



NINTH REPORT  
FISCAL YEAR  
1969

**FOREIGN  
DISASTER  
EMERGENCY  
RELIEF**

AGENCY FOR INTERNATIONAL DEVELOPMENT



## CONTENTS

	<u>Page</u>
Analysis . . . . .	i-v
Quick Facts . . . . .	vi
Table of Expenditures . . . . .	vii
Individual Accounts of Disasters - Case Studies:	
Australia - Earthquake . . . . .	199
Australia - Bush Fires . . . . .	203
Bolivia - Hemorrhagic Fever . . . . .	93
Brazil - Floods . . . . .	95
Burma - Fire . . . . .	205
Chile - Drought . . . . .	99
Costa Rica - Volcano Eruption . . . . .	105
Dominican Republic - Drought . . . . .	115
Ecuador - Encephalitis Epidemic . . . . .	117
Gambia - Drought . . . . .	1
Ghana - Floods . . . . .	3
Haiti - Drought . . . . .	121
India - Floods . . . . .	133
Iran - Earthquake . . . . .	141
Jamaica - Drought . . . . .	123
Korea - Drought . . . . .	209
Laos - Floods . . . . .	211
Malagasy - Cyclone . . . . .	9
Malaysia - Civil Strife . . . . .	215
Malawi - Floods . . . . .	15
Mali - Drought . . . . .	17
Mali - Meningitis Epidemic . . . . .	19
Morocco - Fire . . . . .	23
Nepal - Floods . . . . .	181
Nicaragua - Floods . . . . .	125
Niger - Drought . . . . .	27
Nigeria - Civil Strife . . . . .	29
Pakistan - Floods . . . . .	185
Pakistan - Cyclone . . . . .	195
Peru - Drought . . . . .	131
Philippines - Earthquake . . . . .	221
Philippines - Typhoons . . . . .	227
Senegal - Drought . . . . .	85
South Africa - Train Disaster . . . . .	87
Upper Volta - Meningitis/Measles Epidemic . . . . .	89
Yugoslavia - Earthquake . . . . .	91

## NINTH REPORT - JULY 1, 1968 THROUGH JUNE 30, 1969

### FOREIGN DISASTER EMERGENCY RELIEF

The accounts and case studies herein cover the entire Fiscal Year. To a large extent, they reflect your suggestions--compilations and issuance once a year, retention of the descriptive format in as concise a manner as possible, and consolidating of statistics.

As you requested, it is an informative, technical presentation of foreign disasters to which the United States sent help--directly from the U. S. Government, including P. L. 480 food; from U. S. registered voluntary agencies; and from other U. S. channels. It contains data on what each country did for itself. It records available facts on what other people from other countries did to help disaster victims. In it you will find: stories about what can be done; ways in which relief efforts were improved; strengths and weaknesses in relief operations; and, in effect, a guide on what to do when disaster strikes. There is also a thread of encouragement to disaster relief personnel. Experience shows that even in the darkest moments there are many ways to help, and if one way fails there is always an alternative. It is heartening to note that there are so many kind and generous people who are willing to help others. It is sad to note that many gave their lives to save others.

### ANALYSIS ON FOREIGN DISASTERS IN FISCAL YEAR 1969

#### General

There were fewer disasters reported in this fiscal year than in any year since 1964--the year in which records first began to be kept on a regular basis. But the number of deaths, total number of victims and value of U. S. assistance amounted to almost \$115 million--far more than in any other year. This was due to the Nigeria/Biafra civil strife, number and magnitude of creeping type drought/famine disasters, and the destructive floods during the summer and fall in the Near East South Asia region.

#### Africa Region and Europe

With 12 disasters, the Africa Region had the most disasters in which U. S. assistance was given during Fiscal Year 1969.

The war-created famine in Nigeria/Biafra had the greatest impact on the world with its estimated one million starvation deaths and the need to prevent further loss of life by taking on long term feeding of approximately

4.5 million other victims. The case study covers the relief operations and problems from 1967 through June 30, 1969. An historical description of the causes that led to this civil war is included. This disaster still goes on with no end in sight. Political, military and logistical reasons make this a most complicated emergency relief program. Over 30 countries gave aid valued at \$160 million, of which \$77 million came from the United States.

During this fiscal year, drought-caused food shortages were reported in Gambia, Mali, Niger, Senegal, Botswana, Southern Rhodesia, South Africa, Swaziland and Somalia. Food assistance was requested from the U. S. by Gambia, Mali, Niger and Senegal and case studies for these four are included in this report.

Yugoslavia was the only country in Europe for which U. S. assistance was provided in Fiscal 1969. This consisted of a cash contribution from AID in US-owned dinars to rebuild one of the schools destroyed by an earthquake in the Macedonian mountains near the border with Albania.

### Latin America Region

Next in number of disasters was the Latin America Region with 10. The most dramatic of these was the Costa Rica volcano eruption, and the most deadly was the encephalitis epidemic in Ecuador where 400 children died. Latin America also suffered from drought-caused food shortages. U. S. aid was requested and given for drought victims in Chile, Dominican Republic, Haiti, Jamaica and Peru. The economic loss in the Chile drought disaster was considerable with a \$32 million input by the Chilean Government for drought recovery programs and relief aid. Other countries reporting drought conditions in Fiscal 1969 were Paraguay, Uruguay and Ecuador.

### Near East/South Asia Region

As a result of the July and October floods in India and Pakistan, this region had the most victims. In this region occurred the most terrifying of the natural disasters in Fiscal 1969—the Iran Earthquake which left over 10,000 dead, 4,050 injured and 75,000 homeless.

Of importance to scientists is the technical data on the earthquake in Iran, as well as good photographic coverage of the disaster scene.

By comparing the 1968 Iran Earthquake to the one in 1962, the value of disaster relief coordination both at the disaster scene and by AID/Washington was very evident. Although the two disasters were comparable as to the number of people killed and left homeless, AID expenditures from the contingency fund in 1962 was \$1,669,113 compared to \$482,172 in 1968.

### East Asia Region

In this region there were 8 disasters reported in which U. S. aid was given. The Korea drought was the largest with 2.8 million victims and a contribution by the USG of Food for Peace commodities valued at \$24.8 million.

The Philippines earthquake on August 2, 1968 received the most publicity. There were 559 victims, 326 of whom died when the Ruby Towers apartment building in Manila collapsed.

#### FIVE YEAR U. S. INPUT FOR FOREIGN DISASTERS

From Fiscal 1965 through 1969, the United States has assisted in 251 foreign disasters. The total value of that aid is \$326 million. This consisted of \$37.7 million from U. S. voluntary agencies and the remainder from the U. S. Government, mainly by the Agency for International Development. Breakdown of AID contributions is: \$15 million from the contingency fund; \$48.3 million from AID Project/Supporting Assistance Funds; \$8.3 million from use of US-owned local currencies; and P. L. 480 food valued at \$213 million. Other U. S. Government agencies include DOD (Army, Navy, Air Force), ESSA, U. S. Geological Survey, USPHS, who gave professional, technical and relief assistance not directly reimbursed by AID valued at \$3.6 million. Average annual U. S. assistance for foreign disasters is \$65 million.

#### CONTRIBUTIONS OTHER THAN THE UNITED STATES

Involvement of other nations and international organizations in foreign disasters is increasing. This is evident from AID/DRC records which show that their assistance jumped from \$3.6 million in 1965 to \$9.6 million in 1966, to \$16.5 million in 1968, to \$95.5 million in 1969. The 1967 contribution of \$173 million was the only year in which other nations exceeded that of the United States alone. This was due to the India Famine and Middle East Conflict. For Fiscal 1969, the \$95.5 million recorded for other nations and international organizations is almost entirely due to the Nigeria Civil Strife and the five destructive disasters in the Near East/South Asia Region.

#### SELF-HELP CONTRIBUTIONS

The extent of aid from outside is based on the ability of the affected country to provide for its own disaster victims through use of resources within the country. In less developed countries certain disaster supplies are not available or cost is prohibitive. The fact is that countries prefer to do as much as they can on their own. This is proven by the AID/DRC records. In 1968 self-help amounted to over \$607 million and in 1969 to more than \$130 million. The 1967 record of \$3 billion in self-help is largely due to the action taken by the Italian Government after the Florence Floods.

#### DISASTER PREPAREDNESS

##### Organizations and Programs

There is evidence that several new disaster organizations and disaster preparedness programs may have been formed by some countries as a result of recent disasters and by encouragement from AID. Disaster pre-planning

has been undertaken by Ghana, Nepal and Pakistan this year. Other countries which have reported progress along these lines are: India, Brazil, Chile, Trinidad, Curacao and Ecuador. Previous reports mentioned other country pre-disaster planning.

### United Nations

The General Assembly of the UN on December 19, 1968, adopted Resolution 2435 (XXIII), extended its disaster assistance authority for three more years. Under it the Secretary-General may continue to draw on the Working Capital Fund in the amount of \$100,000 per year with a ceiling of \$20,000 per country in the case of any one natural disaster. The United States urged the UN to extend disaster relief and preparedness. A new paragraph 8 provides that the UN can be of assistance to governments in connection with pre-disaster planning and disaster preparations.

During 1968 the UN provided tents for emergency housing following the earthquake in Iran; corrugated iron roofing for emergency housing in Costa Rica after the volcanic eruption; and in January 1969 roofing for emergency housing after floods in the Syrian Arab Republic.

### East Pakistan Pre-Disaster Planning

Extremely severe cyclones and floods strike Pakistan practically every year. The Government of Pakistan and USAID have been working together on disaster preparedness planning since 1960. This year, for the first time in history, a radar equipped meteorological station is now operating in East Pakistan. Its warnings go to the people via a systematic communication net worked out and put into use by the League of Red Cross Societies and the Swedish Welfare Service. Many others helped, including Rotary International, who sponsored sending Dr. Gordon Dunn, eminent meteorologist and AID/DRC consultant to East Pakistan to advise on use of this radar facility in storm forecasting.

As a contribution to understanding the cyclone/hurricane problem, the plight of the people, and how science and humanitarian relief are coordinated, a separate paper is being prepared for distribution this year from the AID/DRC office.

### League of Red Cross Societies

LICROSS is responding to the United Nations resolution on disaster preparedness by enlarging its staff in Geneva. It is offering advice and assistance on all aspects of disaster pre-planning. It is working on establishment of model "Relief Plans" for use by National Red Cross Societies and governments. In addition, teams of disaster technicians, training programs, and emergency communications facilities are being proposed.

### Protein Deficiency Aid

Cassava is a tuber-root widely eaten in Africa. When dried and ground it is called "gari" in Nigeria. It is 99% carbohydrate. One by-product of the efforts to get protein to Biafrans is research that proved the Cassava leaves edible and that green leaves contain 7% by weight of protein and dried leaves 40% protein. Changes in food customs are being urged to get people to eat the cassava leaves, as well as the roots.

### AID Participant Training

For the first time, AID is inviting five countries to send senior government officials to the United States to take part in a simulated disaster exercise. The purpose is to test government disaster plans, their reliability under extreme stress, and how to determine strengths and weaknesses. Interrelationships with voluntary agencies and emergent groups will be studied also. The whole exercise will be a step in specialization of emergency disaster relief operations.

Stephen R. Tripp  
Disaster Relief Coordinator

Agency for International Development

September 5, 1969

QUICK FACTS AND COMPARISONS	Fiscal Year 1969	Fiscal Year 1968
Number of reportable disasters . . . . .	36	55
Number of countries affected . . . . .	32	42
Disaster deaths . . . . .	1,018,534	4,103
Total reported disaster victims . . . . .	32,482,216	5,455,602
AID Expenditures for foreign disaster assistance from the Contingency Fund:		
Under the Ambassador's Authority . . . . .	234,000	363,000
AID/W approval . . . . .	4,213,000	994,000
Total from Contingency Fund . . . . .	<u>4,447,000</u>	<u>1,357,000</u>
Other AID funds:		
Project & Supporting Assistance . . . . .	24,479,000	6,081,000
US-owned local currency from PL 480 sales . . . . .	292,000	317,000
Total Other AID Funds . . . . .	<u>24,771,000</u>	<u>6,398,000</u>
TOTAL AID EXPENDITURES . . . . .	29,218,000	7,755,000
Public Law 480 Food for Peace used for disaster relief - value and ocean freight. Includes both that donated directly to governments and international organizations and diversions made by U. S. voluntary agencies . . . . .	73,352,000	21,663,000
Value of non-reimbursed assistance by other USG agencies such as the Military, Public Health, ESSA, Geological Survey & others . . . . .	<u>51,000</u>	<u>3,112,000</u>
TOTAL U. S. GOVERNMENT ASSISTANCE . . . . .	102,621,000	32,530,000
U. S. Voluntary Agencies assistance from their own resources & other private U. S. aid . . . . .	12,246,000	7,866,000
Value of reported assistance from Other Nations and International Organizations . . . . .	<u>95,495,000</u>	<u>16,504,000</u>
TOTAL VALUE WORLDWIDE AID . . . . .	210,362,000	56,900,000
VALUE OF REPORTED HOST COUNTRY SELF-HELP . . . . .	130,974,000	607,108,000

The table which follows gives statistical information by disaster, country, region and fiscal years.

JULY 1, 1968 TO JUNE 30, 1969 - REPORTED FOREIGN DISASTER STATISTICS AND EMERGENCY RELIEF EXPENDITURES  
AND LINE TOTALS FOR FISCAL YEARS 1965, 1966, 1967, 1968, PLUS 5-YEAR TOTALS

COUNTRY AND DISASTER	NUMBER KILLED	TOTAL NO. REPORTED VICTIMS	FUNDS EXPENDED OR VALUE OF ASSISTANCE PROVIDED IN THOUSANDS OF DOLLARS									
			CONTINGENCY FUND		AID PROJECT OR OTHER GOVT. FUNDS	FOOD FOR PEACE		VOLAGS	OTHER U.S. ASSISTANCE	TOTAL U.S. ASSISTANCE	REPORTED ASSISTANCE OTHER NATIONS	REPORTED ASSISTANCE HOST COUNTRY
			BY AMB.	AID/W		TO GOVTS., INT.ORG.	TO VOLAGS					
AFRICA			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
The Gambia - Drought 1968-69	-	180,000				324	95		-	419	66	*
Ghana - Floods July/Oct 1968	-	25,000	20				13		19	52	117	*
Malagasy - Cyclone Feb. 5, 1969	81	40,081	6					X	4	10	41	86
Malawi - Floods Jan. 1969	-	2,300					1			1	-	*
Mali - Drought 1968-69	-	660,000				1,690				1,690	*	2,600*
Mali - Meningitis Jan-May 1969	500	4,000	1		10**					11	*	*
Morocco - Fire Apr. 26/27, 1969	-	5,500	25				3	X	14	42	14	*
Niger - Drought 1968-69	-	124,500				465				465	1,700	*
Nigeria - Civil Strife 1967-69	1,000,000	4,500,000		3,600	24,469	37,927			11,032	77,028	82,884*	11,300*
Senegal - Drought 1968-69	-	375,000				488				488	*	813
So. Africa - Train Disaster, 2/17/69	17	167	1							1	*	*
Upper Volta Meningitis/Measles Jan-May 1969	304	4,550	6							6	*	*
AFRICA TOTAL	1,000,902	5,921,098	59	3,600	24,479	40,894	112		11,069	80,213	84,822*	14,799*

\* Incomplete or not reported

\*\* AID Self-Help Project

## FISCAL YEAR 1969 CUMULATIVE DISASTER STATISTICS (Cont'd)

COUNTRY AND DISASTER	NUMBER KILLED	TOTAL NO. REPORTED VICTIMS	FUNDS EXPENDED OR VALUE OF ASSISTANCE PROVIDED IN THOUSANDS OF DOLLARS									
			CONTINGENCY FUND		AID PROJECT OR OTHER GOVT. FUNDS	FOOD FOR PEACE		VOLAGS, OTHER U.S. ASSISTANCE	TOTAL U.S. ASSISTANCE	REPORTED ASSISTANCE OTHER NATIONS	REPORTED ASSISTANCE HOST COUNTRY	
			BY AMB.	AID/W		TO GOVTS. INT.ORG.	TO VOLAGS					DOD
EUROPE			\$	\$	\$	\$	\$		\$	\$	\$	
Yugoslavia - Earthquake, 11/3/68	1	15,001			26**				26	20*	10,000*	
LATIN AMERICA												
Bolivia - Hemorrhagic Fever Feb.-June 1969	16	24	25						25		25	
Brazil - Floods Mar. 14, 1969	316	17,700	2				15	1	18		313	
Chile - Drought 1968-69	-	120,000				310	241		551	*	32,000	
Costa Rica - Volcano 7/29/68	87	12,478	1	38	8**		6	X	93	177	*	
Dom. Republic Drought 1968-69	-	240,000				733			733	908	*	
Ecuador - Encephalitis May 13-17/69	400	40,000		91				X	91		*	
Haiti - Drought 1968	-	210,217					527		48	575	*	
Jamaica - Drought 1968	-	100,000				67			67	185*	*	
Nicaragua - Floods Aug. 12, 1968	-	1,300	6				1	X	5	12	*	
Peru - Drought 1968	-	128,604				1,430			4	1,434	7,000	
LA - TOTAL	819	870,323	34	129	8	2,540	790		151	3,652	1,270	

\* Incomplete or not reported

\*\* Includes \$2,000 value use USAF planes &amp; \$6,000 expenses of USG scientific team assumed by their own agencies.

## FISCAL YEAR 1969 CUMULATIVE DISASTER STATISTICS (Cont'd)

COUNTRY AND DISASTER	NUMBER KILLED	TOTAL NO. REPORTED VICTIMS	FUNDS EXPENDED OR VALUE OF ASSISTANCE PROVIDED IN THOUSANDS OF DOLLARS									
			CONTINGENCY FUND		AID PROJECT OR OTHER GOVT. FUNDS	FOOD FOR PEACE		VOLAGS, OTHER U.S. ASSIST- ANCE	TOTAL U. S. ASSIST- ANCE	REPORTED ASSIST- ANCE OTHER NATIONS	REPORTED ASSIST- ANCE HOST COUNTRY	
			BY AMB.	AID/W		TO GOVTS. INT.ORG.	TO VOLAGS					DOD
NESA			\$	\$	\$	\$	\$		\$	\$	\$	\$
India - Floods Jul, Aug, Oct/68	4,892	7,500,000			16**	1,394	421		255	2,086	245	10,000
Iran - Earthquake 8/31&9/1, 1968	10,000	85,000		482	43**		22	X	506	1,053	2,869	8,538
Nepal - Floods Oct. 4-6, 1968	276	1,276	3						5	8	17	26
Pakistan - Floods Jul, Aug, Oct/68	221	14,910,892	25		250**	2,280	7		230	2,792	4,957	9,705
Pakistan - Cyclone Apr. 14, 1969	849	160,000	25						3	28	1,177	1,531
NESA - TOTAL	16,238	22,657,168	53	482	309	3,674	450		999	5,967	9,265	29,800
EAST ASIA												
Australia - Earth- quake, 10/14/68	-	3,874	1							1	*	498
Australia - Bush Fires, Nov. 1968	12	1,012	1							1	*	291 *
Burma - Fire Mar. 30, 1969	11	7,626	5						1	6	10	58
Korea - Drought 1968-69	-	2,800,000				24,805			19	24,824	79	35,402
Laos - Floods Sept. 1968	2	9,002	25					X		25	-	11*
Malaysia - Civil Strife 5/13-26/69	173	9,173	21				25		1	47	5	*

\* Incomplete or not reported.

\*\* Represents approximately dollar equivalent of 75,000 US-owned rupees for India floods; value of US Military blankets donated to Iran (\$40,000), and expenses to USGS for geologic survey (\$3,000); and donation US-owned rupiahs for Pakistan floods.

FISCAL YEAR 1969 CUMULATIVE DISASTER STATISTICS (Cont'd)

COUNTRY AND DISASTER	NUMBER KILLED	TOTAL NO. REPORTED VICTIMS	FUNDS EXPENDED OR VALUE OF ASSISTANCE PROVIDED IN THOUSANDS OF DOLLARS										
			CONTINGENCY FUND		AID PROJECT OR OTHER GOVT. FUNDS	FOOD FOR PEACE - TO GOVTS., TO INT. ORG.		VOLAGS DOD	VOLAGS OTHER U.S. ASSISTANCE	TOTAL U.S. ASSISTANCE	REPORTED ASSISTANCE OTHER NATIONS	REPORTED ASSISTANCE HOST COUNTRY	
			BY AMB	AID/W									
EAST ASIA (Cont'd)			\$	\$	\$	\$	\$		\$	\$	\$	\$	
Philippines - E'quake 8/2/68	326	559	25	2				1	X	1	29	24	704
Philippines Typhoons 11/22&12/2/68	50	187,380	10				61			5	76	-	58*
<b>EAST ASIA- TOTALS</b>	<b>574</b>	<b>3,018,626</b>	<b>88</b>	<b>2</b>			<b>24,805</b>	<b>87</b>		<b>27</b>	<b>25,009</b>	<b>118</b>	<b>37,022</b>
<b>TOTALS ALL REGIONS</b>													
FY 1969	1,018,534	32,482,216	234	4,213	24,822	71,913	1,439			12,246	114,867	95,495	130,974
FY 1968	4,103	5,455,602	363	994	9,510	20,440	1,223			7,866	40,396	16,504	607,108
FY 1967	17,547	14,223,092	420	5,747	6,143	31,230	37,816			12,235	93,591	173,233	2,964,747***
FY 1966	7,086	4,139,646	410	242	1,039	21,459	2,271			1,572	26,993	9,566	*
FY 1965	47,089	5,504,173	371	2,062	18,728	21,137	4,077			3,751	50,126	3,576	*
<b>5- YEAR TOTALS</b>	<b>1,094,359</b>	<b>61,804,729</b>	<b>1,798</b>	<b>13,258</b>	<b>60,242</b>	<b>166,179.</b>	<b>46,826</b>			<b>37,670</b>	<b>325,973</b>	<b>298,374</b>	<b>*</b>

\* Incomplete or not reported. X under DOD means disaster in which US military assisted.

\*\*\* Note - this figure represents billions

REGION	NUMBER OF DISASTERS BY REGION					5-YR. TOTALS
	FY 1969	FY 1968	FY 1967	FY 1966	FY 1965	
Africa	12	11	11	15	15	64
Europe	1	3	2	-	2	8
LA	10	15	19	16	14	74
NESA	5	13	15	5	12	50
EA & VN	8	13	15	12	7	55
<b>TOTALS</b>	<b>36</b>	<b>55</b>	<b>62</b>	<b>48</b>	<b>50</b>	<b>251</b>

GAMBIA

CHARACTERISTICS OF THE DISASTER

EVENT: Drought Emergency

DATE-TIME: 1968-1969

LOCATION: Northwestern Region

DISASTER VICTIMS: People Affected  
180,000



DESCRIPTION OF THE DISASTER

Several countries in Africa suffered drought/food emergencies during fiscal year 1969 and are shown on the above map. Some of them requested and received food donations from the USG.

In The Gambia the prolonged lack of rain caused failure of maize and rice crops. The drop in rice production of 40-50 percent during 1969 created an acute food shortage.

ACTION TAKEN BY THE GOVERNMENT OF THE GAMBIA

In November 1968 a request was made by the GOTG for emergency diversion of USG cereals from Catholic Relief Services stocks on hand in the country to feed 75,000 people in Jarra, Kiang, Niuni and Central Boddihu Provinces for a three months period. In April 1969 further drought assistance was requested from the World Food Program to feed a total of 180,000 victims during the period of June through August 1969.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The USAID Food for Peace Officer met with Catholic Relief Services representative in Bathurst in November of 1968 to discuss the food emergency with the GOTG. Catholic Relief Services indicated its willingness to use grains from its on-going programs, if the USG would later replace these grains. Approval was given by AID for diversion of 3,637,000 pounds of P. L. 480, Title II, sorghum with an estimated market value of . . . \$94,925

In April of 1969, the World Food Program approved a contribution to The Gambia of 4,320 metric tons of sorghum. It requested that the USG donate 3,240 metric tons of this amount, which was approved by AID. Estimated market value of the sorghum plus ocean freight was . . . . . \$324,000  
\$418,925

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Experienced Catholic Relief Services staff coordinated and assisted in the distribution of above USG P. L. 480 food.

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

World Food Program

In addition to obtaining 3,240 metric tons of sorghum from the USG as a donation, the WFP purchased 1,080 metric tons of sorghum in France. Estimated market value - \$66,310.

GHANA

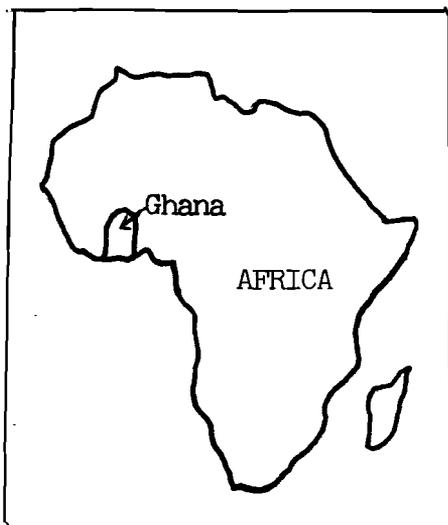
CHARACTERISTICS OF THE DISASTER

EVENT: Floods  
 DATE-TIME: July-October, 1968  
 LOCATION: Volta, Western Central, Brong-Ahafo, Ashanti and Eastern Regions

DISASTER VICTIMS:	<u>No. Killed</u>	<u>Number Evacuated</u>
	None	25,000

ESTIMATED PROPERTY DAMAGE:	<u>Dollar Damage</u>
4,000 homes destroyed	\$ 1,400,000
Flood damage to roads and bridges	7,000,000
Foreign exchange loss due to severe damage to cocoa crop	50,000,000 *
Other crop losses - maize, rice, guinea corn, millet, cassava, plantain	<u>16,300,000 *</u>
	\$74,700,000

\* Represents value of loss from comparison with 1967 output and prices. The economic effect in the form of inflation and a higher cost of living was considerable. Also, Ghana was forced to utilize foreign exchange in 1969 to import food.



DESCRIPTION OF THE DISASTER:

The Ghana flood emergency was called a "creeping disaster." This was because the rains fell in unusual amounts for the entire rainy season. The slow rising floods occurred from July to October 1968, first in one region and then in another. Roads and crops were washed out in one area; homes were destroyed in others. The disaster was never a compact problem where it was easy to identify the persons affected, the assistance they required or the extent of the

damage. The 25,000 persons reported evacuated actually lost their homes. Still, they were not really considered as homeless. Due to Ghana's strong family system, most of them simply moved in with relatives until new dwellings could be constructed. They did, however, experience hardship from disruption and overcrowding.

#### ACTION TAKEN BY THE GOVERNMENT OF GHANA AND LOCAL ORGANIZATIONS

On September 28, 1968, the Vice Chairman of the National Liberation Council made a formal appeal on behalf of the Government of Ghana to approximately 15 friendly countries and to multi-lateral organizations in Accra for assistance. Two weeks later he inaugurated the Working Party for National Relief Operations, in his capacity as the Chairman of the Civil Defense Committee. This Working Party met regularly once a week for four months even though the need for relief diminished gradually to only token assistance. Through these meetings the Working Party gained experience in attempting to quantify the flood disaster and in soliciting aid from a wide range of organizations. Regional disaster committees met only a few times and they were weak in supporting the programs and objectives of the Working Party in Accra. The local Red Cross was utilized only to a limited degree due to the "creeping" nature of the disaster and lack of concentrated disruption in a specific area of the country. Local voluntary groups distributed donated food, clothing and blankets to about 3,000 victims.

The Working Party developed an emergency housing program. The first phase consisted of providing 250 families with housing in a new settlement near Weija. Materials for the construction of 20 of the units to house 40 of the families were provided by the U. S. Government. The housing construction supervision was financed by the Government of Ghana. The Department of Social Welfare and Community Development encouraged the victims to contribute their labor in constructing the housing units.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

In response to the GOG appeal for assistance, the American Ambassador exercised his disaster relief authority and committed the following from AID contingency funds:

Use of local currency to aid in constructing dwellings near Weija for 40 of the 250 families to be resettled .....	\$15,000
Travel and per diem for American Red Cross expert who evaluated the disaster and assisted in organization of the GOG response .....	1,270
One-half of airlift cost for 2,000 blankets shipped by CWS .....	4,312
	<u>\$20,582</u>

The following P.L. 480 food was provided through Catholic Relief Services: 33,550 pounds of vegetable oil; 19,850 pounds of non-fat dry milk; 53,800 pounds of bulgur; 28,800 pounds of CSM. Est. market value and transport costs .....  $\frac{\$12,574}{\$33,156}$



Seated: Kojo Twumasi, Minister, Economic Affairs, GOG; R.M. Cashin, USAID; A. B. Tucci, Director, Catholic Relief Services; and Juliana Aurnnor Williams, Ghana Red Cross Society. Standing: C. M. Jackson, American National Red Cross; Lloyd J. Fisher, Church World Service Representative; J. C. Graf Sponeck, Assistant Resident Representative, UNDP, Accra; Emmanuel Muttukumaru, Project Officer, World Food Program, FAO, UN; Lee Bettis, USAID

TDY Assignment of C. Milton Jackson of the American National Red Cross

Mr. Jackson, Director of Disaster Services, Eastern Area, ANRC, went to Ghana at the suggestion of Stephen R. Tripp, AID Disaster Relief Coordinator, and at the request of the American Ambassador and USAID/Ghana. The Government of Ghana had requested assistance in assessing the flood situation and in determining relief and recovery needs. Mr. Jackson arrived in Ghana on October 11, and returned to the U. S. on October 30.

He travelled widely throughout the flood areas. He visited the American Ambassador and USAID Mission Director repeatedly and assisted the GOG Working Party in improving its relief operations. Following his tour of the flood areas, he indicated that there was an urgent need for emergency housing, but that most flood victims had access to sufficient food and clothing. USAID stated:

*"We believe that the limited funds made available for his TDY in Ghana were well spent and could very likely have laid the groundwork for a permanent, or at least ad hoc, disaster relief organization."*

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Since very little evacuation shelters or medical activities were required, the role of the voluntary agencies was primarily that of providing USG P.L. 480 food and some clothing and blankets. They also had advisory membership in the Working Party for National Relief Operations. In this latter role, USAID/Ghana stated the experience of the voluntary agencies provided useful information on the organization and administration required to deal with disasters.

Church World Service

2,000 blankets airlifted from the U. S., valued at .....	\$ 9,750
Clothing, valued at .....	3,931
	<u>\$13,681</u>

Pan American Airlines

PanAm received payment for \$4,312 which represented one-half the cost of airlift of the CWS blankets, and donated the other half of the airlift costs .....\$ 4,312

Catholic Relief Services

In addition to diverting USG P.L. 480 food from its on-going program stocks to the flood relief effort, CRS contributed clothing valued at .....\$ 1,338  
\$19,331

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

Governments

Australia - provided cash donation used to purchase 12 tons powdered milk; balance of funds given to Working Party for commodities or repairs .....	\$ 8,300
France - cash donation to Working Party .....	4,100
Federal Republic of Germany - cash donation to Working Party and 11 cases of medicine .....	2,450
Israel - consignment of drugs; offered to make available the services of engineers to assist the Public Works Department in road maintenance program .....	1,000

Pakistan - contributed 45 pieces Grey Baft .....	\$	100
Togo - cash donation .....		980
United Kingdom - cash donation which purchased ten 60-foot spans of Bailey Bridging, two launching noses, and two sets erection equipment .....		72,000

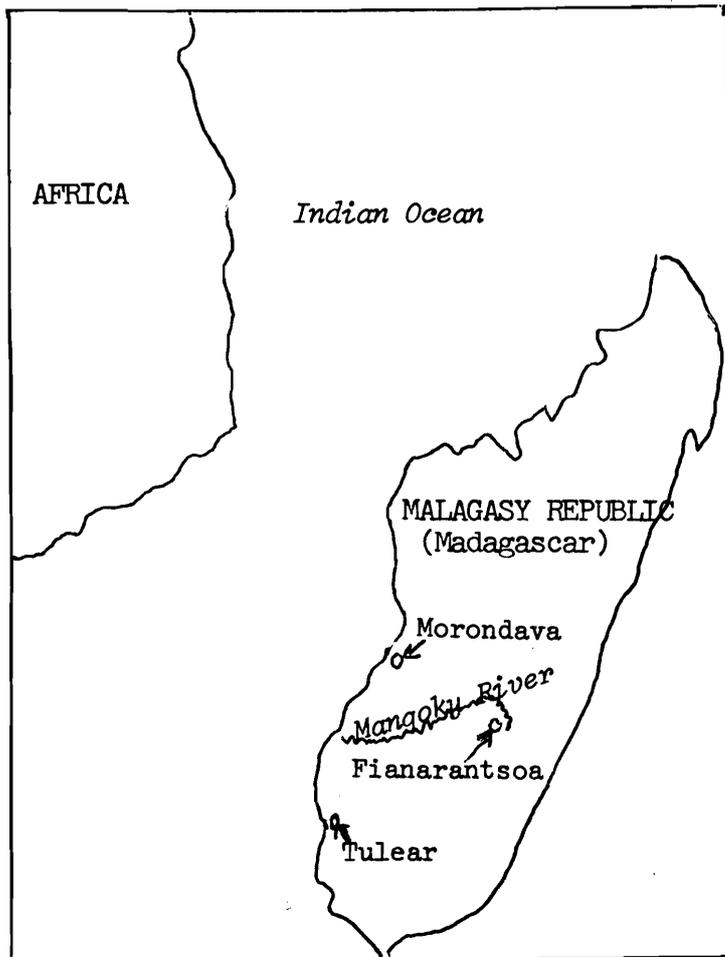
Organizations and Private Donations

Belgium - Caritas - 1.5 tons blankets, 1.0 tons food, 3.0 tons powdered milk and sugar .....	\$	3,000
Switzerland - Sulzer Brothers - 100 cotton-wool bedspreads .....		1,500
UNICEF (Red Cross and Salvation Army) - consignment of drugs and medical supplies .....		24,000
		<u>\$117,430</u>

MALAGASY

CHARACTERISTICS OF THE DISASTER

EVENT: Cyclone "Dany"  
DATE-TIME: February 5, 1969  
LOCATION: From East to West Coast of Madagascar  
DISASTER VICTIMS: Killed Injured Homeless Evacuated  
81 40 3,000 40,000



DAMAGES: In addition to housing, telephone and electric facilities, for which no dollar damage estimates were given, other losses were:

231 hectares of cotton destroyed with an estimated value of..... \$ 600,000

12,000 tons of coffee destroyed with an estimated value of 3,800,000  
\$4,400,000

1,000 hectares of rice paddies were flooded but were not considered a total loss. Future rice crops were expected to be adversely affected due to the destruction of irrigation canals, equipment and tools. Some tobacco crops were destroyed.

## DESCRIPTION OF THE DISASTER

Cyclone "Dany" with its high velocity winds and heavy rains struck first the east coast of Madagascar in the area between Mahanoro and Vangaindrana



Nosy Varika

on February 5. For four days it beat a path of destruction on the island stretching in a southwesterly direction across the high plateau, and through the river valley of the Mangoky River, which flows into the Mozambique Channel on the west coast of Madagascar, mid-way between Tulear and Morondava.

Heavy flooding occurred in the wake of the cyclone as far north as Majunga and as far south as Fianarantsoa and Ihoisy.

The town of Nosy Varika (population 1,200) was the most severely affected. Its flimsy wooden houses were flattened by the wind. Concrete buildings were left without roofs. The town was swept by a wall of sea water and was almost totally destroyed. Other villages in the same region had a similar degree of destruction.

Damage on the west coast resulted principally from floods in the Mangoky River Basin and were attributable to heavy rains in and near Fianarantsoa at the river's source in the high plateau. Overflowing its banks, the river flooded the lowland plain, extending as far as 10-20 miles beyond the river bank in each direction. Other areas which suffered heavy flood damage included Mananjary and Manakara on the east coast and Morombe and Morondava on the west coast. In Manakara, some 5,000 people were affected by floods which caused water levels to rise about 60 centimeters above the record levels of the 1945 floods.



Nosy Varika

Outbreaks of dysentery, measles and bronchitis increased following the cyclone, especially in isolated inland villages.



Overflow of Ikopa River on Tananarive ricefields

Of particular interest in this disaster was the following statement which appeared in a World Council of Churches report dated February 26, 1969, "The human toll would have been higher but for advance weather warnings and emergency precautions."

On February 19 and 20, Cyclone "Gillette" skirted the island and its accompanying heavy rainfall aggravated the flood conditions in the Mangoky River Basin.

**ACTION TAKEN BY THE GOVERNMENT OF MALAGASY AND LOCAL ORGANIZATIONS**

Rice, canned milk, medicines, clothing and blankets were airlifted to stricken areas. Following a four-day inspection tour of the cyclone disaster areas, President Tsiranana praised the courage of the local population and called on the Malagasy population to contribute funds for the disaster victims. Setting the example, President and Mrs. Tsiranana donated \$15,300. Various official and charitable organizations made cash contributions for the benefit of the victims in the amount of \$33,000 as well as 4 tons of rice, 220 blankets and quantities of canned milk and used clothing. The local French business community contributed roughly \$28,200 plus 2.7 tons of rice, 700 blankets, 250 kilograms of canned milk, one ton each of corn and green bean seeds and three tons of chemical fertilizer. Of the total cash contributions by the business community, the Grands Moulins de Dakar accounted for a contribution of \$21,161 and also placed a cargo vessel at the disposal of the GOM for use in provisioning stricken coastal areas.

The Malagasy Army and Police, French Air Force, Red Cross, Christian Council of Madagascar and other local groups cooperated to bring emergency aid to the victims.

The Minister of Agriculture made an official request for USG assistance and a Catholic Relief Services representative requested CRS/New York to send medicines.

**ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT**

The American Ambassador exercised his disaster relief authority and made a cash grant from the AID contingency fund to the Government of Malagasy to purchase food. The grant was made in local currency with an equivalent value of . . . . . \$6,048.

U. S. Defense Attache DATTO DC-3 aircraft was used to fly five mercy missions involving 17 hours of flight time. These mercy flights were made to Manakara and Mananjary on the east coast and to Morombe on the west coast. The Deputy Chief of Mission was on one of these flights. Acting in close coordination with Malagasy military authorities, the Defense Attache transported approximately 11,000 pounds of cargo including rice, canned milk, medicines, clothing and blankets into areas inaccessible to the Nord 2500 aircraft, which comprise the backbone of the French air transport squadron operating in Madagascar. The DC-3 was also used to transport 31 Malagasy parachutists and other military/medical personnel to and from the stricken areas. French Nord 2500 aircraft were used primarily



Unloading supplies donated from US Air Attache plane at Manakara

to drop food, clothing and equipment in disaster areas.

The following letter was received by the American Ambassador David S. King in Tananarive from Foreign Minister Rabemananjara:

*"It is with a deep emotion that I read letter of this past February 6, announcing the willingness of your Government to come to the aid of those who were victims at Nosy Varika in the wake of the passage of Cyclone 'Dany'.*

*"I hasten to present to you the thanks of the Government, the stricken population of Nosy Varika and the entire Malagasy people*

*for this new gesture of friendship which brings home, once again, the human sentiments and the love of neighbor which everybody recognizes in the great American people.*

*"I would be infinitely grateful if you could see your way to transmit to the President of the U. S., to the Government and to the American people, the expression of our most sincere thanks.*

*"Please accept, Excellence, the assurances of my high consideration."*

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Church World Service

CWS made a cash donation in response to a World Council of Churches appeal for funds to be given to the Christian Council of Madagascar to help the local churches in furnishing food, medicines and other relief supplies to the victims, in the amount of . . . . . \$1,000

Catholic Relief Services

Airlifted medicines from the U. S. to Malagasy, valued at 3,270  
\$4,270

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

World Council of Churches

\$5,000 cash donation, less \$1,000 credited under CWS/USA \$ 4,000

Governments

British Embassy	2,363
Chinese Embassy	5,040
French Embassy	10,080
German Embassy	2,419
Holy See (Vatican)	10,080
Indian Embassy - 250 blankets (est. value)	750
Israeli Embassy	1,000
Japanese Embassy	3,024
Mauritius	2,630
	<u>\$41,386</u>

## MALAWI

### CHARACTERISTICS OF THE DISASTER

EVENT: Floods

DATE-TIME: January 1969

LOCATION: Shire River Valley

DISASTER VICTIMS: No. Homeless  
2,300

### DESCRIPTION OF THE DISASTER:

Severe and repeated cloud-bursts in the Blantyre/Cholo which came down the tributaries of the Shire River caused sudden floods, covering the countryside around. This problem exists to some extent every year and villagers expect it to happen. Those who plant along the river bank or in flood-flats take a risk. This year, however, the floods were more severe and submerged houses normally safely above the flood line and destroyed about 1,300 small farms. Numerous homes were destroyed and many others were unfit for habitation.

### ACTION TAKEN BY THE GOVERNMENT OF MALAWI AND LOCAL ORGANIZATIONS

The Social Welfare Department, Police, Young Pioneers and the Christian Service Committee of the Churches of Malawi provided coordinate relief action. The whole operation was according to a plan made by the Operations Committee and ran very smoothly. Many difficulties were encountered and supplies had to be carried across the swollen Mwampanzi River, which at one time was flowing shoulder high.

An advance team of police and pioneers informed stricken villagers to be ready. Emergency supplies were taken to a central spot and the Christian Service Committee distribution team, assisted by the pioneers, gave out supplies according to the lists supplied. The inaccessible villages on the East Bank caused greater problems, but assistance was provided by police mobile units and volunteers.

### ASSISTANCE PROVIDED BY U. S. GOVERNMENT

P. L. 480 food was diverted through Church World Service to the Christian Service Committee for relief operations as follows:

3,500 pounds of oats, estimated market value	\$245
4,400 pounds of cooking oil	660
	<u>\$805</u>

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Church World Service released above USG P. L. 480 food commodities.

ASSISTANCE PROVIDED BY OTHER NATIONS

None reported

## MALI

### CHARACTERISTICS OF THE DISASTER

EVENT: Drought

DATE-TIME: 1968-1969

LOCATION: Northern Mali

DISASTER VICTIMS: People Requiring Emergency Food  
660,000

DESCRIPTION OF THE DISASTER: (See African Drought Map with The Gambia Case Study)

Due to a prolonged drought across West Africa, harvests in the northern part of Mali were seriously affected and food crops were reduced by about 50 percent for the country as a whole. The most serious food needs were in Kayes, Gao and Bamako. The most critical period for the drought victims was expected to be from June through September 1969.

### ACTION TAKEN BY THE GOVERNMENT OF MALI

Measures taken by the Government of Mali to ameliorate the drought situation included the movement of cereals from areas of better harvests in the south, steps to prevent the smuggling of cereals over the borders into other countries in the drought region, and the importation of about 20,000 tons of rice, principally from Thailand. The Government of Mali also asked for food assistance from the United States.

### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The critical food shortages in Mali were confirmed by the U. S. Embassy and AID personnel in the country and through visits by the Regional Agricultural Attache, Monrovia, and the Regional Food for Freedom Officer, in Dakar, Senegal. AID/W approved a grant of up to 15,000 tons of bagged corn under Title II of Public Law 480 on May 29, 1969. If time requirements for the delivery of the corn to Mali could not be met, it was proposed that necessary advances of grain from Title II stocks be diverted from other countries or from local supplies. These would then be replaced from the above 15,000 tons of corn, or if grains other than corn were diverted, replacement would be made of the specific commodities advanced.

Estimated market value of 15,000 metric tons of bagged corn is \$840,000 plus \$450,000 ocean freight charges and inland transportation costs to designated point of entry in Mali, not to exceed \$400,000 for total estimated USG contribution of . . . . . \$1,690,000

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None reported.

ASSISTANCE PROVIDED BY OTHER NATIONS: None reported.

## MALI

### CHARACTERISTICS OF THE DISASTER

EVENT: Meningitis Epidemic

DATE-TIME: January-May 1969

LOCATION: Bamako and surrounding towns

DISASTER VICTIMS:	<u>Deaths</u>	<u>Total Cases</u>
	500 (est.)	4,000 (est.)

### DESCRIPTION OF THE DISASTER

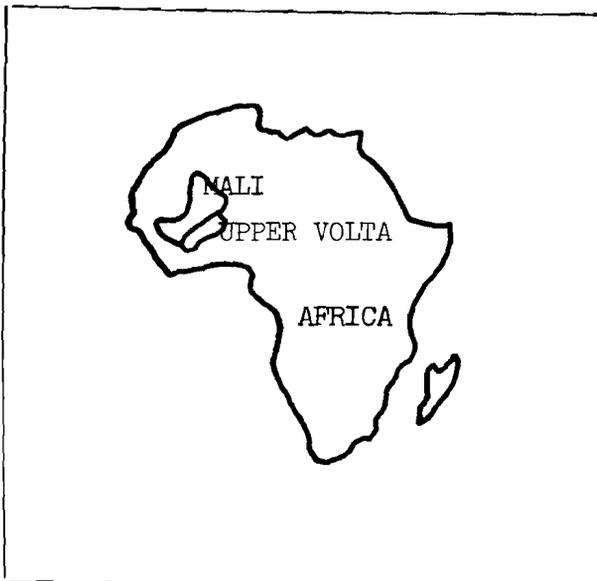
Meningitis is endemic to Mali with the highest incidence of cases normally occurring between January and May. Due to a variety of conditions including an unseasonably hot and dry "winter" season in the country, the incidence of cases for Bamako reached epidemic proportions in 1969. Evidence of this first began to appear in late January and by February new cases and deaths reached alarming proportions. For example, between January 5 and February 20, Bamako had 1,300 cases with 11% death rate. The chronic poor health of much of the poorer population of Bamako, their affinity for gathering in large groups aggravated the situation, leading to a high rate of infection. A few other towns east of Bamako experienced a severe incidence of menin-

gitis but the Ministry of Health was able to move in quickly and efficaciously with prophylactic measures. By mid-May the epidemic was considered terminated.

The adjoining country of Upper Volta also experienced a meningitis epidemic.

### ACTION TAKEN BY GOVERNMENT OF MALI AND LOCAL ORGANIZATIONS

Health and medical facilities were taxed beyond their capacities to deal with the crisis. In an effort to prevent the disease from spreading, schools were closed until mid-April, and large



gatherings were prohibited until mid-May. Services of the Lazaret hospital were expanded and cases were isolated at the hospital. By March, the Ministry of Health had begun a mass vaccination campaign among children and young adults. With this campaign and the fact the disease began to run its course, the incidence of cases in Bamako had started to decline by May.

An educational campaign was launched to create better public understanding of the disease, its symptoms, its cures and the simple, hygienic preventive measures available to combat the disease.

Local authorities met the disaster as well as could be expected with limited facilities and finances and insufficient numbers of technically qualified personnel. Once adequate coordination was achieved, proper and timely decisions were made. Looking to the future, the Ministry of Health began a program to improve the Lazaret hospital facilities. Statistical studies performed and experience gained during the epidemic were expected to give authorities a greater understanding of the characteristics of the annual meningitis outbreak, and to permit rapid recourse to proper preventive inoculation programs.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The United States Public Health Service physician stationed in Mali in connection with the AID-financed regional smallpox-measles vaccination program dedicated most of his time during the epidemic to assisting the Ministry of Health. He was considered by the Minister of Health as a "member of the medical team" and advised on all medical matters. He loaned to the MOH ten inoculation guns for vaccine administration and undertook an investigation to determine the causes of the epidemic and its frequency according to age, income and geographic groupings. Through his auspices special fluid samples were flown to the National Communicable Disease Center at Atlanta, Georgia, where the meningitis strain involved was successfully identified, and its sensitivity to various antibiotics tested. Fifty percent of the specimens were found to be resistant to the principal drug being used at that time--Sultirene. The result of the laboratory studies permitted the MOH to change the therapeutic regimen.

From an AID Self-Help Project \$10,000 was used to purchase medicines and equipment and to improve the Lazaret hospital.

From the AID contingency fund for disaster relief, the American Ambassador authorized the expenditure of \$500 in local currency for medicines.

Total USG contribution . . . . . \$10,500

The Minister of Health told the American Embassy the United States was the first diplomatic mission to offer assistance. News coverage on the epidemic was limited in order to avoid creating panic but the medicines and technical assistance given by the USG created considerable goodwill.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

No voluntary agencies were involved but American Embassy wives donated \$100 for purchase of medicines.

ASSISTANCE PROVIDED BY OTHER NATIONS

The Mali Ministry of Health receives annual assistance from France which it was able to draw upon during the epidemic. A French manufacturer of the vaccine used donated the vaccine.

The World Health Organization provided 20,000 Sultirene pills.

MOROCCO

CHARACTERISTICS OF THE DISASTER

EVENT: Fire

DATE-TIME: Night of April 26/27, 1969

LOCATION: Rabat

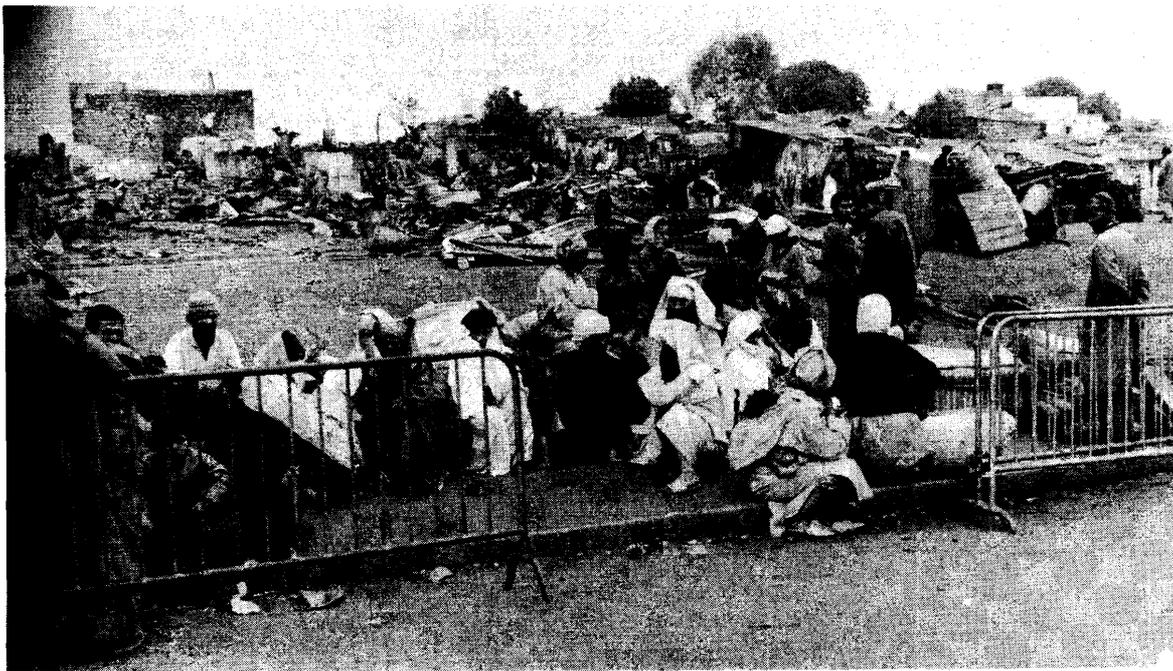
VICTIMS & DAMAGES:	<u>Killed</u> None	<u>Injured</u> 20	<u>Homeless</u> 5,500	<u>Homes Destroyed</u> 1,100 *
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\* Dollar damage not available.



DESCRIPTION OF THE DISASTER

The fire occurred in the bidonville (shantytown) of Yacomb el Mansour in the outskirts of Rabat. While it was confined to a relatively small area of the capital city, it was very severe. The Rabat Fire Brigade was effective in limiting the fire to as small an area as it did, stopping it short of similar, contiguous shanty housing. The Moroccan Army and Police were



on the spot early and were able to cordon off the area and to protect such personal property as had been saved. Complete order was maintained at all times and the curious were kept at a safe distance from the site. Demolition of some shanties helped stem the progress of the fire.

#### ACTION TAKEN BY THE GOVERNMENT OF MOROCCO AND LOCAL ORGANIZATIONS

Shortly after the fire began the King put Minister of Interior Oufkir in charge of all operations, including caring for the homeless. He was authorized to call on the Army, Police and municipal services for help. The Moroccan Red Crescent and the Entr'Aide Nationale assisted in providing relief. It was not necessary to form any new organizations.

Under Minister Oufkir the relief was efficiently coordinated. A tent city was organized with all necessary services including security, medical, water and electricity.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The American Ambassador and Deputy Chief of Mission and other U. S. Mission officers from DATT, MUSLO, AID and the Embassy visited the site during the fire. When General Oufkir requested U. S. assistance the morning after the fire, the Ambassador used this first hand information to declare that the disaster was of a magnitude to warrant U. S. assistance. He requested the U. S. military in EUCOM to provide 40 large tents by air from Europe for which reimbursement was made from AID contingency funds under the Ambassador's disaster relief authority. The tents arrived at Rabat-Sale airport early on the morning of April 28 and were delivered to the camp

established for the fire victims by U. S. Mission MUSLO personnel. Cost of tents and airlift . . . . . \$25,000

Also, the following USG Public Law 480 Food for Peace commodities were made available from Catholic Relief Services stocks on hand with the concurrence of USAID: 181,500 pounds of bread flour; 121,000 pounds of cornmeal; 4,000 pounds of dry milk; and 4,800 pounds of vegetable oil. Estimated market value of food . . . . . 2,500  
\$27,500

The USG food and tents were the first foreign assistance received. The King and his Senior Minister Oufkir were appreciative.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Catholic Relief Services

CRS released above P. L. 480 food and donated from their own resources 60 bales of clothing with an estimated value of . . . . . \$11,000

American National Red Cross - Cash donation for tents . . . . . 3,000  
\$14,000

ASSISTANCE PROVIDED BY OTHER NATIONS

Algeria Red Crescent - blankets, tents, foodstuffs, value not reported	\$ -
Australia Red Cross - 6 cartons women's blouses and children's clothing	300
Canada Red Cross - cash grant used to provide 40 tents	2,320
France Red Cross - 120 cases sweet condensed milk	350
Great Britain - Government - cash donation	560
Great Britain Red Cross - cash grant for tents	1,400
Netherlands Red Cross - 500 cartons powdered milk	2,460
Norway Red Cross - 1,000 blankets	2,940
Sweden Red Cross - 40 tents and 500 blankets	3,250
Tunisia Red Crescent - 9 tons of blankets, tents and food, value not reported	-

The Federal Republic of Germany and Government of Iran also made cash contributions but amount was not available.

\$13,580

## NIGER

### CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Famine

DATE-TIME: 1968-69

LOCATION: Niamey, Dosso, Tahoua, Maradi, Agadez, Diffa & surrounding areas.

DISASTER VICTIMS: Number Needing Food Assistance  
124,500

### DESCRIPTION OF THE DISASTER

Drought conditions have been general throughout West Equatorial Africa. Early reports on shortages of feed and grazing for cattle in Niger were received in September 1968, following 50% reduction of normal August rainfall. Conditions worsened and food shortages among the people increased. Again in January of 1969, the famine situation was reported worsening and on January 22, outside assistance to bring food to the drought victims was sought.

### ACTION TAKEN BY THE GOVERNMENT OF NIGER

Early in the drought, the Government tried to provide millet leaves as a stopgap measure to feed cattle but recognized that even herds surviving the dry six-month period would be undernourished. Subsequently the nomads who depended on the herds for meat and dairy products were affected as were Government of Niger beef exports.

In a letter to the U. S. Mission by President Diori of the GON, a request was made for donation of 5,000 metric tons of sorghum for delivery by May 15, 1969. The President indicated distribution would be as follows: Niamey - 700 tons; Dosso - 300 tons; Tahoua - 2,000 tons; Maradi - 1,000 tons; Agadez - 500 tons and Diffa - 500 tons. Also, the GON stated it would make distribution within 30 days after arrival of the sorghum to approximately 124,500 recipients for the three month period of June, July and August, 1969.

### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

In response to an official request from the GON, which USAID/Niger recommended be approved, AID/W approved donation of the 5,000 metric tons of

P. L. 480, Title II, sorghum, valued at . . . . .	\$285,000
transport costs . . . . .	180,000
	<u>\$465,000</u>

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

None reported.

ASSISTANCE PROVIDED BY OTHER NATIONS

<u>Canada</u> - 20,000 metric tons wheat grant (est. value)	\$1,700,000
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## NIGERIA

### CHARACTERISTICS OF THE DISASTER

EVENT: Civil Strife

DATE-TIME: July 1967 through June 30, 1969

LOCATION: Eastern Nigeria

DISASTER VICTIMS: 

Estimated Deaths	Estimated People in Need
Exact figures not available.	1.5 million (FMG)
Possibly as many as -	2.0 million (Biafra)
1 million	<u>3.5 million</u>

DAMAGES: 

Estimated War Costs *	
Physical Damage .....	\$ 700 million
Foreign Exchange and local currency expenses .....	<u>756 million</u>
	<u>\$1.456</u>

\*Based on figures released to the news from Nigeria in April of 1969.

This case study replaces the one in the Seventh Report. The emergency in Nigeria continues. The AID Disaster Relief Coordinator took a major part in USG disaster-relief operations through December 31, 1968. On February 22, 1969, President Nixon announced the appointment of Ambassador C. Clyde Ferguson as Special Coordinator for Relief for Nigeria/Biafra. Information in this study contains data received from many sources through June 30, 1969, to complete the fiscal year. Those parts bearing upon the political conditions and situation are based upon reports issued by the Department of State.

### SYNOPSIS

The declaration of war by the Federal Military Government of Nigeria (FMG) against the Biafran secession was issued July 6, 1967. By the spring of 1968 the spectre of widespread famine caused worldwide concern. In the fall of 1968 reports of thousands of people starving daily put great pressure on many governments and relief organizations to save civilian lives, particularly the children.



Enugu - October 1968

Large amounts of publicity and propaganda were generated in the United States to help Biafra. Most of it ignored the fact that starvation was occurring not only in Biafra, but also in Federal Nigeria. Many of these news items mentioned the threat to continued existence of the Ibo tribe. People were urged to write to the President and members of Congress to do something for the Biafrans.

During the winter and spring of 1969 resolutions were introduced in both the Senate and the House

calling for large contributions by the USG as well as greater involvement in ways and means of getting the food to Nigeria/Biafra. Several members of Congress went to Nigeria and Biafra and many reports on their findings were issued.

The USG was urged to take such steps as (1) exerting pressure to obtain a cease fire; (2) seeking ways to have the matter placed before the General Assembly of the United Nations; (3) using its noncombat planes to deliver relief supplies to Biafra; (4) developing and obtaining an alternate land or sea route acceptable to both sides; and (5) becoming more and more involved in this internal struggle. All concerned were anxious that the tide of starvation be turned back in Biafra. A few cautious observations were made against the type of involvement that could develop into another "Vietnam situation".



U. S. Government officials worked unceasingly to meet the

Uyo - October 1968

humanitarian needs. Through diplomatic channels, efforts were made to get a cease fire. There was some success with the former but not with the cease fire. All the time, the pressures exerted by many groups for the USG to do more and more continued. By the end of June 1969 the Agency for International Development had allotted \$28 million in cash, and food valued at \$38 million was committed by AID and the Department of Agriculture. Four stratocruisers were sold by the U. S. Air Force at nominal cost to the ICRC and JCA International, and a special coordinator for the Nigeria relief operation was appointed by the President.

Throughout this report, readers should be aware of the subtle but guiding influence of the USG in encouraging, assisting and financing many of the relief operations performed by international organizations. In many respects this was good. It was a factor in bringing 30 other nations in as donors and sponsors. It left open significant and meaningful roles for individuals, groups of volunteers and other nations. It encouraged donations of funds, things and services. As well as can be recorded by DRC, the value of this assistance from the rest of the world up until June 30, 1969 was \$83 million. Together with the USG contribution of \$66 million and U. S. voluntary agency aid valued at \$11 million, the total world-wide was \$160 million.

Relief operations from the start were complicated by military, political, economic and local factors. Complex problems of logistics affected every movement of relief supplies.

The International Committee of the Red Cross (ICRC) used air, sea and land transport to aid the people in FMG areas. Food and medical supplies for Biafra were delivered by airlift conducted at night from Fernando Po and Dahomey by the ICRC and from Sao Tome by Joint Church Aid (JCA).

By June 1, 1969, ICRC, JCA, other relief groups and nations had sent sufficient high protein type food to avert starvation and drastically reduce kwashiorkor and malnutrition in FMG areas and in the Biafran enclave. Local food production, particularly carbohydrates, was increased on both sides. Stockpiles of these foods exist in several forward areas of the FMG. No stocks of imported foods were or could be built up in Biafra because of the inability of the airlifts to exceed the current demands.

Alarming developments during the first week in June 1969 brought new fears of impending famine for the Biafran enclave. An ICRC relief plane was shot down during a night flight to Uli airfield in Biafra, forcing ICRC to suspend its airlifts from Dahomey and Santa Isabel as of June 15, 1969. JCA severely curtailed its airlifts from Sao Tome at the same time. The ICRC was summarily relieved of its coordinating and operational relief role in Nigeria by the FMG on June 30, 1969. The function was assigned to Nigeria Commission for Rehabilitation, now titled Nigeria National Commission for Relief and Rehabilitation, which began negotiations with ICRC for phasing out its operational role in FMG areas. The FMG declared again its opposition to night relief flights to Biafra warning of further military action if they continued. It indicated that it would accept daylight flights into the rebel area if the planes touched down in Lagos or were inspected by the FMG.

As this reporting period closes, the Biafran-held area has shrunk from 29,000 square miles and 13 million people to 3,000 square miles with about four million population. Despite the success of the local food production, the need to find an acceptable means for supplying high protein food to Biafra was becoming more and more urgent. Again, foreign governments, international organizations and voluntary agencies were imploring both sides to agree to daylight flights and to surface delivery of food by the USG proposed Cross River route, and to undertake cease fire negotiations.

#### DESCRIPTION OF THE DISASTER

In any consideration of this disaster, it is important to know the background and history of the African continent as a whole and of Nigeria in particular, attitudes toward territorial change and the reaction of foreign governments and international organizations to the secession of Eastern Nigeria. These can be found on pages 77-83. Details on the relief problems, operations and international aid follow.

#### RELIEF SUPPLY PROBLEMS

The nature of the war complicated the delivery of supplies to both sides but especially to the Biafran enclave. The needs of civilian victims were subordinated to political and military advantage by both Federal Nigeria and Biafra. These problems continue. Many sacrifices were made by relief workers and air crews to bring food to the hungry people and sixteen of them died in this cause as of June 30, 1969. A list of these people is contained on page 83. Their work and that of the many governments and people who contributed to the relief operations meant another year of life for millions of people. New threats of famine face the people in the Biafran enclave due to the severe reduction in night flights and lack of agreement between the two sides on procedures for daylight flights or implementation of the USG proposed surface delivery route on the Cross River.

#### Political and Military Influences

For approximately two years, both sides accepted food and medical assistance from the International Committee of the Red Cross, other nations, voluntary organizations and church groups—provided the relief operations did not interfere with their primary military objectives.

On the FMG side, land, water and air routes were available. There was constant difficulty in determining relief requirements. Military action would shift people from one side to the other. Lack of road maintenance, inadequate roads, and destroyed bridges created logistical problems in movement of large quantities of supplies. The volume of food arriving at Lagos brought pressure for clearances, storage and prompt movement resulting in bottlenecks and delays.

For Biafra, night airlifts by the ICRC and a consortium of religious organizations known as Joint Church Aid (International) was used to deliver food and medicine starting in March 1968 to June 15, 1969 when ICRC flights

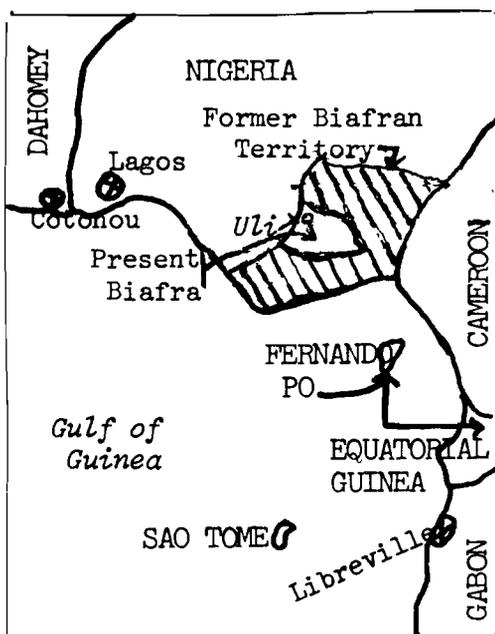
were suspended. Repeated attempts to get mutual agreement for other methods of delivery to Biafra have not yet succeeded. Daylight flights to Biafra were proposed as being more effective in bringing in relief supplies and less hazardous than night flights. The FMG agreed to daylight flights provided no arms flights occurred at the same time. Biafra would not agree because of fear of FMG military action in conjunction with the relief flights and contamination of the food. Biafran proposals were for a water corridor up the Niger River and an additional airstrip built solely for relief inside Biafra. The many restrictions, military and physical, placed by both sides, rendered these proposals impractical.

In early November, 1968, after proposing that all relief flights to Biafra be made to Uli by day, the FMG declared that it would interdict night flights into Biafra because the Uli airstrip was being used for delivery of arms and ammunition as well as relief supplies.

There were periods of time when the FMG did little to prevent the night relief flights into Biafra by ICRC and JCA from the off shore islands and Dahomey. During one of these periods beginning in April and through the first two weeks in May of 1969, there was a remarkable airlift performance by ICRC and JCA. They averaged over 300 tons a night of food, medicines and relief supplies and on one night the amount was 400 tons. For the purpose of these flights, night for the pilots began before sundown and continued until after sunrise.

Military action stepped up in the Spring of 1969. Umuahia, the Biafran headquarters, fell to the FMG, while Owerri was retaken by Biafra, becoming its new headquarters. Following this there were further reports of harassment of relief flights by the Nigerian Air Force. In late May, 1969, air raids were made by Biafra in FMG territory under the command of a Swedish pilot formerly connected with relief flights. The raids were performed

with very small planes and were effective. Angered by these air raids, the FMG began more and more to denounce night airlifts into Uli. On June 5-6, the Nigerian Air Force shot down an ICRC relief plane, killing all four crew members. Only a few ICRC flights were made after this incident, and in mid-June ICRC halted its airlifts. ICRC initiated efforts to reach an agreement on relief flights. JCA continued to fly but the number of flights was reduced.



#### Famine Relieved

Despite very difficult and dangerous circumstances, ICRC and JCA delivered sufficient protein-type foods to halt starvation deaths and reduce malnutrition and disease to manageable proportions on

both sides. This was acknowledged by Biafran leader General Ojukwu on May 30 and June 1, 1969, when he publicly stated the food problem had been solved. U. S. Ambassador Ferguson, on a visit to Biafra in early June, confirmed that there were no new cases of starvation or severe malnutrition. Disastrous events in June and hardening of positions may wipe out this success.

#### Situation and Political Stalemate as of June 30, 1969

On June 18, 1969, it was reported that both sides had agreed in principle on a river route that would involve the use of a 900-ton capacity former World War II landing craft under private charter to ICRC to go up the Cross River to deliver food into the Biafran enclave. This was a USG proposal which offered great promise but as of the end of June attempts to get agreements from both sides on its operation remained frustrated.

The FMG issued a statement at a meeting on June 30 attended by international voluntary agencies working in Nigeria/Biafra which in effect said that ICRC would no longer be needed to coordinate the relief program in Nigeria, nor to solicit funds or supplies on its behalf. The FMG emphasized that this role would be taken over by the National Commission for Relief and Rehabilitation, which would assume responsibility for relief to both sides. The FMG's statement indicated that relief supplies to rebel-held areas, whether by air, sea, river or land, must be cleared through inspection in Lagos or other approved points. Biafra rejected daylight flights from FMG territory but indicated it would agree to such flights from outside Nigeria with inspection of cargoes by neutral observers.

#### BIAFRA

##### Actions Leading to Secession

Following the mass slaying of Ibos in the fall of 1966 and before the FMG blockade which began in May of 1967, Biafran authorities had had about six months to make preparations for war which was declared in July 1967. It was able not only to build stocks of war materiel but also to import reserve supplies of medicines and other necessities and to increase the food supply. Also, for some months during the blockade, fish, cattle, salt, and other foods were smuggled in through creeks and back roads along the permeable borders. Consequently, the blockade by the FMG did not immediately have a serious effect on the food intake of the people.

##### Famine Reports Increase

By spring of 1968, the protein intake had declined. Caloric intake had also dropped more than was usual during the "hungry season" (March through May or June).

Port Harcourt was taken by the FMG in May of 1968. This was the beginning of the truly critical food problem inside the enclave of Biafra. International relief organizations had begun airlifting medicines and some food

into the area starting in March, 1968, as reports reached the outside world of increasing numbers of civilian victims. The fall of Port Harcourt caused considerable reduction in the amount of food that could be smuggled into Biafra. Also, there was a sudden influx of large numbers of persons who had fled from Port Harcourt. As Federal forces advanced northwards, thousands of Ibos fled from the captured towns into the bush or into the now greatly reduced Biafran enclave, thus compounding the food problem.

By summer of 1968, the death rate reportedly rose well above the normal death rate of about 500 per day for a population of 7 million. No firm figures on number of people dying daily from starvation were available but there were statements by Biafran authorities and numerous organizations which gave estimates ranging from 5,000 to 10,000 deaths per day. Extensive press coverage and public relations activities put pressure on the world to help the Biafrans. During the period from July to November 1968, estimates of the total number who died ranged from 500,000 to over a million. The death rate began to decline in November, and by December deaths from famine were considered to be well below the early autumn levels. Although improved conditions were reportedly credited to the airlift of protein foods by Joint Church Aid and the International Committee of the Red Cross, and the supply of cassava and yams from the fall harvest, the full facts on what happened inside Biafra may never be recorded. A relatively quiet military situation allowed the civilians to work out better means for distribution of food supplies and to apply self-help measures to increase food production.

#### Relief Action Taken by Biafra

The civilian emergency developed slowly following the outbreak of the war, but by the summer of 1968 it had become a disaster of major magnitude. Biafran officials established a rehabilitation commission, set up relief camps, nutritional clinics and feeding centers, accepted international donations of food and medicines, initiated an intensive food production program, carried out health treatment and disease prevention programs, and reluctantly allowed the evacuation of some of its children for treatment in nearby countries.

#### Biafra Rehabilitation Commission

In 1966, a Rehabilitation Commission was established primarily to aid in rehabilitation or resettlement of the Ibo people who returned to eastern Nigeria from other parts of the country. When Biafra decided to announce secession in May of 1967, this commission was expanded to include responsibility for the care and welfare of all the people in Biafra who were in need as a result of the secession and blockade.

Resident Commissioners were appointed for the following zones: Aba/Annang; Umuahia/Abakaliki; Oji River; Orlu/Okigwi; Onitsha/Awka and Owerri/Port Harcourt. Cooperating with the members of the commission were representatives of the Catholic Mission, World Council of Churches, International Committee of the Red Cross, and a representative each from the Biafran Directorates for Food Supply, Food Production, Fuel Supply, Medical Supply, Clothing and Housing.

The Resident Commissioners were responsible for surveying their particular zones to report progress or failure in relief operations to the whole commission and to suggest methods of improvement in the care and welfare of the refugees.

### Refugee Camps, Nutritional Clinics, Feeding Centers in Biafra

Community development projects, especially schools and town halls, had been numerous in Biafra. Therefore, when the war broke out, many public buildings in the towns and rural areas were available for use by the homeless and for provision of other essential services. Shelter for many months after the onset of war was not a major problem.

In general, refugee camps were set up in schools with not less than 250 persons per camp. Essential dormitory facilities, kitchen, latrine, bathroom, lights, etc., were provided by voluntary community effort, refugees' labor and from official Biafran administration sources. Each camp had a register showing names, sex, and family units of people in the camp and also a visitor's register. Camp directors were charged with providing necessary information on requirements of the refugees such as food, clothing, transport, fuel, accommodations, medical needs and sources of personal income.



Biafran child on arrival Gabon for treatment 4/69

Camp storekeepers maintained registers of food received and daily rations issued. Each camp was expected to be closely integrated with the community in which situated, since this policy had enabled many to meet some of their problems by obtaining land for vegetable gardens and firewood for cooking.

In May of 1968, when kwashiorkor (severe protein deficiency) became prevalent among refugees in and out of the camps, the Rehabilitation Commission appointed a Special

Committee to study the situation and recommend appropriate remedial measures. The Committee recommended establishment of Nutritional Clinics or Feeding Centers in all Biafran villages to offer protein-rich meals to all destitute children. Village relief committees were set up to stimulate local food contributions and to administer imported protein-rich food brought in by the existing air bridges. The Biafran administrative machinery throughout the enclave was involved in the civilian relief program. Every Provincial

Secretary appointed a high administrative official as the Refugee Officer to take charge of relief activities throughout the province. The village relief committees were committed to uniform and equitable distribution of relief supplies in all parts of Biafra.

Following is a report on the number, location, and population of refugee camps and feeding centers in Biafra as of January 4, 1969:

Province Location	Number of Camps	Population of Camps	Feeding Centers	People Fed at Feeding Centers
Aba	168	121,000	123	144,196
Abakliki	96	78,866	74	55,866
Amnang	8	24,714	67	49,179
Awka	127	60,000	140	70,000
Oji River	58	45,506	15	?
Okigwi	143	134,673	159	155,527
Onitsha	199	50,331	335	94,526
Orlu	154	48,752	218	132,000
Owerri	227	106,303	222	570,000
Umuahia	95	32,017	150	?
Uyo	5	5,785	25	6,802
	1,280	707,947	1,528	1,278,096

#### Emergency Food Program Inside Biafra

Early in the emergency, Biafrans used self-help measures in the battle against malnutrition. At the instigation of the Rehabilitation Commission the people planted beans, ground-nuts and vegetables where they lived and in school farms. These foods played an important part in reducing incidence of malnutrition. The people also ate grasshoppers and other exotic sources of protein, as they have in other periods of food shortages in and outside Biafra.

On January 17, 1969, General Ojukwu launched an Emergency Food Production Program called the Land Army. The program was aimed at mobilizing all available resources in Biafra for increased food production and elimination of malnutrition and death by starvation. Although relief organizations were airlifting needed protein foods into the enclave, by January 1969, Biafra was also threatened by a shortage of staple and bulky carbohydrate foods. The Emergency Food Production Program was established to increase food production of these kinds of food over a two-year period by bringing new land into cultivation and encouraging or requiring farming and gardening by the following: (a) individuals and family units; (b) communities and cooperate societies; (c) a land army of men and women mobilized for food production only; (d) governmental and quasi-governmental food producing agencies; (e) institutions, organizations, and various Christian missions.



Ambassador Ferguson  
in Biafra June 1969



Emergency Food Production  
Biafra - June 1969

Based on reports received in June of 1969, the Land Army in Biafra is a success. The first crop of maize was ready the last week in May and was better in quantity and quality than normal. Indications were that it might be possible to have a second maize crop.

Other factors improving the food situation were the food being brought into the enclave from adjacent areas by "bush traffic by head", the cassavas and yams which began to appear in the local markets, and a reinstatement of commercial transactions. Chickens brought in by airlift in April were thriving throughout the enclave. Still another factor was the capture of Owerri by Biafra. There was a large food crop in the ground in Owerri that gave immediate help to those inside the enclave.

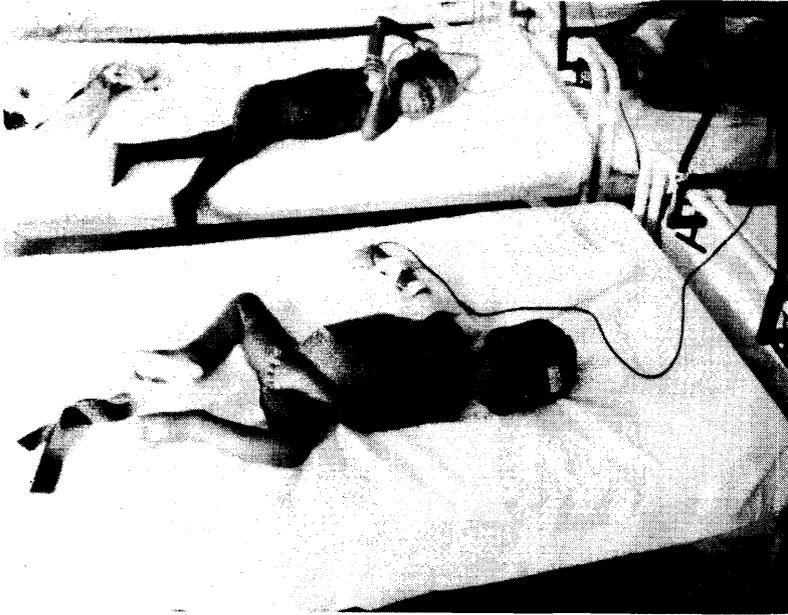
## Health Treatment and Disease Prevention in Biafra

Because of the reportedly high death rate and ill health among displaced persons early in 1968, the medical care and welfare of the people were accorded top priority by the Biafran Rehabilitation Commission. A meeting was held on March 28, 1968, attended by representatives of the Ministry of Health, Rehabilitation Commission, voluntary agencies, and relief bodies. A sub-committee of the combined group was appointed to advise the Rehabilitation Commission on medical matters. The Sub-committee effected the assignment of one resident nurse to each camp. The Biafra National Red Cross assigned a team of voluntary workers to each camp, improving hygiene, organizing transportation of seriously sick refugees to the nearest hospitals, and bringing drugs to the camps. Red Cross personnel also were effective in identifying children with kwashiorkor and bringing them and other needy persons to the nutritional clinics for attention. Medical work in the camps was supervised by a medical officer and a nursing or health sister for each zone. They held at least one clinic a week in each camp.

Mobile medical clinics provided medical support at the feeding centers. Medical and health officials administered vitamin and iron tablets to those requiring them at the feeding centers and referred all serious cases of kwashiorkor to sickbays or hospitals. Facilities available for the treatment of Biafran children in hospitals had been reduced by war, and at the height of the kwashiorkor crisis, the need for makeshift hospitals for the intensive treatment of the disease became imperative. The first kwashiorkor sickbays were set up by voluntary agency workers, and the Rehabilitation Commission Medical Sub-Committee extended the idea to all provinces, stimulating local interest in their institution and suggesting one sickbay for every 15 refugee camps. They also laid down nominal requirements in staffing and equipment before establishing the sickbays, for example: 92 kwashiorkor sickbays had been established by December 1968, caring for 6,620 persons. In the camps, feeding centers, and sickbays, there were about 600 nurses, 60 nursing/health sisters, and 25 senior medical students. Their work was supervised by 40 doctors.

Inoculation programs against smallpox were carried out in many of the Biafran camps early in the war, but vaccinations against measles, polio, pertussis, and tetanus were delayed. In January, 1969, inoculation programs for measles and smallpox for Biafran children were begun, with the joint participation of pediatricians of the University of Biafra Medical School, Biafran Ministry of Health, UNICEF, and ICRC (through which the U. S. Agency for International Development provided funds for the immunization programs). Although there had been some outbreaks of measles, no major measles epidemics had occurred in Biafra through December, 1968. By June 15, 726,851 had been vaccinated against measles and 1,826,131 against smallpox.

Common diseases among the displaced persons included malaria, dysentery, infectious childhood diseases, tuberculosis, undernutrition, malnutrition, hookworm, worms, and others.



Biafran children receiving treatment at French Military Hospital in Gabon - April 1969



Biafran children at Caritas Camp in Gabon  
April 1969

that child care programs should be operated within Biafra and that children should not be taken out of the country under anyone else's juridicial control. They permitted some children to leave with the understanding that this was only on a temporary basis.

The work of the kwashiorkor sickbays would have been impossible without the relief supplies provided by ICRC, Caritas, and the World Council of Churches, and other voluntary organizations, the devotion to duty of Biafran nurses and medical officers, and the support in cash and local food supplies of the Biafran population.

Despite internal transportation difficulties, Biafra made optimum use of indigenous medical staff, as well as of the small number of foreign volunteers. Biafran authorities made few official requests for outside professionals or doctors but accepted those who volunteered.

#### Evacuation and Care Outside Nigeria of Biafran Children

There was no wholesale evacuation of Biafran children outside the enclave, although several thousand of them were airlifted to Gabon and Ivory Coast and Sao Tome for medical care.

In Biafra, the regime consistently maintained

Policy statements on concern for children of Nigeria/Biafra were issued in October and November 1968 by Church World Service and Caritas International. These emphasized the importance of respect for the wishes of the families; return of evacuated children to their own families and environment; programs for nutrition, medical care, and rehabilitation treatment in Biafra; and lastly the consideration of individual problems of homeless children that could be effectively met by temporary institutional care in neighboring countries when in the child's best interest medically, psychologically and socially, and when his right to return is assured.

Generally, child welfare specialists recommend children not be removed from the environment in which they will have to live and grow up. There had been little or no evacuation of children from Biafra until the circumstances of relief and arms planes made transportation available. First came reports from pilots and crews who told of people thrusting babies and small children into the planes. This resulted in children arriving outside Biafra with neither their names nor village of origin known.

After this, the Biafran regime allowed small numbers of properly identified children to be transported to nearby countries which had recognized Biafra, such as Gabon and Ivory Coast, for care until the end of the hostilities.

Even though the agencies representing Joint Church Aid are in principle against the evacuation of children from Biafra, they are providing airlift to Sao Tome and back and help with facilities there. The Governor of Sao Tome has agreed to the entry of 150 children at one time. All children are received at a hospital. When they are able, they are transferred to rest centers—several are in operation. As the children reach a good degree of health, many of them are taken back to their families and villages in Biafra and additional children are brought to Sao Tome for medical and rehabilitative care and return. Some of the rest centers are being supported by the Joint Church Aid, Catholic and NORDCHURCHAID groups. Reports indicate that these organizations are making a contribution equivalent to \$2.50 to \$3.50 a day each for the children.

Following is a report on children evacuated up to May 17, 1969:

	<u>Gabon</u>	
French Military Hospital (largely financed by French Red Cross - Libreville)	246	
Joint German Caritas-Diakonisheswerk Center (11 kilometers East of Libreville)	1,120	
Two Caritas International Centers in Libreville	499	
Several small Caritas centers	166	
Placed by Caritas in private families	17	
Schweitzer Hospital, Lambarene	20	
Two Terre Des Hommes Centers in Libreville	480	
Diocese of Mouila	48	
	<hr/>	2,596

Since the beginning of the program in October 1968 in Gabon, an additional 103 children evacuated from Biafra died.

	<u>Ivory Coast</u>	
Children removed from Gabon to Ivory Coast	500	
Others flown to Ivory Coast in May	<u>1,600</u>	<u>2,100</u>
		4,696

Organizations involved in assistance to these children were: German Caritas and Diakonisheswerk, Caritas International, French Red Cross, Gabonese Red Cross (largely symbolic), French Committee for Struggle Against Hunger, French Ministry of Defense, Terre Des Hommes, French Association of Order of Malta, and the Schweitzer Hospital.

#### FEDERAL NIGERIA

Following the secession action by Biafra in May 1967, the Federal Military Government (FMG) declared on July 6, 1967, that it would reunite the country and open hostilities commenced. This led to the dislocation of populations along the northern and southern fronts and the beginning of food shortages in these FMG areas.

#### Development of the Emergency in FMG Areas

As FMG troops occupied more and more of the secessionist area, large numbers of people were caught behind Federal lines and cut off from their homes and sources of supplies.

The civilian emergency was slow in being recognized by the FMG. In the spring of 1968 it had reached such proportions that the Nigerian Red Cross and International Committee of the Red Cross were brought together to plan a relief program. The FMG favored this plan and indicated that its major function was to stop the secession and bring Nigeria back together again. Subsequently, the FMG raised relief to a high priority operation.

In August 1968, most of the homeless were found to be living in squalid, temporary shelters, including storage sheds, public buildings, workers' housing, markets and a variety of structures not intended for human habitation. A number of relocation camps were set up but the civilian victims of the war suffered from food deprivation and malnutrition. Many of them, especially children, had kwashiorkor (malignant protein malnutrition) or marasmus and other hunger-caused diseases. Medical services and facilities were lacking. The number of people threatened by famine climbed to one million.

#### Relief Action Taken by Federal Nigeria

On July 10, 1968, the FMG announced the establishment of a National Rehabilitation Commission and set aside \$2,800,000 as a first installment to carry out a program of emergency relief and rehabilitation. Commission members included permanent secretaries of the FMG and other chief executives.

The Commission was given the responsibility of obtaining food, clothing, medicine, and shelter for the needy affected by the war, including Ibos remaining in "liberated" areas, and with determining priorities for emergency relief operations in all parts of Nigeria. FMG funds enabled the Commission to purchase and distribute local foods and medical supplies to displaced persons in war area relief centers and camps. Each of the four States affected by the civil war—East Central, Rivers, Mid-Western, and South Eastern—established a State Rehabilitation Commission. These commissions worked in cooperation with the National Commission on local food procurement. They organized local distribution teams, coordinated Nigerian Red Cross staff and volunteers, and opened public buildings and areas for use by displaced persons and for food distribution.



Orphan camp in Uyo - October 1968

Prior to establishing the National Rehabilitation Commission, the FMG had authorized the Nigerian Red Cross to ask the International Committee of the Red Cross (ICRC), as a neutral intermediary, to issue an appeal to all national Red Cross societies and other governments for help in meeting the needs of the victims. ICRC accepted the major responsibility for bringing food and medical assistance to Nigeria in cooperation with the Nigeria Red Cross and the National Rehabilitation Commission.

In October of 1968 the Commission sponsored a joint medical/relief operation for areas north of Port Harcourt. Two ICRC teams were provided assistance by 25 members of the Nigerian Red Cross, the State Rehabilitation Commission, and the FMG military forces. The Nigerian Red Cross under Commission auspices inaugurated a series of orientation courses for expatriates and Nigerian relief workers to give realistic training in the over-all relief program and to enable Nigerians to assume more of the work done by expatriates.

The Commission coordinated its operations with those of the Nigerian Red Cross and ICRC, and made plans for taking over from the international voluntary agencies at the end of hostilities. (See ICRC section of this report for further information on their coordinated program.)

Even though the end of the conflict is not in sight, the FMG has already taken a look ahead to post-war reconstruction and rehabilitation. At a conference in Ibadan, Nigeria in April of 1969, planning was initiated for a new four year period from 1969 through 1972 which contemplated an investment of \$3.26 billion from federal, state, and private sources, not including the oil industry. About \$500 million of this was anticipated as needed for a variety of projects from emergency relief through road reconstruction to education and agricultural credit.

For some of the current reconstruction and relief, however, the FMG sought and obtained assistance from the U. S. Government for road repairs, operation of refugee schools, repair of damaged bridges, equipment and staff for restoration of hospital services, improvement in water systems, food production, community development and physical rehabilitation projects.

On June 30, 1969, the FMG relieved ICRC of its over-all coordinating and operational relief role and assigned this responsibility to the National Commission for Relief and Rehabilitation. ICRC humanitarian relief is continuing but plans for its phasing out are underway.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The United States Government has made commitments of food, medicines, vehicles and cash for relief operations totaling \$65,996,300. The following covers U. S. policy on assistance to Nigeria, a chronology on USG emergency relief operations, the role of AID Disaster Relief Coordinator (AID/DRC), appointment of a special coordinator, and a record of Agency for International Development contributions.

#### Policy

The policy of the United States is to provide relief to civilian victims on both sides of the conflict, regardless of political association or physical location. USG emergency aid has been channeled through international organizations and U. S. voluntary agencies. In addition, direct support was provided for the International Committee of the Red Cross, as the major coordinating agent for relief to both sides.

#### Chronology of U. S. Relief Operations

United States assistance to the victims of the civil war in Nigeria began in 1967, when Catholic Relief Services diverted 187,800 pounds of P.L. 480 food valued at \$17,589 to the displaced people. During the same period, the USG paid airlift costs of \$385 for antibiotics and other medicaments donated by the American Red Cross.

Early in 1968 as conditions worsened and reports came in about the increasing numbers of victims in need of food, the USG made plans with Catholic Relief Services, UNICEF, and Church World Service for a large scale P.L. 480 emergency food program to be operated through the International Committee of the Red Cross.



Storage facility at Enugu - February 1969

On May 26, 1968, the U. S. Ambassador officially declared a disaster in Nigeria and authorized use of AID contingency funds for disaster relief. Subsequently money was allocated to the International Committee of the Red Cross to support its relief operation budget. Many other nations and organizations also contributed to the ICRC budget, but the U. S. Government was by far the largest contributor. While most of the allocations to ICRC were to support

general relief operations, some of its cash donations were specifically labeled for the purchase of large quantities of stockfish (a high protein product especially acceptable to Nigerians) and for measles and vaccine inoculations. ICRC used USG and other funds for a variety of relief activities, including charter of air, water and road transport, purchase of high priority food items, trucks, equipment and medical supplies. Also, cash was used to pay for personnel services and travel expenses of outside professionals, and technicians and local employees. Dates and amounts of contributions to ICRC were: June 12, 1968 - \$100,000; July 1968 - \$1 million; November 1968 - \$2.5 million; February 1969 - \$620,000; March 1969 - \$6 million; April 1969 - \$1 million; May 1969 - \$5,450,000; June 1969 - \$3 million. As of June 30, 1969, the USG had donated to ICRC relief operations cash totaling \$21,970,000.

AID/Washington also allotted money to the U. S. Mission in Lagos for purchase of vehicles used in distribution of relief supplies; internal transport, charter airlift from Europe to Lagos; local purchase of drugs, medicaments, other disaster supplies; for payment of transport cost of donated items; procurement of cloth from U. S. excess property and expenses of personnel furnished by the American Red Cross and U. S. Public Health Service. Other funds were allocated for use in AID/W on Nigerian operations.

Dates and amounts of these cash allocations were: June 1968 - \$100,000; August 1968 - \$250,000; October 1968 - \$250,000; April 1969 - \$19,600; June 1969 - \$579,400. These were for the emergency activities. In addition USAID was allotted \$3 million for a relief and rehabilitation program. Total allotment USAID and AID/W - \$4,199,000.

Early in the emergency relief program, the U. S. Mission reimbursed U. S. voluntary agencies for transportation expenses of high priority supplies

donated by them which in most instances were transported by air to Nigeria. Beginning in January the procedure was changed and funds were allocated to the Voluntary Agencies Division of the Office of Private Resources for this purpose and also for assisting with the JCA airbridge costs from Sao Tome. Total allotment to PRR/VAD from the contingency fund through June 30, 1969 was \$1.9 million.

In mid-summer of 1968 USAID representative Edward Marks and an ICRC convoy of landrovers and trucks with seven team members and medical supplies went from Lagos to Enugu to Uyo via Ikom. For one week Mr. Marks and the team went to relief centers at Nsukka, Enugu, and Agwu in the East Central State, and Uyo, Babk, Nwaniba, Ikot Ekpene, and other areas in the Southeastern State. Mr. Marks observations and reports from UNICEF, CRS, and ICRC recorded the ever increasing numbers of people in need and gave proof that the starvation death rate in the federal controlled area was steadily climbing. All indications pointed to the urgency for a massive relief undertaking.

In August of 1968, Ambassador C. Robert Moore, Deputy Assistant Secretary of State for African Affairs, flew to Geneva for urgent consultations on the relief operations. He was accompanied by Mr. Ramone Eaton, Vice President for International Relations of the American Red Cross, Mr. Frank Sieverts, Special Assistant to Ambassador Averell W. Harriman, and Mr. Stephen R. Tripp, AID Disaster Relief Coordinator. During this period of two weeks, the team met with officials of the ICRC and with representatives of other governments and organizations who shared the U. S. concern over the starving victims throughout Nigeria. One of its purposes was to find an effective system for distributing foods and supplies to the victims in Nigeria and Biafra, and to urge both sides to accept daylight flights and a land corridor and a cease fire for humanitarian reasons.

At that time, the USG in response to an ICRC request sent an FAA airport expert to Geneva to advise on the feasibility of completing an airfield in Biafra to be used solely for delivery of food and medicines. This turned out to be the Obilago airstrip which was captured by the FMG less than a month after it became operational.

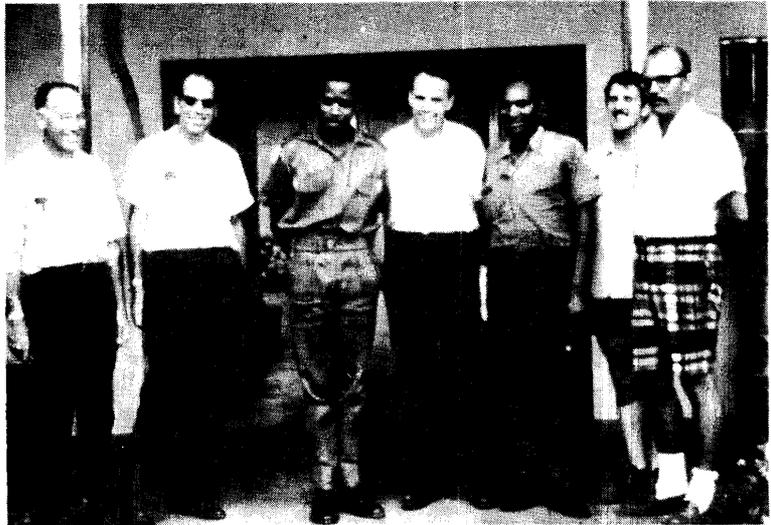
The U. S. Public Health Service, National Communicable Disease Center began work with ICRC in September 1968 on a nutrition/health survey plan. By June 30, NCDC had sent 12 doctors who worked four at a time generally for a period of three months each on this program. Details on this are given in the next section under ICRC. AID/W designated \$620,000 of the funds donated to ICRC for measles/smallpox campaigns in Biafra and also maintained its ongoing measles/smallpox program in Nigeria.

On October 1, 1968 a group of State/AID officials arrived in Lagos to make a first-hand study of the relief situation and Nigeria's need for reconstruction and rehabilitation assistance. Leading the group was Assistant Secretary of State for African Affairs Joseph Palmer II. He was accompanied by W. Haven North, Director of AID's Office of Central and West African Affairs and Mr. Tripp. Mr. Marks and William B. Wheeler, Assistant Director Programs for USAID in Nigeria, made up the rest of the study group.

Their recommendations included: (1) appointment to the U. S. AID Mission in Nigeria of an Assistant Director for Relief and Rehabilitation to help coordinate USG relief efforts, and to work with the Nigerian Red Cross, ICRC, voluntary agencies, the National Rehabilitation Commission of the FMG, and other nations; (2) the allocation of \$3 million to be used for a variety of projects such as emergency medical relief, community rehabilitation fund, emergency road repair and transport, assessment of food requirements, Nigerianization of relief and rehabilitation and USAID Mission support to relief agencies.

#### AID Disaster Relief Coordinator Role in Relief Operations

The AID Disaster Relief Coordinator's office took a major part in coordinating relief activities for Nigeria/Biafra from May 1968 to December 1968. AID/DRC was in daily contact with the Director, Central and West African Affairs, AID; the State Department Country Director's office for Nigeria in the office of the Assistant Secretary of State, Bureau of African Affairs, and also served as a technical advisor to the Nigerian Task Force.



FMG, ICRC, Nigeria Red Cross and USAID officials at Enugu - October 1968

The ever increasing number of victims, magnitude and severity of the civil war, and difficulty of the relief operations required the assignment of a specific full time staff to be responsible for Nigeria/Biafra relief.

During November and December, the Nigerian situation changed from a short term disaster emergency to long-term relief and rehabilitation, and was assigned to special personnel in State and AID. AID/DRC continued its reporting through February 15, 1969, and then summarized available information through June 30, 1969 for inclusion in this report.

#### Special Coordinator and Staff

In February 1969, the National Security Council completed a review of events in Nigeria and Biafra. Recommendations were made to President Nixon, who immediately appointed C. Clyde Ferguson as Special Coordinator for Relief for Nigeria/Biafra with the rank of Ambassador. The President gave him a special mandate to devote his full time to mobilizing humanitarian forces to break the relief impasse.



Ambassador Ferguson (right) and Colonel Dewey of his staff in Biafra 6/69.

Ambassador Ferguson and his staff provided guidance to the ICRC for upgrading the entire relief operation. Specifically they gave leadership to ICRC on an integrated logistical set-up, including a technical assistance plan and provision of landing craft for a possible river opening into Biafra.

Ambassador Ferguson became a leader among world leaders on humanitarian relief for Nigeria/Biafra. He was present at conferences at any place at any time that could offer any hope for a solution. His proposal for a surface route

up the Cross River into the Biafran enclave won wide acceptance, but its implementation remains hung up on political/military entanglements of both sides.

Ambassador Ferguson sought to develop and secure approval for other means than night airlift in getting supplies into Biafra. He urged the improvement of all relief programs to victims on both sides of the conflict. He made numerous trips to Nigeria, the Biafran enclave, Geneva, and to other countries in order to coordinate and stimulate adequate world-wide humanitarian response to the needs of the civil war victims. He assigned qualified administrators and logisticians to work in Geneva and Nigeria to advise on critical decisions involving better ways to get supplies and services to those in need.

AID office of Central and West African Affairs under the direction of Mr. North gives administrative, technical support to Ambassador Ferguson and his staff and coordinates field operations of USAID.

RECORD OF FOOD AND CASH  
DONATIONS BY THE AGENCY FOR  
INTERNATIONAL DEVELOPMENT

Food

160,413 metric tons of corn/  
soya/milk (high protein mix),  
nonfat dry milk, bulgur and  
other grains donated under the



Messrs. Flanagan and Dewey among Nigerian children along front lines.

coordinated effort of the U. S. Department of Agriculture and AID. The food had a Commodity Credit Corporation value of \$29,645,300 plus ocean freight charges estimated at \$8,282,000, for total value of.. \$37,927,300

Note: The \$8,282,000 represents total estimated transportation charges for both P. L. 480 food and donated items by voluntary agencies of \$10,500,000 less the cash allocations below of \$1.9 million to PRR/VAD and \$318,000 of the USAID allocation set aside for volag transport.

<u>Cash</u>				
	ICRC	US Mission or AID/W	PRR/VAD	
Contingency Funds Disaster Relief PRR/VAD	\$ 1,100,000	\$ 600,000	\$1,900,000	\$ 3,600,000
Support Assistance Funds	20,870,000	3,599,000		24,469,000
Total - Cash	\$21,970,000	\$4,199,000	\$1,900,000	\$28,069,000
Total USG Commitment as of June 30, 1969 - Food and Cash				\$65,996,300

#### ICRC AND NIGERIAN RED CROSS RELIEF OPERATIONS

This section tells how and when ICRC became involved in Nigerian emergency relief. It describes separately the relief operations in Biafra and Federal Nigeria, including details on air, sea and land transportation, distribution, stockpiling and use of personnel and equipment. It gives special attention to the medical program on each side. Some of the efforts of foreign governments and voluntary agencies have been interwoven to such an extent that the separate identities of the participants and their activities have been submerged by the unity of purpose and operation which marked their dedication to their tasks. Relief action continues. The work described herein is an interim tribute to the enormous effort and significant accomplishments achieved.

#### How and When ICRC Became Involved

ICRC became engaged in humanitarian work in Nigeria in a limited way soon after the outbreak of the civil war on July 6, 1967. By July 11, it had a delegate in Lagos and was providing assistance under the terms of the Geneva Convention. Delegates were sent to oversee prisoners captured on both sides. During July, ICRC established two medical teams--one in FMG territory and one in Biafra. It provided medicines and bandages sufficient for needs of the troops and prisoners of war. As the war worsened the medical aid program was extended.

Soon there were ever increasing numbers of civilians in need of assistance. In October, 1967, the Nigerian Red Cross reported that it would need \$140,000 per month to care for the 100,000 persons made homeless. A relief plan was prepared and the Nigerian Red Cross was given authority by the FMG to expand its activities. The FMG also announced that an Ad Hoc National Relief Committee had been formed to coordinate activities of participating voluntary organizations such as the Oxford Committee for Famine Relief (OXFAM), Catholic Relief Services, Christian Council of Nigeria, and others. The Nigerian Red Cross expressed its willingness to work wherever need existed. The NRC invited ICRC to visit already established relief camps and began plans to establish more temporary camps in FMG areas. It also made a national appeal for funds. ICRC chartered a plane to bring in donated medicines to Port Harcourt in December of 1967 and indicated it would try to work in Biafra as well as FMG, allocating money and personnel to both sides. ICRC promptly issued an appeal to other countries for funds and medical supplies, and later the Nigerian Red Cross appealed to sister Red Cross Societies for cash and relief goods.

In March 1968, there were indications that the relief situation on both sides was becoming crucial. The number of victims needing food and medical aid was rapidly increasing and movement of supplies into the war-torn areas on both sides became more and more difficult.

On April 10, 1968, with the approval of the FMG, the Nigerian Red Cross called on the ICRC to assume major responsibility for relief operations. During May and June, ICRC/NRC formulated emergency plans for large scale relief operations.

At the same time the mushrooming relief needs in the Biafran enclave called for direct and prompt action by ICRC. In order to extend its humanitarian aid to both sides, ICRC pulled together a fleet of planes, boats and vehicles to deliver supplies. It located medical personnel, organized and staffed medical and relief teams. In FMG areas it coordinated the relief activities of other voluntary agencies. ICRC engaged in fund raising and obtained donated services, things and supplies from governments and Red Cross Societies around the world. In order for ICRC to handle this massive program, the USG and other governments urged it to develop a budget and to plan for months ahead on food and other requirements. With high purpose and dedication, ICRC operated above most of the divisive forces that it encountered. It succeeded in establishing an impartial relief program and provided foods, services and medical care wherever needed and under very difficult circumstances. It conducted its relief operations in a neutral, non-political manner. It earned financial support from the U. S. and other governments. While it began with the full acceptance of the Nigerian Red Cross and the FMG, political pressures caused the FMG to advise ICRC on June 30 that it was transferring the relief operation responsibility to its National Relief and Rehabilitation Commission. The complete story of ICRC's many services and its compassion and the complexity of the herculean relief program may never be written, but the results in terms of lives saved and suffering relieved are plainly evident.

Specifics on ICRC relief operations for Biafra and Federal Nigeria follow.

ICRC - BIAFRA

### Airlift

Because neither side could agree on how to move large quantities of supplies, night airlift became the method for importation of high protein food and medical supplies into the Biafran enclave. Although inadequate to meet the total food needs, the airlifts served well in feeding the hungry, reducing the threat of famine and controlling kwashiorkor.



ICRC C-97G at Cotonou airfield

In June/July 1968, ICRC began its first airlift into Biafra from the city of Santa Isabel on the Spanish island of Fernando Po, which got its independence in October 1968. At first only intermittent flights were made. In September ICRC launched a full scale airbridge. Airfields at Uli and Obilago were used to land the supplies in Biafra.

ICRC had built the airfield at Obilago with Biafran help for the sole purpose of humanitarian aid, but its early capture and closure by the FMG ended its short period of usefulness.



Obilago airstrip

All relief flights were extremely dangerous because of the physical limitations of the airstrip, the need to land under cover of darkness, and the menace of military intervention. The FMG did not give approval for night flights on the grounds they were used for delivery of arms as well as relief goods. ICRC planes confined

themselves to relief cargoes, but the Uli strip was also used for military deliveries by Biafran authorities. There was little done by the FMG to hinder ICRC flights early in the airlift operation but serious incidents occurred during the first six months of 1969.

The ICRC airlift from Santa Isabel operated on a steadily increasing tempo until January of 1969. By then 713 flights had been made with delivery of 6,670 tons of food, medicine, relief supplies, and personnel. At that time the ICRC airfleet consisted of four DC-6B's, two DC-7's and one Transvaal, each having a payload capacity of from 9 to 10 tons.

Many difficulties prevailed for these ICRC flight operations. In a nutshell, they reached their height when on January 6, 1969, the newly formed Republic of Equatorial Guinea (REG) halted the ICRC airlift. The REG charged that fuel was a military item and could not be termed as relief goods. ICRC contended that it could not procure fuel in Biafra and had to bring it along to use in trucks for delivery of food to the camps and distribution centers. This order by the REG caused a serious disruption of the flights. The ICRC Commissioner-General reluctantly negotiated with the REG for temporary, special flight approvals and on February 12 obtained reinstatement of the airlift from Santa Isabel.

During the Santa Isabel hiatus, negotiations for an alternative airlift from Dahomey were undertaken. On January 28, the Government of Dahomey authorized ICRC to airlift relief goods from Cotonou to Biafra.

To augment the ICRC airbridge, the USG in January 1969 transferred four C-97G's from the United States to ICRC at a cost of \$3,670 each. These planes have a payload of 14 to 15 tons compared to the 9 to 10 tons of each plane then used by ICRC.

As of May 19, 1969, ICRC had the following aircraft in operation at Cotonou: one DC-6B; three C-97 Stratofreighters; one Beechcraft-Kingair, and at Santa Isabel, four DC-7's. By June 11, 1969, ICRC had completed 1,161 flights from Santa Isabel and 867 from Cotonou. Through these flights 21,000 tons of relief supplies were delivered to Biafra.

During May, ICRC lost a DC-6 aircraft in a crash several miles from Uli airfield killing the entire crew of four. On June 5-6, FMG forces shot down an ICRC DC-7 relief plane. Again all four crew members were killed. ICRC protested to the FMG. There ensued a series of charges by the FMG and counter-denials by ICRC. ICRC Commissioner-General August Lindt was refused permission to return to Nigeria by the FMG. ICRC refuted the FMG accusations and praised Dr. Lindt's work. While maintaining its worldwide reputation and responsibility to aid those who suffer from war, ICRC respects the sovereign rights of states. ICRC issued a statement which is quoted in part: "...the ICRC have been the object of unjustifiable and unacceptable attacks. Engaged in relief actions on behalf of the civilian populations in the war stricken areas on both sides of the front in Nigeria, the ICRC have consistently taken every precaution against adopting any position of a political character." The statement emphasized that ICRC had

never under any circumstances transported arms or ammunitions or other equipment that would further the conduct of military operations, nor had it transmitted military information or intelligence, its only aim being the open transportation and distribution of relief supplies.

Recalling that it had never ceased to stress the need for daylight flights, ICRC pointed out it had nevertheless proceeded with the night flights of relief at its own risk and peril during the protracted negotiations on daylight flight arrangements, this being consistent with its dedicated humanitarian mission. The military and political actions on both sides forced the stoppage of the ICRC airlifts from Dahomey and Fernando Po.

Extensive international efforts by the USG led by Ambassador Ferguson and his staff over a period of several months this spring brought about an agreement in principle between both sides to a surface route into the Biafran enclave by way of the Cross River. At this writing, the enterprise is imperiled by differences between the two sides on details of the operation and the decision of the Federal Military Government of Nigeria to take over the relief work of the International Committee of the Red Cross for both sides.

#### Distribution of Supplies, Stockpiling, Personnel, Equipment

During the month of April 1969, ICRC reported it was cooperating in the operation of 11 distribution centers within Biafra and was helping to feed about 1,500,000 people who were receiving about 4,900 tons of ICRC air-lifted supplies. As of May 1969, ICRC had 650 nationals and 88 expatriates working for it inside the enclave, using 156 ICRC trucks, landrovers, and other vehicles.

The 21,000 tons of relief supplies delivered to Biafra through June 11, 1969 can be divided into the following categories:

Dried Fish	40.0%
Dry Milk	25.0%
High Protein CSM (corn, soya, milk mix)	24.0%
Other Foods	4.0%
Salt	2.5%
Sundry	2.0%
Fuel	1.5%
Medical Supplies	1.0%

Food delivered into Biafra was consumed promptly. As of May 19 there were 2,500 tons of supplies for Biafra stockpiled at Santa Isabel and 10,800 at Cotonou. Working at Cotonou, ICRC had 28 nationals and 40 expatriates and at Santa Isabel 104 nationals and 13 expatriates.

#### Medical Assistance

An important part of ICRC relief in Biafra was its medical assistance. The monthly total of hospital cases averaged 10,000. In addition, thousands



Stockpile at  
Santa Isabel

received preventive treatment at the feeding centers. From September 1968 to February 1969, ICRC disbursed approximately \$800,000 for the purchase of medical supplies. From January 1 to May 19, 1969, it had transported 146.8 tons of medical supplies to the enclave.

ICRC reported that by June 15, 1969 in cooperation with Biafran health officials it had vaccinated 726,851 Biafrans against measles and 1,826,131 against smallpox, for which AID had made a direct contribution to procure the vaccines and to furnish professional assistance.

ICRC has established a budget for the period from March to August 1969, providing for an expected monthly expenditure for Biafra, other than from donations in kind, of 5.5 million Swiss francs or about \$1.3 million.

ICRC - FEDERAL NIGERIA

#### Air Transport

ICRC originally had four aircraft based at Lagos which brought priority supplies from there to Calabar and Enugu. These were reduced to two—a DC-4 and a Cessna 360—which in recent months were used mainly to transport personnel.

#### Water Transport

Supplies were also brought into Port Harcourt and Calabar from Lagos by boats chartered by ICRC, Netherlands Red Cross, or German Red Cross. There were five of these Coasters, with the following capacities: two of 240 tons each; two of 1500 tons each; and one of 600 tons. The steaming time to Calabar from Lagos was 36 hours, plus 2 days of loading and unloading.



Cross River near  
Calabar

One of UNICEF helicopters  
which operated between  
Calabar and Uyo.  
October - 1968



### Rail Transport

The FMG made available to ICRC free of charge the use of one railroad which goes from Lagos to Oturkpo, via Ibadan, Minna, Kaduna, Kafenchon, Lafia, and Makurdi once a month. The trip takes from 3 to 4 weeks, and ICRC could transport 1600 tons of food free each time.

### Road Transport

Due to the war which destroyed one section of the bridge at Nsukka there are only a few land routes of limited capacity open to the East. The shortest via the Lakojo Ferry across the Niger River makes only about three trips a day and can carry 14 cars or six lorries. It is usually jammed



ICRC vehicles

with military vehicles and supplies. An alternate route involves driving further north, crossing the bridge at Jebba, then back across the Benue River at Makurdi. Roads are in poor condition. It takes about a week for a truck to go from Lagos to Enugu.

ICRC obtained and stationed trucks, land-rovers, and other vehicles in forward areas to bring food and other supplies to distributions points.

Lorries were also used

for delivery from the rail depot at Oturkpo to Enugu, a distance of 60 miles. When possible, ICRC hired contractors with 7-ton to 25-ton trailers for this heavy duty hauling. As of May 19, 1969, ICRC had 437 vehicles at Enugu, Calabar, Lagos, Port Harcourt, Uyo, Asaba and other locations.

#### Distribution of Supplies, Stockpiling, Personnel

ICRC had 25 distribution centers within FMG territory. Although it had been feeding about one million people up to April of 1969, by June this had dropped to 750,000. It was expected, however, that this drop was temporary. Monthly food distribution for one million people was about 4,000 tons per month of imported food and 600 tons of local food. Food distributed in FMG areas by ICRC consisted of the following:



Food distribution at Uyo

Yams	20.0%
Palm Oil	6.0%
Groundnuts	3.0%
Garri	20.0%
Cereals (including large quantities of high protein CSM & enriched bulgur)	45.0%
Beans	3.0%
Milk	1.5%
Dried Fish	1.0%
Salt & Sugar	0.5%

In addition to regular food distribution, ICRC established and maintained stockpiles totaling about 30,000 tons of food, donated about one half by the USG and the rest from other countries, at Port Harcourt, Calabar, Enugu, Agbor/Asaba, Lagos, and Uyo. These stocks were rotated as current distribution was made and new food delivered to the port at Lagos and transported from there to the forward depots. The purpose of maintaining the 30,000 tons level stockpile was to keep up a steady flow and to be ready for the expected large demands should the war end.

Recent reports have indicated that the civilians who were accessible to established relief centers were reasonably well-fed. But there remained many people on both sides, deep in bush areas or moving because of the shift in battle lines who could not be reached. Population dislocations, breakdown of transportation and communication links, loss of health and welfare services were particularly severe in areas of military operations. Although surveys in March and April 1969 indicated a diminishing need for imported foodstuffs among stable populations in the Federal affected areas, due in part to increased supply of locally produced items, the intensified military action in the spring of 1969 produced new dislocations of people. By this time availability of emergency foodstuffs from foreign sources was not considered a problem. What was needed was a quick and efficient method of identifying critical areas and closer coordination of relief administration to facilitate a more rapid response to changes.

In Federal territory as of the end of June, ICRC reported 1,114 nationals and 205 expatriates representing 17 nationalities working in the coordinated relief program.

ICRC has established a budget for the period from March 1969 to August 1969, in which the monthly expenditure for FMG areas not including donations in kind was expected to be 8,500,000 Swiss francs (about \$1,970,000).

Forty-three national Red Cross Societies and 19 international and voluntary organizations have taken part in the ICRC relief operations, most of which have made their contributions in cash, in supplies, or in personnel to both sides.

ICRC has worked closely with the Nigerian Red Cross and believed that a transition of relief operations should be pre-planned for eventual take-over by the Nigerian Red Cross and the Nigerian Government. Initial steps had been taken to bring this about, but realistically this should take several months.

## Medical Assistance

Starting in September 1968, AID arranged with ICRC for the U. S. Public Health Service, National Communicable Disease Center (NCDC), to engage in an epidemiological nutritional survey of starvation and famine. Initially, Dr. William Foege of NCDC, Dr. W. Bulle of ICRC and Dr. T. Ademola of the



ICRC nurse with Nigerian children

Nigerian Ministry of Health, worked out the plan. Under it people at relief centers would be seen by a doctor to identify those in critical health. He would indicate those in need of immediate hospital and intensive care treatment; those in need of daily care and feeding; and those who could survive with weekly distribution of supplemental food. During December, the medical teams went to 21 village areas occupied by displaced persons. They reported a 36% factor of people with critical

health problems. NCDC epidemiologists/nutritionists continue to work with ICRC on this health/nutrition plan. The cooperative project was worked out with ICRC/NRC by USAID and was accepted by FMG authorities. The NCDC doctors designed a "Height/Weight Screening Chart for Malnutrition." The chart had the following columns: "Patient requires individual medical attention"; "Stamped card holder entitled to weekly food supplements"; and "No card for food supplements." The chart also contained instructions



Children in FMG area

that "All patients get card for milk for mother or food for baby.", and "All obviously pregnant women get weekly food supplement." Nigerian helpers were trained to record weight and measure, vaccinate with smallpox vaccine, and issue cards.

This health/nutritional survey demonstrated that from a therapeutic and preventive viewpoint food supplements should be given to all children in the 0 to 4 age group and that 50% of these children required medical evaluation. In addition, all children under 40 inches in height required weekly food supplements.

At each food distribution point a short talk was given on use of the imported foods such as the CSM (corn, soya, milk formula), non-fat dry powdered milk, food preparation and the importance of sharing food with the children. At the nutritional treatment centers for those in need of daily care each patient was given a milk, sugar, and oil mixture, in addition to prepared meals.

The screening process used assured that virtually all of the nutritional needy would be detected. The plan was accepted and put into practice in cooperation with nutritionists from USPHS. From September 1968 to June 30, 1969 NCDC had four doctors in Nigeria at any one time working on health/nutrition programs.

At the end of June, ICRC reported it had 28 health/medical teams in operation in FMG areas.

Some 36,000 persons per week received ICRC medical assistance. From September 1968 to February 1969, ICRC spent 4,710,000 Swiss francs (about \$1 million) for the purchase of medical supplies distributed in FMG areas amounting to 323 tons. As of May 10, 1969, there was an active immunization program against measles and smallpox in progress in all areas under the FMG/USAID Smallpox/Measles Eradication Program. This was handled as part of the Ministry of Public Health immunization program and is not included as part of the emergency operation.

The medical/health care supplies, foodstuffs, and vaccination campaigns significantly reduced problems of contagious diseases and nutritional deficiency diseases in the FMG areas, with the exception of tuberculosis. Continued medical aid is particularly necessary to maintain the health of persons who are displaced. Accurate surveillance is required to detect contagious diseases and to record changes and trends in the health of the people. Any drastic reduction in foodstuffs and medical services could reverse the progress made thus far.

#### LEAGUE OF RED CROSS SOCIETIES

The League is assisting the Nigerian Red Cross to build up its organization and service programs. It provided this essential though less dramatic aid throughout the relief operation.

## UNITED NATIONS - RELIEF OPERATIONS

### UNICEF

In January 1968, UNICEF began emergency assistance to children and mothers in Nigeria--in areas under both Federal and Biafran control--by shipping foods, drugs, and medical supplies. By midsummer it had widened its relief support to provide transport (trucks and helicopters) and personnel. Among the 10 personnel were nutrition experts who served as child feeding advisors. The seven on duty in June 1969, four in FMG areas and three at Sao Tome, were receiving salaries at a rate of \$50,000 a year from UNICEF.

As of May 1969, UNICEF had shipped 10,973 tons of U. S. Government Public Law 480 high protein food commodities to Biafra via Santa Isabel, Sao Tome, and Cotonou, and 10,634 tons of USG P. L. 480 grains and dry milk to FMG areas through Lagos, for a total of 21,607 tons. Value of this food was \$6,682,794, for which credit is given in this report under USG.

From its own supplies (including donated drugs, food, and other supplies from U. S. private sources) UNICEF arranged for delivery of 350 tons to Biafra and 3,292 tons to FMG areas. These supplies were valued at \$959,675. UNICEF paid shipping costs amounting to \$318,645 for them as well as for transport costs of relief items donated by other countries and organizations.

Total value of UNICEF supplies and transport costs: \$1,278,320

Credit for value of supplies donated by other countries through UNICEF has been given to the appropriate country.

In addition, UNICEF allocated funds to be used for Nigeria/Biafra emergency programs, from which it made cash contributions to ICRC, supported helicopter airlift of over 1200 tons of supplies to people in the Calabar/Uyo area who were practically inaccessible by other means of transport, provided 25 trucks for use by relief teams, paid for distribution, personnel, and for other items. Total allocation: \$2,400,000  
\$3,678,320

Through its provision of smallpox and measles vaccine, UNICEF played an important role in the immunization programs in Biafra.

UNICEF has prepared a program to aid in the first phase of rehabilitation in the former Eastern Nigeria area, acting on formal requests by State Governments in Rivers and South-Eastern State. These are states where there has been prolonged and heavy fighting and they are the first to turn to UNICEF with formal requests for a rehabilitation aid. The East Central State has been the hardest hit, but only small portions of it are accessible at present. When full access is granted, this State will need one of the greatest rehabilitation operations undertaker in Africa, South of the Sahara, according to a UNICEF report.

The UNESCO Representative in Nigeria visited the South-Eastern State in October and the Rivers State in November of 1968 as part of a United Nations team. The rehabilitation plans for these states are in line with the proposals considered by UNESCO.

Proposed UNICEF rehabilitation assistance in these two states is summarized as follows:

	<u>US Dollars</u>	
<u>Rivers State</u>		
<u>Education</u>		
Kits for primary schools	\$ 12,000	
Science-teaching equipment, text books	32,000	
Transport	5,000	
	<u>\$ 49,000</u>	
 <u>Health</u>		
Supplies and equipment for hospitals	\$ 40,000	
Drugs	90,000	
Transport	19,000	
	<u>\$149,000</u>	\$198,000
 <u>South-Eastern State</u>		
<u>Education</u>		
Science-teaching equip. and hand tools	\$ 70,000	
Transport	7,000	
	<u>\$ 77,000</u>	
 <u>Health</u>		
Supplies & equipment for hospitals and maternities	\$ 50,000	
Drugs and vaccines	150,000	
Transport	33,000	
	<u>\$310,000</u>	
 <b>TOTAL PROPOSED UNICEF REHABILITATION ASSISTANCE</b>		 <b>\$508,000</b>

It is heartening to note that both states have school and hospital restoration projects amounting to an estimated 9-1/2 million dollars for 1968/69.

UNICEF will work with the States as indicated and in addition plans to assign staff to the areas concerned to supervise distribution and use of equipment.

#### World Food Program

World Food Program approved an emergency assistance program in Nigeria for food valued at \$2,837,000 including ocean freight. The USG approved a WFP request for 1,250 metric tons of cornmeal, valued at \$161,000, including ocean freight, in support of this program.

WFP contribution of food (less \$161,000 credited under USG) . . . \$2,676,000

## CARITAS, INTERNATIONAL RELIEF OPERATIONS

In December of 1967, Caritas (CI) began an aid program to help war victims on both sides of the Nigeria/Biafra conflict.

### Biafra

On Marcy 27, 1968, CI initiated an international relief effort to airlift food and medical supplies on a regular basis from Europe to Biafra, in cooperation with the World Council of Churches. It had previously participated in special chartered flights. In June of 1968, Caritas established, in cooperation with other organizations, an airlift from the Portuguese Island of Sao Tome, about 200 miles south of Biafra in the Gulf of Guinea. Into this effort were joined Catholic, Protestant and Jewish organizations. Occasional chartered flights from Europe directly to Biafra continued.

Bringing supplies to the area actually held by the Biafran authorities was difficult, dangerous and expensive. When negotiations in Niamey and Addis Ababa brought no results for a mercy corridor, CI enlarged the airlift operation from Sao Tome. In order to safeguard the distribution of relief supplies exclusively to civilian war victims, German Caritas in July of 1968 purchased two planes to be used only for these humanitarian flights. The German Protestant relief agency, Diakonisches Hilfswerk, followed this example and purchased two additional planes.

During the month of August, Scandinavian church agencies united themselves into a group called Nordchurchaid and joined the Caritas operations at Sao Tome. At that time their activities were reported as two distinct groups. Later they combined to form the Joint Church Aid, International. (See comments under Nordchurchaid and Joint Church Aid, International.)

By May of 1969 CI, in cooperation with Biafran authorities and Protestant Relief Groups, was aiding in the feeding and care of 1.4 million persons daily in 1,280 camps and 1,528 feeding centers.

Supplies coming into the Uli airstrip from Sao Tome were divided on alternate flight nights for the Catholic and for the Protestant relief operations. Early in 1969 reports showed that the Catholic group had 20 trucks which loaded material at the airfield and delivered it to Ihoma, about 20 miles from Uli. From there smaller vehicles went out to four sub-centers with the supplies. From these four locations, the supplies were then delivered to the individual feeding centers. Practically no reserve of relief supplies was kept at the sub-centers.

### FMG Areas

Caritas, International supported the activities of the Social Welfare and Medical Department of the Catholic Secretariat of Nigeria, making substantial contributions to victims in the Federally controlled dioceses of Makurdi, Calabar, Ikot Expene, Lokoja, Benin, and Ogoja, since Christmas of 1967. Through the Catholic Secretariat of Nigeria at Lagos, direct



contact was maintained with the Nigerian National Relief Commission and the Nigerian Red Cross. In February of 1968, CI handed over special lorries as a gift of Pope Paul to the NRC to ensure transportation of food and medicines to the needy areas.

Special arrangements were concluded with the International Committee of the Red Cross in August of 1968 under which Catholic mission personnel carried out relief work through

four mobile teams based at Abakaliki, Afikpo, Obubra, and Obudu. The initial stock of medical supplies was provided with CI funds, while ICRC provided supplies for the feeding program. OXFAM contributed the vehicles to make the teams self-sufficient.

CI carried on its relief program in FMG areas throughout 1968 and 1969 through the Social Welfare Department of the Catholic Secretariat of Nigeria, which is a member of the National Relief Commission. Other members included the ICRC, Christian Council of Nigeria (WCC), Catholic Relief Services, and several national organizations.

#### Summary of CI Contributions

Although many national Caritas organizations provided millions of dollars worth of supplies, CI is not credited here with the value of donations in kind. Credit for these donations has been given under private donations by specific countries in the "Other Nations" section. Also, some of the individual Caritas cash donations were listed with the total contributions reported by particular countries. The following are cash contributions by Caritas organizations and other Catholic groups which were not, insofar as is known, reported under "Other Nations".

Caritas, International - Emergency Fund	\$ 25,000
Vatican	247,000
England	116,360
Australia	8,900
Belgium	59,640
France	15,370
Austria	22,040
Italy	<u>256,290</u>
Total Caritas Cash Donations Not Credited Elsewhere	\$740,600

## WORLD COUNCIL OF CHURCHES RELIEF OPERATIONS

The World Council of Churches (WCC) basic policy in Nigeria/Biafra relief was to work through the International Committee of the Red Cross to bring aid to civilian victims on both sides. In March of 1968, WCC Division of Inter-Church Aid, Refugee & World Service (DICARWS) arranged for the first charter flight of the Protestant Churches to carry urgently needed high-protein foods and medicines to the people in the former Eastern Region. WCC also cooperated with Caritas and ICRC in the early relief flights to Biafra from Europe prior to the establishment of the Sao Tome airlift operation.

Throughout 1968 and 1969, WCC directed its relief efforts to both sides. On January 15, 1969, WCC found it necessary to make a temporary change in policy due to the suspension at that time of ICRC flights from Fernando Po to Biafra by the Government of Equatorial Guinea, and sent \$250,000 to Nordchurchaid to assist in operating the Sao Tome airlift.

At the time of its cash donation for the Sao Tome airlift, WCC also set aside \$250,000 for the Christian Council of Nigeria for increasing the relief program in Federal controlled areas.

### Biafra

The WCC did not itself send any personnel directly into Biafra. Expatriates working in the Protestant Churches Relief Program in the area were sponsored by Mission Societies or other sending agencies. Their work in Biafra, however, was carried out under the name of WCC.

The Protestant group cooperated with Biafran authorities, ICRC and Catholic groups in operating camps and feeding centers. Protestant groups in Biafra received all the supplies airlifted from Sao Tome to Uli every other night, no matter what the original source. The agreement between Protestant and Catholic groups to alternate in receiving supplies rather than dividing up each night provided for a fair and efficient method of receiving and distributing relief goods to the feeding centers. The Protestant groups established the following arrangements for handling their supplies. A minister of one of the churches was placed in charge of administration. He supervised the off-loading from the planes and the reloading into church trucks. Convoys of six to eight trucks escorted by private cars transported the supplies. On "Protestant nights" about 30 trucks delivered the relief items from Uli to the Central Protestant store a few miles away. WCC theological students from Trinity College Seminary rode beside the truck drivers and supervised the negotiation of road blocks between the airstrip and the store. All trucks were unloaded before dawn. Later in the morning way-bills were issued for trucks to take the supplies forward to 10 provincial stores. Sorting was done at the central store. Theological students checked the unloading and reloading of each truck. Apart from a small reserve stock retained at the central store, all supplies which came in during a night went out to the provincial stores by ten o'clock the next morning. Drivers returned to the central store by late afternoon to prepare for the next operation. At the provincial stores, run by Protestant missionaries, they kept a week's reserves to supply hospitals, sickbays, feeding centers, and refugee camps in their region.

## FMG Areas

WCC shipped relief goods to the Christian Council of Nigeria which cooperated with other voluntary agencies and ICRC in forwarding and distributing. On several occasions, WCC sent medicines and medical equipment by chartered aircraft to Lagos to supply four teams working in the distressed areas under Federal control. DICARWS assisted the Christian Council of Nigeria in the staffing of six medical relief teams sponsored by National ICA agencies to work under the ICRC. These teams worked in South East and East Central States at Anua, Enugu, and Abak near Uyo as part of the total ICRC relief operations. Each team had a doctor, several nurses, a supply officer, and a maintenance man. By mid-February, 1969, two of the teams had returned to Denmark and to Norway, and changes had been made in the number and assignments of personnel in the International and American (CWS) teams. The Australian and British Teams continued with their assignments in Enugu and Abak.

## Summary of WCC Contributions

Protestant churches from many countries contributed their aid through the World Council of Churches. Value of the goods sent (over \$4 million) has been included in donations reported by specific countries and is treated in the "Other Nations" section of this report. WCC is, therefore, not credited here for these donated goods in order to avoid duplication. However, cash contributions by WCC were reported as follows:

Christian Council of Nigeria	\$ 233,180
Christian Committee for Refugees	52,400
ICRC	211,715
Cost of food/medicines	36,540
Freight for stockfish	215,000
Charter flights	187,416
Nordchurchaid/JCA	571,500
Refugees and stranded persons	60,128
Misc. (Upsala Peace Mission, films, etc.)	<u>7,573</u>
Less USA donations credited to CWS	<u>- 416,696</u>
Total WCC cash donations not credited elsewhere	\$1,158,756

## NORDCHURCHAID

Scandinavian organizations and churches form "Nordchurchaid" for the purpose of airlifting supplies to Biafra. Its members consisted of Folkekirkens Nodhjælp of Denmark, Kirkens Nodhjelp of Norway, Lutherhjælpen of Sweden, and Kyrkans Ulandshjælp of Finland. Nordchurchaid began its airlift operations at Sao Tome on August 26, 1968, in cooperation with the Catholic and Protestant airlift already in operation. With donated funds from Scandinavian churches and organizations, Nordchurchaid signed a special charter contract with various air transport companies. Planes were piloted mainly by Nordic crews. By September 30, it had added five planes



JCA/USA C-97G at Sao Tome

to the four that had been provided by German Caritas and Diakonisches Hilfswerk. With a total of nine planes it was possible to deliver about 100 tons of supplies into Biafra each night. Eventually the Catholic and Protestant groups and Nordchurchaid formally joined together to form the International Church Relief Organization and then in November of 1968 the (International) Joint Church Aid. Nordchurchaid funding is credited to those who donated the money.

#### (INTERNATIONAL) JOINT CHURCH AID

To repeat, the name of Joint Church Aid (JCA) is used to describe the cooperative airlift operations from Sao Tome to Biafra. Members of JCA consisted of: Catholic Relief Services (US); Church World Service (US); Das Diakonisches Hilfswerk (Germany); Caritas (Germany); Caritas, International; and Nordchurchaid. Twenty-five churches and private organizations cooperated in the JCA airlift.

In December of 1968, Catholic Relief Services and Church World Service worked out an agreement with the U. S. Government for the sale of four C-97G's, each with an optimum 18-20 tons capacity. The USG sold the planes at \$3,670 each to the newly formed Joint Church Aid/USA, whose members were CRS, CWS, and the American Jewish Committee. It was understood these planes would carry relief supplies only, to Nigerian and Biafran controlled

areas, with proper inspection to insure this, and that they could not be transferred to anyone else. JCA/USA then operated the four planes as a part of the Joint Church Aid, International.

On May 5, 1969 it was announced that an Icelandic air transport company had been formed and registered at Reykjavik which would operate exclusively for humanitarian relief under the name Aid by Air. Its Board of Directors consisted of representatives from all five Nordic countries (Finland, Sweden, Norway, Denmark and Iceland). Its first activity was to take over operation of the four DC-6B planes in the JCA air fleet, one of which had been damaged by a rocket on landing at Uli on June 2.

There have been changes in the kind and number of aircraft operating from Sao Tome over the several months of the JCA operations. One DC-7 and one C-97G were destroyed in crashes. At the end of May JCA had a fleet of 10 planes, including three of the original four C-97G's, two Superconstellations, and the four DC-6B's being operated by Icelandic Aid by Air. Early in June JCA's Canadian member agency Canairerelief indicated it would soon send a third Superconstellation freighter to be added to the airlift.

JCA maintained flights into Biafra on a varying schedule of landings depending on restrictions, military action, weather, condition of planes, and air crews. Many times these conditions forced the planes to return without delivering their cargoes. With the addition of the four C-97G's in December of 1968, JCA was in a position to increase considerably the number of tons delivered each night. From March to June mercy flights by both JCA from Sao Tome and by ICRC from Dahomey and Santa Isabel exceeded the so called capacity of Uli airstrip which had been placed at 300 tons. JCA alone accomplished 24 night flights with 270 tons on April 9. JCA also sponsored a special air charter flight from Europe to Biafra about once every eleven days.

The supply base airport at Sao Tome is a modern one, well run by the Portuguese authorities. It was not originally intended to handle the intensive JCA traffic. When the airlift was increased by American and Canadian planes early in 1969, additional facilities were required. With the efficient cooperation of the Governor and his officials, the parking space was enlarged and fueling capacity increased.

At the other end in Biafra, Uli airstrip is nothing more than a converted piece of highway. It is long enough, but only a little over 80 feet wide.

From Sao Tome, the planes flew in relays, each attempting two shuttles per night. This allows three hours flying time, a half hour unloading at Uli, and a half hour to forty minutes loading in Sao Tome. When the planes arrived over Uli, the landing lights were turned on for a maximum of 30 seconds so the pilots could identify the field and get half way down, then the lights were turned off and the touch down and ground operations were in the dark.

By April 1, 1969, it was possible to report that delivery of food by the combined air bridges of JCA and ICRC to Biafra had eliminated deaths from starvation. This did not mean the food rations were satisfactory. In fact, there was barely enough high protein-type food to meet the needs. It could be said that the Biafran people were no longer dying of starvation. However, these airlifts had only provided food for immediate distribution and were insufficient to set up stocks inside Biafra. Unfortunately, military action in June 1969 forced stoppages of the airlifts. Other means of delivering supplies had not been resolved as of June 30, 1969.

#### Summary of JCA Air Deliveries

From March 1968 when Catholic and Protestant first regular relief flights began through June 12, 1969 there were a total of 2,706 flights that delivered 27,127 tons of supplies to Biafra. Total costs for 2,279 of these flights from mid-August to April 30, 1969 were placed at about \$7 million. No credit is given under JCA for value of supplies delivered or these operational costs. Credit for this has been given under the appropriate countries and organizations who contributed to JCA operations.

#### INTERNATIONAL COUNCIL OF VOLUNTARY AGENCIES

The International Council of Voluntary Agencies (ICVA) was formed in March 1962 in a merger of three international non-governmental coordinating organizations working in the field of assistance to people in need. Its membership is around 100 organizations, including Catholic, Protestant, and Jewish agencies in various countries.

In a letter to certain governments concerning ICRC appeals for funds for Nigeria/Biafra relief, the Governing Board of ICVA recalled that many of its member voluntary agencies were active in the airlift and in massive relief programs on both sides of the conflict to which ICVA gave full support. In the letter, ICVA encouraged voluntary agencies and governments to respond generously and promptly to the appeals of ICRC for financing its relief operations.

#### ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. PRIVATE AID

Voluntary agencies registered with the USG advisory committee on Voluntary Foreign Aid work in coordination with the U. S. Government in disaster relief operations. This was true of the Nigeria/Biafra relief operations. However, the size of the program involved other private U. S. relief. The registered U. S. voluntary agencies and the American National Red Cross are listed first followed by a separate list of contributions by other groups. The American Jewish Committee is included with the registered voluntary agencies because it is a member of JCA/USA and some of its member organizations are registered.

Some of this information has already appeared in this report, but it is repeated here to identify it more explicitly with the voluntary agency concerned, and to avoid the impression of an incomplete recital of its generous humanitarian contributions.

American Friends Service Committee

The American Friends Service Committee has 22 feeding station/out-patient clinics located within a 7-mile radius of Abiriba which directly aid 300,000 Biafrans. Each clinic is staffed by a Biafran nurse and midwife.

AFSC sent a 3-man observer team in 1968 to visit both sides. It provided money for the purchase of local food. AFSC also sponsors a joint medical program in Biafra with the Mennonite Central Committee. (See the MCC report in this section). Value reported for AFSC contributions . . . . . \$105,000

American Jewish Committee

The American Jewish Committee coordinates the efforts of 22 American Jewish organizations to raise money for Biafran relief. With the funds raised it supports the JCA/USA segment of the Sao Tome airlift and contributes to the relief operations for Biafra by Church World Service and Catholic Relief Services. It is a member of Joint Church Aid/USA. As of March funds raised totaled about . . . . . \$200,000

American National Red Cross

The American National Red Cross has made available ten disaster relief experts, usually on four months tours of duty, to work with ICRC in Nigeria. ANRC paid their salaries, while out-of-pocket expenses, travel and per diem were paid by USAID/Nigeria or ICRC. These men were: Glen Haydon, Claud Payne, William Winters, Charles Estill, S. Gene Nunley, Wilton Gaefe, Don Northey, Alan Platt, Robert Vessey and Robert Earl. They served as area coordinators, traffic managers or directors of logistics. The last four named are presently in Nigeria. Salaries for 1/3 year for 10 persons estimated at \$50,000.

ANRC donated medical supplies from its own stock inventory and obtained drug donations from U. S. pharmaceutical firms totaling 11 tons and valued at \$226,815.

The ANRC also donated \$110,000 to ICRC for Nigeria and forwarded \$29,296 of cash contributions made to ANRC by U. S. private citizens. Included in this amount was \$3,003 sent in by students of Princeton University.

Total contributions made by and through ANRC . . . . . \$416,111

Catholic Relief Services

Catholic Relief Services has had a program in Nigeria since 1959. It was therefore able to divert supplies from its stocks on hand to people fleeing from one area of Nigeria to another as early as May of 1967. Immediately following the outbreak of hostilities in July, CRS made available in Biafra 50 tons of food and 67 tons of clothing. Five Americans serving with CRS in other parts of Africa were assigned to Nigeria to assist the Nigerian Red Cross in an emergency program. In cooperation with the Catholic Medical

Mission Board of New York, CRS recruited eight registered nurses to serve on mobile medical and relief teams under the auspices of ICRC and the Nigerian Red Cross in stricken areas under Federal control.

CRS has been providing large quantities of relief supplies to both sides on a continuing basis and has been contributing both supplies and cash for expenses toward airlifts from the United States, Europe and Sao Tome. The airlift from Sao Tome direct to Biafra was organized by Caritas International in February of 1968 with the first flight being made in March of 1968. CRS was among the church relief agencies who helped organize the operation. Later the Caritas flights were joined with the Nordchurchaid airlift to form the International Joint Church Aid and CRS continued with its support of the combined airlifts from Sao Tome.

CRS is a member of Joint Church Aid/USA which owned the original four C-97G planes purchased from the U. S. Government and used in the Sao Tome airlift. (See JCA/USA in this section.)

From January, 1968, through June, 1969, CRS arranged for shipment of 10,504 tons of supplies to Biafra and 30,667 tons to Nigeria, of which 38,586 tons came from the U. S. Government food donation program under Title II of Public Law 480, for which dollar value is given in the USG



At Sao Tome

section of this report. The remainder of 2,585 tons were provided from CRS resources and private donations made through them.

Following is a breakdown of reported contributions by CRS:

2,585 tons of high protein food, medicines and medicaments and other emergency supplies, value plus shipping costs paid by CRS. . . .	\$3,604,842
Cash provided for local purchase of food . . . . .	44,000
Cash received from individual donors and foundations in the United States to be used for ocean and air shipment expenses, including the Archdioceses of New York, Washington, D. C., and Baltimore, the Diocese of Camden, the Council of Catholic Women, Patrick and Anna M. Cudahy Fund., W. O. O'Neill Foundation, De Rance, Inc., Frank J. Lewis Foundation, Raskob Foundation for Catholic Activities, U. S. Superior Council of the St. Vincent de Paul Society. . . . .	610,000 *
(*Does not include \$40,000 contributed to this purpose by the American Jewish Committee since this is credited under that agency.)	
Cash donated to ICRC. . . . .	5,000
Cash received from Northwestern Students, Evanston, Illinois . . . . .	6,000
	<u>\$4,269,842</u>

Note: While there were periodic reports of specific amounts turned over to JCA for airlift expenses by CRS, it is assumed these were a part of the above \$610,000 and not in addition to.

### Church World Service

Church World Service has been providing emergency relief since late in 1967, beginning with coordinated relief shipment of drugs by the World Council of Churches and the International Committee of the Red Cross. Since that time, CWS has established a regular program in Nigeria and supplies have been sent on a continuing basis to victims on both sides. The first CWS staff persons in Biafra arrived there in March of 1969--a registered pharmacist and an automobile mechanic.

By September of 1968, CWS had recruited with the assistance of the Mennonite Central Committee an eight man medical team consisting of a doctor, his pharmacist wife, four nurses, a food distribution officer and a relief administrator. The team was endorsed by the World Council of Churches and sent to Nigeria to work under the auspices of the ICRC and Nigerian Red Cross. It operated out of the Enugu sector and became a model operation for incoming relief teams. Team members were able to turn over relief activities to Nigerians as well as to cooperate with the East Central State Government and military authorities to produce a relief program of large scale.

In Federal Nigeria, CWS works through the Christian Council of Nigeria, which is a member of the Nigerian National Relief Commission, and the International Committee of the Red Cross.

In Biafra, CWS channeled its material aid through the ICRC airlift from Fernando Po and the Caritas and Nordchurchaid, later Joint Church Aid, from Sao Tome. CWS is a member of Joint Church Aid/USA which owns the four C-97G planes purchased from the U. S. Government and used in the JCA-international airlift at Sao Tome. See JCA/USA in this section. CWS contributed funds to JCA/USA to help in maintenance and other expenses of these planes and also gave substantial financial support toward the expenses of the JCA international airlift by channeling cash contributions through the World Council of Churches, to Nordchurchaid and to Canairerelief.

From January, 1968, through June, 1969, CWS arranged for shipment of 3,703 tons of supplies to Lagos for FMG areas and 3,636 tons to Biafra, of which 5,636 tons were USG P. L. 480 food commodities for which dollar value is given in the USG section of this report. The remainder of 1,703 tons were provided from CWS own resources and private donations made through CWS.

Following is a breakdown of reported contributions by CWS:

1,703 tons of supplies, value and shipping costs paid by CWS		\$2,004,652
Cash donations for Nigeria		
For air bridge	\$ 125,000	
To German churches	75,000	
To World Council of Churches	80,000	
To WCC for Nordchurchaid	125,000	
To WCC for ICRC	50,000	
To Nordchurchaid for 3 flights - Europe to Sao Tome, March 1969	84,000	
JCA/USA	230,000	
Canairerelief	100,000	
JCA - 3 flights from Amsterdam to Sao Tome	37,000	
JCA - May 10 contribution	150,000	
	<u>\$1,056,000</u>	
Subtracted from these cash donations are contributions of \$20,000 by Biafra Committee, \$38,000 by the Jewish Committee and \$25,000 by Lutheran World Relief, which is credited to these agencies	<u>- 83,000</u>	<u>\$ 973,000</u>
Total reported CWS contributions . . . . .		\$2,977,652

Christian Children's Fund, Inc.

The Christian Children's Fund began emergency relief in 1969. In cooperation with the Oxford Committee for Famine Relief (OXFAM), CCF supports a medical team of 10 persons including a physician, nurses, and other health workers in Itu, Biafra. The team assists in the care, feeding and medication of some 500 cases per day in temporary clinics and in an intensive care center

for 250 children suffering from severe malnutrition. CCF also provides immunization, medication, feeding station, supplemental clothing and other supplies where needed. Cost of this program per month has been estimated at \$10,000. Total through June 30, 1969, estimated . . . . . \$ 45,000

Christian Reformed World Relief Committee

The Committee has sent food, medicines for distribution through the Nigerian Christian Council, to needy persons on both sides . . . . . \$ 6,000

Church of the Brethren World Ministries Commission

Seven volunteer workers are assigned to an ICRC-Lutheran Church team in Biafra. It cooperates in sending medical supplies, high protein beans, metrecal, etc., through CWS. It has budgeted for relief work in Nigeria/Biafra . . . . . \$ 25,000

Community Development Foundation

A staff representative of the Community Development Foundation working with Ibo refugees in Assaba and Agor areas launched seven community self-help projects to improve living conditions, better food distribution and repair a war damaged hospital and village. Cash allocation by CDF . . . . \$ 55,000

Cooperative for American Relief Everywhere (CARE)

A CARE representative spent ten days in Federal Nigeria with regard to the relief needs and on August 11, 1968, a representative was appointed on an indefinite basis. A third CARE man arrived in Lagos for one week's consultation on October 16, 1968. Personnel costs reported by CARE amounted to \$3,927.

CARE's first shipment of supplies to Federal Nigeria was made in August 1968 and the first to Biafra through ICRC via airlift from Fernando Po in December of 1968. From its own resources, CARE shipped 1,351 tons of food, medical supplies, cloth and other supplies to Biafra and 228 tons to Lagos for a total of 1,560 tons through May 31, 1969. These supplies were valued at \$610,500 plus shipping costs of \$1,293 paid by CARE. CARE also provided \$40,000 for local purchase of rice in the Enugu area and for miscellaneous other local purchases.

Total contributions reported . . . . . \$654,427

Direct Relief Foundation

During the period January 1, 1968, through February 11, 1969, the Direct Relief Foundation provided pharmaceuticals and supplies worth \$155,219 and \$129,713 to Biafra and Nigeria respectively, for a total of . . . . \$284,932

International Rescue Committee

The International Rescue Committee contributed donated drugs and medical supplies for the November charter flight to Biafra coordinated by Biafra Relief Services Foundation and B'nai Brith valued at \$179,000. It also contributed about \$50,000 worth of medicines and \$80,000 worth of food to the "Christmas Ship" and handled the logistics for the shipping of the cargo. Total contributions to date . . . . . \$ 309,000

Joint Church Aid/USA (JCA/USA)

In December of 1968, after investigating the availabilities of aircraft, CWS, CRS and the American Jewish Committee, arranged with the U. S. Government for the purchase of four C-97G "strato-freighter" aircraft at a nominal cost of \$3,670 each. These JCA/USA aircraft, with 14 ton cargo based on a maximum imprint capacity at Uli airport, were added in stages to the Sao Tome airlift beginning with the first two on January 24, 1969. The JCA/USA aircraft added measurably to the capacity of the airbridge from then through June 15, 1969, when all night airlifts to Uli were halted. One of the C-97G's made a crash landing at Uli airfield on May 7, 1969. No lives were lost but the crippled plane was later destroyed by Nigerian jet strafing.

Lutheran World Relief

Lutheran World Relief has raised \$1,000,000 through a special appeal which will be programmed over a period of about two years in projects of relief, rehabilitation and reconstruction. To date LWR has provided 60 tons of medical supplies valued at \$264,073 and blankets valued at \$79,910. It has allocated funds as follows: \$50,000 for purchase of stockfish; \$25,000 for cost of food airlifts; \$75,000 for a medical relief team; and \$50,000 for the purchase of medicines by the Christian Council of Nigeria. Recently, it appropriated \$250,000 for relief and rehabilitation projects in Nigeria/Biafra in the remaining months of 1969. Total reported LWR contributions . . . . . \$ 793,983

Medical Assistance Program

The Medical Assistance Program has airlifted seven tons of medicines, valued at . . . . . \$ 600,385

Mennonite Central Committee

The Mennonite Central Committee has a jointly sponsored program with the American Friends Service Committee in Biafra to provide medical and emergency relief services. MCC also works in FMG areas, and has provided supplies through Church World Service valued at \$14,691 plus cash donations of \$40,000 for both sides. In June 1969 the joint MCC/AFSC paid \$25,000 for processing and shipping 100 tons of stockfish donated by Norway. Total reported contributions by MCC . . . . . \$ 79,691

Save the Children Fund, N. Y.

Cash contribution to ICRC of \$1,000 and to CARE for medical supplies of \$5,608 for a total of . . . . . \$ 6,608

Seventh-Day Adventist Welfare Service

The Service has shipped approximately \$100,000 worth of medicines donated by U. S. pharmaceutical companies through Church World Service, and an X-ray unit worth \$3,000 for a total of . . . . . \$ 103,000

Unitarian Universalist Service Committee, Inc.

As of March 15, 1969, this Committee had sent cash for agricultural supplies, medicines and costs of resettlement of 30 families in the village of Awo Omamma. Their major effort is the hospital in this village.

Total reported contributions . . . . . \$ 20,000

World Relief Commission

The World Relief Commission sends funds and personnel to aid in local purchase of food, vehicles and other relief articles needed to help displaced persons and to operate feeding programs in both Nigeria and Biafra. As of March 15, 1969, more than \$30,000 had been contributed to Nigeria and more than \$50,000 to Biafra, for a total of . . . . . \$ 80,000

Total for 19 registered volags including American Red Cross . . \$11,031,631

Other U. S. Private Assistance

Other U. S. voluntary groups contributed to the Nigeria/Biafra relief operations. Some gave directly in supplies or cash to a particular program, some to other relief agencies and others to specially organized surface and air shipments from the United States such as the Abie Nathan airlifts and "Christmas Ship" in November and December of 1968. Following is a list of these groups on which reports were received and the value of their contributions:

Albert Schweitzer Fellowship, Inc.	\$ 30,000	
American Committee to Keep Biafra Alive	20,000	
Biafra Relief Services Foundation	50,000	
B'nai Brith Foundation	250,000	
US Committee for UNICEF to UNICEF operations	<u>426,000</u>	
		\$ 726,000

Pharmaceutical Manufacturers Association

The following U. S. pharmaceutical firms made donations of drugs, antibiotics and other medical supplies to victims of the conflict through the American National Red Cross and U. S. voluntary agencies. The values of their contributions are listed below but are not added to the others in this section since they have been included in the reports by the various agencies:

Abbott Universal, Ltd.	\$ 30,000
Ayerst Laboratories	12,000
Ciba Pharmaceutical Company	3,058
Cyanamid International	39,816
Hoffman La Roche, Inc.	5,500
Johnson & Johnson	3,000
Lakeside Laboratory, Inc.	1,060
Meed Johnson Laboratories	250,000
Merck, Sharp & Dohme	2,408
Miles Laboratories, Inc.	42,000
Parke Davis Company	13,260
Pfizer International	166,127
A. H. Robbins Company	2,300
Schering Corporation	5,000
Upjohn International	12,260
Wyeth Laboratories	104,590
	<u>\$691,950</u>

Total Value Contributions from U. S. Volags & Private Groups ...\$11,757,631

#### ASSISTANCE PROVIDED BY OTHER NATIONS

There have been at least 30 countries besides the United States which have contributed food, medicines, other supplies and cash toward the Nigeria/Biafra relief operations. Protestant and Catholic churches in Germany, Ireland, Netherlands and the Scandinavian countries were especially involved. In many instances they made their donations through the World Council of Churches or Caritas but it is credited here to the individual country under private contributions. Listed below are nine countries whose donations as of March 31, 1969 totaled more than a million dollars. For the remaining 21, one total is given.

Donor Nation	Public	Private	Total
Canada	\$ 2,781,600	\$ 925,000	\$ 3,706,600
Denmark	1,180,000	700,000	1,880,000
Fed. Rep. of Germany	10,000,000	13,500,000	23,500,000
Ireland	312,000	1,413,600	1,725,600
Netherlands	5,300,000	4,400,000	9,700,000
Norway	7,505,000	1,900,000	9,405,000
Sweden	1,680,000	4,100,000	5,780,000
Switzerland	4,585,000	2,735,000	7,320,000
United Kingdom	5,000,000	2,525,000	7,525,000
	<u>\$38,343,600</u>	<u>\$32,198,600</u>	<u>\$70,542,200</u>
21 Other Countries	1,187,400	2,392,800	3,580,200
	<u>\$39,531,000</u>	<u>\$34,591,400</u>	<u>\$74,122,400</u>

RECAP ON WORLDWIDE CONTRIBUTIONS		
USG	\$65,996,300	\$ 77,027,931
U. S. Voluntary Agencies	11,031,631	
United Nations (UNICEF & WFP)	6,862,320	\$ 82,884,076
Caritas, International	740,600	
World Council of Churches	1,158,756	
Other Nations	74,122,400	
Total Contributions - All Sources		\$159,912,007

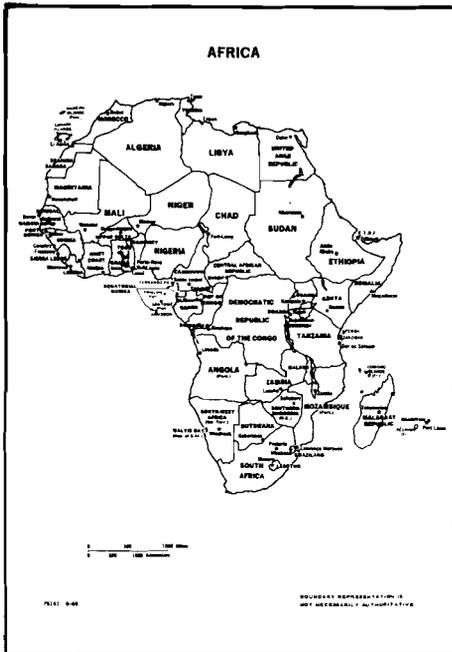
## BACKGROUND AND HISTORY

### Africa as a Whole

In any consideration of the emergency, it is important to bear in mind the way in which African nations developed and their attitude toward territorial change.

### Decolonization, Boundaries and Institutional Frameworks

The process of decolonization—most of it in the past ten years—has resulted in 42 independent states on the continent and its off-shore islands. The boundaries were not drawn in Africa by Africans for African reasons and purposes, but by European colonial powers. Lost in the process were a host of ethnic, religious, and economic considerations which could have resulted in different and more logical units and boundaries. Within the boundaries little effort was made to facilitate internal communications among Africans which might have laid the framework for future nationbuilding and cooperation among nations. Moreover, in the earlier colonial period, under authoritarian political structures, national institutional frameworks were absent.



In the late colonial period, an effort was made to reverse these policies, and for the most part brief periods of self-government preceded independence. Yet the institutions that emerged were often fragile and out of tune with the needs and aspirations of African societies.

### Attitude Toward Territorial Change

The African governments have reacted to these inherited weaknesses by taking a strong position against territorial change by force or subversion.

This view is enshrined in the Charter of the Organization of African Unity (OAU) and represents a widespread conviction that any violent change, such as secession, within the political boundaries of any one of the independent countries of Africa augurs serious trouble for the rest of the continent. African leaders have felt they had to start with a premise that the thousands of ethnic groups on the continent should and could reconcile their differences within existing boundaries and build towards national identities or be faced with a process which might adversely affect every African nation and hopelessly fractionalize the continent. They insist upon the necessity for dialogue and participation in the solution of problems by those directly affected. The OAU considers the problems of Nigeria closely related to the problems of Africa as a whole and soluble only within an African framework.

#### Historical Background with Regard to Nigeria

Nigeria, with about 50 million people, is the most populous of African countries. It has three major ethnic groups and some 250 smaller ethnic groups with differences in language, culture, and religion. The country is split by a Y-shaped river system, made up of the Niger and Benue Rivers. The Hausa and Fulani people live in and on both sides of the fork of the Y; the homeland of the Yorubas is in the area to the southwest of the Y, while to the southeast is the home of the Ibos, the group which predominates in the area under the control of the Biafran authorities. The way in which Nigeria developed as a nation and tribal rivalry are important to an understanding of why civil war finally broke out in that country in 1967.

#### Colonial Period

Great Britain established a colony in Lagos in 1861. British influence then expanded along the coast and into the interior. In 1914 three separate territories in the country were joined to form the Colony and Protectorate of Nigeria. In 1922 the first elected African legislators were included in a council for the colony (Lagos) and southern part of the protectorate. In 1943 three Africans were appointed to the Executive Council. Following World War II, successive evolutionary constitutions legislated by the British Government moved Nigeria toward self-government on a representative, federal basis.

#### Independence and Organization as a Republic

On October 1, 1960 Nigeria was granted full independence. Constitutionally, the new republic was organized as a federation of three "states" called the Northern Region, the Eastern Region, the Western Region, and later in 1963 a fourth, the Mid-Western Region, was added. Each Region had its own regional legislature, cabinet and premier. The federal government was headed by a Prime Minister, who served as chief executive and was responsible to the elected lower house of the federal parliament. The President of the Federal Republic was chief of state.

## Political and Tribal Rivalry

This federal system was based upon a compromise among political groups of long-standing rivalry and regional and tribal differences. The large, tightly-disciplined northern party dominated the federal parliament (and government) in alliance with one of the smaller southern-based parties. Shifts in political alliances, protests against electoral trickery, and charges of regional corruption led to increasing dissension in 1964 and 1965, coups and massacres in 1966, and civil war in 1967.

From the beginning, the complexity of Nigerian politics was compounded by the positions of the minority tribal elements within the regions--principally the Ibibios and Efiks (about 3.5 million) and Ijaws (about 1 million) in the East and Mid-West and the Tivs (about 1.5 million), Kanuri (about 2.5 million) and other minority elements in the North. These minority elements resisted the efforts of the regionally based parties to try to dominate their regions. Thus, during the early periods of independence the Ibibios, Efiks and Ijaws of the East tended not to support the Ibo-based party in that region but rather to side with the Western-based Action Group. A similar situation pertained to the Middle Belt populations of the North.

The Ibos traditionally had a politically decentralized and egalitarian society. They are an aggressive and industrious people with a high regard for individual ability. The European culture had a very strong influence on them as did the Christian missionary presence. Prior to Nigerian independence, Iboland had 300 high schools and over a million children in grammar school--more than any other tribal group in Nigeria. The Ibos had many lawyers, doctors, engineers, and other professional people among them and held a disproportionate share of jobs in the civil service, public utilities, and in commerce. Unfortunately, the Ibos gained the enmity of many groups in Nigeria.

Despite these centrifugal tendencies, the urge to surmount regional interests and to construct a national consensus persisted for five years. The shaky truce among the tribes collapsed in January of 1966 when a coup led by a small group of military officers--mostly Ibos--assassinated Sir Abubakar Tafawa Balewa, the Prime Minister of Nigeria as well as the Premiers of Western and Northern Nigeria.

The Ibo rebels had their own reasons for acting as they did--dissatisfaction with the pace of modernization; widespread corruption; and exclusion of important elements of the population from participation in the decision making process. But even at this point, elements in the army, including Ibos, recognized that events had been carried too far and that the country could be torn apart unless corrective action were taken at once. They stepped in to reassert legality and to try to redress the damage that had been done to the national fabric. The army chief of staff, General Ironsi, an Ibo, became head of state, and military governors were appointed to each of the Regions. However, the new Government was not strong enough to punish the leaders of the original coup despite strong demands to that effect from the North. Nor was it strong enough to prevent vengeful

outbreaks in the North in May that resulted in mass murders of civilian Ibo citizens who lived in that region. In July of 1966 a Northern-led army mutiny brought death to Ironsi. Lieutenant Colonel Yakubu Gowon, a Christian from a Northern minority tribe, was appointed head of state, but the military government of the Eastern Region was unwilling to accept his authority.

### Secession and Civil War

The formation of the new Federal Military Government (FMG) was followed in September by the convening of an ad hoc constitutional conference. This assembly was broken off when renewed rioting in the North led to the killing of thousands of Ibos resident there. The survivors streamed back to Eastern Nigeria. A conference of all military governors at Aburi, Ghana, in January 1967 resulted in a short-lived compromise agreement between the FMG and the East. Each side accused the other of failure to live up to the agreement and proceeded to apply economic sanctions each against the other. In late May, the Federal Government revised the constitution to establish twelve states, including three within the Eastern Region, the Eastern Region then announced its independence on May 30, 1967, as the "Republic of Biafra" under Lieutenant Colonel Odumegwu Ojukwu, the Ibo who was military governor of the Eastern Region.

The decision to secede had great impact on the rest of Nigeria, which felt strongly that any concession of the right of secession would irreparably splinter the entire nation. It agitated, as well, deeply held and strongly articulated concerns on the part of the rest of Africa.

The Federal Military Government announced its determination to crush the rebellion and reunite Nigeria. An almost total blockade and communications blackout for the Eastern Region was immediately established. Open civil warfare broke out July 6, 1967.

For the first 18 months, Federal troops battled until the secessionist area of Biafra, originally 29,000 square miles, was reduced to roughly 5,000 landlocked square miles. The end of the war seemed imminent, but during the autumn of 1968, Biafra began to receive reinforcements of weapons and ammunition delivered in night flights to the only remaining Biafran airstrip at Uli. Biafra had the advantage of shortened lines of communication. It had high morale. These factors sustained Biafra's will and ability to continue its resistance.

Except for brief holiday truces, all attempts at a cease-fire failed. The FMG maintained that Nigerians were fighting for survival of the country; the Biafrans maintained they were fighting for their survival as a people. The Biafrans repeated their belief that the alternative to fighting was subjection to massacre, recalling the anti-Ibo massacres in 1966, and charging the FMG with repeated air bombing raids against non-military targets--hospitals, relief centers and market areas. The Federal military forces insisted they were actually bombing strategic military and ordinance supply centers. The people of Nigeria did not consider they had persecuted the Ibos, citing the Ibo prewar dominance, the 1966 coup, and the Biafran

invasion of Nigeria's Mid-West State in August 1967. Biafra accused Nigeria of genocide. In response, the FMG invited a team of observers from Sweden, Poland, United Kingdom, and Canada, as well as the UN and the OAU, to investigate the charge. The teams reported finding no evidence of genocide in the military operations.

### Reaction by UN, OAU, Foreign Governments to Secession and Civil War

#### United Nations

The UN Secretary General sent a personal representative to Nigeria in August of 1968, who served as an observer in FMG Territory. The Nigerian war and humanitarian relief were not placed on the agenda of the General Assembly, but the Secretary General strongly urged that a peaceful settlement be sought through the Organization of African Unity. UNICEF was active in providing food and medical supplies and air transport to both sides. FAO authorized an emergency food allocation.

#### Organization of African Unity

The general position and attitude of the Organization of African Unity is to oppose any act of secession within an African country. In September of 1967, the Heads of State of the OAU set up a Consultative Committee composed of Ethiopia, Ghana, Congo (K), Niger, the Cameroon, and Liberia with a mandate to try to resolve the conflict within the framework of one Nigeria. This decision by the OAU was accepted by the Federal Government, and the Committee met in Lagos in November. At that time General Ankrah of Ghana was delegated to try to bring the two sides together. He was unsuccessful, and for some time the OAU Committee was inactive despite a number of efforts to stimulate new initiatives. During the course of these negotiations at Kampala, Niamey, Addis Ababa, and Monrovia, the FMG made a number of proposals aimed at assuring the Ibos of their security within a united Nigeria. It proposed an international observer force to participate in overseeing the reintegration of the Ibos into Nigeria; a qualified amnesty; an Ibo police force to undertake a large part of the security responsibility in the Ibo heartland; non-discriminatory recruitment of Ibos into the Nigerian army and Federal civil service; and an Ibo Military Governor for the Ibo-populated East Central State with Ibo members on his Executive Council. These proposals were not acceptable to Biafra, which continued to insist that only through recognition of its sovereignty could the survival of its people be assured. While generally opposed to acceptance of an independent Biafra, the OAU continues to seek a solution that might be acceptable to both sides.

#### African Countries Supporting Biafra

Of the forty members of the OAU, four, Gabon, Ivory Coast, Tanzania, and Zambia, recognize Biafran independence.

## United Kingdom

The United Kingdom has supported the FMG in its efforts to preserve a single Nigeria. While Nigeria was a British colony and protectorate, the United Kingdom trained and equipped the Nigerian armed forces, and made sales to it of arms and ammunition. It continued to do so after granting Nigeria its independence in 1960. When the civil war broke out in 1967, the United Kingdom took the position that to refuse to continue its sale of arms to a Commonwealth member facing armed rebellion would have the effect of pro-rebel action, and continued to furnish essentially the same kind of equipment it had traditionally supplied. At the same time, the United Kingdom has sought to promote a negotiated settlement and has been one of the large contributors of relief supplies to both sides, donated through the ICRC.

## Soviet Union

The USSR has sided with the FMG in the conflict. In August of 1967, it agreed for the first time to sell the Nigerian Government military equipment, including fighter-bomber aircraft. Substantial military sales to the FMG have continued throughout the war.

## France

France has not officially recognized Biafra but on a number of occasions since July 1968 has stated its support for Biafran self-determination. The FMG has charged the French Government with supplying weapons and ammunition to Biafra. France has provided relief supplies to Biafra and care for Biafran children in Gabon.

## Other Nations, Not Including U. S.

While genuinely concerned over the circumstances which prevent delivery of adequate food to starving civilians in Biafra, most governments have measured their actions to avoid political involvement while supporting a negotiated settlement between the two sides. Over 30 countries, through church and relief organizations and government contributions, are providing food and medical supplies for both sides through the International Committee of the Red Cross and Joint Church Aid.

## United States

The United States follows a policy of large-scale participation in the relief efforts while avoiding military and direct political involvement in the conflict. The U. S. continues to recognize the Federal Government as the Government of Nigeria. It has supported OAU and other efforts to bring about a peaceful resolution of the problems which divide the parties. Four days after the outbreak of hostilities, the U. S. announced it would not sell or otherwise supply arms and ammunition to either side. The U. S. Government has been the largest donor of relief supplies for both sides and has made cash contributions for support of the expensive relief

airlift operations into Biafra. U. S. voluntary agencies have also made large contributions and have played an important role in sustaining the air bridge from Sao Tome to Biafra.

On February 22, 1969, in announcing the appointment of Ambassador Ferguson as Special Coordinator for relief to the civilian victims of the Nigerian civil war, President Nixon issued a statement saying in part:

*"The efforts of outside governments to expand relief are greatly complicated by the political and military issues that divide the contestants. Unfortunately, the humanitarian urge to feed the starving has become enmeshed in those issues and stands in danger of interpretation by the parties as a form of intervention. But surely it is within the conscience and ability of man to give effect to his humanitarianism without involving himself in the politics of the dispute.*

*"It is in this spirit that U. S. policy will draw a sharp distinction between carrying out our moral obligations to respond effectively to humanitarian needs and involving ourselves in the political affairs of others. The U. S. will not shrink from this humanitarian challenge but, in cooperation with those of like mind, will seek to meet it."*

The President said the Coordinator would give particular attention to ways and means by which the flow of relief could be increased to the suffering on both sides of the battle lines. He added:

*"The Special Coordinator will not seek and will not accept a charge to negotiate issues other than those directly relevant to relief. Nevertheless, the U. S. earnestly hopes for an early negotiated end to the conflict and a settlement that will assure the protection and peaceful development of all the peoples involved."*

In April, May and June Ambassador Ferguson's efforts to augment the flow of relief took him to Lagos, Biafra, Addis Ababa, Geneva, London, the Hague and Copenhagen. He has been working closely with the parties to the conflict, with the OAU, the ICRC and other relief agencies, and other donor governments, seeking agreement upon proposals for mutually acceptable relief routes.

#### RELIEF WORKERS KILLED AS OF JUNE 30, 1969

There follows the dates and circumstances of the people who were killed while bringing food and medicines to or performing services for the civilian victims of the Nigeria civil war.

July 29, 1968 - Father Malachy Riddle and Jonathan Ambache, two British members of a relief team sponsored by Save the Children Fund, were killed when a landrover in which they were riding was blown up by a mine.

October 2, 1968 - Four relief workers were killed and two wounded as FMG troops were fighting their way to Okigwe. The victims were in a medical aid station and had declined to flee as combat approached the area. The dead were Dr. Drajan Hercoj of Yugoslavia, Robert Carlson of Sweden (both with ICRC) and Rev. and Mrs. Albert Savory of Britain (missionaries with the World Council of Churches).

December 7, 1968 - The first fatal air crash of relief planes occurred when a JCA DC-7, chartered by Das Diakonisches Hilfswerk, crashed approximately four nautical miles from the Uli airstrip. The accident was not due to military action. All four crew members were killed. They were: Captain John Maconie (British), co-pilot Heingz Raab (German), engineer Holsman (American), and observer-trainee Thompson (Mexican).

May 6, 1969 - An ICRC DC-6B crashed in the jungle near the town of Ihiala about six miles from Uli. All four victims, three Swedes and one German were killed. Their names were not available.

April 2, 1968 - Caritas, International announced the death of Father Wilfred Udo-Umeobi. He was killed by a bomb while distributing food in the Umuahia Market Place.

June 6, 1969 - An ICRC DC-7 was shot down by FMG forces. Killed were the four crew members: Captain David Brown from the USA, co-pilot Stig Carlson from Sweden, Kiell Pettersen, flight engineer from Norway and the load master Harry Apelsson from Sweden.

## SENEGAL

### CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Famine

DATE-TIME: 1968-69

LOCATION: Casamance

DISASTER VICTIMS: No. Requiring Emergency Feeding  
375,000

### DESCRIPTION OF THE DISASTER

Government of Senegal officials first expressed concern over possible food emergencies in August 1968 as a result of sparse rainfall over most of the country. Particularly hard hit at that time was the important rice-growing area of Casamance. While the situation then was not considered critical it was becoming disturbing and by September there were marked adverse effects on both upland and swamp rice. Abundant rains the latter part of September raised hopes that the effects of the drought might be reduced, but by early 1969 it was evident that it had caused a serious food shortage. Casamance rice crops were estimated to be half what they had been the previous year. Peace Corps Volunteers, USAID and Embassy officers, and Catholic Relief Services representatives who had traveled through the country reported the food situation was quite desperate in some regions.

The seriousness of the emergency varied from north to south of the country, with pockets of average crop output amidst areas of complete crop failure. Reduced output of peanuts resulted in lower incomes for peasant farmers and less ability to purchase remaining supply of food. The output of millet, sorghum, cowpeas and corn was expected to be about 462,000 metric tons compared with 720,000 metric tons average from 1964 to 1967.

### ACTION TAKEN BY THE GOVERNMENT OF SENEGAL

In January, 1969 a census was made of villages affected by the drought. The Government asked the World Food Program and Catholic Relief Services to increase their food assistance. The GOS guaranteed in a letter to CRS that all internal transportation and handling charges would be paid by the GOS, estimated at 200 million CFA (equivalent \$813,000).

The Government reported its plan to set up a National Committee in Dakar, responsible for carrying out the emergency program on a national basis to distribute food commodities donated by foreign organizations and countries. Members of the Committee included Ministries of Rural Development, Health and Social Affairs, Finance, Public Works and President's General Secretariat. On the local level additional committees were to be formed in arrondissements composed of: Chief of Arrondissement, Chief of Rural Extension Services, Chief of ONCAD, Civilian designated by the Chief d'Arrondissement, Rural Extension Works, Political representative of the area and Catholic Relief Services representative.

#### ASSISTANCE PROVIDED BY U. S. GOVERNMENT

Approval was given for grant 8,500 metric tons of P. L. 480 sorghum for distribution through Catholic Relief Services, est. market value . . \$488,200

#### ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

##### Catholic Relief Services

The U. S. Mission indicated CRS was in the best position to handle the Senegal food aid program and that all U. S. sorghum would be channeled through CRS.

#### ASSISTANCE PROVIDED BY OTHER NATIONS

None reported.

SOUTH AFRICA

CHARACTERISTICS OF THE DISASTER

EVENT: Train Disaster

DATE-TIME: February 17, 1969

LOCATION: Langlaagte near Johannesburg

DISASTER VICTIMS:	<u>No. Killed</u>	<u>No. Injured</u>
	17	150

DESCRIPTION OF THE DISASTER

Two railway gasoline tanks overturned after a collision. They were then struck by a passenger train carrying African workers, creating a holocaust and scene of horror as victims sought to get out of the burning train.

ACTION TAKEN BY THE GOVERNMENT OF SOUTH AFRICA AND LOCAL ORGANIZATIONS

Authorities immediately appealed for cash donations and contributions of food and clothing. Aid at the disaster scene was marked by generous human response of all races to the needs of the victims and the hundreds of non-white families severely affected by the tragedy.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The American Ambassador exercised his disaster relief authority and made a cash donation from the AID contingency funds to the Train Disaster Relief Fund of the Mayor of Johannesburg in the amount of . . . . . \$1,000

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None reported.

ASSISTANCE PROVIDED BY OTHER NATIONS: None reported.

## UPPER VOLTA

### CHARACTERISTICS OF THE DISASTER

EVENT: Meningitis/Measles Epidemic

DATE-TIME: January-May, 1969

LOCATION: Widespread in Country

DISASTER VICTIMS:	Meningitis		Measles	
	Deaths	Cases	Deaths	Cases
	111*	728*	193**	3,822**
	*Only Jan-Feb. statistics available		**Statistics Jan-March 22	

### DESCRIPTION OF THE DISASTER

Reference is made to the case study included in this report on the Mali meningitis epidemic. Upper Volta is adjacent to Mali. First reports that meningitis might reach epidemic proportions similar to Mali were received in February.

On March 22, 1969, it was reported that a combined measles-meningitis epidemic was occurring throughout Upper Volta with meningitis cases running much above those of previous years while measles incidence was reported to be ten times that of the previous year. The measles were occurring in the non-vaccinated population.

### ACTION TAKEN BY THE GOVERNMENT OF UPPER VOLTA AND LOCAL ORGANIZATIONS

Government agencies worked hard to control the disease but when medicine stocks of the local Health Ministry neared depletion outside assistance to obtain more of the required medicines was needed.

### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

An urgent request was made by the Government of Upper Volta to the U. S. Mission to replenish the nearly exhausted drugs in order to continue epidemic control measures. The American Ambassador exercised his disaster relief authority and authorized the purchase of required medicines from the AID contingency fund up to \$6,000. AID/DRC in Washington was asked to obtain and airlift

1,000 bottles of procain penicillin for injection and 1,000 ampules of sulfisoxazole (Gantrisin) for injection. The procain penicillin was purchased from the Defense Supply Agency at a cost of \$170 plus air freight of \$173.19. The Gantrisin was donated by Roche Laboratories through the American Red Cross and AID paid airlift costs of \$150.00. Lagos, Nigeria, was requested to obtain from Bonn by air 100 bottles of Oxytetracycline; 150 bottles of Penicillin Tablets; 150 bottles of Gantrisin Tablets; 1,000 bottles of Procaine Penicillin, injectable; 120 bottles Gantrisin Suspension; 100 bottles of Aralen Tablets and 1,000 bottles of Aspirin tablets. It was not reported whether all of the items requested through Lagos were sent.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

Roche Laboratories

Donated 1,000 ampules of Gantrisin through the American Red Cross.  
Estimated value . . . . . \$300

ASSISTANCE PROVIDED BY OTHER NATIONS: None reported.

## YUGOSLAVIA

### CHARACTERISTICS OF THE DISASTER

EVENT: Earthquake

DATE-TIME: November 3, 1968

LOCATION: Montenegro

DISASTER VICTIMS:	<u>Killed</u>	<u>Injured</u>	<u>Homeless</u>
	1	30	15,000

DAMAGES:	Houses -	<u>Destroyed</u>	<u>Damaged</u>	<u>Schools Made Unsafe</u>
		500	1,500	47

A final summary report was not received from the U. S. Embassy on this disaster. Reports on damages were slow to come in and are still incomplete. Months after its occurrence, information was received that it had been far more serious than reported earlier. New information was given on the number of homeless and the extensive damage to schools, which is included above, but only the very early information on the number of homes destroyed or damaged was available and nothing on other buildings destroyed or damaged. It was, however, reported in March of 1969 that the total dollar damage was estimated at \$38 million.

### DESCRIPTION OF THE DISASTER

The U. S. Coast and Geodetic Survey reported that the earthquake had a magnitude of 5.3 on the Richter scale, with a focal depth of about 17 kilometers. Its epicenter was 42.1 degrees north and 19.4 degrees east, near the Albania/Yugoslav border. Considerable damage was reported throughout South Montenegro. Some of the hardest hit towns were Bar, Ulcinj and Pistula. Besides the homes destroyed or damaged, one of the more serious effects of the earthquake was its disruption of schooling. Of 61 schools in the stricken area 47 of them were left unusable and only 21 of these were considered repairable. This left 5,440 pupils (70% of the total) initially without classes. They later attended classes in private homes and other buildings with shortened hours and in several shifts. For this reason schools had a high priority in the emergency re-establishment of activities in these communities.

ACTION TAKEN BY THE GOVERNMENT OF YUGOSLAVIA AND LOCAL ORGANIZATIONS

The Yugoslav Army and Red Cross provided shelter but it was inadequate to meet all the needs. Many of the very poor people affected were in inaccessible mountain areas. Slow relief for many of the victims was due largely to reluctance of the sensitive and proud Montenegrins to request help.

The Government of Yugoslavia and the Red Cross undertook a program to re-establish the schools. In-country contributions and loans for repairing or rebuilding the schools and other buildings destroyed or damaged in the earthquake was reported at about 25 million new dinars (equivalent of \$10 million).

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The American Ambassador exercised his disaster relief authority to make a cash donation to the Yugoslav Red Cross from the AID contingency fund. It was originally intended that the U. S. gift would be used to buy tents and temporary shelter material. Subsequently it was determined that in view of the great need for new schools that the U. S. Government donation should be used to purchase and erect a pre-fab school building at Bar which would be identified as a U. S. gift. It was recommended that funds for the school should come from U. S. owned dinars in Yugoslavia rather than from the AID contingency fund. This was approved by the Bureau of the Budget and 330,000 dinars were allocated for this purpose and the previous amount charged to the contingency fund removed. These dinars have an equivalent dollar value of . . . . . \$26,400

Yugoslav TV carried the report of the U. S. donation and it also appeared in newspapers.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None

ASSISTANCE PROVIDED BY OTHER NATIONS

USSR - Cash donation of 250,000 dinars for school at Ulcinj . . . \$20,000

Norwegian, Austrian and Swedish Red Cross organizations gave some aid but type, quantity and value were not reported.

## BOLIVIA

### CHARACTERISTICS OF THE DISASTER

EVENT: Hemorrhagic Fever

DATE-TIME: February to June, 1969

LOCATION: Magdalena

DISASTER VICTIMS: 

<u>Deaths</u>	<u>Cases</u>
16	24

### DESCRIPTION OF THE DISASTER

In February 1969, hemorrhagic fever, with up to 50% fatality rate, erupted for the second time in the Department of Beni. Hemorrhagic fever is caused by a virus, machupo, named for a river in the San Joaquin area of the Province of Beni in Bolivia. The virus is carried by mice which invade the homes of the population and contaminate whatever they contact. The means of transmission has been established to be rodent excreta. In 1963-1964 an outbreak of this disease in Bolivia caused 300 deaths. The current outbreak began in the tiny village of La Cayoba, about 30 kilometers north of the town of Magdalena in the Beni region. In April three cases were reported in Magdalena. There was uncertainty regarding the exact origin of the infection. In subsequent weeks, however, it became clear that the disease had actually entered the town itself. By June 6 a total of 24 cases had occurred with 16 deaths. The carrier rodent was found in houses of patients. Other smaller villages in the Beni reported cases and deaths but statistics were not available.

The populace of the Beni became highly emotional over the situation. A general strike which was organized during the epidemic had as one of its three crucial demands that the Government take immediate steps to control the hemorrhagic fever in the region.

Prevention of the disease is obtained by controlling the mouse population and destroying the vegetation around the affected areas. Continuous surveillance of rodent population densities within town limits and prompt application of rodent control measures to infested houses is believed to be the most important phase of disease control.

ACTION TAKEN BY THE GOVERNMENT OF BOLIVIA

The President of Bolivia signed a Supreme Decree reorganizing an international commission to attack the problem and provided 300,000 pesos (about \$25,000) for the rest of 1969 to combat the disease. The GOB asked the USG to assist by supplying mousetraps and other equipment needed for control measures.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The U. S. Embassy received an emergency request from the Government of Bolivia to provide mousetraps and field freezers. The American Ambassador exercised his disaster relief authority and authorized expenditures from the AID contingency fund and on June 2 cabled AID/W to obtain 20,000 mouse-traps and 4 nitrogen freezers. AID/DRC arranged for their purchase and airlift. They arrived in La Paz on or about June 7.

Estimated costs of the traps, freezers and air transportation charges were placed at . . . . . \$25,000

Also the U. S. Mission moved a large tractor by air to Magdalena to enable it to make a broad bare-earth belt around the town as one measure to prevent the mice (*Calomys Callosus*) from entering the town from adjacent fields.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None.

ASSISTANCE PROVIDED BY OTHER NATIONS: None.

BRAZIL

CHARACTERISTICS OF THE DISASTER

EVENT: Flood

DATE-TIME: March 14, 1969

LOCATION: Northwestern part of Alagoas

DISASTER VICTIMS: Killed Injured Missing Homeless - Mass Feeding  
316 3,221 1,000 17,384

DAMAGES: Homes totally or partially destroyed - 1,770

Estimated dollar damage in Sao Jose da Laje  
including homes, commercial losses.....\$ 5,000,000  
Destruction of the sugar processing plant  
at Serra Grande ..... 770,000  
\$ 5,770,000

There were also extensive losses to the sugar cane crop along river banks but estimated dollar damage was not available.

DESCRIPTION OF THE DISASTER

In the early morning hours of March 14, 1969, a flash flood swept along the Maundau River Valley after previously inflicting severe losses along the banks of the Canhoto River. Flooding was caused by heavy rains in the mountainous area of Garanhuns, Pernambuco, resulting in rapid drainage into the Canhoto River. This river eventually meets with the Mundau River about 35 kilometers south of the Alagoas/Pernambuco border.

The worst damage and most number of lives lost occurred along the banks of the Canhoto. The river changed its normal course of flow, running through the Sugar Mill villa of Serra Grande and the adjoining city of Sao Jose da Laje. At this point, the river normally makes a 90-degree turn. Due to the rocky river base in that region which facilitates trapping of debris, damming up apparently forced the river to divert. While the change in normal flow lasted no more than 20 minutes, the suddenness and high velocity of the waters caused many to lose their lives and also great destruction to property. Most of the houses destroyed were mud huts but in the city of Sao Jose da Laje, the rushing water demolished even brick houses and shops with relative ease. Among the hard hit areas was the commercial section of Sao Jose da Laje where the water ran through and destroyed all the

buildings along the path of its flow. An electric sub-station was also damaged and 42 electric posts washed away. Losses were severe in the sugar cane crops along the banks of the rivers. The road leading from the city of Uniao dos Palmares to Sao Jose da Laje was severely damaged. Many bridges along this stretch were also affected and railroad traffic was interrupted for a few weeks. Rocha Cavalcanti was another city along the Canhoto River damaged by the flood waters.

The Mundau River Valley is an area often afflicted by severe drought. When the flash flood came it partially inundated the cities of Uniao dos Palmares, Branquinha, Murici, Rio Largo, and Satuba. The Mundau River empties into the Mundau Lagoon south of the capital city of Maceio. Suburbs of this city surrounding the lagoon were also slightly flooded.

Suddenness of the flooding and the fact that it occurred while the people were still sleeping did not permit advance warning of its onslaught and organized evacuation of the people that could have saved many lives. However, many people were able to leave their homes as they became flooded and were sheltered in schools, public buildings or with friends.

#### ACTION TAKEN BY THE GOVERNMENT OF BRAZIL AND LOCAL ORGANIZATIONS

On Saturday, March 15, the Governor mobilized his Secretariats and appointed Colonel Aduino Barbosa, Secretary of Public Safety, to coordinate all efforts for the relief program called "Operacao Emergencia". Other members of the committee for "Operation Emergency" were: Secretary of Public Works, Secretary of Health and Secretary of the Interior. All donations of food, funds and materials were channeled through "Operation Emergency" headquarters at Maceio. From there they were distributed as needed. Colonel Barbosa placed officers and soldiers in each city to direct all operations.

Telephone communications to Maceio, which had never existed in the affected area, were provided a few days after the flooding by the Military Police of Alagoas in an emergency system of microwave telephone communication equipment.

Two helicopters were placed at the disposal of the relief committee by the Brazilian Air Force and two others were loaned by the Hydroelectric Company of the Sao Francisco Valley. These aircraft were used to fly men, equipment and food to the inundated area and to take the injured to hospitals in Maceio.

The Federal Government sent a retired naval officer and employee of SUNAB (The National Superintendency of Supply) to Alagoas who worked closely with Colonel Barbosa in obtaining needed food commodities for the flood victims.

Civilian participation consisted of 10 State social workers, some volunteer medics and a handful of private citizens who devoted their efforts to assisting in distribution of food and clothing. There was only limited local involvement since the relief operations were handled by the relief

committee and the Brazilian military. Truck loads of food, medicines, mattresses, blankets and clothing came in from private and public organizations as well as cities within Alagoas and other States of Brazil. The State Government opened up a "Recuperation Fund" which totaled \$63,200. The State Government provided \$30,000 of this and the rest came from private sources.

Two weeks after the flood, the Governor created a Secretariat for Extraordinary Affairs to care for the cleaning up efforts and reconstruction in the flooded areas. Dr. Tarcizio Toledo Carnauba, Director of the Institute of Technology, was appointed as chairman and coordinator. His executive advising board consisted of: a member of the Faculty of Economics, a member of the Federation of Industries, a member of the Archdiocese, and a member of the Business Community. This new Secretariat assumed all responsibilities previously carried out under "Operation Emergency".

The first major effort of the new Secretariat was to assist in planning for the redevelopment of the city of Sao Jose da Laje and its reconstruction on an elevated plain away from the river. Funding for rebuilding was to come partly from the Federal Government, which had already placed \$250,000 at the disposal of the State Government through the Superintendency for the Development of the Northeast (SUDENE).

The U. S. Mission reported that the Brazilian relief operations had been efficient. It made the following further comment: "The creation of a 'calamity warning system' by the Brazilian Government would seem like the appropriate action to take to help diminish such extensive loss of life and property in any future disaster."

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The U. S. Consul General in Recife, Mr. Donor Lion, initiated U. S. Government participation in the flood relief activities on March 17, 1969, after official request for food commodity assistance had reached him via the U. S. Mission's Emergency Relief Officer, Mr. Robert R. Standley, FFP/NE. Food for Peace commodities were officially released for the flood victims the same day. Prior to that on March 14, limited quantities of P. L. 480/FFP food had been released by Caritas to "Operation Emergency".

The American Ambassador exercised his disaster relief authority to make a cash donation from the AID contingency fund to SUDENE, in the amount of . . . . . \$2,000  
The money was used to buy small stoves and simple cooking equipment for displaced families.

Following is a list of the Food for Peace commodities diverted from stocks of Catholic Relief Services, Church World Service and the Alagoas Project and Work Fronts: 6-1/2 metric tons of nonfat dry milk; 15-1/2 of bulgur; 15 of CSM; 16 of rolled wheat; 8 of wheat flour and 2-1/2 of vegetable oil with an estimated market value of . . . . . \$15,119  
\$17,119

ASSISTANCE BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

Catholic Relief Services and Church World Service released above P. L. 480 food from their on-going program. Church World Service also donated 120,000 water purification pills, value and shipping. . . . . \$356.

American and Brazilian employees of the Consulate General in Recife and of USAID and USIS made a cash donation to "Operation Emergency" of . . \$500.

ASSISTANCE PROVIDED BY OTHER NATIONS: None

## CHILE

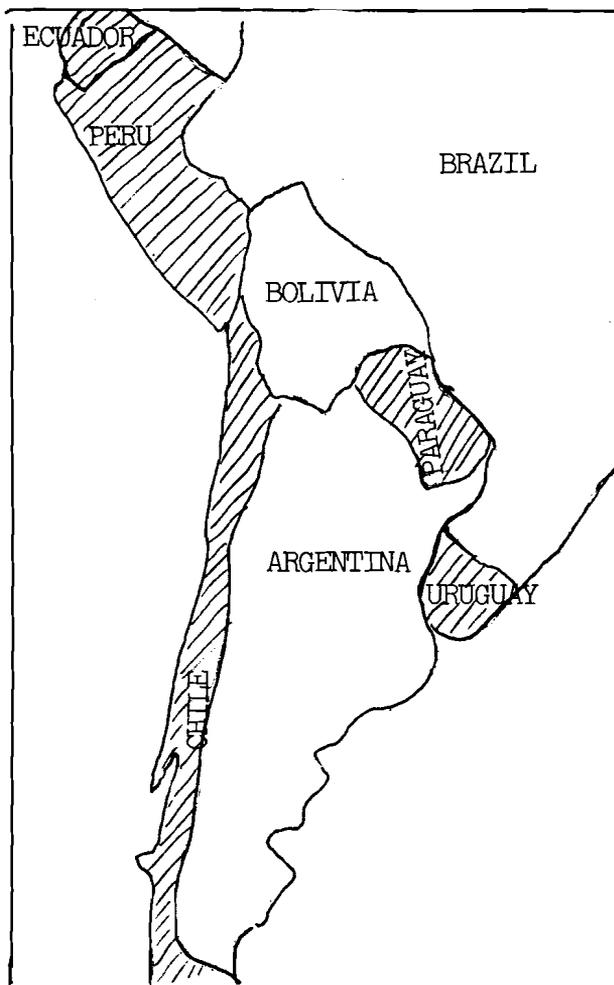
### CHARACTERISTICS OF THE DISASTER

EVENT: Drought

DATE-TIME: 1968-1969

LOCATION: Country-wide, especially the Central Valley

DAMAGES: Number of People Needing Emergency Food  
120,000



▨ SA Countries reporting drought conditions in 1968-69

Agricultural losses were estimated at between 400 to 600 million escudos. Dollar equivalent of lower estimate is \$55 million. About 300,000 sheep and 25,000 cattle died.

### DESCRIPTION OF THE DISASTER

Two years of drought in Chile resulted in a water shortage that had serious effects on industry, farms and politics. The following description of the cause and effect of the prolonged drought was given by David N. Belnap of the "Los Angeles Times" in an article datelined Santiago which appeared in the Sunday, March 16, 1969, "Washington Post".

"Stretching for 600 miles between the 20th and 27th parallels of south latitude in Chile is the Atacama Desert, the driest place on earth, according to the National Geographic Society.

"It is not a desert of shifting dunes but a hilly, dun-colored, treeless expanse in northern Chile, where the track of a jeep across the semi-hardpan surface remains sharply

visible for years. It has a higher rate of evaporation than the Sahara or Gobi deserts. Rain has never fallen on large parts of it in recorded history.

"For the past two years, weather typical of the Atacama Desert has been moving southward across Chile's bread basket--the rich, irrigated Central Valley which raises most of the country's food and where two-thirds of its 9.2 million citizens live.

"The resulting drought, according to President Eduardo Frei in a recent speech, 'is perhaps the major natural catastrophe which the country has suffered in its economic history.'

"Records preserved by the meteorological service of the Chilean Air Force show that 1968 was the driest of any of the last 119 years. Rainfall deficit ranged from 100 percent across the northern edge of the drought zone to 52 percent at its southern extreme 300 miles south of this capital city. In Santiago Province, whose 550,000 irrigated acres make it Chile's leading agricultural province, rainfall was 2.75 inches last year--81 percent below normal.

"To make matters worse, winter snowfall in the mountains, which ordinarily replenishes lakes and reservoirs as it melts in the spring, has been equally scarce.

"Andean peaks a few miles east of here (Santiago), perpetually snow covered to a depth of 10 feet in normal times, are now naked and brown. Even the 'eternal snows' of the Western Hemisphere's highest summit, Mt. Aconcagua, near the Argentine frontier, are disappearing under the arid onslaught.

"As yet the drought has cost no human lives, but it has provoked the death of animals and human hunger and caused problems ranging from minor inconveniences to major hardships for every sector of the national life.

"There are an estimated 120,000 persons who receive all or part of their food through a government relief program."

Some of the consequences of the drought besides the food shortage were: thousands of dead cattle and sheep; loss of animal weight; reduced agricultural productions; reduced or vanished income for thousands of farmers and farm workers; lower demands for consumer and industrial goods; and expense to the country for drought relief and for foreign exchange to buy imports needed to make up for internal shortages.

The water shortage caused a drop in the generation of electricity. When finally the Las Ventanas thermoelectric power plant failed, it became necessary to ration electricity in the whole central valley both for private homes and industry. Because of this, Chile's largest copper mines produced 30,000 less tons than the previous year, which meant a loss of more than \$32 million in foreign exchange. Copper is Chile's main export. Unemployment skyrocketed in the seasonal farm labor force. It also threatened

industrial and commercial sectors as businesses faced cutbacks forced on them by the drought.

No conclusive scientific evidence could be found for the continued lack of rain. There were two theories expressed. One blamed France's atomic testing in the South Pacific that sheds radioactive fallout across most of South America. The other held that a change in the course of the Humboldt Current (a cold oceanic current sweeping north along the west coast of the continent from Antarctica) is altering Chile's climate. Meteorologists conceded the Humboldt Current may bear on the problem to some degree. The Current's position close to shore in northern Chile created the Atacama Desert because its icy waters keep prevailing south and southwest winds from picking up moisture as they blow landward across its 150-mile width.

#### ACTION TAKEN BY THE GOVERNMENT OF CHILE

Initially (June 1968) the Government of Chile declared the five provinces of Coquimbo, Aconcagua, Santiago, Valparaiso and O'Higgins as emergency zones. As a result of worsened conditions, President Frei subsequently declared the country was in a state of national emergency and on July 1 under Decree 340 established a national executive drought committee headed by the Minister of Interior. Programs of assistance including work projects were begun to help the most needy victims of the drought. In general, the main river valleys, such as Elqui in Coquimbo; the Aconcagua in Aconcagua; the Maipo in Santiago, though with greatly reduced flow, permitted essential irrigation for fruit, vegetable and vineyard cultivations to continue at reduced levels. In these areas, most agricultural workers remained on the larger private farms and despite deprivation in terms of pay and support, few qualified for distress food assistance. Food relief, however, was distributed in the more remote river valley areas or to those farming families in the arid coastal range area which separates Chile's main central valley from the sea. The selection of the most needy families was based on well-defined hardship circumstances and it was determined that a large majority of them would require aid until the next normal rainy season to begin about April 1969.

The Government drought relief programs were established for four major purposes: (A) to come to the aid of the affected farmers; (B) to avoid unemployment; (C) to stimulate production in other sectors in order to take up the slack in the agricultural sector; and (D) to program the use of water, electric energy and foodstuffs in the Central Provinces. Funds were allocated as follows: 12 million escudos for emergency plans in areas mentioned in point D; 45 million escudos for imports of machinery and foodstuffs; 70 million escudos for additional credits to farmers; and 50 million escudos for subsidies, rebates, discounts and debt relief to farmers. Total in dollar equivalent--about \$24.6 million. In addition, use of 53 million escudos (about \$7.4 million) was planned to provide employment in affected areas, and consideration was also being given to an emergency investment by the Government of 350 million escudos (about \$48.6 million)

for housing public works for 1969 to reduce unemployment and reactivate economy.

To help meet the emergency food needs of an estimated 3,450 families in six of the affected provinces--Santiago, O'Higgins, Colchagua, Curico, Talca and Linares--the GOC requested assistance from the United States in providing agricultural commodities under Title II of P.L. 480 for a 5-month period beginning in November 1968. The GOC agreed to be responsible for all internal costs of the program, including project coordination and inspection at the National and District level.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

P.L. 480 Food - Voluntary Agencies

An immediate 60-day food emergency assistance program was begun in August, utilizing approximately 1,100 metric tons of P.L. 480 commodities made available to the GOC by the following U. S. voluntary agencies: Catholic Relief Services, CARE, World Relief Commission and Seventh-Day Adventist Welfare Service. This food had a value of ..... \$241,000

P.L. 480 Food - To World Food Program for Chile Drought

The World Food Program approved for distribution to 6,000 families for a period of five months 990 metric tons of wheat flour, 135 of canned meat, 135 of vegetable oil, 180 dried fish, 135 non-fat dry milk. WFP requested that the U. S. contribute all the wheat flour requirement. This was approved in September 1968. The 990 tons of wheat flour had a market value of \$81,000 plus ocean transport costs of \$40,000, total ..... 121,000

P.L. 480 Food - Government-to-Government Donation

The GOC requested U. S. assistance in food aid. The proposed program was to be administered by the GOC's Office of Emergency Planning in the Ministry of Interior. The food was to be distributed free to needy persons as a result of the drought or as payment-in-kind of wages to drought victims employed on work projects in the six selected provinces. The projects planned were to consist of activities designed to alleviate the present drought problems or to lessen the impact of future ones (e.g., community irrigation projects, canals, and construction of simple wells). It was estimated that 20,700 persons would receive assistance under the program. The U. S. Mission obtained AID/W approval for the program and donation of the following P.L. 480, Title II food: 466 tons of wheat flour; 186 tons rolled wheat; 124 tons cornmeal; 93 tons vegetable oil; 31 tons of non-fat dry milk; and 186 tons of CSM. Market value of the food was \$139,058, plus ocean transport costs of \$50,000 for a total contribution of ..... 189,058

TOTAL USG      \$ 551,058

Because of the serious power failures, AID/DRC was requested to determine availability, delivery time and cost of portable gas turbin generating units--also to determine possibility of a power generating ship capable of providing 40,000 KW for a period from November through May 1969. Much time was spent by AID/DRC canvassing electric power generating equipment manufacturers, public utility companies that might have generators available, and generator equipment leasing companies. None were interested in either rental or leasing arrangements since generating capacity in the US is already strained. To obtain such generating equipment requires several months to a year lead time. It was also determined that all barge or ship possibilities were out of the question because of prior commitments.

It should be noted that there have been previous cases in other countries where disasters have severely reduced the electric power capacity and where similar requests for assistance were made to the USG. In no instance, except for the furnishing of generator parts, was it possible for AID to provide the help requested because of long advance planning needed to obtain generators of the size required to alleviate such power shortages.

#### ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

CARE, Catholic Relief Services, World Relief Commission and Seventh-Day Adventist Welfare Service diverted above P. L. 480 food from their regular programs to drought relief.

#### ASSISTANCE PROVIDED BY OTHER NATIONS

None reported.





One of countless craters formed by exploding "bombs" of white-hot blocks of lava. About 3 km. from lower crater.

Beginning at a rate of 100 feet a day, by March, 1969, it had slowed to a virtual standstill and extends about two miles from the crater. At the face, the flow is approximately 984 feet wide and 100 feet thick.

Flowing over the area already destroyed in the initial explosions, the lava itself caused no significant new damage. During the time that the lava was flowing, the Smithsonian volcanologists warned the government and people that Arenal remained a dangerous volcano.

An area of 4.6 square miles stretching in a fan shape from the west side of the mountain was totally devastated and is unusable and uninhabitable. The other three sides of the mountain and surrounding areas remain untouched, except for ash fall farther to the west.

Heavy ash fall was sustained all the way to the town of Arenal, about 8 miles west from the crater.

Complete devastation from the first explosive eruptions covered about 4.6 square miles particularly in the area between Tabacon and Pueblo Nuevo, where nothing is left but churned up soil and ash.

From July 31 to August 3, only minor ash and fumarolic activity was observed. From August 3 to around August 10 there was considerable ash and vapor emissions tapering off to fumarolic activity from all three of the new craters formed on the west side of the mountain. Renewed explosions occurred from September 14 to 19, when a new lower crater began to spew forth thick viscous lava which slowly descended into the valley of the Quebrada Tabacon.

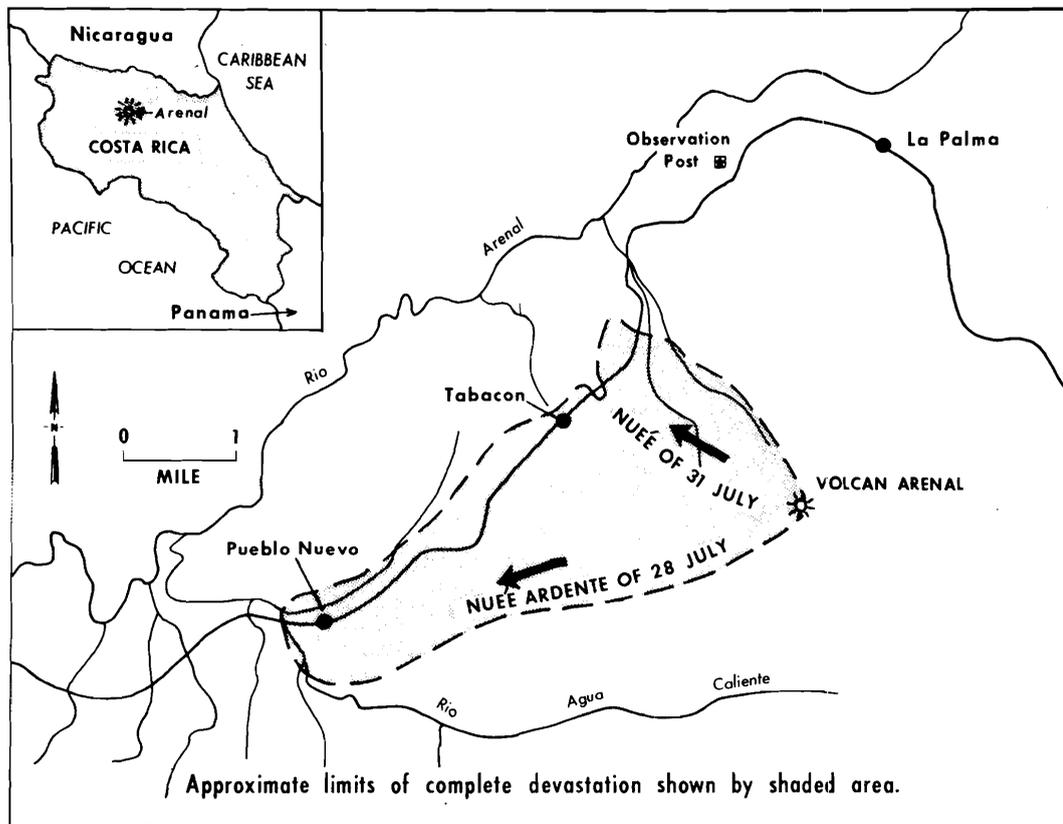


Impact crater and damaged house. Volcano in background. Heavy ash deposited during explosions on July 29 and 30. Photo taken July 30, 1968.

## Damage and Casualties

At the peak of the disaster a total of 12,391 people were evacuated from the danger area. The majority of these returned to their undamaged farms and homes within a month or less after the eruption. With the exception of 40 hard core refugees still under the care of GOOCR, 3,280 homeless have been returned to reconstructed homes or have been resettled elsewhere in Costa Rica.

Total killed may never be known with certainty, but the U. S. Mission believes the most accurate figure is 87. The number of injured was so slight that no records were kept. Apparently, anyone caught in the danger



U.S. Department of the Interior/Geological Survey

zone was killed outright. The tragedy was compounded by the deaths of 8 Costa Rican volunteer rescue workers who were travelling in jeeps past the volcano when the nuée ardente of July 31 exploded and incinerated them.

Only one poor road wandered through the immediate area; it was badly damaged. Estimates of damage to farm lands, crops, and livestock vary widely. The Government estimates put the loss at a bit over \$1 million; the U. S. Embassy believes this estimate is slightly high; they also believe that the impact of the disaster on the total economy of Costa Rica was negligible. For all practical purposes, the area affected was previously marginal with mainly subsistence farming; much of the land affected

by ash fall is already turning green. Chemical analysis of the ash fall in Nicaragua proved the ash to be non-toxic and, indeed, an improvement of the soil by the deposit of several minerals contained in the ash.

#### ACTION TAKEN BY THE GOVERNMENT OF COSTA RICA

The entire country participated in one way or another in the relief program. The outpouring of volunteers from all over Costa Rica nearly swamped relief agencies.

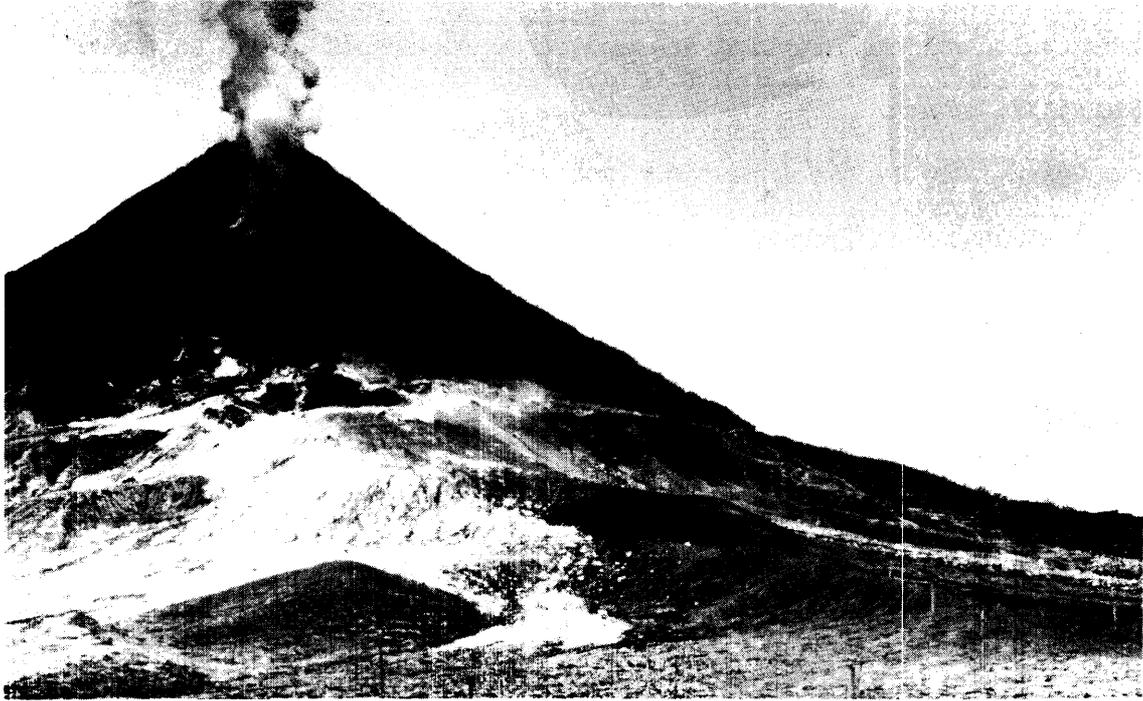
Major coordination was rapidly established by the GOCR Office of Civil Defense, an element of the Department of Transportation. This organization had been established at the time of the eruption of Mt. Irazu (1965). This small, but trained, relief staff performed well its duties of coordination of requests for help, providing information about the eruption, etc. Because of a lack of communications and absence of trained observers in the area, there was initial confusion. During the first hours, local and civil and church authorities housed the first groups of homeless people in schools and other buildings and fed them from local resources. Within 48 hours, however, the Office of Civil Defense, Government Ministries and the police sent reserve and relief workers into the area. "In a remarkably short time," reported the U. S. Embassy, "the orderly evacuation of threatened areas was accomplished, security control and communications were set up, and the care and feeding of the people was organized satisfactorily." A critical factor in establishing control and coordination was the reiteration by the President of Costa Rica that OCD was the primary coordinating body.

The local effort in rehabilitation and resettlement has been extensive. 360 of the damaged houses have been repaired and another 16 replacements built. Legislation has been passed and plans and financing completed for opening up a new area, constructing new houses and other facilities, for permanent resettlement beyond the Arenal River of those farmer residents of the devastated area. The area destroyed by the volcano has been declared a national park and the former inhabitants have, by law, been relieved of all indebtedness, both public and private.

In evaluating the disaster relief offered from outside Costa Rica, the Embassy noted the problems of uncoordinated international donations. Local stocks of basic food, medicine and clothing were sufficient to care for the people throughout the emergency period, yet these were the very commodities given at once by a sympathetic world. Looking toward the future, the Office of Civil Defense of Costa Rica is developing detailed disaster plans and an improved training program.

#### ACTION TAKEN BY THE U. S. GOVERNMENT

The Mission Disaster Relief Coordinator established an operations center on a 24 hour a day basis and throughout the emergency contacts with the Government of Costa Rica, assignments of personnel, and all communications were originated or cleared through this operations center. Two helicopters were requested by the Government of Costa Rica during the night of July 29



Arenal Volcano from 3 Km West-Southwest



Red Cross Volunteers unloading relief shipments sent by AID/DRC from stockpile in U. S. Southern Command, Panama Canal Zone

and they arrived from USSOUTHCOM in Panama in the morning. These were intended for evacuation of victims trapped near the volcano, but it was found that the risk was too great for modern helicopters to operate in close proximity to a volcano erupting ash and other rubble which can be sucked into the engines. They could not be used for this purpose and were returned to USSOUTHCOM Panama.

A survey team, led by the Ambassador and consisting of representatives of every U. S. Government agency operating in Costa Rica, was mobilized to collect the hard data from which decisions were made to provide the following support items:

1. Emergency Relief Supplies and Relief Effort

1172 cots	\$ 7,454.90
2835 blankets	5,970.72
100 tents	7,995.00
15 hygiene kits	*
24 first aid kits	593.71
1000 respirators	1,000.00
Freight and transportation of above	3,750.28
2 USAF C-130 flights	1,700.00
Local travel expenses and miscellaneous	419.48
SUBTOTAL	<u>\$28,884.09</u>

2. Scientific Support

1 box meteorological balloons	162.00
2 seismometers	2,625.00
2 event counters	850.00
25 boxes seismograph paper	200.00
9 boxes dry batteries	1,000.00
3 battery chargers	735.00
1 Helicorder and attachments	1,500.00
Freight and transportation of above and other geological equipment	1,005.63
Local travel expenses	344.50
Photographic equipment and processing	661.48
SUBTOTAL	<u>\$ 9,083.61</u>

TOTAL USAID DISASTER RELIEF EXPENDITURES \$37,967.70

3. Other USG Contributions

USAF - 2 helicopter flights (no reimbursement from USAID claimed)	\$ 2,000.00
1,800 lbs. of Title II NFDM (powdered milk)	810.00
Other P.L. 480 food	5,016.00
Salary and travel expenses USG Scientific Team	6,000.00
	<u>13,826.00</u>
GRAND TOTAL USG CONTRIBUTION	\$51,793.70

The scientific support items were used by a team of volcanologists from the Smithsonian Institution, U. S. Geological Survey, and Columbia University, who set up an observatory at the volcano to provide warnings in the event of further dangerous volcanic activity. Salaries of the team were paid by their respective agencies; logistics and equipment costs were funded by AID from disaster relief funds. An observatory was set up by Costa Rican scientists who worked with the team in studying the volcano.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

CARE

In addition to 1800 pounds of NFDM and P.L. 480 surplus food (cost shown under USG contributions), CARE donated the following:

1500 cartons Segó Liquid Milk (diverted from CARE, Panama)	\$3,250
2150 baby bottles	49
800 meters zinc roofing sheets	1,000
TOTAL	<u>\$4,299</u>

CARE is still active in the Arenal area. A nutrition center is in the final construction at Arenal de Tilarán, a school feeding program will be in operation, and self-help projects are developing for 1969. CARE was of great help to the Embassy and Government of Costa Rica through their valuable surveys early in the emergency. Through CARE's efforts it was learned that resources of the Government of Costa Rica were sufficient to feed most of the homeless people.

Catholic Relief Service - CRS

CRS in cooperation with CARITAS, and with some funds donated by OXFAM, made a major contribution to the relief program. Its dedicated effort throughout the emergency brought leadership, manpower, and needed supplies into the area. Its contributions of food, clothing, and medical supplies were promptly and ably distributed. Especially useful were three 3-ton trucks, and a short wave radio on the 40 meter band which maintained communications with the disaster area.

The value of the CRS donations is estimated as follows by the local CRS representative:

64 packages of medicine	\$ 6,887.57
Food and clothing (in collaboration with CARITAS)	50,000.00
Reconstruction (OXFAM)	4,800.00
TOTAL	<u>\$61,687.57</u>

The funds from OXFAM were originally authorized for purchase of food and utensils. After determining, however, that sufficient food and utensils were available from other sources, it was decided to use these funds for

rehabilitation and reconstruction of damaged homes and farms. To date several families have received direct aid for reconstruction of their homes. It is anticipated that more than 200 families will benefit from this program.

American National Red Cross

The President of the Costa Rican Red Cross estimates that the CRRC has received contributions or money to purchase items described below from the ANRC:

100 water canteens	)	\$
100 knapsacks	)	
100 steel helmets	)	
20-25 small tents	)	5,900.00
100 Army-type "pistol" belts	)	
25 walkie-talkies	)	
75 sleeping bags	)	
1000 recreational kits for children		500.00
Foodstuffs, medicines, clothes, kitchen utensils, working tools		8,100.00
Zinc roofing material		8,200.00
Nails		300.00
Construction material		2,900.00
TOTAL		<u>\$25,900.00</u>

World Vision, Inc.

The Embassy reports that victims of this disaster especially appreciated personal hygiene kits donated by World Vision, Inc. These kits (soap, towel, baby-powder, etc.) are kept in readiness in the AID disaster relief stocks in Panama. This prepositioning permitted rapid delivery to victims.

1073 hygiene kits - value estimated at \$ 1,600

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

Most of the following contributions received over several months were handled by the Red Cross of Costa Rica, but some were direct donations to the Costa Rican Government:

<u>Argentina</u>		
21 boxes of canned meat (220.7 k)		\$ 2,000.00
414 packages of food and clothes (6,076 k)		800.00
<u>Canada</u>		
Donation (cash)		2,500.00
<u>El Salvador</u>		
Medicine, food and clothing		1,667.06
<u>France</u>		
Donation (cash)		10,121.45
<u>Germany</u>		
Donation (cash)		12,422.17
2 tractors (Magirus Dentz)		5,502.00

<u>Guatemala</u>	
35 boxes of clothes	\$ 150.00
5 boxes of medicine	1,500.00
Donation (cash)	700.00
1000 lbs. of flour (Incaparina)	100.00
<u>Honduras</u>	
90 bags of corn (116 quintals)	452.40
10 bags of beans (22 quintals)	210.98
119 bags of clothes and miscellaneous	60.00
12 bags of flour (12 quintals)	160.00
50 bags of rice (50 quintals)	479.50
<u>Israel</u>	
Medicine and drugs	1,000.00
Donation (cash)	2,050.67
300 blankets	1,200.00
<u>Italy</u>	
Donation (cash)	5,000.00
<u>Japan</u>	
Donation (cash)	1,000.00
3 volcanologists (three weeks' trip)	9,000.00
<u>Mexico</u>	
Typhoid vaccine and vaccine for cattle	600.00
<u>Nicaragua</u>	
Blankets, vitamins and a doz. camping tents	200.00
Medicine and clothing	14,000.00
<u>Panama</u>	
872 quintals of rice	8,271.58
121 packages of food and clothes	500.00
Donation - Pres. Arnulfo Arias (cash)	1,200.00
<u>Switzerland</u>	
10 tons powdered milk	8,219.17
5 tons cheese	3,575.00
<u>FAO - Food and Agriculture Organization</u>	
2413 tons of food	6,919.43
18 doz. needles and 21 hypodermic needles	100.00
<u>Secretariat of the UN</u>	
Construction material	20,000.00
<u>Vatican City</u>	
Donation (cash)	5,000.00
<u>Venezuela</u>	
889 boxes of chicken (25,000 kilos)	20,612.00
100 tons of rice	1,918.00
<u>United Kingdom</u>	
Donation (cash)	1,000.00
Donation of Bailey Bridge	26,400.00
TOTAL	\$176,591.01

## EDITORIAL

The August 2, 1968, edition of La Republica, a San Jose morning newspaper, contained an editorial of thanks to the U. S. for assistance in the disaster created by the volcanic eruption of Mt. Arenal in Costa Rica. The following is a translation from the Spanish original, almost in its entirety:

"How many times have we seen the phrase 'Yankee Imperialism' or some such painted on the walls of our city as a demonstration of hate toward the United States! We won't go into the political reasons for such propaganda but we do wish to call attention to it as we contemplate the generosity and altruistic spirit of the government of the United States and the American residents in our country in these moments of intense suffering and grief for our homeland.

"Far be it from us to ignore the ample humanitarian cooperation of many other sister nations, but we wish to extol especially the moral and material support of the United States because we feel its detractors should analyze the facts with more courtesy and fairness.

"Lest anyone misinterpret our words, it is only fair to recognize the generous and humanitarian spirit of the American people toward all the countries of the world in time of tragedy. In the field of cooperation and friendship, few peoples can boast of more worthwhile performance.

"Five years ago, when the volcano Irazu erupted, the assistance of the American government and people was immediate and ample. The people of Cartago still remember the quiet tireless work of the Seabees in defense of their city. Today history repeats itself, in its tragic consequences and in the examples of cooperation and sympathy. The American people have responded quickly and generously, not only in material goods and economic aid, but also with acts of personal courage which the Costa Rican people will never forget. A group of men left their work and their homes and marched toward the scene of the tragedy to cooperate with the rescue and refugee efforts, even at the risk of their own lives.

"We don't think everything they do is good, and many times we have disagreed with their policy, attitudes and conduct, we have protested what we consider their myopia in international affairs, but in our present agony we keep silent.

"So today those grimly lettered signs on our city's walls are all the more obvious and painful, because we know they do not represent the sentiment of the Costa Rican people.

"We think we speak for our people—for the men who have suffered irreparable losses, for the homeless, the bereaved, for the children in their innocent suffering—as we express our thanks to all our sister countries who have responded to our needs, and to the government and the people of the United States who with so much Christian liberality and compassion have given us an example of their inner 'imperialism'."

## DOMINICAN REPUBLIC

### CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Food Shortage

DATE-TIME: 1968-69

LOCATION: Country-wide

DISASTER VICTIMS: No. Receiving Food Assistance  
240,000

### DESCRIPTION OF THE DISASTER

On May 18, 1968 the U. S. Mission reported that drought conditions during the preceding 12 months had seriously affected agricultural production. Rainfall records indicated the drought to be the worst in 25 years. The livestock industry was the hardest hit with pastures and grass lands almost bare, cattle dying and production of milk and animal protein substantially reduced. The drought created unprecedented demands for feed grains. Many families lost their source of food through the after-effects of the prolonged drought. Following contributions of food to assist these families from the World Food Program in August 1968, heavy rains occurred which washed away newly planted crops so that the stricken farmers faced another crop failure.

### ACTION TAKEN BY THE GOVERNMENT OF THE DOMINICAN REPUBLIC

The GODR requested assistance from the World Food Program in a drought emergency program in July of 1968 and expansion of this emergency assistance in February of 1969. The GODR agreed to take appropriate measures for adequate distribution procedures and to avoid duplication with other programs.

### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The World Food Program asked the U. S. Government to provide 1,950 tons of cornmeal following the first approval of WFP assistance in August of 1968 and 4,320 tons of cornmeal following decision to expand this program in February of 1969. USAID/Santo Domingo concurred in proposed projects and approval was obtained from AID/W for following P. L. 480 food contributions to the Dominican Republic through the World Food Program.

1,950 MT cornmeal, export market value \$150,000 plus estimated ocean freight charges \$75,000 for total of	\$225,000
4,320 MT cornmeal, export market value \$333,000 plus estimated ocean freight charges of \$175,000, totaling	<u>508,000</u> \$733,000

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None Reported

ASSISTANCE PROVIDED BY OTHER NATIONS OR INTERNATIONAL ORGANIZATIONS

World Food Program (including original and expanded assistance)

940 metric tons of vegetable oil, est. market value	\$301,095
1254 metric tons of nonfat dry milk, est. market value	606,935
1254 metric tons of dried fish, value not known	-
	<u>\$908,030</u>

ECUADOR

CHARACTERISTICS OF THE DISASTER

EVENT: Encephalitis Epidemic

DATE-TIME: May 13-27, 1969

LOCATION: Coastal Region of Ecuador

DISASTER VICTIMS:	<u>Deaths</u> 400	<u>Hospitalized</u> 1,200	<u>Cases</u> 40,000
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DESCRIPTION OF THE DISASTER

A serious epidemic of equine encephalitis occurred in the Playas area of Ecuador affecting towns and villages of Guayas, Los Rios, Esmeraldas, Azuay, El Oro and Manabi Province. Equine encephalitis is a brain damaging disease transmitted by mosquito to man from infected horses and mules. There is a vaccine which can be applied to animals but none for human use. Approximately 40,000 people and countless animals contracted the disease. Many of those stricken were under the age of five. This age group had most of the fatalities which totaled about 400 since the first of the year. Adults reportedly experienced fairly benign cases. The outbreak was the worst experienced in Ecuador in several years.



ACTION TAKEN BY THE GOVERNMENT OF ECUADOR

The National Health Office of Guayaquil under the direction of the Ministry of Public Health, initiated a spraying campaign against mosquitos using helicopters. At first this was thought to be sufficient to arrest the epidemic but public health officials determined later that to spray all the immediate areas of emergency was beyond the capability of the Government of Ecuador. Proper spray aircraft were not available and large quantities of spray very expensive. At this point the Minister of Public Health asked the American Ambassador for assistance from the United States.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

Upon the request of the Minister of Public Health for assistance, an entomologist and virologist were sent to Ecuador from the National Communicable Disease Center (NCDC) at Atlanta, Georgia to conduct an antibody study. Their assessment resulted in the American Ambassador declaring on May 6 that a disaster existed and the authorization of AID contingency funds to help the Government of Ecuador bring the epidemic under control. A third NCDC specialist, a virologist, arrived in Ecuador May 9 to give further technical aid.



Guayaquil prior to aircraft dropping to altitude of 150 feet for spraying purposes.

Following the preliminary planning by U. S. and Ecuadorian officials, AID/W approved expenditures in excess of the Ambassador's \$25,000 authority to assist the GOE in an expanded aerial spray program. The Ambassador recommended immediate deployment of two USAF spray aircraft and the purchase of 90 drums (55,000 gallons) of ultra low volume chemicals (malathion) to cover from 225,000 to 260,000 acres. An additional ten barrels were needed and were rented from a local distributor for later replacement through purchase from the U. S. by AID/W.

AID/DRC arranged with the Department of Defense for the necessary personnel, aircraft, equipment and supplies; for the purchase of the malathion from a commercial source; and for the doctors from NCDC. The U. S. Air Force dispatched a four-man survey team to the disaster area May 13 to prepare for deployment of the aircraft. On May 14, two Air Force UC-123 spray planes left Langley Air Force Base for Guayaquil. The 90 drums of malathion were



90 barrels of malathion delivered to Ecuador by USAF C-141. In background are members US country team, left to right: Donald Besom, USIA; Maj. Richard Lawrence, USAF Mission; Robert Minges, USAID/E Director; Alfred P. Pisani, USAID/E Emergency Disaster Relief Officer.



USAF UC-123 spray aircraft from Langley AFB, Virginia.

delivered to McGuire AFB, New Jersey by Cyanamid, International where it was picked up by an Air Force C-141 on May 15 and delivered to Guayaquil. Spraying began on May 17 and the operations were completed on May 26.

Cost of the first 90 drums of malathion, USAF air delivery to Guayaquil and spraying by USAF planes was estimated at \$71,000. The additional 10 barrels and extended use of spray aircraft brought total charges against the AID contingency fund to . . . . . \$91,000  
The USG also allocated approximately 108,000 doses of horse vaccine to combat any further outbreak.

During the entire operation, Mr. Alfred P. Pisani, USAID Emergency Disaster Relief Officer, Major Richard Lawrence, USAF Mission/Guayaquil, and Mr. Donald Besom, USIA/Guayaquil were at the scene of the disaster and gave full assistance to the USAF survey team, the two crews of the UC-123 aircraft, and the survey team from NCDC. They kept all involved agencies of the U. S. Government informed as well as GOE officials concerned with the disaster.

A signed statement was received from the GOE holding the USG harmless in case of death, injury or destruction of property as a result of the spray program. The GOE Minister of Health sent a letter to the American Ambassador thanking the USG for its help in controlling the epidemic.

In analyzing the impact of U. S. assistance, the U. S. Mission reported that the immediate action on the part of the USG had "enhanced the U. S. image in Ecuador."

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None.

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS: None.

## HAITI

### CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Famine

DATE-TIME: 1968

LOCATION: Northwest Peninsula

DISASTER VICTIMS: No. Needing Food Assistance  
210,217

### DESCRIPTION OF THE DISASTER

A lack of winter rains both in 1967 and 1968 brought near famine conditions to the northwestern peninsula of Haiti. Basic foodstuffs like maize, beans and mangoes were virtually wiped out. The population in this area lives at or near subsistence levels even in normal years. The Haitian American Help Organization (HACHO), autonomous community development unit in the Haitian northwest, financed by CARE, began receiving reports early in January 1968 of impending famine in the area. HACHO discovered that families had food on hand to last until the normal spring harvest, but not enough to carry them through until the second harvest in September. In cooperation with the Haitian Government, HACHO established a program of food-for-work projects which would carry the people through the worst period of food shortage. Once the program was set up and word spread, peasants were able to consume their food stocks at normal rates having been assured of eventual new supplies.

### ACTION TAKEN BY THE GOVERNMENT OF HAITI

The Government of Haiti appropriated \$15,000 for internal transport costs of food to begin the famine projects in the southern portion of the northwest peninsula, and cooperated with HACHO to bring aid to all of the needy people in the affected areas. The GOH provided agricultural technicians from the Ministry of Agriculture. Haitians performed community development work in their localities in return for food aid. This represented a break with precedents in former famine projects in Haiti when food was distributed on a dole basis. The technique established by HACHO found support not only with the populace but also with Haitian officials as evidenced by the technical assistance given by the GOH to the projects.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The U. S. Government provided the following P. L. 480 food commodities through CARE:

	<u>Est. Market Value</u>
967,000 lbs. of CSM	\$ 72,525
923,000 lbs. of nonfat dry milk	203,000
5,118,000 lbs. of cornmeal	178,625
1,773,000 lbs. of bulgur	<u>72,515</u>
	\$526,665

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

CARE (HACHO)

When reports were received early in January of 1968 of impending famine, CARE obtained approval for a special emergency program involving U. S. Title II food from the USG. HACHO people served as advisors for the program and the GOH provided technicians. The program concept involved moving into the area with intensive food-for-work projects, with rations for both workers and family members. It was planned to last six months from March to August 1968. Subsequent investigations added areas not in the original HACHO zone, and one portion of the HACHO zone received food for only three months because the need was less. The large scale work projects involved over 200,000 people. They concentrated on road improvement, new feeder road construction, anti-erosion terracing, irrigation and drainage ditches. The projects were directly designed to improve the agricultural situation in the area to lessen the likelihood of a similar situation in the future. This was in contrast with two previous famines in Haiti since World War II in which the U. S. gave assistance. Then food was brought in at the last minute when people were already starving and no work was done to improve the area.

From its own resources CARE provided tools, equipment and other supplies valued at . . . . . \$48,060

The U. S. Embassy commented that the Haitian program was one of the first anywhere with an effort made to move in fast enough to produce positive betterment of the area, while at the same time meeting nutrition needs; that at the UN level FAO was seeking to set up a crop failure prediction center; that in time efforts to avert famine elsewhere might benefit from the experience gained in Haiti.

ASSISTANCE PROVIDED BY OTHER NATIONS: None Reported.

JAMAICA

CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Food Shortage

DATE-TIME: 1968

LOCATION: Throughout Island

DISASTER VICTIMS: No. Receiving Food Assistance  
100,000

DESCRIPTION OF THE DISASTER

As a result of a prolonged and severe drought, Jamaica suffered a shortage of water and a decline in agricultural production. Some 20,000 farm families living by subsistence farming were the most directly affected.

ACTION TAKEN BY THE GOVERNMENT OF JAMAICA

The Government of Jamaica made an urgent appeal to the Secretary General of the United Nations and the Director General of the FAO for World Food Program assistance.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The World Food Program asked that the USG help in its food assistance to Jamaica by providing 600 metric tons of cornmeal from P. L. 480 stocks. This was approved by AID. Estimated market value of the cornmeal plus ocean freight . . . . . \$67,000

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None Reported.

ASSISTANCE PROVIDED BY OTHER NATIONS OR INTERNATIONAL ORGANIZATIONS

World Food Program

In addition to the 600 metric tons of cornmeal obtained from the U. S., the WFP approved 1,200 metric tons of flour, 300 metric tons of dried fish and 180 metric tons of nonfat dry milk for distribution to needy victims over a three months period. All of these commodities, except the cornmeal were provided to WFP by Canada. Estimated value of the dried fish is not known but the 1200 metric tons of flour and 180 of dry milk have an estimated value of . . . . . \$185,000

## NICARAGUA

### CHARACTERISTICS OF THE DISASTER

EVENT: Floods

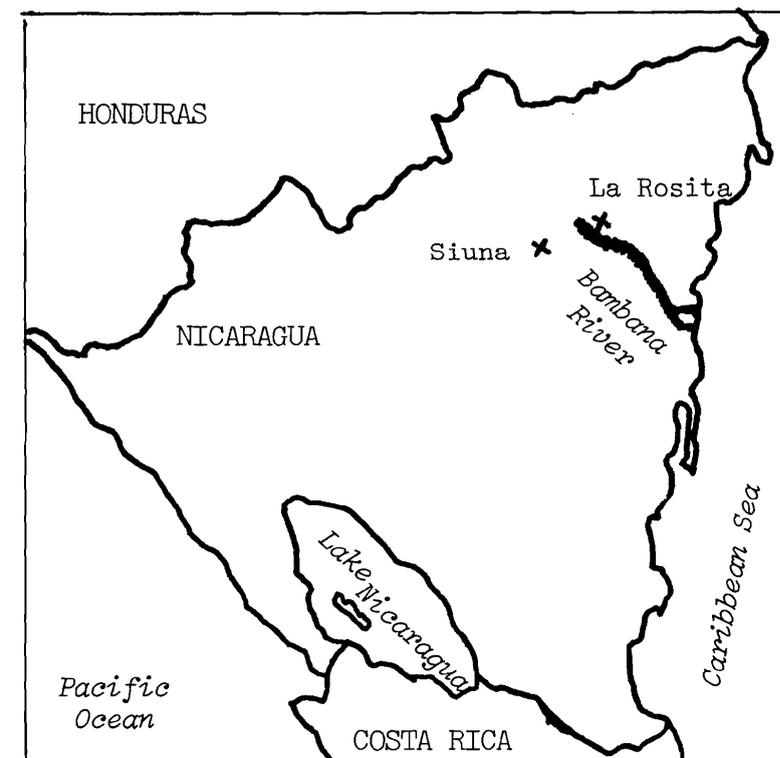
DATE-TIME: August 12, 1968

LOCATION: Mining Region, especially villages Mistrook & El Salto

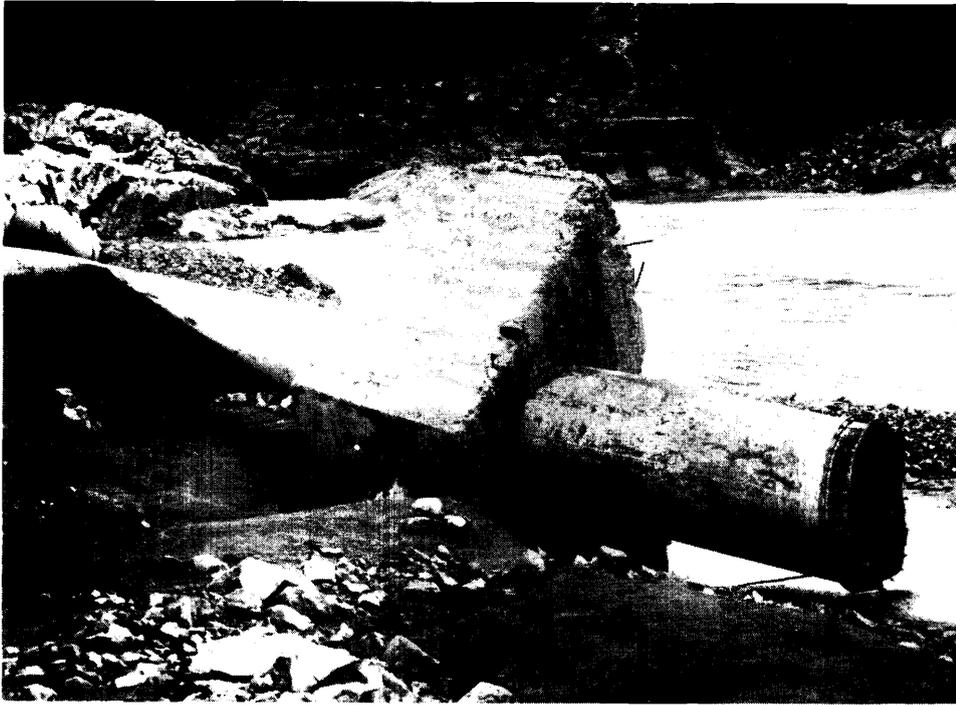
DAMAGES:	<u>Killed</u>	<u>Homeless</u>	<u>Evacuated</u>	<u>Cared For by Mass Feeding</u>
	None	260	504	1,300

### DESCRIPTION OF THE DISASTER

Heavy tropical rains in northeastern Nicaragua resulted in the rupture of the El Dorado Dam on the Bambana River, near Siuna. Flood waters destroyed the small village of Mistrook and badly damaged El Salto. Both were located downstream from the dam. High water in the Walpasix and Prinzapolka Rivers also damaged homes in the villages of Dos Bocas and Wasaking. In addition to destruction of houses, at least five bridges were destroyed and cropland in the flood plains of the rivers was inundated for a short period. Of greatest economic significance was the destruction of the El Dorado Dam and hydroelectric plant, which supplied power to the La Luz gold mine at Siuna. Due to the low grade ore, the owner of the mine and hydro plant, Falkenbridge Nickel Company of Canada, decided it would be uneconomical to rebuild the dam and power plant. Plans were made to shut down the



mine and transfer equipment to the copper mine at La Rosita.



Remains of El  
Dorado Dam  
showing remains  
of part of  
hydro-plant.



Highway bridge  
on Bambana  
River completely  
destroyed.

## ACTION TAKEN BY THE GOVERNMENT OF NICARAGUA AND LOCAL ORGANIZATIONS

Relief and rescue operations were coordinated by the Nicaraguan National Guard and involved Civic Action Units of the Guard, the Nicaraguan Air Force, Ministry of Health, Social Security Institute, La Nica Airlines and the local Red Cross. No new organizations were formed.

Operations consisted chiefly of setting up relief stations at Siuna and La Rosita, and arranging for medical teams, medicine, food and clothing.

The GON attempted to deal with the crisis itself but experienced difficulty in air-dropping supplies into the area and requested U. S. assistance to overcome the problem.



Discharging homeless flood victims near one of relief centers.

## ASSISTANCE PROVIDED BY U. S. GOVERNMENT

The U. S. Ambassador requested USSOUTHCOM to provide air support to aid the GON in relief operations and authorized use of AID contingency funds for reimbursement. USSOUTHCOM and the MIL Group supplied one helicopter, which logged 27 hours and 45 minutes in 30 sorties, and one C-47, which logged 3 hours and 10 minutes in 7 sorties, in air dropping clothing and other supplies to disaster areas and in evacuation of flood victims. A



Preparing landing area for airlift operations.

total of 282 flood victims were evacuated by the U. S. Military. In addition 57,000 pounds of cargo were airlifted and 30 cargo parachutes were used to air drop 4,000 pounds of clothing into La Rosita. Total reimbursable expenses from the AID contingency fund amounted to . . . \$5,939.13

Also, USG P. L. 480 food totaling 9,847 pounds of CSM, rolled oats, flour and vegetable oil were donated to flood victims through Catholic Relief Service. The food was valued at . . . . . 653.40  
\$6,592.53

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

Catholic Relief Services made above P. L. 480 food available and supplied 5,000 pounds of used clothing valued at . . . . . \$5,000

Fairchild-Hiller Corporation

A unique contribution was made early in the crisis by a 3-man team from the Fairchild-Hiller Corporation, which received considerable publicity. They were in Managua to demonstrate a new helicopter. When they heard of the disaster, they volunteered their services. During the August 13-14 period they rendered invaluable assistance, evacuating 34 women and children from the village of Mistrook and assisting the Nicaraguan Air Force (FAN) in reconnaissance operations and in airdrops of supplies to flood victims. The team was decorated by the FAN.

#### ASSISTANCE PROVIDED BY OTHER NATIONS

No outside assistance was given by other countries. However, the Israeli Consul in Managua, as a ham radio operator, was instrumental in maintaining communications with the stricken towns prior to the arrival of the National Guard teams.

PERU

CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Food Shortage

DATE-TIME: 1968

LOCATION: Northern Peru

DISASTER VICTIMS: No. Needing Food Assistance  
128,604

DESCRIPTION OF THE DISASTER

Lack of rains for many months in 1967-1968 developed drought conditions considered to be the worst in northern Peru during the past century. It was estimated that the 1967-68 harvest would drop to about 45 percent of the 1966-67 harvest. The resultant reduction in employment of farm workers was estimated at 11,433,260 man days, affecting 228,000 persons.

ACTION TAKEN BY THE GOVERNMENT OF PERU

By Supreme Decree dated May 10, 1968, President Belaunde declared an area encompassed by the Department of Tumbes, Piura, Lambayeque, La Libertad, Cajamarca and Ancash as an emergency zone. To help meet the emergency feeding needs of 128,604 victims, the Government of Peru requested that the USG provide agricultural commodities available under Title II of Public Law 480. The GOP appointed a permanent commission to study the extent and nature of the disaster. On June 7, 1968, the President of Peru signed Law 17037, which was passed by the Peruvian Congress on the same day. The law authorized the expenditure of S/270,000,000 (about \$7 million) to be used for public works projects in each department as follows:

Tumbes	S/10 million
Piura	S/85 million
Lambayeque	S/55 million
La Libertad	S/70 million
Cajamarca	S/30 million
Ancash	S/20 million

Projects listed were mainly irrigation improvement, feeder roads and re-forestation. The law stated that 5% of the money (\$350,000) should be set aside to cover the cost of internal transportation of food donations to be

distributed by Peruvian voluntary agencies. The law also established a committee to coordinate and supervise the public works program in the affected Departments. All assistance given to these departments by the Peruvian Government was to be channeled through this committee.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

AID/Washington, War on Hunger, approved recommendation by USAID/Peru for grant of the following P. L. 480 food commodities for a six months feeding program of free distribution to drought victims or as payment-in-kind of wages to those employed on the work projects in the affected areas:

<u>Metric Tons</u>	<u>Estimated Market Value</u>
1,620 bulgur	\$ 145,800
1,042 rolled wheat	88,570
2,662 cornmeal	204,974
694 vegetable oil	222,774
694 nonfat dry milk	336,590
463 CSM (corn-soya-milk mix)	76,395
<u>7,175</u>	<u>\$1,075,103</u>
Estimated ocean freight charges	355,000
	<u>\$1,430,103</u>

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

The P. L. 480 food was distributed through the following U. S. voluntary agencies with programs in Peru and their Peruvian counterparts.

Catholic Relief Services - distribution to 88,734 persons.

Seventh-Day Adventist Welfare Service - distribution to 27,650 persons.

Church World Service - distribution to 12,220 persons.

CWS also provided cash for the drought program amounting to . . . . \$4,000

ASSISTANCE PROVIDED BY OTHER NATIONS: None Reported.

INDIA

CHARACTERISTICS OF THE DISASTERS

EVENT: Floods

DATE-TIME: July, August, 1968 and October 1968

LOCATIONS: July/August Floods  
 West Bengal, Rajasthan, Assam, Kerala, Tripura, Gujarat, Mysore, Uttar Pradesh, Bihar, Manipur, and Union Territories of Delhi.  
October Floods  
 West Bengal, Bihar, Assam

DISASTER VICTIMS:	<u>Killed</u>	<u>Affected</u>
July	129	5,300,000
August	1,000	1,000,000
October	3,763	1,200,000
	<u>4,892</u>	<u>7,500,000</u>

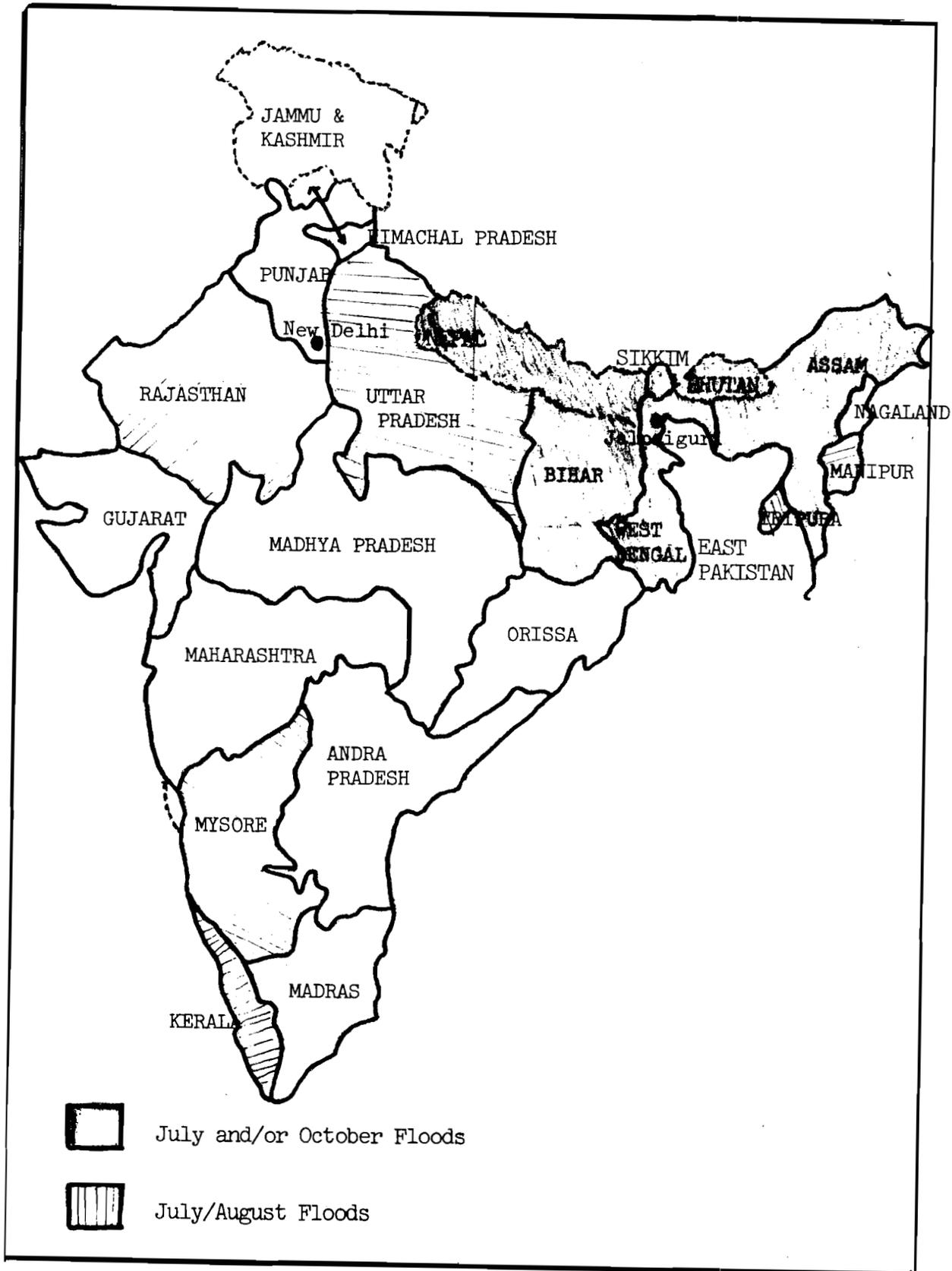
DAMAGES:		<u>Estimated Dollar Damage</u>
July/August	Damage to homes, crops, buildings, etc., placed at 300 to 400 million rupees. Dollar equivalent of lesser figure.....	\$40,000,000
October	357,554 acres of crops lost.....	16,300,000
	96,316 homes destroyed .....	12,800,000
	90,000 head of cattle dead.....	?

	<u>Estimated Replacement Cost</u>
Anderson Bridge.....	5,000,000
Other bridges, roads, railbeds..	20,000,000
Barauni Oil Pipeline repair.....	100,000
	<u>\$94,200,000</u>

DESCRIPTION OF THE DISASTERS

July/August Floods

Reports of flooding in Assam were received early in July following extremely heavy monsoon rains. Additional flooding was reported in seven states throughout the month of July. Prime Minister Gandhi visited Calcutta for



24 hours beginning the morning of July 9. During that time there occurred the heaviest rains for a 24-hour period in over 50 years. Large areas of Calcutta were inundated. Some of the Prime Minister's program had to be cancelled as flood waters blocked important streets. Many people died in the July floods and there was extensive crop and other damage. There was a lull of about a week in the rains, then during the second week in August torrential rains and floods struck again with renewed and in some areas greater violence. This time the worst hit state was that of Gujarat on the West Coast where an estimated 1,000 people were killed. Many parts of the low-lying city of Surat in Gujarat were flooded by the Tapti River overflow. A 20-mile area near the towns of Broach and Surat became a lake. In Bihar, 40 villages were inundated by the Kosi, Bhuyshi, Bihul, Ghordha, Panchi, Kharak and Parbatta rivers in the Darbhanga District. In the July/August floods, flooding was severe in Assam, Kerala, Rajasthan, West Bengal, Tripura and Gujarat with medium to high floods in Mysore, Uttar Pradesh and the Union Territories of Delhi and Manipur.

### October Floods

During the early part of October, sixty hours of continuous deluge brought flood disasters to five countries in the Eastern Himalayas. In addition to this case study on the India flooding, separate studies are included in this book for East Pakistan and Nepal since U. S. assistance was involved. Destruction was also severe in Bhutan where an estimated 300 people died and in Sikkim where 257 lost their lives and damage was estimated at \$2 million.

Rivers in North Bengal, Bihar and Assam broke their banks leaving over a million people in desperate circumstances. In the northern section of West Bengal including Darjeeling, Jalpaiguri, Cooch Behar, West Dinajpur and Maldah, it was said to be the worst disaster in living memory. In this area 30 to 50 inches of rain fell in two days. In the plains, overflow of the rivers caused flooding. In the hills, the downpour led to numerous major landslides which demolished entire villages.

When the bund on the Teesta River breached, the town of Jalpaiguri was submerged in 8 to 10 feet of water within seven minutes and remained submerged for 48 hours. The furious current passing through Jalpaiguri and other towns such as Cooch Behar brought with it huge boulders and tree trunks. Although the people of Jalpaiguri are used to annual floods the magnitude of the October floods was totally unexpected. When the water subsided it was like a ghost town, covered with mud, silt and sand. Vultures hovered overhead and swooped down on the dead bodies of people, cattle, cats and dogs which littered the streets of Jalpaiguri and surrounding villages.

In the mountains, the main roads and many bridges were swept away by landslides. Mule trains had to be used to bring relief supplies to remote, hard-hit villages. The flood waters also destroyed and damaged railroad beds and damaged the 500 mile oil pipeline between Assam and Bihar.



Landslides (white patches) as viewed from Darjeeling.



Portion of village of Bazinbari levelled by landslides.



These pictures from Lutheran World Relief show a village near Cooch Behar. In the background of the top photo is the remainder of a village. Completely destroyed were crops of jute and rice which stood in the foreground. Because hundreds of logs are imbedded into the soil, villagers fear they may never be able to plow this ground again. See lower photo.

Development of India spearheaded a large scale food and clothing distribution throughout the flood areas with donations received from Church World Service and Lutheran World Relief.

Following the July floods, the Food Corporation of India rushed six special trains with over 10,000 tons of wheat to the needy areas in Assam. The Punjab State Government was also reported to have sent about 14,000 tons of wheat to Assam.

Deaths in West Bengal were reported at 3,000 in the Jalpaiguri District, 677 in Darjeeling District and 46 in Cooch Behar District. The State of Assam was also seriously affected and 35 people died in the Goalpara District. In Bihar five persons were killed in Darbhanga and Saharsa Districts. An estimated 1,800 square miles were affected in West Bengal and 3,000 in Bihar.

Many lives in Jalpaiguri were lost because of the failure to warn the inhabitants of the flood. Another commentary stated that control measures like strengthening river embankments, building new flood barriers on known rivers and setting up flood forecasting units were expected to be given high priority in India's 4th Five-Year Plan starting next year.

#### ACTION TAKEN BY THE GOVERNMENT OF INDIA AND LOCAL ORGANIZATIONS

Indian Army and Air Force assistance was considerable in terms of rescue, evacuation, establishing communications and airdropping of food.

A Prime Minister's Relief fund was set up for public subscription. The Indian Red Cross provided milk powder, large quantities of multi-vitamins, medicines, clothes and disinfectant. The Christian Agency for Social Action, Relief and

Prompt action was taken to prevent cholera and smallpox outbreaks. No epidemics occurred.

At the request of the Indian Red Cross, the League of Red Cross Societies issued an international appeal to sister societies for requested items and for multivitamins.

The State of West Bengal mounted a relief program. Large quantities of supplies were moved into the area from within the state but the Relief Secretary indicated a need for milk, baby food, woolen blankets and clothing from outside sources. Feeding centers and camps for the homeless were established and local committees distributed blankets, medicines, and other supplies as they were received. Because of the destruction of bridges and roads, temporary roads had to be built. Initially the Indian Army assumed responsibility for constructing temporary bridges but later the Public Works Department constructed more permanent structures. It also mobilized work gangs to repair roads, remove silt and construct new roads where required. Labor was recruited from the persons most affected by the damage, including men, women and children. It was several months before electric power could be restored, except for institutions and hospitals. Farmers whose lands had become silted were requested to remove all unwanted debris and Government trucks were supplied free to assist them. The Irrigation Ministry prepared plans to repair major embankments breached by the flood and to build protective devices for vulnerable embankments before the next monsoon.

A CARE official who had visited the disaster areas in mid-October and had witnessed, in his words, "absolute chaos" at that time, was impressed when he returned a month later with the progress made in removing rubble, constructing temporary shelters and organizing of feeding centers.

The State Government of West Bengal also undertook a food for work program to repair flood damages and to provide protection against future flood disasters. The work project was planned for an eight month period to employ 63,500 unemployed or underemployed workers, who would each work an average of 200 days. Some 240,000 of their dependents were expected to benefit from the project. Compensation was set at 2.2 pounds of wheat and one rupee per day for each worker. The GOWB sought and obtained the assistance of CARE as a joint sponsor for the program and the U. S. Government was requested to donate 12,700 metric tons of food for the project. The U. S. Mission and AID/Washington approved the program. The Government of West Bengal agreed to contribute 13 million rupees (\$1,710,526) for cash wage component, for commodity inland handling costs, and for supervisory and material costs.

Reported cash grants by the State of West Bengal for relief and rehabilitation totaled \$3.8 million with an additional \$3.3 million being provided for agriculture, irrigation and cooperatives needs resulting from the floods. Loans funds were also established of \$4.2 million for relief and rehabilitation and \$4.7 million for agricultural aids.

The West Bengal branch of the Indian Red Cross spent \$110,000 on flood relief.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

Following the July/August floods, U. S. voluntary agencies provided USG P.L. 480 CSM, bulgur, wheat, flour and oil for 723,000 beneficiaries in Assam, West Bengal, Mysore, Kerala, Rajasthan, Orissa and Delhi for periods ranging from five days to two months. All quantities used and value were not reported but Church World Service reported distributing 430,000 pounds of bulgur and 30,000 pounds of vegetable oil valued at . . . . . \$21,560

Following the October floods, the American Ambassador advised the U. S. voluntary agencies that as much food as necessary would be made available to them to meet emergency relief requirements. No USG personnel were utilized in aiding the GOI as all USG assistance was made through the voluntary agencies and UNICEF, who provided or distributed the following P.L. 480 food commodities to West Bengal and Assam.

CARE	2,735,050 pounds of bulgur and CSM
CRS	1,575,000 pounds of wheat and vegetable oil
CWS/LWR	310,000 pounds of bulgur and wheat
UNICEF	200,000 pounds of nonfat dry milk

This food had a value of \$281,830. Ocean freight was \$117,279 for a total of . . . . . \$399,109

AID/Washington also approved the donation of 12,700 metric tons of wheat to CARE and the State of West Bengal for a food for work flood rehabilitation program. The wheat had a market value of \$812,800 plus ocean freight charges of \$581,000 for a total of . . . . . \$1,393,800

The U. S. Ambassador exercised his disaster relief authority to donate 75,000 of US-owned rupees to the State of West Bengal to purchase blankets and other relief supplies. Approximately . . . . . \$15,630  
\$1,838,099

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

CARE, Catholic Relief Services, Church World Service/Lutheran World Relief distributed USG P.L. food commodities as indicated above.

CARE

Assisted the Government of West Bengal in its food for work flood rehabilitation program by providing supervision of the food segment of it and donated the necessary vehicles costing 81,000 rupees . . . . . \$10,000

CARE also gave relief supplies valued at . . . . . 7,400  
\$17,400

Church World Service/Lutheran World Relief

Cash donations of \$5,000 for Assam; \$3,000 for Assam and West Bengal,  
following the July floods . . . . . \$ 8,000

Cash donations of \$5,000 (CWS) and \$5,000 (LWR)  
for victims of the October floods, total . . . . . 10,000

9,800 pounds of clothing and blankets valued at . . . . . 9,800

Relief supplies following October floods . . . . . 192,510            \$220,310

Catholic Relief Services

Relief supplies valued at . . . . . 17,200  
\$254,910

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

The following Red Cross Societies made contributions for the Indian flood victims. The amount of cash and supplies donated by them for both the July and October floods has been combined.

Australia - cash	\$ 4,400
Burma - supplies	200
Canada - cash and supplies	26,640
Canada - Govt. - cash	13,820
Ceylon - supplies	550
Finland - supplies	4,000
France - cash	700
Germany (Dem. Republic) - supplies	54,980
Germany (Fed. Republic) - cash	1,230
Great Britain - cash	3,610
Japan - supplies	5,200
Korea (Rep.) - cash	100
Kuwait - cash	1,130
Lebanon - cash, supplies	80
Monaco - cash	430
Nepal - cash	60
Netherlands - supplies	160
New Zealand - cash	1,650
Norway - cash	2,780
Poland - supplies	13,320
South Africa - cash	1,930
Sweden - cash and supplies	58,340
Switzerland - supplies	3,470
Thailand - cash	230
Private Donations - cash	110
UNESCO Staff Association - cash	570
	<u>\$199,690</u>

World Council of Churches

July & October Floods, less \$10,000 CWS/USA contribution            45,000  
\$244,690

IRAN

CHARACTERISTICS OF THE DISASTER

EVENT: Earthquakes

DATE-TIME: August 31, 1968 - 1047 hours GMT (2:17 p.m. local time)  
Sept. 1, 1968 - 0727 hours GMT (10:57 a.m. local time)

LOCATIONS: Northeastern Iran Province of Khorassan, including villages and towns on the Gonabad, Kakh, Ferdows, Dasht-e-Biaz, Qaen axis.

DISASTER	<u>Killed</u>	<u>Injured</u>	<u>Hospitalized</u>	<u>Homeless</u>
VICTIMS:	10,000*	4,050	1,000	75,000

\* Official Red Lion and Sun estimate as of 11/24/68. The exact number may never be known. Because of the danger of epidemics, rescuers gave up trying to recover bodies several days after the quake. Bulldozers were ordered to level the ruins, leaving bodies of the dead buried under them forever.

ESTIMATED	<u>Homes Destroyed</u>	<u>Dollar Damage</u>
PROPERTY	15,000	\$30 to \$40 million
DAMAGE:		

Also destroyed were hospitals, schools, public buildings, communications, roads, and water systems. Losses were heavy in livestock and stored food supplies.

DESCRIPTION OF THE DISASTER:

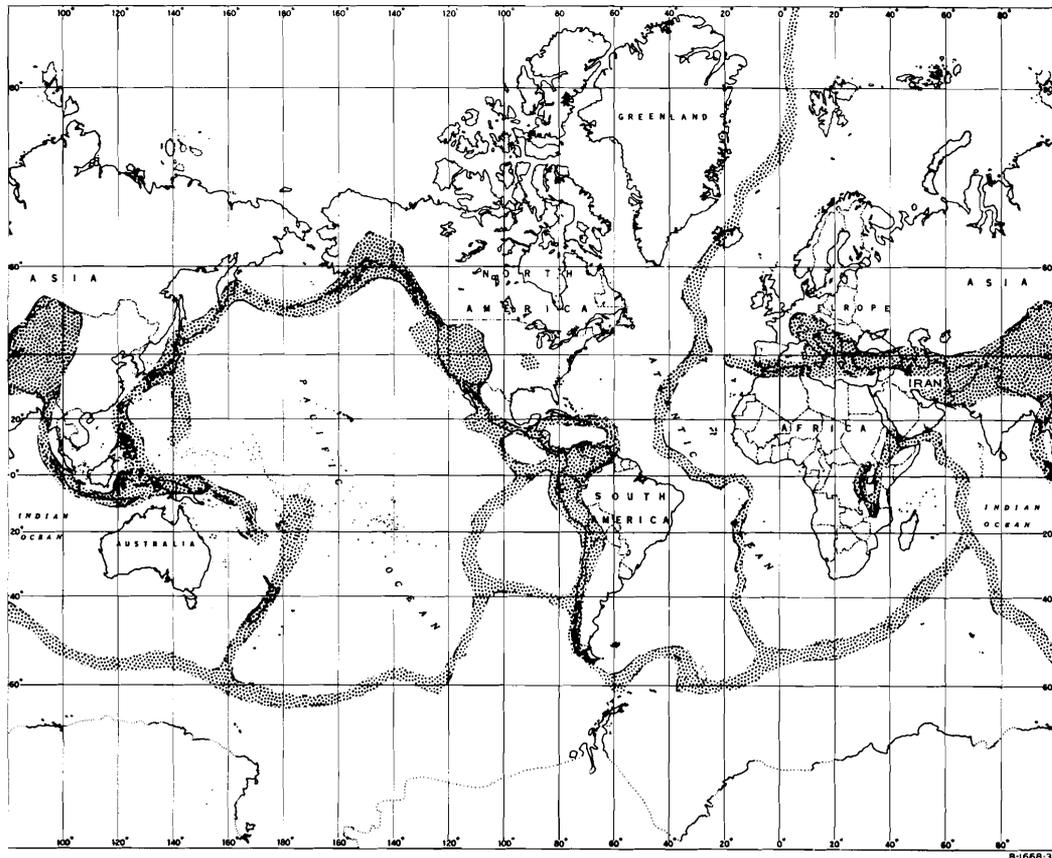
General Description

In any major earthquake, it is well to bear in mind its relationship to the seismic areas of the world. (See seismic map on page 143.)

Iran sits in the middle of the Alpide belt and has two major quake zones which are found in and around the country's major mountain ranges--the Alborz (Elburz), lying north of Tehran, and the Zagros, running in a line

along the south coast. Very little of Iran can be excluded from the possibility of earthquake disasters. Tehran itself is vulnerable, having felt 51 tremors last year. Over a ten year period from 1956 to 1966, the central plateau was hit by destructive earthquakes—measuring at least 5.57 on the Richter scale—on the average of once every 18 months. From the year 1500 to 1930, there have been 166 "notable" earthquakes of which 45 occurred along a line that starts in Syria, passes Mosul and the northern vicinity of Baghdad, and stretches down the northern coast of the Persian Gulf past Bushehr and Bandar Abbas; over 40 quakes occurred along the foothills of the Alborz range along the Caspian coast and Gorgan up to Meshed; about 36 were confined to the Tabriz area in Azarbaijan; 13 on the Hamadan-Isfahan axis; and 10 centered around Shiraz; while others did not fall into a pattern.

Earthquakes are an ever present threat to Iran. The country's vulnerability has been charted by seismologists and its tragic experiences over the years have been more than enough to confirm it. Contemporary Iranians can remember quite a number of earthquakes. The horrors of the 1962 Qazvin quake (known in seismological literature as the Buyim-Zahra earthquake) in which over 12,000 people died are still vivid in their memory. More recently, in April of 1968, a less serious but quite destructive earthquake hit Azarbaijan Province, killing 38 and leaving 5,000 homeless. What would normally be a once-in-a-lifetime nightmare has for the Iranians become a potentially recurring horror with which they are obliged to live.



**MAJOR SEISMIC BELTS OF THE WORLD**  
 ESSA-C&GS NATIONAL EARTHQUAKE INFORMATION CENTER

Most earthquakes occur along these major seismic faults although they are rarely seen at the earth's surface. The San Andreas Fault in California and the North Anatolia Fault in Turkey are visible. The Circum-Pacific belt extends from Chile through the west coast of North and South America, Alaska, and Japan to New Zealand. The Alpine extends from Indonesia to Spain. Broadening out as it enters the Asian continental mass, it includes southwestern China, where an earthquake in January in the year 1556 killed 830,000 people in Shensi Province, and continues into northern India, Iran, Turkey, the Balkans, Italy and North Africa. The mid-oceanic ridge is a thin belt of earthquakes virtually harmless to man which follows the ridge system in the Atlantic, Indian, and South Pacific Oceans.

## Technical Description

August 31, 1968, Earthquake: 7.3 on the Richter magnitude scale; 10 on the Mercalli intensity scale. Its focal depth was estimated at 13 kilometers. Epicenter - 33.97 degrees north; 59.02 degrees east or about 20 kilometers east of Dasht-e-Biaz. It struck an area of 4,500 square kilometers in the eastern Iran province of Khorassan, 901 kilometers east southeast of Tehran. Directly within the energy release areas were the towns of Kakh, Gonabad, Dasht-e-Biaz, and numerous villages and hamlets dotting the Byaz foothills.

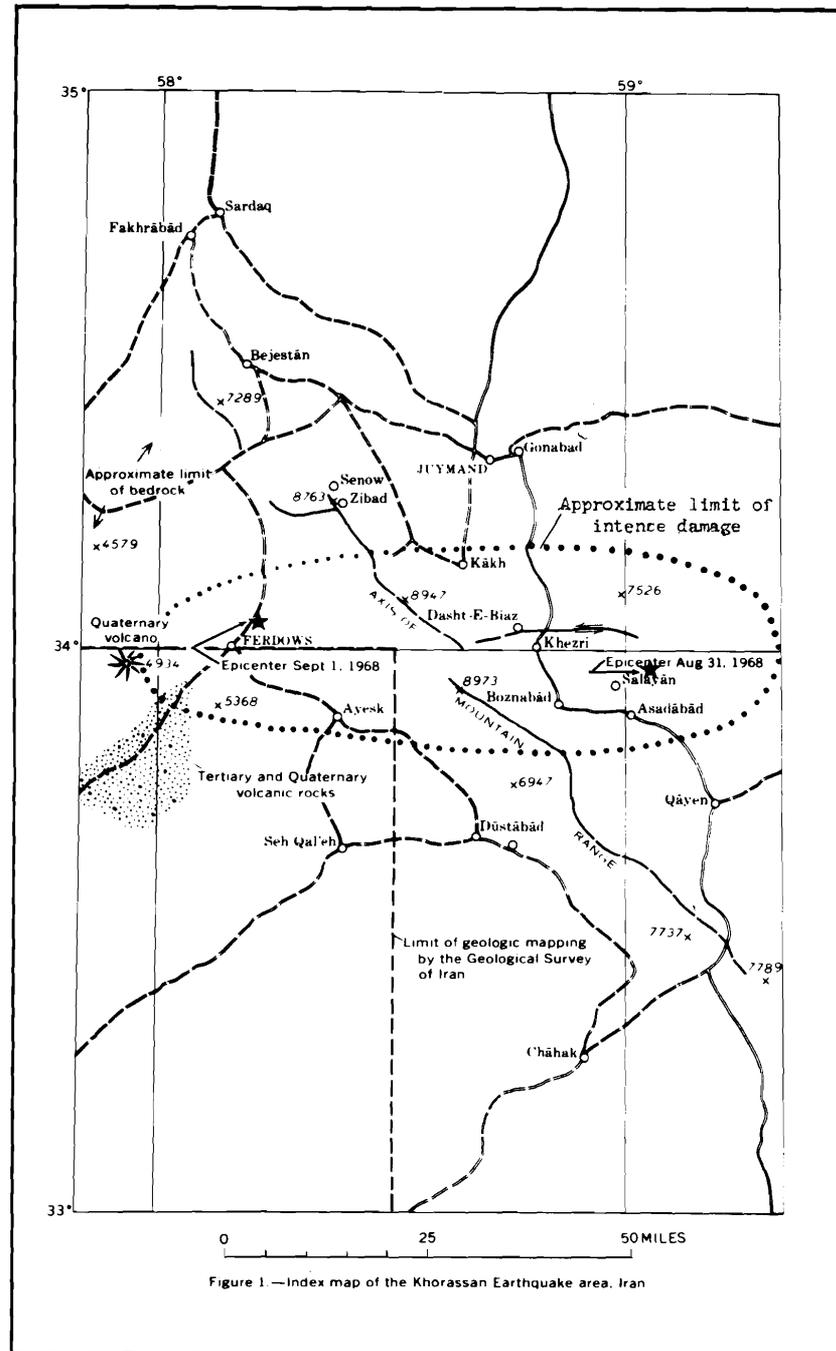
September 1, 1968, Earthquake: 6.3 on the Richter magnitude scale; 9 to 10 on the Mercalli intensity scale. Epicenter 34.04 degrees north and 58.22 degrees east. Its focal depth was given as 15 kilometers. Great physical damage to the town of Ferdows and the surrounding areas, 90 kilometers west of the epicenter for the August 31 temblor.

Field observations by U. S. geologists and other scientists noted that the primary effect of the earthquakes was a "zone of faulting that developed across an alluvial plain trending westerly for about 20 miles." Surface fault lines were observed running east-west from Dasht-e-Biaz. The UNESCO seismology team reported the fracture in the earth's crust as being 70 kilometers long and the focal point for the origin of the earthquake waves was measured as 10 kilometers deep, with surface fracture passing through Dasht-e-Biaz, Kakh, Moin, and Moghri. Observations along the fault zone showed that the north side moved westward relative to the south side. The maximum displacement occurred between Moin and Dasht-e-Biaz.

Mr. David J. Leeds, geophysical consultant for the Los Angeles, California firm of Dames & Moore, Middle East, in reporting on the intensity stated: "An east-west oval area, with a long axis of about 125 kilometers of 'complete' destruction of Iranian mud block houses exists. Villages in this area have every house damaged beyond use or repair. The fault is within this area. One village, Dasht-e-Biaz, just 300 yards north of the fault line, was shaken absolutely level. No structural element of a building remained identifiable--no arches or walls, just lumps of mud."

John A. Reinemund, Chief, Branch of Foreign Geology, U. S. Geological Survey, Department of Interior, made the following comments on geologic factors: "The importance of geologic factors can be observed in the damaged villages. The incredible destruction of Dasht-e-Biaz is related not only to its proximity to the fault along which the earthquake was generated, but also to the fact that it was built on low-lying, terraced alluvium with depth to water table generally less than 15 feet. Damages in Kakh appear greater to low-lying houses than to buildings on higher ground underlain by old alluvium and with a deeper water table. Some villages near Kakh located on bedrock received relatively little damage. Where possible, villages should be relocated away from this and other faults known or suspected to be active and should be placed on bedrock or on high ground having a low water table. Geologic mapping is needed to identify these

factors and localities." It is realistic, however, to note that geologic hazard mapping on a large scale is expensive. Also, other hazards and factors such as lack of drinking water, distance to crops, and the like, influence whether a particular village can or should be removed to another site. New construction techniques in earthquake-resistant construction will also influence such decisions.

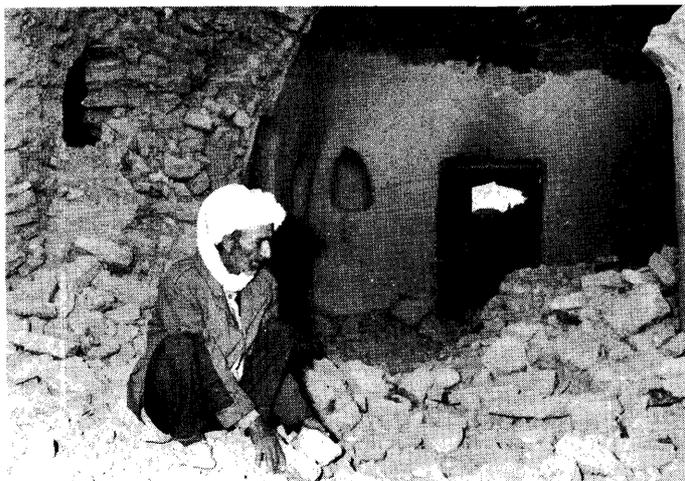


## Description of What Happened

The region ripped asunder is a harsh land of desert and dust storms and mud-brick villages of farmers linked by primitive roads. It was an area unpretentious but thriving. Its farmers grew corn, fruit, and saffron.

The last day of August was a hot Saturday afternoon. The dry dusty plains and the occasional mountains that rise sporadically from the flats that are a part of the physiographic characteristics of the Gonabad-Kakh farm areas gave no advance warning of the megaton of energy soon to be released. Some 400 of the inhabitants of the town of Kakh had gone to the local mosque for prayer. Many women and children were taking a mid-day respite, remaining indoors to enjoy the coolness of their homes. The houses, some with cellars whose lower temperatures created by the cave-like composition of dried mud-brick walls and roofs, are a favorite resting place. Many of the men were out in the fields. Suddenly, according to several of the survivors, "the very mountain trembled--it rumbled like thunder." Kakh, a town of 6,000 people, had in a few moments over 1200 of its people dead, including all but a few of the 400 attending prayers in the mosque. The earth quieted. The dust settled. Kakh no longer existed.

Other towns or villages totally destroyed were Dasht-e-Biaz and Beinabad. Destruction and fatalities were extremely heavy in Khezri. Numerous other villages and towns suffered to varying degrees. Piles of rubble representing the remains of homes, sticks marking temporary graves, were common sights in Kakh, Dasht-e-Biaz, parts of Gonabad, and many smaller villages. Some villages, such as Nowbahar and Gudarz, were half destroyed but, fortunately, did not suffer heavy casualties. The major towns of Torbat



Destroyed home and survivor at  
Gonabad

Heidarieh and Torbat Jam escaped relatively unscathed with only a few shops and homes destroyed. The minaret in the Sheikh Jam mosque at Torbat Jam toppled, and the mosque at Torbat Heidarieh was partially destroyed.

The second earthquake, of severe destructive proportions but of less magnitude than the first, occurred at about 11 o'clock Sunday morning, less than 24 hours after the initial disaster. The epicenter was due west of Dasht-e-Biaz. Ferdows, a quiet, tree

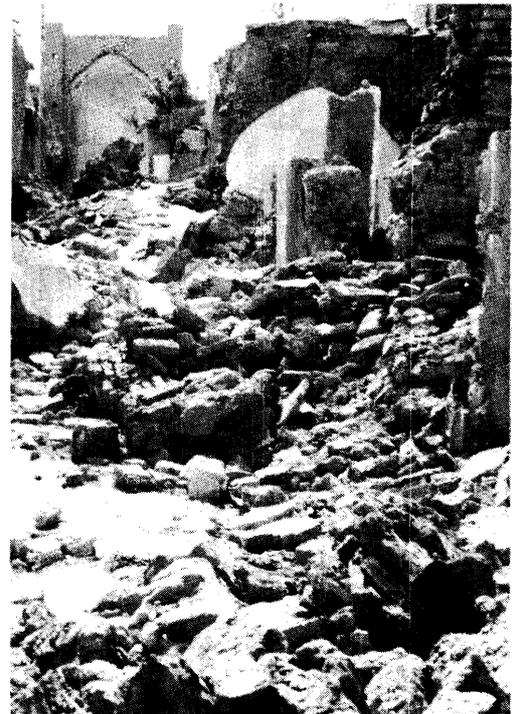


U.S. Ambassador A. H. Meyer inspecting disaster scene at Ferdows

80% of the city was physically demolished. Prior to the second earthquake, Ferdows had a self-help capability. This included a 50-bed hospital with adequate medical staff to handle their initial disaster casualties and to perform its own rescue work. The hospital was destroyed. An AP news report said the bandaged bodies of at least 30 people who had been injured but had survived the Saturday earthquake were found under the debris of the hospital after the quake on Sunday. The AID Disaster Relief Officer who toured the disaster areas reported having heard a Ferdows survivor tell of efforts to excavate a school teacher injured in the first tremor. He was alive but trapped under a pile of rubble. The Sunday quake, however, completely demolished the remaining sections of his home and he was killed.

The second disaster seriously disrupted the existing limited communications system within the area. Two weeks after the earthquake, Gonabad, a focal point for disaster relief operations, often had a wait of several hours to make radio-telephone communication with Meshed, the capital of the province.

shaded farm center of approximately 12,000 inhabitants, bore the brunt of the new quake. The shock waves the day before had caused initial and medium structural damage to Ferdows. Consequently, the inhabitants were alert to the possibilities of new earth tremors. Many had not even returned to their houses. This awareness had much to do in keeping the Ferdows death toll down. Even so, 950 inhabitants lost their lives. The force of the quake totally devastated the building and residential sections of Ferdows and surrounding areas. About



Ferdows



Survivors at a relief camp

Many frightened villagers left their homes. They camped outside the walled areas. The air was cold and the victims were badly in need of blankets and warm clothing. In many villages the inhabitants also suffered from thirst. Wells, underground canals, and water sources had been damaged and were not working.

Rescue workers pulled from under the rubble many victims still in the positions they had been in when death overtook them. One lifeless woman held her child in her arms; another sat in the corner of her room in the act

of feeding her child. In an extraordinary case, an elderly woman and her three-year old grandson were pulled out alive 48 hours after the quake struck. She was reading the Koran when rescuers reached her. The child was crying for food. One eyewitness told of a 59-year old villager, Mohammad Khodai, in Kakh. Khodai was found kneeling beside a mound of dust and broken wooden poles, unable to speak at first. When speech returned to him he said his whole family lay beneath what had been his patriarchal home. They were his five sons, two daughters, their children and grandchildren, numbering 32 persons in all. Another eyewitness described the devastated regions as "like a moon scene."

Of the 4,040 people injured, 1,000 required hospitalization. This is considered a low injury rate against the 10,000 deaths. Most of those who were injured had to be treated for broken bones. Only a few of the injured died.

The villagers lost their families, their homes, and all their belongings. Cattle and mules were buried under the debris. Until suitable equipment could be moved in, men and women toiled with picks and spades to dig out the victims. In some areas, with no hand tools available, survivors tore at the rubble with their hands. Many of the villages had no roads of any sort leading to them. This slowed the pace for bringing in help. Mercy teams were not able to reach the villages of Kashak, Espian, Fathabad, Nardaban, and others until Tuesday morning, September 3. The distances between the quake-stricken areas and between them and Meshed were an additional complication. The Gonabad airstrip was severely damaged. Some repairs were made 48 hours after the quake, but as of June 1969 satisfactory landing strips had not yet been completed.

The devastated area faced the post earthquake dangers of contaminated water, exposure to weather, and outbreak of disease. Schools and public places,

including mosques, were turned into emergency clinics. Tents and other emergency shelters were brought in.

By September 3, there had been at least 11 aftershocks which spread new waves of panic and fear among the population. (Additional earthquakes on January 3 and 4, 1969, again devastated Khorassan Province, leaving an estimated 50 persons dead, 300 injured, and 2,000 homeless. Some 50 villages around Esfarayen district were affected.)

By September 7, bulldozers had begun to clear the rubble in Kakh, Dash-e-Biaz and Khezri.

#### Commentary on Causes for Heavy Casualties and Destruction

The "Tehran Journal" stated that the blame for the heavy death toll must fall on the extremely poor quality of building materials in the area. Unstable walls, heavy roofs, unbraced houses are key components which a quake with an intensity far less than those of August 31 and September 1 could have toppled. Indeed, thousands of lives might have been saved had other types of construction been used, but mud and timber have been the basic building materials in Iran for centuries.



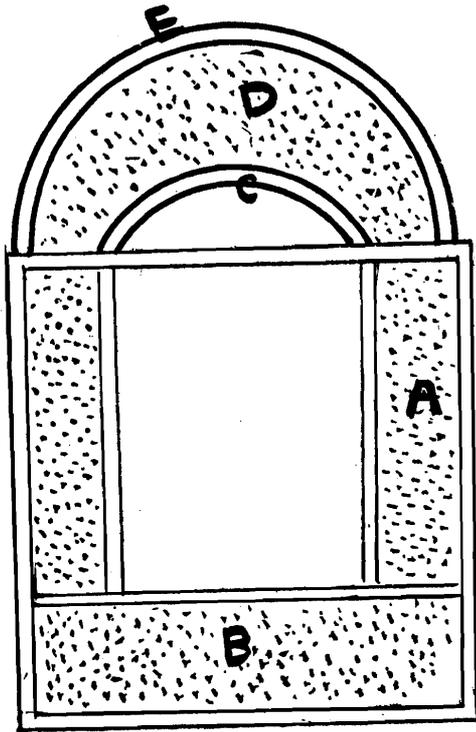
Dasht-e-Biaz -- Photo demonstrates the volume/weight of the overhead structures and roofs used in village houses.

The "Kayan International" of September 2 stated that tomorrow's quakes would also be accompanied by big casualty figures unless "we can master-build low cost quake-proof houses, or can devise a system of advance warning, if such a system becomes feasible."

The newspapers also speculated on the possibility of Tehran being struck by an earthquake. Studies by seismologists indicated this could happen. Tehran is built on alluvial material. It is, however, on higher ground, has more gravelly materials, and is probably less susceptible to severe damage than surrounding lower lying alluvial areas that may be saturated with water.

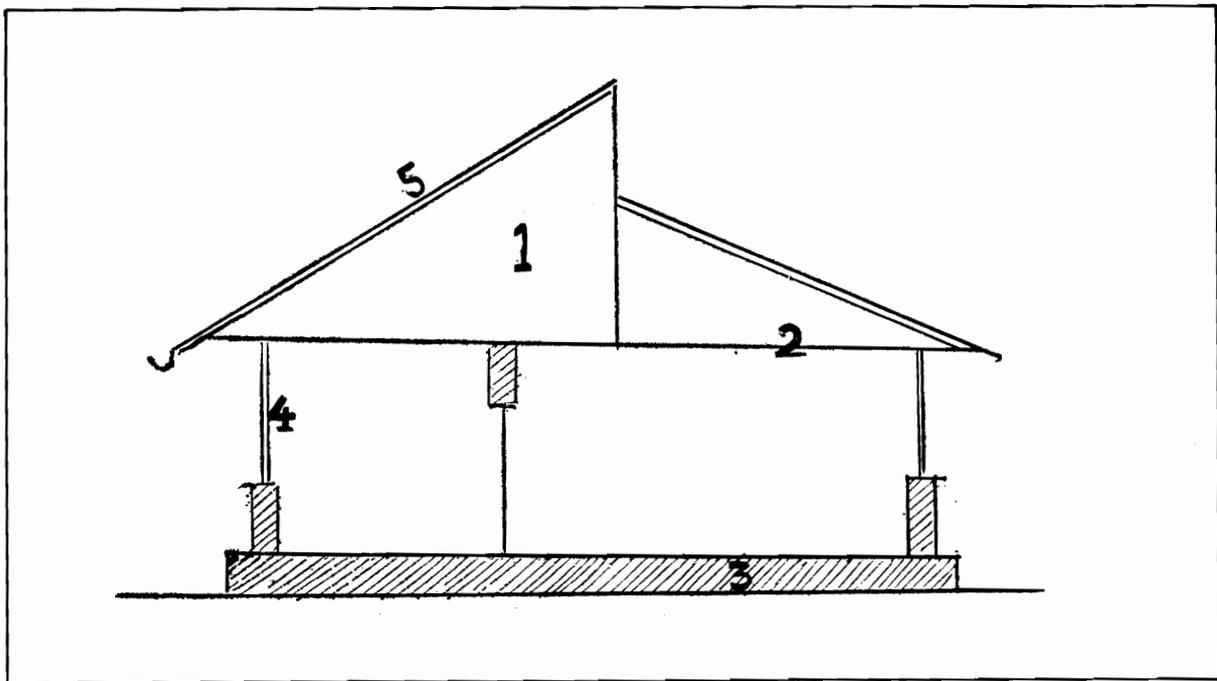
In rural areas, the large alluvium deposits provide little stability in earthquakes. The need to replace the mudbrick-timber structures with more earthquake-resistant ones was pointed out to Iran by Japanese earthquake experts following the 1962 Qazvin quake. One of the challenging problems is to find suitable material which will provide cool interiors in the summer and retain warmth in winter. There is impressive evidence that

"earthquake proof" recommendations by earth science specialists often ignore the customs and needs of the people. Some of the earthquake-proof houses built by relief organizations after the 1962 earthquake were quickly abandoned for more traditional structures because people found them intolerable in the climatic conditions. The need for improved construction is ever present. The Khorassan disaster was another demonstration of the importance of anti-seismic construction.



OLD CONSTRUCTION - QUAKE-PRONE  
HOUSES OF DISASTER AREAS

- (A) thick but structurally weak walls of unbaked clay bricks
- (B) thin foundation filled with soil
- (C) jack arch supporting heavy roof
- (D) earth-filled heavy roof
- (E) and typical Middle East dome



#### RECOMMENDED CONSTRUCTION - QUAKE-PROOF HOUSE

- (1) trapped air in attic to insure insulation
- (2) light wood and plaster ceiling
- (3) stone foundation
- (4) brick wall reinforced with steel bars
- (5) and thin roof in iranite.

#### Iran's Anti-Seismic Construction Code

Several years ago Iran drew up an Anti-Seismic Construction Code which is contained in Publication No. 32, Institute of Geophysics, Tehran University, October 1966. Recently made law, this concrete brick and steel code is based on years of intensive study and data available from the country's six seismic stations located in Tehran, Shiraz, Tabriz, Meshed, Kermanshah, and Manjil. Although the law exists, there is some doubt that even in Tehran all builders are abiding by it. Among the points made by this code are:

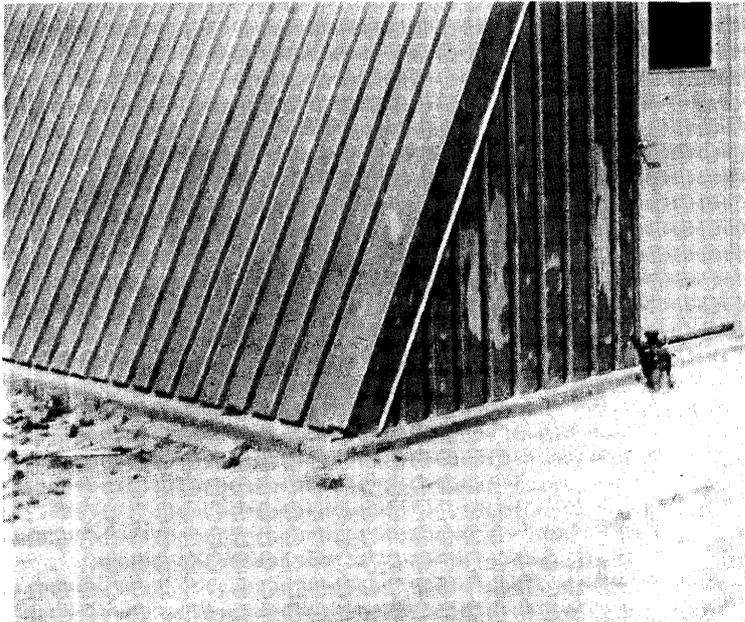
Steel skeletons or reinforced concrete are essential for buildings of three or more stories. Designs and calculations are to be controlled by municipal authorities taking into account not only the normal load of the building but other factors such as local seismicity and wind. On brick buildings of one to three stories, all ceilings must be reinforced with concrete beams, all chimneys above 1.5 meters from the roof junction must be reinforced, and

the maximum length of an unsupported wall must be no longer than eight meters.

The code has 63 clauses. The 63rd is one of the most important. It specifies that both steel and concrete are required. Steel is dealt with in terms of tension and compression, and concrete is divided into two, ordinary and special. To counter-act the top-heaviness in many rural buildings, the code insists that probable seismic force must be distributed evenly over the building's entire height in proportion to each of the ceilings' weights, and in the level of that ceiling.

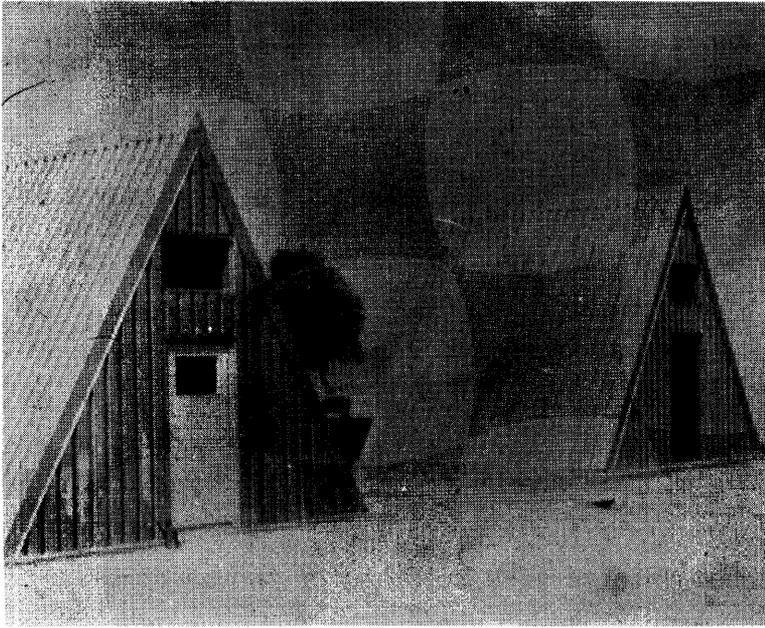
Seismologists stress the absolute need to comply with this concrete, brick and steel code. Compliance will reduce the death toll.

The German Red Cross donated 50 chalet A-frame type dwellings that are now being used to shelter earthquake victims at Niam Dascht. On June 5, 1969, the Mission reported that the Khorassan Red Lion and Sun officials were enthusiastic about the superior quality of these units, and indicated that it may be possible to bring the German manufacturer to Iran to consider adapting them to meet the permanent dwelling demands of the rural earthquake-prone areas.



Size 12'x12'x12' high. German "A" frame.

The A-frame structure gives a concentrated low gravity base with minimum overhead and wall weight. The outside is reinforced steel with a continuous unbroken line of seams running parallel approximately six inches apart from the base of the frame upward to its apogee and returning downward to the other side of the concrete base. A small window on the "second floor" offers adjustable ventilation. The width of the entrance door and height of the ceiling help reduce inside daytime summer heat temperatures. The steel beams for roof and frame joiners and the use of a concrete base further enhance the fire-proofing of the structure. White pine boards are used to form a ceiling and a loft that is



German "A" frame - front view

reached by a steel ladder and can be used for sleeping quarters. From 6 to 10 people could live in each unit. There are no inside toilet facilities.

Villagers who were asked about these units responded with enthusiasm and a desire for more of them. Unit costs were reported at \$1,000 each. The following is based on a Mission report: After having noted the surprising acceptance of this type of dwelling, it may be that the earthquake has been an indirect advantage to the eastern Khorassan rural section in that their traditional home construction concept of adobe and mud, with its accompanying heavy arched

entrances and thick mud walls and ceilings, may be in for an evolutionary change toward twentieth century alpine living.

#### ACTION TAKEN BY THE GOVERNMENT OF IRAN AND LOCAL ORGANIZATIONS

Disaster relief assistance began to move into the devastated areas during the course of the late hours of August 31. Within the area, some of the survivors, not too affected by post-disaster shock, gave limited help to their families, relatives, and neighbors. What was left of public facilities and services in the immediate vicinity was put back into operation. Gonabad, 30 kilometers north of Kakh, became the focal rallying point for the Iranian relief program.

The initial concerted effort during the first twelve hours after the quake came from the Iranian Military, who moved in medical units and gave logistical responses from the resources of the Imperial Army 6th Division Headquarters located in Meshed. The Shah appointed Major General Hojjat Kashani to supervise the mobilization of aid. The War Ministry established an air bridge between Tehran and Meshed to carry in relief supplies. In addition to using the air strip at Torbat Heidarieh, repairs were made to the air strips at Gonabad and Ferdows to allow landing and take-off of DC-3's.

Prime Minister Hoveyda flew to the stricken areas to make a first hand study of the damage and to give on-the-spot orders for relief. He was accompanied by Ministers of the Interior, Agriculture, Roads, and Health, and by the Agricultural Bank president. The Shah ordered hour-by-hour reports made to him personally. The Ministry of Interior was on 24-hour alert. The Ministry of Foreign Affairs set up a special earthquake information desk to answer foreign inquiries and direct offers of help to the proper channels. The Ministry of Health sent a large supply of disinfectant to help avoid outbreaks of disease. The Imperial Army put all of its available water tankers on the road to bring water to villages with blocked or destroyed water systems. All Red Lion and Sun Society (RLSS) offices were placed on a 24-hour emergency alert. The Sixth Division of the Army garrisoned in Meshed dispatched more than 3,000 troops, 400 trucks, doctors and supplies to work in an estimated 2,000 square kilometer area. Fully equipped teams of sanitary experts were commissioned to work in the field, and a mass campaign to disinfect and to sterilize water was undertaken.

Iranian Army trucks were pressed into service to transfer thousands of injured victims to hospitals in Gonabad, Torbat, and Heidarieh, and to field hospitals established by the Army and other agencies.

The first plane carrying tents, blankets, food, drugs, and other supplies landed in the disaster area at 4 p.m. September 1. All vehicles moving through southern Khorassan from Zahedran, Birjand, Zabol, and Meshed were stopped and asked to carry the injured and dead to field hospitals or graveyards. On the night of the first earthquake, the Army rushed four trucks of first aid supplies provided by RLSS to the disaster area, along with a medical team, an ambulance, and two tankers of water to Kakh. The following morning, it also dispatched two companies of infantry, eight trucks, four mobile kitchens, 20 ambulances, and additional medical teams. Two field hospitals were airlifted September 1 and set up at Kakh where the death toll and damage were so heavy. Each field hospital was equipped to care for 300 wounded victims at a given time. On September 2, four field hospital units (with 10 surgeons, 50 nurses and 120 beds) and three tons of medicines were delivered to the disaster area. The Tehran Sanitary Engineering Department flew in eight medical teams, five surgeons, five ambulances with nurses and anesthesia experts. The RLSS sent 13 emergency rescue units to the stricken areas. Later new medical teams composed of volunteer physicians and surgeons were formed to reinforce those already in the field. The medical staff of Tehran's Sina Hospital called on colleagues to register for service in medical teams. There was an immediate and great need for blood transfusions. Blood was flown in as needed by the RLSS. Empress Farah herself gave blood for victims of the earthquakes. As word spread that the Empress had done this, many people in Tehran lined up to give blood. In the days following the earthquakes, the flow and quantity of disaster supplies from domestic sources rapidly accelerated, supplemented by international assistance.

Following the initial movement of aid to the disaster areas, the RLSS assumed the leading relief role that had been carried by the Imperial Army. Comments were later made on the improved administrative techniques of the RLSS compared to operations during the 1962 Qazvin disaster.

Meetings of community organizations were held all over the country to mobilize and coordinate aid. Thousands of volunteers collected donations in cash and in kind. A women's organization sent a team to the field to visit orphaned babies and arrange for their care.

Their Imperial Majesties adopted two orphaned children.



Orphaned children at Kakh



Aerial view of "mixed tents - Pakistani and USG-donated

By September 3, less than 70 hours after the initial quake, sizeable tent cities had been set up in Kakh and Ferdows each having about 100 five-man tents. Some smaller villages had fewer tents. By Sept. 7, the Government had completed 182 refugee camps in which nearly 100,000 victims were cared for.

The people's food requirements were first met through facilities existing in Khorassan itself and subsequently by supplies flown in from adjacent regions. Teams from the



Ministry of Land Reform and Rural Cooperatives flew to Khorassan to assess the needs of the farmers and see what assistance they could give them.

The Shah and Empress began their tour of afflicted areas on September 4. Following the tour, the Government of Iran ordered that a six-month supply of food be maintained to help the victims.

Several days after the quake, Prime Minister Hoveyda reported to the Shah that rescuers were abandoning attempts to recover more bodies because of the danger of epidemics. Bulldozers

were ordered to level the ruins, crudely entombing the dead beneath them. By September 7, the rubble in Kakh, Dasht-e-Biaz and Khezri was being cleared.

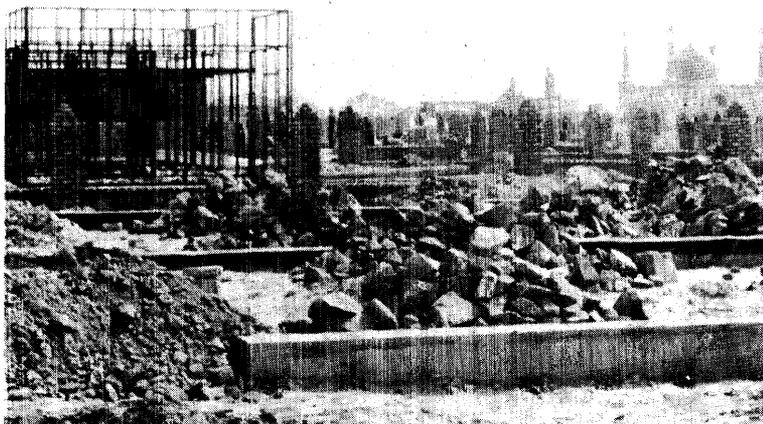
News reports of September 4 referred to remarks by His Imperial Majesty that under no conditions was mudbrick construction to be used in rebuilding homes. He ordered new towns built, land grants to farmers, and the formation of joint stock agricultural companies in areas struck by the earthquakes.

Five teams were sent to the destroyed towns and villages to work on plans for reconstruction. They were told to consider possibilities of securing land for villagers in new areas where victims could be organized into farm corporations.

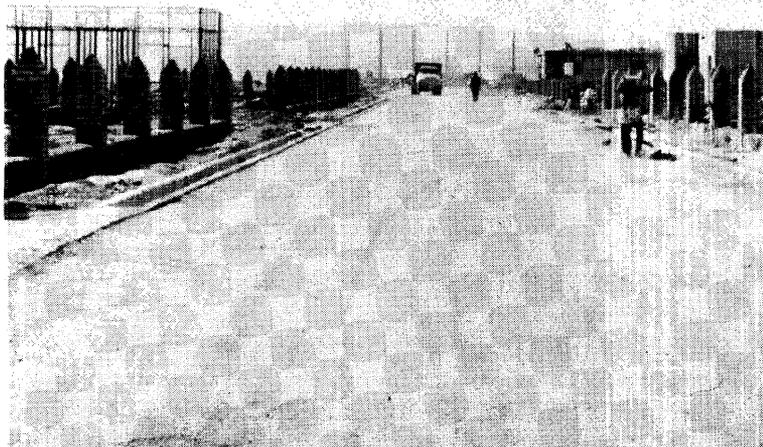
The Government of Iran Planning Organization allocated credits amounting to 500 million rials (\$6.6 million) for rebuilding stricken areas.

Areas now under construction are Ferdows, Gonabad, Bidokht, and the village of Ostad. The Governments of Morocco, India, and Netherlands contributed to the reconstruction costs of Ferdows and Ostad. As of June 1969, Kakh was still a tent city. A new village will be constructed at Kakh at a site already chosen adjacent to the destroyed area. The Ministry of Housing plans to develop a housing project there similar to those now under construction in the Gonabad and Ferdows areas.

The houses now being built are single-story, either two, three, or four room brick units, with steel reinforced doors and window frames, and placed on five-inch concrete foundations. Each unit will have a small outside garden, electricity, and water faucets, as well as sewage outlets for adapting for use by their owners. Blueprints for the areas include



Gonabad - May, 1969



Gonabad area - May 1969

schools, public baths, bazaars, large stores, and asphalted streets. The houses will be sold on a low down payment basis with long term mortgage and low interest rate. An early estimate placed the cost per house at from \$1,300 to \$1,600.

Construction began last winter. On May 13, 1969, an article in the Tehran Journal indicated 2500 houses would be ready for occupancy within two months. A total of some 10,000 persons are engaged in the rebuilding program. The work is being performed under difficult circumstances, since building materials such as bricks, gypsum, cement, steel beams and wood have to be brought in from Tehran, Zabedan and Meshed.

In reporting on the building program, one Iranian newspaper said: "Unlike the haphazard building method applied to the Qazvin area--where each organization built something without prior research work --the Khorassan earthquake reconstruction work has been much better organized and great care has been taken by the Interior Ministry not to repeat the same mistakes. The work is well coordinated and self-help has been introduced.

## Comments on Effectiveness of Iran's Relief Operations

There was praise for the rescue and relief operations by the Government of Iran, Red Lion and Sun Society, and other organizations. It was evident that there had been many improvements since the 1962 earthquake. One newspaper attributed this to the Government's genuine concern and a trust on the part of the public in official organs and institutions. This was in contrast to the 1962 earthquake. At that time, people had little confidence in public institutions to conduct emergency aid, and the public insisted on doing the relief work themselves.

This time earthquake relief also had its delays, problems, and frustrations. In view of Iran's proneness to major disasters, it is hoped that further efforts will be made to simplify and strengthen the GOI disaster organization. Following are some of the problems observed in the Khorassan operations together with some recommendations that could help when disaster strikes:

### Problems

1. Initial failure of communications facilities.
2. Inadequate geologic maps and insufficient information on location of villages.
3. Absence of automobile roads and inability to maintain airstrips, and lack of helicopter and airlift support.
4. Reluctance of GOI and RLSS to take relief materials to villages and hamlets located in the farther reaches of the mountain areas and to relatively inaccessible locations.

### Recommendations (These are offered as guidelines in respect to the problems cited.)

1. Institute a national disaster response organization and preparedness program that would result in a coordinated approach by government, Red Cross (RLSS), and voluntary agencies.
2. Develop a decentralized response system to:
  - a. improve each province's self-help capability to handle local disasters, and
  - b. improve each province's ability to assist city areas should a disaster strike population centers such as Isfahan, Ahwaz, Shiraz, Tabriz, Hamadan, or Tehran.
3. Establish a disaster relief training program.
4. Initiate hazard mapping in earthquake-prone areas.

5. Organize a trained and coordinated team of Iranian engineering geologists to make continuing studies of earthquake-prone areas, to identify potential hazards, and to provide the government with facts on which to make decisions to alleviate human losses and property damage.
6. Seek better enforcement of the Anti-Seismic Construction Code.

Recap of Dollar Value In-country Relief Contributions

Indian residents of Iran	\$ 3,330
Indian Women's Association of Tehran	1,330
An anonymous person	13,330
French shareholders of the Iranian Credit Bank	5,200
British residents of Iran	1,000
Iranian Ambassador to the U. S.	1,250
Ass't. Press Counselor, Iranian Embassy, U.S.	330
National Lottery for Relief of Earthquake Victims	401,008
Contributions through Red Lion and Sun Society	362,600
Iranian industries (total)	1,000,000
UN officials in Iran	7,115
Shapour Chemical	13,000
Interpol Conference attendees in Iran	4,000
Iranian residents of the USA	111,137
Queen Mother	13,330
	<u>\$1,937,960</u>
Government of Iran - relief costs unknown	
housing reconstruction (est.)	\$6,600,000
	<u>\$8,537,960</u>

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

Shortly after the first earthquake, a U. S. Embassy team, including ARMISH/MAAG and U. S. medical representatives, visited the disaster area to determine the extent of destruction and what the USG disaster relief response should be. Ambassador A. H. Meyer also visited the earthquake areas.

On September 2, 1968, the U. S. Ambassador exercised his disaster relief authority to make a cash donation of \$25,000 to the GOI for disaster relief assistance.

Immediately, the U. S. military in Iran undertook a very important part of the USG disaster relief effort. They conducted aerial surveys for the Embassy survey team, and organized and operated disaster response control units. They expanded the means of communications, airlifted supplies, tents, and blankets, gave tent erection training, and supervised the C-141 offloading of tents in Meshed. Their operational and organizational know-how was observed by both the Iran military and their civilian leaders.



Ambassador Meyer (second from left) talking to Kakh survivors in relief tent and RLSS Director of Kakh relief center (white coat)

The Ambassador asked GOI representatives whether there was a need for medical supplies, doctors, medical staffs, serum, plasma, drugs, and food. They replied that these services and supplies were adequate, but that they needed some 2,000 winter-type tents and blankets. Response from State/AID/Washington and the Department of Defense was quick and affirmative. As soon as the request was received in Washington, John H. Street, Assistant Disaster Relief Coordinator, arranged for commercial purchase of 2,000 tents with outer winter shells and for their delivery via U. S. military airlift.

The Embassy coordinated a variety of services at the disaster scene and in Tehran, with the participation of the American Ambassador and Mrs. Meyer, the Peace Corps, the U. S. military and medical groups, TOPO, Air Force, Defense Attaches, the American Community of Tehran, U. S. Cartographic office representative from Kabul, U. S. Geological Survey team, staff members of the Embassy, the Science Attache, the Consular Offices in Meshed and Tehran, the Agricultural Attache's office, students of the American School, the Embassy radio communications unit, and the Embassy General Services staff.

USG P.L. 480 food stocks in Iran were diverted from regular programs of CARE and the American Jewish Joint Distribution Committee.

In Washington, Walter McClelland, Iran Desk, State Department, worked with Mr. Street on policy, funding, and administrative matters connected



USG-donated tents set up at Ferdows

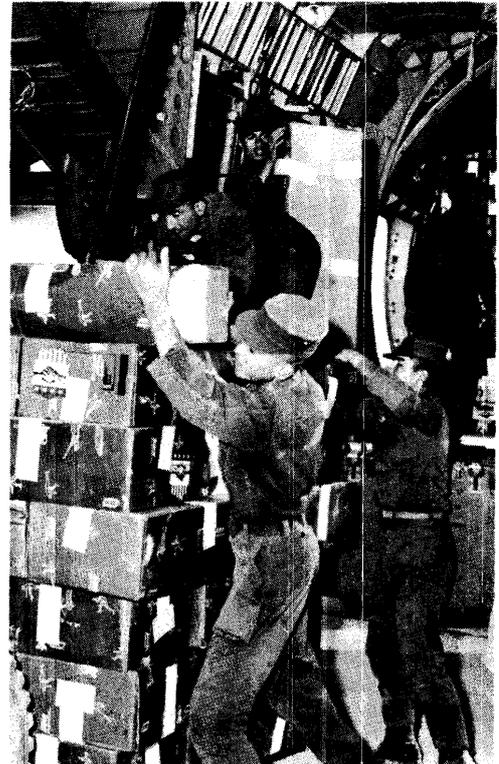


Aerial view of tent city at Ferdows  
October - 1968

with the USG disaster response. Lt.Col. Robert M. Whitaker of the Department of Defense coordinated the U. S. military airlift of the tents from Scott Air Force Base in the U. S. to unloading at Meshed in Iran. The U. S. military also donated 5,000 blankets. AID paid for the tents and shells and reimbursed DOD for airlift costs from the contingency fund.



Distribution of USG P.L. 480 non-fat  
dry milk



Unloading USG donated  
tents at Meshed

## U. S. Geological Survey

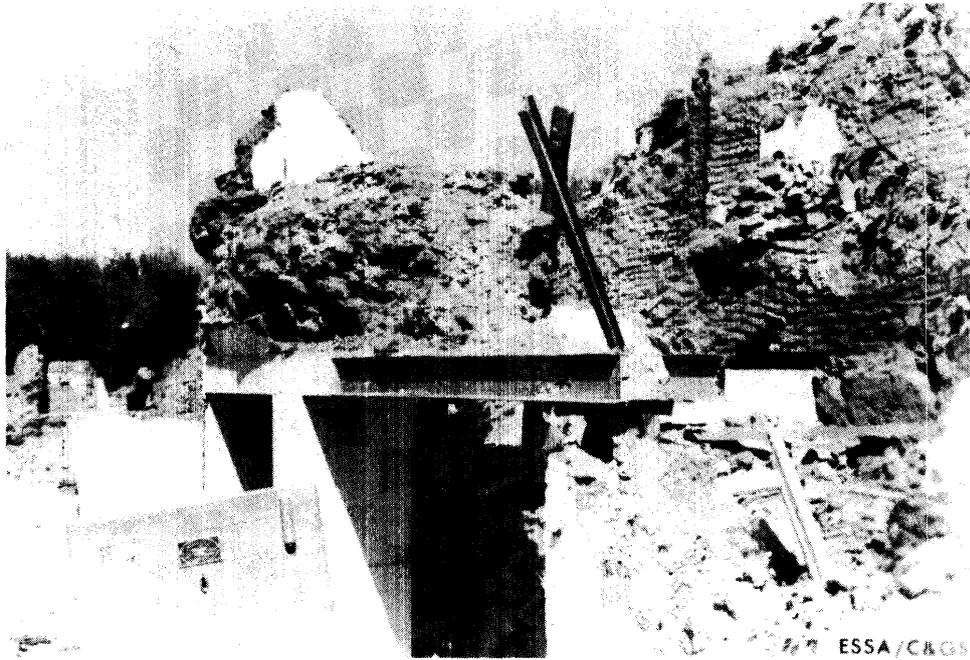
The U. S. Geological Survey sent two geologists to make a scientific survey of the earthquake areas at the request of the Government of Iran, the U. S. Embassy, and AID/W. John A. Reinemund, Chief, Branch of Foreign Geology, arrived in Iran on September 8. He spent a week studying the needs for and the feasibility of a geologic study of the earthquake effects. Robert Brown followed up with a geologic study. He arrived in Iran on September 14 and remained two weeks. USGS provided AID/DRC with a copy of its Preliminary Appraisal. Expenses for Mr. Reinemund's work in Iran were absorbed by the U. S. Geological Survey, while AID agreed to reimburse USGS for Mr. Brown's expenses.

## ESSA - Coast and Geodetic Survey

Kenneth C. Bayer, geophysicist for ESSA/C&GS, was sent to the disaster site from Afghanistan, accompanied by Dr. L. E. Heuskroth and Professor R. A. Karim (USET-Kabul), without request for reimbursement of their expenses from AID. They arrived on Sept. 15. Mr. Bayer spent 17 days in Iran, of which six were spent in the disaster area. A final report entitled "An Investigation of the Dasht'i'Biaz Earthquake of August 31, 1968" was forwarded to the U. S. Embassy in Tehran and submitted to the Seismological Society of America for publication. The following four pictures of the destruction were taken by Mr. Bayer:



Remains of small village east of Khezri  
and south of the fault



Multi-story building damage in Kakh in which steel I-beams were used



Single story building damage in Ferdows



Damage to Police Academy in Khezri

#### Peace Corps

Peace Corps Volunteers Nelson, Fitzgerald, Cavanna, and Holihan assisted the Government of Iran within the stricken areas.

#### U. S. Central Treaty Organization (CENTO)

John M. Ryan of AID, who had been on detail to the Disaster Relief office in Washington for almost two years prior to his assignment to CENTO, was in Tehran at the time of the disaster. When news of the earthquakes broke, AID/DRC immediately informed the American Embassy of Mr. Ryan's experience and effectiveness in disaster relief, suggesting that the Embassy attempt to borrow his services from CENTO to work as Disaster Relief Officer. CENTO agreed to detail him for this purpose.

This fortunate circumstance resulted not only in smooth coordination of the USG response within Iran but in reducing USG costs. Mr. Ryan was instrumental in promoting a careful determination of actual needs. Consideration was given to priorities, to what was available in the country, and to what could be expected from other governments and relief organizations. The requests that were sent in to AID/W were designed to meet the specific needs as worked out with the GOI. Through this procedure (which had been so effective following the 1966 earthquake in Turkey), it was determined that an additional 1,000 tents which had been requested by



American Ambassador A. H. Meyer, accompanied by John M. Ryan of CENTO, greeting Iranian officials in the Ferdows area. Ryan is standing next to the Ambassador on the left.

the GOI from the USG would not be needed. This resulted in a saving to AID of \$204,100.

By way of comparison, the 1962 Iran earthquake left some 12,000 dead, 75,000 to 100,000 homeless, and 2,776 injured, while the Khorassan quakes caused 10,000 deaths, about the same number homeless, and 4,050 injured. In 1962, the USG provided a military hospital which took 30 C-130's to airlift, but in 1968, the prior review with the GOI on actual medical needs resulted in no U. S. military facility being requested and a scaling down of requests for other supplies. The total of AID expenditures from the contingency fund in 1962 was \$1,669,113. In 1968, it was \$482,172.

Following is a recap of expenditures by the USG in this disaster:

<u>AID Contingency Fund</u>		
2,000 tents and outer shells		\$304,420
Airlift first 1,000 tents and 5,000 DOD blankets arriving 9/11/68		51,466
Airlift first 1,000 winter shells 9/24/68		23,862
Airlift 2nd 1,000 tents and shells 10/14/68		47,724
Cash contribution under Ambassador's Auth.		25,000
ARMLSH/MAAG - TOPO Disaster Support		26,000
Embassy DRC/Ryan field trips, other Embassy employee travel to earthquake area from Tehran		400
USGS expenses for R. Brown geologic study	<u>3,300</u>	\$482,172
 <u>U. S. Military</u>		
In addition to providing airlift of tents and shells from the US, for which they were reimbursed by AID, the U.S. Military contributed 5,000 blankets at their own expense, valued at		40,000
 <u>Department of Interior, USGS</u>		
Expenses of John Reinemund preliminary geologic appraisal		3,300

<u>P.L. 480 Food - AID</u>		
CARE - 97,000 pounds dry milk and CSM, est. market value	\$20,400	
AJJC - 30,000 lbs. flour and 4,000 lbs. oil, est. market value	<u>1,700</u>	<u>\$ 22,100</u>
Total Value of USG Contributions		\$547,572

Appraisal on U. S. Donated Tents

Howard F. Williams, American Vice Consul at Meshed, commented as follows in a letter to the State Department, Iran Desk Officer:

"With inclement weather conditions now in the area, the value of the American-donated tents has been fully realized. Peace Corps volunteers (PCVs) report that everyone is asking for American tents. They seem to be the only tents that are affording adequate protection against the elements."

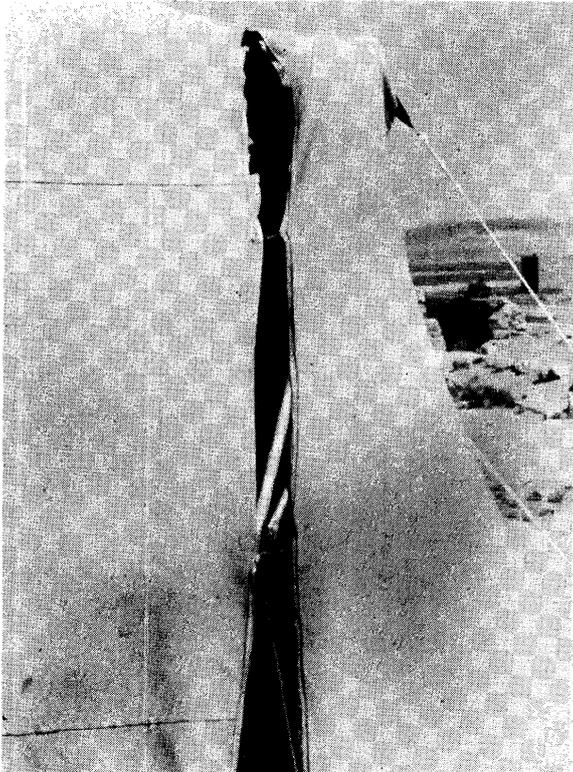
The tents provided by the USG were purchased from Sears, Roebuck and Company. They were manufactured by the Kellwood Corporation under regular specifications for tents suitable for use in the United States. The manufacturer developed some additional features to meet the needs of disaster-stricken families overseas. For example, DRC discussed with a Sears representative the possibility for an outer shell that would provide additional required protection against the winter elements in Iran. He agreed. The manufacturer also cooperated and put in special crews and effort to produce quickly 2,000 of these outer covers in time for the U. S. military airlifts to Iran.

In late April 1969, after six months' usage of these tents, AID/DRC cabled the U. S. Embassy for a further appraisal of their quality and serviceability. Mr. Ryan made the survey and his conclusions follow:

The GOI was satisfied with overall tent size, comfort, warmth. Tent fabric was maintaining good tensile strength. There was minimum wear due to abrasion friction. Colors remain fast. The tent can accommodate six persons for a short period of time, but for reasonable comfort over a long time (60 days or more), should not exceed four.

There were, however, some improvements desirable, if feasible, such as strengthening aluminum poles and strengthening and lengthening aluminum pegs on the inner tent. Thirty percent of the tents and covers observed had basic deficiency in entrance talon zippers. Heavy usage had not worn down metal zipper itself; rather, the fabric gave way. Some inhabitants were using large safety pins to close the openings.

The Red Lion and Sun Society reported that in Ferdows six tents had been destroyed by fire. The basic cause was believed to be the inhabitants



Pins used to close tent entrance



This child was inside the tent when it caught fire and was saved.

carelessness from cooking inside the tents and spilling fuel. The question was raised as to whether tents could not be made of fire resistant quality.

These problems were taken up with the manufacturer and retailer. They are working on possibilities for stronger zipper construction or the use of ties. They reminded us that the tents are made for wide commercial appeal and that no one design is perfect for all situations. AID/DRC makes random procurement of tents and the retailer reported that these tents are made available on short notice because they are widely used and can be withdrawn from existing inventories. If a tent is to be made specifically to AID's design, it would increase the cost considerably and make advance procurement and storage necessary. As to strengthening poles, the manufacturer stated that because elements of the tent are interrelated, heavier, more rigid poles would reduce flexibility, thus putting greater strain on the tent fabric in high winds. Fireproofing, though possible, would increase the weight and cost considerably. It is not clear, with few fires reported, that the degree of risk is enough to warrant the added weight and costs. However, it was decided that in the future

warnings should be sent with the tents stating that they are not fireproof and that necessary fire prevention precautions must be taken by those using them. Also, governments and relief organizations should be made aware of the availability of fire-proofing liquids and sprays that could be purchased in advance and stored in the country for this purpose.

Other Recommendations (Based on report from Mr. Ryan on Improvement in USG Disaster Response)

1. That AID/DRC consider disaster relief training and orientation programs under AID sponsorship, with the GOI bearing part of training/observation costs.
2. That some form of U. S. Government marking be stenciled on the donated items prior to shipment overseas. Placing an AID emblem on the shipping box is not enough. Once the item is removed from the box, the identity as an American relief contribution is lost. (AID/DRC comment: Often, as in the case of tents, the product becomes known as an American donated item anyway. This recommendation has been made previously. It has been a matter of concern for AID/DRC as to how this can be done when ordering from commercial sources on an emergency basis for emergency shipment. AID/DRC does not maintain stockpiles or reserve stocks, except for certain items stored at Panama.)
3. That consideration be given to problems created for the Embassy resulting from the influx of many scientists, technicians, observers, and students (both USG and under private sponsorship) into the earthquake area. (Comment: AID/DRC recognizes that seismic phenomena create extensive interest in scientific investigations and provide an opportunity for study. It is also recognized that when too many observers arrive, the ability of the American Embassy staff to provide transport and logistical support is overextended, and this may slow down other disaster relief activities. On the scientific side, major benefits can accrue. Several private groups sponsored scientists to go to Iran without cost to the USG. In addition, the United Nations sponsored scientific studies. AID/DRC cannot say that these multiple efforts should be discouraged, but recommends that more needs to be done on coordination to avoid overlap and to obtain maximum benefits.)
4. That regional disaster response capabilities by the USG be strengthened by establishing a regional depot similar to the Latin American disaster operation located in Panama. Speed and consequent effectiveness of response and the economies gained would be significant. (AID/DRC comment: This will be worked on with the NESR Region of AID.)

Letters of Appreciation

The following is quoted from a letter sent to the American Red Cross by the Vice President and Secretary-General of the Iran Red Lion and Sun Society on the donation of tents by the U. S. Government: "We take this opportunity to express our most gratitude for such a humanitarian effort which has been shown by American people."

The AID Administrator received a letter of appreciation dated January 6, 1969, from Armin H. Meyer, American Ambassador to Iran, in which he said: "The assistance of AID in the post-disaster planning and the prompt implementation of our logistical requests to Washington have notably served to promote the mutual bonds of respect and friendship that exist between the Governments of Iran and the United States."

U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

Lutheran World Relief

50,000 pounds of clothing, estimated value	\$50,000	
1,000 blankets, estimated value	3,000	
Medicines, valued at	<u>10,000</u>	\$63,000

Church World Service

1,000 blankets, through LWR, estimated value	3,000	
3,000 blankets, through WCC, estimated value	9,000	
Cash donation to WCC	<u>5,000</u>	17,000

American Jewish Joint Distribution Committee

Distributed USG P. L. 480 flour and vegetable oil and made a cash donation of 325,000 rials, equivalent of		4,300
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American Red Cross

Cash Donation	15,000	
Sweatshirts and underwear, valued at	8,000	
100 bottles serum albumin	<u>1,800</u>	24,800

CARE

Distributed USG P. L. 480 dry milk and CSM		
Cash Donation	10,000	
7,000 cases of liquid, fortified milk (24 cans to a case) valued at	60,670	
20 drums soap	<u>1,900</u>	72,570

<u>Northrup Company - Cash Donation</u>		25,000
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American Middle East Rehabilitation - New York City

Obtained donations of the following from US pharmaceutical companies:		
From Wyeth - powdered baby milk formula, 2,712 lbs.	2,260	
From Laroque - 17,000 tablets of Gantresin	245	
From Laroque - Vipenta vitamin drops, 92 lbs.	328	
From Wyeth - 36,288 tablets of Bicillin	6,482	
From Squibb - 130,000 tablets multivitamins	<u>1,625</u>	10,940

<u>U. S. Oil Consortium shared donation (estimate)</u>		251,880
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Pan Am and Air India

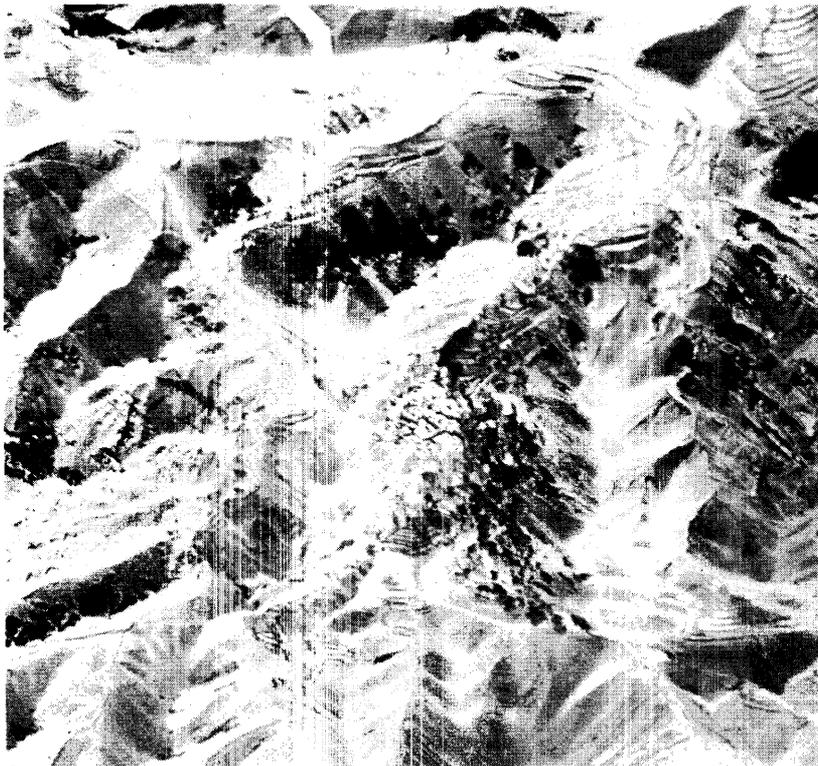
Free Airlift of above drugs from AMER		3,570
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<u>Douglas Aircraft Corporation - cash</u>		10,000
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<u>Misc. US Private Sector Cash Donations</u>		11,500
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American Community in Tehran - Operation Sweater

The American teenagers in Tehran collected 1,300 to 1,500 sweaters, 300 coats, 5 boxes of other clothes. The American ladies of the Iran-American Community collected 500 blankets, 20 to 30 cartons of clothing and shoes and several cartons of food. No value was reported, but AID/DRC estimated it at \$6,000.



Aerial view of typical terrain of outlying villages affected by the quakes.

Following these collections, the American Community participated in what was called "Operation Sweater Exercise." This operation, which took place on September 10-11, 1968, was for the purpose of distributing the collected supplies. The distribution team, under the supervision of Howard Williams, Vice Consul at Meshed, was divided into two groups. Since the areas in and around Gonabad,



Mr. Williams (center) and PCV Cavanna help unload truck.



"Operation Sweater" distribution to earthquake victims.

Ferdows, Kakh, Khezri, etc., were flooded with supplies, the team picked remote areas that had not received any form of relief. The American Community was assured its donations could not have been put to better use, and that each item reached some needy person in the disaster area. The American Community also met the Red Lion and Sun blood donation quota for 60 units (1/2 pints).

#### U. S. Earthquake Relief Committees

University of Wisconsin Students furnished 1-1/2 tons of clothes, valued at \$5,000

Earthquake relief committees were formed in several areas in the U. S. One of those reported to DRC was in Denver, Colorado, and arrangements were made for this group to send the clothing and other supplies it had collected to Seventh-Day Adventist Welfare Service in New York for baling and packing for airlift. The Iranian Embassy made the necessary arrangements for transporting it to Iran. The quantity and value of these contributions has not been reported.

Another contributing group was the Iranian Earthquake Relief Committee of Ann Arbor, Michigan. They collected clothing and money, but no other information was reported to DRC.

A special Earthquake Relief Fund was established by the Consul General of Iran through the Iran Foundation in New York.

A White House news release dated September 25, 1968 announced that Mrs. Lyndon B. Johnson had accepted the Honorary Chairmanship of an American committee for the relief of victims of the recent earthquakes in Iran. Mr. John M. McCloy, former President of the World Bank, was to assist the First Lady as Chairman, and Ralph Becker, President of the Iran-American Society, as Secretary. The Committee was to be known as the Iran Emergency Reconstruction and Rehabilitation Committee with a planned nationwide appeal for funds, but results of this appeal did not become available to DRC.

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U. S. Voluntary Agency, Other US Contributions totaled \$505,560

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

Nations

Afghanistan - Government - supplies	\$10,000	
Red Lion & Sun - supplies	<u>55,500</u>	65,500
Algeria - Red Crescent		13,000
Australia - Government	12,190	
Red Cross - cash	<u>2,320</u>	14,510
Austria - Government - 50% commodities, 50% cash	40,000	
Cardinal Lunig	<u>4,000</u>	44,000
Belgium - Government - cash	20,000	
The Government also sent a plane load of relief materials. Various Belgian charitable organizations, including the Red Cross, Caritas Catholica and the Socialist Benevolent Society contributed food and 1,700 blankets.	2,980	
Belgium Ambassador to Iran	<u>2,660</u>	25,640
Canada - Government - cash	25,000	
Red Cross - cash and supplies valued at	<u>25,000</u>	50,000
Ceylon - Red Cross - 60 blankets		800
Czechoslovakia - private cash contributions		170
Denmark - The Copenhagen Chamber of Commerce donated 19 cases medicines and vitamin tablets weighing 1,105 kilos	8,200	
Red Cross - cash	<u>3,990</u>	12,190
Ecuador - cash		430
Ethiopia - H.I.M. Haile Selassie - cash	40,000	
Ethiopian resident	<u>240</u>	40,240
Finland - Red Cross - 500 blankets, 12 tons of clothing and rubber boots and 200 units albumin		34,500
France - French Government	40,000	
President of France	20,520	
Red Cross - 50 large tents, 750 blankets, medicaments and cash	20,980	
Petrossian Family	1,000	
Arab Oil Company	1,000	
Other private donations	<u>120</u>	83,620



Foreground - English Tent  
 Background - Iranian Tent

Great Britain - Government	\$24,000	
Red Cross - blankets, drugs, tents	45,390	
British Firm - Supporting framework for 1,000 9'x10' rooms		*
British Gillete Company - 150,000 dis./syringes		*
A 300 bed hospital		*
British Community - cash	5,000	
National appeal in Britain	444,000	
London Quakers	1,200	
2 Argosy loads of blankets/tents	20,000	
British Petroleum	12,000	
Irano British Bank	8,300	
Bank of Iran and the Middle East	6,700	
Rio Tinto	1,300	
United Steel	150	
English Electric - one 70 KW lightin set		*
Save the Children's Fund	6,000	
OXFAM - 9 tons of baby food		*
British Leyland	2,400	
Other private contributions	4,080	
	<u>580,520</u>	

Greece - Over one ton of medical supplies, medicines and first aid supplies; 300,000 meters of bandage; 1,500 kilos of cotton wool; 11,923 kilos of clothing; 200 tents; 200 tons of rice, beans, olives, soap, figs, etc.; 4,000 cans of food. The Greek Ministry of Social Welfare donated 50 tons of medical supplies and 200 tons of food.		\$84,210
Germany - Federal Government - cash and 2 plane-loads of medical supplies plus additional 5 tons of medical supplies, 2,000 blankets, 25 tents, dried milk, clothing, 3 ambulances, 1 first-aid car, 1 water purifying machine	\$50,000	
The Prime Minister of Bavaria - cash	63,570	
From Iranian residents in Germany - cash	6,250	
German Red Cross - 3,600 blankets; 140 tents; 82 kilos of medicines; 3,509 kilos of clothing; 1,500 pairs of shoes; 50 metal pre-fabricated houses	4,720	
German religious organizations - 100 tents, 1,000 air mattresses; 1,000 towels; 2,400 kilos of clothing; 1,000 kilos of dried milk; 300 kilos of medical supplies	212,500	
	<u>41,250</u>	378,290
Germany - Democratic Republic - Red Cross provided clothing, cloth, blankets, tents and water disinfectants valued at		36,640
Hungary - Government and Red Cross - Medical supplies, blankets, sheets and 5 tractors and bulldozers		95,000
Italy - Government - cash	24,000	
Fiat Motor Company - \$15,000 and 5 autos, est. total	25,000	
Iranian Embassy employees	5,330	
An Italian firm	4,000	
Iranian residents of Italy	110	
Italian Red Cross - medicaments & 7 tons clothing	<u>25,800</u>	84,240
Israel - Magen David Adom - medical supplies & food		5,600
Iraq - Government - 4 tons medicines and vaccines	*	
Red Crescent - 1,000 blankets and clothing	8,320	
Dr. Abdol Majd Qassab	150	
Iranian resident of Iraq	<u>10</u>	8,480
Indonesia - 2 million Indonesian, equivalent approx.		6,870
India - Red Cross - 400 blankets	670	
Private contributions	<u>14,260</u>	14,930
Jordan - 9 tons medical supplies and blankets		*

Japan - Government - cash	\$10,000	
Red Cross - 2,290 blankets	2,550	
The Rotary Club of Japan	<u>50</u>	\$ 12,600
Republic of Korea - Red Cross - cash		300
Kuwait - Government		
12,000 kilos of medicines, other medical supplies, 150 tents, 1,000 blankets, 4,000 bales rice, 2,500 bales flour, 200 bales sugar, 1,000 kilos vegetable oil, 10,000 kilos lentils.	99,000	
Red Crescent - relief supplies	2,760	
Kuwait merchant - medical supplies	66,665	
Iranian Jewellers Guild in Kuwait - sugar and tea	*	
Other private donations	<u>62,465</u>	230,890
Lebanon - Private Contributions		1,870
Luxemburg - Red Cross - cash		460
Mexico - Government - vaccines		*
Monaco - His Highness, the Prince of Monaco	4,000	
Red Cross - cash	<u>1,000</u>	5,000
The Netherlands - Queen and Government	13,500	
Red Cross - cash \$18,360 and 1,000 blankets	21,360	
Private Contributions	<u>1,036</u>	35,890
New Zealand - Red Cross - cash		2,220
Norway - Red Cross - 1,000 blankets, cash, disinfectants	7,620	
Private Contributions	270	
Norway Government indicated willingness to participate in rehabilitation of affected area.	<u>          </u>	7,890
Pakistan - Government and Red Crescent - sent teams of physicians, quantities of medical and relief supplies and 1,000 blankets	38,720	
Medical Association Baluchistan at Quita, Pakistan - medical supplies	<u>500</u>	39,220
Philippines - Red Cross - cash		500
Poland - Government - medicines, vitamin tablets	45,000	
Red Cross - 5 tents, 650 blankets, vitamins	<u>8,400</u>	53,400
Rumania - Government and Red Cross - airlifted tents blankets and food		*

Saudi Arabia - Iranian pilgrims to Mecca	\$	48,000	
South Africa - Red Cross - cash			320
Spain - His Excellency Gen. Franco		20,000	
Private Contributions		<u>750</u>	20,750
Sweden - Government - 100 prefabricated housing units and also paying cost of transportation to Tehran.		120,000	
Government and Red Cross - 200 large tents		40,000	
Government and Red Cross - medical supplies, and cash grant		<u>116,000</u>	276,000
Switzerland - Red Cross - 3,000 blankets, 1,000 overalls for adults, 500 for children, 15 cases of medicaments \$46,000 cash grant		68,900	
The International Red Cross		2,300	
Federal Council of Switzerland donated supplies worth		<u>23,000</u>	94,200
Thailand - Red Cross - cash			950
Turkey - Red Crescent - 1,000 tents, 2,500 blankets and \$6,100 worth of medicines		80,660	
Private Contributions		<u>5,500</u>	86,160
Yugoslavia - Red Cross - 20 sets blood plasma, 500 blankets, medicaments and antibiotics		5,000	
A Yugoslavia manufacturing firm donated 3 transformers suited for electrification of rural areas.		<u>13,330</u>	18,330
Vatican - His Holiness the Pope			10,000
USSR - Red Cross - medicaments, dressing material, 1,000 blankets, 10,000 meters of cloth.			16,780
UNESCO Staff - cash			460
Prince Karim Agha Khan			26,700
Prince Sadr-ud-din-Khan			5,000
Misc. private donations			<u>1,640</u>
			\$2,674,910

## International Organizations

United Nations - Cash donation to LICROSS for tents

\$ 20,000

League of Red Cross Societies (LICROSS):

On November 19, 1968, LICROSS reported that three huge 30-ton trucks loaded with pre-fabricated dwellings had just made a two-week trek from Europe to Iran bringing the first of hundreds of metallic single-family units bought by it in France for the earthquake victims.



French steel shelter unit

Starting in southern France, the convoy crossed Italy, Yugoslavia, Bulgaria, and Turkey on its way to Tehran. Purchase of the dwellings was made possible by gifts from Red Cross National Societies, and it must be assumed that appropriate credit has been given to the Red Cross under individual countries listed above.

World Council of Churches:

WCC reported the following donations for the Iran Earthquakes:

Christian AID - Britain - 5,000 blankets	\$15,000	
Combined donation of Diakonisches Werk and CARITAS of 100 tents, 1,000 blankets, 1,000 air mattresses, 1,000 towels and clothing, valued at	20,000	
Diakonisches Werk - drug shipment	10,000	
Lutheran World Federation, Finland - penicillin	10,000	
Danish InterChurch - cash	3,000	
National Church Council, India - cash	1,000	
Norwegian Church Relief Committee	<u>10,000</u>	69,000

In addition, WCC issued an appeal to its members for \$110,000, of which \$100,000 will be used to build 3 fully equipped medical clinics, and the other \$10,000 to purchase badly needed cooking equipment for the disaster victims. CWS/USA contributed \$5,000 to this appeal, which is credited under U. S. voluntary agencies.

Subtracting this from the total appeal leaves 105,000

Total Donations through WCC 194,000

Total Contributions - Other Nations and Organizations \$2,868,910

NEPAL

CHARACTERISTICS OF THE DISASTER

EVENT: Flood and Landslides

DATE-TIME: October 4-6, 1968

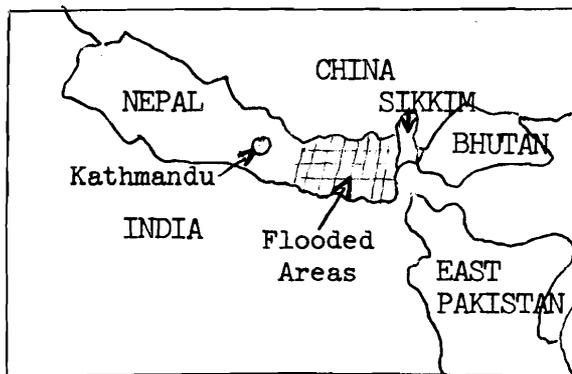
LOCATION: Eastern Nepal

DISASTER VICTIMS: Killed Injured Homeless Evacuated Mass Feeding  
 276 Unknown 1,000 Unknown 1,000

DAMAGES: Houses Destroyed/Damaged Livestock Losses  
 2,225 5,000 head

Estimated Dollar Damage  
 Homes \$120,000  
 Livestock 6,000  
 Grain 189,000  
 \$315,000

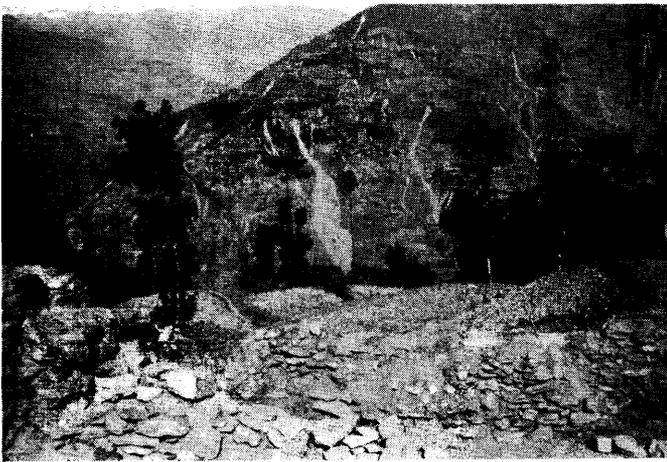
DESCRIPTION OF THE DISASTER



In early October, torrential rains fell throughout Nepal and also over a wide area in India, East Pakistan and Sikkim, followed by severe floods. In Nepal, the downpour continued without let up for a fifty-six hour period.

The Arun, Tamur, Sun Kosi and Sapti Kosi Rivers overflowed. Where they converged water rose to 88.7 feet. This was 20.7 feet higher than the previously recorded flood level in

1954. Many trails were inundated virtually cutting off villages from each other. Erosion and landslides followed in the wake of the flooding. The Kodari road was blocked by landslides. Many persons were swept away by the turbulent flood waters and drowned, and others lost their lives in the landslides. In the village of Khokling, for example, a landslide buried 13 members of one family. Sheep, goats, buffalo and cows were killed and there was extensive damage to crops. Five districts with a total population in excess of 580,000 were declared emergency areas. Hardest hit were the easternmost



Villages of Khokling and Santhakia in Taplejung District were devastated by landslides shown in this picture.

districts of Taplejung, Panchthar, Terhathum, Illam, Jhapa and Soluhumbu. Other areas seriously affected were Sunsari, Sinduli Tunja, Morang, Bhojpur, Khotang and Rajbiraj. Although not as extensive as that in Eastern Nepal, damage did occur in other areas of the country. The Panauti Hydro-electric Station in Kathmandu Valley was flooded and an expected bumper rice yield in that same area was reduced by about 15%.

#### ACTION TAKEN BY THE GOVERNMENT OF NEPAL AND LOCAL ORGANIZATIONS

Normally poor communications and transportation were aggravated by the flood damages so that a report of the disaster did not reach Kathmandu until more than a week after it occurred. When the Prime Minister, Mr. Soorya Bahadur Thapa, was informed, arrangements were made immediately with the U. S. Mission for use of its helicopter to make an inspection of the easternmost areas. A USAID officer accompanied the Prime Minister on the trip which involved visits to Taplejung, Terhathum, Phidim, Dhankuta and Bhojpur. At each place, the Prime Minister made on-the-spot donations for the immediate relief of the flood victims.

During the third week in October, the Prime Minister for Home-Panchayat, Mr. Nava Raj Subedi, was named Organizational Chairman of the Emergency



Pond created by flood at Tribeni where confluence Tamur, Arun and Sapti Kosi Rivers occurs.

Relief Program. Private and Public Organizations, as well as the general public, were asked to contribute to the Fund. The responses to this request were admirable. Hundreds of civil servants volunteered a day's salary as their personal contributions to the Fund. As of January 15, 1969, the estimated cash contributions to the Emergency Relief Fund had reached Rs.208,914 or \$20,891 in cash and \$6000 in kind.

In such districts as Taplejung, Therathum and Phidim, local Panchayats took the initiative

in organizing relief activities. Members of the Relief Committee included the Chairman of the District Panchayat, the Chief District Officer, the Panchayat Development Officer, the Assistant Zonal Commissioner and the Police Inspector. Under their combined leadership, food, clothing, medicine, money and shelter were provided to the affected families. In Namche Bazaar in Solukhumbu District, for example, the homeless were quickly accomodated by members of the community. In other communities, the people rallied to the support of the flood victims by assisting them in constructing temporary houses made of bamboo and by providing food. Due to the loss of houses and farm land, an estimated 500 people migrated from the affected regions of Nepal to resettle in neighboring Sikkim, Biratnagar, and India, and to the southern or terai areas of Nepal.

The local and national Emergency Relief Committees continue to exist and will probably remain as the basic organizational structure for relief in the event of similar disasters in the future.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

American Ambassador, Carol Laise, exercised her disaster relief authority and approved expenditures from the AID contingency fund in local currency totaling . . . . . \$2,500  
Of this amount, \$1,000 was used to make local purchase of 1,314 pounds and 4,372 meters of cloth for shirts, trousers, blouses, and saris, as requested by the Government of Nepal. The remaining \$1,500 was used to cover helicopter and truck transportation expenses to deliver the cloth to Taplejung, Terhathum and Panchtar. As mentioned, the USAID helicopter was also used to take the Prime Minister to the disaster area.

The officers responsible for the distribution of the cloth were Mr. Sher Bahadur Shah, Joint Secretary in the Home-Panchayat Ministry of the Government of Nepal, and Dr. James E. Blackwell, Chief of the Panchayat Development and Administration Division of USAID/Nepal.

An adequate number of people were on hand to receive the cloth and to arrange for its distribution to the victims of the flood and landslides. This U. S. assistance was considered adequate in light of contributions made by other nations.

News coverage, including photographs, of the American contribution and the distribution of the cloth appeared in all English language newspapers, in several of the Nepalese language newspapers, and was broadcast over Radio Nepal.

#### ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

American Red Cross - medicaments \$4,700

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

Government of Japan - cash	\$ 5,500
United Kingdom - cash	1,000
USSR Embassy Staff - cash	500
Government of Pakistan - 500 blankets	4,500
HAM's International Theater Group - cash	400
Red Cross Societies of:	
Australia - supplies	255
Canada - cash	1,395
Great Britain - cash	2,380
Japan - supplies	1,000
New Zealand - cash	550
	<u>\$17,480</u>



year these areas received from 19 to 23 inches in 48 hours. Late in July and early in August the situation worsened as flood waters from the Indian States of Assam and West Bengal entered East Pakistan. Some 25 major rivers overflowed and engulfed surrounding areas. Finally, all 17 districts in East Pakistan were affected. Chittagong was cut off from the rest of the district, all connecting roads being under water. Transport was suspended for 5 to 7 days between Chittagong and Sylhet Districts. It was reported that more than half the population of Chittagong district had either taken shelter in camps or were gathered together along roadsides or at railway tracks. Everywhere it was the same story of washed away crops, damaged or destroyed huts, collapsed bridges and breached roads. There was nothing to distinguish the rivers from the roads. Boats had to ply on most of the roads in the countryside as the only means of transport. Crop damages ranged from a 10% loss in some districts to 80% in others.

Many people were killed, thousands injured and almost a million left homeless. They lost their livestock, crops and personal possessions. Many sought refuge by living in boats while others clung to trees and rooftops where they were often plagued by snakes that had also gone up there to keep dry. Tubewells were severely damaged and drinking water became an acute problem.



Road under water in municipal area of Dinajpur

#### October Floods

In the fall of 1968, new floods struck East Pakistan as a result of heavy, continuous rains that also deluged the northeastern portion of India, Nepal, Sikkim and Bhutan. In addition to the rain, flood waters poured down from West Bengal in India as they had in the July floods causing rivers to burst their

banks in East Pakistan. The October floods, while severe, were not as widespread as those that occurred in July. About 3,000 square miles in five northern districts were inundated affecting about 2-1/4 million people. There were at least 49 people killed. Crop loss or damage involved some 300,000 acres. All types of communications links in the flood areas were seriously impaired. There was about 75% damage to thatched houses and 20% to permanent housing.



In Dinajpur town



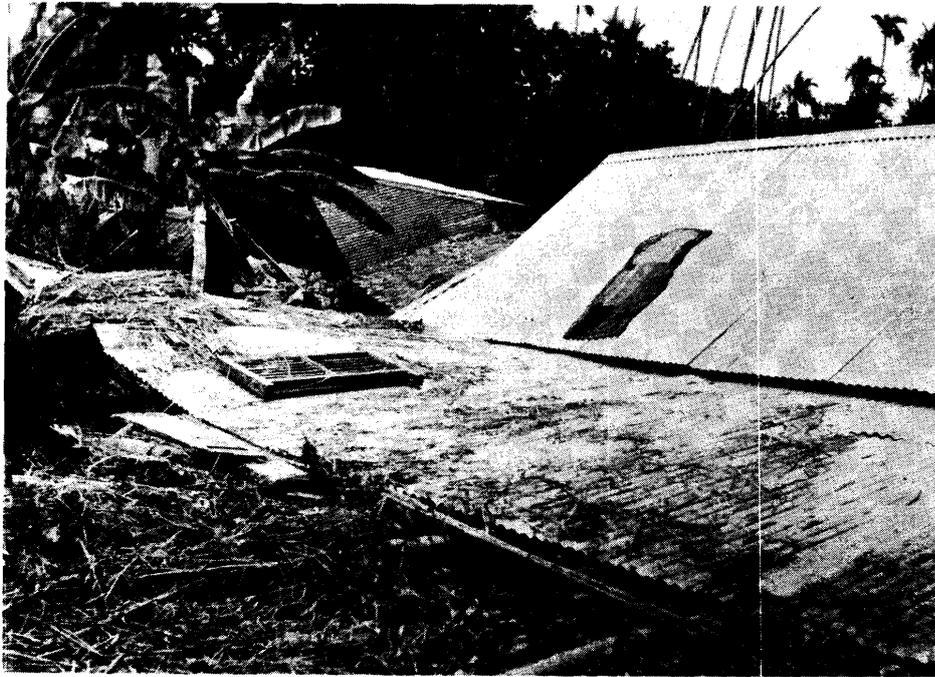
Breach of Dinajpur/Saidpur Highway (not bridge)



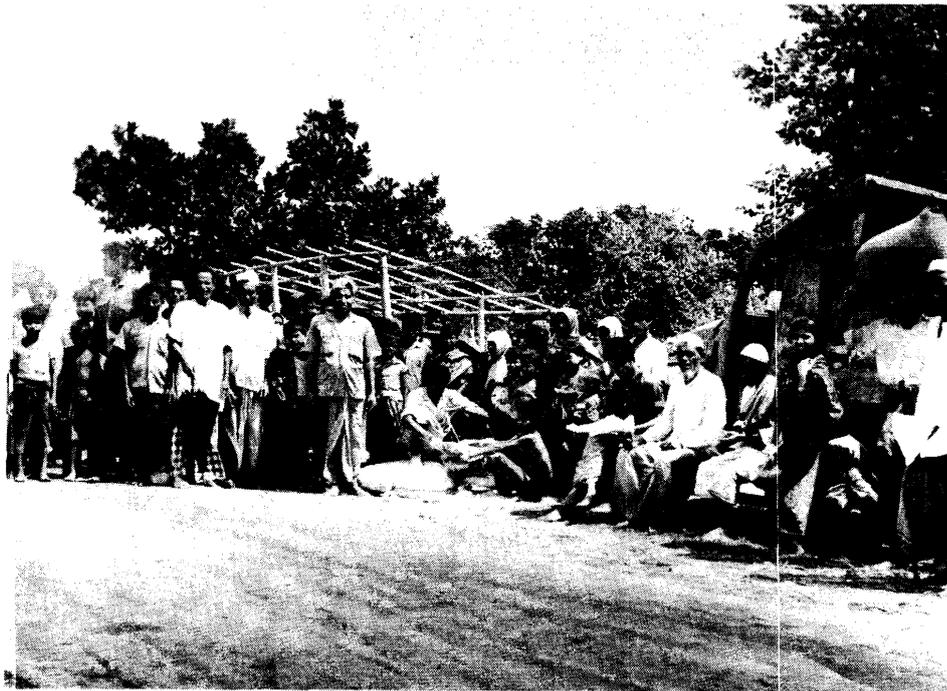
East Pakistan officials  
pointing out the flood  
level in Dinajpur



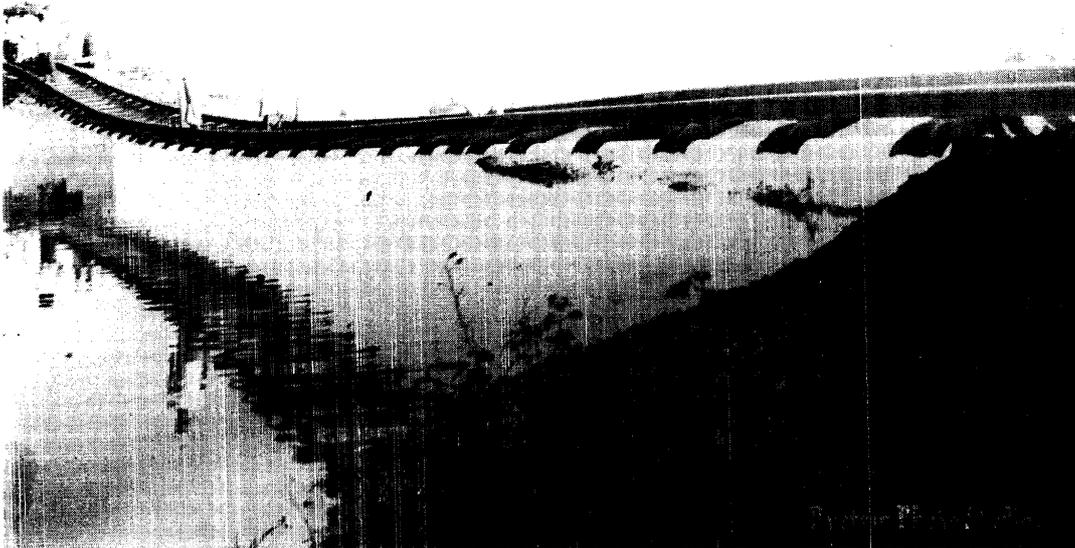
Paddy plants  
washed away  
(Rangpur)



This house in Gummandi village between Cox's Bazaar and Chittagong was a costly house with veranda on wooden poles and frames, mud-walls with strong doors, windows, window-grills and roof on wooden frame. The flood laid it carefully on the ground without damaging the corrugated iron sheets.



Roadside relief distribution Chittagong/Cox's Bazaar Road.



Bridge washed out, but rails support human traffic.

#### ACTION TAKEN BY THE GOVERNMENT OF EAST PAKISTAN

The Government of East Pakistan (GOEP) took charge of the entire relief operation. The U. S. Mission reported that the GOEP relief effort was commendable. It was well organized. In districts where the situation warranted, the GOEP assigned all senior officers to relief operations, and a senior civil servant was placed in charge of the control room. Volunteers worked on an ad hoc basis.

The GOEP began immediately after the July floods to evacuate and feed the flood victims with the help of local government bodies and organizations operating out of community centers, government warehouses and schools. Some 84 vehicles, 74 motor and non-motorized boats were requisitioned for transport in Chittagong. When the water receded, displaced persons returned to their villages and the GOEP established central distribution sites throughout Chittagong and Comilla areas. For a period of 12 weeks following the July floods, needy disaster victims received specified quantities each week of maize, wheat, soybean oil, fortified milk and clothing, if needed. Also each family whose house had been completely destroyed received two bundles of corrugated iron sheeting.

Paddy fields that had been washed away were returned to full cultivation by January 1969. A U. S. Mission report stated: "The farmers (referring here to worst hit districts) lost 92% of their Aman rice seedlings, and the GOEP replaced these with seedlings from other sections of the province. If the farmers had not been properly clothed and fed it is very doubtful that the new rice crop would have been planted."

The East Pakistan Branch of the Red Cross worked in coordination with the GOEP. It assisted local authorities in an anti-epidemic campaign and in

organizing distribution of clothing and milk. It requested gifts of cash, TABC vaccine, cloth and clothing from sister societies. The East Pakistan Red Cross assisted 651,000 needy persons during the July and October floods.

Most private in-country donations consisted of food and clothing. There was little coordination or control over these contributions so no accurate account can be given of the total assistance. Local business groups gave 2,535,291 rupees (about \$525,000).

Government loans and grants for emergency relief, rebuilding homes, purchase of fertilizer, tubewell and embankment repair and for food grain totaled 43,295,637 rupees (about \$9 million).

The GOEP also participated in a CARE project to build 3,000 low-cost houses using Cinvaram blocks by contributing 900,000 rupees (\$180,000). The house owners contributed soil, sand and labor.

It was not possible for the GOEP to provide total relief needs from its own resources. The USG was asked to donate wheat and to provide funds to assist in the repair and drilling of tubewells.

Important Development in East Pakistan on Disasters

On January 17, 1969, the U. S. Mission reported that the GOEP was in the final stages of issuing a disaster preparedness program for future emergencies in this disaster-prone country.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The American Ambassador exercised his disaster relief authority and made a cash donation of 120,000 rupees to aid in housing reconstruction, equivalent of . . . . . \$25,000

Diversion by CARE of 20 tons P.L. 480 vegetable oil valued at . . . \$ 6,550

The GOEP requested USG wheat donations totaling 70,000 metric tons. AID/Washington approved a contribution of 20,000 tons of wheat under P.L. 480, Title II, for free distribution to flood victims. If needed, consideration will be given later to balance of the request. Estimated market value and ocean freight cost . . . . . \$2,280,000  
A balance of 6,652 tons of corn and 768 tons of wheat of P.L. 480 stocks previously shipped to EP for free distribution was made available for the flood victims.

The GOEP also requested funds from the USG to aid in the repair and construction of tubewells. Recurring floods in East Pakistan destroy many wells causing an acute shortage of drinking water. In order to overcome the problem, the GOEP had previously started a flood relief tubewell construction program and had been assisted in this by the USG. Following the October 1966 cyclone 157 tubewells were constructed; 181 after the May 1965 cyclone and 100 after the December 1965 cyclone. Evaluation of

these previous emergency tubewell programs indicated the GOEP had used effectively USG emergency grants of US-owned rupees derived from the sale of P.L. 480 food commodities. Therefore AID/W request to the Bureau of the Budget for a new grant of 1.2 million US-owned rupees for East Pakistan was approved. The new GOEP program called for sinking of 750 new tubewells and resinking of 2,250. Total cost of the program was estimated at 2.4 million rupees. The GOEP agreed to furnish one-half of this amount. Estimated dollar equivalent of the 1.2 million rupee contribution of the USG . . . . . \$ 250,000  
\$2,561,550

U. S. personnel in East Pakistan were in constant touch with GOEP officials in the flood areas and transmitted information on daily developments to USAID/Lahore.

The following comment was received from the U. S. Mission: "Unquestionably U. S. responsiveness to meeting periodic needs from disastrous floods, cyclones and tidal bores in EP has resulted in widespread appreciation among Government and private parties for such aid. Consequently this timely action offsets unfounded suspicion among some concerning U. S. attitudes and orientation concerning East Pakistan's development programs. In a year of continued severe budgetary restrictions disaster assistance from the U. S. may be expected to provide similar beneficial results in our relationship."

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

CARE

CARE was one of the largest contributors to the flood relief effort. It diverted 27 tons of vegetable oil from USG P.L. 480 stocks and from its own resources 150 tons (20,000 cases) of high protein liquid milk, valued at . . . . . \$ 130,000

In addition, CARE started a 3,000 unit low-cost housing project, using Cinvaram blocks in the Chittagong District. The total cost of this project will be 2,148,000 rupees (about \$449,000). The GOEP will contribute approximately 900,000 rupees (about \$180,000) and OXFAM \$40,000. U. S. AID in Pakistan has also been asked to contribute 465,000 rupees for the project and this is under consideration. CARE contribution, not including technical supervision, was . . . . . \$ 100,000  
\$ 230,000

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

World Food Program  
 1,000 tons of milk and 500 tons of butter oil, est. value \$ 644,000

Oxford Committee for Famine Relief (OXFAM) cash donation  
 toward CARE low cost housing project 40,000

Governments

United Kingdom (114,300 rupees)	\$ 23,900	
Japan (50,000 rupees)	10,460	
Australia - 25,000 tons of wheat with est. value of \$1,350,000 and 52,830 rupees (\$11,000), total	1,361,000	
China (100,000 rupees)	20,900	
Canada - 50,000 tons of wheat, est. value at \$2,700,000 and 65,400 rupees (\$13,680) for a total of	2,713,680	
Turkey (5,000 rupees)	1,040	
West Germany - 940 tins (17 tons) mustard oil (local purchase)	*	
Nepal Chamber of Commerce - 2 bundles of clothes	*	\$4,814,980

Red Cross Societies

Australia	\$ 9,080	
Bulgaria	2,495	
Burma	200	
Canada	27,930	
(on behalf of Government)	13,820	
Ceylon	550	
Finland	1,150	
Germany (Dem. Rep.)	51,240	
Germany (Fed. Rep.)	1,230	
Great Britain	3,620	
Japan	1,160	
Kuwait	2,005	
Lebanon	95	
Monaco	400	
Netherlands	9,890	
New Zealand	1,655	
Norway	2,775	
Philippines	240	
South Africa	200	
Sweden	8,575	
Switzerland	1,500	
Thailand	230	
United States	1,000	
Yugoslavia	800	
UNESCO Staff Association	570	
TOTAL Red Cross Contributions	\$ 142,410	\$4,957,390

\* Value not reported

PAKISTAN

CHARACTERISTICS OF THE DISASTER

EVENT: Cyclone/Tornado

DATE-TIME: April 14, 1969

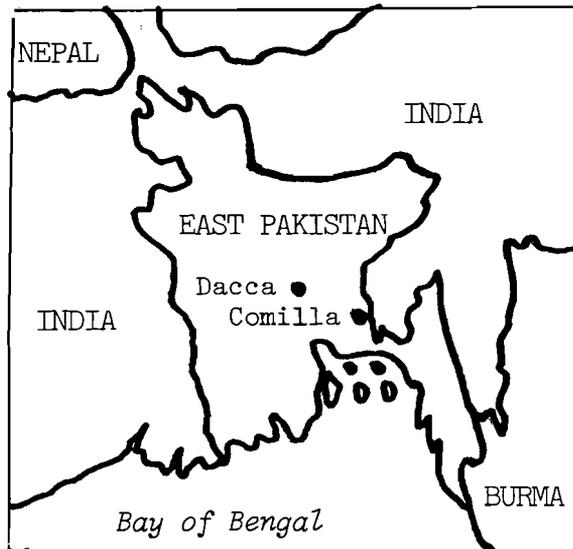
LOCATION: Dacca and Comilla Districts of East Pakistan

DISASTER VICTIMS & DAMAGES:	<u>Killed</u> 849	<u>Injured</u> 15,530	<u>Homeless</u> 23,943
	<u>Affected</u> 160,000	<u>Homes Destroyed/Damaged</u> 43,318      9,241	
	<u>Crop Damage</u> 7,642 acres	<u>Livestock Losses</u> 984 head/cattle	

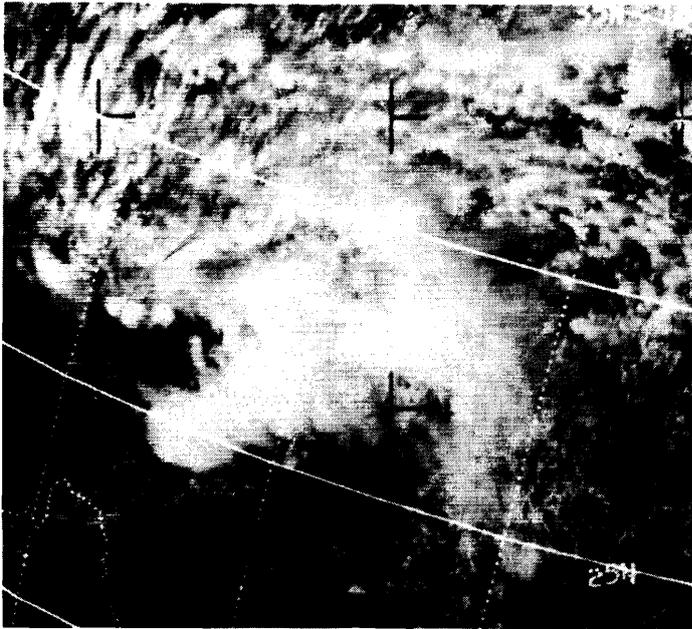
Estimated dollar property damage: \$8,329,630

DESCRIPTION OF THE DISASTER

Cyclones are one of the most common disasters in East Pakistan. The one that ravaged the Dacca and Comilla Districts of East Pakistan on April 14, 1969 was of a different type, and rather unusual in this area. Strong



winds had been blowing since morning and the sky was overcast. Just before dusk, without any signal, the cyclone, accompanied by a tornado, started. Its duration was short, hardly 3 to 5 minutes, but the devastation was immense. The tornado first touched down at Dacca Airport and then moved toward the eastern part of Dacca City. At the time of the cyclone a U. S. weather expert, Mr. Gordon Dunn, was in East Pakistan. He said that the central force of the tornado was as high as 400 miles per hour. Everything in its path, one-half mile in breadth and about twenty miles in length, was either smashed, twisted or blown away. Corrugated iron sheets flying through the air acted as giant razors.



An ESSA Satellite Photo, April 14, 1969 showing storm over Dacca/Comilla.

corrugated iron sheet roofs. There was practically no loss or damage to roads and bridges, but electric poles, high tension wires, telegraph and telephone lines within the affected areas were twisted and torn to pieces. The power supply to Dacca City and adjacent industrial estates, was totally disrupted as a result of power lines from Kaptai Dam being blown down. Normal power service was resumed after two weeks. Agricultural damage was not extensive.

#### ACTION TAKEN BY THE GOVERNMENT OF EAST PAKISTAN

The U. S. Mission reported that the GOEP relief effort was commendable. Within half an hour's time after the tornado struck rescue operations started. Military personnel initiated the rescue operation and the public joined them. By midnight all the hospitals in Dacca City were filled; 5,500 of those injured being hospitalized. Military troops donated a large amount of blood. In response to a Government appeal over Radio Pakistan, the public also gave blood and many lives were saved through blood transfusions. Drivers of all the trucks, buses, cars and baby-taxis in the area volunteered their services. Their vehicles were used in rescue operations and in carrying the injured to hospitals. The Government also opened a kitchen the following day which fed about 15,000 people for a period of two weeks.

Adequate relief did not reach the Comilla District immediately due to a lack of communication and transportation facilities. High school, college and university students took the lead in relief operations in Comilla.

Approximately 160,000 people in 32 "unions" under 10 police stations in Dacca and Comilla Districts were affected. Although a smaller area was affected in the Dacca District than in Comilla, the intensity of the tornado was greater and as a result, casualties and damage in Dacca District were much higher. Entering Comilla District, the course of the tornado became broader and weakened gradually. Nevertheless, loss and damage in Comilla were also extensive.

Other districts affected to a lesser degree were Rajshahi, Pabna, Mymensingh and Noakhali.

All the houses destroyed or damaged were either thatched roofed or wooden frame with

The Government of East Pakistan and Government of Pakistan contributed 4,504,370 rupees (about \$942,000) for house building grants, cash grants, clothing, food, grains, grants to students and other aid to disaster victims. Private donations were primarily in kind--food and clothing. However, the Martial Law Administrator's Relief Fund collected 2,300,000 rupees (about \$481,000) from private donors. The East Pakistan Christian Council (sponsored by Church World Service/USA) donated a house to each of 100 families in one of the affected villages in the Dacca District at a cost of 700 rupees each for a total of 70,000 rupees (about \$14,000).

The Pakistan Red Cross donated medicines, food and clothing. Total value of the Red Cross donation was 452,200 rupees (about \$94,000).

The Government of East Pakistan used the services of its Meteorological Department to predict the tornado's arrival. The GOEP is currently preparing a full-scale Cyclone Preparedness Warning System that is designed to make early cyclone warnings available and to coordinate the relief efforts of various agencies.

Since Pakistan is moving toward a full scale disaster prevention and preparedness program, the AID Disaster Relief Coordinator hopes consideration will be given toward eliminating use of corrugated iron roofing sheets in housing reconstruction. In hurricane, typhoon and cyclone-prone areas this type of roofing flying through the air causes many deaths and serious injuries to people who would not otherwise have been hurt by the storms. The high rate of injury in this disaster is evidence of this. A substitute type of roofing such as asphalt which would break up when ripped off the houses is needed, or other reasonable house cover.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The American Ambassador exercised his disaster relief authority and made a cash donation in dollars to the general relief fund in the amount of \$25,000 Also, 2,000 pounds of P.L. 480, Title II, nonfat dry milk were provided from UNICEF stocks, which had a value of . . . . . 400  
\$25,400

The recipients of this milk were the injured persons who were hospitalized in Dacca College Hospital and Dacca-Mitford Hospital.

Consulate and USAID personnel donated 18 pints of blood, plus personal cash donations, and the wives of U. S. Government personnel and U. S. contractors volunteered for hospital work.

The U. S. Mission reported that U. S. responsiveness in meeting periodic needs from disastrous cyclones, floods and tidal bores in East Pakistan has resulted in widespread appreciation, both Governmental and non-governmental, for such aid.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

CARE donated 10,200 pounds of concentrated sugar for hospital use which was valued at . . . . . \$2,890

CARE also authorized local purchase of clothing for the victims but quantity and value were not reported.

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

United Nations - medicine valued at	\$ 20,000
Germany - Federal Republic - medicines, value unknown	*
France - 15,900 metric tons of wheat, est. market value	917,000
Netherlands - 2,900 metric tons of wheat, est. market value	177,000
Iraq - 56 bales of blankets, value not reported but estimated by DRC at approximately	6,000
India - 23 bales sarees, 15 bales lungi, 16 packets undershirts, 65 boxes medicine, 2 drums bleaching powder, value not reported	*
Japan - cash donation announced	50,000
Indonesia - cash donation announced, 2,000,000 Indonesian rupiahs	6,900
	<u>\$1,176,900</u>

\* Value not reported.

## AUSTRALIA

### CHARACTERISTICS OF THE DISASTER

EVENT: Earthquake

DATE-TIME: October 14, 1968 at 02:59 GMT

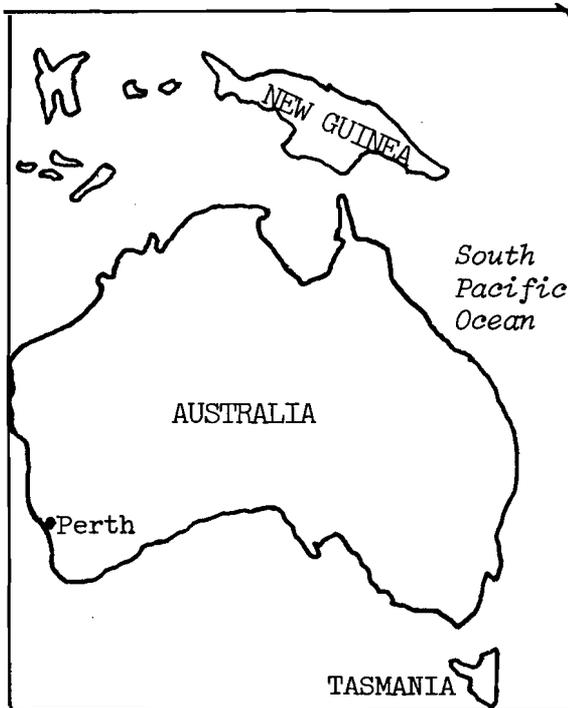
LOCATION: Perth and surrounding area, especially Meckering,  
75 miles east of Perth

DAMAGES:	<u>Killed</u>	<u>Injured</u>	<u>Homeless</u>	<u>Claims for houses or repairs</u>
	None	16	About 400	3,874

75% of Meckering's houses were destroyed or badly damaged. Dollar damage was placed at \$2.6 million.

### DESCRIPTION OF THE DISASTER

The earthquake struck just before Noon local time and lasted for 24 seconds. It had a magnitude of 7 on the Richter scale. It was felt as far north as Geraldton, 300 miles from Perth, inland to Kalgoorlie and 400 miles south



to Esperance. The center of the quake was believed to be the Darling Range Escarpment and the town of Meckering suffered the most damage. The severity of the earthquake can be gauged to some extent from the fact the main fault in the earth, in the close proximity to Meckering, measured some 27 miles in length with the earth's surface rising some five to six feet at the fault line and diminishing to nothing over a length of five miles to the West and ten miles to the East. Cracks in the earth surface of up to 3 feet in width were frequent and the town of Meckering rose one foot. Perth is the capital of Western Australia, located on the southwest coast and has a population of 600,000. There was considerable damage in Perth in the form of cracks in buildings, some collapsed walls and ceilings, and

several persons were injured from shattered glass. The residents of Meckering and the surrounding farmers had their residences destroyed or so badly damaged as to be uninhabitable. Public, church, and business buildings in town suffered similar damage. Communications over an area of 1,600 square miles were disrupted. The October 14 earthquake was the worst in that part of Australia in memory.

#### ACTION TAKEN BY THE GOVERNMENT OF AUSTRALIA AND LOCAL ORGANIZATIONS

The Premier of Western Australia visited the town the day after the quake and also on that day the Lord Mayor's Distress Fund Committee decided to make a public appeal for funds. Collections from this appeal totaled \$510,017 as of March 14, 1969. The earthquake appeal funds included \$50,000 from each of the Commonwealth and State Governments and \$25,000 from the Government of New South Wales, with the balance of \$385,017 coming from the public, mainly from West Australians.

The State Government Advisory Relief Committee organized the local relief and assistance was given to the needy. The Australian Red Cross assisted.

A Committee of local people was formed in Meckering. The community was fed from a hall on the Agricultural Show Grounds in Meckering. Food was paid for by the Lord Mayor's Fund and staffed by local voluntary people. This condition applied for several weeks after the disaster. Three trucks and a loader were sent to Meckering to assist in the removal of rubble as part of a plan by neighboring councils to help clean up the town.

Sixty Army huts were made available by the Commonwealth Government free of charge as temporary homes. Cost of hauling and mounting the huts on the farm properties was \$600 each. Therefore, those who received these huts had \$500 deducted from the total money allowed them for rebuilding.

The Advisory Relief Committee estimated the damages. Applications for assistance were referred to this committee and grants were made to the disaster victims on its recommendations. The Committee recommended a total of \$300,000 to pay \$3,000 each for rebuilding 100 houses. It also recommended that \$198,000 be given to other victims to partially pay for cost of repairing their homes. The Committee did not recommend payment for business losses or churches, indicating that these would be considered later. It recognized the needs of the organizations but felt the personal requirements of the people should receive priority of assistance.

Under a Commonwealth Government plan, insurance companies received more than 3,000 claims. These were made by those with an appropriate insurance entitlement and amounts of \$400 to \$500 were common. Care was exercised by officers of the Public Works Department to avoid overlap with the relief funds.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The U. S. Deputy Chief of Mission in Canberra exercised his disaster relief authority and approved a cash contribution from the United States to the relief fund of .....\$557.65

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None

ASSISTANCE PROVIDED BY OTHER NATIONS: None reported.

AUSTRALIA

CHARACTERISTICS OF THE DISASTER

EVENT: Bush Fire

DATE-TIME: November, 1968

LOCATION: New South Wales

DAMAGES:	<u>No. Killed</u>	<u>No. Injured</u>	<u>No. Homeless</u>	<u>No. Evacuated</u>
	12	Unknown	About 800	About 1,000

Estimated property damage including the value of the destroyed forests - \$1 million

DESCRIPTION OF THE DISASTER

There is no descriptive information available on this disaster other than that the fires continued over a period of time.

ACTION TAKEN BY THE GOVERNMENT OF NEW SOUTH WALES AND LOCAL ORGANIZATIONS

Rescue and relief operations were carried out by the New South Wales Volunteer Bush Fire Brigade and numerous local and municipal area organizations. Existing facilities and organizations were adequate. No new organization or institutions were formed. There was a surplus of untrained volunteers. The organizations were reported to be effective and efficient. The few problems encountered were of a minor coordinating nature.

Government agencies spent a total of \$196,000 to assist needy families and an additional \$65,000 was set aside to aid 26 families in rebuilding their homes.

Several newspapers, private organizations, city councils and other agencies collected several thousand dollars for direct relief but the exact amounts were not reported to any central source. Several private firms were reported to have made substantial contributions to local funds. The Australian Red Cross spent slightly over \$30,000 in direct cash grants and in the purchase of supplies for needy families.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The U. S. Chief of Mission exercised his disaster relief authority and made a cash contribution to the New South Wales Premier's fund of . . . . \$1,000

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None.

ASSISTANCE PROVIDED BY OTHER NATIONS: None.

BURMA

CHARACTERISTICS OF THE DISASTER

EVENT: Fire

DATE-TIME: March 30, 1969 at 1:00 PM

LOCATION: Sagaing

DISASTER VICTIMS: Killed homeless  
11 7,615

PROPERTY DAMAGES: Houses Destroyed - 1,524

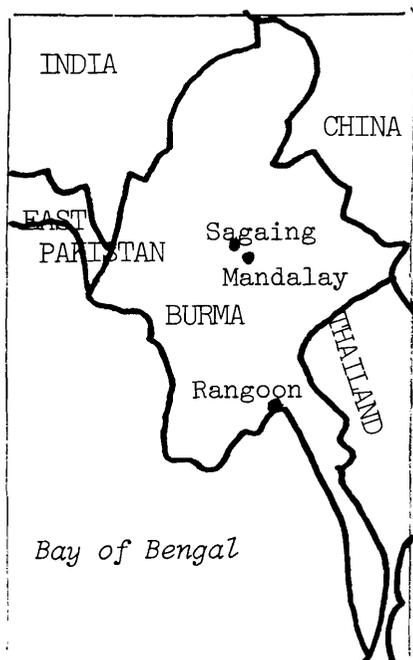
In addition to homes the following buildings were destroyed: State High School, 3 State Primary Schools, Railway Station, 3 Cinema Halls, Peoples' Shops, Trade Corporation Office and Government Offices

Estimated dollar damage to property \$2,688,976

DESCRIPTION OF THE DISASTER

On Sunday, March 30, 1969, at 1:00 PM a devastating fire gutted Sagaing, a few miles below Mandalay and the headquarters town of Sagaing Division, destroying more than half the town.

The blaze originated at a bicycle repair shop in the heart of the town when a blow lamp exploded, igniting a kerosene tin nearby. With the temperature well over 100 degrees F and a strong wind blowing, the fire spread rapidly from the center of the town to the east bank of the Irrawaddy and soon was a blazing inferno. Mr. Verne Dickey, American Consul, Mandalay, by courtesy of a Union of Burma Airways pilot on a flight to Rangoon, was allowed to fly over the town when the fire was at its height. In his report to the American Embassy, Rangoon, he wrote: "I





Residential area - northern section of Sagaing

action, with the mobilization of civilian and military personnel.

Food, clothing, cooking utensils and building materials were dispatched without delay to the fire victims. The Health Department made arrangements for a supply of pure water for drinking and household use and also for vaccination and inoculation of the townspeople.

Besides the Union of Burma Government and the Burma Red Cross contributions the public from all walks of life, even the inmates of prisons and school children made donations. The



Southeastern sector of Sagaing

doubted that any buildings would remain undamaged as I watched a 25 m.p.h. wind push the flames through solid and flimsy structures alike as though they were kindling."

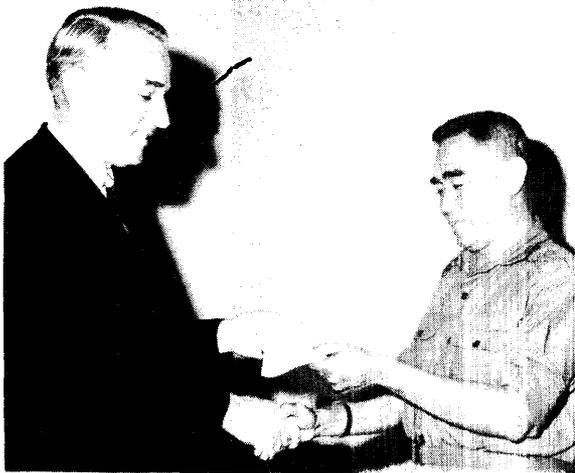
#### ACTION TAKEN BY THE GOVERNMENT OF BURMA

The Government of the Union of Burma through its Ministry of Relief and Resettlement and the Central Relief Committee, Local Security and Administrative Committees and the Red Cross Society immediately went into



A business center - western part of Sagaing

people of Akyab, who suffered from the cyclones last May, sent contributions. Total cash contributions from the people amounted to K268,500 (\$56,735) and from the Red Cross K5,000 (\$1,056). The Union of Burma Government contributed 4,000 aluminum pots and plates, 6,000 yards of cloth, 4,000 men and women's longyis (sarongs) and 2,000 blankets. The Burmese Red Cross gave soap, medical supplies, cloth, vests, tinned food and milk powder. Value of these contributions was not available.



American Ambassador Arthur Hummel, Jr. presenting a check for K25,000 to Major Lwin Huang, Secretary of Ministry of Relief and Resettlement

Work on the cleaning of debris was initiated immediately so that construction and rehabilitation might be facilitated.

The U. S. Mission reported that Burmese relief operations were quick and effective.

ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The U. S. Mission offered to help in any way it could and was advised by the Secretary of the Ministry of Relief and Resettlement that any form of help would be welcome. The American Ambassador exercised his disaster relief authority and a check for Kyats 25,000 was issued to the Ministry for the fire victims, equivalent of \$5,283. In presenting the check on March 2, Ambassador Hummel said: "Major Lwin Huang, on behalf of my Government I wish to extend the heartfelt sympathy of the American people to those who have suffered so much from the fire disaster that swept Sagaing last Sunday. I hope the K25,000 contribution that I'm presenting today, which comes from the emergency relief facilities of the U. S. Agency for International Development, will assist Burmese organizations in their efforts to bring aid and comfort to those afflicted." The presentation ceremony was given front page coverage by both the English and Burmese language newspapers.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

Church World Service

CWS reported it had made a cash donation to the World Council of Churches for two disastrous housing fires in Burma in the amount of . . . . . \$500

American Women's Association in Burma

Cash donation to the Sagaing Fire Relief Committee K500 . . . . .	\$105
	<u>\$605</u>

ASSISTANCE PROVIDED BY OTHER NATIONS AND INTERNATIONAL ORGANIZATIONS

Federal Republic of Germany - check for K1,000	\$ 211
USSR - milk, sugar, clothing, medicines, valued at	9,509
World Council of Churches, in addition to CWS contribution above	<u>500</u>
	\$10,220

## KOREA

### CHARACTERISTICS OF THE DISASTER

EVENT: Drought/Food Shortage

DATE-TIME: 1968-1969

LOCATION: Cholla Namdo, Cholla Pukdo and Kyongsang Namdo

DAMAGES: Number of People Requiring Food Assistance  
2,800,000

### DESCRIPTION OF THE DISASTER

In 1967 the worst drought in more than 60 years fell on the provinces of Cholla Pukdo, Cholla Namdo, Kyongsang Pukdo, Kyongsang Namdo, Cheju Do and Pusan City (see Seventh Report). Over a million acres of crops were damaged or destroyed. The Republic of Korea costs for drought relief

programs in 1967 amounted to an estimated \$50.7 million, while food donated by the U. S. Government was valued at \$15.5 million, including ocean freight.



In May of 1968, reports began to come in that abnormally low rainfall had raised the possibility of significant drought conditions for the second straight year in some of the same provinces. Pusan faced an acute shortage of water which resulted in rationing. The outskirts of Seoul were also subjected to reduced water conditions. Sufficient rain was reported in some parts of Korea in June but in general rainfall continued to be below normal. By August it was reported that serious drought conditions existed in the three provinces of Cholla Namdo, Cholla Pukdo and Kyongsang Namdo, and that food assistance would be needed by 439,500 families from mid-August of 1968 through June of 1969.



LAOS

CHARACTERISTICS OF THE DISASTER

EVENT: Tropical Storm and Floods

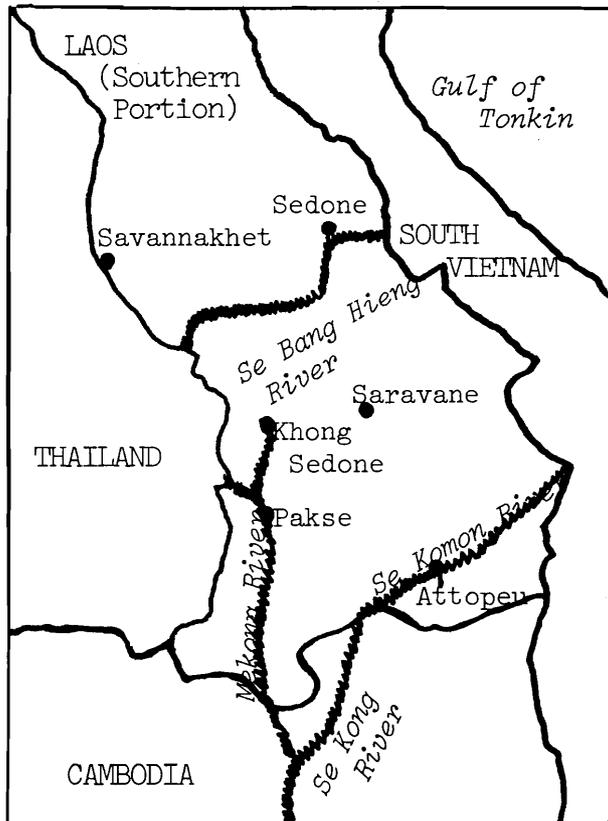
DATE-TIME: September 1968

LOCATION: Provinces of Saravane, Attopeu, Sedone, Wapikhamthong, and Savannakhet

DAMAGES:	<u>Killed</u>	<u>Injured</u>	<u>Homeless</u>	<u>Requiring Food Assistance</u>
	2	None Reported	About 600	About 9,000

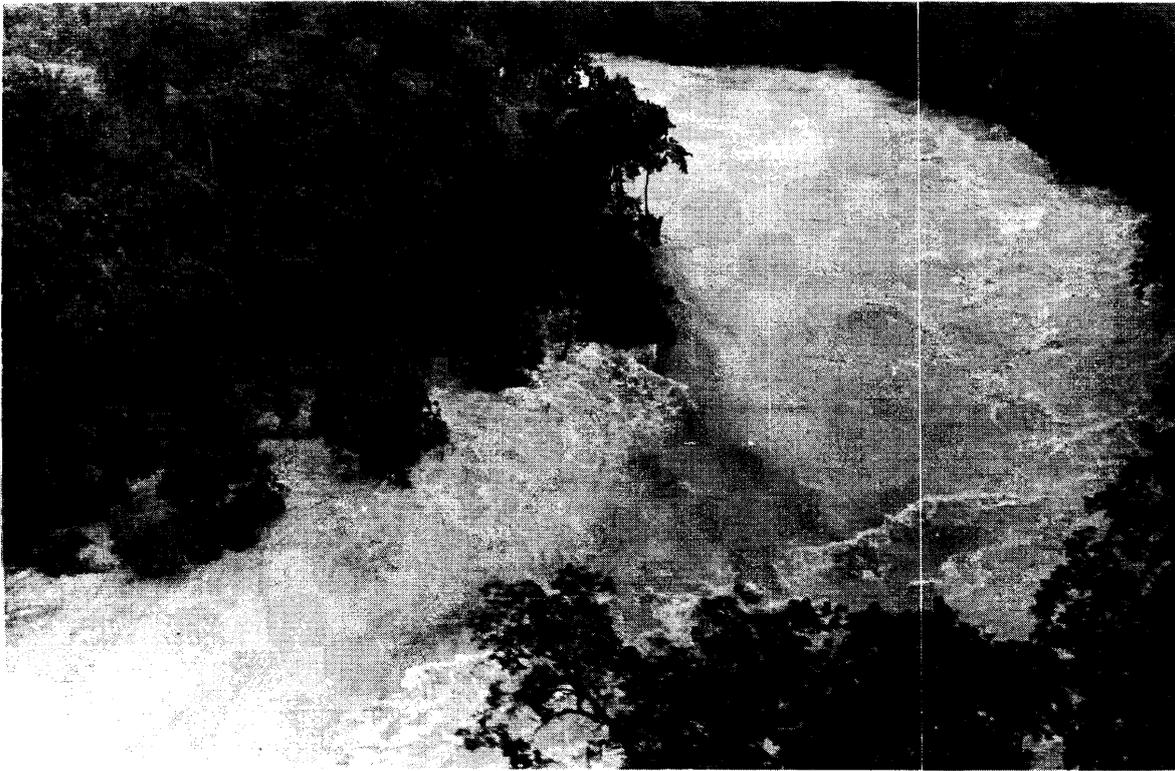
There were 120 homes destroyed and 610 damaged and over 2,000 water buffalo, cattle, pigs and fowl lost. No dollar damage was reported for this or for the homes but the following economic losses were given:

Loss 9,000 metric tons of rice, estimated value	\$1,200,000
Damages to roads	42,000
Medical supplies & other equipment	35,000
Other losses	2,800
	<u>\$1,279,800</u>



DESCRIPTION OF THE DISASTER

In early September 1968, a severe tropical storm moved across the northern portion of South Vietnam between the 14th and 17th parallel. The storm triggered torrential rains over the mountainous regions of Laos. The rains continued, almost incessantly, for eight days. The watershed, rivers and streams feeding into the Mekong, already swollen from heavy rains further north, were inadequate to cope with the concentrated deluge and three major

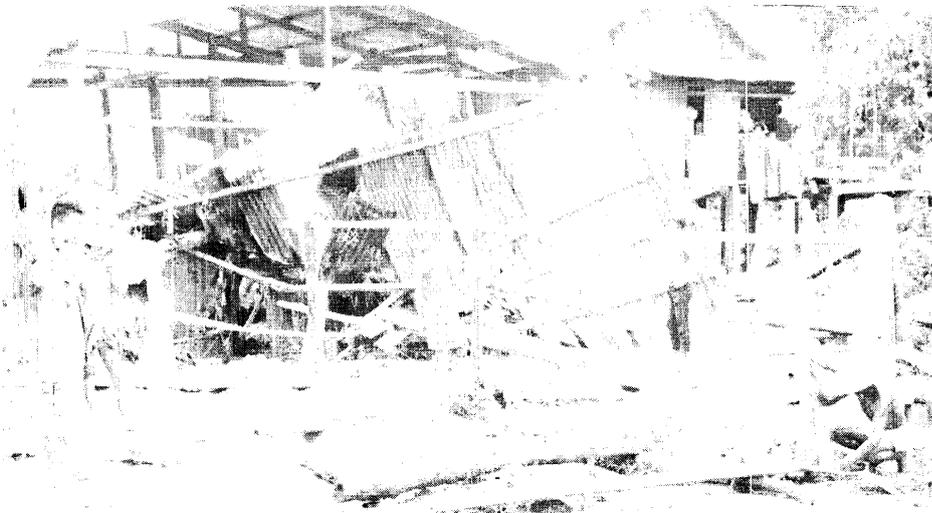


Mekong tributaries began to overflow. The rapidly rising water brought the Sedone River to flood stage by September 5. In Attopeu, the Se Kong and Se Komon rivers rose almost without warning. In Savannakhet, the Houei Camphon, a tributary of the Se Bang Hieng, began spilling over into the adjacent paddy land. By late afternoon of September 6th, the towns of Saravane and Attopeu were under water to a depth of from two to eight feet. In the town of Attopeu where the water ran fast and turbulent, there was heavy structural damage to flooded buildings. Highway 13 flooded in places from Khong Sedone to Souvannakhili. By September 7, considerable flooding had occurred in the Sedone Valley and the town of Khong Sedone was partially inundated.

On September 7, a limited aerial reconnaissance was made which revealed the crest of the flood in Saravane city had passed. Rural areas in the Sedone Valley downriver from Saravane had, however, been hard hit and many small farm houses were still under water. The flood waters in the towns of Saravane and Attopeu receded almost as rapidly as they had risen. By September 8, rivers had returned to their normal level for that time of the year and the flood was over. During the course of the flood thousands of people had been driven from their homes and were in need of assistance.

#### ACTION TAKEN BY THE GOVERNMENT OF LAOS AND LOCAL ORGANIZATIONS

Damage assessment and relief operations were conducted jointly by representatives from the Laotian Ministry of Social Welfare, Lao military forces in Region IV, and the USAID resident staff in Pakse.

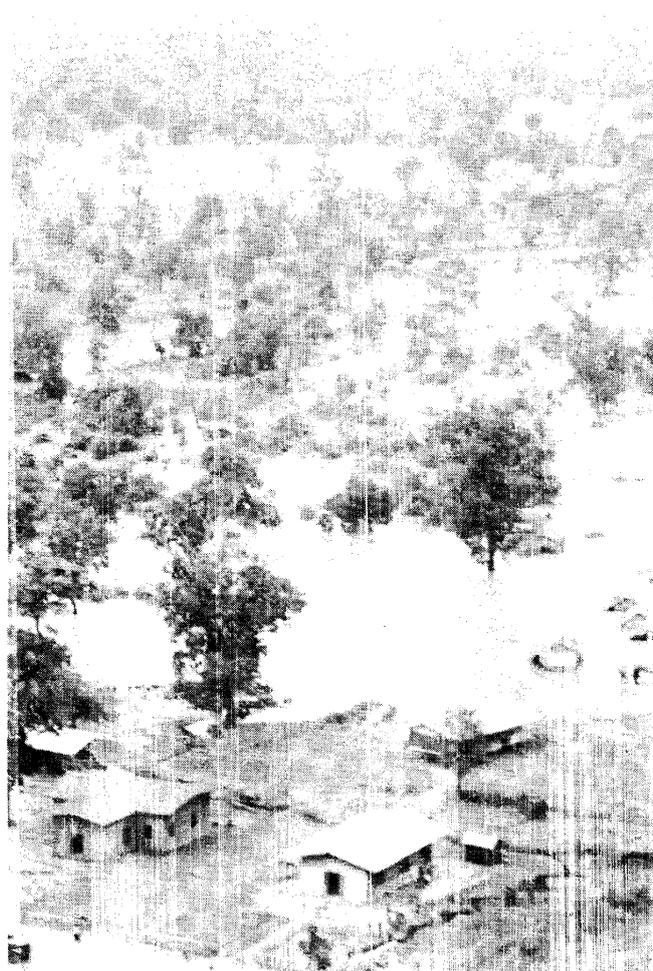


The Ministry of Social Welfare provided 46.7 metric tons of rice and 53 cases of milk. Of this 16.7 metric tons of rice were supplied to the Pakse, Attopeu and Saravane areas. The remaining 30 were distributed several weeks later to victims of the flood in Savannakhet area where the rice crop was lost due to prolonged inundation. Also small contributions of supplies were made by the Lao Red Cross and the International Women's Club of Laos. Value of in-country aid estimated at about \$6,000.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

USAID assisted in damage assessment and relief operations. The USAID Mission to Laos is somewhat unique in that refugee relief is part of its normal operations. The Refugee Relief and Resettlement Branch provides support to a large number of war refugees. Consequently, no special organization of effort was required for the movement of relief supplies to Pakse or, in some cases, directly to a stricken area. Support of flood relief was business as usual for the Refugee Relief Branch.

During periods of heavy rains when aerial flights into Pakse



were not possible, the Refugee Relief Branch in Vientiane, alerted to possible requirements in Pakse, pre-positioned a stock of relief supplies in Savannakhet. As soon as the weather broke some of these supplies were airlifted to Pakse; the remaining were moved by vehicle as road traffic between Savannakhet and Pakse was restored.

The American Ambassador exercised his disaster relief authority and authorized the following expenditures for emergency supplies and transportation from the AID contingency fund:

11.3 tons of rice	\$ 1,535
Refugee Kits	866
Burlap Bags	69
127 cases C-Rations	1,333
65,000 doses vaccine	2,700
Medical Supplies	3,200
Air support costs to survey damages, make air drops of rice and distribute medical supplies by 2 Choppers, 1 PFW Porter, 1 PDI Porter, 1 C-46 and 1 C-123	15,175
	<u>\$24,878</u>

A letter was received from the Secretary of State for Social Welfare in behalf of the Royal Lao Government thanking the USG for its assistance. The letter noted the close collaboration of USAID with civil and military authorities from the beginning of the emergency. Publicity on US disaster assistance appeared in the Lao-Press on September 13, 1968.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES: None.

ASSISTANCE PROVIDED BY OTHER NATIONS: None.

## MALAYSIA

### CHARACTERISTICS OF THE DISASTER

EVENT: Civil Strife

DATE-TIME: May 13-26, 1969

LOCATION: Kuala Lumpur

DISASTER VICTIMS:	<u>Killed</u>	<u>Hospitalized</u>	<u>Homeless</u>	<u>Evacuated &amp; Mass Feeding</u>
	173	336	About 1,500	9,000

### DESCRIPTION OF THE DISASTER

An unanticipated racial riot between Malays and Chinese erupted in Kuala Lumpur (including Petaling Jaya) on May 13 and continued with diminishing violence during the following week. Most deaths occurred during the first two days, but arson continued to be a problem for several days longer. Up to 9,000 people were gathered together in a secure area and cared for

by the Red Cross to keep them away from threat of attack.



The violence followed general elections that reduced the majority of the ruling coalition government and resulted in the withdrawal from the coalition of the Malaysian Chinese Association. The withdrawal left the country's Chinese, who make up nearly half the 10 million population, without representation in the cabinet.

### ACTION TAKEN BY THE GOVERNMENT OF MALAYSIA AND LOCAL ORGANIZATIONS

One of many stores destroyed

The Government of Malaysia (GOM) had not anticipated

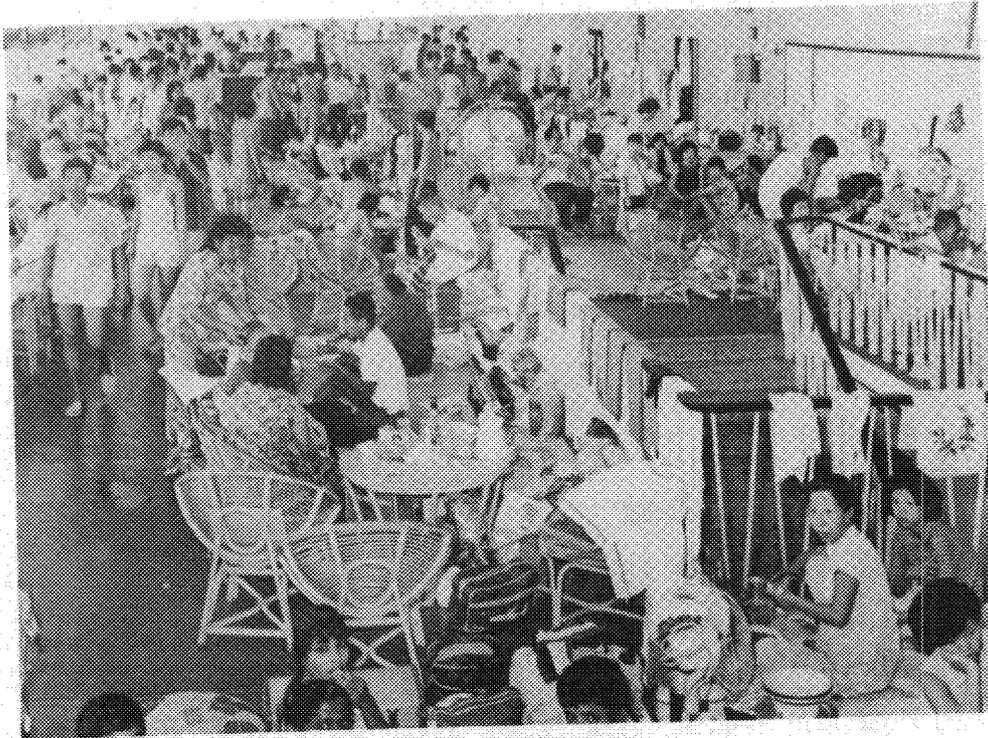


Private home burned down

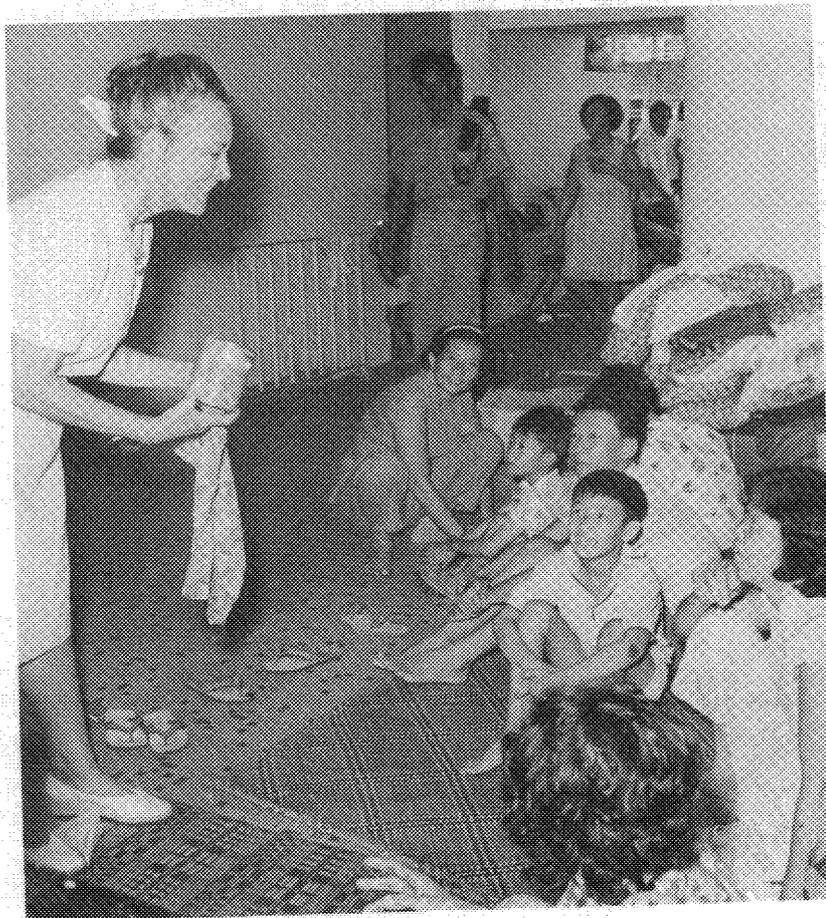
a disaster of this magnitude. Its first reaction on May 14 was to reestablish order. Through the Police and the Army it quickly initiated standard procedures, announcing and enforcing twenty-four hour curfews with a few short breaks so people could obtain food.

By May 16, the GOM had set up a National Relief Center to obtain food for distribution in bulk and in family packets for sensitive areas where the curfew had not been lifted. Evacuees from affected areas were concentrated during the initial period in a relatively isolated and secure area in the three contiguous sports stadia of Stadium Negara (covered), Stadium Merdeka (partially covered), and the Chin Woo Association basketball hall. Subsequently two nearby schools, Victoria Institute and Shaw Road, were also used. By May 17, up to 9,000 evacuees (almost wholly Chinese) were settled in this area, primarily under the care of the Malaysia Red Cross with some GOM support. By May 26 the number had dropped to about 3,000. The GOM plans to rehouse homeless victims permanently in low-cost housing projects already under construction. By May 19, the GOM and the Red Cross had sufficient food for the victims and was providing medical assistance. This assistance was terminated on May 26 as relaxation of the curfew permitted people to buy their own provisions.

The Malaysia Red Cross, in addition to caring for the displaced people housed in the sports stadia complex, used its ambulances to provide emergency medical services to the public. It was reported that while the



Evacuees at  
Merdeka  
Stadium



American volunteer  
worker at Merdeka  
Stadium

Red Cross was able to carry out its work it did so with difficulty because it did not have the proper organization to handle a disaster of this magnitude.

Local Chinese associations, Rotary Clubs, Chambers of Commerce and other similar organizations contributed money, volunteers and services to care for the victims, either in a well-organized effort covering a number of people, or on a spot basis.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

The American Ambassador exercised his disaster relief authority and made cash contributions equivalent of \$16,515 in local currency to the Straits Times-sponsored National Relief Fund, and \$4,955 in local currency to the Malaysia Red Cross. Total contribution from AID contingency fund \$21,470.

The U. S. Embassy, Defense Attache and Agricultural Attache turned over to the Malaysia Red Cross three carryalls and a jeepster and furnished drivers. An Embassy officer organized shifts of volunteers, men and women, from the American community, averaging 20 volunteers on each shift. Cars of two Embassy officers were used to transport the volunteers to and from Red Cross headquarters near the stadia. The Peace Corps contributed about 15 of its staff and volunteers with three vehicles to the Red Cross operations.



Malaysia Red Cross workers sorting American-contributed used clothing for evacuees

An officer's wife organized the collection of old clothes for the evacuees and three van loads were collected within 24 hours. The Deputy Prime Minister of Malaysia personally thanked the American Ambassador for the American community's assistance, noting in particular work of volunteers which he had seen.

In addition, the following USG P. L. 480 food commodities were provided through Catholic Relief Services: 262,850 pounds of rolled oats; 30,000 pounds of bulgur wheat and 38,550 pounds of nonfat dry milk, with an estimated market value of. . . . . \$25,130  
 Total USG contribution . . . . . \$46,600



American volunteer workers making up family food packets for distribution in curfew-bound areas

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Catholic Relief Services

Distributed the above USG P. L. 480 food from its stocks on hand. In this respect the U. S. Mission commented as follows: "The CRS representative is an efficient and conscientious individual who used sound judgment in the distribution of his foodstuffs."

CARE-Medico

CARE-Medico provided the services of a doctor and a nurse to the Red Cross and a second doctor and nurse for emergency duty at the General Hospital. It also donated drugs valued at. . . . . \$1,000

ASSISTANCE PROVIDED BY OTHER NATIONS

United Kingdom - Cash donation in local currency, equivalent \$5,000

New Zealand - Use of RNZAF freight aircraft to carry relief supplies, if needed.

PHILIPPINES

CHARACTERISTICS OF THE DISASTER

EVENT: Earthquake

DATE-TIME: August 2, 1968 at  
4:20 AM local time

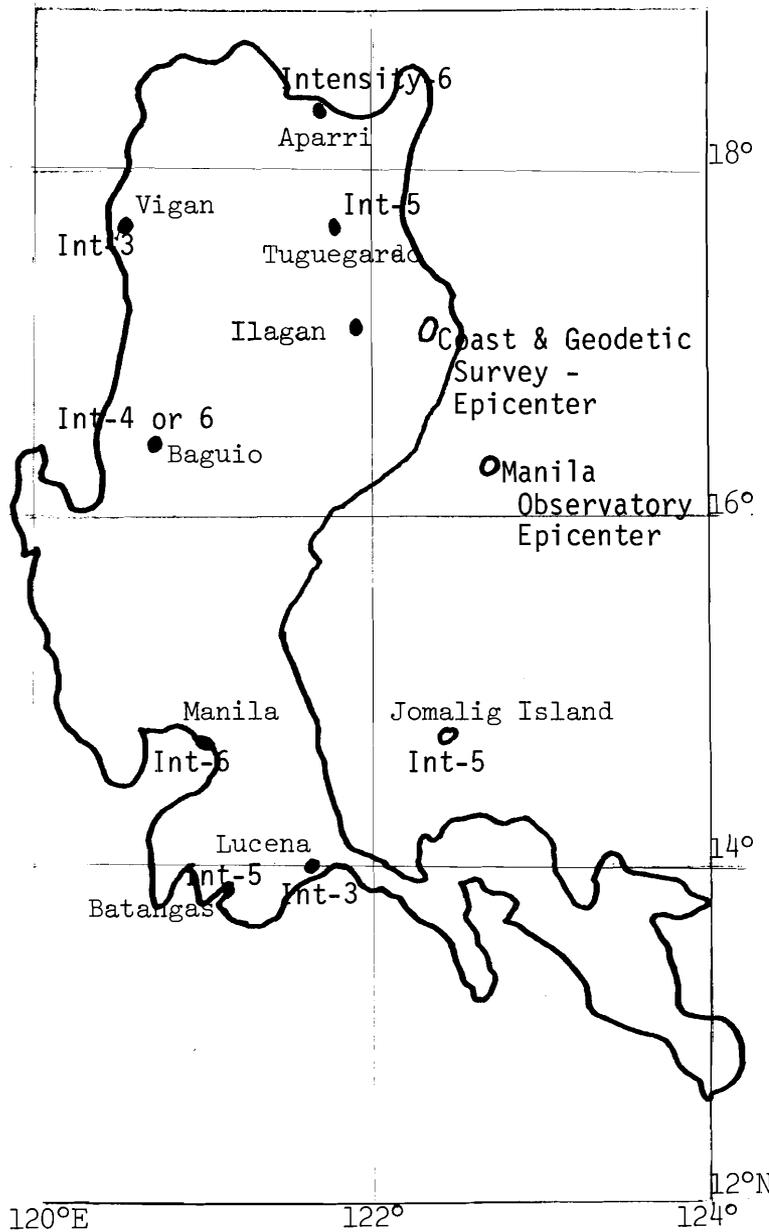
LOCATION: Luzon Island -  
Especially Manila

DAMAGES: Killed Injured  
326 233

A 6-story tenement building (Ruby Towers) in Manila was completely destroyed; a warehouse in Manila South Harbor caught fire.

DESCRIPTION OF THE DISASTER

A major magnitude earthquake registering 7 on the Richter scale, struck Luzon Island on August 2. It was centered at Isabela, approximately 124 miles east, northeast of Manila and affected the entire island. It was the strongest earthquake to rock Manila in living memory. It lasted one minute. The six floors of the Ruby Towers, a crowded tenement building, "flattened like a collapsed accordion", resulting in the first massive death tragedy in the post-war years of the Republic of the Philippines. Several other buildings cracked, window glasses were shattered, one building tilted, and a



warehouse in the Manila South Harbor containing about two million pesos worth of shipments caught fire due to snapping of electrical wires. The destruction of the Ruby Towers accounted for all 326 of the lives lost and 233 injured.

The earthquake struck with varying degrees of intensity throughout Luzon over a 7 minute time span. In Manila the intensity was registered at VI. A second, milder earthquake with an intensity of III occurred at 4:46 AM.

Two hundred and fifty-four persons were recovered alive from the rubble of Ruby Towers by Sunday, August 4. On Monday, August 5, hope had been given up that any more survivors would be found but on August 7 diggers found still alive a 10 year old girl, Suzie Wong Chan, and her cousin Nancy Wong Chan, 13. Suzie's mother, father, brother and grandfather died in the quake. Her two younger sisters had been rescued on Saturday, August 3. Suzie was able to talk when rescuers found her and kept saying "I don't want to die". Doctors predicted that Suzie would recover. Her cousin was in more serious condition.

#### ACTION TAKEN BY THE GOVERNMENT OF THE PHILIPPINES AND LOCAL ORGANIZATIONS

President Ferdinand Marcos was awakened by the phone call of "Johnny Midnight", the only radio commentator on the air from midnight till early morning, who informed him of the Ruby Towers tragedy minutes after the deadly earthquake. The President ordered all relief agencies of the government to take steps toward alleviating the plight of the victims. To facilitate the relief work, he ordered the Budget Commissioner to release two million pesos (\$512,820.51) to augment the fund at hand for relief work and to reserve an additional three million pesos (\$769,230.77) for any further need.

Major General Gaudencio V. Tobias, AFP Vice Chief of Staff at that time, was designated coordinator for the rescue operations. Three companies of an AFP engineering brigade composed of some 250 officers and men undertook the rescue mission. But even before the arrival of the army, there were already civilian rescue workers in the area who started to help in whatever way they could.

A total of about 6,000 rescue workers (soldiers, nurses, nuns, boy and girl scouts, students and youth volunteers)—Filipinos, Americans, Chinese and other nationalities—worked in shifts around-the-clock, racing against time to save the lives of an estimated 600 tenants of the building. Cranes, trucks, forklifts, wreckers, and other excavating equipment were used.

Donations poured in from individual donors—cash, shoes, flashlights, used clothes, blankets, foodstuffs, medicine, face masks, gloves, radio phones, and other supplies. Cranes and other rescue equipment were loaned from private sources to augment the equipment brought in by the national government. Medical supplies and drugs were donated by the Philippine Medical Association, the Drug Association of the Philippines and other private companies.

The Philippine National Red Cross sent all its available first aid and medical personnel to treat victims suffering from injury and shock. The Federation of Filipino-Chinese Chamber of Commerce donated 400,000 pesos (\$102,564.10) worth of disaster supplies. Universities sent student nurses and medical interns to help in the emergency medical center set up at a nearby public school. The Manila Times started a fund raising drive which ended with 230,034.19 pesos (\$58,983.12) in cash donations. The First Lady received cash donations for the earthquake victims amounting to 115,076.61 pesos (\$29,506.82).

The Pasay City Lions Club offered to be foster parents of any child orphaned by the disaster. The house of former Manila Mayor A. H. Lacson served as an emergency home for victims of the disaster when they were released from the hospital.

Pepsi-cola and San Miguel Brewery sent rescue teams and engineering equipment. Caltex Philippines sent three teams to provide the fuel needs of rescuers. Feeding centers were set up and administered by the Philippine National Red Cross, the Department of Social Welfare, Seventh-Day Adventist Welfare Service, and several charitable organizations.

Five government and private hospitals were used to accommodate the injured victims in addition to the emergency medical center.

Comment on Disaster Relief Operations by USAID/Manila:

*"The disaster was very well coordinated from the very start of the rescue operations up to the rehabilitation phase of the living victims. Success was due to the cooperation between the government and private sectors. Credit should also be given to the round-the-clock radio coverage of one of the radio stations in Manila which broadcasted and solicited all the needs in the rescue operations until the last body was found on the ninth day of the operations.*

*"High morale of rescue workers, many of whom suffered wounds and bruises during the operation, and the volume of contributions, may be attributed to the involvement of President Marcos and the First Lady who often visited the disaster area during the nine days rescue operations, plus the visits made by several foreign dignitaries including Ambassador and Mrs. Mennen Williams who were among the first to arrive at the disaster scene."*

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

At the request of the American Ambassador, the U. S. Military in the Philippines sent in rescue and relief teams to assist the Philippines Government in its relief operations. The teams consisted of 90 Navy and Marine personnel from Sangley and Subic Bay and 31 from Clark Air Force Base. The teams were assigned to a section of the destroyed Ruby Towers



American Ambassador G. Mennen Williams observing rescue operations at Ruby Towers building by Philippine and U. S. military teams.

building and worked in six-hour shifts. The U. S. military also provided construction/excavation equipment, potable water, blood plasma, drugs, lights, generators, body bags, concrete saws, cranes, compressors, trucks and other equipment. The Ambassador exercised his disaster relief authority to permit reimbursement to the U. S. military from the AID contingency fund, which totaled . . . . . \$26,603  
 AID/DRC approved the cost in excess of \$25,000.

The American Embassy provided medical supplies worth \$72.00 and food from the U. S. Employees Association Commissary worth \$140.00 for a total of . . . . . \$212

Church World Service and Seventh-Day Adventist Welfare Service made available 4,813 pounds of USG P. L. 480, Title II, Food for Peace Commodities with an estimated market value of . . . . . \$477.39

These foods were cooked and served to rescue workers and consisted of salad oil, wheat flour, cornmeal, bulgur wheat, rolled wheat, dry milk and CSM.

Total USG assistance . . . \$27,292.39

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES AND OTHER U. S. ASSISTANCE

Church World Service and Seventh-Day Adventist Welfare Service provided above USG P. L. 480 food commodities. Church World Service also donated 4 bales of blankets, with estimated value \$400.

The USAID Women's Club, in joint operation with the YWCA World Fellowship, donated 5,150 face masks and 366 gloves to volunteer workers and helped the Philippine army men in the area.

ASSISTANCE PROVIDED BY OTHER NATIONS

Cambodia Red Cross - cash	\$ 285
Japan Red Cross - supplies	800
Japan - private firm - cash	2,000
India - medicines, cotton blankets and vitamins	*
Thailand Red Cross - cash	470
Taiwan - cash	20,000
Turkey Red Cross - cash	500
	<u>\$24,055</u>

\* Value not reported

## PHILIPPINES

### CHARACTERISTICS OF THE DISASTER

EVENT: Typhoons Reming (Mamie); Senyang (Nina); Toyang (Ora)

DATE-TIME: Nov. 22, Nov. 25, & Dec. 2, 1968

LOCATION: Eastern Mindanao, Palawan, Visayas

DAMAGES:	<u>Killed</u>	<u>Injured</u>	<u>Homeless</u>	<u>Needing Food Aid</u>
	50	-	39,313	187,330

Homes Destroyed - 6,552

Heavy damages to roads, bridges, irrigation, communications, schools, livestock and crops. Estimated dollar damage \$9,600,000

### DESCRIPTION OF THE DISASTER

Three typhoons struck the Philippines successively on November 22 and 25 and on December 2, 1968, severely battering the Visayas. "Reming" and "Senyang" hit almost the same areas with the latter literally following on the heels of the former in its trail of destruction. Samar and Leyte received the brunt of the typhoons, which continued on a westerly course to cause still more damage in Bohol, Masbate, Cebu, Negros, Palawan, Panay, and smaller islands in their paths before finally spending themselves out in the far reaches of the South China Sea. The province of Surigao del

Norte in Eastern Mindanao was also severely hit. "Toyang" struck Samar again with force but swerved north-westward to hit with diminished intensity across Luzon. The affected areas in the Visayas and Mindanao have a combined population of 7,800,000. Information concerning casualties was not available from most areas hit by the typhoons but 50 dead were reported in Leyte alone.



In MacArthur, on the west coast of Leyte Province, on the road from Tacloban City to the province of Southern Leyte, the bridges spanning the two rivers on both ends of the town

were washed away. On the same road, in Bato, on the west coast, the bridge broke, tilting 35 degrees to one side, rendering it impassable by vehicles. In Eastern Samar, beyond General MacArthur town on the road to Borongan, the provincial capital, a number of bridges were also destroyed or washed away. Many carabaos and work animals drowned. Thousands of coconut trees and banana plants were blown down in Samar and Leyte. The damage caused by the typhoons in Samar compounded the losses resulting from a drought that hit the province earlier in 1968.

Partial reports on the cost of property damage total \$9.6 million broken down to \$4.1 million in Bohol; Leyte \$5.2 million; Western Samar \$256,000. Estimated dollar damage in other affected areas was not available.

#### ACTION TAKEN BY THE GOVERNMENT OF THE PHILIPPINES

The field offices of the Philippines Department of Social Welfare (DSW) in the affected areas were quick to report to the Department on casualties and damages. The regional and provincial offices of the Department of Health, local chapters of the Philippine National Red Cross, and Civic Action Centers of the Armed Forces of the Philippines were also quick to report on matters affecting their respective spheres.

President Marcos gave instructions to the various relief agencies to coordinate relief efforts and to provide all the assistance required by the situation. The Department of Public Works and Communications was directed by the President to undertake immediate repair of destroyed bridges, public roads and other public works.

The Department of Social Welfare released 228,000 pesos (\$58,460) to its field offices for assistance to disaster victims. Within its limited resources, the Department tried to meet the needs of the typhoon victims. Assistance was provided also from private sources but the value was not reported. Requests were made from various dioceses, parishes and missions in the disaster area for food from U. S. voluntary agencies.

#### ASSISTANCE PROVIDED BY THE U. S. GOVERNMENT

USAID approved diversion of USG Public Law 480, Title II, Food for Peace commodities on hand in U. S. voluntary agencies' stocks to meet urgent requests. The food was shipped to Surigao del Norte in Eastern Mindanao, Palawan which belongs to the Luzon group, and to the Visayas from stocks of Catholic Relief Services and Seventh-Day Adventist Welfare Service and were distributed to 187,330 recipients. Commodities, quantities and value were as follows:

246,200 pounds bulgur wheat	
87,220 pounds of CSM Formula 2	
128,100 pounds of rolled oats	
23,600 pounds of rolled wheat	
123,046 pounds of soybean oil	
240,430 pounds of cornmeal	
234,050 pounds of flour	
<u>1,082,646</u> pounds with market value of . . . . .	\$60,800

A formal request for assistance was made to USAID by the Department of Social Welfare in a letter dated January 3, 1969, in connection with the homeless victims in the three Samar provinces. In addition to food, USAID was asked if it could assist by procuring nipa roofing for the reconstruction of the homes that had been totally and partially destroyed.

The Ambassador declared the Samar area eligible to receive disaster funds and authorized the release of 40,000 pesos chargeable to AID contingency fund for emergency repair and reconstruction of the homes of the 5,442 families left homeless on this island equivalent of . . . . . \$10,256  
Total USG assistance . . . \$71,056

The Department of Social Welfare thanked the USG for past and new responses to its requests for aid.

ASSISTANCE PROVIDED BY U. S. VOLUNTARY AGENCIES

Catholic Relief Services and Seventh-Day Adventist Welfare Service provided the above USG P. L. 480 Food for Freedom commodities. In addition CRS contributed 5,000 pounds of clothing, estimated value . . . . . \$5,000

ASSISTANCE PROVIDED BY OTHER NATIONS: None reported.

