Two weeks after the disaster full service had not yet been re-established, partly because of the extent of the damage, but also because of electric power deficiencies. However, at least in Santo Domingo, an emergency programme was initiated to supply urban areas without water by means of tank truck deliveries.[14/] It is estimated that full re-establishment of service will require a maximum period of six months - although in some cities two to three months will suffice - and an approximate investment of 4.8 million dollars. (See table 6.)

(v) Summary of the damages. Damages to physical and services infrastructure, including housing, transportation, communications, electric power and drinking water, are estimated at 120 million dollars. (See table 7.)

Telecommunications systems, the supplying of drinking water and a portion of energy requirements will be able to be re-established within a maximum period of from four to six months. However, reconstruction of housing, highways, secondary roads and a hydroelectric power plant will require up to two to three years.

14/ The Santo Domingo Aqueduct and Sewerage Corporation (CASSD) budgeted close to 420,000 dollars for this item for the remainder of the year.

/Table 6

Table 6

DOMINICAN REPUBLIC: DAMAGES TO AQUEDUCT SYSTEMS

(Thousands of dollars)

City or area	Total	Labour and material	Machinery and equipment	Other expenses[a/]
National total	4,795	2,826	1,340	629
Santo Domingo[b/]	944	639	218	87
Santiago	2,100	1,558	404	138
Zone I [c/]	183	73	68	42
Zone II[d/]	311	118	121	72
Zone III[e/]	727	232	327	168
Zone IV [f/]	530	206	202	122

Source: Santo Domingo Aqueduct and Sewerage Corporation, Santiago Aqueduct and Sewerage Corporation, National Drinking Water and Sewerage Institute.

a/ Includes general expenses and unforeseen outlays.

b/ In addition, 420 000 dollars are required for supplying emergency water for four months.

c/ Includes aqueducts located in the provinces of Baoruco and Barahona.

d/ Includes aqueducts located in the provinces of Azua and Peravia.

e/ Includes aqueducts located in the provinces of Puerto Plata, Valverde, Espaillat, Salcedo, María Trinidad Sánchez, La Vega, Duarte and Sánchez Ramírez.

f/ Includes aqueducts located in the provinces of San Cristóbal and Peravia.

/Table 7

Table 7

DOMINICAN REPUBLIC: DAMAGES TO PHYSICAL AND SERVICES INFRASTRUCTURE

(Millions of dollars)

	Total	Labour and materials	Machinery and equipment	Other expenses
Total	120.3	78.2	37.5	4.6
Housing	18.9	17.0	-	1.9
Transportation and communications	62.1	50.1	11.5	0.5
Roads	27.7	27.7	-	-
Secondary roads	10.3	10.3	-	-
Bridges and sewerage systems	6.0	3.0	3.0	-
Urban transit	5.1	4.6	-	0.5
Ports and airports	2.0	2.0	-	-
Telecommunications	5.0	2.5	2.5	-
Land, air and maritime vehicles	6.0	-	6.0	-
Energy	34.5	8.3	24.6	1.6
Generation	16.2	8.3	6.3	1.6
Transmission	6.0	-	6.0	-
Distribution and services	12.3	-	12.3	-
Drinking water	4.8	2.8	1.4	0.6

Source: CEPAL, based on official figures.

/5. The

5. The agricultural sector

Agriculture suffered the greatest losses among the productive sectors of the economy. Hurricane David felled many trees, especially those producing plantains, coffee and cacao; and later, the heavy rainfall brought on by Hurricane Frederick caused flooding in most of the sugar cane plantations in the southeastern part of the country and in areas devoted to other crops for domestic consumption, such as kidney beans and cassava.

The central northeast and eastern regions were the most damaged. (See Table 8,) These regions constitute the most productive farmlands in which the principal export crops are grown; southern provinces of San Cristóbal and Peravia suffered the greatest losses as a consequence of the hurricanes. With respect to the south-west region, damages are still greater if duly account is taken of the fact that this region was already one of the most backwards of the country. 15/

Damages to the sector as a whole are estimated at 357 million dollars. This figure includes those suffered by agriculture as such, the costs of replacing livestock inventories, damages to irrigation infrastructure and losses in fisheries equipment. However, it does not include forest damage, since it has so far not been possible to evaluate such damage completely as it has been necessary to give priority attention to other activities more essential to the sustenance and employment of the population. Nevertheless, technicians from the Forestry Department of the Ministry of Agriculture estimate that over-all damage to timber-yielding species of the woodlands of the central mountain range could amount to 5 million dollars.

Aviculture was the hardest hit among livestock-raising activities. Preliminary reports indicate that more than 1.2 million heads of poultry disappeared in the wake of the hurricanes.

Subsequent to the drought that affected the country in 1977, the Government had been taking steps to promote the production of certain basic foodstuffs within the Dominican diet, such as rice, cassava,

15/ See indices contained in ONAPLAN, Regional Development Plan for the Southwest, 1979-1982.

/Table 8

Table 3

DOMINICAN REPUBLIC: ASSESSMENT OF PHYSICAL AND FINANCIAL DAMAGES TO AGRICULTURE BY REGIONS AND ZONES

	Land area planted before hurricanes (ha)	Land area affected						Financial losses at farm prices a/ (thousands of dollars)	Percentage structure
		General total		Totally		Partially			
		Hectares	Percentage	Hectares	Percentage	Hectares	Percentage		
National total	475,562	202,239	42.5	84,357	17.7	117,882	24.8	257,127	100.0
Central region	61,461	46,075	74.2	30,067	48.9	18,008	29.3	143,706	55.9
Southeastern region	56,021	17,826	31.5	9,355	16.5	8,471	15.0	13,894	5.4
Southern region	46,317	12,253	26.5	5,232	11.3	7,021	15.2	15,918	6.2
Eastern region	34,169	21,325	62.4	6,926	20.3	14,399	42.1	10,334	4.0
Northern region	117,203	37,391	31.8	14,383	12.2	22,998	19.6	43,392	16.9
Northwestern region	30,657	11,087	36.1	4,794	15.6	6,293	20.5	3,422	1.3
Northeastern region	128,884	54,292	42.1	13,600	10.5	40,692	31.6	26,360	10.3

Source: Ministry of Agriculture

Note: The percentages were calculated with respect to the land area planted before the hurricanes.

a/ Includes capital replacement costs (which in the case of perennial crops will affect various years) but do not include losses in stock or due to reduction of production, thus for this reason these figures do not necessarily coincide with those in table 1.

/sidney

kidney beans and plantains, with which it was hoped to achieve self-sufficiency in 1979. The production increases observed in 1978 as a result of these programmes made it possible to reduce imports of these products to a considerable extent during the present year, particularly with respect to rice and kidney beans.

Export crops, however, had been faced with a number of problems stemming mainly from the prices of these products on the international market. In 1978 production of these crops had already dropped because, among other reasons, certain official measures together with the drop in the international price of sugar encouraged producers to reduce the areas devoted to sugar cane to plant them with other crops that were more likely to provide greater financial benefits.

The principal reason for the drop in coffee production in that year was unexpected rainfall during the flowering period. It is also true that the plantations are now old and that yield is consequently decreasing. In this respect the Ministry of Agriculture had been promoting a medium-term rehabilitation programme.

Principal damages. Forecasts for 1979 harvests of the most important crops were quite encouraging. When David struck the country's coasts, approximately 475,000 hectares had been planted, of which it is estimated that 200,000 (43 per cent of the total) were damaged in some way or another. Of the damaged areas, 81,250 hectares were totally laid waste, consisting principally of plantains, coffee, cacao and rice. (See Table 9.)

Plantain crops were the most affected, since 70 per cent of the area devoted to this crop was totally or partially destroyed. This denotes a serious problem if it is taken into account that this product constitutes one of the principal staples of the Dominican diet. The value of the losses is estimated at 86 million dollars on the basis of the 34,625 planted hectares that were virtually wiped out by the winds.

/Table 9

Table 9

DOMINICAN REPUBLIC: ASSESSMENT OF PHYSICAL AND FINANCIAL DAMAGES TO AGRICULTURE, BY PRINCIPAL PRODUCTS

	Land area planted before hurricanes (ha)	Land area affected						Production lost		Financial losses at farm prices a/ (thousands of dollars)	Percentage structure
		General total		Totally		Partially					
		ha	%	ha	%	ha	%	Quantity	Unit		
Total	475,502	202,239	42.5	84,357	17.7	117,882	24.3	-	-	257,127	100.0
Principal export products b/	240,844	93,711	37.7	16,798	6.9	76,913	30.9	-	-	104,544	40.7
Coffee	154,688	59,901	38.7	10,812	7.0	49,089	31.7	103,221	Quintal	85,917	33.4
Cacao	93,750	33,688	35.9	5,904	6.3	27,784	29.6	82,714	Quintal	18,308	7.2
Tobacco	406	122	30.0	82	20.0		10.0	1,229	Quintal	359	0.1
Principal products for domestic consumption	226,658	108,528	47.9	67,559	29.9	40,969	18.1	-	-	152,583	59.3
Plantains	48,359	34,030	70.3	25,155	52.0	8,875	18.3	1,060,724	Mile	87,693	34.1
Rice	54,396	20,453	37.6	10,422	19.2	10,031	18.4	951,880	Quintal	11,827	4.6
Cassava	19,196	8,201	42.7	5,065	26.4	3,136	16.3	729,681	Quintal	5,026	2.0
Kidney beans	13,774	7,303	53.0	6,372	46.3	931	6.7	113,291	Quintal	3,206	1.2
Corn	17,054	6,333	37.1	4,304	25.2	2,029	11.9	199,193	Quintal	1,284	0.5
Others	73,879	32,298	43.6	16,241	22.0	15,967	21.6	-	-	43,447	16.9

Source: Ministry of Agriculture

Note: The percentages were calculated with respect to the land area planted before the hurricanes.

a/ Includes capital replacement costs (which in the case of perennial crops will affect various years) but do not include losses in stock or due to immobilization of production, thus for this reason these figures do not necessarily coincide with those in table 1.

b/ Excluding sugar.

Because of the high commercial value of coffee and the important position it occupies in the country's foreign trade, the damages to this crop will still have greater repercussions than the damages to the plantain crop, since it will take from three to four years to recover pre-hurricane production levels on the 10,812 hectares of coffee plantations totally destroyed. It is estimated that approximately 120,000 bags of coffee have been lost, equivalent to a value of 86 million dollars at farm prices.[16/] (See Table 10.)

Twenty-eight per cent (5,800 hectares) of the cacao crop was damaged by the rainfall, that is, a loss of 83,000 quintals with a value of 18.4 million dollars. As in the case of coffee, the damage to the cultivated areas, with the inevitable decline in production that this implies, will affect the country's foreign exchange income over the coming years.

When Hurricane David arrived, the 1978/1979 sugar cane harvest had already terminated, and sugar plantations were in a period of initial growth; consequently David's winds caused minimal damage. However, Frederick brought intense rainfall for long periods of time that flooded sugar cane fields to such an extent that it is feared that irreversible damage may have been caused. At the time of drafting this report, the water level had not yet receded, and it was not possible to evaluate the damages to inventories in the sugar mills or to the plantations themselves.

The hurricanes affected 37.6 per cent of the land area devoted to the growing of rice, which implies financial losses of approximately 12 million dollars. Of the total affected area, 10,500 hectares (19 per cent) were totally lost.

As for the remainder of the crops (bananas, pigeon peas, kidney beans, corn, citrus fruits and so forth), damages are estimated at 43 million dollars. However, since the majority of these are annual

16/ Includes the cost of replacing the plantation.

/Table 10

Table 10

DOMINICAN REPUBLIC: CULTIVATED AREAS, VOLUMES AND VALUE OF PRINCIPAL AGRICULTURAL PRODUCTS

(Values in thousands of 1970 dollars)

	1978			1979						1980		
				Normal estimate			Estimate considering hurricane effects			Estimate considering hurricane effects		
	Land area (ha)	Volume (t)	Value	Land area (ha)	Volume (t)	Value	Land area (ha)	Volume (t)	Value	Land area (ha)	Volume (t)	Value
Total			302 312			322 694			240 123			274 998
Principal export products [a]			156 273			164 960			134 927			147 733
Coffee	154 088	37 582	47 590	155 438	40 204	50 919	143 875	32 614	41 299	144 563	35 098	44 445
Cacao	93 750	33 120	82 002	94 688	34 776	86 102	87 875	29 302	72 549	88 750	31 372	77 674
Tobacco	375	41 030	26 681	380	43 608	27 948	320	32 890	21 079	360	39 965	25 614
Principal products for domestic consumption			146 039			157 734			105 196			127 265
Plantains (millions of units)	49 375	868	43 000	51 000	946	47 300	24 250	434	21 700	25 000	439	21 950
Rice [b]	101 500	231 426	59 060	102 000	245 318	62 605	91 063	187 634	47 884	102 500	233 864	59 682
Cassava [b]	24 313	150 512	17 336	24 500	159 528	18 904	19 250	116 932	13 856	24 688	152 812	18 108
Kindey beans [b]	42 938	31 602	19 897	44 188	34 454	21 692	36 563	26 358	16 595	45 500	33 488	21 084
Corn [b]	47 250	50 048	6 246	47 938	57 960	7 233	42 938	41 354	5 161	48 688	51 612	6 441

Source: Ministry of Agriculture.

Note: 1980 yield corresponds to that of 1973.

a/ Excluding sugar.

b/ Losses for these crops are for the 1979 spring-summer cycle and consequently do not reflect the seriousness of the loss in comparison with full-year production.

/crops

crops that may be recovered promptly, except that of citrus fruits, it is hoped that emergency programmes will make it possible to plant in time to ensure production for domestic consumption within a period of four to five months. If this can be accomplished, it will be necessary to import only red beans, a staple element in the Dominican diet, at a cost of approximately 6.5 million dollars.

The principal livestock losses were also recorded in the central region of the country, and are estimated at 8.8 million dollars. This figure does not include losses in poultry raising, an activity which as already mentioned has been virtually eradicated and represents almost 80 per cent of the total losses in this sector. (See Tables 11 and 12.)

According to data from the National Water Resources Institute (INDRHI), irrigation infrastructure suffered damages in excess of 13.4 million dollars. Canals, secondary roads and pumping equipment were destroyed, thereby affecting the productivity of certain crops, such as sugar cane, which is produced in certain areas using techniques, require permanent auxiliary irrigation.

Fishing, a predominantly unmechanized activity, suffered losses in equipment such as launches, motors and nets, in the approximate amount of 645,000 dollars.

In view of the magnitude of the disaster and its special incidence on the agricultural sector, which plays a fundamental role in providing food for the Dominican people and serving as a source of foreign exchange the Ministry of Agriculture is preparing an emergency programme to promote activities to recover available food inventories as rapidly as possible. The Price Stabilization Institute (INESPRE) feels that despite the losses in rice, this grain will not have to be imported during 1979; however, great efforts will have to be made immediately to recover the crop areas lost in order for production to begin before present inventories are depleted. The same is true of other crops, such as kidney beans, pigeon peas and cassava.

As plantains take from seven to nine months to mature, there will undoubtedly be a shortage of this product while the plants are growing.

/Table 11

Table 11

DOMINICAN REPUBLIC: VALUE OF LOSSES IN THE LIVESTOCK SUBSECTOR

(Thousands of dollars)

	Total	Value				
		Animals	Equipment	Corrals	Construction	Inputs
National total	22,149[a/]	3,826	795	422	5,292	814
Southwestern region	408	408	-	-	-	-
Northwestern region	685	242	390	20	15	18
Eastern region	300	50	-	250	-	-
Central region	8,812	2,190	405	150	5,272	795
Northern region	171	171	-	-	-	-
Northeastern region	773	765	-	2	5	1
Southern region	-	-	-	-	-	-

Source: Ministry of Agriculture.

a/ Includes 11 million dollars in other aviculture losses that could not be presented disaggregated.

/Table 12

Table 12

DOMINICAN REPUBLIC: LOSSES IN THE LIVESTOCK SUBSECTOR

	Head						Beehives (number)	Value of livestock (dollars)
	Cattle		Pigs	Goats	Horses	Poultry		
	Meat	Milk						
National total	2,206	2,025	1,692	8,438	517	1,868,636	1,279	3,235,781
Southwestern region	270	270	16	7,710	202	-	7	407,810
Northwestern region	260	267	15	124	7	-	335	242,305
Eastern region	128	36	-	13	12	1,650	223	49,884
Central region	243	558	1,177	355	50	1,817,000	625	2,190,025
Northern region	38	196	20	16	6	7,012	-	170,735
Northeastern region	1,267	698	464	220	240	42,974	89	765,022
Southern region	-	-	-	-	-	-	-	-

Source: Ministry of Agriculture.

/Nevertheless,

Nevertheless, the plantain may be substituted with other products that grow more rapidly, such as the yautía (a kind of taro root) and potatoes.

Chicken and eggs are an important constituent of the Dominican diet. Because of the great damage brought by the hurricanes and its effects on aviculture installations, it will be necessary to import large quantities of poultry products until the domestic market can again be supplied by local production. During the first weeks following the hurricanes, 400,000 pounds of chicken were imported from the United States, thus solving the immediate problem.

Among the irreparable damage that occurred is the ecological damage suffered by the central portion of the country, which was exposed to the hurricane's strongest winds and in which practically all trees were destroyed. There is little doubt that this will have a very close bearing on environmental conditions in the capital city and in the nearby rural areas. Numberless trees were destroyed in Santo Domingo, and the number of coconut palms damaged in rural areas runs into the thousands. In both instances it will take a very long time for the ecological conditions previous to the disaster to be re-established, and the quality of life of the population would consequently be affected.

6. Industry, commerce and tourism

Under a signee heading this chapter assesses the damages to the principal non-agricultural sectors for which quantitative information was available. Generally speaking, three types of damage may be considered: (a) damage to buildings, installations and equipment; (b) damage to stocks, and (c) damage to production. It was not possible to define precisely the effects of damages to the physical and services infrastructrre on transportation and communications activities, nor was it possible to estimate damages to the mining sector, in which water shortages occurred for a few days, or to other service activities, such as restaurants.[17/]

(a) Industries

Available estimates on damages to the industrial sector vary widely depending on their source. It should be recalled that approximately 80 per cent of the installed capacity of this sector is located between the capital city and San Cristóbal, precisely one of the areas hardest hit by the hurricanes, and also the province of Santiago. However, it appears that a substantial part of the biggest companies were covered by insurance against risks of this nature. On the contrary the great majority of medium size and small enterprises were not insured.

In the Dominican Republic there are some 1,200 industrial establishments employing - with the exception of the sugar mills - some 40,000 people. Some 200 of these establishments suffered some kind of damage,[18/] Destruction was also considerable in San Cristóbal. Damages occurred in various industries, particularly in coffee and rice-processing plants and - to an as yet unknown extent - in the sugar mills.

17/ In estimating the behaviour of the gross national product for 1979, which is presented in Chapter III, Section 3, an appraisal is nevertheless included of the damages to the productive capacity of the economic sectors as a whole.

18/ In the industrial zone of Herrera in Santo Domingo about 140 industries with a capital of 80 million dollars are located. Among them 32 were damaged at an estimated value of 4 million dollars, half of which were lost in inventories (newspaper El Caribe, September 28, 1979).

/Rough

Rough estimates made by the CEPAL mission fix the losses in industrial installations, including damages to buildings - particularly roofing - machinery and equipment, at some 50 million dollars. Losses in relatively plentiful stocks of raw materials and finished products were assessed at some 35 million dollars.[19/]

The most acute problem faced by industry since the disaster is the lack or irregularity of the supply of electric power, fuels and water. The paralyzation of industry would have assumed still greater proportions if some of the companies did not possess their own energy plants.[20/]

As mentioned previously, at the time of drafting this report the crude oil intake system in Santo Domingo for the refinery had broken down; this has caused very serious problems in distributing raw materials and merchandise and is consequently slowing down recovery of the industrial sector.

Furthermore, it is estimated that the sector will fail to produce goods during the months of September and October at a value of more than 50 million dollars. Consequently, the gross industrial product, which before the disaster was expected to grow by 5.7 per cent, will on the contrary show a decline of a magnitude not possible to determine yet, for the entire year.

Appropriate measures are being taken with the Insurance Supervision Agency and the Chamber of Underwriters, in conjunction with the Central Bank,[21/] in order for the latter to be able to collect the external

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19/ As usually occurs in the Dominican Republic, stock levels are high in the months of August and September, since factories accumulate production in preparation for the Christmas season.

20/ A 1975 legal provision granted industry facilities and exemptions in importing equipment to generate energy.

21/ See the public declaration of the Minister of Finances of 17 September 1979 published in Listin Diario of 18 September 1979.

/reinsurance

reinsurance on hurricanes for Dominican entrepreneurs and private parties. The amount of such insurance is estimated at some 100 million dollars, of which approximately half could be paid before the end of the year.

In addition, on 30 September the Monetary Board approved the issue and negotiation of 40,600 "Hurricane David Emergency Bonds, series 1995" in the amount of 50 million dollars under the provisions of Law No. 52 of September 1979. These bonds will be used to set up an Industrial Rehabilitation Fund as a means of speeding up economic recovery.[22/] This issue will be backed up by one international emergency loan.

Industry is further being estimulated by the Investment Fund for Economic Development (FIDE), which operates within the Central Bank. Law No. 299 on Industrial Incentives is also being amended, since the government estimates that it did not fully comply with the objectives for which it had been formulated owing to its failure to increase employment significantly and to give preference to the use of domestic raw materials, and to a certain extent by encouraging idle capacity and by not favouring the development of export industries.

(b) Commerce

The commercial sector exercises a great influence on the Dominican economy through its contribution of 15 per cent of the gross national product. More than 26,000 establishments exist throughout the country providing employment to more than 140,000 people. Damages to this sector were considerable, caused essentially by the torrential rains, which in some cases caused two meters of flooding in commercial establishments. Damages were less in Santo Domingo but very severe in the cities and towns of Santiago, San Pedro de Macorís, Haina, San Cristóbal, Baní, Azua, Barahona, San Juan, Sánchez, Nagua and San José de Ocoa. According to information provided by the 1978 Commercial Census, these towns account for 7,100 commercial establishments.

22/ See Regulation No. 1100 of 19 September 1979.

/On the

On the whole it is estimated that damages to this sector could amount to some 20 million dollars, of which three quarters would derive from destruction of inventories and the remainder from damages to buildings and installations.[23/] It should be mentioned here that no looting took place. Because of the closing of the affected establishments - which has extended to two or three weeks - and, to a lesser degree, because of the new channels of free distribution set up immediately after the disaster, officials from the Federation of Businessmen estimated that sales for the month of September for the entire sector would be 30 per cent lower than sales in the same month the previous year.

(c) Tourism

Tourism has expanded notably with respect to its installed capacity as a result of the Law on Incentives to Tourism promulgated in June 1971, and in the past five years this installed capacity had even surpassed the demands deriving from the gradual increase in tourist activities. Nevertheless, it is anticipated that capacity and demand will soon be equated, and consequently new projects for hotels are being studied.

Tourism demonstrated dynamic growth in 1978, and it is estimated that between January and August 1979 it generated income 24 per cent higher than in the same period the previous year.

The Ministry of Tourism, based on information received from insurance companies and its own investigations, estimated the following losses: of a total of 2,185 hotel rooms in the capital city, 716 were damaged at a value of 3.6 million dollars; damages to public and service areas of hotels, such as restaurants and laundries, were estimated at 5 million dollars.

23/ Based on the Commercial Census of 1978, it is estimated that average inventories per establishment amounted to some 30,000 dollars at 1979 prices.

/In addition

In addition, it is estimated that the drop in hotel income during the two months following the disaster will amount to some 3 million dollars.

The Ministry of Tourism is negotiating - with good chances of success - a special line of credit with the public banking system in the amount of 2.5 million dollars for hotel reconstruction.

Lastly, judging from confirmed reservations from abroad, rapid recovery of these activities is expected in the last quarter of the year, the peak tourist season.

7. First actions taken by the Government of the Dominican Republic and participation of the international community

As Hurricane Frederick arrived in the Dominican Republic before the effects of Hurricane David had terminated, the government was compelled to take a number of emergency measures aimed principally at providing assistance to victims and to the refugees in improvised shelters in Santo Domingo and the principal cities in the country. These measures turned out to be timely and efficacious.

Food distribution was initiated under the auspices of National Defence. Between 13 and 19 September more than 1.2 million people received approximately 7.8 million pounds of food provided by the donations of various countries and international organizations. In addition, in the same period of time 280,000 meals were served in the various shelters in the capital city under the auspices of the Civil Action Corps of the Armed Forces.

Since the southern part of the country was the most affected, distribution of food there amounted to 54 per cent of the total. This was followed by the National District, with 22 per cent, and the northern and eastern areas.

Civil Defence began its organization before the arrival of Hurricane David, since the hurricane watch systems made it possible to know when the storm would hit the coasts of the Dominican Republic. Days before, with the assistance of the armed forces and the national police, a communications network had been set up to cover the entire country as a means of providing information on the progress and characteristics of the hurricane and on the precautionary measures to be taken to avoid greater physical damage to the population. These measures were surely instrumental in reducing losses in human lives, although in any event, according to the most authoritative estimates, such losses still amounted to approximately 2,000.

During this preparatory stage, all those inhabiting precarious dwellings and neighbourhoods exposed to the direct force of the

hurricane's winds were evacuated to provisional shelters set up in schools, churches and other public buildings, where they remained until the winds had subsided. The same measures were taken in provincial settlements, since most of the rural population lives in wooden shacks covered with zinc roofs and was obviously exposed to great danger.

Once the hurricane was over, rescue activities commenced, and specialized civilian and military brigades were formed that used all public and private transportation available to carry food and medicine to the affected rural areas and previously prepared shelters. At the same time a massive vaccination campaign was undertaken to prevent the outbreak of epidemics.

In the city of Santo Domingo the great number of fallen trees prevented the circulation of vehicles during the first hours after the hurricane until the government of the National District, with the assistance of the armed forces and whatever equipment was available, organized the removal of the trees and other débris. The local citizenry also assisted in clearing the streets by cutting branches and trees with hatchets and other rudimentary tools. In falling, many of the trees tore down electrical and telephone installations, with the corresponding effects.

The Ministry of Public Health and Social Welfare, in conjunction with Civil Defence and Red Cross personnel, took charge of sanitary measures. The city of Santo Domingo was left almost one week without water, and even by 20 September large areas had still not been supplied with this service. Since medicines had been stocked before the hurricane, the population's most urgent needs were able to be satisfied, and efficient and well-organized service prevented the outbreak of any epidemics.

The difficulties in distributing food and medicine to the victims were essentially derived from the rains brought by Hurricane Frederick, which caused flooding throughout the country and interrupted the transit of vehicles on highways because of the destruction of bridges and secondary roads. For the same reasons the fleet of helicopters that

/assisted

assisted in transporting foodstuffs could not complete many of their scheduled flights, particularly to the most affected areas where the assistance was most needed.

Even though highway traffic has not been completely re-established because in some regions the water has still not receded, food distribution is now being carried out regularly by helicopter and is interrupted only when flying conditions are unfavourable.

Immediately after the hurricane, the government, upon the suggestion of the Ministry of Foreign Affairs, set up a Co-ordination Office for International Assistance (OCAI), presided over by an Undersecretary and assisted by the Technical Secretariat of the Office of the President. This office is responsible for distributing the assistance received from various governments and for negotiating for the supplies required to attend to the population's most urgent needs. The office consists of two departments, one responsible for relations with governments, and the other, with international organizations.

Material aid was forthcoming immediately from the international community, and remittances from various countries, principally the Latin American countries, began to arrive daily at the Aeropuerto de las Américas in Santo Domingo.

Countless international organizations specializing in food distribution, such as the World Food Programme, CARE, FAO, WHO, PAHO, and UNICEF, and international civilian organizations, such as the International Red Cross, Catholic Relief Services, Church World Services, Peace Corp and Baptist Relief Services, sent food to the country almost from the beginning of the state of emergency, and personnel from these institutions immediately joined forces with national brigades in the tasks of distribution and assistance. One week after the hurricanes, supply to victimized areas was considered to be operating efficiently, and most of those who had been evacuated to shelters were returning to their places of origin.

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In order to establish control over remittances, the government assigned the armed forces the responsibility of receiving, classyfing and supervising the quantities received, a task they have carried out in an efficient and orderly manner. In several cases army brigades have assisted the Ministry of Public Works in provisionally repairing bridges and secondary roads to speed up food distribution.