Their initial focus has been in areas that are most vulnerable. In 1987 they trained 1,000 community leaders throughout the country. They teach leaders how to organize the community and explain what to do in the case of a disaster. They also teach first aid.

- . Support materials consist of pamphlets and brochures which we have copies of. These materials are only distributed to community leaders. There is no printed information for the individual.
- . COPEN is organized to follow up results of training courses by conducting surveys of communities.
- . COPEN is funded by USAID. They do not own their own equipment, and depend on other agencies and institutions to lend equipment in times of disaster.
- . According to COPEN, the most important aspect of disaster preparedness is to make the public aware.
- . Disaster preparedness training, so far, has been geared towards adults not kids. There are no disaster preparedness programs for schools, however teachers are included in community training programs.

#### SCHOOL CURRICULUM 8-12 YR OLDS:

Public schools are in session from February to November, and private schools are in session from September to May. The private schools are bilingual, either Spanish/English or Spanish/French. The curriculum in the private schools is naturally more elaborate than in the public schools. Besides a typical curriculum of Spanish, Math, Science and Social Studies, they also teach Music, Art, Home Economics and Agriculture. Math was a popular subject with 3rd to 6th graders at the private school that I visited.

#### RURAL AREAS:

.In the rural areas children often repeat grades. There are many 8 - 12 year olds in 2nd and 3rd grade. This is largely due to the fact that they are needed to do chores at home, and they often miss school because of this. Many schools in the rural areas do not have textbooks. There may be only one or two teachers per school. Spanish is taught more than any other subject.

## **EVACUATION:**

Depending on the magnitude of the disaster, people are usually evacuated to schools, churches, community halls, and in extreme cases they will erect army tents as shelters.

## **WARNING SYSTEMS:**

In almost every circumstance people are evacuated during a flood. COPEN issues disaster warnings and information to community leaders on shortwave and VHF radio.

### MOBILE UNITS:

They do not have portable generators. In the case of a contaminated water supply, they will send trucks equipped with cisterns out to the rural areas. They also use trucks to evacuate people.

## RECENT IMPROVEMENTS IN DISASTER PREPAREDNESS:

The most recent improvement would be the continuous training of community leaders by COPEN.

## **COMMUNITY HEALTH PROGRAMS:**

Radio America broadcasts a 30 minute program every Monday night called IN DEFENSE OF YOUR HEALTH. It is a panel discussion in which doctors speak to the public about health issues. They also produce another health program titled COLLOCIO SCIENTIFICA which addresses AIDS and women's health issues.

USAID sponsors a two-part nutrition program, which has benefited 300,000 people so far. The first part is administered by CARE and distributes food to schools in rural areas. The second part is called MCH (Maternal Child Health).

.The MCH program is administered through the Ministry of Health and the National Social Welfare Board. Its purpose is to provide health care to lactating mothers and mothers of infants in rural areas. Mothers come to Health Care Centers to pick up dry rations which are distributed free; at the same time they receive primary health care. They monitor these programs by conducting countrywide surveys four times a year.

The Ministry of Health is able to reach the individual throughout the country with their programs because they organized themselves based on a cascade structure. The result is that community leaders at the bottom of the cascade actually deliver the program to the individual.

.In the past they found that, either the information never made it to the individual or when it did, it was wrong. Now there is an educator and a technical assistant assigned to each region.

. A Health Center location is identified in an area that is accessible to many villages. Representatives from the Ministry of Health visit these centers randomly to assess what is being done.

One of their programs (sponsored by USAID) was to decrease infant deaths from diarrhea by distributing a formula called litrosol. By December 1989 there were 15,800 distribution stations located throughout the country. They also distribute printed information along with the litrosol packet. The program has been promoted on local radio stations throughout the country. USAID paid for the air time.

#### TARGET HAZARDS:

Floods are the most serious natural disaster and landslides come in second. In one valley, where three rivers converge with the spillway from a dam, there is a possibility that 600,000 people could be effected by floods. Honduras is situated in the path of hurricanes, but they only hit about once every ten years. When they do have one, however, it is a major disaster. The main problem caused by hurricanes is flooding and COPEN teaches the community to prepare the same way for both hazards.

They do not experience earthquakes, but they do feel aftershocks from earthquakes in neighboring countries such as Nicaragua, Guatemala and El Salvadore.

## INDIVIDUAL NEEDS:

There has never been a media campaign for natural disasters, and everyone (with one exception) felt that it was definitely needed. One of the problems is that when the crises is over, people think it will never happen again. When it does, they turn to COPEN for help, and only then do they realize that COPEN has not been given all the support they need. In the poor areas the highest need seems to be for increased nutrition and advanced health care.

#### POPULATION MOST EFFECTED BY DISASTERS:

The poor population is effected the most because of weak housing construction. They are at high risk in both cities and rural areas.

#### LITERACY:

According to recent surveys, 34% of the population can not read, but at least one person in every family can read and write.

.The Ministry of Health has published a booklet for community leaders which is written very simply. Most of the information is supported by illustrations.

## TELEVISION:

Statistics from 1988 reflect that 50% of the homes in rural areas, and 95% in urban areas, have television sets. There are presently six TV stations, and the number increases yearly. Because of repeaters, most rural areas have access to television. TV does not reach the Mosquitia region, which is inhabited mostly by Indians who speak their own dialect and is not at high risk from floods. All stations are privately owned.

.An American USAID representative, who administers a program that publishes and distributes textbooks to schools, said that in rural areas only adults watch TV -- kids do not. Everyone else I spoke with disagreed with her information. However, it is a question that should be addressed at the seminar.

Other public service campaigns that have appeared on television include Anti-Drugs, Keep the City Clean and How to Avoid Dengue Fever. The latter ran for four days on television and radio stations in the cities, and it was sponsored by COPEN. Don Carlos Carlderon, Chairman of the environmental committee, was responsible for convincing the media to run it at no cost to the sponsor. Nothing has been produced for media that deals with disaster preparedness.

.The Ministry of Health sponsored public service announcements about AIDS which are running now.

.There is no legislation requiring TV or radio stations to broadcast public service programs.

Channel 5 runs PLAZA SESAMO, and says that it is still very popular. Many kids know who Big Bird is; they are also familiar with Garfield, Disney and Peanuts characters.

MACGYVER is very popular with children and adults. EL CHAVO DEL OCHO is also very popular with 9 to 12 year olds. Another program that rates very high with children under 11 years is TIO MEMO, produced in Guatemala, Honduras, Costa Rica and Chile; the producers are Chilean. Each country follows the same format, which is basically live entertainment for kids, and then they exchange programs.

One of the media firms, Modernable-Calderon, uses animatics and storyboards to test commercials. Depending on the market, they will often travel to rural areas to test the audience.

#### RADIO:

1.1 million people listen to radio, and there are approximately 150 stations. It reaches the largest section of the population. There is one government station that broadcasts news, information and cultural programs.

Sani Radio broadcasts to the Miskito Indian population in their dialect.

Radio has been broadcasting a mathematics program to schools for the past year. It airs every morning, Monday through Friday, for half an hour.

.This was produced by an organization called AVANCI which is funded by USAID. It has increased learning in Math by 18%. AVANCI works closely with the Ministry of Education. They have already sold the Math program to Costa Rica and they plan to produce more on other subjects. The private sector donated money for this project, but their goal is to become self supporting by selling more programs to other countries.

Radio Satellite sends messages to individuals in remote areas. Domestic servants, who work and live in the cities, often use this as a means to communicate with their families.

Radio America, which broadcasts the health programs previously mentioned, might be interested in a program about natural disasters. They are one of the two largest radio stations in Honduras, and they broadcast news and social service programs.

Kids probably do not have transistor radios, but they may have walkmen.

# **CELEBRITIES:**

The idea of using celebrities in public service campaigns is new in Honduras. The most popular personalities are soccer stars and American and Latin American singers.

## SUGGESTED MEANS OF DISTRIBUTION:

Radio is recommended as a means to reach the largest segment of the population. Our contact at Radio America suggested that a radio program should be no less than 15 minutes long, and no longer than 30 minutes to be effective. Most people thought that a school program, that was included in the curriculum, would be very effective.

The Red Cross offered to have their volunteers circulate information, but we would have to buy them new cars etc.

TV stations may be willing to carry public service announcements if they can add their own tags.

# MYTHS AND SUPERSTITIONS:

None that I heard of other than "God did it".

PERU SURVEY

January 4, 1990

By Emilio Guerra S.

# Country Profile - General Background:

Peru has an approximate 21 million population living in 1'300,000 square kilometers of rough and abrupt territory cut in three longitudinal regions by the high mountain chains of the Andes Cordillera (with peak altitudes surpassing 20,000 feet over the sea level).

This territory is periodically affected by a diversity of natural phenomena and micro-climates which make Peru one of the most disaster prone countries in the South America Region.

The majority of its population (about 12 million) dwells in the coastal area next to the Pacific Ocean, mostly in the Capital city of Lima (approx. 7 million), and in a few other less populated cities. People living on the coast have a definite greater access to television, radio and newspaper media.

The Sierra Region has a population of approximately 8 million, representing a much less integrated and communicated segment which has limited access to newspapers and television. These people, however, are heavy users of short-wave and AM radios which are considered to be the most effective means of distributing information among them.

In certain areas of the Peruvian Andes - namely the Departments of Puno, Gusco and Apurimac in South-East Peru - some 15% of the country's total population, either speak other dialects like Quechua or Aymara, or else have a limited capacity to understand Spanish correctly.

The Selva (Jungle) Region occupies an immense territory which is scarcely populated.

During the last ten years since 1980 (coinciding with resumption of democracy in Peru after 12 years of military regimes), the country has experienced a surge of subversive activities with a staggering number of terrorist attacks which to date have caused thousands of casualties and billions of dollars worth in damages to public and private property. Important resources had to be deviated to fight insurrection affecting dramatically the country's aconomy and its social development which were already in crisis.

## Disaster Preparedness

In 1972, two years after the major 1970 Huaraz Earthquake which killed about 70,000 people, the National Civil Defense Committee (NCDC) was instituted under the Ministry of the Interior. It was not until recently, in December 1987, that a new Civil Defense Law and By-Laws were passed and approved, creating the National Institute for Civil Defense (NICD) as an autonomous entity with greater decision-making power and influence.

Since then, initial steps have been taken to promote and establish Disaster Preparedness Courses and Civil Defense Plans with the Ministry of Education and other public agencies. Certain schools in Lima and in Callao were selected as pilot-schools to implement and test such plans and courses. This iniciative is in its beginnings and needs to be improved and widened. At any rate, there is still a long way to go over before important results are achieved.

On the other hand, the NICD initiated a year ago a nationwide radio and television campaign on Natural Hazards Preparedness requesting these media to air 1 minute spots co-produced with the Tele-Education National Institute (INTE) using the services of a contracted Publicity Agency. The quality and efficacity of the spots are distant from those entirely created and produced by well known local Advertising Agencies for their commercial campaigns although in most cases these involve much higher investments. Nevertheless, this is the first time a serious effort has been made toward gaining access to TV and radio for Disaster Preparedness and awareness purposes.

Moreover, a number of posters, brochures and pamphlets for disaster preparedness and awareness have been designed, edited and distributed by the NICD, mainly among Ministries and public agencies. These materials have been at least partially financed and sponsored by Non-Government Organizations and/or Foreign Governments Disaster Assistance Agencies. These printings make recommendations on how to prevent fires, or to protect from an earthquake, floods or tsunamis. Some include a list of emergency supplies to stock up to prepare for disasters.

USAID through a Grant Agreement finances a 27-month (Sept./1988-Dec./1990) Disaster Preparedness Training Program conducted by the NICD with USAID/Peru and OFDA technical assistance and support. This program includes Training Seminars, Workshops and Courses for political, sectorial and Municipality authorities and officials throughout the country. It also includes the formation of Civil Defense

Volunteer Corps to act as first responders in cases of disasters and groups of instructors in the field of Disaster Preparedness and Relief Education.

#### Media

There is a general consensus that TV and radio are the two most effective means for distributing information to the public. Although it should be noted that television has a greater impact on people who live along the coastal area, diminishing in the Provinces capital cities of the Sierra and having a minimal incidence on people living in the rural areas of the Sierra and Selva Regions where radio is almost the sole means of communication available. This does not imply that radio does not have a considerable impact in urban and metropolitan areas as well.

It is believed that an estimated 97% of households in Lima own a TV set, about one half of them are black and white sets. In the provinces the percentages are lower but have a tendency of steady increase in face of the fact of recent advances in satellite linking techniques.

There are 8 TV stations in Lima from which 3 lead networks covering various extents of territory but all are still far from reaching a total national coverage. Channels 5, 4 and 7 in Lima are the Head-Stations of these networks.

There are 3 other local TV stations outside of Lima, 2 in Arequipa and 1 in Iquitos.

Channel 7 - RTP (Empresa de Cine, <u>Radio</u> y <u>Television Peruana</u> S.A.) is the state-owned television network. As compared to private TV, it dedicates a greater portion of its programming to cultural and educational purposes.

Panamericana Television - Channel 5 in Lima, represents the largest private television organization in Peru having also highest rating in audience both in Lima and nationwide.

All TV stations dedicate at least one hour of their daily programing to air specific cultural and educational series (Jacques Cousteau's or Cosmos, i.e.)

Most children in our target group feel themselves more attracted to watch TV cartoons, and/or shows like "He-Man" and "Transformers"; although as they grow older reaching ages between 11 and 12 they tend to somewhat change their preference toward more elaborated programs.

There are 56 radio stations in Lima - 36 AM and 20 FM. Local radio stations outside of Lima exceed the number of 300.

Radio Nacional "Pachacutec" - RTP (Empresa de Cine, Radio y Television Peruana S.A.) with Lima Headquarters, is the state-owned radio national network. It broadcasts during the early morning hours, news and educational programs (mostly AG related) in Quechua, aimed at the rural population that lives in the Central and South-East Andean Region of Peru.

RPP - Radio Programas del Peru - is the only private-owned radio network which links and controls via satellite, about 20 stations spread throughout the country. This Broadcasting Organization together with Panamericana Television - Channel 5, are a part of the Delgado Parker Brothers Business Group.

Newspapers and Magazines are read by less significant percentages of the population in urban areas and have an almost negligible impact on indian communities of the Sierra and Selva Regions.

# Literacy

Among our target group the Literacy rate has decreased ostensibly during the last 20 years since 1970. The overdimensioning of the state apparatus, the heavy burden of the external debt and in recent years the cost of fighting back subversion and terrorism have caused the reduction of resources assigned to education by the central government which in the 50's used to reach a peak of 20% of the Nations Year Budget.

School absentism and desertion rates have lately increased considerably among children attending elementary schools. The situation also reflects negatively on literacy rates among the adult population.

## Animals Behaviour

Everybody agrees that certain animals, particularly cows and dogs exhibit abnormal behaviour immediately prior to the occurrence of tremors or earthquakes. However, no one has ever heard of any individual, group or institution dedicated to the study of this behaviour.

# Awareness on Threats of Natural Hazards

People seem to be aware of the threat that represent natural hazards - especially earthquakes. They are less aware of the nature of such threat. However, this awareness is not centrally focussed in their minds but occupies a second level of consciousness. Besides, many people particularly in the rural areas have a sense of fatalism entailed to natural disasters.

# Disaster Preparedness at Schools

A separate specific survey will be conducted directly with teachers and target group students.

To the effect of this present survey a pilot-school in the vicinity of slum areas in the Province of Callao (Main Harbor City near Lima) was visited.

The Ministry of Education has included within the Civic Education Course of study assigned to students of Elementary and Secondary Schools, some general concepts and hints on disaster preparedness and civil protection.

At a certain number of pilot schools in Lima and Callao, like the one visited for the purpose of this survey, Emergency Operations Committees have been established with an active participation of teachers, students and representatives of the parents associations. These EOC's perform periodical drills among students to prepare them for earthquakes and fires for example.

This pilot-project, implemented two years ago, after tested and improved, should be extended to all educational centers. The Ministry of Education in coordination with the NICD should revise and refine the contents of the Civil Protection and Disaster Preparedness Training and Educational package, to have it include in the regular school curricula at all levels.

## Typical School Curriculum for Children between 8 and 12 years of age

It includes mathematics, spanish language and grammar, natural sciences, arts and manual skills, and religion.

# Myths and Superstitions

There seems to be no myths or superstitions related to disasters, perhaps a few legends. It has been emphasized that fatalism associated to natural disasters is a common denominator among Peruvians.

## Warning Systems

No warning systems seem to be in place according to the answers provided by interviewed persons. The Provincial Civil Defense Committee of Callao and the Hydrography and Navigation Administration of the Peruvian Navy (Associated Member of the International Tsunami Early Warning Center in Honolulu), have developed an emergency evacuation plan for the flood area population that live in Callao and its District of La Punta, to prepare for a tsunami event. This preparedness plan considers a warning system involving the use of the Firefighters and Navy sirens as well as the services of the only radio station located in Callao.

# Population Segments More Affected by Disasters

Although expressed in different ways, people believe that low income social stratums who live in the majority of cases in the cities' slum areas or dwell in "Pueblos Jovenes" in self-built houses which normally do not conform with construction recommended standards, represent the population segment more affected by disasters. This seems to be true as related to floods and especially earthquakes.

Regarding the vulnerability of rural as compared to urban population, the opinions were divided; some considered that rural areas are likely to get easily isolated in the event of a middle size or major disaster; whereas others tend to believe that big cities are more in danger because of their high population density and their already pracarious water, sewage and electricity services.

# Natural Hazards

Again here there was a general consensus that the major disaster threat on the Peruvians is related to earthquakes. The fact that this survey

was conducted in Lima, perhaps gave less opportunities to express concerns of the regional population related to volcano eruptions, floods or landslides.

# Celebrities

Many soccer players and voleyball girl stars (Peru was second in 1982 World Voleyball Championship - Femenine Branch) were repeatedly mentioned. The names of Teofilo Cubillas, now residing in Fort Lauderdale, Florida; and Gaby Perez del Solar who is now playing in Italy, were suggested for eventual TV campaigns.

# Plaza Sesamo

This program is currently aired from 10:00 to 10:30 a.m., from Monday through Friday, by Panamericana Television - Channel 5. It was in previous years transmitted by Channel 4 and at first Channel 7.

Everyone considers this program to be an excellent production for children. Perhaps its scheduling in afternoon hours would be more convenient for the educational purposes it pursues.