



DISASTER
RELIEF

CASE REPORT
Nicaragua—Earthquake
December 1972

Agency for International Development
Washington, D C 20523



Large areas in downtown Managua lay in ruins as this scene reveals total destruction.



Smoking ruins in downtown Managua.

Foreign Disaster Case Reports are publications of the Office of the Foreign Disaster Relief Coordinator, Agency for International Development. This office has responsibility for coordinating U.S. Government foreign disaster relief responses and for the further coordination of such activities with those of the U.S. private and international disaster relief communities.

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NICARAGUA

Earthquake

... Foreshocks began in the City of Managua about 10 p.m. on December 22, 1972, local time. At 12:30, 1:18 and 1:20 a.m., December 23, three violent tremors rocked the city leaving behind incredible destruction and losses:

- 600 blocks in the heart of Managua, about 60% of the city, in rubble;
- Between 10,000 and 11,000 people killed;
- 20,000 injured;
- Over 300,000 left homeless;
- 47,000 housing units destroyed; 6,100 others substantially damaged;
- 95% of the small industries wiped out; 10% of the large factories destroyed;
- 4 hospitals and 740 school rooms seriously damaged or destroyed
- All utilities disrupted—some severely crippled;
- Estimated dollar damage—\$845 Million.

The United States Government and voluntary agencies, along with many other nations, moved swiftly to assist in rescue operations and to provide the victims with shelter, food, medical care and an adequate supply of potable water. Value of this grant assistance was:

• U.S. Government	\$12.7 Million	
• U.S. Voluntary Agencies	8.4 Million	
• International Community	14.3 Million	\$35.4 Million

Reconstruction Loans to Date (9/1/73)

• U.S. Government	15.0 Million	
• International Bank for Reconstruction and Development ...	20.0 Million	
• Inter-American Development Bank	16.7 Million	
• Canadian Government (unconfirmed)	7.0 Million	58.7 Million
		<u>\$94.1 Million</u>

BACKGROUND

The City of Managua has an unenviable record of earthquake destruction. It experienced severe shaking and great material damage in 1885—was destroyed in 1931—sustained severe localized damage in 1968—and on December 23, 1972 suffered the worst earthquake disaster of all in terms of both human and property losses. One reason—Managua's population, just 40,000 in the 1920's, had expanded by 1972 to over 400,000. A U.S. Geological Survey team report on the 1972 earthquake concluded that earthquakes of comparable magnitude to those of 1931 and 1972 could be expected to occur within the next 50 years.

With such a seismic history, the question inevitably arises why Managua was rebuilt and greatly expanded on the same location of its 1931 destruction. But the same question should be asked of the people of San

Francisco, Los Angeles, Tokyo and many other great cities where similar danger exists. Among the reasons are the enormous investment Governments and people have in real estate and infrastructure—water lines, sewers, connecting highways, heavy industry and the like—and the deep attachment many have for their city. In the case of Managua there was also the lack of alternative risk-free land nearby. Presently, the potential for rebuilding seismic-resistant structures is a factor which encourages reconstruction at locations with long histories of seismic activity.

Despite its seismic history and special centralized vulnerability, pre-earthquake disaster preparedness measures were almost non-existent in Nicaragua. However, that the Government was starting to move in this direction was evidenced by its decision to send a senior official to the United States in

the spring of 1972 to attend a six-week disaster preparedness seminar sponsored by AID's Foreign Disaster Relief Office.

DESCRIPTION OF THE DISASTER

The first and strongest of the three major shocks measured 6.2 on the Richter magnitude scale. The other two, however, were severe enough to cause possibly even greater damage. Many buildings that were structurally weakened, but still standing after the main shock, collapsed during these two aftershocks. The severity of destruction from these relatively moderate strength temblors was due to their occurrence at shallow depth on four faults directly beneath the city and because most buildings had little seismic resistance.

Earlier mild tremors woke the sleeping city sometime between 10:00 p.m. and 11:00 p.m. December 22. Increasing numbers of the people left their homes to sleep outdoors as the shocks continued growing in intensity. One man said: "At first the earth seemed to go up and down, then it seemed to go from side to side and everything came down." Surface faulting occurred in four zones. The greatest zone of damage was in the older downtown areas. Moderate to extensive damage, including collapses, extended throughout the city and into the suburbs. Damage was due to shaking and to fires which raged through sections of the city for several days after the quake. Secondary geologic effects such as landslides were relatively minor. Over 100 aftershocks occurred in the days and weeks following.

All of the stores, restaurants, offices and dwellings within a two-mile radius of Avenida Central, the main shopping street, were destroyed or damaged severely. Masonry structures collapsed on their occupants; many wooden ones burst into flames. People ran into the streets screaming, others dug frantically trying to rescue trapped relatives. Gone were most small businesses, the office buildings of the national government and half the public schools. Although a number of buildings, including a few hospitals, re-

mained standing, having been built for seismic resistance, they were nevertheless useless for relief work because their inside functional capacity had been crippled. Because of destroyed equipment and broken water mains, firefighters frequently could only look on helplessly as wind-whipped flames engulfed buildings, and whole city blocks turned into roaring infernos.

There have been varying estimates of the death toll ranging from 4,000 to 12,000. The U.S. Geological Survey team report estimates it to be over 11,000. The exact toll of those crushed by shattered buildings and entombed beneath may never be known. Unlike most Latin countries, Nicaragua had no identity card system and there were no permanent records on many of its citizens. The Government had been in the process of establishing a national identification card system when the earthquake hit. For several days the stench of decomposing corpses made breathing almost unbearable, and it was necessary to provide burials in common graves or to cremate bodies. All three of the city's jails collapsed killing 70 prisoners, while 400 others took the opportunity to escape. When the El Retiro Hospital crumbled, 30 children were crushed to death. The Presidential Palace on the south edge of the city was heavily damaged. The roof of the ninth floor restaurant atop the modern Hotel Intercontinental bounced four feet, then came down with a crash. The hotel guests, among them billionaire Howard Hughes, quickly evacuated the building.

The American Embassy building was severely damaged. Miss Rose Mary Orlich, secretary to American Ambassador Turner B. Shelton, died in the collapse of her apartment building located next to the Embassy. Another American woman, Magdalen R. Geisel, secretary to the AID Acting Mission Director, narrowly escaped death—she remained trapped in the wreckage of the same apartment building for five hours.

The day after the earthquake a pall of smoke and red dust overhung the city. Christmas Day saw increasing numbers of earthquake victims departing in search of shelter, food

and water. Many left spontaneously but thousands soon followed having been requested to evacuate the city by the Government to protect them against a feared epidemic and the further collapse of unstable buildings. By December 28 all but about 100,000 had left the central city. The success obtained in evacuating so many people in such a short period of time was attributed to Managua's simplified one-level road transport system, its large pool of public transport equipment, and a minimum of private autos obviating traffic jams that would have clogged the escape routes. Also, the oil refinery survived the earthquake and its initiative in distributing gasoline to suburban stations helped keep evacuating vehicles moving.

A related tragedy that many Americans felt keenly was the death of Roberto Clemente, star outfielder of the Pittsburgh Pirates. He was a leader of Puerto Rican relief efforts to help Nicaragua and was on board a cargo-plane carrying relief supplies to the city when it crashed after takeoff from the San Juan International Airport on December 31.

ACTIONS TAKEN AND PROBLEMS ENCOUNTERED BY THE GOVERNMENT OF NICARAGUA (GON), LOCAL ORGANIZATIONS AND THE PEOPLE:

The early actions on search and rescue and assessment of personal losses were almost totally carried out by the populace responding to the dire need of their families, friends, and neighbors. The community normative structure of Nicaragua specifies that the family must come first. For this reason, for three to five days most of the emergency organizations were devoid of personnel. Problems in getting systematic relief operations underway also stemmed from lack of disaster preparedness and the fact that the National Government, substantially located in the stricken capital, had been badly shaken, and hospitals, fire stations and other emergency facilities had sustained great damage. The situation was made considerably worse by the destruction of much of the power, water

and communications facilities. Although families did much to help themselves, only specialized organizations can fight large fires, restore utilities and treat the badly injured.

Nicaragua is governed by a three-man junta—an alliance of the two major parties and the head of the National Guard, General Anastasio Somoza Debayle. Following the earthquake, it handed over its functions to General Somoza, who took control of coordinating the relief operation. General Somoza called for help from the U.S. and other governments, and it was largely U.S. Army personnel who organized the first emergency help and set up the first medical facilities. They also brought in water purification equipment and saw to the repair of parts of the municipal water system.

General Somoza turned his own home into the center of operations because the presidential palace had been badly damaged and public buildings were unsafe. He formed a National Emergency Committee comprising himself, the General Staff of the National Guard, the Ministers of State, the Nicaraguan Red Cross, the Chambers of Commerce and Industry, and the chairmen of independent services. The Committee at once began to carry out the difficult task of bringing relief to the disaster victims. Subcommittees for Food, Medical Care, Transport, Communications, Water, Electricity, Clearing and Demolition, Rehabilitation and Reconstruction were appointed.

EVACUATION

An estimated 200,000 people evacuated the city either on their own or at the urging of the Government. For a couple of days the GON withheld food distribution in the inner city in order to hasten the evacuation process. By December 30 most, if not all the residents of the downtown area had moved out. An estimated 180,000 remained in other parts of the city or camped on the outskirts. Some 35,000 moved on to Granada and 30,000 to Leon. Tens of thousands of others sought shelter in Masaya, Esteli, Rivas and

small towns and villages surrounding Managua. Of the victims left homeless, an estimated 80% found shelter with relatives; 10% were housed in schools and another 10% were eventually sheltered in tent cities.

HEALTH

Nicaraguan Army troops carried out mass burials but many bodies remained buried under tons of debris—some of it piled 15 feet high in the street. The stench of death was so powerful it drove some rescuers back retching. Fire consumed 25 city blocks. Organized care of the injured started somewhat late and was centered around military field hospitals sent in by other countries. Two, one of which was provided by the United States, were in operation by December 24. The second hospital provided by the USG was in operation the following day. Only one of Managua's five hospitals was able to function. There was some fear that an epidemic might occur, but with the evacuation of most of the population from the city the possibility was reduced. On advice of U.S. and other foreign experts, the Government of Nicaragua decided not to initiate nationwide immunization of any sort; however, some immunization against typhoid fever and tetanus was done in a few areas in an uncoordinated manner, largely by non-Nicaraguan physicians. There never was a valid reason for mass inoculation—tetanus vaccine must be given before and at the time of injury and the stage of acute injury had passed; typhoid is largely spread through contaminated water and 95% of the water distributed came from clean wells or was brought in by truck; and cholera had not been present in Central America since 1886. No epidemics did develop. With the assistance of sister societies, the Nicaragua Red Cross set up several medical care centers.

FOOD

Food quickly became a critical problem and continued to remain so to a reducing degree for approximately three weeks following the earthquake. Limited quantities of food, how-

ever, were available in Managua for immediate needs. Had there been a pre-disaster inventory of food resources and a system established in advance for distribution of food to meet such contingencies, the desperate search by many people for food might have been avoided. Large quantities of food arriving in the country piled up at the airport until plans could be made for systematic distribution. The Government declared itself the sole distributor of food and placed this function under full control of the National Guard. Until an understanding was reached on December 31 between the GON and voluntary agencies, usually among the first to provide food to disaster victims, voluntary agencies were unable to fully participate. Once the GON was able to organize its own and outside resources and had brought the voluntary agencies into the emergency efforts, distribution of food and other supplies became more effective.

By December 28, the Government food distribution system was beginning to function more systematically, and increasing supplies of food were becoming available for distribution to the people remaining in the city and on the outskirts. Distribution at this time was being handled largely by Nicaraguan teams assisted by American, Honduran and other international personnel. On December 29, a roving check system was established in which jeeps carrying Nicaraguan officials and an AID or Peace Corps volunteer visited all food distribution points. By January 1, the food distribution situation in Managua was well in hand—45 food and water distribution points were functioning in 19 election districts, ration cards had been issued and three radio-equipped mobile teams monitored distribution.

Normal stocks of food in the host homes in the several cities and towns to which an estimated 200,000 earthquake victims had fled were sufficient to feed most of them for several days. Committees were formed in most of these provincial cities to conduct a census of displaced persons and to distribute additional food when it arrived from Managua

and the port of Corinto. In the interim, a U.S. Embassy official visited Leon, Granada and Masaya and found that their food distribution program was proceeding well, although officials expressed concern about further continued food supply and transportation. On January 3, the first distribution of food to outlying departments under the system devised by the Government of Nicaragua and U.S. advisors took place. The deliveries were made by USG-provided helicopters to Masaya and Granada—the two departments then in greatest need. Food was transported from the helicopters to warehouses by locally obtained trucks and stored for later distribution to neighborhood zone distribution centers. On January 4, the helicopters extended food deliveries to departmental centers at Leon and Chinandega. On January 5, a large group of refugees was discovered at Tipitapa who had not received any assistance. Arrangements were made immediately to supply them with tents and food.

WATER

The city water distribution and sewage systems were temporarily knocked out but by January 1 the water plant was operating at 35% of capacity, and parts required for emergency repairs had been obtained or were enroute by air from the United States. At that time it was reported that 85% of the people in Managua had a permanent source of potable water, while the remainder were being supplied by tank truck. Until this restoration, potable water was scarce in Managua and environs. Eight water purification units, tank trucks and water trailers were loaned to the Government of Nicaragua by the USG, and six water supply stations in suburban areas were reactivated. About 100,000 gallons of water per day were moved in by U.S. Army personnel and by locally commandeered trucks. Refugees camped outside the city received water by tank truck and in part from artesian wells.

SHELTER

An estimated 75% of the homeless found shelter in and around the homes of relatives

on the fringes of Managua or in more distant towns. One refugee camp was established about one-half hour drive from the city and became operative December 28. On January 3, a suitable site for a tent city in Masaya to house refugees was found. It was a site previously used by Boy Scouts for a jamboree, where water, sewage and other facilities had already been installed. Tents were provided for these camps by the USG and other donor nations. Soon, thereafter, the GON determined that no more tents should be brought in for temporary shelter. Working with USG housing and disaster officials, the GON devised an emergency shelter program for the immediate construction of wood and sheet metal structures. By early February 1973, the GON with the aid of USG agencies and private organizations had begun to build over 11,000 of these low-cost housing units on the outskirts of the city to provide homes for the workers who would be returning to employment in the area and rebuilding the city. The project was completed on May 21, 1973. Original cost of the dwellings was \$270 each, financed by a \$3 million U.S. Agency for International Development grant. Each family is paying from \$5.75 to \$8.50 a month, depending on the size of the unit occupied during the primary stage of the project. The longer range plan is to convert the dwellings into a range of different size improved homes. Some work on this has already started. When these are improved, the residents will pay from \$7.50 to \$31.50 a month to purchase full ownership in dwellings that will cost from \$1,250 to \$3,800. The houses now have only a wooden frame and walls and a tin roof but will be improved by adding kitchen and toilet facilities and extra rooms built of reinforced concrete. All the materials for the houses were provided from Nicaraguan resources and the work was performed by Nicaraguan contractors. The GON halted the export of lumber to assure the availability of sufficient materials.

CLEARING

The emergency clearing operation was a good example of Nicaraguan and interna-

tional cooperation. Nicaraguan tractors worked day and night on a fire break. The U.S. Army had three bulldozers working 24 hours a day. The Costa Rican Mission distinguished itself in fire fighting. Mexican engineers worked hard on clearing, and Venezuelans helped with damage assessment.

TELEPHONES

The telephone system was knocked out and repairs to the lines were begun on a 24-hour basis. By January 4, 1,000 local telephone lines at the Central Managua Dial Exchange were working, and it was estimated that 75% of the primary telephone cable plant was operable.

ELECTRIC POWER

Power facilities were temporarily crippled. By December 30, 35% of the power services had been restored and there was almost sufficient power to meet most of the needs of the evacuated city. It was expected, however, that a power shortage would continue in Managua for some months to come.

INDUSTRY, BUSINESS AND BANKING

70% of the industrial capacity was intact after the earthquake. Most industries were able to resume operations by mid or late January as electric power was restored. By December 31, the Industrial Development Bank of Nicaragua, INFORMAC, had resumed operations from a tent location and was accepting loan applications for reconstruction purposes.

Commercial banks and savings and loans institutions had already resumed operations in their branch banks and the Central Bank had reopened in temporary quarters. Inter-bank check clearances resumed on January 5 from a location in Masaya and transactions in deposit accounts soon followed. By December 31, one daily newspaper in Managua had begun publishing again, and two major meat plants were in production by January 3.

SECURITY

On December 27, it was reported that looting in the city had reached serious proportions. General Somoza made a radio address to the nation on an emergency network calling for the reestablishment of order. He promised free food distribution and said looters would be shot. He divided the city into 9 zones and temporarily prohibited transit between them. Within a few days order was restored.

GOVERNMENT OPERATIONS

The Nicaraguan National Assembly met for the first time following the earthquake on January 2. The Supreme Court had been meeting in temporary quarters in Masaya but began daily sessions in Managua on December 30 with all members present.

By January 5 various ministries had reopened. The Foreign Ministry resumed operations in temporary quarters in the Managua home of the Chief of Protocol. Other Ministries such as Economy, Agriculture and Finance reopened in temporary quarters in private homes.

EVALUATION OF EMERGENCY RELIEF

On the two-week anniversary of the earthquake, the American Embassy commented on the rapidity and extent to which Managua had recovered, both physically and psychologically—that it was truly amazing. In these two weeks, the Nicaraguans, with American and other foreign assistance, had met emergency needs for food, medical care and evacuation and had reestablished a fairly complete range of public services and civil functions.

RECONSTRUCTION MEASURES

About January 2, GON attention began to turn to the problems of providing interim housing for the displaced population, relieving longer term food shortages (already existent prior to the quake as a result of prolonged drought in some parts of the country), and reconstruction. General



Once evacuated only disaster assessment teams could enter the area of heaviest destruction.

Somoza declared the city would be rebuilt but he advised citizens not to return to the city for six months or more.

The GON as of September 11, 1973, had not announced an official plan for the rebuilding of Managua. However, a new building code had been adopted early in the year, and repair and reconstruction has been underway except in the destroyed older central part of the city. The U.S. Geological Survey provided the GON with recommendations relative to the geological constraints in reconstructing Managua, and the Government of Mexico has financed a team of consultants who are developing an urban plan for the city. Also, an international panel of experts sponsored by the International Bank for Reconstruction and Development (IBRD), the Inter-American Development Bank (IDB) and the Organization of American States (OAS) is reviewing the Mexican team's plan for the GON. The official GON plan for rebuilding the city will be announced after the Mexican plan has been received and analyzed. For the present Nicaragua has obtained the following repair and reconstruction loans and many projects are underway or completed:

IDB—\$16.7 million for restoration of telecommunications services, construction of temporary university facilities, rehabilitation credit for small and medium industries, development of the construction industry and rural credit.

IBRD—\$20 million for housing sites and services, high school reconstruction, water supply and power systems rehabilitation, and financing of small industries.

USG/AID—\$15 million for construction, expansion and repair of hospitals, cleaning and repair of drain channels, electrical facilities, roads and bridges, research studies, demolition and clearing of rubble, repair and construction of schools, health centers and public buildings and for administrative and technical support. Several of these projects have been completed, some are nearing completion and all are expected to be completed by June 30, 1974.

Canada—\$7 million—50 year loan. Details on this loan were not available.

Only partial information is available on the cost or value of Nicaraguan self-help. To date this information is: \$22.3 million bud-

geted for emergency expenditures for demolition, clearing of rubble and building repairs; an allocation to the National Emergency Center of \$1.4 million; and an allocation to the Food Distribution Center of \$1,090,000.

Several Nicaraguan relief or development agencies were active in emergency relief and a number are involved in rehabilitation and reconstruction. These include:

NICARAGUA RED CROSS

The Nicaraguan Red Cross provided first aid to the injured, assisted in removing bodies from the rubble and took a census of the victims. It also participated with GON and Army personnel in food distribution. It established two refugee camps for the victims in the department of Nueva Segovia on the frontier with the Republic of Honduras and another in the department of Rivas on the frontier with Costa Rica. In coordination with the GON National Emergency Committee, the Nicaragua Red Cross Committees in the Departments of León, Granada, Chinandega, Nueva, Segovia, Esteli, Tatagalpa, Chontales, Rivas and Masaya provided medical care, shelter and food to the victims coming from Managua. The headquarters of the Nicaraguan Red Cross was completely destroyed but their fleet of ambulances was saved. They set up their temporary headquarters in a nearly completed school building on the site of the old airport of Xolotlan. With the assistance of the American Red Cross and League of Red Cross Societies, the Nicaraguan Red Cross is in the process of establishing a Red Cross National Blood Transfusion Service.

C.E.P.A.D.

CEPAD is an organization representing the evangelical churches of Nicaragua. It was formed as an emergency response to the earthquake and at first named "Comite Evangelico Pro-Ayuda a los Damnificados" (Committee for Helping the Earthquake Victims). Subsequently, however, it evolved into

a permanent organization with long term commitments and the name has been changed to "Evangelical Committee for Development" or "Comite Evangelico para el Desarrollo". CEPAD is headed by 27 ministers representing several Protestant denominations in Nicaragua as well as representatives from several U.S. and international groups, such as Church World Service, Food for the Hungry and the Mennonite Central Committee. A total of some 30 groups are affiliated with CEPAD. It has a full time staff of 35 Nicaraguans, and approximately a dozen foreigners are assisting either in advisory or direct service roles. In the emergency phase to March 1, CEPAD distributed food directly to about 18,000 people weekly. Since then it has moved into more long term programs which include: 60 child feeding stations; food-for-work projects related to child feeding, small work projects, literacy and basic education; temporary and permanent housing; small loans for reconstruction and repair; medical clinics, social services and day care centers.

CEPAD works not only independently but in conjunction with the GON, USAID and FUNDE. A number of American churches and voluntary agencies are contributing cash and supplies for CEPAD projects.

FUNDE (Fundación Nicaraguense de Desarrollo)

FUNDE is a private sector development foundation working in the following areas: reactivation of small industries and technical assistance; loans to small market vendors in eight market places throughout Nicaragua; marketing assistance to groups receiving loans from FUNDE; loans to carpenters for building houses to sell as an emergency building program and small housing projects.

FUNDE has received grants from the following to assist in its projects: Pan American Development Foundation and private banks in the United States, the Inter-American Foundation, Community Development Foundation of Washington, CEPAD and the World Council of Churches. The Pan American



U.S. helicopters airlifted emergency food for concentrations of disaster refugees in outlying areas.



Civilian and U.S. Military water trucks are filled at one of the water distribution points established in Managua to relieve the early critical water shortage.

Development Foundation also obtained for FUNDE a line of credit from the Export-Import Bank. From the contributions of these several organizations and agencies, FUNDE is expected to be handling from \$1 million to \$1.5 million and to have its own capital increased to at least half a million dollars.

Caritas de Nicaragua

Caritas has 51 personnel in its program. It organizes community development programs on a parochial and diocesan level. Its projects include food-for-work, tool banks, re-

volving loan funds, health and nutrition, drought relief, and an integrated rehabilitation program for earthquake victims.

INDE (Instituto Nicaraguense de Desarrollo)

INDE has a staff of 16 working in the promotion and organization of new refugee settlements and the promotion, organization and supervision of small industry projects. INDE also assisted in the GON/USG temporary shelter program.

IMPRHU (Instituto de Promoción Humana)

IMPRHU has a staff of 7 working in the areas of social and civic development within the marginal sectors; integrated rural and urban development; social studies, adult education, drought relief and earthquake psychological backlash. This organization receives assistance from Misereor (Germany)

OCIP (Organización Coordinadora de las Instituciones Privadas)

OCIP was established on January 17 and has a staff of 4. It coordinates the activities of all voluntary agencies for the purpose of avoiding duplication of efforts. It also represents member voluntary agencies and offers them services such as publicity, translation and technical assistance.

ASSISTANCE PROVIDED BY THE U.S. GOVERNMENT:

AID's Assistant Disaster Relief Coordinator for Planning, William R. Dalton, was the Disaster Relief Duty Officer when the earthquake struck in the early morning hours of December 23. When news of the seriousness of the disaster reached him through the State Department Operations Center, he immediately contacted the Department of Defense (DOD). He authorized DOD to ship relief supplies from the AID Regional Disaster Relief Stockpile in Panama and to send technical and medical personnel and other supplies and equipment from the U.S. Southern Command in Panama (USSOUTHCOM) to Managua as soon as the American Ambassador made specific requirements known.

The earthquake struck during the holiday season when many USG personnel were on leave. However, a Nicaraguan Disaster Relief Task Force, headed by Deputy Assistant Secretary Robert Hurwitz, assisted by David Lazar, Director of the Office of Central American Affairs and by Russell McClure, AID Foreign Disaster Relief Coordinator, was established on December 23 within the State Department Operations Center. Task Force staffing was supplied by the following units:

Bureau for Population and Humanitarian Assistance:

Office of the Foreign Disaster Relief Coordinator

Administrative Office of the Bureau State/AID Regional Bureau and Country Desk

Office of Food for Peace
State Department, Special Consular Services

Congressional Liaison
Public Affairs

Department of Defense
Department of Health, Education and Welfare

Other AID offices with major roles in the relief operations, working from their own offices to carry out requested actions from Task Force members were:

Bureau for Program and Management Services:

Office of Management Operations,
Purchasing Division
Office of Commodity Management,
Transportation Division

The Task Force worked around the clock, over the holidays and weekends, to expedite shipments of relief supplies, provide services and answer hundreds of inquiries.

The U.S. Southern Command at Panama received specific requests for assistance from Ambassador Shelton at 0700 local time, December 23. Seven hours later, a C-130 with supplies and personnel had arrived in Managua. Another was on its way. These first two aircraft brought in a Disaster Area Survey Team, a Medical Team, an Air Control Team and water equipment operators—a

total of 67 people. They also carried two large water purification units. On December 24 and 26, 16 C-141 aircraft with two field hospitals, large quantities of supplies and equipment and additional personnel followed. Later the GON requested helicopters to assist in food distribution. Four helicopters were sent, arriving January 1. At the peak of USG emergency relief, there were 750 U.S. military personnel in Managua staffing field hospitals, manning water stations, helping in demolition and in the distribution of food and supplies.

P.L. 480 Food for Peace commodities were quickly transferred from voluntary agencies stocks on hand in Nicaragua, from neighboring countries and from ships at sea. Emergency procurement of corn, beans and potatoes was also made by AID from neighboring countries and the United States, and the Office of Civil Defense donated 812,000 pounds of ready-to-eat survival biscuits.

The U.S. Mission in Nicaragua meanwhile was working under extremely difficult conditions. They too were short staffed because of the holiday season. The Embassy had been practically destroyed. There was great concern over the fate of Americans residing in the city and much over-all confusion. Despite this, however, the Embassy and USAID staff marshalled their resources and came to the assistance of the GON quickly. Fortunately Ambassador Shelton, prior to the earthquake, had backup radio communication equipment installed. Because of this, in-country communication between the disaster operations components of the country team and military units was excellent. However, external radio communication was extremely limited during the important first two days, suggesting the need for technical planning in this area. Embassy, AID and Peace Corps personnel assisted in developing a food and water distribution plan, helped to assess damages and requirements. Ambassador Shelton met with General Somoza on frequent occasions and was instrumental in bringing voluntary agencies into the relief effort.

On December 25, President Nixon sent a message to General Somoza to assure the Nicaraguan Government of full USG cooperation in providing assistance. AID Administrator John Hannah sent Mr. Carson O. Crocker, consultant for the Office of the Foreign Disaster Relief Coordinator (FDRC), as his personal representative to assist Nicaraguan relief officials because of his past experience in disaster operations and food distribution. Mr. George Warner, AID Food for Peace Officer in Peru, was sent to assist in surveying food requirements and Mr. Carl Purcell, AID writer and photographer, to document relief efforts.

On December 28, 1972, President Nixon appointed Mr. Maurice Williams, Deputy Administrator for AID, as his Coordinator of U.S. Relief Assistance to Nicaragua. Two days later Mr. Williams arrived in Managua with two staff members, William R. Dalton of AID's FDRC staff and John King of the State Department, for an on-site survey and discussion with Nicaraguan leaders and OAS representatives. The team not only studied emergency needs but transitional and longer term problems. Mr. Williams subsequently made a second visit to Managua to further coordinate USG assistance efforts with Nicaraguan authorities.

FDRC was responsible for analyzing requests for supplies and for arranging for their purchase and delivery, and with the assistance of other Task Force members, tents, cots, food, communications equipment, insecticide and other supplies were dispatched to Managua. In the first days following the disaster, incoming voluntary offers of assistance from the public (as many as 500 a day) intermingled with official calls and competed for staff time that should have been devoted to disaster assistance initiatives. A telephone system in AID's new Disaster Relief Coordination Center has been designed to handle this problem in future disasters. There was also the usual unstructured public response to a great disaster which resulted in the collection and shipment of large quantities of low priority disaster relief supplies.

FDRC and the OAS worked together to help the Embassy of Nicaragua, (Washington, D.C.) move large collections of supplies to Nicaragua for which no transport arrangements had been made. These supplies were sent by surface for the most part since they were low priority items. While FDRC assisted in making arrangements for their delivery, the USG does not provide funds for transporting any supplies not requested by the Government of the disaster stricken country through the American Embassy. Very early after the disaster, the GON, LICROSS, the UN and the USG were urging people not to make these collections but to donate cash instead through voluntary agencies.

AID signed a \$3 million grant agreement with the GON on January 18 for construction of approximately 11,000 emergency shelters. AID requested technical assistance from the Foundation for Cooperative Housing (FCH) in Washington, D.C. to help the Nicaraguan Housing Bank plan and construct the emergency shelters, to evaluate the overall housing problem and to make recommendations for a reconstruction program. The emergency shelter project was completed on May 21 and a total of 11,135 units were built. Subsequently AID made a program loan to Nicaragua for reconstruction in the amount of \$15 million. (See the GON section of this report for details on these programs.) Additional AID loans for reconstruction are under consideration.

The value of the USG grant assistance as of September 1973 was \$12.7 million. This includes approximately \$8 million from the AID contingency fund; \$3,957,600 as the value of P.L. 480 food, including ocean transport; and non-reimbursable costs of relief activities by the Department of Defense and Civil Defense Preparedness Agency totaling \$713,190.

Following is an *incomplete* breakdown of this assistance for which firm costs are available. Some bills are still outstanding and when all are in costs are expected to approximate the \$8 million allocated from the contingency fund:



The weakness of the once popular block and lathe construction was easily discernible.

Supplies

4,191 tents (including 691 from AID stockpile)	\$389,676
6,000 cots (2,000 from stockpile) ...	\$42,000
14,000 blankets (from stockpile) ...	\$28,000
1,000 gas cans (from stockpile)	\$2,000
Miscellaneous supplies (from stockpile)	\$5,000
2,750 metric tons of potatoes	\$375,000
40,000 pounds of corn and 10,000 pounds of beans	\$2,300
USAID purchase of pumps and fittings	\$6,775
Communications equipment	\$2,366
5,500 gallons Malathion (insecticide)	\$37,400

U.S. Military Costs—reimbursed by AID from contingency fund

REDICOM—airlift charges, equipment, two field hospitals complete with equipment and supplies, per diem, fuel, services	\$1,031,034
SOUTHCOM—use of cargo and helicopter aircraft, supplies, communications, construction and other equipment, labor, per diem, related costs	\$533,694
DSA—Medical supplies	\$1,779
Brooke Army Medical Center	\$1,272



Mobile heavy construction equipment was used to clear rubble and debris off the streets.

AID Excess Property

8 Packaged disaster hospitals\$464,000

Other Agencies

TDY, travel, other costs\$1,912

Cash Grants

OAS for FONDEM relief activities ..\$25,000

GON—temporary shelter program \$3,000,000

P.L. 480 Food

Title II—GON and Volags—13,603 MT corn,
soy flour, vegetable oil\$2,723,500

Title II—Through WFP—6,558 MT wheat,
flour, corn, CSM, vegetable oil and instant
CSM\$1,234,100

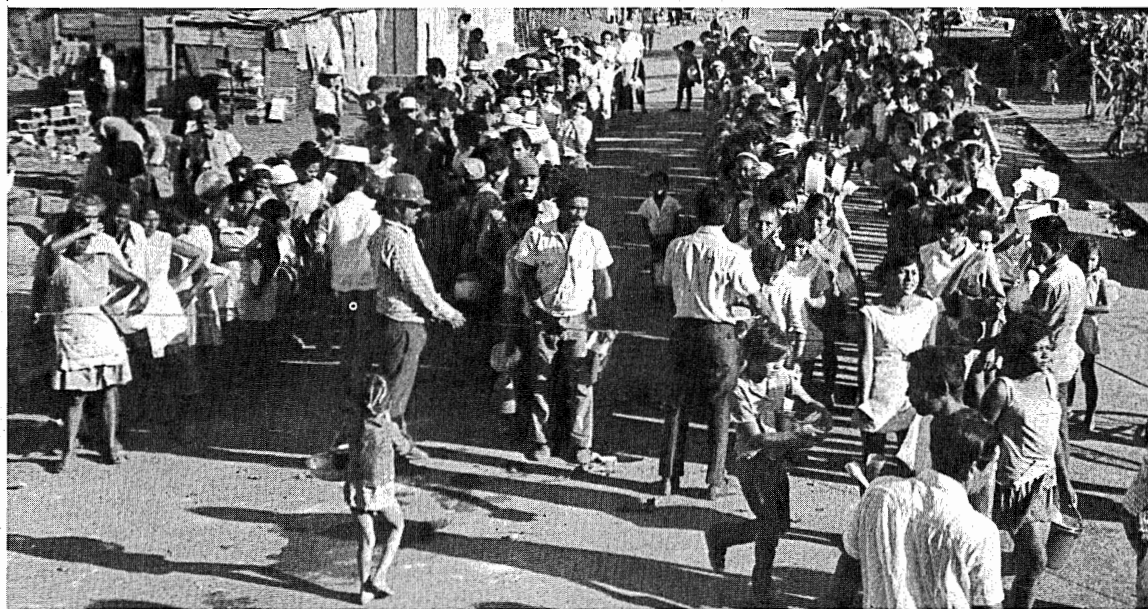
U.S. Military—Non-reimbursable Costs ^{951,600}

SOUTHCOM—Military equipment and
personnel\$388,190

Defense Civil Preparedness Agency—pro-
vided 2 CD generators (15KW) airshipped to
Managua for airport lighting. Value was not
reported. Also, mayors of 7 cities donated
812,835 pounds of Civil Defense survival bis-
cuits, replacement value of 40 cents per
pound\$325,000



Tragedy and horror are reflected in the face of this injured young victim of the earthquake in Managua, Nicaragua, as he clutches his precious armload of relief supplies.



Survivors of the earthquake in Managua, Nicaragua, line up to receive emergency food rations.

**DEPARTMENT OF HEALTH,
EDUCATION AND WELFARE**

Dr. Gerald Faisch from the Center for Disease Control in Atlanta, Georgia, was dispatched to Managua at AID's request to assess the health and hospital situation and the danger of epidemics. His recommendations were the basis for the GON rejecting an extensive nationwide mass inoculation program against typhus and typhoid. This would have been costly in terms of diverting necessary medical personnel from other health needs and was not necessary. No epidemics or serious outbreaks did occur.

The HEW Liaison Representative for foreign disaster relief, Miss Virginia Worsley, was a member of the Nicaragua Task Force assisting in assessing medical requirements and in arranging for Dr. Faisch's visit to Managua. Several months after the earthquake she visited Managua to assist in determining the continuing need for supplies and equipment. Recently, she has been involved in making the necessary arrangements for delivery of 8 packaged disaster hospitals which AID is providing to Nicaragua. These hospitals, containing excellent equipment and supplies, had been declared excess by the U.S. Public Health Service and were acquired from USPHS by AID Excess Property. One hospital will be utilized to support the one functional hospital left in Managua, the Velez Paiz. The other seven will be sent to hospitals in the secondary cities of Nicaragua. These hospitals, deficient in equipment and supplies even before the quake and afterwards, had to care for many of the victims who could not be treated in Managua.

**U. S. Geological Survey
U. S. Coast and Geodetic Survey
National Bureau of Standards**

Two teams of four U. S. seismologists and three U. S. engineers and a two-man water survey team were sent to Managua to carry out damage studies and after shock assessments. The U. S. Geological Survey provided the GON with recommendations relative

to the geological constraints in reconstructing Managua. USGS prepared a Professional Paper No. 838 titled "Geologic and Seismologic Aspects of the Managua, Nicaragua Earthquakes of December 23, 1972," from which some of the material which appears in the narrative description of this disaster was taken.

NASA

NASA provided post earthquake aerial photos of Managua. In this connection, the USGS study (Paper 838) states: "Aerial photography is critically important to post earthquake studies, especially where there is extensive surface faulting or other surface geologic effects that require precise location and careful measurements. Superb vertical stereophotographic coverage in both color and color infrared, at optimum altitude and sun angles, of the entire affected area was provided by the NASA Manned Spacecraft Center in Houston, Texas, and was used in this study. Many NASA people at Houston worked long and irregular hours to provide timely post earthquake aerial photography."

**U. S. VOLUNTARY AGENCIES AND
AMERICAN PRIVATE SECTOR:**

Nicaragua received vital assistance from 16 United States private voluntary agencies who contributed cash and relief supplies for emergency assistance and for rehabilitation and reconstruction projects. In Managua, staffs of these agencies played an effective role in organizing food, medical and shelter programs. In an outpouring of sympathy and generosity, private American citizens contributed thousands of dollars and large quantities of relief supplies. Outstanding examples of private initiative were the Roberto Clemente Memorial Fund which raised \$320,000; the State of Wisconsin, acting under the Partners of the Americas program, which raised \$350,000 and the Rolling Stones Rock Group, which raised an estimated \$500,000. The total value of contributions by voluntary agencies and the private sector was \$8,336,222.

American National Red Cross

The American National Red Cross (ANRC) sent seven relief technicians to assist the Nicaragua Red Cross. They arrived on December 27 and remained until February 6. ANRC provided aluminum folding cots, electric generators, kerosene lanterns, flashlights, radio-communication equipment, medical supplies, food, clothing, water purification equipment and vehicles and made cash contributions. Some of these supplies came from the ANRC warehouse—much of it was contributed by private industries. Companies donating through ANRC included: Johnson and Johnson, The Chlorox Company, Igloo Company, Water Purification Systems, Inc., Aladdin Industries, H. J. Heinz Company, Scott Paper Company, Kimberley-Clark Corporation, Levi Strauss Company and Oscar Meyer. Also, many private citizens donated funds for Nicaragua through ANRC. The value of these contributions was \$155,410

In addition ANRC provided blood transfusion equipment, a portable medical unit, portable eye testing unit for drivers and six vehicles. It also engaged in a program to help the Nicaragua Red Cross establish a blood center. The program entailed the construction of a two-story building which the ANRC undertook to design, equip and finance. Work on this is still underway. The value of this assistance to date is \$162,486
Total ANRC contributions \$317,896

CARE

Mr. Frank Goffio, Executive Director of CARE, personally visited Managua to observe the situation. During the first 20 days after the earthquake, CARE provided immediate stop-gap disaster relief to the emergency food program by bringing to Nicaragua approximately 800 tons of USG donated P. L. 480 food previously allocated to CARE/Honduras, Guatemala and Costa Rica. CARE also purchased locally from its own funds 481,000 pounds of beans and 70,125 pounds of oil. All food was turned over to the National Emergency Committee for distribution. Lanterns, cooking utensils, medical and other

supplies were also donated by CARE. The value of these contributions is .. \$125,046

CARE has now phased out of the food program and is concentrating on rehabilitation projects. These projects and the funds provided for them are:

Relocation of families	\$17,429
Potable water systems	43,571
Assistance in the construction of 300 classrooms. CARE funds for this project will be used exclusively for purchase of materials, payment of labor and transportation costs. The finished classrooms will meet the requirement of the local building code and will be permanent in nature. They will consist of prefabricated steel structure, asbestos roof, partial brick walls, windows, durable upper walls, cement tile or brick floors, wood doors, and blackboards. Estimated cost	\$376,000
	<hr/>
	\$562,046

Catholic Relief Services (CRS)

CRS currently has five personnel working in Nicaragua. Since the beginning of the emergency, CRS channeled 6,000 tons of food to earthquake relief (part USG P.L. 480 and part from private sources). All of this food was delivered to and distributed by the Government of Nicaragua National Emergency Committee. CRS also purchased some food locally to supplement the diet at charitable institutions, such as the Old People's Home and other indigent groups.

From its stocks on hand in Nicaragua or in the United States, or by means of local or stateside purchase, CRS provided clothing, medicine, household items, roofing material and other supplies, which together with transportation costs were valued at \$1,526,233.

Appeals were made in parish churches in 82 dioceses throughout the United States. Together with donations made to CRS by other groups, individuals, religious orders and foundations, the resulting contributions amounted to \$2,961,197 and were used to purchase supplies and equipment and to assist in rehabilitation and reconstruction projects.

CRS provided funds, equipment, material or administrative support for the following rehabilitation projects in which it cooperated either with Caritas Nicaragua, Caritas Internationalis or the Episcopal Church of Nicaragua.

1. Caritas—Personnel and funds to assist in rebuilding the Caritas warehouse and in Caritas rehabilitation and developmental projects \$160,000
2. Reconstruction—Purchase of materials for reconstruction so earthquake victims could pursue their own efforts at self-help. Purchase of equipment and vehicles, such as bulldozers, tractors, trucks, tractor trailers, pumps, drilling rigs, etc., from U.S. AID excess property and financing their repair and maintenance over the next two years. Construction of new housing for 600 refugee families in three areas outside of Managua. Reconstruction of dormitories at Catholic University of Managua \$850,000
3. Assist in the repair of 100 school buildings and the construction of 200 new permanent classrooms \$400,000
4. Rehabilitation and/or construction of clinics, dispensaries, community centers, etc. Included in this program is the reconstruction of a clinic funded by the Archdiocese of New York in memory of Roberto Clemente \$175,000
5. Loan Fund for Small Businesses—Set up to provide short term credit on easy terms for 2,000 tradesmen. As original loans are repaid, the same funds will be used to assist others . . . \$100,000
6. Refunding of Consumer Cooperatives—to provide the poor with benefits of cooperative buying on the consumer level \$50,000
7. Vocational Training—to train breadwinners in such skills as carpentry, welding, masonry, plumbing and electricity and to teach mothers the basic elements of nutrition, sanitation and food preparation \$60,000

8. Repair or reconstruction of churches, rectories and convents and the Managua Catholic radio station \$250,000
 9. Architectural, engineering, public health and sanitation services \$15,000
 10. Innumerable small grants to community groups for self-help projects . . . \$100,000
 11. Two Special Projects—The first was undertaken in cooperation with the Episcopal Church in Managua to provide therapeutic assistance to children suffering mental trauma as a result of the earthquake; the other is a study on the epidemiology of disasters in cooperation with Caritas, the object being to accumulate information which may later be useful in saving lives and lessening human suffering when similar disasters occur \$25,675
- \$3,711,908

Community Development Foundation and Save the Children Federation (CDF/SCF)

CDF/SCF, having concluded that after the emergency period means for increasing food production, establishing markets and putting people back to work would be among the critical needs, made the following cash grants:

- FUNDE and OCIP (see description of these organizations under GON and Local Organizations section of this report)—loan program for small market vendors \$19,000
- VITA/Nicaragua—Agricultural pilot project \$10,000
- Funds on hand for future grants . . . \$4,000
- Total \$33,000

Christian Reformed World Relief Committee (CRWRC)

CRWRC participated for a short time after the quake in the food distribution program. They do not at this time have a permanent representative in Nicaragua but work through CEPAD and coordinate their efforts with the Medical Assistance Programs. Value of contributions to date \$90,839

Church World Service (CWS)

CWS sent an experienced disaster field man to Managua on Christmas Day to report back on imperative needs. Shortly thereafter CWS sent via air 10,000 blankets, 100,000 pounds of used clean clothing and 2 million water purification tablets. Subsequently CWS sent 2,000 blankets, 3,500 pounds of clothing, 160,000 water purification tablets, 2 Volkswagen Combi's and 500 pounds of soap to be used in the Costa Rica relief effort for Nicaraguan earthquake victims. Additionally CWS provided funds for local purchase of food, other supplies and vehicles.

CWS is working principally through the newly formed organization in Nicaragua called CEPAD and has three of its staff currently in the country. CWS is particularly involved with CEPAD's maternal child health centers and the housing program. CWS has also been designated by the World Council of Churches for channelling WCC contributions to CEPAD. Value of the contributions by WCC is shown under the International Community section of this report. Total value of CWS contributions as of 9/7/73 \$300,000

Lions Club

Cash donation for small housing project in Chinandega \$8,000

Massachusetts Committee for Nicaragua Relief

Collected \$200,000

Medical Assistance Programs (MAP)

MAP provided 292,975 pounds of medical and hospital supplies and nutritional supplements, which were turned over to the American Baptist Hospital in the capital city. This hospital had established an extensive medical program to aid the earthquake victims. MAP continues to assist through CEPAD and in cooperation with the Christian Reformed World Relief Committee. Value of MAP donations \$1,024,218

Mennonite Central Committee (MCC)

Before the earthquake, the Mennonite Church had a religious mission in Nicaragua

and a program of student interchange with the University of Goshen. After the earthquake, the Mennonite Central Committee established an office in Managua and cooperated with CEPAD by providing technical assistance and tools of work. By April, four MCC building supervisors with Nicaraguan construction crews had completed 40 houses and hoped to complete 30 more by the end of June. The team used two basic house designs. The most popular one, because it is of greater earthquake resistance than the traditional adobe brick or cement homes, was made of wood with a corrugated steel roof. It is a one-family dwelling, designed by two MCC supervisors, measuring 10.5 feet by 16.5 feet and costing \$150. The crews first built 17 homes in Masaya and then on March 12 moved to Managua. The completed homes become the property of CEPAD. They can then be either bought or rented from CEPAD. After one year renters will be encouraged to buy their homes and their rental payments will be considered as down payments. In addition to the building supervisors, MCC provided two community promoters and one nurse. As of March 15, MCC had spent or committed for this work \$32,000

Pan American Development Foundation (PADF)

PADF acted as a representative for FUNDE. In this role PADF raised funds in the United States which it turned over to FUNDE. Cooperating in this collection were the Archdiocese of New York and the following private banks: Bank of America, Bank of California, and the Philadelphia Bank. Funds raised amounted to\$112,320 Also, PADF reported public donations had been made for earthquake relief to the Nicaragua Relief Committee and the Rolling Stones Rock Group and that both of these reportedly would be contributing a portion of the funds raised to FUNDE. Actual amount made available to FUNDE is not known although there was some consideration being given by the Nicaragua Relief Committee to a donation of \$100,000. It is not known how

the balance of the funds by either group was utilized. Total collected as of January 31 was:

Center for Inter American Relations (Nicaragua Relief Committee) \$125,000
Rolling Stones Rock Group \$500,000

(See GON and Local Organization Section of this report for more details on FUNDE.)

Roberto Clemente Memorial Fund

Roberto Clemente, star outfielder for the Pittsburgh Pirates, died in the crash of a cargo plane carrying relief supplies to Nicaragua. Mr. Clemente was the leader of Puerto Rican relief efforts. In memory and gratitude for his sacrifice, a Memorial Fund was started in his name to which people from all over the United States and Puerto Rico contributed. Funds collected were to be used to further assist the earthquake victims but details on this assistance program were not available. As of January 30, 1973, collections amounted to \$320,000

The Salvation Army (SA)

For the first three weeks after the earthquake representatives of The Salvation Army were in Nicaragua assisting in the food distribution program. The Salvation Army assisted 20,000 families (140,000 persons) at its 19 food distribution centers in the vicinity of Managua. Some of the food was USG P.L. 480 in origin and part was purchased with SA funds. The Salvation Army does not now have a permanent representative in Managua but has continued to help through CEPAD. Total value of SA contributions \$25,000

Seventh-Day Adventist Welfare Service (SAWS)

SAWS has had for many years an excellent hospital in La Trinidad which, after the earthquake, took care of thousands of injured and sick refugees. It also has a mobile health vehicle which works in the rural sections of the Department of Carazo and has the services of a part-time doctor and full time nurse. SAWS participated in the distribution of food and clothing and provided from its own resources 100 tents, 500 cots, 1,000 blankets and \$14,000 in cash for a total of . . \$29,750

Volunteers for International Technical Assistance, Inc. (VITA)

VITA is providing free technical assistance through a pool of technical volunteers. It has received a grant of \$10,000 from the Community Development Foundation for a pilot agricultural project.

Wisconsin Partners

Governor Patrick J. Lucey proclaimed Sunday, December 31, 1972, as Nicaragua Sunday in Wisconsin and issued a public appeal to all priests and pastors in the churches in Wisconsin to raise money for its sister-state of Nicaragua to help the earthquake victims and extended the same appeal to Rabbis for Saturday, December 30. He cabled 49 other state governors and 50 Jaycee chapter presidents asking for their help in a nationwide fund-raising effort. As usual the American public responded generously.

While accepting offers of certain high priority supplies, the Wisconsin Partners generally followed the policy of not appealing for gifts in kind. They asked that donations be made in cash to avoid a pile up of commodities and goods of a non-priority nature requiring cleaning, sorting and packing, and for which transportation would have to be arranged. Governor Lucey emphasized that every dollar donated would be used in direct aid for the victims. Through these efforts the Wisconsin Partners obtained 140,000 pounds of food, two cement mixers, hospital equipment, a front-end loader and a linotype for a total value of \$100,000 as well as cash contributions of \$250,000. The funds were used or set aside to purchase emergency supplies, reconstruct health facilities, build classrooms and make small cash grants for rehabilitation projects of other organizations such as CEPAD. Total contributions \$350,000

World Vision Relief Organization, Inc. (WVRO)

Working through CEPAD, WVRO made cash donations of \$55,000

World Relief Commission

Cash donations \$35,000

Unstructured Public Response

As in other major disasters, there was a tremendous response from the American public. They wanted to do something to help—anything! Again this took the form of donating food, clothing and an assortment of relief supplies without the foreknowledge of what supplies were most needed. Food, for example, was an urgent requirement but not all types. Used, unsorted clothing with little consideration for climatic conditions in the country is never a priority item.

Large quantities of supplies were collected in New York, Miami/Hialeah, Houston, New Orleans, Los Angeles and San Francisco, among other American communities. Some groups arranged and paid transportation costs. Others sought to have the U.S. Government or the Organization of American States assume this responsibility and insisted that it be by air. Some collections contained priority supplies but most of it could best be sent by surface to avoid clogging air and transport facilities in Nicaragua, so badly needed in the early days following the disaster to bring in and deliver specifically requested high priority items. The U.S. Government does not fund transportation costs for supplies not specifically requested by the disaster stricken country through the American Embassy. It can sometimes help make arrangements to solve some of the problems related to this unstructured response, however, and did so in cooperation with the Organization of American States, the Nicaraguan Embassy and American voluntary agencies. The supplies were eventually delivered, much of them on a gratis "space available" basis extended by U.S. and Nicaraguan surface carriers.

It cannot be emphasized too strongly that the best way for the public to help disaster victims is through cash donations to established voluntary agencies engaged in disaster relief operations in the affected country.

Those voluntary agencies which have resident staff in the afflicted country can then address specifically identified emergency re-

quirements directly, and the effectiveness of the assistance is far greater than contributions in kind which often fall wide of the mark. Also special funds are often organized following major foreign disasters to which the American public can send money to aid the disaster victims.

The total amount of supplies collected through this unstructured response is not known but it was in excess of 600,000 pounds. FDRC estimates the value of this at \$1.00 per pound\$600,000

Total Assistance by Voluntary Agencies and the Private Sector\$8,431,977

ASSISTANCE BY THE INTERNATIONAL COMMUNITY:

In addition to the United States, 68 countries and 9 international organizations participated in Nicaraguan relief activities. Donor nations made their contributions bilaterally or through relief agencies or both. The total reported value of this assistance was in excess of \$14.3 Million.

ORGANIZATIONS:

Organization of American States

On December 23, the Inter-American Emergency Aid Fund (FONDEM) sent requests for assistance to all member states and asked the OAS office in Geneva to request contributions from the European countries. On December 24, the Permanent Council, at a special meeting, appropriated money from the Working Capital Fund of the OAS Program Budget in addition to money being made available to FONDEM. Mr. Carr L. Donald, Coordinator of FONDEM, and Mr. José Tijerino, Deputy Director, Department of Social and Institutional Development, went to Nicaragua on December 24 and maintained contact with GON relief officials. In response to FONDEM's request, food, medicines, medical equipment, personnel, clothing and other supplies were sent to Nicaragua by OAS member states. Other countries such as France, Spain and Switzerland also replied to the OAS appeal by sending emergency supplies. These contributions

are included below under the individual countries.

In his capacity as Chairman of the Inter-American Emergency Committee, the Secretary General of the OAS, Mr. Galo Plaza, visited Managua on January 4 and 5, accompanied by the Executive Secretary of the Committee, the President of the Inter-American Development Bank, and the Director for Central America and the Caribbean of the International Bank for Reconstruction and Development. Following a briefing the morning of January 4 at the airport by General Anastasio Somoza, the mission proceeded to inspect the stricken city and other towns. A series of meetings were later held with General Somoza and various other officials of the Government responsible for economic and financial matters. The visit afforded the occasion for the President of the Inter-American Development Bank to sign a \$12 million loan agreement with Nicaragua for the purpose of financing water supply and sewerage for Masaya and other cities.

The Secretary General of the OAS signed a technical assistance agreement with General Somoza in the field of housing development, employment and vocational training. OAS contributions consisted of \$250,000 from the Working Capital Fund and \$158,000 from FONDEM for a total of \$408,000

Inter-American Foundation

The Inter-American Foundation made a cash grant for the purpose of reactivating small industries and establishing a Center for Training, Technical Assistance and Marketing under a 2-year program, in the amount of \$500,000

United Nations

An allocation of \$20,000 was immediately made by the United Nations Disaster Relief Coordinator from the Secretary General's Working Capital Fund and used in part to purchase 30 large tents specifically requested by the Nicaraguan Government to provide office space. Air transport of this consignment was obtained free of charge.

A Resolution (1733/LIV) calling for increased assistance to Nicaragua from UN member states and the international agencies and institutions was adopted by the UN Economic and Social Council on January 8, 1973. In addition, the Economic Commission for Latin America (ECLA) held an extraordinary session on the Nicaragua disaster on January 16-17, 1973.

The UN Secretary General launched an appeal for contributions to a special fund for Nicaragua on January 26, 1973. The appeal emphasized the need for emergency assistance in the priority areas of food stuffs, temporary housing and medical supplies.

On recommendation of the UNDRO representative, first priority was given to the urgent dispatch of food supplies. The World Food Program rapidly made an emergency transfer of 405 tons of food to feed 50,000 persons for one month. The World Health Organization dispatched an epidemic prevention team, including five physicians and two sanitary engineers. Within 48 hours after the disaster, UNESCO sent a seismologist from Mexico City with the equipment to measure continuing earth tremors and to advise the GON. UNICEF made emergency purchases of medical supplies and provided other assistance valued at \$150,000.

The United Nations Disaster Relief Coordinator, Faruk Berkol, visited Managua for on-the-scene conferences with GON officials to determine emergency requirements and what the participation of the UN would be in plans for rehabilitation and reconstruction. The UN Development Program has allocated for reconstruction \$1.5 Million.

All through the emergency relief operation, the UN Disaster Relief Office maintained close contact with the League of Red Cross Societies to ensure full coordination between the measures being taken through both organizations. The UNDRC was also called upon to advise potential donor governments on the immediate relief requirements. Total assistance by the UN and its agencies, not including WFP food transfers, was valued at over \$1,670,000

League of Red Cross Societies (LICROSS)

LICROSS launched an appeal to national societies on December 24 and sent delegates to Nicaragua to give direct assistance to the Nicaragua Red Cross Society. The Red Cross radio hams in neighboring countries picked up information from Managua and reported to the League. At the request of the League, the International Committee of the Red Cross sent out a radio operator with the necessary equipment to establish direct liaison between the Red Cross relief operation in Nicaragua and Geneva. The Presidents of the Red Cross Societies of Central America and Panama met in San Salvador with the President of the Nicaragua Red Cross and the League Delegates to coordinate and plan the Red Cross relief operations. Also the heads of the National Societies of Colombia, Guatemala, El Salvador and Panama made personal visits to Nicaragua to assess the scale of the disaster.

Red Cross medical teams from Cuba, Mexico, Costa Rica, Honduras, El Salvador, Guatemala and the United States cared for the injured and sick in three medical centers in Managua, at a field hospital brought in by Cuba and at a maternity unit set up by the American and Honduras Societies. The Panama Red Cross provided 3 radio communications teams who settled in at the airport, in the Red Cross offices and in the El Retiro hospital, thus assuring coordination within the local radius and providing extensive information at the international level.

LICROSS delegates participated in daily meetings of the National Emergency Committee convened by General Somoza. At these meetings information was given on all the activities carried out, and the necessary measures for the following day were adopted. All gifts sent by National Societies to the Nicaragua Red Cross were received at the airport by Red Cross representatives and taken to the general warehouse. The Government controlled distribution of all foodstuffs and medicaments, but the Red Cross could withdraw all items not coming

within these two categories as they deemed necessary. Red Cross representatives assisted in the distribution of water and food in some 48 centers established around the capital.

The League and individual Red Cross Societies are now assisting the Nicaragua Red Cross in rebuilding its headquarters, which was destroyed, and in establishing a Blood Center. The value of contributions by Red Cross Societies is included below under the individual country. In addition, LICROSS sent money to the American National Red Cross for the purpose of buying supplies and equipment for the Nicaragua Red Cross in the amount of \$185,673

AMURT (Amanda Marga Universal Relief Team)

AMURT is a voluntary organization which originated in India and came to Nicaragua immediately after the earthquake. They distributed clothes, medicines, improved seed, fertilizer and agricultural implements. Value of this assistance was not reported. In addition they are undertaking the building of 75 houses (costing \$600 each) in the Department of Carazo \$45,000*

Caritas, Internationalis

Caritas, Internationalis (Rome) and 9 European Caritas organizations made cash grants totaling \$226,324 and provided medicines, 400 tents and 5 tons of blankets. No value was reported for these supplies. FDRC estimates the value to be about \$60,000 for a total contribution of \$286,324

Lutheran World Federation

Cash grant \$23,722

World Council of Churches

Assists with CEPAD projects through cash donations made through Church World Service. Donations to date \$261,000
International Confederation of Free Trade Unions \$1,136
Total \$3,380,855

DONOR COUNTRIES:

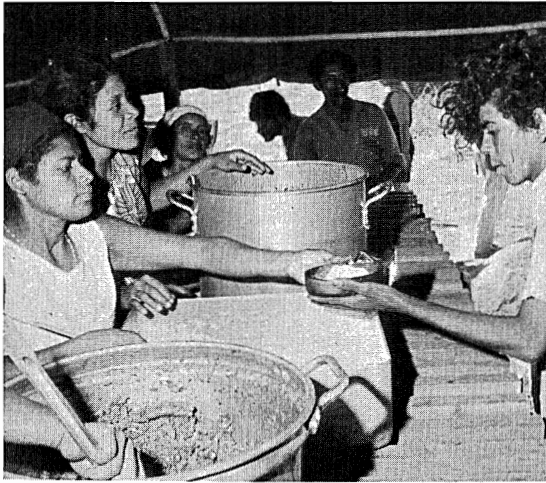
The participating organizations and the Government contributions have been combined to show the total assistance (according to available reports) provided by each country.

<i>Argentina</i> Government and Red Cross—Provided medicaments, rice, sugar, tea, oats, beans and other foodstuffs valued at \$359,622 and 25 tons of antibiotics and food for which no value was given	\$ 359,622*
<i>Australia</i> Government and Red Cross—Cash grants	39,800
<i>Austria</i> Red Cross and Junior Red Cross—cash grants and 40 school boxes and 30 comfort kits	42,208
<i>Bahrain</i> Red Cross—cash grant	567
<i>Barbados</i> Government—cash grant (\$1,500) and 3,000 capsules of antibiotics for which no value was given	1,500*
<i>Belgium</i> Red Cross and Solidarite Liberale—Blankets, plasma, 15 tons of rice, 15 tons of beans, 12 tents, kitchen material, clothing and other foodstuffs & \$39,000 cash in response UN appeal	93,107
<i>Bolivia</i> Government and Red Cross—21 cases of medicaments, rice, sugar, blood plasma	9,675
<i>Brazil</i> Government and Red Cross—1,200 tons medical supplies, clothing, food, six trucks, 15 cases antibiotics, 47,000 doses of water purification tablets, additional clothing, food and medicaments and 100 scholarships	483,754*
Value of the scholarships was not reported.	
<i>Canada</i> Government and Red Cross—cash grants, clothing, layettes, dried soup mix, other relief supplies, cash grant from British Colombia and 1,300 metric tons of nonfat dry milk	1,698,807
In addition the Canadian Government made a 50-year \$7 million loan.	
<i>Chile</i> Government and Red Cross—Canned food, medicines, camp beds, clothing, antibiotics, analgesics, dry-frozen plasma, vaccines, bed linen, 3 large tents, clothing	11,163
<i>China (Peoples Republic)</i> Red Cross—Cash grant, medicaments, canned food, clothing	533,124
<i>China (Taiwan)</i> Government & Private Donations—Cash	256,000
<i>Colombia</i> Government and Red Cross—The Government sent food, clothing, kitchen utensils, tents, vehicles, electric power plants, tools, other supplies (254 tons airlifted). It maintained a first aid station for 1,000 families and a refugee camp providing shelter, food, and medical services for 50 families. It constructed 100 houses and offered 300 scholarships. Value of this assistance was not reported. The Colombia Red Cross provided food, medicines, dressings, household utensils, clothing, fuel and lubricants, prefabricated relief posts and the services of 2 relief directors, 2 doctors, 1 nurse and 7 volunteers and their assistance was valued at	108,552*
<i>Costa Rica</i> Red Cross—2 doctors, 26 first aiders, relief supplies for which costs were not reported. FDRC estimates value at	15,000
<i>Cuba</i> Government and Red Cross—11 plane loads carrying relief supplies, including food, 20 medical personnel, a 60-bed field hospital. Value was not reported and FDRC unable to estimate	*
<i>Denmark</i> Red Cross—Cash grant and medicaments	33,926
<i>Dominican Republic</i> Government—7 tons of food, medicines, clothing, blankets by air and 600 tons by sea	12,000
<i>Ecuador</i> Red Cross—Cash grant (\$22,870) and relief supplies—kind and quantity, value not reported	22,870*

<i>El Salvador</i> Government and Red Cross—Cash grants, food, clothing, toilet articles, surgical material, medicaments, tents, lamps, one truck, blankets and linen	119,060
<i>Finland</i> Red Cross—200 bottles human albumin with transfusion sets, 40,000 caps tetracycline, 1,000 blankets, 60 first aid kits	14,279
<i>France</i> Government and Red Cross—Cash grant, medicines, Penicillin G, food, 50-bed hospital, 1 operating theatre, 36 personnel including surgical and general medicine teams	277,019
<i>Germany (FRG)</i> Red Cross—Cash grant, 1,000 tents, 7,500 blankets, 20 tons children's food, 1,475 water containers, 350 igloos for shelters, 80 tons of insecticide	610,000
<i>Greece</i> Red Cross—cash grant	3,736
<i>Guatemala</i> Government, Red Cross, Public Donations—6 doctors, first aiders, vaccination experts, 30 social workers, 1,050 tons food, clothing, medicines, medical, surgical and field equipment, 480 blankets, 1 VW jeep for which value was not reported. However, an appeal to the people of Guatemala raised funds totaling	101,000*
<i>Guyana</i> —Private Donations—Cash	1,000
<i>Haiti</i> Red Cross—30 cartons medicaments, 200 iron beds, kitchen utensils and pottery	7,136
<i>Honduras</i> Government, Red Cross and Caritas—Food, medicines, doctors, nurses, air transport and coordinating personnel	600,000
<i>Iceland</i> Government and Red Cross—Cash grants	10,410
<i>Iran</i> Red Cross—Cash grant	11,861
<i>Ireland</i> Red Cross—Cash grant	20,866
<i>Italy</i> Government and Red Cross—Antityphoid vaccine, blood plasma, gamma-globulin, medicines, antibiotics, vitamins, milkpowder, canned meat and fish, other foodstuffs	167,508
<i>Jamaica</i> Government, Red Cross and Council of Churches—Antibiotics, food, bed sheets, cash grants	14,000
<i>Japan</i> Government and Red Cross—Cash grant, 42,000 chloromycetin tablets, 14,000 ampoules antibiotics, 33 portable electric generators, blankets, 1,944 tons of food plus transportation	606,000
<i>Khmer Republic</i> Red Cross—Cash	54
<i>Korea Republic</i> Red Cross—Medicaments	1,186
<i>Lebanon</i> Red Cross—Cash	168
<i>Lesotho</i> Red Cross—Cash	119
<i>Liechtenstein</i> Red Cross—Cash	3,165
<i>Luxemburg</i> Red Cross—Cash grants	5,047
<i>Mexico</i> Government and Red Cross—6 doctors, 44 first aiders, water, food, medicaments	352,084
<i>Monaco</i> Red Cross—Cash grants	3,618
<i>Netherlands</i> Government and Red Cross—3 cases disaster kits, 1,500 blankets, 8,394 cartons babyfood, 10 tons flour and cash grants	51,000
<i>Netherlands Antilles</i> Public Response and Catholic Church—cash grants	65,000
<i>New Zealand</i> Government and Red Cross—Cash grants	82,198
<i>Norway</i> Government and Red Cross—Cash grants, 1 truck and 1 landrover with relief supplies	160,045

<i>Oman</i> —Cash	5,000
<i>Panama</i> Government and Red Cross—Cash, clothing, food, medicines, 3 radio teams, air transport of 90 tons of supplies and 50 persons including doctors and nurses, 60 pints of blood	276,000
<i>Paraguay</i> Government and Private Donations—Cash grants, medical supplies, clothing, food	43,300
<i>Peru</i> Red Cross—Plasma, medicaments, food, 4 first aiders, 2 radio operators, other relief supplies, cash	140,722
<i>Libya</i> —Blankets and medicines	100,000
<i>Philippines</i> Red Cross—Cash	1,727
<i>Portugal</i> Government and Red Cross—7 cartons antibiotics, 10,250 kg emergency medicaments, blood plasma, anticholera vaccine, antitetanus serum, foodstuffs, value not reported	*
<i>Rumania</i> Red Cross—1,495 kgs medicaments, clothing	37,460
<i>South Africa</i> Red Cross—Cash grant	454
<i>Spain</i> Red Cross & Caritas—Food, medicaments, shoes, clothing, plasma, powdered milk, blankets, sheets, dressings	1,236,359
<i>Sri Lanka (Ceylon)</i> Government—200 blankets	600
<i>Surinam</i> Red Cross—Cash	7,500
<i>Sweden</i> Red Cross—Cash grants	26,090
<i>Switzerland</i> Government and Red Cross—30 tons powdered milk, 5,500 blankets, cash grant	97,125
<i>Trinidad/Tobago</i> Government, Red Cross and Medical Association—Food, clothing, cash	7,800
<i>Thailand</i> Red Cross—Cash grants	536
<i>Turkey</i> Red Cross—Cash	12,114
<i>United Kingdom</i> Government, Red Cross, Christian Aid, OXFAM, Save the Children Fund, War on Want, Rotary International and Public Response. Blood plasma and giving sets, camp beds, charter air costs, walkie talkie radios, water storage tanks, cash grants, disaster kits, blankets, food beverage, gauze, ambulances, marquees, drugs, field kitchens, generators, multi-vitamins, vitamin syrup, drugs, survival kits and assistance in rehabilitation projects	\$ 1,083,911
<i>Uruguay</i> Red Cross—Medical supplies, 6 doctors, 1 nurse, 1 technician and clothing	13,000
<i>USSR</i> Red Cross—Food and medicaments	43,439
<i>Venezuela</i> Government, Red Cross, Private Donations—Household equipment, tents, tools, first aid equipment, assortment of relief supplies, air freight and other transportation costs. Also sent a team to plan and design Managua telephone system	775,000
<i>Vietnam Republic</i> —Cash grant	1,186
<i>Yugoslavia</i> Red Cross—Antibiotics, blankets, food	9,772
<i>Miscellaneous Contributions</i>	894
Total Assistance Donor Nations	\$10,929,223
Total Assistance by International Community	\$14,310,078

* Value not reported or incomplete. Note: LICROSS provided values for donations by Red Cross Societies in Swiss Francs. Conversion to above dollar values was made at the rate of 3.170.

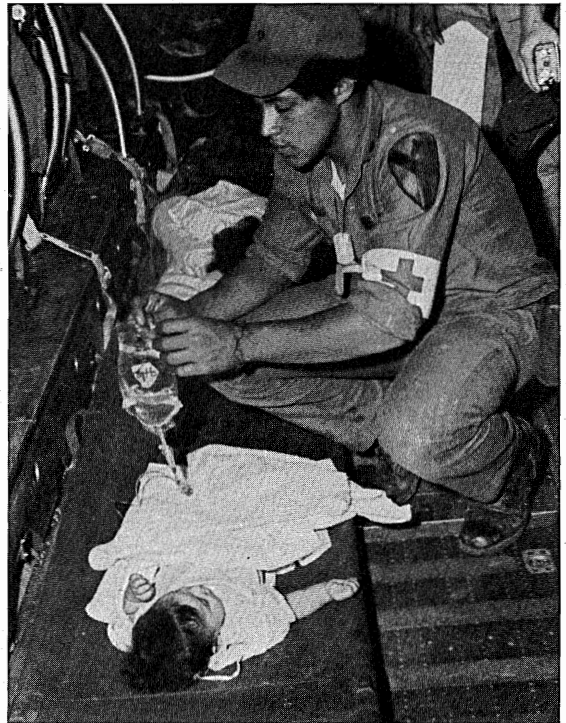


Hot meals served at the relocation center.



Disaster victims waiting patiently for relief supplies to be distributed.

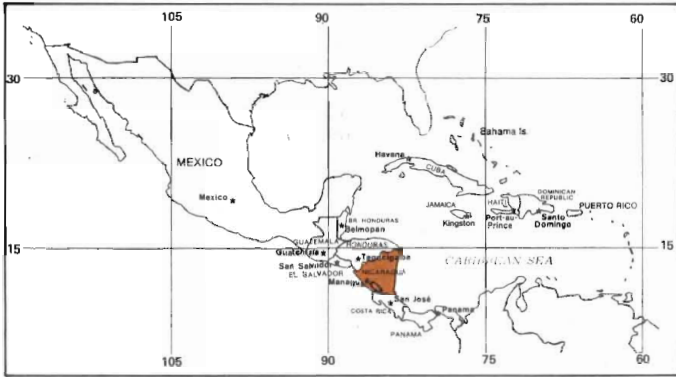
Photo by C.A.R.E.



A U.S. Army medic treats an injured young victim.



U.S. Air Force medics carry an injured patient from a U.S. helicopter to a waiting C-130 Hercules aircraft at Managua's airport for treatment in the Canal Zone.



NICARAGUA