

### COLOMBIA - Earthquake

Date: March 31, 1983 (FY 83)

Location: The town of Popayan in the department of Cauca

No. Dead: 250

No. Injured: 1,000 - 1,500 reported

No. Affected: 30,000 left homeless in Popayan; about 5,000 in the surrounding area; total population of affected area over 140,000

Damage: Popayan suffered 80% damage; 1,030 homes were destroyed in surrounding villages; estimates for Popayan and environs:

service infrastructure	US \$ 12.3 million
land use activities	283.5 million
social and community services	95.6 million
roads/transportation	4.5 million
rural sector	15.0 million
TOTAL	US \$ 410.9 million

#### The Disaster

On March 31, 1983, at 8:14 a.m., an earthquake registering 5.5 on the Richter scale struck a 40 sq. km area in the department of Cauca, 300 km southwest of Bogota.

Popayan, a cultural and historic center and the departmental capital, was 80-85% destroyed. Schools, hospitals, churches, public buildings, and approximately 9,000 private dwellings were destroyed or badly damaged. The older historic neighborhoods and poorer sections suffered considerable damage, as did numerous housing units which were built in the last 30 years but not engineered to seismic standards. The shocks put the power plant and two of the three water plants temporarily out of service. Although potable water supplies, electrical power, and sanitation were seriously disrupted, 30% of the electricity and 20% of the water supply had been restored by April 6.

In the outlying districts damage was extensive, especially in the village of Cabillal, which was totally devastated. Among other villages hit were Cajibío, Cajete, Julumito, Zaryal, and Tocajibío. About 2,000-2,500 families from the surrounding area moved into Popayan looking for shelter and relief supplies. Cold nights, with temperatures as low as 6°C, and heavy rains further aggravated the situation of the homeless.

Communication to Popayan and surrounding villages was cut off, except for radio. The airport continued to function during daylight hours although runways were partially destroyed and the control tower was inoperative. A shortage of jet fuel and small aircraft severely inhibited delivery of relief supplies initially. Roads to Cali and Bogota remained serviceable, however.

#### Action Taken by the Government of Colombia (GOC) and Non-Governmental Organizations

On the day of the earthquake, President Betancur visited Popayan to survey the damage and confer with the Minister of Defense and the commanders of the Army and National Police. Colombian authorities mobilized quickly and diverted airplanes to transport supplies: medicine and plasma were brought in from Cali; two field hospitals were moved to Popayan from Cali and Neiva; sheets, blankets, medical supplies, and a generator were airlifted from Bogota. Small aircraft evacuated a few of the most seriously injured victims, and the homeless moved to open areas. The military assumed responsibility for the relief effort, heading the GOC on-site coordinating group; they placed the city under martial law and imposed a curfew to prevent looting.

The Colombian Red Cross (CRC) and the Minister of Health met with U.S. embassy officials and requested tents and some medical supplies. Their major concern was to provide shelter for the homeless as soon as possible. The CRC set up seven emergency housing and food distribution centers in Popayan, and the armed forces established thirteen camps around the city for the homeless.

The GOC acted quickly to assess the damage and provide emergency relief. Municipal and departmental emergency committees met daily, attended by the city mayor, departmental governor, military authorities, CRC, and the Archbishop of Popayan. Although there were press reports of mismanagement and diversion of relief supplies during the days immediately following the earthquake, the GOC issued a strong denial; and the CRC, the American Embassy, and UNDRO all concurred that the rumors were unfounded.

A nationwide outpouring of assistance brought in medicine and food for the victims. The CRC collected US \$54,000 in Bogota alone, and many communities donated their church collections. An Emergency Committee of Architects and Engineers formed to plan for the shelter needs of the homeless. Avianca, the national airline, worked closely with relief agencies to deliver supplies.

The President made a formal request to the Secretary General of the U.N. for international assistance on April 6.

SENA, the Colombian National Learning Institute, supported and participated in a U.S.-funded project to upgrade building techniques and prepare and disseminate educational materials on earthquake-resistant construction. It contributed \$13,000 for staff salaries, in-country transportation of consultants, organizational costs, and construction materials (see Assistance Provided by the United States Government).

#### Assistance Provided by the United States Government (USG)

U.S. Embassy and military personnel flew to Popayan the afternoon of March 31 to assess the situation and confer with Colombian authorities. At the same time, the U.S. Ambassador, Thomas D. Boyatt, and the Mission Disaster Relief Officer met with the Colombian Minister of Health and the head of the CRC, who made a preliminary request for tents and medical supplies. On the same day, the Ambassador determined that a serious disaster existed. Exercising his disaster assistance authority, he contributed \$25,000 for the local purchase of relief supplies. The Office of U.S. Foreign Disaster Assistance (OFDA) arranged the immediate airlift of 1,000 tents and flies, 175 rolls of plastic sheeting, two floodlight sets provided on a loan basis, 12 fuel cans, and medical supplies from the OFDA stockpiles in Panama to Popayan and Cali, about 160 km from Popayan. Two military personnel were provided to assist in setting up the tents. A week later, in response to a GOC request for more supplies, 500 tents and flies and 45 rolls of plastic sheeting were airlifted directly to Popayan.

On April 7, an OFDA senior operations officer visited the disaster site to assist with assessment and relief activities. It was determined that shelter remained a priority, and instructional manuals and three emergency housing construction consultants were dispatched to assist in the use of the plastic sheeting for temporary shelter.

As engineers continued to conduct housing assessments, they identified a need for improvement of local construction skills and techniques so that structures could be rebuilt or repaired to withstand future earthquakes. With this goal in mind, SENA began a "Self-Help Reconstruction Project" which organized low-income earthquake victims into modules of 15 families each and trained them in earthquake-resistant designs. OFDA funded Intertect, a company specializing in earthquake-resistant shelter, to work with SENA on this project and design and conduct a program to introduce appropriate technology in housing repair. The proposed goal was to reach 1,500 families in 100 communities, reconstruct 1,500 homes, and train 1,500 apprentices in construction. Among Intertect's accomplishments was the development of written and pictorial training materials, including an instructor's manual; construction demonstrations for four

model houses; and courses in earthquake-resistant construction technology attended by SENA instructors (who also taught subsequent courses) and representatives from the building industry and financial institutions.

OFDA also funded a joint project with Catholic Relief Services (CRS) to provide emergency assistance to the rural poor in the Popayan area, specifically 200 families in the Puelenje Zone, a farming community southwest of Popayan. The grant provided materials and technical supervision for repairing housing or improving temporary shelter; subsidized loans were available to each family for purchase of materials.

Summary of USG Assistance

Ambassador's disaster relief authority used to purchase local relief supplies (amount utilized of original \$25,000 obligation).....	\$22,238
Reimbursement to DOD for airlift of OFDA stockpile supplies to Colombia (\$164,102); purchase of medical supplies from DOD (\$3,710); TDY for two military instructors (\$688).....	\$168,500
Replacement of OFDA stockpile supplies to Panama (220 rolls of plastic sheeting and 1,500 tents and flies), including ocean freight.....	\$748,284
Travel expenses for OFDA senior operations officer.....	\$1,703
TDY for three emergency shelter consultants.....	\$11,497
OFDA construction manuals for emergency shelters.....	\$68
20 wheelchairs requested by CRC.....	\$4,344
Grant to CRS.....	\$56,733
Intertect/SENA project.....	\$58,175
	TOTAL
	\$1,071,542

Assistance Provided by U.S. Voluntary Agencies and Other Non-Governmental Agencies

American Red Cross - provided a cash grant of \$10,000.

Catholic Relief Services (CRS) - contributed \$68,000 to joint OFDA/CRS project to provide housing materials and technical supervision; donated \$10,000 for food, shelter materials, and medicine.

Save the Children Federation (SCF) - donated building materials, value not reported, and food and medical supplies valued at \$18,000.

World Vision - contributed \$100,000 for housing, food, and transport.

TOTAL \$206,000

### Assistance Provided by the International Community

#### International Organizations

European Economic Community (EEC) - contributed \$184,000 to the German Red Cross (F.R.) for tents, equipment for food centers, and local purchase of food.

League of Red Cross Societies (LORCS) - gave ten 2 KW generators, valued at \$10,000.

United Nations Development Program (UNDP) - contributed \$60,000 in cash.

United Nations Disaster Relief Coordinator (UNDRO) - launched an international appeal for assistance and sent an official to Bogota to coordinate an emergency relief operation; donated \$20,000 for the local purchase of building materials.

UNESCO - provided the services of two seismologists, value not reported.

UNICEF - donated \$100,000 for the reconstruction of Popayan.

#### Governments

Argentina - gave 500 mattresses, 200 blankets, and medicine; value not reported.

Australia - contributed \$17,391 through UNDRO.

Brazil - sent 15 MT of food, valued at \$11,160.

Canada - airlifted 500 family-size tents to CRC, valued at \$175,000.

Chile - sent 50 tents and 500 blankets; value not reported.

Cuba - donated canned food and dry milk; value not reported.

Ecuador - donated 60 tents to CRC, value not reported; sent 240 bottles of plasma, 300 blankets, and clothing; all valued at \$3,150.

Finland - gave a cash grant of \$138,880 for reconstruction of a health center.

France - gave a cash grant of \$27,585 to CRC.

Honduras - donated medicine, value not reported.

Italy - sent 175 tents, 250 blankets, and 10 MT of milk valued at \$277,778; contributed \$347,225 through UNDRO.

Japan - contributed \$400,000 in cash.

Mexico - sent two airshipments of blankets, food, and housing structures, and a medical team of 25 persons; value not reported.

Netherlands - sent 300 tents, value \$75,926.

Norway - cash grant of \$27,778 to Adopjonsforum (Norwegian NGO) for relief work in orphanages.

Panama - gave five generators, value not reported.

Peru - gave medicine, value not reported.

Spain - donated 14 generators, 30 family tents, 30,000 doses of vaccines; valued at \$100,000.

United Kingdom - gave 300,000 water purification tablets to CRC, lanterns, and generators valued at \$51,095.

Venezuela - donated medicine and medical supplies; value not reported.

#### Voluntary Agencies

Brazil Red Cross - provided 25 kilos of water purification tablets, value not reported.

Canada Red Cross - contributed \$8,130 in cash.

China (P.R.) Red Cross - contributed \$40,000 in cash.

Denmark Red Cross - contributed \$5,814 in cash to CRC.

Finland Red Cross - donated \$4,800 in cash.

Germany (F.R.) Caritas and German Diakonisches Werk - gave a cash grant of \$83,333 to CRC.

Germany (F.R.) Red Cross - provided tents, dry milk, and communal cooking equipment; valued at \$300,000.

Guatemala Red Cross - gave 10 generators, value not reported.

Japan Red Cross - contributed \$4,800 through LORCS.

Norway Red Cross - donated \$13,880 in cash.

Sweden Red Cross - gave 4,000 blankets, value not reported,  
and a cash grant of \$13,330.

TOTAL      \$2,487,175