Agency for International Development Washington D.C. 20523

## HAITI - Hurricane Allen

Date: August 5, 1980 (FY 80)

Location: Southwestern peninsula and Port-au-Prince area

No. Killed: 300 (estimate)

No. Affected: The population in the most seriously affected areas was 2.5 million; an estimated 330,000 were considered potentially at risk from food shortages.

Damage: Damage to agriculture was the most serious consequence, with heavy crop damage and animal mortality along the south coast and in the southwest peninsula; plantain, banana, corn, coffee, fruit, and cocoa crops all affected; local flooding and felled trees temporarily disrupted electric and telephone lines in Port-au-Prince; Jeremie hospital lost its roof; flooding of low areas between Les Cayes and Coter-de-Fer; Les Coteaux was 70% destroyed; Nan Sans Negre 20% damaged, especially by water; Pointe l'Abacon 50-70% damaged; Moulin totally destroyed; areas north and west of Les Cayes 10% damaged; Ile a Vache 30% damaged.

#### The Disaster

After slamming into St. Vincent and St. Lucia, Hurricane Allen approached Haiti on August 5, 1980, passing along its southern and western coasts. The closest approach of the eye was some 200 miles southwest of Les Cayes, a town on the southwestern coast. Hurricane force winds and storm surges caused severe damage along the coast, with gale force winds affecting all of the southern peninsula on the evening of the 5th. In comparison, rain damage was minor.

There were an estimated 300 deaths; however, very few serious injuries were reported. Port-au-Prince suffered many fallen trees, local flooding, and a temporary loss of electric power and telephone service. Coastal areas suffered wave and wind damage, and the hospital at Jeremie lost its roof. The coastal island of Ile a Vache, with a population of 7,000, was badly hit. The island's food supply was rapidly exhausted, with no means of resupply, and the entire water supply, from wells and cisterns, was contaminated by salt water.

The most serious consequence of the storm was undoubtedly to agriculture, both to peasant subsistence crops and to the country's commercial agricultural sector. Damage to plantains, a dietary staple, was considerable; the banana, coffee, cocoa, fruit, and corn crops were also seriously affected. The area affected by the hurricane had suffered from drought earlier in the year. Since grain stocks were already low, peasants were heavily dependent for their food on bananas and other current production. Consequently, the level of crop damage from the storm, which at other places or times might have been absorbed without great hardship, left the affected population seriously short of food. Coffee, a cash crop, was 20-35% destroyed, resulting in losses of foreign exchange, tax revenue, and incomes for peasant producers.

## Action Taken by the Government of Haiti (GOH)

The GOH began preparations on August 4, the day before Hurricane Allen struck, when warnings of the impending storm were broadcast by radio. Under the direction of President Duvalier, a disaster committee and an executive committee were formed. The executive committee was headed by representatives from the Ministry of Health and the Haitian Red Cross and included members from the Planning, Public Works, and Agriculture Ministries, the Army, PAHO, voluntary agencies, and USAID/Haiti. The Ministry of Public Works relocated equipment on high ground and positioned equipment to reopen roads as rapidly as possible following the storm.

On August 5, the GOH declared the southern area of Haiti a disaster area; on August 6, GOH ground survey teams began damage surveys. President Duvalier traveled by road to Les Cayes to make a personal inspection and subsequently requested USG assistance in the form of helicopters, water purification equipment, seeds, medicines, hand tools, and roofing. An appeal was also made to the international donor community in general for emergency assistance. The GOH provided two vans and drivers for full-time use by the Disaster Area Survey Team (DAST) sent by the United States government.

The Haitian Red Cross (HRC) played an active role in coordinating assistance and working with other voluntary agencies. The HRC distributed stocks of milk powder, butteroil, tents, hand tools, clothing, and blankets that had been donated earlier by the European Economic Community (EEC) and the Swiss Red Cross. The HRC appealed to the League of Red Cross Societies (LORCS) for support of 50,000 people (10,000 families) for one month. Needed were tents, blankets, clothing, powdered milk and

medicines as well as funds to cover the cost of locally purchased foods. In addition, the Ministry of Agriculture organized special brigades to distribute seeds to small farmers in the affected area to permit them to plant new crops as rapidly as possible.

Within two days of the hurricane, the director of SNEM (the anti-malaria agency) issued emergency instructions to forestall increases in malaria vectors and incidence in affected areas. These included: surveys of mosquito larvae populations in areas with standing water; application of larvicides to such areas two weeks after the storm; and accelerated mass distribution of anti-malarial drugs.

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

Ample warning of the approach of Hurricane Allen allowed the U.S. Mission to begin preparations in advance of the storm. On August 4, the day before Allen struck, an operations center was established and a meeting to discuss the food situation was held with voluntary agencies active in Haiti. On August 6, the U.S. Ambassador made a disaster determination and announced that the \$25,000 in discretionary emergency funds available to him would be used to provide immediate operating expenses for emergency food and relief supply distribution by voluntary organizations as well as for the local purchase of relief supplies. Through AID's Office of U.S. Foreign Disaster Assistance (OFDA), the Ambassador requested that the Department of Defense (DOD) dispatch an advance Disaster Area Survey Team (DAST) with two helicopters to begin aerial surveys of the affected area.

The first members of the DAST arrived in Port-au-Prince on August 7; by August 8, the team was fully operational and flying systematic survey sorties. With GOH permission, a photographic reconnaissance mission was flown on August 8. This greatly aided in the assessment of storm damage.

On August 9, the DAST reported a serious situation on Ile a Vache, an island with a population of approximately 7,000 off the coast from the town of Les Cayes. Food supplies on the island were rapidly being exhausted, and the wells and cisterns had been contaminated by salt water spray from the storm. To provide food and water supplies to the island, the USAID Mission requested the deployment of five additional helicopters, the provision of water purification units and 5-gallon water containers, and the loan of sump pumps to clear contaminated water from wells and cisterns. Three water purification units and support personnel arrived by C-141 air craft on August 12; the units were operational in Les Cayes on August 13. Food and water were ferried by helicopter from the Les Cayes staging area to Ile a Vache and other remote areas in the southern peninsula.

The sump pumps arrived on August 16. By the evening of August 17, the contaminated wells on Ile a Vache had been emptied and were filling with fresh water. Eight hundred, 5-gallon, collapsible water jugs were flown in from the AID stockpile in Panama on August 16.

At the height of the relief operations there were more than 80 U.S. military personnel providing disaster relief assistance in Haiti. Helicopter operations in support of relief efforts were terminated on August 19. In all, U.S. helicopters flew 552 sorties, involving 240 hours of flight time, carried 928 passengers, and transported 108,123 pounds of relief supplies plus 10,793 gallons of water. All DOD personnel had withdrawn from Haiti by August 21.

Since the expanses of standing water left by the hurricane provided a breeding ground for malarial mosquitos, on August 12, an entomologist from Haiti's anti-malaria office (SNEM) and a technical advisor flew over the entire affected region by helicopter to make an assessment. The GOH appeal to international donors for hurricane assistance had included a request for an anti-malarial drug (chloroquine). After reviewing the overflight report, the GOH made an official request to USAID for large supplies of the drug and a larvicidal dispersant (Triton X-100) to be used for spraying potential mosquito breeding sites. OFDA provided 2.5 million tablets of chloroquine on August 30 and an additional 2.15 million tablets on September 30. Two drums of the larvicide chemical were procured from the Dominican Republic with funds remaining in the Ambassador's authority.

With the departure of the DAST and the response to the potential malaria problem, the first phase of the hurricane relief effort was completed. The next tasks were to ensure adequate supplies of food for the stricken area and to assist with the replanting of damaged crops.

In the aftermath of the hurricane, approximately 1,000 MT of P.L. 480 Title II food commodities, already in Haiti for voluntary agency programs, were made available to disaster victims. In addition, the following commodities were shipped to Haiti on an emergency basis: 5,583 MT of bulgur; 3,035 MT of corn-soy milk (CSM); 499 MT of soy-fortified bulgur (SFB); 2,627 MT of soy-fortified corn meal (SFCM); 804 MT of vegoil; and 419 MT of wheat-soy blend (WSB); for a total of 12,967 MT. The number of recipients of these commodities was approximately 317,000.

To implement the distribution of these P.L. 480 commodities, through food-for-work projects, OFDA entered into an agreement with Catholic Relief Services (CRS). CRS oversaw the distribution of these commodities to the other voluntary agencies active in Haiti - CARE, Church World Service (CWS), and Seventh-day Adventist World Service (SAWS). Food-for-work was the only

reliable food source for a large part of the population in some places during the emergency period. According to a USAID Mission assessment, most work projects benefited the entire community, some providing the impetus for organized community development activities. In addition to their primary responsibility for the emergency feeding programs, the voluntary agencies agencies also provided complementary support to Haiti's agricultural development organization (DARNDR) in order to assure the maximum relief coverage possible in the disaster areas and to avoid overwhelming the Ministry of Agriculture's capacity to respond. The voluntary organizations were in a key position to make a contribution to the relief effort using their existing networks for the distribution of P.L. 480 relief commodities, tools, and seeds.

To assist with the replanting of crops, OFDA provided 130 MT of corn seed, 45.4 MT of sorghum seed, and 748 MT of vegetable and bean seed, most of which arrived in Haiti during September-October. Also provided from the U.S. were pesticides, hand tools, and 600 backpack sprayers. In addition, OFDA made allotments to the U.S. Mission for the purchase of pesticides and fertilizer in the Dominican Republic.

The program of agricultural assistance begun with OFDA funds was continued by AID using Economic Support Funds (ESF). A total of \$1 million was made available for 2,300 tons of fertilizer (\$580,000), additional handtools (\$300,000), and funds for the internal transport of fertilizer and foods (\$120,000). Only \$664,963 of the \$1. million was spent on the agricultural project. Of the unspent balance, \$75,000 was reprogrammed for an evaluation of disaster assistance, based on Hurricane Allen, and the studies of disaster preparedness programs for Haiti. The remainder was deobligated.

### Summary of USG Assistance

Ambassador's discretionary fund, used for support of voluntary agencies and local purchase of relief supplies\$25,000
Reimbursement of DOD costs for DAST, helicopter operations and water purification units\$252,405
Replacement costs for 800 plastic water jugs from the AID Panama stockpile\$1,092
Chloroquine tablets including transport costs\$56,886
Corn, sorghum, bean, and vegetable seeds including transport costs\$1,071,493
Backpack sprayers including air transport costs\$45,305

Pesticide (mesural), for use with corn seed, including air freight costs
Hand tools including transport costs\$19,806
Mission allotment for fertilizer\$141,600
Mission allotment for pesticide\$36,657
Mission allotment for hand tools\$17,150
Grant to CRS for food distribution and agricultural support program\$450,000
Total from International Disaster Assistance (IDA) funds\$2,122,407
A.I.D. Economic Support Funds (ESF) in continuation of agricultural support program and past disaster operations\$739,963
12,967 MT of P.L. 480 Title II commodities including transport costs (FY 81)
+ Total USG Assistance\$9,534,370

# Assistance Provided by U.S. Voluntary Agencies & Other Organizations

American National Red Cross (ANRC) - cash contribution through LORCS (\$25,000); 574 dozen T-shirts & shorts (\$13,920).

Assemblies of God - cash contribution of \$20,000 by the Foreign Service Committee

Baptist World Alliance - cash contribution of \$10,000 to the Baptist Convention of Haiti for a relief program in the South.

CARE - cooperated with other voluntary agencies and with the Haitian Red Cross in the distribution of P.L. 480 foods; purchased 500 cooking pots and 25,000 plastic bags for repacking rations (\$2,500).

Catholic Medical Mission Board - provided typhoid vaccine and water purification tablets valued at \$5,773.

Catholic Relief Services - administered a major A.I.D-funded emergency feeding and food-crop production program; administered an EEC relief contribution; contributed \$5,000 for transportation expenses.

Church World Service - cash contribution of \$5,000; 20,740 blankets valued at \$82,960 (transported by American Airlines).

Direct Relief Foundation - supplied 2,362 lbs. of pharmaceuticals and medical supplies valued at \$23,075.

Mennonite Central Committee - provided assistance with longterm rehabilitation, value not reported.

Seventh-day Adventist World Service (SAWS) - cash contribution, amount not reported

Southern Baptist Convention Foreign Mission Board - cash contribution of \$5,000 for food; construction team valued at \$5,000.

World Relief - cash contribution of \$10,000 through CEEH for food and housing reconstruction.

World Vision International - provided food and blankets valued at \$50,000.

American Airlines - provided free air transport of blankets donated by CWS, value not reported

Archer, Daniel, Midlands Corp. - provided 45,000 lbs. of food (half wheat-soy blend, half soy-wheat protein concentrate) plus transport, all valued at \$14,625

TOTAL

\$277,853

# Assistance Provided by the International Community \*

# United Nations and Other Intergovernmental Organizations

Arab Secretariat - cash contribution of \$1,214 through LORCS.

European Economic Community (EEC) - cash (\$152,000) and in kind (\$621,611) contributions through LORCS; cash contribution through CRS (\$427,000).

Food and Agricultural Organization (FAO) - donated \$30,000 in cash for agricultural inputs.

Organization of American States (OAS) - donated \$66,000 in cash for agricultural tools.

UNICEF - gave \$30,000 for blankets, cooking utensils, and babyfood.

United Nations Development Program (UNDP) - donated \$50,000 in cash for agricultural inputs.

United Nations Disaster Relief Office (UNDRO) - donated \$20,000 in cash for agricultural inputs.

World Food Program - provided 200 MT of cornflour, 15 MT of bulgur, 15 MT of milk powder, all valued at \$85,000

#### Governments

Australia - cash contribution of \$17,000 through UNDRO for agricultural inputs.

Canada - cash contribution of \$130,890 through LORCS; 7 MT of food valued at \$4,000. British Columbia Agricultural Aid Fund - donated \$6,355 in cash.

Colombia - gave 7 MT of foodstuffs valued at \$4,000.

Dominican Republic - donated 109 MT of foodstuffs, value not reported.

France - provided 4,000 MT of wheat valued at \$1 million.

Germany, F.R. - provided 150 tons of rice, 75 tons of beans, 11,000 gallons of vegoil, plus transport costs, all valued at \$563,800; in addition, an in kind contribution valued at \$327,852 was made through LORCS.

Japan - contributed agricultural materials valued at \$1,200,000.

Netherlands - cash contribution of \$225,000 for food and other relief supplies

Switzerland - provided 200 tents plus transport costs, all valued at \$67,633; an in kind contribution through LORCS was valued at \$107,162.

Taiwan - cash contribution of \$50,000.

United Kingdom - cash contribution of \$23,468.

#### Voluntary Agencies

League of Red Cross Societies (LORCS) - provided a liaison officer to the Haitian Red Cross plus an information delegate.

Australian Red Cross - cash contribution of \$1,126 through LORCS.

Belgian Red Cross - cash contribution of \$34,042 and in kind contributions of \$36,625 through LORCS.

Canadian Red Cross - cash contribution of \$21,966 through LORCS.

Columbian Red Cross - in kind contribution through LORCS, value not reported.

Danish Red Cross - cash contribution of \$3,618 through LORCS.

Dominican Republic Red Cross - provided 20,000 lbs. of food and clothing, value not reported.

Finnish Red Cross - cash contribution of \$12,077 through LORCS.

French Red Cross - provided 200 blankets valued at \$1,017; cash contribution of \$2,693 through LORCS.

Germany, F.R. Red Cross - in kind contribution valued at \$112,676 through LORCS.

Honduras Red Cross - cash contribution of \$90 through LORCS.

Individuals - cash contributions totaling \$84,594.

Israeli Red Cross - supplied medicaments and first aid kits, value not reported.

Luxembourg Red Cross - cash contribution of \$1,208 through LORCS.

Monacan Red Cross - cash contribution of \$1,211 through LORCS.

Netherlands Red Cross - cash contribution of \$12,781 through LORCS.

New Zealand Red Cross - cash contribution of \$984 through LORCS.

Norwegian Red Cross - cash contribution of \$10,292 through LORCS.

Suriname Red Cross - in kind contribution valued at \$1,820 through LORCS.

Swedish Red Cross - cash contribution of \$6,017 and in kind contributions of \$6,597 through LORCS; used clothing, shoes, first aid kits, blankets (\$69,795).

Switzerland Red Cross - 4,000 blankets (\$20,848) and 2 million halazone tablets for water purification.

United Kingdom Red Cross - cash contribution of \$23,704 through LORCS

TOTAL \$5,675,766

<sup>\*</sup> Please note: the figures for total U.S. voluntary agency and international assistance are an approximation. In many cases, the cash value of in kind aid is unavailable.