



DISASTER CASE REPORT

Agency for
International
Development

Washington D.C.
20523

MADAGASCAR - Cyclone

Date: March 14-15, 1986

Location: Central east coast, especially the port city of Toamasina (Tamatave)

No. Dead: 99

No. Affected: 83,885 homeless (GDRM estimates)

Damage: Severe damage to the Toamasina port jetty, platform, and warehouses and to homes, public buildings (schools, health centers), and industrial installations; roads and railroad lines cut; communications disrupted; crops and food stocks lost.

The Disaster

Cyclone Honorinina was first detected as a tropical disturbance on March 9, some 600 km south of the Indian Ocean island of Diego Garcia. Moving in a westerly direction, the storm rapidly intensified, attaining a maximum wind speed of 280 km per hour on March 14 when it made violent landfall on the Malagasy east coast after devastating the island of Sainte Marie. The storm battered the coastal area for 30 hours, dumping 455.5 mm of rain on the country's main seaport city of Toamasina during a 24-hour period.

Damage was extensive along 800 km of the coast and up to 100 km inland as the storm followed a west-southwesterly course across the country. Toamasina, with a population of 120,000, was seriously affected, as were many smaller communities in the cyclone's destructive path. Fenerive-Est, Vavatenina, Ambatondrazaka, Brickaville, and Moramanga, all in the province of Toamasina, and Mananjary and Midongy du Sud in Fianarantsoa Province, were among the towns hardest hit.

The cyclone's strong winds flattened many traditional homes and poorly constructed buildings and ripped the roofs off thousands of others. Flying debris and falling trees caused further damage to walls and windows, and to telephone and electricity wires. The torrential rains

penetrated roofless buildings, damaging personal goods, inventories, and machinery. Numerous public and commercial establishments were forced to close for repairs or reconstruction in the storm's wake, including schools, churches, office buildings, health centers, hotels, and factories.

Roads were cut in several areas because of washouts, earthslides, or damaged bridges. Both road and rail connections between Toamasina and the capital city of Antananarivo were temporarily severed. The airport in Toamasina was closed to all but light aircraft because navigational aids were damaged.

In addition to the damage from wind and rain, large sea waves whipped up by the storm wreaked havoc in the Toamasina port area. A 50-meter section of the port jetty was torn off and engulfed by the tide, leaving the port vulnerable to future storm damage. Full containers were picked up and tossed into the sea or smashed against the metal doors of warehouses. Four 3-ton cranes broke away and rolled to the water's edge, and a coastal road was rendered impassable by the overflowing sea.

Damage to the port warehouses resulted in the loss of some 4,000 tons of rice and 990 tons of stored cloves and cotton. Rice fields and palm plantations were affected in some regions, adding to the economic losses. The World Bank estimated that it would cost over \$27 million to repair the highest priority commercial areas.

Action Taken by the Government of the Democratic Republic of Madagascar (GDRM) and Non-Governmental Organizations

The GDRM Minister of the Interior, chairman of the national relief organization, le Conseil National de Secours (CNS), met with the diplomatic corps and NGOs on March 20 to give a preliminary briefing and to appeal for disaster assistance.

The CNS followed its initial inspection of the stricken area with a careful survey to determine the extent of damages and rehabilitation/reconstruction needs. A detailed report of damages and specific requirements by administrative subdivision was published in April.

Between March 17 and April 9, the CNS delivered approximately 19 tons of relief supplies to Toamasina, Brickaville, Anosibe an Ala, Vavatenina, Sainte Marie, Fenerive-Est, and Ambatondrazaka. These items included milk powder, rice, soap, blankets, candles, matches, and articles of clothing.

Government grants to the affected regions and victims amounted to \$113,287 (\$59,687 to the regional committees and \$53,600 to the victims and their families).

Caritas Madagascar and the Malagasy Red Cross (MRC) conducted independent shelter surveys. Caritas distributed food and clothing provided by Catholic Relief Services. The local Red Cross Youth worked with the LRCS delegate to set up food distribution centers. Milk, rice, clothing,

blankets, and medicines were distributed in Toamasina and the most seriously affected villages. The MRC provided 30 sacks of rice and 750 kg of soap from its own stocks.

Other reported donations to the relief effort included the following:

- Societe Record Antananarivo gave 10 cartons of liquid soap and 50 cartons of candles, value not reported.
- Fifanampiana Malagasy provided 120 sacks of milk powder, value not reported.
- SOTEMA Mahajanga donated 678 kg of fabric, value not reported.
- SOTEMA Antananarivo contributed 378 kg of fabric, valued at \$3,556.
- Private groups and individuals gave a total of \$15,700 in cash. (as of April 16)

Assistance Provided by the United States Government

Having determined that the damage from Cyclone Honorinina was of a magnitude to constitute a major disaster, U.S. Ambassador Robert B. Keating announced on March 18 his intention to exercise his disaster assistance authority to contribute to the relief effort.

At the Ambassador's request, medical supplies were procured by USCINCPAC from military sources in the Philippines and transported to Madagascar on a previously scheduled flight. The plane stopped in Mauritius enroute to take on an additional quantity of medicines and other supplies - some purchased with funds from the Ambassador's Authority and others donated by the government of Mauritius.

The relief cargo, consisting of vaccines (typhoid, tetanus/diphtheria), medicines (chloroquine tablets, aspirin, penicillin), intravenous fluids, surgical and diagnostic supplies, oral rehydration salts, antiseptics, blankets, and tools (25 shovels, 25 saws, and two large tarpaulins), arrived in Antananarivo on March 20. Total cost of these items was \$21,308 (\$15,635 for those procured in the Philippines and \$5,673 for those purchased in Mauritius). The supplies were put aboard President Ratsiraka's plane the following day for transfer to Toamasina where they were presented to local authorities by the A.I.D. Representative and a CINCPAC physician. The cost of the charter flight was \$464. After inventory, the relief items were turned over to the LRCS delegate for distribution. A REDSO/ESA Food for Peace officer and a RHUDO/ESA representative, both resident

in Nairobi, joined the A.I.D. Representative and the CINCPAC physician in Toamasina on March 22 to conduct a damage and needs assessment.

At the Mission's request, OFDA sent a two-person contractor team to Madagascar in April to work with the Embassy/A.I.D. staffs to improve disaster response procedures. After visiting Toamasina and meeting with other donors, the team suggested possible additional USG activities in response to continuing needs resulting from Cyclone Honorinina. The costs associated with this assistance were covered from existing OFDA contracts.

With USAID authorization, CRS made P.L. 480 Title II food available from its regular program stocks in Toamasina. The 18.5 MT of rice and 7.5 MT of NFDM, donated on a non-replacement basis, were expected to feed 5,000 cyclone victims for a 15-day period.

A decision was made by USAID and RHUDO/ESA in June to close out all operations of the Kamisy housing unit project and transfer the remaining building materials to the Toamasina area for distribution to families whose homes had been damaged or destroyed by Cyclone Honorinina. The Kamisy project was initiated in 1984 as an AID/OFDA-supported housing rehabilitation and training program after Cyclone Kamisy devastated the Mahajanga and Antsiranana areas. (See MADAGASCAR-Cyclones, OFDA Annual Report, FY 1984.) An estimated 7,700 roofing sheets and 94 bags of cement remained in storage in Mahajanga, along with limited quantities of wood and assorted building tools. USAID Antananarivo and RHUDO/ESA agreed to sell the remaining building materials to Caritas, at the subsidized Kamisy price, for distribution in Fenerive. Under this program, which was expected to benefit 500-700 families, materials would be sold to those people able to pay and donated to the destitute. Proceeds from the sales, beyond Caritas' expenses for operating the program, would go into the GDRM disaster account.

TOTAL \$21,772

Assistance Provided by U.S. Voluntary Agencies

CRS - released 18.5 MT of rice and 7.5 MT of powdered milk from regular P.L. 480 program stocks for the emergency feeding of 5,000 cyclone victims for a 15-day period. (See USG Assistance.) Caritas Madagascar handled distribution.

Assistance Provided by the International Community

International Organizations

European Development Fund (FED) - gave \$490,196 for the purchase of food and blankets and the reconstruction of public buildings.

EC - provided 200 tons of cereals and 100 tons of powdered milk through the Association Aide au Tiers-Monde, as well as blankets and protein bars distributed by the Malagasy Red Cross; value not reported.

LRCS - on behalf of the Malagasy Red Cross, launched an international appeal for foodstuffs and cash. The LRCS delegate in Madagascar remained in Toamasina throughout the emergency phase, working with Malagasy Red Cross Youth to operate food distribution centers.

UNESCO - donated \$40,000.

UNICEF - provided medical supplies and roofing material valued at \$150,000.

World Bank - carried out an assessment mission and helped the GDRM coordinate the reconstruction effort. The IBRD planned to finance the rebuilding of the damaged port jetty.

WFP - supplied 10 tons of rice and 500 kg of canned meat, value not reported. The supplies were distributed through the local Red Cross.

Governments

Canada - donated \$43,176.

China, People's Rep. - gave 2,000 MT of cement, value not reported. The Chinese community in Antananarivo presented a cash gift totaling \$4,329 to the CNS.

France - contributed 2,350 tons of medicine, valued at about \$70,000; and 300 tons of rice and 16 tons of roofing sheets, with a total value of approximately \$147,000.

Germany, Fed. Rep. - donated \$21,459 for the purchase of pharmaceuticals.

Japan - gave \$100,000.

Mauritius - donated medical supplies consisting of 10,000 packets of oral rehydration salts, antibiotics, chloroquine tablets, needles, syringes, and other items; value not reported.

Soviet Union - contributed 5,000 tons of cement, 600 tons of iron sheeting, 100 tons of nails, and two trucks; value not reported.

Switzerland - provided \$1,970,954 for the rehabilitation of National Road 44 from Ambatondrazaka to the Centre Agricole Du Lac Alaotre.

United Kingdom - gave \$240,000 for the reconstruction of public buildings.

Vatican - gave \$20,000.

Voluntary Agencies

Australia Red Cross - gave \$1,414 through LRCS.

Canada Red Cross - donated \$1,439 through LRCS.

Council General of Reunion (under the aegis of the French Red Cross) - provided four tons of medicines, value not reported.

China, People's Rep., Red Cross - contributed medicines valued at \$20,000 to the Malagasy Red Cross.

Denmark Red Cross - donated \$5,946 through LRCS.

Finland Red Cross - gave \$9,524 through LRCS.

France Red Cross - provided food, medical supplies, and gas stoves and lamps; value not reported.

German Dem. Rep. Red Cross - donated medicines, value not reported.

Ireland Red Cross - contributed \$6,645 through LRCS.

New Zealand Red Cross - gave \$526 through LRCS.

Norway Red Cross - made a cash donation of \$15,228 through LRCS for the purchase of tarpaulins.

Soviet Union Red Cross - provided 100 tents, one ton of medicines, and one ton of baby food, value not reported.

Secours Populaire Francais (France) - donated \$2,850 for the purchase of relief supplies.

Sweden Red Cross - contributed \$13,514 through LRCS.

TOTAL \$3,374,200