# Food and Agriculture Organization of the United Nations FAO

Analysis of the Medium-term Effects of Hurricane Mitch on Food Security in Central America

November 2001.

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# **Acronyms and Abbreviations**

CNE: Honduras National Emergency Commission
COEN: El Salvador National Emergency Committee

**CONRED:** Guatemala National Office for the Coordination of Disaster Relief

**COPECO:** Honduras Permanent Emergency Committee

**CPI:** Consumer Price Index

**ECLAC:** Economic Commission for Latin America and the Caribbean

**ENSO:** El-Niño Southern Oscillation

**FAO:** Food and Agriculture Organization of the United Nations

GDP: Gross Domestic Product
HDI: Human Development Index

**HIPC:** Heavily Indebted Poor Countries Initiative of the IMF

IDA: International Development Association IDB: Inter-American Development Bank

IFAD: International Fund for Agricultural Development IIAC: Inter-American Institute for Agricultural Cooperation

**IMF:** International Monetary Fund

INCAP: International Organization for Migration
JICA: Japan International Cooperative Agency

**Kcal:** Kilocalorie **Kg:** Kilogram

MAG: El Salvador Ministry of Agriculture MAGA: Guatemala Ministry of Agriculture

**MAGFOR:** Nicaragua Ministry of Agriculture and Forestry

**NEMO:** Belize National Emergency Management Organization

N/a: Not available

**NGO:** Non-Governmental Organization

**OIRSA:** Regional International Organization for Plant Protection and

**Animal Health** 

**PAHO:** Pan-American Health Organization

**PL-480:** US Public Law 480

**SICA:** Central American Integration System

**SICIAV:** Food Insecurity and Vulnerability Information and Mapping

System (FIVIMS)

**SIECA:** Permanent Secretariat of the General Treaty on Central

American Economic Integration

**TONNE:** Metric ton

**UNDP:** United Nations Development Programme

**USAID:** United States Agency for International Development

**USDA:** United States Department of Agriculture

**US\$:** United States Dollar

WB: World Bank

**WFP:** World Food Programme of the United Nations

**Conversion tables:** 

1 lb. = 453.59 g. 1 Tm = 1000 kg. 1 kilo = 2.2 05 lb 1 Tm = 22.05 qq.

 $1 qq = 100 lb ilde{o} 46 kilos.$ 

1 ha. = 1.42 manzanas 1 mz, = 0.7 hectáreas

#### I. INTRODUCTION

Central America is well known to be a region vulnerable to natural disasters, whether hurricanes, droughts or earthquakes. During the final week of October 1998, Hurricane Mitch – arguably the worst natural disaster of the 20<sup>th</sup> Century – hit five of the region's six countries (Costa Rica is not included in this study), and Honduras and Nicaragua in particular. Its devastating force reached category 5 on the Saffir-Simpson scale. The hurricane brought sustained winds of 288 km/h and gusts of up to 340 km/h.<sup>1</sup>

Hurricane Mitch hit a region that was just recovering from the effects of the El-Niño Southern Oscillation (ENSO), with its formidable droughts, forest fires and floods. Moreover, it struck the region at a time when global economic growth had been forecast at 3 percent and annual growth for five of the six countries (including Belize) had been forecast at above four percent.

The destructive economic effects were considerable. According to data from ECLAC,<sup>2</sup> the damage totalled US\$6 018 million, equivalent to 12.3 percent of the Regional Gross Domestic Product, 42 percent of exports, 67 percent of gross fixed investments and 34.3 percent of the countries' External Debt (excluding Belize).

The hurricane brought renewed distress to the people of Central America, who had only recently begun to enjoy peace, following a period marked by armed conflict and the presence of military forces in the rural areas of four of the five countries affected by Mitch.

The destruction was especially significant among the rural population of small producers of basic grains (maize, beans and rice), because this sector of the population lives and farms on alluvial lands, floodplains and hillsides with poor soil and limited soil-management or soil-conservation systems.

The impact of Hurricane Mitch highlighted a fact that other meteorological phenomena had shown in the past, albeit with less force: despite the fact that it is naturally located in the path of storms and hurricanes, the Central American region suffers from a lack of systems for prevention, early warning, relief and rehabilitation following the passage of these cyclonic events. Added to this, there is the considerable vulnerability of the population – especially those living in rural areas and outlying city districts, and in the marginal districts of the major cities of Central America.

Food insecurity is intensified and exacerbated during the months following a disaster, and national response capacities are very limited and poor in content, even though international aid agencies have always done everything possible to relieve food shortages among the population at risk. This situation once again highlights the need to consider how national and local capacities can be improved and strengthened, so

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<sup>&</sup>lt;sup>1</sup> National Hurricane Centre, US NOAA, 1998. (See classification of tropical cyclones, provided as Annex.)

<sup>&</sup>lt;sup>2</sup> Economic Commission for Latin America and the Caribbean.

as to provide an immediate response to emergency situations. That response must be provided in particular by union organizations and civil society, together with governments, as the institutions responsible for creating the necessary conditions for attending to the needs of people afflicted by disasters.

The difficulties involved in restoring production immediately after these events are obvious. It is quite clear that we must address those difficulties and prepare a medium-term strategy designed to ensure that producers can resume their productive activities, especially when soils have suffered severe damage and equipment and tools for basic farming and weed control have been lost.

#### II. AGROSOCIOECONOMIC DATA

# 1. Geographical context

The Central American region is located between the two great continental blocks that make up North and South America, on a narrow isthmus that comprises seven nations: Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama, which together make up the Central American Isthmus.

These countries occupy a surface area of 522 418 km². Nicaragua is the largest country, with 129 494 km² (corresponding to 24.8 percent of the total area), followed by Honduras, with 111 888 km² (21.4 percent); and Guatemala, with 108 889 km² (20.8 percent). These three countries account for 67 percent of the region's total surface area. El Salvador is the smallest country, with 21 040 km², equivalent to four 4 percent of regional territory. See Table 1 and Chart 1, below.

Distribution of land in Central America

Panama
15%
Guatemala
21%

Licaragua
25%
Honduras
21%

Chart 1

Table 1
Surface areas of countries of Central America

Country	km²
Belize	22 965
Guatemala	108 889
El Salvador	21 040
Honduras	111 888
Nicaragua	129 494
Costa Rica	51 060
Panama	77 082
Total	522 418

Source: Central American Integration System (SICA)

Geologically, the region is quite unique, since it marks the meeting-point of six tectonic plates, which are highly active and mobile - especially the Coco and Caribbean plates. This affects the coast of the Central American Pacific Ocean in particular, causing violent earthquakes in all countries in the region, and total damage of more than US\$15 000 million. Recently, during the months of January and February 2001, El Salvador was shaken by two violent earthquakes and innumerable aftershocks, which left at least 1 100 people dead, destroyed 155 000 homes and damaged a further 145 711 homes, affecting some 1.5 million people<sup>3</sup>.

Geographically, the Central American region is composed of high mountains and volcanoes (27 of which are active in the coastal region of the Pacific Ocean, in a "line of fire" less than 500 km long), intra-mountain valleys and alluvial and coastal plains.

Due to its location in the Caribbean basin, the region is susceptible to the impact of hurricanes, with Honduras and Nicaragua the most prone to penetration, with a 36 percent<sup>4</sup> chance and, specifically, the Atlantic coasts of both countries, primarily inhabited by indigenous populations living in rustic wooden homes with straw roofs. The population exposed to this type of risk is estimated, for the whole of Central America, at approximately 8.4 million people (26 percent of the region's total population).<sup>5</sup> Panama is the country least vulnerable to hurricanes, because of its geography.

It should also be noted that there is a soil-preparation practice widespread throughout the region, according to which stubble and bush fires are set in planting areas, causing uncontrollable, violent forest fires in all countries of the region. This cultural practice, coupled with the gradual expansion of farming land by formerly landless rural workers, is destroying the forest at the rate of about 388 000 hectares per year.<sup>6</sup>

<sup>4</sup> Analysis of Risks and Vulnerability in Central America and Mexico, OXFAM, July 1999.

<sup>&</sup>lt;sup>3</sup> World Food Programme damage estimates, March 2001.

<sup>&</sup>lt;sup>5</sup> Analysis of Risks and Vulnerability in Central America and Mexico, OXFAM, July 1999.

<sup>&</sup>lt;sup>6</sup> Strategic Plan for the Development and Social Integration of Central America to the year 2020 and Strategies and Lines of Action to 2010, SICA, September 2000.

#### 2. Basic macroeconomic data

#### a. Trends in Gross Domestic Product

The Central American countries affected by the hurricane show declining trends in the overall structure of their Gross Domestic Product (GDP), due to the impact of Hurricane Mitch on primary activity. Within that overall structure, the biggest impact has been seen in the agriculture and fishing sectors, and their opportunities for productive exploitation in seas, rivers and in aquaculture.

While this was occurring in the Central American region, the GDP of Latin America was growing at a rate of 0.3 percent. <sup>7</sup> This growth was especially marked in countries close to Central America, such as Mexico, Panama, Colombia and the Dominican Republic, where 1999 GDP growth was 3.4 percent, 2.8 percent, -5.5 percent and 7.0 percent respectively. The growth registered in the Dominican Republic is significant, because in September 1998 it was rocked by Hurricane George, which reached category 4 on the Saffir-Simpson Scale, and was regarded as the second most-destructive hurricane of the season. In Costa Rica, a country with considerable economic influence in the region, and which sustained a low level of damage from Hurricane Mitch, GDP grew 7.5 percent.<sup>8</sup>

All countries in the region, without exception, show falls in primary activity, with the global average for the region before hurricane Mitch being 21.2 percent. At the end of 2000 the average of this activity decreased to 17.8 percent, i.e 3.4% less than the year prior to the hurricane (see Table 2). The country showing the biggest drop was Honduras, with a 11.5 percent fall between 1997 and 2000, followed by Guatemala and Belize, with a drop of one percentage point over the same period. El Salvador and Nicaragua show the increasing importance of the primary GDP during the last year. As a result of reconstruction activity in the region, secondary and tertiary activities showed slight growth, rising 1.9 percent and 1.5 percent respectively. Only Nicaragua recorded a decline in tertiary activity over the same period.

Primary activity accounts for approximately 20 percent of GDP. El Salvador, Honduras and Belize are the countries least dependent on this activity, with GDP percentages in the year 2000 for primary activity of 10.1 percent, 13.5 percent and 19.3 percent respectively. In the remaining countries affected, the primary sector accounts for more than 23 percentage points. The percentage GDP weighting is highest in Nicaragua, at 29.5 percent over the last three years, and Guatemala's at 29.5 percent, and Guatemala's at 23.4 percent (see also Annex 3).

It should be noted that tertiary activity, which includes the trade and services sectors, accounts for very close to 60 percent of GDP in the economies of the nations affected. Secondary activity, which comprises factory industries, construction and mining, makes up more than 20 percent. It is in El Salvador that the tertiary sector accounts for the highest percentage GDP weighting, with an average of 72.8 percent over the last three years. Over the last year (2000), that percentage decreased to 61.7 percent, which enabled an increase of 28.2 and 10.1 percent, respectively.

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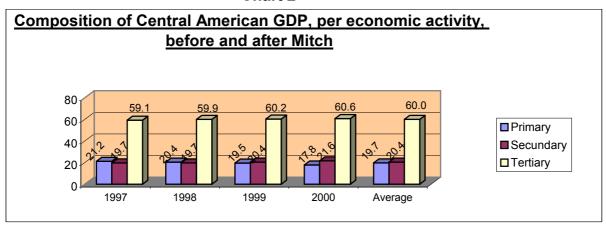
<sup>&</sup>lt;sup>7</sup> Inter-American Development Bank (IDB) estimates, January 2000.

<sup>&</sup>lt;sup>8</sup> GDP forecasts for the countries of Latin America, ECLAC, January 2000.

Table 2
GDP structure of countries affected by Hurricane Mitch (%)

	YEAR		Activity	WIICH (70)	
Country		Primary	Secondary	Tertiary	Total
	1997	19.9	20.1	60.0	100
Belize	1998	19.1	19.6	61.3	100
	1999	18.9	19.8	61.3	100
	2000	N/d	N/d	N/d	N/d
	Average	19.3	19.8	60.9	100
	1997	23.7	16.6	59.7	100
Guatemala	1998	23.4	16.5	60.1	100
	1999	23.1	16.5	60.4	100
	2000	22.9	15.7	61.4	100
	Average	23.2	16.5	60.2	100
	1997	8.7	16.1	75.2	100
El Salvador	1998	7.5	16.1	76.4	100
	1999	5.7	16.3	78.0	100
	2000	10.1	28.2	61.7	100
	Average	8.0	<u>19.2</u>	<u>72.8</u>	100
	1997	25.0	19.0	56.0	100
Honduras	1998	23.6	19.2	57.2	100
	1999	21.9	20.4	57.6	100
	2000	13.5	23.3	63.2	100
	Average	<u>21.0</u>	<u>20.5</u>	<u>58.5</u>	100
	1997	28.5	26.7	44.8	100
Nicaragua	1998	28.3	27.0	44.7	100
	1999	27.8	28.8	43.5	100
	2000	29.5	27.9	42.6	100
	Average	<u>28.6</u>	<u>27.6</u>	<u>43.8</u>	100
	1997	21.2	19.7	59.1	100
Overall	1998	20.4	19.7	59.9	100
Average	1999	19.5	20.4	60.2	100
	2000	17.8	21.6	60.6	100
	Average	<u>19.7</u>	<u>20.4</u>	<u>59.9</u>	100

Source: Central Banks Chart 2



It is also important to note that, in general, the region has recently experienced frequent highs and lows in its farming-production trends, reflected most strikingly in food-production shortages. In production of traditional export crops, however, the lows appear more significant in the coffee sector, which has an uncertain future in the region, especially among small and medium producers, due to the dramatic declines seen in world prices and the increase in export supply from Asian countries, which recently joined this sector. As a result, in the immediate future, the value of regional exports in this sector is expected to fall by more than 50 percent.

The impact of Hurricane Mitch has also accentuated the decline in productive capacity in the coffee-growing sector, which is heavily in debt and in search of productive alternatives that might enable growers, over the medium term, to break with a monoculture activity dating back more than a century. This will undoubtedly have an impact on the region - especially on domestic incomes deriving from this activity and, more particularly, on the large quantity of labour associated with this crop.

The countries concerned did not conduct an effective assessment of the direct implications of Hurricane Mitch on regional GDP during the year following the hurricane. There continues to be a tendency among institutions to neglect the required follow-up to such disasters over the medium term. The region is undergoing an integration process with the world economy (mundialization and globalization) for example in signing the free trade acts and the creation of tax free zones. The decrease in food production may be a result of the new economic context, but the effects of the hurricane could have accentuated this decrease.

# b. Impact on inflation

Contrary to what one might expect, after a meteorological event of such magnitude, inflation in the region continued to trend downwards, leading, in some countries, to a deflationary process. This was the case in Belize and El Salvador, which recorded a combined fall in inflation of 2.7 percentage points, however the economic reactivation during 2000 was not sufficient and the external assistance received was not as hoped thus as a consequence the inflation increased by 1.4 and 4.3 respectively. Only Nicaragua recorded in 1998 a growth of 2.7 percent, although subsequently, it managed to control inflation and approach the average recorded before the Hurricane, as shown below.

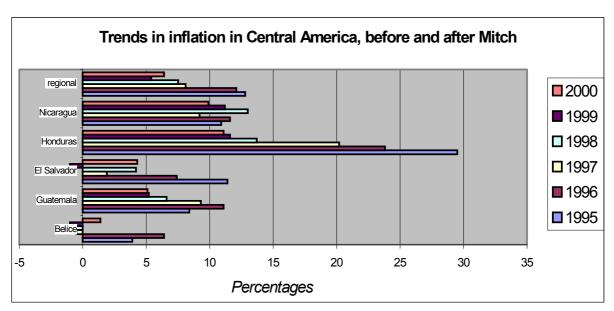
Including the results for the year 2000, the average inflation rate over the past six years for the countries involved is 8.7 percent. The countries with the greatest degree of control over this economic indicator are Belize, El Salvador and Guatemala, with percentages of 1.6 percent, 4.7 percent and 7.6 percent, respectively, over the indicated period. During the same period inflation in Honduras and Nicaragua decreased.

Table 3
Inflation rates in countries affected by Hurricane Mitch

Year	Belize	Guatemala	El Salvador	Honduras	Nicaragua	Regional Inflation						
<b>—</b>												
1995	3.9	8.4	11.4	29.5	10.9	12.8						
1996	6.4	11.1	7.4	23.8	11.6	12.1						
1997	-0.5	9.3	1.9	20.2	9.2	8.1						
1998	-0.9	6.6	4.2	13.7	13.0	7.5						
1999	-1.0	5.2	-1.0	11.6	11.2	5.4						
2000**	1.4	5,1	4,3	11.1	9,9	6.4						
Average	1.6	7.6	4.7	18.3	10.9	8.7						

Source: Central Banks; \*\* Preliminary figures

Chart 3



#### c. Trade balances before and after Hurricane Mitch

The economic situations of Central American nations, as reflected in their respective trade balances, are universally negative, as shown in Table 4, below. The deficit among all countries concerned increased after Mitch, from 50.3 percent to 74.5 percent, based on the total deficit of the balance on exportation between the years 1997 and 2000. This is equivalent to an annual sum of US\$6 191.6 million, which is directly absorbed by three countries: Guatemala, with US\$2 177.0 million; El Salvador, with US\$ 2 032.0 million; and Nicaragua, with US\$1 002.6 million. Together, these three nations have a deficit of US\$5 211.6 million, which is equivalent to 84.2 percent of the total deficit. See annex N°2

The country experiencing the biggest difficulties with its trade balance is Nicaragua, whose balance has been rising at a disturbing rate. Between 1997 and 2000, the difference between exports and imports rose by around 155 percent, whereas the

other countries recorded percentages of 83.6 percent (Belize); 80.4percent (Guatemala); 68.4percent (El Salvador); and 49.4 percent (Honduras).

Table 4
Trade balances of countries affected by Hurricane Mitch

Country VEAR Millions of dollars											
Country	YEAR	,	Millions of dollars								
		Imports	Exports	Balance							
	1997	288.1	199.9	-88.2							
Belize	1998	296.4	194.4	-102.0							
	1999	369.8	201.4	-168.4							
	2000	N/d	N/d	N/d							
	Average	318.1	198.6	-119.5							
	1997	3 851.9	2 390.6	-1 461.3							
Guatemala	1998	4 650.9	2 561.9	-2 089.0							
	1999	4 560.0	2 492.8	-2 067.2							
	2000	4.885.3	2.708.5	-2.177.0							
	Average	4 487.0	2 538.5	-1 948.6							
El	1997	3 766.5	2 440.0	-1 326.5							
Salvador	1998	3 991.0	2 455.1	-1 535.9							
	1999	4 108.0	2 511.9	-1 596.1							
	2000	5 001.0	2 969.0	-2 032.0							
	Average	4.216.6	2 594.0	-1 622.6							
	1997	2 705.6	2 211.0	-494.6							
Honduras	1998	3 060.6	2 529.0	-531.6							
	1999	3 284.2	2 383.0	-901.2							
	2000	2 964.0	1 984.0	-980.0							
	Average	3 003.6	2 277.1	-726.5							
	1997	1 329.3	703.4	-625.9							
Nicaragua	1998	1 383.6	573.2	-810.4							
	1999	1 683.2	543.8	-1 139.4							
	2000	1 647.7	645.1	-1 002.6							
	Average	1 5511.0	597.0	914.0							
Total	1997	11 941.4	7 944.9	-3 996.5							
Commercial	1998	13 382.5	8 313.6	-5 068.9							
trade	1999	14 005.2	8 132.9	-5 872.3							
balance	2000	14.498.0	8.306.5	6.191.6							
deficit	Total	53 827.1	32 697.9	-21 129.3							
Total	1997	2 388.3	1 589.0	-799.3							
annual	1998	2 676.5	1 662.7	-1 013.8							
average	1999	2 801.0	1 626.6	-1 174.5							
	2000	3 364.2	2 038.9	-1 325.3							
	Average	2 807.5	1 729.3	-1 078.2							

Source: Central Banks

For the past four years, the total deficit was US\$21 129.3 million. This figure is derived from the deficits resulting from average imports (US\$ 2 807.5 million per annum) and exports (US\$ 1 729.3 million per annum). Average annual deficits per country are thus estimated to be approximately US\$1 078.2 million per annum.

In all countries concerned, imports have risen since Hurricane Mitch. The most notable increases have been achieved by El Salvador, Guatemala, Belize, and Nicaragua, with rises of 32.8 percent, 26 percent, 24.8 and 24 percent, respectively. For Honduras the percentages is 9.6 percent. Exports, on the other hand, have recuperated since the hurricane. Overall, they have increased by 5.6 percent on a global scale since 2000, and only Honduras, the country most affected, has recorded a decrease during the period since the hurricane and has recorded a decline in export, with falls of 10.3 percent when compared to the year prior to Mitch.

Central America's trade balance

US\$ millions

15,000
10,000
5,000
5,000
1999
1999
12000
Imports Exports Deficit

Chart 4

# d. Employment

According to official figures provided by Central Banks of the nations affected by the hurricane, 30 percent of the population is unemployed. And yet, the underemployment situation in both urban and rural areas suggests (and the various organizations of civil society have indicated as much) that this percentage may be slightly higher than, or equal to 50 percent of the economically active population in the region. This is equivalent to around 15 million people of working age.

Table 5 Unemployment rates, 1994 - 2000 (%)

Year	Belize	Guatemala	El Salvador	Honduras	Nicaragua	Average
1994	14.6	47.6	40.9	29.2	29.3	32.3
1995	19.2	46.1	39.7	30.1	28.7	32.8
1996	22.8	45.9	38.6	28.8	27.6	32.7
1997	21.7	44.6	38.0	29.0	26.5	32.0
1998	23.7	43.6	38.8	28.2	24.8	31.8
1999	22.0	46.0	35.1	29.3	23.0	31.1
Average	20.7	45.6	38.5	29.1	26.7	30.6

N/a: Not available; Source: Central Banks

As illustrated in Table 5, the country with the lowest unemployment rate is Belize, where the average unemployment rate for the past six years is 20.7 percent. On the

other end of the scale, Guatemala has the highest rate (45.6 percent), comprising mostly indigenous people, who have been finding it extremely hard to reintegrate themselves into civilian life, since the country's tragic internal conflict, which lasted more than 30 years, finally came to an end.

Rates in the remaining nations have trended downwards since the hurricane, with the exception of Honduras, which in 1999 recorded a slight increase in its unemployment rate, of 1.1 percent. Unemployment in El Salvador was exacerbated by the earthquakes that shook the country. It is expected, however, that the programme for the reconstruction of homes and roads and the restoration of productive activities will alleviate the desperate conditions in which the people are living.

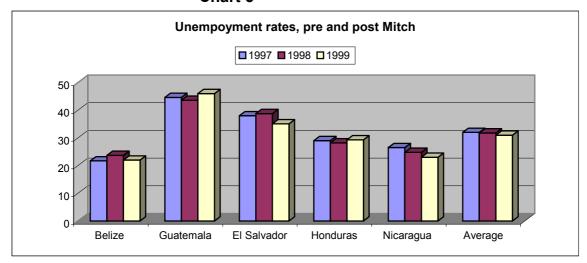


Chart 5

# III. AVAILABILITY OF BASIC FOODS

# 1. Impact of Hurricane Mitch

The region's productive sectors were those that sustained the greatest damage as a result of Hurricane Mitch. In those sectors, the impact (including both direct and indirect damage) accounted for 65 percent (US\$3 907 million) of total damage (US\$6 018 million). Farming and forestry production together accounted for 49 percent of that 65 percent. The infrastructure sector sustained 21 percent (US\$1 246 million) of total damage, with roads, bridges and railways (18 percent) being hardest hit. Social sectors sustained total damage of around US\$799 million (13 percent of the total), with damage to homes making up the highest proportion of that total, at 10 percent. Lastly, damage to the environment amounted to US\$67 million, or 1 percent of all damage sustained as a result of the hurricane<sup>9</sup>.

As far as the human cost is concerned, it was reported that around 18 385 people had died, 12 842 people had been injured and approximately 3 464 662 others had been directly affected by the hurricane (see Table 6). This is equivalent to 11 percent of the region's total population. This volume of damage clearly illustrates the

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<sup>9</sup> ECLAC

<sup>&</sup>lt;sup>10</sup> Central American Integration System (SICA).

vulnerability of the region. Added to this, there were the serious interruptions to transport and communications which, during the first week of the hurricane, threatened the food security of the major portion of the region's population directly affected by the hurricane, as well as (to a lesser degree) that of the remaining 28.3 million inhabitants.

Table 6
Population affected by Hurricane Mitch in Central America

Category	Belize	Guatemala	El Salvador	Honduras	Nicaragua	Costa Rica	Total
Dead	N/a	268	240	5 657	3 045	4	9 214
Missing		121	19	8 058	970	3	9 171
Total deaths	N/a	389	259	13 715	4 015	7	18 385
Population directly affected	N/a	730 000	346 910	1 500 000	867 752	20 000	3 464 662

N/a: Not available; Source ECLAC

The greatest damage was inflicted on Honduras, where the hurricane's strongest winds and rains and were concentrated, and where the hurricane stayed for the longest period during its passage through the region. Nicaragua was the next hardest-hit, followed by Guatemala, El Salvador, Belize and Costa Rica, in descending order. Costa Rica is not included in this study, because it sustained a relatively minor amount of damage.

In terms of the number of deaths and the total damage, the impact of Hurricane Mitch was greater than that of Hurricane Fifi which, in 1974, left 8 000 people dead and caused damage of around US\$540 million, with Honduras the hardest-hit country.

Although the hurricane inflicted the greatest damage on the rural population, it also affected major segments of the urban population living along the banks of small rivers and on the slopes of outlying hills. With the intense rains, those rivers swelled into violent flows of water that inundated and destroyed the scant housing and productive infrastructure of the local inhabitants, whose marginal status also makes them constantly vulnerable to landslides when intense rains occur, due to deforestation and the absence of systems for the conservation of hillsides and soils in general.

Hurricane Mitch therefore highlighted the vulnerability of Central American countries to such disasters and the paucity of preventive and relief actions put in place to deal with them.

# 2. Damage inflicted on the farming sector by Hurricane Mitch

It should be noted that 65 percent of region comprises hydrographic basins, which have been damaged as a result of deterioration due to deforestation, forest fires, the lack of conservation systems in hillside agriculture and the effects of cyclonic events such as Hurricane Mitch, which demonstrate the region's considerable vulnerability to natural phenomena - especially hurricanes and tropical storms.

These basins have been significantly altered, and this had the effect of exacerbating the damage caused by Hurricane Mitch. Another contributing factor was the gradual incursion of farmland, which prevents the soil from absorbing the rains adequately especially in humid regions.

A summary of damage caused by the hurricane in the primary sector of the economy is given in Table 7, which shows that direct sectoral damage was around US\$1 445.4 million. Of that total, 80 percent (US\$1 159.1 million) occurred in the agriculture sector. In livestock, the impact was equivalent to around US\$151.2 million (10 percent of the total), while fisheries accounted for the remaining 10 percent of the damage (US\$151.2 million).

Table 7
Direct damage inflicted on farming sector by Hurricane Mitch (US\$ millions)

Activity	Belize	Guatemala	ΕI	Salvador I	Hon	nduras	Nicaragua	Costa Rica	Panama	Total
1. Agriculture:	N/a	242.	0	50	0.5	754.3	82.5	23.9	5.9	1 159.1
Exports	N/a	193.	9	12	2.9	480.3	39.5	15.3	3.7	745.65
Basic grains Fruit and	N/a	10.	2	35	5.8	113.3	30.7	4.3	0.5	194.8
vegetables	N/a	21.	6	1	1.8	83.1	N/a	4.2	0.3	111.0
Others	N/a	16.	3	N	√l/a	77.6	12.3	0.1	1.4	107.7
2. Livestock 3. Fisheries	N/a	8.	1	1	1.0	129.8	11.5	0.3	0.5	151.2
and Aquicult	N/a	14.	0	8	8.8	76.5	35.8	0	0	135.1
Total	N/a	264.	1	60	0.3	960.6	129.8	24.2	6.4	1 445.4

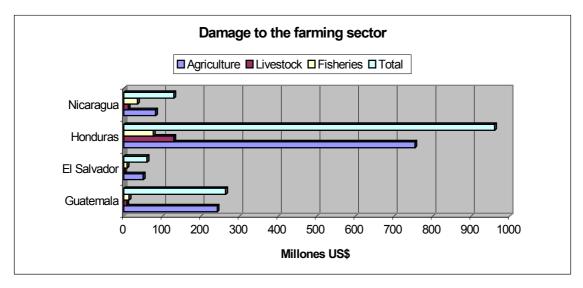
N/a= Not Available: Source: CORECA Secretariat, ECLAC

Clearly, it was Honduras whose farming sector was hardest hit. Damage in Honduras totalled around US\$960.6 million, equivalent to 66 percent of estimated total losses. The damage to its agriculture sector was equivalent to 65 percent of overall damage in the sector and accounted for 78 percent of overall damage sustained by Honduras in its farming sector. In absolute terms, Guatemala occupied second place in terms of the total value of sectoral losses, accounting for 18 percent of the total. Nicaragua suffered 9 percent of total losses, while the other countries accounted for the remaining 8 percent. In general, for all countries, it was the agricultural sector that sustained the most severe damage.

The crops most affected in each country were, in the case of Guatemala, bananas (56 percent of forecast production), coffee, 11 percent, and, to a lesser degree, garden vegetables and basic grains (although they are very important in economic terms, because they are grown by small producers). In the case of Honduras, the damage was focused on banana plantations (50 percent), and, to a lesser degree, basic grains, coffee and palm oil (each at 7 percent), while sugar cane and milk sustained losses of 6 percent. In Nicaragua the biggest losses were recorded in basic grains (beans, 71 percent; maize, 51 percent; and rice, 28 percent); sesame, at 65 percent of production; soya, 33 percent; peanuts, 27 percent; sorghum, 22 percent; bananas, 17 percent; and coffee and sugar cane, each with 6 percent. El Salvador sustained damage largely in the area of basic grains (49 percent), with the

coffee sector accounting for 24 percent, sugar cane, 20 percent; and, to a lesser degree, garden vegetables (1 percent).

Chart 6



The livestock sector reported losses among bovines, although, in the case of Nicaragua, the extent of those losses provoked some degree of doubt. In the remaining countries, however, the damage in this sector was focused primarily on the soil resource and livestock grazing areas, resulting in weight loss among fattening animals and a decline in milk production, which was influenced by the lack of communications routes, the lack of power at storage sites, and by the fact that the purchasing power of marketers was initially limited.

# 3. Trends in food production

# a. Basic grains

# a.1 Trends in planting areas since Hurricane Mitch

Overall, the harvests since the hurricane have shown that the areas responsible for basic grains production have not fully recovered back to their levels prior to the hurricane. Each country has different trends for each basic grain. At a regional level, maize and beans seem to have had an increase in comparison the years prior to the Hurricane. The same recovery was not noted for rice. The country with the largest amount of agricultural lands is Nicaragua, and it has not recovered to the level of its highest historical production due to the very high production costs, and the high level of importation in competition with the national production.

El Salvador seems to have been the worst effected country where bean and rice production has decreased drastically by -47.5 percent and -24 percent respectively in the last agricultural cycle. The reduction in area sown with beans is also important in Honduras (-27.5 percent), however Honduras has a great recovery with regards to

rice (200 per cent for the 2000/20001 agricultural cycle)<sup>11</sup> as can be seen on the table below:

Table 8
Trends in planting areas for basic grains
Agricultural cycles 1997/98-2000/2001

	Agric.	Maize		Bea	ıns	Ri	ce	Total	
Country	cycle	ha	(%)*	ha	( %)*	ha	(%)*	ha	(%)*
	1997/98	16.9	14.6	4.2	1.3	6.2	7.8	27.3	10.7
Belize	1998/99	14.3	-15.0	4.6	9.2	5.2	-16.4	24.2	-11.6
	1999/00	14.8	3.0	4.6	0.0	4.6	-11.8	23.9	-1.0
	2000/2001	N/d		N/d		N/d		N/d	
	1997/98	588.4	2.1	124.6	1.5	12.3	3.6	725.2	2.0
Guatemala	1998/99	588.7	0.1	124.6	0.0	13.3	8.6	726.6	0.2
	1999/00	589.8	0.2	125.7	0.8	14.0	5.3	729.4	0.4
	2000/2001	N/d		N/d		N/d		N/d	
	1997/98	306.1	9.7	83.0	22.6	14.9	38.9	404.0	13.0
El Salvador	1998/99	295.4	-3.5	78.1	-5.9	10.3	-30.6	383.8	-5.0
	1999/00	263.4	-10.8	151.9	94.6	10.9	5.8	426.2	11.1
	2000/2001	260.7	-1.0	79.7	-47.5	8.3	24.0	348.7	-18.2
	1997/98	388.8	-4.5	144.3	47.8	16.2	-0.6	549.3	5.4
Honduras	1998/99	390.2	0.4	111.8	-22.5	5.7	-64.8	507.7	-7.6
	1999/00	370.7	-5.0	110.2	-1.4	3.6	-36.8	484.5	-4.6
	2000/2001	458.4	23.7	79.5	-27.9	11.1	208.3	549.0	13.3
	1997/98	233.1	-16.5	135.0	12.6	74.9	10.8	443.0	-5.0
Nicaragua	1998/99	252.6	8.4	189.3	40.2	83.2	11.1	525.1	18.5
_	1999/00	267.9	6.1	206.9	9.3	62.4	-25.0	537.2	2.3
	2000/2001	363.5	35.7	250.7	21.2	71.3	14.3	685.5	27.6
All	1997/98	1 533.3	-1.5	491.1	19.2	124.5	10.9	2 148.8	3.3
countries	1998/99	1 541.2	0.5	508.4	3.5	117.7	-5.4	2 167.3	0.9
	1999/00	1 506.5	-2.3	599.2	17.9	95.5	-18.9	2 201.2	1.6
	2000/2001	1 671.3	10.9	534.5	-10.8	104.0	8.9	2 309.8	

(percent)\*= Growth rates; ha = Thousands of hectares; Source: Agriculture Ministries

Around 2.5 million hectares of basic grains were sown in the region in the last agricultural cycle. Of that total, 74 percent is devoted to the production of maize, 24 percent to the planting of beans and the remaining 2 percent to rice production. At the country level, Guatemala is the country where this commodity is most planted and consumed, with around 589 800 hectares, representing 35.3 percent of the total planted in the region. Honduras lies in second place, accounting for 27.4 percent of planting areas for this grain (458 400 ha). Nicaragua is third, accounting for 21.7 percent (260 700 ha). El Salvador is fourth, with 260 700 hectares (15.5 percent), and Belize lies in last place, with 14 800 hectares, or 1 percent of the total.

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<sup>&</sup>lt;sup>11</sup> In Central America, the agricultural cycle begin in April with the land preparation, and finish in March of the following year

In the beans sector, the biggest planting areas are in Nicaragua, which makes up 46.9 percent of the sector, equivalent to around 250 700 hectares. Guatemala lies in second place, with sowing capacity of 124 600 hectares, equivalent to 23.3 percent. El Salvador is in third place, devoting around 79 900 hectares to the planting of beans, equivalent to 13.9 percent of the total. In fourth place is Honduras, with sowing capacity of around 110 200 hectares, equivalent to 18 percent. Belize, with 4 600 hectares, accounts for 1 percent of the total.

Rice-planting areas are the smallest among the three basic grains and the country with the highest planting capacity is Nicaragua, with 71 300 hectares of the 140 000 hectares planted during the agricultural cycle <sup>12</sup>. This is equivalent to 68.6 percent of the total. The other countries in which rice is planted are Guatemala, with percentage weightings of 12.8 percent, Belize and Honduras have planting areas equivalent to 7.9 percent and less than 4 percent respectively.

# a.2 Trends in production volumes

With respect to the production of basic grains, the path of the hurricane through Central America also led to a decline in productive potential during the agricultural cycle that was in progress at the time (1998/99). This was reflected in a decline of 5.6 percent, as illustrated in Table 9 and Chart 7.

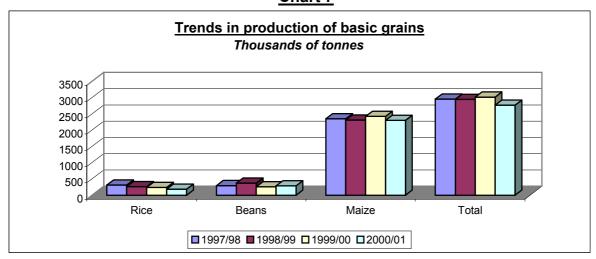


Chart 7

Of the three basic grains, rice was hardest hit at the regional level, with a fall in production, over the agricultural cycle, of 18.2 percent. This trend was largely maintained during the following agricultural cycle, with production declining once more, by 12.8 percent compared with the agricultural cycle before Mitch (1997/1998).

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<sup>&</sup>lt;sup>12</sup> The agricultural cycle in Central America begins in April with the preparation of soils, and ends in March the following year.

Honduras sustained the biggest losses in domestic rice production, losing 65.4 percent of forecast production, followed by Belize, with a decline of 43.5 percent, and El Salvador, with a 20.8 percent fall. Guatemala and Nicaragua did not experience declines in production. For the following agricultural cycle (1999/00), however, there was a major fall in production in Nicaragua (21 percent), while Honduras did recover The remaining countries have not managed to stabilize their productive capacity.

Table 9
Trends in production of basic grains
Agricultural cycles 1997/98-1999/00 (in thousands of tonnes)

	A auria		ı		•			Total		
	Agric.	Golder		Bea		Maiz				
Country	cycle	Ton.	(%)*	Ton.	(%)*	Ton.	(%)*	Ton.	(%)*	
	1997/1998	16.8	31.1		22.1	37.4	1.3		9.8	
Belize	1998/1999	9.5	-43.5	3.1	-25.0	37.7	0.7	50.3	-13.9	
	1999/2000	12.6	33.5	3.7	16.5	40.7	8.1	57.0	13.4	
	2000/2001	N/d		N/d		N/d		N/d		
	1997/1998	39.1	24.3	81.9	-9.3	976.8	-11.0	1 097.8	-10.0	
Guatemala	1998/1999	39.3	0.6	81.5	-0.5	986.5	1.0	1 107.4	0.9	
	1999/2000	44.0	11.9	85.8	5.2	1 004.2	1.8	1 133.9	2.4	
	2000/2001	39.3	-10.7	81.5	-5.0	986.5	-1.8	1 107.3	-2.3	
	1997/1998	39.0	13.0	66.6	14.4	500.5	-19.4	606.1	-15.1	
El Salvador	1998/1999	30.9	-20.8	45.9	-31.0	555.2	10.9	632.0	8.0	
	1999/2000	31.1	0.6	65.5	42.7	650.5	17.2	747.1	18.2	
	2000/2001	28.4	-8.7	68.3	4.3	577.5	-11.3	674.0	-9.8	
	1997/1998	50.3	-15.8	74.5	37.5	609.5	15.0	1 555.5	10.3	
Honduras	1998/1999	13.8	-72.6	94.2	26.4	471.2	-22.7		-23.2	
	1999/2000	13.0	-74.2	73.7	-1.0	476.1	21.9	1 208.4	1.1	
	2000/2001	12.0	-6.5	74.8	-20.6	481.0	2.1	568.7	-1.8	
	1997/1998	166.3	16.5	71.4	-4.4	263.5	-18.2	501.2	-23.6	
Nicaragua	1998/1999	171.2	2.9	148.7	108.3	299.8	13.8	619.7	23.6	
	1999/2000	135.5	-20.9	134.2	-9.8	292.1	-2.6	561.8	-9.3	
	2000/2001	102.0	-40.2	62.2	-58	256.5	-14.4	421.1	-32	
All	1997/1998	340.2	13.1	294.4	6.1	2 350.3	-8.6	2 956.2	-5.5	
Countries	1998/1999	278.3	-18.2	370.3	25.8	2 312.7	-1.6	3 018.3	-0.3	
	1999/2000	242.6	-12.8	359.2	-3.0	2 422.9	4.8	3 018.3	2.4	
	2000/2001	183.0	22.5	286.8	-20.0	2 301.3	-5.0	2 771.1	-8.2	

(%)\* = Growth rate; Source: Agriculture Ministries

In beans production, there were significant declines across all countries, with the exception of Honduras and Nicaragua, <sup>13</sup> this last one which, in the "apante" (third,

Nicaragua and Guatemala are fortunate enough to have three basic-grain harvests during the agricultural cycle. The three harvests are called "Primera," "Postrera" and "Apante." The latter is planted during the month of December, in humid areas (where rainfall is generally between 2 500 and 3 000 mm per annum), and is harvested during the months of February and March of the following year. As part of the measures taken immediately after Mitch, Nicaragua launched a massive program to plant beans and maize, thereby achieving the largest bean harvest in the country's history, and a

minor) season, staged a very significant recovery, due to implementation of an exceptional planting programme during that third and final phase of the agricultural cycle 1998/99. The overall production declined in Belize, El Salvador and, with less importance, Guatemala, however, excluding the aforementioned exceptional harvest in Nicaragua, the damage for the remaining countries in the region would have amounted to a 25 percent fall. The immediate impact of the Hurricane per country was as follows: production in Honduras increased by 26.4 percent. El Salvador and Belize sustained declines of 31 and 25 percent, respectively, and Guatemala registered a very slight decline, of less than 1 percent. Nicaragua achieved a better production than the year prior to the hurricane. (see Table 9).

In the case of maize, the picture was slightly brighter with respect to the fall in production during the cycle in question. This is because it is during the first cycle (May to September) that the majority (70 percent) of the overall crop is harvested. If the crop had been in the field at the time, the damage would have been greater. Despite this, Honduras was the only country among those affected by the Hurricane that sustained a fall (estimated at 22.7percent) in productive capacity compared with the previous agricultural cycle. During the agricultural cycle marked by Hurricane Mitch, Honduras accounted for 20 percent (471 000 tonnes) of the total production of the countries affected. Under normal conditions, that figure is 26 percent. The first producer in the region is Guatemala, with production of around 1.0 million tonnes. El Salvador is third biggest, with production of 555 200 tonnes. Nicaragua, with production of slightly below 300 000 tonnes, lies in fourth place, while Belize, with a percentage weighting of 1 percent (37 700 tonnes), is fifth.

It should be noted that for the agricultural cycle 1997/98, maize and beans both showed declines in production, compared with the 1996/97 cycle, and the main reason was the presence of El Niño, which brought floods to Guatemala and drought to the rest of the region, which reduced the productive capacity of those grains, with the exception of Honduras, El Salvador and Belize. In the case of maize, the overall decline in production among the countries was 6.8 percent. In beans, production in Honduras was significant during the 1997/98 cycle and, as a result, no major changes were noted in regional production. The remaining countries, however, sustained declines of around 10 percent (see Annex 6). Lastly, there were no major changes in rice production.

According to forecasts by international agencies concerning El Niño, it is very possible that, during the agricultural cycle 2001/02, we shall see the first indications of its return. El Niño is caused by the warming of the waters of the Pacific Ocean. It brings drought to El Salvador, Honduras, Nicaragua and Costa Rica, and intense rains to Guatemala and Belize.

# a.3 Impact of Hurricane Mitch on yields

The impact on yields of basic grains is shown in Table 10, which also highlights the major disparities between the different countries with regard to the optimization of productivity. Nicaragua is the country with the lowest yields in the three crops. Its

large maize harvest (although not as large as the bean harvest). Less massive efforts were made in Guatemala, with the assistance of international cooperation agencies.

maize yields are four times lower than in Belize and three times lower than in Honduras, and between 70 percent and 90 percent below production levels in El Salvador and Guatemala.

Belize has the highest maize yields (4.26 tonnes/ha), followed by Honduras (2.9 tonnes/ha). In beans even if a big decrease in the production occurred during the agricultural cycle 2000/2001 up to 1.05 mT/ha, the same countries have the highest yields per hectare, with 1.5 and 1 respectively. In golden rice, the most efficient producers are Belize and Honduras, with 3.,7 tonnes/ha, and 3.6 tonnes/ha.

Table 10

Trends in basic-grain yields
Agricultural cycles 1997/98-2000/01 (tonnes per hectare)

	Agric.	Maiz	е	Beans	3	Golde	n rice
Country	cycle	Tonne/ha	(%)*	Tonne/ha	(%)*	Tonne/ha	(%)*
	1997/98	4.05	2.3	1.30	-12.2	4.40	12.8
Belize	1998/99	4.08	0.7	1.24	-4.6	3.70	-15.9
	1999/00	4.26	4.4	1.47	18.5	3.70	0.0
	2000/2001	N/d		N/d		N/d	
	1997/98	1.66	-12.6	0.66	1.5	3.19	19.9
Guatemala	1998/99	1.68	1.2	0.65	-1.5	2.96	-7.2
	1999/00	1.70	1.2	0.68	4.6	3.14	6.1
	2000/2001	1.68	-1.2	0.65	-4,0	2.96	
	1997/98	1.60	-27.3	0.80	-11.1	2.60	-18.8
El Salvador	1998/99	1.90	18.8	0.60	-25.0	2.90	11.5
	1999/00	2.00	5.3	0.80	33.3	2.80	-3
	2000/2001	2.21	10.5	0.86	7.0	3.42	22.1
	1997/98	3.30	13.8	1.40	0.0	3.10	-15.5
Honduras	1998/99	2.70	-18.2	1.10	-21.0	2.42	<i>–</i> 21.9
	1999/00	2.90	7.4	1.10	0.0	3.61	49.2
	2000/2001	1.05	-63.8	0.94	-14.0	1.16	-67.9
	1997/98	0.79	-2.5	0.37	-15.9	1.95	18.8
Nicaragua	1998/99	0.83	5.1	0.55	48.6		-7.4
	1999/00	1.09	31.3	0.64	16.4	2.17	23.3
	2000/2001	0.71	-34,9	0.25	-60.0	1.44	-33.6
Average	1997/98	1.84	-5.9	0.81	-4.0	2.71	-2.6
regional	1998/99	1.78	-3.3	0.73	-10.0	2.51	7.4
yield	1999/00	1.92	8.2	0.81	11.0	2.93	16.7
	2000/2001	1.41	-26.5	0.68	-16	2.25	-23.4

( percent)\*= Growth rate; Source: Agriculture Ministries

General trends in grains show that, in the case of maize, only Honduras suffered a decline in tonnes per hectare during the year of Hurricane Mitch. Due to its importance to regional production, however, there was an overall fall in the regional indicator (3,3percent). The 18 percent decline recorded by Honduras therefore has a major impact. The remaining countries saw average growth average of 6.4 percent, led by El Salvador, with 18.8 percent.

As far as the productive profitability of beans is concerned, the countries involved (with the exception of Nicaragua), suffered a 13.1 percent decline in their yields, with El Salvador and Honduras hardest hit, recording falls of 25 percent and 21.4 percent, respectively. Belize and Guatemala sustained falls of 4.6 percent and 1.5 percent, respectively. During the following year, all countries together increased yields by 13.3 percent, with the exception of Honduras, whose yield was unchanged from the agricultural cycle marked by Hurricane Mitch, as in Nicaragua (see Table N° 10).

The rice sector declined 5.4 percent on average during the year of Hurricane Mitch, but recovered the next year, recording a 6.1 percent average rise (very slightly exceeding the average yield recorded during the year prior to Mitch). With the exception of El Salvador, all countries recorded falls during the year of the hurricane. The greatest impact was recorded in Belize (-15.9 percent), followed by Nicaragua (-7.4 percent), Guatemala (-7.2 percent) and Honduras (-2 percent).

Trends in yields of basic grains tonnes/hectare by agricultural cycle

Rice Beans Maize

Chart 8

# b. Impact on production of meat, milk and eggs

Hurricane Mitch did not have a major impact in the beef, pork and poultry sectors. Although deaths of cattle and pigs certainly did occur, it did not have an overall negative impact on production. Indeed, there is clearly a growth trend in production for the countries overall (4 percent in 1998 and 2 percent in 1999).

El Salvador was the only country to record declines in beef production, of 1.9 percent in 1998 and 21.3 percent in 1999. Belize experienced a 20 percent fall in production in 1998, and Nicaragua suffered a 12.2 percent fall in production in the same year, although it did regain its previous production levels, slightly exceeding the 1997 figure. It should be noted that in the production of chicken, Nicaragua was the only country to register a decline in its productive capacity, of 1.8 percent, as shown in Table 11, below.

With respect to production of milk and hen's eggs, Table 12 shows that the overall trend in the region is one of growth. Furthermore, although no data are available regarding results for last year in Guatemala, the overall trend is positive, and no significant damage was reported in this productive sector.

Table 11
Trends in meat production
1997-1999 (millions of Kilograms)

	Year	Boo	-	Po		Chic		Tot	<u>اد</u>
_	i <del>C</del> ai	Beef							
Country		M/kg	(%)*	M/kg	(%)*	M/kg	(%)*	M/kg	(%)*
Belize	1997	1.50	7.1	0.70	0.0	5.50	-27.6	7.70	-20.6
	1998	1.50	0.0	0.80	14.3	7.60	38.2	9.90	28.6
	1999	1.20	-20.0	0.90	12.5	8.40	10.5	10.50	6.1
Guatemala	1997	69.20	18.9	15.00	-15.3	75.70	2.6	159.90	6.8
	1998	72.60	4.9	17.20	14.7	77.70	2.6	167.50	4.8
	1999	68.20	-6.1	17.30	0.6	79.30	2.1	164.80	-1.6
El Salvador	1997	34.68	29.7	149.30	15.7	56.86	7.4	240.84	15.4
	1998	34.02	-1.9	154.50	3.5	62.86	10.6	251.38	4.4
	1999	26.77	-21.3	156.50	1.3	69.46	10.5	252.72	0.5
Honduras	1997	133.10	4.0	15.40	4.7	50.20	2.0	198.70	3.5
	1998	138.30	3.9	16.10	4.5	56.90	13.3	211.30	6.3
	1999	143.80	4.0	16.70	3.7	60.10	5.6	220.60	4.4
Nicaragua	1997	51.70	6.4	5.40	8.0	29.60	-4.8	86.70	2.4
	1998	45.40	-12.2	5.60	3.7	32.70	10.5	83.70	-3.5
	1999	52.10	14.8	5.70	1.8	32.10	-1.8	89.90	7.4
All	1997	290.18	10.4	185.80	11.2	217.86	1.5	693.84	7.6
countries	1998	291.82	0.6	194.20	4.5	237.76	9.1	723.78	4.3
	1999	292.07	0.1	197.10	1.5	249.36	4.9	738.52	2.0

Source: Agriculture Ministries

Despite this, El Salvador recorded a 7 percent decline in its milk-production capacity in the year of Hurricane Mitch. It was able to redress that situation in 1999, recording an increase of 2.3 percent. It was not, however, able to recover the production levels of 1997. In egg production, Belize and Nicaragua recorded declines, during the year after the hurricane, of 17.1 percent and 7.8 percent respectively. Nicaragua also recorded a fall in 1998, of 4.4 percent.

Table 12
Trends in milk and egg production 1997-1999

	Year	Milk		Eggs			
Country		million litres	(%)*	million dozens	(%)*		
	1997	1.4	N/a	2.6	13.0		
Belize	1998	1.4	0.0	3.5	34.6		
	1999	1.6	14.3	2.9	-17.1		
	1997	255.8	0.5	125.1	11.2		
Guatemala	1998	257.1	0.5	130.1	4.0		
	1999	N/a	0.0	N/a	0.0		
	1997	356.4	-4.1	83.4	2.5		
El Salvador	1998	331.5	-7.0	84.7	1.5		
	1999	339.0	2.3	87.3	3.1		
	1997	579.0	12.0	71.8	3.3		
Honduras	1998	674.2	16.4	72.7	1.3		
	1999	707.1	4.9	76.6	5.4		
	1997	202.5	11.4	22.7	8.6		
Nicaragua	1998	212.6	5.0	21.7	-4.4		
_	1999	323.3	52.1	20.0	-7.8		
Total	1997	1,395.1	5.2	305.6	6.6		
for all	1998	1,476.8	5.9	312.7	2.3		
countries	1999	1,371.0	-7.2	186.8	-40.3		

N/a= Not Available; Source: Agriculture Ministries

## c. Trends in production of wheat flour, sugar and edible oil

In general, throughout the region, the level of wheat bread consumption is high, due to the substitution of foods with a high nutritional value for the bread mostly consumed by low-income sectors. The production of flour depends on the number of people in the country and on whether it is possible to import wheat.<sup>14</sup>

The country that produces or processes the most wheat is Guatemala, with 38 percent; and El Salvador, in second place, with 21 percent. Honduras processes 20 percent, and increased its production in 1998 and 1999, by 1.7 percent and 4 percent respectively. Nicaragua suffered a fall in production in 1998, but the following year managed to recover its 1997 production levels, processing 17 percent of regional capacity. Overall, production rose 4 percent between 1997 and 1999, as shown in Table 13.

Sugar production, which is aimed primarily at external markets, declined in three of the five countries hardest hit by Hurricane Mitch. The country most affected was Honduras, which in the year following the hurricane saw its production decline by 23 percent. Like Guatemala and El Salvador, however, Belize and Nicaragua maintained virtually the same production level, although, as the above Table

<sup>&</sup>lt;sup>14</sup> Wheat is a crop that cannot be produced profitably in Central America, and 100 percent is therefore imported, especially from the United States.

illustrates, the overall reduction for all five countries was 3.5 percent in 1998 and 2.6 percent in the following year.

Table 13
Trends in agribusiness production
1997-1999

	Year	Wheat F	lour	Suga	r	Edible	Oil
Country		Tonnes	(%)*	Tonnes	(%)*	Million litres	(%)*
Belize	1997	N/a	N/a	94.51	-13.3	N/a	N/a
	1998	N/a	N/a	118.11	25.0	N/a	N/a
	1999	N/a	N/a	116.07	-1.7	N/a	N/a
Guatemala	1997	N/a	N/a	1 731.16	-2.6	N/a	N/a
	1998	N/a	N/a	1 529.58	-11.6	N/a	N/a
	1999	N/a	N/a	N/a	N/a	N/a	N/a
El Salvador	1997	N/a	N/a	393.13	28.8	N/a	N/a
	1998	N/a	N/a	467.11	18.8	N/a	N/a
	1999	N/a	N/a	450.35	-3.6	N/a	N/a
Honduras	1997	102.60	4.2	240.90	2.4	59.55	18.8
	1998	104.30	1.7	246.90	2.5	60.26	1.2
	1999	108.50	4.0	189.80	-23.1	58.54	-2.9
Nicaragua	1997	68.00	20.4	347.80	13.6	25.80	-23.1
	1998	65.30	-4.0	348.60	0.2	22.70	-12.0
	1999	68.00	4.1	353.30	1.3	40.00	76.2
Total	1997	170.60	10.1	2 807.50	2.7	85.35	1.9
	1998	169.60	-0.6	2 710.31	-3.5	82.96	-2.8
	1999	176.50	4.1	2 639.10	-2.6	98.54	18.8

N/a= Not Available; Source: Agriculture Ministries

Production of edible oil declined by 2.9 percent in Honduras, where African palm plantations were affected by the floods provoked by the hurricane. Nicaragua, however, recorded a significant (76 percent) production increase. Production in the remaining countries of the region remained stable, because a major part of the totals reflects production of semi-refined oil imported from the United States and Europe.

# 4. Food imports and exports

#### a. Import trends

Imports of the 11 foods in the food basket have remained strong over the years. During the 1990s, there was a marked dependence on imports of products that are essential to the diet of the people of Central America. Cereals have always been the major focus and basic grains have always been the most important cereals for the region's poor communities.

Over the past six years (see Annex 11) imports of cereals have been above 8 million tonnes. The most heavily imported grain is maize, which accounts for 42 percent (3.4 million tonnes) of the total. Wheat imports are close behind, at 3.0 million tonnes. This figure does not include imports by Guatemala over the last three years, which

are equivalent to around 600 000 tonnes. Belize is also a strong importer of wheat, but does not keep current records of import totals for this crop, which plays a major role in the diet of working-class sectors of the country.

Rice is the third-biggest imported crop, at 1.0 million tonnes, with imports of beans standing at 581 000 tonnes.

Imports of basic grains reached their highest levels during the year after Mitch, as indicated in Table 14. Whereas the trend was for declines in the year of the hurricane, in the year 1999, imports of maize were 23 percent higher than the previous year. Rice imports grew 25 percent between 1998 and 1999, while wheat imports grew by 16 percent over the same period. Again, this does not include the around 600 000 tonnes imported by Guatemala. If this were included, growth in wheat would be 200 percent for the period. Imports of beans did not rise. Indeed, domestic production levels in all countries of the region helped dampen imports of this crop.

Table 14
Trends in imports of cereals 1997-1999, in thousands of tonnes

_			<u> </u>	<u>,                                     </u>			
Country	Year	Maize	Beans	Rice	Flour/wheat		
	1997	35.00	61.40	3.67	N/a		
Belize	1998	26.20	39.80	7.64	N/a		
	1999	28.10	12.10	11.00	N/a		
	1997	247.70	0.10	26.30	N/a		
Guatemala	1998	259.80	0.10	3.20	N/a		
	1999	270.50	0.00	24.60	N/a		
	1997	326.02	63.24	34.28	173.10		
El Salvador	1998	259.02	7.21	46.14	217.10		
	1999	361.29	18.06	82.08	214.00		
	1997	100.20	0.60	50.10	142.10		
Honduras	1998	86.70	2.00	71.10	134.10		
	1999	114.00	2.00	81.60	226.80		
	1997	1.40	1.80	79.50	79.50		
Nicaragua	1998	4.00	9.80	61.80	61.80		
	1999	3.40	8.00	38.40	38.40		
All	1997	710.52	127.14	193.85	394.70		
countries	1998	636.72	58.91	189.88	413.00		
	1999	783.65	40.16	237.68	479.20		

N/a= Not Available; Source: Agriculture Ministries.

The countries with the highest levels of maize imports are El Salvador and Guatemala, which recorded total volumes of 946 000 tonnes and 777 000 tonnes, respectively, over the three years in question (1997-1999). This amounts to around 1.7 million tonnes, or 81 percent of total volumes over the period. Honduras imported 14 percent over the same three-year period. The remaining six percent of imports were recorded by Belize and by Nicaragua. The level of maize imports by Nicaragua indicates that it is aiming to achieve self-sufficiency through domestic production.

In beans, Belize and El Salvador are the biggest importers, accounting for 50 percent and 39 percent, respectively, of total imports for the past three years. The remaining 11 percent is shared between Nicaragua, Honduras and Guatemala, respectively.

Levels of rice imports are slightly more uniform across all countries in the region. Honduras, however, is the biggest importer, with 33 percent of the total over the last three years, followed by Nicaragua (29 percent), El Salvador, with 26 percent; Guatemala, nine percent; and Belize the remaining three percent. It should be stressed that imports of this product have been rising in general, due to the high costs of domestic production in the region and growing competition from sales representatives of industrialized nations and Asia, whose costs and yields are significantly higher than in Central America. There is also a tendency for countries in the region to spend more on imports than on the promotion of domestic production, thereby placing many small producers in a critical condition, without the opportunity to diversify their production over the short term.

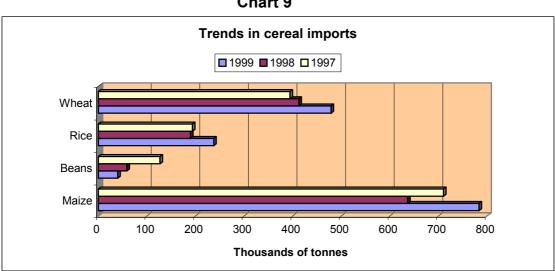


Chart 9

Many of these import totals also reflect a trade strategy implemented by brokers of domestic production, who use protective mechanisms without taking into account domestic stocks, which are also heavily influenced by the unfair trading practices employed by sales representatives of the main producing areas of the United States.

In the wheat sector, the country that depends most heavily on imports is Guatemala, followed by El Salvador and Honduras. Together, these three countries account for 90 percent of regional imports, with Nicaragua and Belize accounting for the remaining 10 percent.

In monetary terms, imports of these four foods are equivalent to US\$642.3 million over the last three years. Of that total, maize accounts for US\$213.1 million dollars; rice US\$149.1 million; wheat, around US\$144.5 million; and beans, US\$135.7 million. The total value of imports is equivalent to a little less than three percent of total exports from the region over the same period. In view of its significance, however, in terms of unrealized investment in the promotion of domestic production

of basic grains, it does represent a way to ensure capacity to export to nearby markets.

The other subgroup of imported foods comprises edible oil and products of animal origin (chicken, milk and eggs). Note that the region does not import sugar, beef or pork, and pork is moved in such small quantities that it is not reflected in detail in import figures.

Table 14-B (for more details, see also Annex 11-B) shows the results of imports in this subgroup. The totals for edible oil are proportionately very high, since, with the exception of Honduras, countries in the region do not have the capacity to produce 100 percent of their needs. Semi-refined oil is therefore imported for domestic processing. Annual imports have been around 900 million litres since Mitch, with El Salvador the biggest importer (83 percent of the total for 1999) and, to a lesser degree, Belize and Nicaragua.

Chicken imports are not significant, since the regional poultry industry has in-built capacity to meet domestic demand. This is the same for the egg industry, which in 1999 did not record any imports, despite the effects of the hurricane. As a product for basic consumption, powdered milk is imported for reconstitution. Imports recovered sharply 1998, due to problems with domestic communications routes, which made it impossible to transport the milk from the production areas to milk-processing sites for pasteurisation. In 1999, however, imports fell sharply, to the equivalent of 58.5 million litres. Nicaragua, El Salvador, Honduras and Belize, respectively, are the biggest importers of powdered milk for reconstitution.

<u>Table 14-B</u> Trends in food imports 1997-1999

Country	Year	Oil (1)	Chicken (2)	Milk (1)	Eggs (3)
	1997	109.50	0.50	5.28	0.00
Belize	1998	99.00	0.70	9.38	0.00
	1999	131.00	0.80	5.77	0.00
	1997	49.70	12.90	26.10	26.10
Guatemala	1998	51.70	15.10	28.40	28.40
	1999	N/a	N/a	N/a	N/a
	1997	75.67	0.00	6.95	0.00
El Salvador	1998	777.87	0.00	17.01	0.00
	1999	769.60	0.00	18.53	0.00
	1997	0.90	4.00	9.40	0.00
Honduras	1998	1.40	4.30	12.20	0.00
	1999	3.00	3.60	13.00	0.00
	1997	40.90	1.10	39.40	0.00
Nicaragua	1998	47.70	1.90	69.70	0.00
	1999	23.00	0.10	21.20	0.00
All	1997	276.67	18.50	87.14	26.10
countries	1998	977.67	22.00	136.69	28.40
	1999	926.60	4.50	58.51	0.00

(1) millions of litres; (2) millions of kilos; (3) millions of dozens; N/a: Not Available Source: Agriculture Ministries

The implementation of livestock-development programmes, designed to improve the quality of dairy cattle in Central American countries, is focused only on major producers. The persistent weaknesses among small and medium-sized producers make it impossible to foresee a recovery in this productive sector over the medium term. As in the cereals sector, everything appears to indicate that the strategy employed is to concentrate on promoting imports rather than on domestic production. Note, however, that even big producers have recently been experiencing problems with costs, liquidity and productive profitability, due to competition from imports.

# b. Trends in food exports

Products in the food basket are not habitually or systematically exported by countries in the region. Of the products included in the list (see Annex 12), sugar occupies first place. Guatemala is the region's biggest sugar exporter, with 76 percent of export capacity. Maize is the second-biggest export, with the main maize exporters being Guatemala and Nicaragua. Beans are exported mainly by Nicaragua (79 percent); while edible oil is exported primarily by Honduras (88 percent). El Salvador is the sole exporter of eggs and thus has an impact on regional markets. Nicaragua is the principal exporter of beef, accounting for 93 percent of exports over the past year.

Among the remaining products, export levels are insignificant, and are generally sold in the regional market. The region does not exploit its potential as much as it could. Incentives to improve and strengthen domestic production continue to decline. This also includes intra-regional trade, since exports and imports of basic foods between the countries in the region are becoming increasingly rare. The exceptions are industrialized products and those mentioned above. Exports are focused on non-traditional products and food imports, although this strategy includes only a privileged group of producers. This is a disadvantage for small and medium-sized producers of basic foods for domestic consumption.

In this context, the greatest disadvantages are to be found in El Salvador, Guatemala, Nicaragua and Honduras, respectively. Belize is an importer of foods for domestic consumption. Most of those foods come from markets outside the region, as Central America's exporters pay very little attention to this small country. In fact, intra-regional trade to satisfy domestic demand for the basic foods in the food basket might be achieved through a strategy under which production agreements or contracts are established between countries, providing mutual benefit to exporters and producers. Mechanisms of this kind would have the effect of reducing the pressure on poor rural areas of countries in the region and also lead to better opportunities in alternative, high-import markets, such as Mexico and the Caribbean.

In conclusion, it may be stated that the availability of foods in the countries affected by Hurricane Mitch has deteriorated, since domestic production suffered as a result of food imports generated immediately after the disaster. In some countries, foods were imported even though local production was available in the farms and the stores. Added to this, there was the impact of donations made by humanitarian organizations to urban and rural populations suffering as a result of the hurricane.

The provision of technical and financial assistance to improve domestic production was inadequate (except during the initial aftermath). Worse, still, there is a tendency to reduce planting areas for certain crops, such as rice and maize, as well as a decline in agricultural extension services and an inability to incorporate new varieties of seeds that are already proven in the countries of the region and which are very hard for small producers to access. In the medium term, this might bring tragic consequences and produce a considerable amount of migration to the cities and abroad, if steps are not taken to restore productivity – all the more so, as rural poverty is expanding at an alarming rate in all the countries affected.

The only strategies for reincorporating the productive capacity of the food sector have been supplied – albeit to a limited degree – by non-governmental organizations, international cooperation agencies and, to a lesser degree, by State agencies. This response is inadequate, however, and requires the implementation of a national programme in each affected country, since Hurricane Mitch had the effect of accentuating the natural decline of this productive sector. Even as the number of farmers declines steadily with each passing day, so does the number of those searching for work in the streets of the region's capital cities increase.

#### IV. STABILITY OF FOOD SUPPLY

# 1. Impact of Hurricane Mitch on regional markets

The biggest impact on regional markets, during the period immediately after the hurricane, was the destruction of the transport infrastructure, of roads, tracks and bridges. The total extent of the damage was equivalent to 27 754 kilometres of roads and tracks, and 156 bridges. As a result, flows of cargo and people to those markets were interrupted, and the cost of urgent items rose temporarily during the period immediately after the hurricane.

There was no physical damage to installations in general. As far as international road, sea and air trade was concerned, the effects were chaotic for the first month after the hurricane, and eventually returned to normality at the beginning of 1999. Indirectly, markets were affected by the destruction of electrical systems and networks, as well as damage to drinking water systems.

From a structural viewpoint, food markets suffered restrictions due to the destruction of the infrastructure. It was apparent, however, that most countries had the capacity to implement immediate actions, even by supplying some needs through local production, although in practice, there were very few ways in which this type of action could be co-ordinated. Within the region, it was possible to transport emergency production of basic grains in Nicaragua to markets in El Salvador and Honduras, due to pre-existing trade links with those countries.

Trading in foods outside the region is almost non-existent, and it appears to be regarded as an outmoded productive activity. Official figures from all countries in the region, as well as from neighbouring countries, indicate that they will all become importers of cereals and processed foods in the immediate future. It thus appears

that the production of food is not regarded as a strategic way to resolve problems of diet and malnutrition, nor as an alternative form of national income or a way to create jobs and expand markets.

### 2. Food balances

The countries affected by the hurricane do not maintain food balances that might provide an indication of the status of national inventories and the rate of consumption relative to the availability of basic foods. As a result, it is not possible to gain a clearer sense of how to formulate a national import policy or a policy for the promotion of domestic production, or even to gain some idea of how vulnerable the population may be to cyclonic events or other types of disaster. As a result, when disaster strikes, any possible planning of food imports or donations is based on emergency situations, without their being any real awareness of available domestic capacity.

Agriculture Ministries in the region – with the exception of Nicaragua's, which recorded balances up to the year 1999 – do not have official departments charged with this task, despite the fact that they have received instruction and training in such matters from FAO and, more recently, from the United States Department of Agriculture. <sup>15</sup>

During the field visits made by the consultant, it became apparent that it would be necessary to provide follow-up in this area, since it was quite clear that relying on improvisation in the area of food affects all countries in the region. There is an effort currently underway to this effect in Guatemala, in the form of a draft policy on Food Security. At this point, however, there are no monitoring operations and no calculation of balances. Even in countries where some information is available, such information is generally very limited. Nicaragua has introduced its National Food Security and Nutrition Policy, but it lacks a plan of action for its due execution.

It proved extremely difficult to obtain information about the national balances of each country, and indeed for the 11 products in the food basket. Furthermore, it was possible to obtain only partial information regarding basic grains. For the people interviewed during the collection of country data, the food balance proved to be unknown as a working tool.

Balances for basic grains (see Annex 16) show that the countries affected consume around 1.8 million tonnes of maize, 700 000 tonnes of beans and around 406 000 tonnes of rice per annum. However, if one looks at the total utilization of products, including losses, use of seeds and utilization for the manufacture of balanced foods, the results are as follows: In maize, total utilization is 2.4 million tonnes; in beans, 1.2 million tonnes; and in rice, around 456 500 tonnes. This amounts to overall annual consumption of 4.1 million tonnes for these three products.

The FAO course, which focused on how to update the methodology used to calculate food balances, was conducted in Brazil, in March 2000. The USDA course included training in a mathematical model for the analysis of the macroeconomic indicators influencing the availability of foods, with the emphasis on basic grains.

As for the remaining eight products in the food basket, it was not possible to determine precise intake data. This situation should have been rectified, especially after Hurricane Mitch, to help toward national food-security planning, based on national market balances. Nor is any use made of the food-balances method to determine the nutritional status of the population at the end of each year or to help identify alternative forms of food consumption. In some cases, the method is even unknown, especially in those countries that have recently elected new national governments.

# 3. Analysis of farm credit

Central America is known as a region with a high level of basic-grains consumption. Their production, however, must take place within an unfavourable context and without the necessary funding. Indeed, the region depends on imports as a supplement to domestic consumption. This situation is illustrated by Table 15, which shows that scarcely 7.9 percent of the average total funding for the agriculture sector is spent on the production of maize, beans and rice.

Among the countries affected by Hurricane Mitch, Belize and El Salvador provide the least funding for this key area of production, intended for domestic consumption. The two countries allocate only 1.2 percent and 1.3 percent of financial resources, respectively. Guatemala and Honduras have the highest production rates among all countries in the region with respect to production of basic grains, allocating 15.7 percent and 15.4 percent, respectively, to this activity. Nicaragua is in a relatively low position in this context (5.7 percent), and this will do little to promote the considerable potential the country has to create high-production mechanised farmland in its Pacific plains, with their fertile, volcanic soils. Nor will it help to develop such production in the country's broad, intra-mountain valleys, where small producers are feeling the impact of the lack of funding (as indeed are producers from the other countries in the region, whose problems are very similar).

Table 15
Trends in farm credits in countries affected by Hurricane Mitch

	Total farm credit*		Basic grains				
Country	US\$ thousands (a)	US\$ thousands (b)	% (b/a)	Ha thousands financed			
Belize	37 638.2	447.3	1.2	N/a			
Guatemala	81 130.4	12 720.0	15.7	708.2			
El Salvador	282 681.7	3 544.2	1.3	2.9			
Honduras	147 183.3	21 866.7	15.4	63.4			
Nicaragua	103 727.1	5 864.7	5.7	20.1			
Average	130 472.0	8 888.5	7.9	794.6			
* Average of last 6 years; N/a= Not Available; Source: Central Banks.							

Guatemala has the largest funded area, at around 708 200 hectares on average over the last six years (see also Annex 18). This makes Guatemala the region's main producer. Honduras and Nicaragua have much smaller funded areas, which are out of keeping with the capacities that exist the countries of Central America as a whole, where the potential land is estimated to be around 3.5 million hectares. This means

that only 23 percent of that potential is managed with credits, with the rest of the funding being allocated to traditional export crops, such as coffee.

Chart 10

One significant aspect of this problem is the structure of the relatively small amount of funding provided for basic grains. Maize accounts for 64 percent of that funding, while rice accounts for 22 percent, and beans (the largest source of protein for poor population sectors), receive 14 percent, as shown in Table 16.

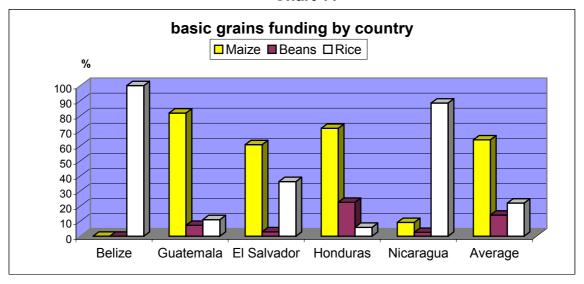
Table 16
Structure of funding for production of basic grains in countries affected by Hurricane Mitch\*

Country	Total %	Maize Beans		Rice			
• Belize	100	0.0	0.0	100.0			
<ul> <li>Guatemala</li> </ul>	100	81.8	7.2	11.0			
El Salvador	100	60.8	2.9	36.3			
<ul> <li>Honduras</li> </ul>	100	71.6	22.5	5.9			
<ul> <li>Nicaragua</li> </ul>	100	9.1	2.5	88.4			
Regional average	100	64.0	14.0	22.0			
* Average for last 6 years; Source: Central Banks							

The most significant factor is that a country such as Nicaragua, whose people derive 66 percent of their calorie intake from maize and beans, should allocate just 11.6 percent to both grains, whereas rice receives 88.4 percent of all possible funding. In the remaining countries, people's diets are based on a high degree of maize consumption, in the form of tortillas, thus maintaining a direct relationship with the funding accorded to that crop. Belize allocates all funding to rice-production areas, with all the other grains being seen as subsistence crops.

The distinctive feature of basic-grains production is that it is the productive mainstay and the source of income for one-third of the region's population, which is comprised of small farmers and indigenous owners of less than 3 hectares for their annual crops. These people have no way of purchasing the technological equipment, the more resilient and higher-yielding genetic materials, the technical assistance, or the marketing, etc, that might enable them to improve their profits and thus participate in the globalization process.

Chart 11



In addition to the above, the tendency in all the affected countries is to pour financial resources into external markets, leading to a notably drastic reduction, within all the affected countries, in technical-assistance programmes, which are designed to assist with certain technology-transfer operations that might facilitate other technological methods for improving both production and the living standards of the farming community and of the rural sector in general.

A major example of an alternative technological measure is presently being implemented in Honduras, in the form of FAO's Southern Lempira project. This project involves specific actions designed to introduce new crops, preserve soils and introduce organic fertilisation methods. This project deserves serious consideration as a potential model – which might be replicated elsewhere in the region – of how joint effort (without the influence of traditional food aid operations and, above all, without taking on debt) can achieve profitable harvests, which can improve the standard of living of growers, in harmony with their environment.

It is important to note that most of the funding referred to in the aforementioned indicators is that which has been provided by the traditional funding sector. It does not include unconventional rural funding or funding provided by non-governmental organizations in the form of technical assistance, input-supply and training. The total amounts allocated to those activities might well exceed the figures for the formal banking system. It was not possible, however, to obtain a global figure to confirm this, as a great deal of energy and institutional skill apparently goes into hiding the significant expenditure on the bureaucracy of such institutions.

After Mitch, formal funding sources for the production of basic grains declined. It is notable in all countries that funding sources for these crops are very limited and scarce. The little funding that is made available comes from cooperative sources and non-governmental organizations, as described below. This means that the hurricane accentuated the crisis in this productive sector, especially among cereals, which naturally produces a deterioration in living standards within rural households. This does not mean, however, that there were no resources and funding sources with which to restore productive sectors. Other agricultural sectors, such as sugarcane, bananas, coffee and traditional export crops, grown by big producers, absorbed nearly all the available credit. The reason for this bias was the availability of bank guarantees. Small producers cannot compete in this sort of situation.

Indeed, this was the common denominator in all countries, and some of these small producers, who did not have the opportunity to access funding sources, sold their labour in these agricultural sectors in order to survive. If they were fortunate, they received food aid from the humanitarian organizations. Many of them, however, were not lucky enough to find a temporary job.

# 4. Trends in prices of basic grains

In general, in all countries of the region, including those least affected, suffered temporary rises in the prices of basic grains, and in most towns in rural areas, prices had not been tracked before the disaster struck. In fact, in countries such as Honduras and Nicaragua, upward price movements were observed during the first 10 days after Hurricane Mitch, but prices began returning to normal levels thereafter, once communications channels had been reopened.

Table 17 shows price trends over the last six years, demonstrating that in the post-Mitch period, increases have been recorded especially in beans and rice. This was because dry beans and rice harvests happened to be still in the field at the time of the hurricane. This was not the case with maize, which demonstrates a declining trend in average prices paid per 46-quintal kilo. The country that pays the highest prices at the different stages of the Producer  $\rightarrow$  Wholesaler  $\rightarrow$  Consumer chain is Guatemala, where prices have tended to move in a cyclical fashion, but at a much higher level than in the rest of the region. The margins between these economic actors in the case of maize translate into a relative value of 20 percent for the consumer, while in beans, that percentage is 30 percent higher, and in rice, the cost of intermediation accounts for 54 percent.

In the case of El Salvador, the margins between the price paid to the grower and the price paid by the consumer are 46 percent for maize; 39 percent for beans and 3.5 times for rice. For Honduras the same margins are: for maize, 24 percent; for beans, 40 percent; and for rice, 3.2 times the average price paid to the grower. Nicaragua has the biggest margins between prices for all grains, at 61 percent in the case of maize, 43 percent for beans and 62 percent for rice. It should be noted, however, that compared with the other countries in the region, these prices are the lowest.

Table 17
Trends in average prices paid for basic grains (in dollars/quintal<sup>16</sup>)

			Maize		E	Beans			Rice	
Country	Year	Producer	Wholesaler	Consumer	Producer	Wholesaler	Consumer	Producer	Wholesaler	Consumer
Belize		N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
	1994	8.8	10.9	11.0	25.7	32.1	38.1	26.7	26.2	38.8
	1995	8.1	8.5	9.6	25.1	26.5	32.7	21.9	25.3	33.5
	1996	12.9	13.6	15.3	40.3	41.6	50.5	21.0	24.2	32.3
Guatemala	1997	11.8	13.3	13.9	23.0	23.7	29.0	23.4	27.0	39.1
	1998	16.4	17.2	19.3	33.9	39.0	42.6	24.8	28.6	38.2
	1999	12.4	13.0	14.7	28.6	29.5	35.6	24.3	28.1	36.9
	Average	11.7	12.8	14.0	29.4	32.1	38.1	23.7	26.6	36.5
	1994	N/a	N/a	N/a			N/a	N/a	N/a	N/a
	1995	N/a	N/a	N/a			N/a	N/a	N/a	N/a
	1996	N/a	N/a	N/a			N/a	N/a	N/a	N/a
El Salvador	1997	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
	1998	9.9	11.2	14.0	35.8		52.0	9.4	13.2	34.0
	1999	7.9	8.8	12.0	40.0	45.0	53.0	8.5	N/a	34.0
	Average	8.9	10.0	13.0	37.9	43.9	52.5	8.9	13.2	34.0
	1994	9.6	10.8	11.8	27.1	29.1	32.1	13.2	23.4	25.9
	1995	7.9	8.9	10.1	19.0	21.1	23.2	13.6	24.6	26.7
	1996	8.1	12.1	13.2	24.6	50.6	55.3	13.2	27.8	30.4
Honduras	1997	11.3	12.0	12.9	42.5	44.1	49.3	15.2	28.3	30.8
	1998	8.9	9.3	10.2	28.4	34.8	40.5	N/a	30.0	32.1
	1999	8.7	8.2	9.4	31.4	37.5	42.6	N/a	27.1	30.1
	Average	9.1	10.2	11.3	28.8	36.2	40.5	13.8	26.9	29.3
	1994	9.3	11.7	16.5	25.1	30.1	35.4	10.1	22.6	23.8
	1995	7.4	8.9	8.0	18.6	23.5	28.5	9.8	22.7	26.1
	1996	10.7	13.3	17.4	41.0	46.7	55.6	11.0	23.9	28.5
Nicaragua	1997	9.2	10.9	15.7	39.1	45.6	57.8	10.8	23.4	28.8
	1998	8.1	10.5	13.9	36.7	44.5	52.5	10.2	22.1	28.2
	1999	6.9	8.8	11.9	31.6	40.5	45.6	9.3	21.2	24.8
	Average	8.6	10.7	13.9	32.0	38.5	45.9	10.2	22.7	26.7

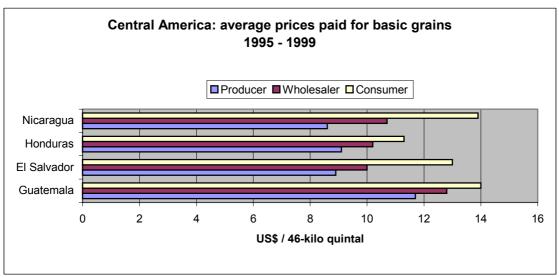
N/a= Not available; Source: Ministries of Agriculture; CORECA Secretariat

Compared with the international prices governed by the Gulf of Mexico, prices in Central America, which refer to the price paid to the producer, set the value of maize at US\$190/tonne, beans, at US\$635/tonne; and rice, at US\$196/tonne. The values at the Gulf price are US\$95/tonne, US\$ 490/tonne and US\$187/tonne, respectively, for the same products.

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<sup>&</sup>lt;sup>16</sup> For the purposes of this document, a quintal weighs 46 kilos.

Chart 12



In conclusion, domestic prices in each country have followed the dictates of supply and demand, and it would seem that Hurricane Mitch did not influence their behaviour to a decisive degree. The various factors mentioned above have had a major impact, however. Imports have played a fundamental role which, even if it has not harmed consumers directly, certainly has had the effect of reducing the incomes of farm workers.

### V. ACCESS TO BASIC FOODS

### 1. Trends in food basket and its cost

It would appear that since Hurricane Mitch, the monthly cost of the food basket, as well as the expanded food basket and the basic basket<sup>17</sup>, have not fluctuated a great deal. This is essentially because the exchange-parity and price-adjustment processes do not reflect difficulties in gaining access to the baskets.

When one looks at trends in the various countries, the consumer price indexes of Honduras and Nicaragua reflect significant rises in the CPI of foods, which rose 25 percent and 21 percent, respectively, between 1997 and 1999. In terms of the food basket and the basic basket, however, the trends are a little less pronounced. This is due to the dollarization effect applied to the baskets. The movements of countries' domestic currencies against the dollar do not match the movements of the income level of the population in local currencies.

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<sup>&</sup>lt;sup>17</sup> The food basket includes the 11 essential products guaranteeing a minimum dietary intake, and has already been described in previous chapters. The expanded (or "basic-foods") basket provides for the consumption of fruits, vegetables and prepared cereals, in addition to the 11 essential products. The basic basket includes other products and household items, such as clothing, transport, health services etc., in addition to the basket of basic foods.

Table 18
Cost of food, basic-food and basic baskets (December 1997- December 1999)

	Year	СРІ	%	Monthly Cost of Baskets US\$			
Country		General	Foods	Food	Basic Food	Basic	
Belize	1997	110.6	111.2	N/a	N/a	N/a	
	1998	109.7	110.1	N/a	N/a	N/a	
	1999	108.4	108.3	N/a	N/a	N/a	
	1999/97	0.98	0.97	N/a	N/a	N/a	
Guatemala	1997	827.0	940.7	124.5	184.3	336.4	
	1998	911.3	1 028.7	114.0	169.5	308.0	
	1999	927.6	1 005.6	99.5	147.8	269.0	
	1999/97	1.12	1.07	0.80	0.80	0.80	
El Salvador	1997	148.8	159.5	142.7	N/a	285.6	
	1998	155.0	170.4	140.6	N/a	281.2	
	1999	153.5	161.5	135.6	N/a	271.3	
	1999/97	1.03	1.01	0.95	N/a	0.95	
Honduras	1997	75.2	77.0	114.0	124.5	151.8	
	1998	85.5	85.9	123.1	134.6	164.1	
	1999	95.4	96.2	129.4	141.5	172.5	
	1999/97	1.27	1.25	1.14	1.14	1.14	
Nicaragua	1997	135.2	136.0	22.40	89.62	140.28	
	1998	152.9	155.4	22.44	89.76	141.04	
	1999	170.0	163.9	21.19	84.78	137.57	
	1999/97	1.26	1.21	1.16	1.16	1.21	

N/a= Not Available; Source: Institutes of Statistics and Censuses, Reports of Central Banks

In practice, this process does not reflect how hard it is for the poorest population groups to purchase essential foods and products. This is true of all the affected countries, and especially the rural population, many of whom earn only the minimum wage across all economic activities.

As Table 18 illustrates, there are marked differences between basket prices in the different countries. If we look at the food basket, for example, El Salvador has the highest cost for the 11 products that it contains. The same is true of the basic basket. And yet, Nicaragua has a considerably lower cost than in all the other countries in the region, with regard to its food and basic baskets. For the food basket, Nicaragua's cost is as much as four and five times lower than elsewhere, while for the basic basket, it is between 96 percent and 125 percent cheaper.

The reason for these lower costs is that Nicaragua is the poorest in terms of income per capita (less than US\$500 per month) and also has the lowest prices in the region. The domestic prices of basic grains and garden vegetables are very low, and these items are often acquired by purchasers from neighbouring countries.

If we look at how far the average monthly income of workers in various countries can cover the cost of the basic basket, we see that a Guatemalan worker earning the average national income in 1997 (US\$271.3) could meet only 81 percent of the cost (US\$336.4). With an end-1998 income of US\$265 per month, however, he could cover 86 percent of the basket. In 1999 his income (US\$257.6) would enable him to

cover 95 percent: a clear improvement. Over the same period, however, the income of an agricultural worker would cover only 32 percent, 34 percent and 37 percent of the same basket, respectively. Thus, incomes in the rural sector allow workers to purchase only the food basket, while wage earners in the urban sector are able to cover the cost of the basic basket 1.5 times (see Table 19 and Annex 13).

For workers in El Salvador, the average national wage is not enough to cover the food basket, and far less the basic basket. In 1997, the average monthly income of US\$97.4 would not cover the food basket, which cost US\$142.7. The level of coverage for the food basket was thus only 68 percent and, in the case of the basic basket, 34 percent. Over the next few years, there was a slight improvement, with coverage levels for the food basket rising to 74 percent, and coverage of the basic basket, to 37 percent. In 1999, the year immediately after Hurricane Mitch, the situation improved a little further, to levels of 77 percent and 39 percent, respectively. In the rural sector, the situation is much more dramatic, as there was a freeze in farm wages, at the minimum wage of US\$81 per month. As a result, agricultural workers could afford 58 percent coverage of the food basket and 29 percent of the basic basket (see Tables 18 and 19 and Annex 13). Note that a large part of the Salvadorian population receives an extra income of 28 percent deriving from family remittances sent home from the United States. Those remittances totalled US\$1 600 million in 1999, making remittances the country's prime source of foreign-exchange income.

In Honduras, the situation is similar to that of El Salvador, since the average monthly wage of the population covers neither the food basket nor the basic basket. Taking the year 1999 as a reference for the post-Mitch situation, the national average was US\$86.7 per month, while the cost of the food basket was US\$129.4 per month and the basic basket US\$172.5 per month, so that the coverage was 67 percent for the first and 50 percent for the second. In the agricultural sector, in the same year, coverage was 61 percent and 46 percent, respectively, for both baskets.

According to official figures, in Nicaragua, the income levels of the employed population, in both sectors, are well able to cover the food basket. And yet, the lowest-income sectors and the high proportion of the population that is either unemployed or underemployed suggests that this relationship is distorted. In 1999, GDP per capita was US\$488 per annum, and the methods used to measure poverty by other state sectors indicate that coverage of incomes in the food basket and the basic basket is the opposite of that found in the other countries, since national indicators in Nicaragua give the agriculture sector a coverage of two food baskets and, in contrast, scarcely 32 percent for the basic basket, in 1999. It is the same for the national average, which is reported to cover times the food basket 2.2 times, and the basic basket to only 35 percent.

If we consider the unemployed population, at the regional level, and the capacity of the unemployed to cover the food basket, we see that 30 percent of this population has access to the food basket and has serious difficulties in purchasing the basic basket. With a 50 percent regional average poverty level, the income levels of this population are considerably below those in the formal sectors of the economy,

although they do serve as a reference point for gaining some sense of the living conditions of the people affected by Hurricane Mitch.

The number of people who would not be in a position to purchase the basic basket for the region is estimated to be around 15 million (50 percent of the total regional population) They are mostly farm labourers and/or agricultural workers and, to a lesser degree, people from outlying districts of regional capitals, at high risk of food insecurity. In this context, the exception is Belize, where living conditions are a little better than those of other population segments elsewhere in Central America.

Table 19
Employment & per-capita wage, per sector of activity 1997/99

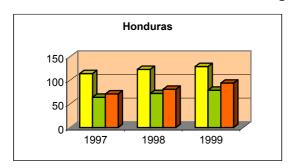
Employment a per-capita wage, per sector of activity 1997/99							
Country	Year	Total		Rural		Urban	
		Workers	Average	Workers	US\$	Workers	US\$
		(1 000s)	US\$	(1 000s)	per capita	(1 000s)	per capita
Belize		N/a	N/a	N/a	N/a	N/a	N/a
	1997*	681.6	271.3	212.8	106.9	468.8	435.7
Guatemala	1998*	709.9	265.0	204.0	104.7	505.9	425.3
	1999*	1 513.5	257.6	984.3	98.9	529.2	416.3
	1997	3 201.7	97.4	883.7	81.0	2 318.0	132.0
El Salvador	1998	3 298.5	104.2	903.8	81.0	2 394.7	144.0
	1999	3 474.0	104.7	1 005.4	81.0	2 468.6	144.0
	1997	1 955.0	67.2	799.7	63.5	1 155.3	70.8
Honduras	1998	2 040.9	76.2	817.1	71.7	1 223.8	80.7
	1999	2 131.3	86.7	834.9	79.3	1 296.4	94.1
	1997	1 369.9	49.4	574.5	44.5	795.4	79.2
Nicaragua	1998	1 441.8	46.7	609.2	43.4	832.6	56.7
	1999	1 544.2	47.6	655.3	44.3	888.9	55.7
	1997	7 208.2	121.3	2 470.7	74.0	4 737.5	179.4
Average	1998	7 491.1	123.0	2 534.1	75.2	4 957.0	176.7
	1999	8 663.0	124.2	3 479.9	75.9	5 183.1	177.5

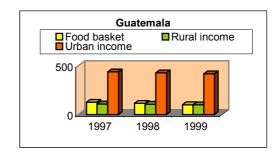
<sup>\*</sup> Affiliated to Social Security; N/a= Not Available; Source: Agriculture Ministries.

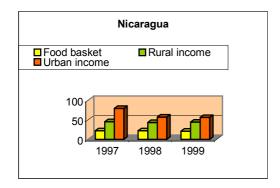
The charts below demonstrate the relationship between the cost of the food baskets and average agricultural and urban incomes, with the exception of Nicaragua, where, although it appears that people can cover the basket, they cannot in fact purchase all the foods they need. Mitch exacerbated the problem, and it may well be that the situation will deteriorate further in the near future.

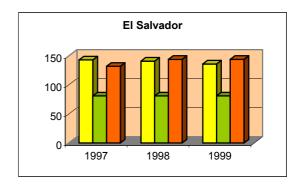
It should be noted that most of the regional population employed in the agricultural sector does not enjoy the benefits of social security. When they do enjoy those benefits, the level of income is so low that the relationship between coverage and their basic needs is not as it should be. Indeed, there is even a tendency for the few material goods involved to be undercapitalized, in order to provide for these needs, as well as for other basic services.

Chart 13
Dollar cost of food basket vs. average rural and urban incomes in each country









# 2. Overall poverty situation

### a. General description

The countries affected by Hurricane Mitch face one of the most difficult situations that can be encountered in the areas of poverty and food insecurity. Essentially because of structural problems, poverty has become a short-term condition for population sectors with the lowest incomes and the lowest production capacity, who must confront the problem of survival every day. As the economies of each affected country become globalized, the profitability of production for domestic consumption comes up against the profitability of exports. Within this context, there is little chance of investment in food production or adequate social investment.

Added to the above, there are the high levels of poverty, which – notwithstanding the official figures – affects two-thirds of the region's population and, within that population, almost all indigenous communities, who live in a constant state of poverty and social exclusion. In statistical terms, this means that they are a vulnerable population group, at high risk of food insecurity.

Normally, it is rural communities that live under such conditions. These population groups are generally classified as producers of basic grains, having areas of land of less than two hectares. Typically, they supplement their incomes by offering their labour or through low-cost handicraft activities. In some cases, they also receive income in the form of remittances sent from abroad by their relatives – most of whom

have emigrated to the United States. The other important sector of the population is made up of those who live in outlying city districts or in marginal inner-city districts. The people in these areas are mostly informal workers with very low income levels and very little chance of finding stable employment.

There are very few jobs available to these people, because their cultural and educational level is very low. In fact, the average length of school enrolment in the region is 3.7 years of primary school. Furthermore, until very recently, they also had to endure the armed conflict that devastated most countries in the region, with the sole exception of Belize.

Furthermore, the arrival of peace did not bring investment programmes, access to credit facilities, technical-assistance programmes, etc., for the reconstruction of family production units or, even less, for the relocation of entire populations, who had to emigrate to neighbouring countries in order to survive.

The number of people living in extreme poverty rose from 13.9 million people<sup>18</sup> in 1990 to 14.5 million in 1998, as shown in Table 20. The countries most affected, in relative terms, were Nicaragua and Honduras, which account for 50 percent of all those living in extreme poverty, out of a total of around 22 million people living in poverty in the region as a whole.

Table 20
Basic poverty indicators

Country	Population 1 000s	Level of extrer	ne poverty	Per-capita GDP	External debt*	
	inhabitants	Inhabitants 1000's	%	US\$	Million US\$	
Belize	249.8	N/a	N/a	2 725	338.0	
Guatemala	11 389.3	5 580.6	49.0	1 533	4 565	
El Salvador	6 276.1	3 031.3	48.3	1 716	3 630	
Honduras	6 597.1	3 298.6	50.0	722	5 002	
Nicaragua	5 113.4	2 572.0	50.3	452	5 968	
Total	29 625.7	14 482.5	49%	1 204	19 503	

<sup>\*</sup> In 1998; Source: Central American Institutes of Statistics, Central Banks, UNDP.

The largest number of people living in extreme poverty in the entire Central American region is found in Guatemala, where 38.5 percent (5.6 million people) live in extreme poverty. Honduras lies in second place, with 3.3 million people (22.8 percent) living in this terrible condition. El Salvador has 21 percent of those who are extremely poor (3.0 million people), while Nicaragua has 17.3 percent of the total (2.6 million people).

Nicaragua has the highest proportion of people living in extreme poverty, relative to its total population, with 50.3 percent. Honduras has the next-highest proportion (50 percent); Guatemala lies in third place, with 49 percent, and El Salvador has the lowest relative proportion of people living in extreme poverty. These relative

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<sup>&</sup>lt;sup>18</sup> SICA, Strategic Plan for the Development and Social Integration of Central America to the Year 2020, September 2000.

differences between the different countries are not, however, significant. Indeed, in the region as a whole, 49 percent of people live in extreme poverty.

One reason for the increased poverty in these countries is the high level of external debt, which, for all countries, totalled US\$19 500 million, or 54 percent of total annual regional GDP, in 1998. In the case of Honduras and Nicaragua, however, external debt represents 1.5 times and 2.5 times their annual productive capacity, respectively. Based on the regional exports of the countries affected, this debt is equal to 2.3 times joint exports, and in the case of Nicaragua, almost 10 times its export capacity.

Although per-capita GDP may be useful for evaluating poverty, it does not accurately reflect the real lives of the people. In this case, it reflects a concentration of wealth within minority nuclei, in which manifestations of opulence stand out amid widespread manifestations of marginalization: people without basic health services, education, drinking water or sanitation, and with their communications and transport systems in an appalling condition.

In 1998, the per-capita incomes of the countries under consideration were as follows: Belize, US\$2 669; Guatemala, US\$1 640; El Salvador, US\$1 850; Honduras, US\$740; and Nicaragua, US\$370. The two latter countries are, by the way, the poorest in the region. And yet, the level of poverty is similar in all the countries of the region, even though it is more pronounced in countries with a higher per-capita income.

The SICA report<sup>19</sup> gives the following figures for the level of social investment in the countries affected, two years before Hurricane Mitch. As a percentage of GDP, the respective levels were: Nicaragua, 10.7 percent; El Salvador, 7.7 percent; Honduras, 7.2 percent; and in Guatemala, 4.2 percent.

Table 21
Selected poverty indicators

Country	Drinking- water coverage		Housing deficit	UNDP HDI		Schooling (years of study)	
	Urban	Rural	(thousands)	1998	1999	2000	
Belize	N/a	N/a	N/a	63	83	58	N/a
Guatemala	96	68	1 390.0	111	117	120	3.2
El Salvador	92	25	550.0	114	107	104	4.1
Honduras	89	53	700.0	119	114	113	4.3
Nicaragua	89	35	380.0	126	121	116	3.8
Total	92	45	3 020.0				3.7

Source: HDI – UNDP, SICA.

Among the indicators that define the regional poverty situation, the following should be mentioned: whereas 92 percent of all the population in the countries affected by

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<sup>&</sup>lt;sup>19</sup> SICA, Strategic Plan for the Development and Social Integration of Central America to the Year 2020, September 2000.

Hurricane Mitch have access to drinking-water services, the figure for rural households is just 45 percent. There is also a chronic housing shortage in the region. A total of 3.0 million new homes are needed, but the annual construction capacity is only 80 000 dwellings (in both the public and private sectors). Since demographic growth rates point to an increase of 150 000 families per year, it will take 37 years just to meet current demand. Consequently, families themselves must find their own solutions to the problem of overcrowding (see Table 21).

In the case of the earthquakes in El Salvador in January and 2000, the number of homes destroyed is estimated to have been around 150 000, with a further 150 000 having sustained damage. This further increased the shortages among the Salvadorian people.

With regard to the Human Development Index (HDI), which is prepared annually by UNDP, studies referring to the period 1998-2000 (which in fact refer to 1996-1998) indicate the following: Belize has climbed from 63 to 58 on the index scale; Guatemala has fallen 111 to 120; Honduras has risen from 119 to 113, despite a number of setbacks, including Hurricane Mitch; and El Salvador and Nicaragua have been better behaved, each slipping by 10 places, from 114 to 104 and from 126 to 116 respectively, over the three years in question.

The country with the highest school enrolment rates is Honduras, with an average of 4.3 years of study across the population. El Salvador has a slightly lower average (4.1 years), while Guatemala and Nicaragua have averages of 3.2 and 3.8 for respectively.

Of the total population of Central America, 48 percent live in urban areas. It is expected that, due to the impact of migration from rural areas to the cities, that percentage might reach 64 percent by the year 2020. This will mean that there will be 32 million people (almost the present population) will be living in metropolitan areas<sup>20</sup>.

This migration essentially represents a response to the concentration of jobs in urban areas. In rural areas, meanwhile, poverty is increasing at an alarming rate. Indeed, for all countries in the region, poverty indicators are increasing in rural areas. In the case of Guatemala, the rate has reached an overall level of 66 percent. Moreover, in the country's northern regions, where most of the indigenous people live, the percentage is 80 percent. In El Salvador, the national indicator of rural poverty stands at 62 percent of rural households. In Honduras, rural poverty affects 75 percent of the population, 65 percent of whom are extremely poor, with indigenous ethnic groups and Afro-Antillan groups the hardest hit. Afro-Antillan groups live in the most extreme poverty, for two reasons: the effects of the lethal yellowing of the coconut palm and the impact of Acquired Immunodeficiency Syndrome (AIDS).

In Nicaragua, rural poverty makes up 75 percent of the total. The largest concentrations of rural poor live in the Atlantic and North-Central regions of the country. In Belize, poverty is also concentrated in rural areas, which account for 43

<sup>&</sup>lt;sup>20</sup> SICA, Strategic Plan for the Development and Social Integration of Central America to the Year 2020, September 2000.

percent of the total. Hardest hit are indigenous Maya (70 percent), indigenous eastern groups (42 percent) and Mestizos (35 percent).

Of course, most of those living in extreme poverty are affected by food insecurity, especially within those communities (the majority) that depend on dry agriculture and stable rainfall, and whose production focuses on basic grains and, to a lesser degree, on fruits (largely for their own consumption).

The damage inflicted by Hurricane Mitch on urban areas, and especially outlying urban areas, exacerbated the poverty. The institutional response capacity was very limited, and the resources that were promised, especially in the case of Honduras, did not cover the majority of the population, who had to survive under conditions of chronic overcrowding, together with their relatives, in homes that were too small to accommodate a large number of people. There was also the further complication of problems involving children and elderly people, who suffer permanently from the diseases commonly associated with this type of situation.

In many areas (both urban and rural), however, the humanitarian assistance received by most of the affected populations has proven to be the only form of income and the only way to improve their living standards. The assistance provided thus becomes a way to meet long-standing needs. As a result, among the poorest population groups in all the countries affected, disasters have become a way for people to improve their lives a little in the middle of tragedy. For a short while, at least, they have access to health services, medicines, clothes, shelter, food and even a little diversion, only to have to return once more to the struggle of their daily lives, with all the associated limitations.

Every Mitch-type event highlights the desperate reality of poverty in the region regional and demonstrates the need for investment in social and productive sectors to provide a medium-term response to the urgent needs of this vast number of people and prevent the consequences of violence and social unrest that were such a tragic constant in people's lives during the 1980s.

### b. Plans and programmes

In general, the countries concerned have, since Hurricane Mitch, felt the need to strengthen their national capacities to initiate a poverty-reduction programme. However, this need cannot be met by these countries on an individual basis, since their national budgetary resources are not enough to have a real impact on this scourge, which continues to grow with every passing day.

Following the hurricane, consultative forums were organized jointly with the international community and multilateral support organizations, with the aim of soliciting assistance for the countries in the region affected by the hurricane, at annual meetings in Estocolmo 2000 and, recently, Madrid 2001.

The countries have jointly formulated projects in the areas of health, education, agriculture, forestry, the environment and infrastructure. Among other projects, emphasis has been placed on management of resources in shared basins, with a

view to preventing disasters and addressing them through concerted action in other project components, such as health, education, gender equity, production, financial and economic matters and vulnerability.

In addition to making plans for the reconstruction of lost infrastructures and production capacities, the affected countries have also been preparing draft strategies for the reduction of poverty, which contain very specific objectives, but which require major investment in the region, of around US\$2 000 million per annum over four years.

The plans formulated to combat poverty in each country may be summarized as follows:

<u>Guatemala</u>: The Social Plan presented by the Government focuses on three main goals:

- Sustained economic growth, based on clear, consistent rules;
- Creation of paid employment based on productivity;
- Investment in human capital, to ensure that the people have access to basic social services such as health and education.

<u>El Salvador</u>: The National Plan for Reconstruction,<sup>21</sup> is structured around five concentric security circles, designed to reduce vulnerability:

- Social organization of responses before, during and after disasters;
- Equal access to health and shelter, with an adequate infrastructure, as basic elements of people's security and productivity;
- More equitable opportunities for economic integration, through promotion of microenterprises and small enterprises and promotion of their capacity for market participation;
- An environment that is preserved and used within a spirit of respect for the requirements of today and tomorrow;;
- Strengthened formal and informal government institutions.

<u>Honduras</u>: Through the Master Plan for National Reconstruction and Transformation, five key goals have been identified, based on rapid and sustained economic growth:

- To reduce the effects of the impact of Hurricane Mitch on the living conditions of the most vulnerable population groups;
- To improve the quality of, and access to basic social services;
- To increase opportunities to create jobs for low-income families:
- To promote and protect natural resources and the environment;
- To expand and improve the participation of low-income population groups in dealing with factors that exacerbate and perpetuate poverty.

<u>Nicaragua</u>: In announcing its Reinforced Strategy for Poverty Reduction, the Government identified three main strategic goals:

<sup>&</sup>lt;sup>21</sup> National Reconstruction Plan to Transform El Salvador and Reduce its Vulnerability, May 1999.

- Equitable and broad-based growth, with high generation of quality jobs and emphasis on developing the rural economy;
- A high level of investment in the human capital of poor population sectors;
- Strengthening of social-welfare systems.

As mentioned above, these plans require a massive investment programme, estimated at around US\$2 000 million per country within a time span of four years. This will require international aid, in the provision of financial resources and technical assistance and creation of mechanisms for follow-up and evaluation of how the resources to be allocated to the various development areas will be prioritized and directed. It will also be necessary to determine the funds and the national staff that will be involved in these actions.

Hurricane Mitch had the effect of destabilizing the economies of Honduras and Nicaragua and both countries have therefore asked the international community to cancel their External Debt Their requests were made through the IMF, under the terms of the HIPC initiative. Both countries are eligible under the initiative, and it is therefore very possible that they will be granted cancellation of around 80 percent of their present debt over the medium-term.

For their part, non-governmental organizations in all affected countries have plans and programmes of their own. In most cases those plans and programmes do not dovetail with government plans, which were discussed at international forums, in an effort to determine the best way to confront the crises caused by natural disasters and seek out the necessary assistance. In the specific case of Hurricane Mitch, such organizations have been used as intermediary channels. As it turned out, if the international community was full of good intentions, those intentions have not translated into concrete actions, for various reasons, ranging from questions as to how the funds should be spent, to identification of the beneficiaries, a process conducted jointly with state authorities. Moreover, promised funding for rehabilitation actions did not arrive in the amounts requested.

Lastly it is often very noticeable that whenever a disaster affects a region in this hemisphere, and is then superseded by another, similar, or more devastating event on another continent, the tendency of the international community has been to defer or relegate the importance of the first event, as has been the case with Hurricane Mitch. Naturally, this has had the effect of limiting effective reconstruction, especially in the most vulnerable sectors, including food production.

# 3. Composition of households in the region

Demographic conditions are very similar throughout the region and, with the exception of Nicaragua, which has the highest rate of population growth, the other countries demonstrate a trend toward a reduction in their population growth. Households overall are composed of families of between 4.5 and 6 members, with numbers trending to be higher in rural families. Women are heads of household in between 35 and 42 percent of homes in the countries affected by Hurricane Mitch. In most households, 85 percent of occupants are under 40 years of age.

Most households (75 percent) have homes made of wood, with a zinc roof and, especially in rural areas, a floor of earth or filler material, covered with a thin layer of cement. Many urban homes are built from adobe bricks and cement, and there are still a number of houses made with the traditional *taquezal* ("pocket") building technique.<sup>22</sup>

## 4. Mechanisms for disaster prevention and relief

# a. Follow-up and evaluation of the affected population

Two years after Hurricane Mitch tore through Central America, the memories of regional institutions and regional populations provide testimony to a tragedy that virtually exhausted the capacities of the region. Actions to follow-up and evaluate the effects of Hurricane Mitch on the population, both from the view of State institutions and of non-governmental organizations and civil society, have simply drifted into oblivion. Other disasters have occurred since Mitch, and priorities have been shifted to other sectors.

In fact, it has not always possible to gather information about these events, with a view to determining how the condition of the affected population was changed by Hurricane Mitch. One of the main reasons for this is that agreements made with the international community of donors and international financial entities were not honoured within the specified time periods. Furthermore, the recommendations of the United Nations System concerning measures to deal with vulnerability in the region were not taken into account.

In Central America, under agreements reached by national Presidents at the 20<sup>th</sup> Summit, held after Mitch, prior to the Estocolmo Conference of May 1999, it was agreed to adopt the Strategic Framework for the Reduction of Vulnerability and Disaster Relief in Central America, which contains measures regarding damage prevention and relief, as well as the preparation for, and management of emergencies. This Framework of Actions sought to reduce vulnerability to natural disasters over the immediate five-year period 2000 – 2004, and stipulated, through the Central American Security Committee, the adoption of mechanisms for joint action. Due to operational limitations, however, it has not been possible to guarantee that mandates and expressions of good intentions be converted into concrete action.

## b. Mechanisms for prevention and relief

All countries in the region have created new organizations as institutional responses to these issues. The institutions in question, and their functions, are as follows:

<u>Belize</u>: Belize has a national office for the management of emergencies, which implements its actions through the National Emergency Management Organization (NEMO), acting in a direct line from the Office of the Prime Minister. NEMO is endowed with a coordination office, which in turn functions through a number of

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<sup>&</sup>lt;sup>22</sup> Construction of timber and laths, with a mud filling, dating from the early 1950s. This was replaced by a construction of mud bricks, blocks of cement and prefabricated materials of cement, plaster and wood in urban and rural households.

Committees, which administer each sectoral action and effectively implement its guidelines at the district, municipal and local levels. The national plan was revised in 1997 and functions on a permanent basis.

<u>Guatemala</u>: Guatemala has created the National Office for the Coordination of Disaster Relief (CONRED), which has been duly supported by a Law and a Regulation since 1996. It consists, in the first instance, of a National Council, comprising the main state ministerial organizations involved in this type of action, as well as members of civil society. Its administrative actions are in turn implemented through an Executive Secretariat, which is endowed with technical coordination teams at the regional, departmental, municipal and local levels.

<u>El Salvador</u>: The El Salvador National Emergency Committee (COEN) has, in the past, been solely responsible for dealing with emergencies. Presently, however, the Committee's prevention and relief activities are the subject of discussion, aimed at strengthening National Emergency and Civil Defence laws that have existed since 1976. This discussion process was initiated by NGOs specializing in disasters. These NGOs have been forming a response that parallels the response of civil society, but contrasts with the operative and functional nature of the institutional response to disasters. COEN operates at the regional, departmental and municipal levels.

Honduras: Honduras has created the Permanent Emergency Committee (COPECO), which is the national entity for the coordination of emergency and disaster management. COPECO answers to the National Emergency Commission (CNE), which is coordinated by the President of the Republic, albeit with a limited functional mandate, since much of the responsibilities in this regard are assumed by the Joint Operations Command of the Armed Forces. As a result, disaster-relief coordination is organized according to military regions, and this system feeds down, in turn, to the municipal and local levels. UNDP and the Honduran Government concluded that it would be advisable to draft a Programme to Strengthen Capacities for Risk Management and Relief of Natural Disasters in Honduras. This programme is closely linked with civil society, and with National and Municipal Governments.

Nicaragua: Legislation was recently passed (June 2000) to introduce the National System for Disaster Prevention and Relief, headed by the President of the Republic and run by a permanent Executive Secretariat. According to the United Nations Representative in Nicaragua, this is perhaps the best-structured disaster-response system in the region. It is administered by a National Emergency Committee, comprising all the State Agencies concerned (those national entities involved with this theme). It also functions through regional, departmental and municipal Committees.

## c. Population at risk of food insecurity due to natural disasters

As mentioned above, the Central American region is vulnerable to the ravages of hurricanes, with a margin of probability of 36 percent on the coasts of Nicaragua and Honduras (which are located at 20° North and 84° West) and with less risk for the

remaining countries in the area<sup>23</sup>. Of all the countries in the region, El Salvador runs the least risk of suffering the ravages of a cyclonic event.

The number of people in the region that are at risk of suffering such events is approximately 7.4 million (equivalent to 25 percent of the regional population). Honduras and Nicaragua have the highest proportions of at-risk people, relative to their respective populations. In the case of El Salvador and Guatemala, the levels of population at risk are 19.1 percent and 17.6 percent respectively, as shown in Table 22.

Table 22
Population at risk of food insecurity due to natural disasters

Country	Total pop.*	Population at Risk (millions of inhabitants)					
	thousands	Hurric.	%	Drought	<b>%</b> *	Earth-quake	%
Belize	249.8	N/a	N/a	N/a	N/a	N/a	N/a
Guatemala	11 389.3	2.0	17.6	6.9	60.6	6.5	57.0
El Salvador	6 276.1	1.2	19.1	2.8	44.9	3.0	47.6
Honduras	6 597.1	2.9	44.0	3.4	51.8	4.0	60.6
Nicaragua	5 113.4	1.3	25.4	2.3	44.7	1.4	27.4
Total	29 625.7	7.4	25.0	15.4	52.5	14.9	50.3

<sup>\* 1998;</sup> Source: OXFAM and Consultant estimates

Droughts or extended periods of low water probably place more people at risk than any other natural disaster, since they have a very pronounced effect on rural populations, whose incomes are low and who are highly dependent on agricultural production for their survival – whether they are growers or farm labourers. Indeed, it is estimated that the number of vulnerable and food-insecure people in the region may be 15.4 million, which is equivalent to 52.5 percent of the inhabitants of the countries affected. This is particularly true of countries that still have a large rural population, like Guatemala and Honduras, whose rural populations make up 60.6 percent and 51.8 percent of their total populations, respectively.

With the El Niño cycle about to be completed, the vulnerability of countries in the region that have a large number of people living along the Pacific Coast will be exposed once more. This is especially true of El Salvador, Honduras, Nicaragua and Costa Rica. It is therefore likely that an alert may have to be sounded for this phenomenon during this year and next.

As far as earthquakes are concerned, the region is an area of high seismic activity, due to the fact that five major tectonic plates coincide there: the Coco, Pacific, North American, Caribbean and Rivera plates.

Two earthquakes of catastrophic dimensions struck El Salvador in January and February, as this report was being prepared. The earthquakes affected 184 000 families, leaving 155 000 homes destroyed and around 1.5 million people in a condition of food vulnerability<sup>24</sup>. Consequently, the emergency rations provided by

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<sup>&</sup>lt;sup>23</sup> OXFAM, Analysis of Risks and Vulnerability in Central America and Mexico, 1999.

<sup>&</sup>lt;sup>24</sup> General damage report of the World Food Programme, El Salvador office, March 2001.

WFP were not enough to deal with the effects of two earthquakes that struck one month apart.

Of particular interest in this context is that the damage was greater in rural communities, where the homes of local farm workers, who grow basic grains, were damaged or destroyed. These farmers also lost part of their grain production, which was buried by the earthquakes. The ability of these farmers, and of the State, to reconstruct and rehabilitate material assets is extremely limited. It seems that a food-insecurity alert may be needed, because the people are selling their few capital goods and sowing seeds for the planting cycle that begins in April, with the preparation of the land ahead of the May rains.

If these people are not provided with a consequential, nation-wide programme, El Salvador may, in the medium term, be presented with a high risk of hunger in communities where it will not be possible to plant due to the lack of resources with which to work the land. This is especially the case if one considers that the few resources that are being provided are being spent on the partial reconstruction of homes.

# 5. The international community and emergency aid

Emergency aid from the international community functioned effectively for all the countries and areas where Hurricane Mitch inflicted the heaviest damage. WFP provided emergency and urgent support for around 1 250 000 people between the period immediately after the tragedy (October 1998) and May of the following year. That aid consisted of maize, legumes, canned fish and vegetable oil.

Agencies that provided humanitarian food aid, as well as equipment for farming and the reconstruction of infrastructure, included organizations such as CARE, CRF, the League of Red Cross Societies, IICA, OIRSA, USAID, the European Union and European countries, Japan's JICA, and a number of international multilateral financial cooperation organizations with a regional presence (IDB, WB, IMF, IFAD, to mention some of the more prominent agencies). Much of the food aid was provided under the "food for work" model, both by WFP and by other international organizations, such as IDA, in close collaboration with other cooperation organizations having a major regional presence.

Mention should be made of the contributions made by organizations such as the European Union, which provided the region with US\$15 million, two-thirds of which was distributed to Honduras and Nicaragua, and the rest among the other two most heavily affected countries. In the same way, the United States Department of Agriculture provided aid in the form of 180 000 tonnes of wheat, 50 000 tonnes of maize and an aid programme of US\$40 million in other products, supplying the food aid through the Food for Peace programme.

In addition, the organizations of the United Nations System channelled all kinds of aid to those sectors that were most vulnerable to, and affected by the disaster, contributing, during the assistance phase, to the preparation of prevention and relief

actions in all the countries concerned, particularly PAHO, with its aid programmes for the health sector, and UNICEF, with its assistance to affected communities and to national institutions working with children and families.

On a regional basis, FAO, together with WFP, made major efforts to seek contributions from the international community. Those contributions totalled US\$58.4 million, and were intended to supply of food aid to 1 125 000 people, in Guatemala, El Salvador, Honduras and Nicaragua, over a period of six months. FAO also contributed by launching Technical Cooperation Programmes (TCPs) in each of those countries. Those programmes were linked to the immediate productive recovery of small food producers.

Furthermore, meetings of the Donor Community Consultative Group were also held, in Washington (December 1998), Estocolmo (May 1999) and Madrid (March 2001), with a view to drafting a framework for cooperation with the region. During these meetings, donors made commitments for over US\$2 800 million. Most of this money has not, however, been provided to the affected countries.

With regard to emergency assistance for the health emergency in the farming sector, both IICA and OIRSA made major contributions to the affected countries, for amounts of around US\$300 000 and US\$250 000 respectively. Those funds were used to purchase vaccines and chemicals, as well as for surveillance and data-collection actions aimed at monitoring potential outbreaks of plague and disease in the livestock sector.

It should be mentioned that in the Central American region, efforts are being made to strengthen CEPREDENAC, as the satellite organization of SICA, bringing together the national entities working in each country to help reduce the impact of natural disasters.

CEPREDENAC receives support from the following organizations:

- Germany's GTZ, which promotes local structures in matters of preparation, relief and prevention. GTZ also runs a programme to strengthen organizations responsible for implementing emergency operations in each country;
- Sweden's ASDI, which is focusing its attention on early-warning systems designed to reduce risk, strengthening CEPREDENAC;
- Norway's NORAD, which is focusing its attention on preparatory measures to be taken to counter seismic risk, with CEPREDENAC as its counterpart;
- IDB and the World Bank, which are also focusing their efforts on helping to strengthen the National Committees of CEPREDENAC in each country;
- UNESCO, which is providing support for the strengthening of capacities to reduce the impact of natural disasters, with CEPREDENAC as its counterpart.

Most of the funding provided by these institutions had run out by the time this report was being prepared. Additional resources are now being provided, however, with a view to funding integration and coordination activities, in light of the weaknesses identified in the following areas:

- Development of maps and risk scenarios, by type of risk;
- Standardization of regional information;
- Risk management;
- Planning of actions to deal with emergencies and reconstruction.

It must be said that efforts to address food vulnerability, within CEPREDENAC and within its counterparts in each country, are not reflected in the content of their respective programmes. Indeed, incorporation of this key social variable has not yet been addressed at the regional level.

## 6. Impact on internal and external migration

National institutions in the Central American region do not keep domestic records that might make it possible to determine the extent of migration from rural areas to the cities. Urban populations continue to increase, however, and SICA estimates indicate that if the relationship between rural and urban areas continues in this manner, the region will be transformed into a predominately urban region, with conditions very similar to those of Venezuela (the difference being that Central America does not have Venezuela's oil wealth).

Furthermore, it is well known – and migration records confirm this – that a significant proportion of migrants (the vast majority) head for the United States. As a result, these immigrants have become, in the case of El Salvador, the leading national resource in terms of foreign exchange income and support of the family economy and the national economy.

In 1999, total family remittances from abroad were as follows: El Salvador, US\$1 600 million; Guatemala, US\$700 million; Honduras, US\$400 million; and Nicaragua, US\$800 million<sup>25</sup>. This means that the region receives US\$3 500 million per annum, equivalent to US\$118 per annum per person. These remittances help somewhat to lighten the burden of many families in Central America, although in many cases, they conceal investments from other people in the countries.

# 7. National policies on food security

National food-security policies have been advocated by regional Agriculture Ministries as an essential component of efforts to manage natural disasters and improve the living standards of the population. In practice, however, it has not proven possible to communicate this message effectively. Nor has it proven possible to convince people of the support that should be given, at an institutional level, to build

<sup>&</sup>lt;sup>25</sup> Reports by Central Banks.

an administrative structure to implement actions that make it possible to conduct assessments and set up the various follow-up and evaluation mechanisms.

Authorities in the various countries do discuss this issue, and they are concerned about the living conditions of vulnerable population groups. In most cases, however, this idea is used more to refer to the supply of food to at-risk groups than it is to determine appropriate policy measures to resolve the food insecurity of the aforementioned groups. It also seems that the authorities have lost sight of the steps that need to be taken, and that ideas are often focused on mechanisms for combating poverty, as the essential precondition for efforts to combat food insecurity.

Some countries have drafted policy documents that require complementary technical-assistance programmes – since, in most cases, they focus on nutritional aspects – while avoiding factors such as the availability of foods, the stability of food supply, the conditions needed to ensure access and the best way to consume the food, bearing in mind the appropriate biological utilization.

The contents of each country's national policy are as follows:

<u>Belize</u>: Recently, in February of the present year, the Government presented its National Policy on Food Security, which will be administered by the Food and Nutrition Agency, administered by the Minister of Agriculture, Fisheries and Cooperatives (Ministro de Agricultura, Pesca y Cooperativas), with the participation of other ministries, NGOs and civil society. The Government presented the following six lines of action:

- Information, Education and Communication in Food Production, Preparation and Nutrition;
- Diversification of food production, food processing, storage and mobilization of credit;
- Care of pregnant and breastfeeding women, school meals and nutrition for the elderly and groups living in extreme poverty;
- Job creation and creation of local capacities;
- Food quality;
- Analysis and reform of national food and nutrition policies.

<u>Guatemala</u>: In the middle of last year, Guatemala's Ministry of Agriculture and Food (MAGA: Ministerio de Agricultura y Alimentación) formulated a proposal, which is currently being debated, called the Nutritional Food Security Policy 2000-2004. This policy is part of the Agricultural Policy for the same period. Food-security policy has an operational mechanism, the National Food and Nutritional Security System, which has not been successfully implemented since it was created in 1997, when the country's first Nutritional Policy on Food Security was drafted and approved. Its implementation is the responsibility of MAGA, which approves any actions that may be implemented in this context. It has the following objectives:

 To guarantee production of, sustainable supply of, adequate access to, and creation of favourable nutritional conditions for the consumption of basic,

- nutritional foods for the urban and rural population, mainly for at-risk groups, such as children, breastfeeding mothers and the elderly;
- To facilitate the development of activities that promote quality of life and/or productive activities designed to improve the economic incomes of the poorest population sectors, thereby increasing their capacity access to food;
- To facilitate food production activities within production systems that are socially, economically and environmentally sustainable, and provide them with support, with a view to improving access to technology, as well as to financial and institutional resources:
- To strengthen food-marketing systems, with a view to achieving maximum stability of supply and prices.

<u>El Salvador</u>: El Salvador has not yet drafted a food-security policy. A Food Security Strategy was formulated recently (1997). Based on four key development areas, this strategy has yet to be debated by the country's new authorities. There is a concern, however, on the part of the authorities, to initiate some form of action. The four key development areas are:

- To promote the increase and diversification of agricultural production among small and medium-size farmers, within a context of economic profitability and environmental sustainability;
- To encourage allotment or garden agriculture in rural areas, with a view to diversifying growers' diets and developing the function of such techniques as temporary sources of income;
- To promote job creation in rural areas, especially by seeking to improve coordination between agricultural production and the food-processing industry, by providing support for development and for the creation of centres of economic activity in the country's mid-sized towns;
- To define the institutional framework and the technical tools needed to facilitate the formulation, funding, execution and evaluation of the policies implemented, while striving to coordinate the public initiative with the private sector and with civil society, at the central and local levels.

<u>Honduras</u>: Up to this point, the State of Honduras has not had a national or institutional policy on food security. As a result, there are major shortcomings in the approach used by the State to deal with problems caused by shortages among the Honduran people – especially vulnerable and food-insecure groups.

<u>Nicaragua</u>: Until the early 1990s, Nicaragua was the region's best organized country in matters of food security, since it had a national programme that addressed all key areas. Thereafter, however, programme activities and institutional support gradually dried up, until the programme finally came to an end, in 1997. There is presently an initiative at the Ministry of Agriculture and Forestry (MAGFOR: Ministerio Agropecuario y Forestal), designed to initiate actions partially reinstating substantive programme actions. At the same time, the Department of Social Action has been charged by the Office of the President of the Republic with development of a Food Security and Nutrition Policy. The key strategic goals of that policy are the following:

- To promote conditions that help to improve domestic food production, with a view to increasing the available of food among the population;
- To ensure that the people have permanent access to plain and culturally acceptable foods, in order to provide a nutritionally appropriate diet, in terms of quantity and quality;
- To promote changes to habits and healthy dietary patterns;
- To improve indices for micronutrient deficiency and protein and energy malnutrition among children under five;
- To guarantee monitoring of foods with regard to hygiene, health and nutrition:
- To lead and coordinate the efforts both of state institutions, within the scope of their budgetary allocations, and of private institutions, whether national or international, to promote food and nutritional security;
- To provide an education based on the application of healthy practices, a healthy and nutritional diet, recreation and care of the environment.

These programmes have remained well-intentioned documents, and nothing more. Due to changes in Government, they have essentially remained on the shelf, without being transformed into concrete programmes to assist groups at risk or deal with food vulnerability. As with poverty-reduction strategies, launching such programmes requires the strengthening of national capacities, as well as the commitment of governments to allocating the budgetary resources needed to guarantee the sustainability of the proposed actions and goals.

Addressing food insecurity on a regional basis should provide an opportunity for close collaboration and consultation regarding specific actions, such as agreements or contracts, involving production, the horizontal transfer of low-cost technologies, marketing and the management of a consistent supply of standard foods specific to each country. The potential and the productive culture of the region can be addressed, on the one hand, through joint implementation of such actions with small producers and, on the other hand, through the systematic implementation of programmes for the analysis and definition of food vulnerability among population sectors living in extreme poverty and vulnerable to the effects of natural disasters. The objective is to identify more effectively the production systems and alternative sources of income that can help to reduce such vulnerability.

### VI. BIOLOGICAL UTILIZATION OF FOODS

# 1. Importance of cereals to dietary intake

In Central America and in the countries affected by Hurricane Mitch, cereals – together with beans, sugar and oil – constitute 75 percent of calorie intake. This dietary structure varies significantly from country to country, due to the various deeply rooted habits and customs of the local populations.

Cereals, sustained by basic grains, become an irrefutable necessity, however, when it comes to planning the diet of the poorest sectors of society in Central American countries. So hard is it for urban and rural workers to achieve a level of income that

might enable them to access other nutritional foods, that cereals are often the only source of food available – especially in rural areas, where the people produce them, as will be discussed in the section devoted to incomes and basic food baskets.

Consumption of these grains, based on the dietary standards of each country, is shown in Table 23, below:

Table 23
Standard for annual per-capita consumption of basic grains in countries affected by Mitch kilos per annum

Country	Maize	Beans	Rice
Belize	N/a	N/a	N/a
Guatemala	100.2	23.1	11.5
El Salvador	80.3	28.4	19.8
Honduras	157.5	25.7	16.5
Nicaragua	63.6	16.2	24.1
Average	100.4	23.4	18.0

Source: Agriculture Ministries

The countries with the highest dietary standards for maize are Honduras, which sets a standard of an annual 157 Kilograms per capita, Guatemala, with 100.2 Kilograms, and El Salvador, with 80.3 Kilograms. Nicaragua has the lowest dietary standard, at an annual 63.6 Kilograms per capita. The average across all countries is 100.4 Kilograms.

With regard to beans, the regional average is 23.4 Kilograms. The highest dietary standards are those of El Salvador and Honduras, with 28.4 and 25.7 Kilograms. Guatemala and Nicaragua set the lowest dietary standards.

In the case of rice, the situation is different. Nicaragua has the highest standard, at more than twice that of Guatemala. In percentages terms, it exceeds El Salvador and Honduras by 22 percent and 46 percent respectively (see also Annex 15).

### 2. Habits and customs

All countries concerned have very similar customs with regard to the consumption of traditional foods in the food basket. Indeed, the composition of the basket is the same for all countries. There are, however, certain forms of food preparation and certain wild herbs, favoured by individual peoples, that mark differences between the nations.

In this regard, the introduction, 40 years ago, by INCAP,<sup>26</sup> of a combined cereal (based on maize, soya and other nutrients), was received very positively in Guatemala, to a lesser degree in El Salvador and Honduras, and was rejected in Nicaragua, despite the fact that it was introduced under emergency conditions, following the earthquake that destroyed the capital, Managua, in 1972.

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<sup>&</sup>lt;sup>26</sup> Institute of Nutrition of Central America and Panama

The most striking factor, which is common to all countries, is the absence of a strategy for diversifying consumption, or for diversifying traditional forms of preparing the most popular foods. When some form of financial assistance is obtained for such diversification, it ceases to be sustainable when the funds run out. It would therefore appear that there is no desire to pursue this sort of initiative. Indeed, there are times when one might think that certain sectors of society regard such initiatives as an inconvenience.

## 3. Malnutrition

With respect to malnutrition in countries affected by the hurricane, assessments carried out in 1998 (see Table 24) indicate that the country where conditions are least favourable for children under five is Guatemala, where the indicator for growth or height retardation per age (chronic malnutrition) is 47 percent. The next worst is Honduras, where height censuses taken under the Government's Family Allowance Programme reflect a rate of 40.6 percent. Nicaragua and El Salvador are the countries with the most favourable statistics in this regard.

With regard to acute malnutrition, which measures weight loss against height, the highest prevalence is found among the children of Nicaragua, where the rate is three percent. Rates in the other countries in the region are all below 2.2 percentage points. Lastly, global malnutrition, or the relationship of weight to age, shows that, with a percentage weight of 24.5 percent, Honduran children suffer the greatest weight loss. This may be related to childhood diseases or to the lack of food provided at home. El Salvador and Nicaragua have the lowest levels, with percentages of 16.1 and 14.0, respectively.

Table 24

Malnutrition in countries affected by Hurricane Mitch
1998

Country	Malnutrition						
	Chronic	Acute	Global				
Average	38.2	1.8	13.0				
Belize	N/a	N/a	N/a				
Guatemala	47.0	2.2	22.0				
El Salvador	31.7	2.1	16.1				
Honduras	40.6	1.5*	24.5*				
Nicaragua	33.4	3.0	14.0				

<sup>\* 1996</sup> figures; N/a: Not Available; Source: Health and Education Ministries

With regard to adult malnutrition, throughout the whole region, without exception, the proportion of women who are overweight is around 30 percent. With the exception of Honduran women, there is a tendency for women in the region to be short, as well as to suffer from chronic lack of energy, according to the assessments carried out in the countries concerned.

Note that efforts by the countries concerned to keep this information current are not as systematic as they should be. In many cases, the information is far from impartial.

During the visits made to the various countries, it was noted that, with the exception of Nicaragua, the remaining nations did not conduct assessments after the hurricane regarding children living in the affected areas. Only CARE in Honduras conducted an assessment in a specific area, which was non-representative of the child population, in view of the magnitude of the disaster. Nor was any assessment made among the adult population.

It is noteworthy that, within extremely poor sectors in the countries assessed, consumption of carbohydrates had increased, as substitutes for other foods, which provide more energy. As a result, there is clearly a state of under-nutrition, especially among children, whose diet is supplemented by a high content of sweet drinks and cakes.

#### 4. Deficiencies in micronutrients

At the time the visits occurred, there were no recent studies available on deficiencies in micronutrients. Nicaragua was conducting an assessment after a delay of eight years, while the remaining countries submitted unsatisfactory indicators.

### VII. GENERAL CONCLUSIONS AND RECOMMENDATIONS

### General conclusions:

- 1. Hurricane Mitch demonstrated that the region is not prepared for natural emergencies of any kind.
- 2. National programmes for natural-disaster prevention and relief lack the technical support needed to conduct follow-up, evaluation and early-warning operations in vulnerable regions.
- 3. No systems have been set up to provide early warning about food insecurity among groups at risk of floods, droughts or earthquakes, due to the lack of resources needed to implement such systems.
- 4. Identification of at-risk groups and programmes that might be developed on their behalf is an aspect of prevention that with the exception of a few regions in the countries concerned is generally implemented by NGOs.
- 5. There is no overall conceptual framework for Food Security, aimed at monitoring risk factors and providing services to food producers and foodinsecure populations in all affected countries. In most countries, the emphasis is placed on providing services to other population segments and producers involved in the production of export crops.

- 6. There is no statistical database for the continuous monitoring of dietary intake and market balances of basic foods. The system for forecasting harvests must be improved, and it would be advisable to integrate the system into the regional framework for integration. Similarly, there is no mechanism for determining balances indicating availability for a specific year compared with the previous year, with a view to monitoring the nutritional intake of the population.
- 7. An assessment of the damage inflicted by Hurricane Mitch was performed during the period immediately after the tragedy, when conditions were such that it was not possible to perform the necessary technical tasks effectively. As a result, some of the damage sustained in the agricultural sector was not properly accounted for, and should have been subject to a second assessment. No such second assessment was performed in any of the countries concerned.
- 8. The potential for organizations of civil society and NGOs is not being properly exploited, in terms of the financial resources needed to implement aid programmes designed to reduce poverty and food insecurity. Furthermore, there are no mechanisms linking governments with such organizations, with a view to coordinating their respective programmes.
- 9. There is no clear definition of international financial organizations and donor communities concerning the commitments made during meetings of the consultative group to help the region in its reconstruction efforts. Everything seems to indicate that additional resources will not be allocated, and that those commitments can be met only with aid provided to the countries under normal conditions. Similarly, there is a tendency to relegate recent disasters in second place, and give new priority to those that have just taken place in other countries or regions, leaving the first with no means to recovery.
- 10. In all countries concerned, production of crops for domestic consumption has been neglected. This is reflected in serious limitations in programmes for credit, technical assistance, technology transfer, access to inputs, and organizational conditions for the effective marketing of agricultural products, and especially foods. The impact of Hurricane Mitch has further exacerbated this situation.
- 11. Due to the poverty levels among the population in the region, the acquisition of foods by that population is a critical daily struggle for survival. This might trigger serious social unrest, if priority measures are not taken, especially in rural areas. Such measures should focus in particular on ethnic groups in all countries, since the level of neglect is higher among this population group, which is the most vulnerable in the region and which did not receive adequate assistance following Hurricane Mitch, with the result that their condition has worsened.
- 12. Although the region is a natural importer of foods, it has the potential for the rational exploitation of agricultural land in all the countries concerned, with a

- view to achieving self-sufficiency and, possibly, exporting products to neighbouring markets. Neither governments nor NGOs have made any effort to coordinate the efforts of the various countries in this regard.
- 13. Coordination of plans and programmes of international cooperation agencies with the agricultural and nutritional sector is not sufficiently robust to identify ways to assist the population at risk of food insecurity.
- 14. The same can be said of international entities working together on natural disasters.
- 15. Efforts to preserve the environment and protect the forests, within the context of food security, have not been approached with sufficient foresight. Implementation of laws and regulations should be mandatory for authorities in each country.
- 16. Coordination of development and cooperation models of the United Nations System, such as those planned in Guatemala, should be organized on a regional basis, in the short term, in view of the marginal status of broad sectors of the population, which need aid programmes that are more effectively structured and non-competitive.
- 17. Food aid for rehabilitation of production has been directed mainly at restoring the export capacity of large producers, while production of foods by small producers has been marginalized. There is no large-scale programme for small producers in any of the countries concerned. Indeed, efforts have even been made to encourage the importing of such foods.
- 18. The structure of poverty after Mitch has been maintained, and even increased, in the case of those who are extremely poor, because there are no programmes with the funding sources needed to address these sectors.
- 19. Food insecurity due to natural disasters is increasing in these countries, and the people do not have the necessary programmes with which to deal with the situation.

## **General Recommendations:**

1. A framework must be set up for the coordination of actions designed to consolidate a duly articulated regional system that interacts in the case of natural disasters, particularly with regard to food security. The first step in this process should be consolidation of SICA and its agencies, such as CEPREDENAC. This should be achieved through institutional strengthening, designed to ensure that these agencies have expertise in the area of food security. FAO should therefore improve the focus of its joint collaboration with agencies that sponsor the Regional Unit for Technical Assistance (RUTA), under a regional project that emphasises vulnerability and food insecurity.

- 2. Mechanisms for the institutional strengthening of the regional agency must begin with the creation and building of capacities in each country, so that systems for the follow-up and evaluation of productive activities, as well as the system for early warning of food insecurity, are transformed into tools for consistent efforts at national institutions. This will make it possible to prevent, mitigate and deal with the effects of disasters and provide assistance for atrisk populations. For the purposes of this task, national budgetary allocations for the hiring of human and material capacities must be the responsibility of Governments, and international cooperation agencies must be responsible for the technical and financial assistance required for this purpose. The strengthening of the Food Insecurity and Vulnerability Information and Mapping System (SICIAV) is thus essential to any plan that may be implemented.
- 3. Standardization of Central American countries' statistical data and the systemization of that information should be pursued as short-term goals, with the assistance of multilateral cooperation agencies.
- 4. The plan for the strengthening of institutions must find ways to achieve coordination among organizations of civil society, and especially those that are already implementing plans and programmes in this area, so that national capacities can be focused on the integration of resources and efforts in the various biophysical regions that are vulnerable to natural disasters, and thus at risk of food insecurity.
- 5. The international community of donors contributing assistance in the case of emergency situations caused by natural disasters, and multilateral financial entities, must identify technical and financial options that make it possible to fulfil the offers made at the various meetings held by consultancy groups. This is especially important with respect to the restoration of productivity and foodsector infrastructure, with priority being given to small producers.
- 6. The Governments of countries affected by Hurricane Mitch must re-embrace food production as an essential component of their countries' development, based on the premise that access to adequate food and nutrition makes it possible to create the conditions under which individual potential can best be realized, employment generated, and productive-capacity expanded. The first step in this regard should be the creation of technical-assistance programmes in their various guises, enabling producers to participate as protagonists of their own development. The creation of national funds, with international assistance, to provide food aid to enable small producers to seek methods of technological and productive development that are appropriate to their living conditions and their environment, should be a national priority in each country, with preference being given to ethnic groups in a condition of extreme poverty, as well as to producers in outlying urban districts. These national funds can be organized on the basis of counter-value funds deriving from food donations.
- 7. A regional programme for the reduction of poverty and food insecurity should be formulated. Such a programme will require the active participation of

women, as the mainstay of the family, providing the conditions needed to generate income deriving from actions designed to diversify production, and from changes in traditional habits and customs. The organization of these population segments into community-based groups, in extremely poor regions, should also be pursued.

- 8. The provision of food assistance by international cooperation agencies needs to be coordinated with self-sufficiency programmes targeted at small family-production units, focusing on production systems with diversification based on "food for work" programmes especially in the case of those units that have traditionally concentrated on growing basic foods.
- 9. It does not appear that Belize has yet been incorporated into Central America. Given the level of organization within this new nation, regional and international agencies might begin to provide information and technical assistance. An attempt at South-South cooperation should also be made by the other countries in the region. As a first step, Belize's statistics should be integrated into the databases of regional agencies such as SICA, SIECA, CEPREDENAC and INCAP.

### VIII. CONCLUSIONS AND RECOMMENDATIONS BY COUNTRY

## Belize:

- 1. Belize escaped the direct impact of Hurricane Mitch, which did not affect domestic food production or food supply.
- 2. The lessons learned from the effects of Hurricane Mitch, however, have provided Belize with more information with which to deal with emergencies and, more particularly, to reduce food insecurity.
- The floods unleashed by Hurricane Mitch swiftly receded, and productive capacity returned to normal very quickly. Although rice production later fell, this was due to the fall in domestic prices. Other crops did not suffer major problems.
- 4. There are certain areas of the country that suffer from food vulnerability and little capacity to access basic foods. Those areas include households headed primarily by women, which are at risk of food insecurity. Although Hurricane Mitch cannot be blamed for that risk, it certainly increased the risk to some degree.
- 5. The country does have a system to provide early warning and prevention of disasters, focusing on hurricanes. This system provides for the organization and supply of food aid within the country's various districts, which have a system of strategic reserves which can be accessed in the case of emergency, in coordination with local and national authorities.

## **Guatemala:**

- 1. The presence of Hurricane Mitch in Guatemala highlighted and magnified a number of shortcomings and weaknesses within the Guatemalan social structure. During the disaster, the Government sought to minimise the negative impact of the hurricane, in an effort to conceal the country's vulnerability to natural disasters. That vulnerability stems from major social and economic deficits, especially among the rural population.
- 2. According to studies conducted since Hurricane Mitch studies that were used to provide information for the present study Guatemala's economic development (and the country's rural development in particular) has occurred within the context of structural factors that have limited, and will continue to limit severely, any strategy aimed at achieving reconstruction and more sustainable development. Those limiting structural factors are the following:
  - 2.1. Most small rural producers are poor. They cultivate, and will continue to cultivate marginal lands without potential for the production of basic grains. Nor are there any plans to introduce strategies to change this situation, particularly at Government level.
  - 2.2. It has not proven possible to reduce the pressure exerted by agricultural activities on marginal lands, especially in the most fragile regions, such as basin headwaters, hillsides and tropical forest zones. Actions implemented since Mitch have suffered from the same context of vulnerability that existed before the disaster.
  - 2.3. Concrete, active legislation is required to address inequality in the system of land ownership. Such legislation should include a land-registry system and land regulation, as fundamental components of strategies for the development of the most deprived communities and families, especially those affected by Mitch.
  - 2.4. Due to the preferential treatment given to traditional producer-exporters, the domestic market for basic grains and garden vegetables is in a depressed state. As a result, there is an increasingly marked dependency on imports, which in turn acts as a disincentive to domestic production. This drives increasingly high levels of food insecurity, which were further exacerbated by Hurricane Mitch.
  - 2.5. The closure of agricultural-extension and technical-assistance services by the public farming sector has limited the services available to small producers, especially in terms of efforts to restore productive capacity damaged by Hurricane Mitch. In some cases, NGOs are attempting to alleviate this problem, but farmers must still pay for certain services provided by such organizations. When government services were shut down, no thought was given to the gaps that would remain in the provision of such measures.

- 3. Food aid provided by the various governmental and non-governmental institutions since Hurricane Mitch have focused on rural families without land, or on those who do own land, but who live in vulnerable areas unsuitable for agricultural activity. In these
- 4. regions, the opportunities for alternative employment are rare. These families have thus been unable to earn enough to meet their basic needs, other than their food needs. As a result, they have been migrating to other regions, in an effort to find other ways to make a living.
- 5. Although food aid is beneficial, in certain circumstances it may engender or reinforce a culture of paternalism or dependency, and also encourage a certain degree of "accommodation" by sectors whose task it is to bring pressure to bear in an effort to tackle the structural causes of poverty. Within this context, the foodaid strategies of national and international agencies often have the effect of "internalising" this situation, while failing to improve or establish mechanisms or actions designed to create or promote reform of these structural causes.
- 6. It should be emphasised that many of the rural workers affected by Mitch did not enjoy favourable conditions for their farming activities even before the hurricane struck. It is important that the concrete support currently being provided by humanitarian assistance organizations be accompanied by efforts to promote areas of dialogue with local communities, so that they themselves can continue to be involved in proposing solutions to their own problems. Only in this way will such interventions become more sustainable, and only in this way will it be possible to eliminate or minimise the risk of reinforcing a permanent culture of dependency.
- 7. It is of primary importance to devote financial and institutional resources to the restoration of the productive capacity of small producers, as well as to make efforts to provide them with means of temporary subsistence, until they are able to restore all their crop-growing capacities. NGOs working in the disaster areas estimate that at least 50 000 small producers are still in this situation. It will also be necessary to provide for the needs of the many producers who need sources of funding that will enable them to resume production and thus meet loan commitments made before Hurricane Mitch.
- 8. At this point, efforts to rehabilitate productive and economic activity in areas hit by the hurricane are encountering the problem of funding. Income losses among rural producers and entrepreneurs (especially small-scale producers and entrepreneurs) are having an impact on their ability to pay off loans invested in lost production. This affects their ability to obtain credit. This situation requires action by Government, as well as by national and international institutions involved in this issue.
- 9. Food-insecurity studies reveal a relationship between food insecurity and chronic malnutrition in situations of poverty and exclusion from development. In Guatemala, the impact of the lack of equity in the distribution of, and access to resources, under conditions that would guarantee them minimum standards of health, education, income, etc, are very obvious. To these structural conditions of

- poverty we should add other critical situations, of a social and political nature, such as the armed conflict of recent decades, and those induced by nature, such as storms, hurricanes and earthquakes (some recent and others potential).
- 10. As far as the availability of foods is concerned, it does not appear that Guatemala has a problem in terms of food supply. Most farmers, however, own subsistence productive units without access to factors of production, or to advanced technologies for production or post-harvest management, and this is reflected in their yields. Furthermore, they have little or no ability to negotiate the sale of their products on a profitable, competitive basis. Farmers are thus not able to eliminate the effects of the chain of intermediaries, and their profits are reduced in consequence.
- 11. Food aid alone is not the answer for people suffering from malnutrition, nor for any type of development initiative. In order to break the vicious circle of poverty, food insecurity and environmental deterioration, it is necessary to implement policies designed to achieve sustained development. This means that the fundamental objectives of such policies must focus on improving the living conditions of the families affected by such disasters and improving the living conditions of poor, rural families. This require a series of strategies to support production, aimed at generating employment and income and improving productivity, taking environmental preservation into account. These strategies and policies must include elements such as land ownership, the active participation of women in decision-making, and agricultural policies designed to provide rural producers with any inputs and technologies that can improve production and productivity (silos, irrigation systems, access to rural credit in general, rather than just farm loans, etc.). All this should be combined with a trade policy that offers protection and assistance to these small producers in the face of strong foreign competition, so that they can at least have access to local markets.
- 12.At the time of the disaster, and during the days that followed, a number of institutions made their way to the affected regions and began to work on an independent and uncoordinated basis. This led to delays, complications and duplication of efforts to provide effective assistance. Indeed, in some villages and hamlets, these institutions even came into conflict, and left without providing any aid.
- 13. According to some NGOs that helped provide assistance to affected regions, the assistance they offered initially did not arrive in the expected quantities, because international donors did not follow through with their initial offers. Furthermore, information collected was not managed as effectively as it might have been. This led to a certain degree of repetition and incongruity in communities' requests for assistance. As a result, certain communities received multiple offers of support, while others went without aid.
- 14. One common factor was that it was not generally possible to provide assistance to all communities with the requisite degree of urgency. Also, assistance did not arrive in complete form, due to the lack of logistical support. This situation was complicated by the destruction of access routes.

- 15. Many institutions have complained that the authorities either did not have, or did not wish to provide information about the location of the affected populations.
- 16. Much of the information requested for the purposes of this study was not immediately available for the following reasons: a) lack of systemization, b) the information was too fragmented (that is, dispersed across a number of departments and institutions), and c) in many instances, the information did not exist, and so had to be constructed.

## **Honduras:**

- 1. Hurricane Mitch had the effect of increasing and emphasising the need to develop a system of disaster prevention and relief, involving all sectors of Honduran society.
- 2. The development of the hurricane was such that the effectiveness of Honduras's mechanisms for the protection of hillsides and basins were severely tested. The country's river and stream runoffs had never been destroyed before.
- 3. Food production declined significantly in the case of basic grains, and other important crops, such as bananas. And yet, aid for the restoration of agricultural production was targeted almost entirely at traditional agricultural export crops.
- 4. Imports of basic foods harmed domestic crop production, especially rice. National stocks that might have enabled producers to sell their crops for emergency food aid were, for the most part, not purchased. Strong imports further confirmed this trend, leading to a decline in planting areas during the next agricultural cycle.
- 5. Mitch also showed that the State's structural capacity to deal with emergencies requires the creation of a roster of functions for State institutions, with a view to ensuring not only that emergencies are dealt with, but also that follow-up and planning activities are implemented with regard to food security.
- 6. At present, there is no explicit policy on food security and nutrition. Policies and programmes are based on concepts that seek to mitigate the effects of the structural adjustment and economic reforms of recent years. The responsible authorities (sectoral Ministries), in particular Education, Health and Agriculture and Livestock, implement their various programmes with little effort at coordination. It would therefore be advisable if the Government, with the technical and financial support of international cooperation agencies, and the participation of civil society, were to consolidate the structure and execution of the national strategy for the reduction of poverty into a coherent whole, with a view to tackling the problem.
- 7. The Private Productive Sector, Private Development Organizations and Civil society in general have great potential, in terms of operational capacity and resources, to make the strategy to reduce and combat poverty and food insecurity

viable. The exploitation of this technical and financial capacity, as well as the levels of geographic and demographic coverage, must be a national responsibility.

- 8. Closure of the Department of Coordination, Planning and Budgeting (SECPLAN) brought to an end the operations of the specialized Food Security and Nutrition Unit. As a result, the various activities related to Health and Nutrition lost impetus. A specialized institution responsible for State planning needs to be created.
- 9. Statistical data provided by the various sources show many differences and discrepancies. Furthermore, the data is often out of date, incomplete and inaccessible. It is hoped that the recent creation and start-up of the National Institute for Statistics (INE) will resolve all problems related to the availability of, and access to statistics. That will depend, however, on how much technical and financial support is made available to this new department. Statistical information about the quantity, origin and type of food aid received must be kept on an organized and systematized basis. In this regard, FAO support is crucial, beginning with efforts to organize statistical data at the Department of Agriculture.
- 10. The estimate of Costs for the Basic Food Basket is based on an Energy Value Table dating from 1991. This table needs to be revised and brought up to date as soon as possible.

### Nicaragua:

- 1. Hurricane Mitch once more clearly showed that Nicaragua is not well equipped to deal with natural disasters. The vulnerability of groups at risk is obvious, and this population segment mostly comprises small producers of basic grains (largely maize and beans).
- 2. The increase in GDP achieved over recent years has been driven by overall growth in the livestock sector. The impact of basic-grains production has been minimal. This suggests that the growth in livestock GDP rests more on growth in traditional and non-traditional export products. Nevertheless, Nicaragua does possess the natural conditions to increase the contribution of basic grains to total GDP, to create jobs and, above all, to export foods to the Central American region, whose deficits are constantly increasing.
- 3. The Basic Food Basket created by [[PAN, based on the population's eating habits, recommends that 47 percent of the calories; 62 percent of the proteins and 50 percent of the carbohydrates come from basic grains, because of their ready availability, and their relatively low cost per unit of nutrients. Among extremely poor and poor sectors of the population, the energy contribution is below the indicated levels. People from medium and high-income sectors, however, substitute their sources of nutrients with more expensive foods.
- 4. Total intake among extremely-poor and poor population sectors is considerably below the basic dietary standard. There is a potential demand, or food gap, for an

- adequate intake of basic grains, particularly with respect to beans and maize. This situation was accentuated by Mitch.
- 5. In terms of the patterns of consumption recommended by the Food Basket, for comparative purposes, per-capita availability has been maintained beneath the recommended level in the case of beans and above (indeed, substantially above) that level in the case of maize and rice, due to the support provided by donations and imports, which in the case of rice have accounted for as much as one-third of per-capita availability.
- 6. Growth in grain production has trailed demographic growth.
- 7. Food consumption is partly determined by availability, but essentially by access, which, given the current economic situation, the macroeconomic adjustment programmes, and the employment and income levels, is not sufficient to cover population demand.
- 8. The consequences of the people's present dietary and nutritional habits are extremely serious. Policies implemented to remedy this situation address only growth and economic development, and to not have a direct impact on access to foods. As a result, Nicaraguan dietary patterns essentially focus on the basic-grains group, followed by the group composed of oil and sugar. The group comprising meats and dairy products represents 13 percent of the diet, while fruit and vegetables account for four percent of intake.
- 9. Dietary habits based on a relatively cheap model, essentially comprising junk food, continue to present major dietary gaps with respect to basic dietary and nutritional norms.
- 10. Regardless of price movements in general, 1999 brought a 12 percent increase in the price of basic grains in the Food Basket. This was the main factor limiting access, primarily in low-income sectors and, specifically, with regard to maize and, to a larger extent, beans.
- 11. Production and consumption trends for the next ten years suggest that if concrete policies are not implemented for maize and beans, the Nicaraguan people will continue to experience shortfalls in those crops. The country shows a positive balance in rice imports, but this will depend on whether or not policies are implemented to stimulate production, whether the climatic conditions are favourable, and the nature of measures implemented to prevent, alleviate and deal with the effects of those conditions.
- 12. Agricultural and ecological conditions in Nicaragua offer considerable potential for the production of basic grains. Of Nicaragua's 1.6 million hectares of agricultural land, only 41 percent are presently being used. Furthermore, yields are considerably below present potential.
- 13. Regions with a sub-humid to humid climate, belonging to the subtropical humid forest climate region, have the greatest potential for the production of basic grains.

These regions are located primarily in the central region and part of the Pacific zone. They are in recession, with many lands lying idle and many growers out of work, due to the lack of access to production-support services, such as loans, technical assistance and input supplies.

- 14. Regions with arid to semiarid climatic conditions, known as the dry tropical region, are very risky, in terms of growing basic grains. They will never be profitable or market-competitive, unless an irrigation system is installed. Choosing to diversify into other crops, or sheep or goats, can bring better results. It should not be forgotten, however, that due to the cyclical activity of El Niño, expected to reoccur in the near future, the areas presently affected by Hurricane Mitch are highly susceptible to this climatic risk.
- 15. The lion's share of the country's production of maize and beans is grown by small and medium-sized farmers, who have few resources with which to make technical and economic improvements to their production activities. In general, small growers are naturally inclined to grow these crops, while medium-sized growers combine their basic-grains production with other annual crops and small-scale livestock rearing, within their production units. This might well provide a strategy for the development of this subsector.
- 16.A significant proportion of rice production makes use of modern technology, developing through mechanisation and through access to financial resources and services. Rice is sometimes produced by medium-sized growers with some degree of agricultural diversification, oriented towards extensive, mechanised monocrops, using an irrigation system. The majority of rice growers, however, are small and medium-size growers who use non-irrigated techniques.
- 17. Coordination between maize and beans production and marketing is poor, since a large part of such production is for farmers' own consumption. The production of rice, however, is closely coordinated with the market.
- 18. Post-harvest losses for maize are considerable, mainly because of the lack of access to dry-farming systems in humid and subhumid regions.
- 19. Historically, it has been shown that the significant variations in basic-grain harvests are related to the variations in planting areas and the erratic climatic conditions, especially in dry areas. Crop yields have shown no improvement over recent years, even though there has been a rising trend in maize, beans and rice over the past three years.
- 20. In the context of a national plan for farming development after Hurricane Mitch, there is a need to develop a strategy for the production and marketing of basic grains, aimed at areas with greater agroecological potential, with a view to ensuring that national production improves over the next few years.
- 21. This strategy must include the reorganization of growers, through well-defined policies, programmes and projects, as well as the reorganization of the productive infrastructure within the sector of small and medium-size growers. The main goals

in this respect should be to intensify production in existing areas and to expand planting areas showing good yields. Programmes designed to promote and rehabilitate potential grain-production areas should therefore be developed. Of strategic importance in this context is the development of irrigation systems in areas with the right potential. Many of these areas lie in regions affected by Hurricane Mitch.

- 22. Environmental conservation must be a priority concern, especially in areas damaged by the hurricane, in order to restore those areas to production as soon as possible, thereby ensuring that growers affected can return to a state of self-sufficiency, especially in the area of basic grains.
- 23. There is little evidence of institutional leadership, in general in the sector, and even less so among small-production sector. Growers of basic grains are not fully appreciated. It is absolutely essential that the interests of the state and productive sectors be coordinated with their organizations, with a view to achieving stability in the areas of technological development, production support services, marketing, infrastructure, etc.. This process should include all agencies involved in the agriculture sector, whether public or non-governmental. Technical assistance and external funding should also be part of the process.
- 24. The creation of an exclusive fund, designed to promote production of basic grains, and especially production of maize and beans, should be a matter of priority, especially if the intention is to turn Nicaragua into Central America's leading grains supplier.
- 25. In order to increase the contribution of basic grains to the country's GDP, actions designed to improve production must be accompanied by food-processing programmes designed to improve products' added value. There is considerable potential for maize and beans, as well as for rice.

### El Salvador:

- 1. El Salvador needs a National System for Prevention and Immediate Response to Natural Disasters, in which various sectors of society and the State are represented. The State's response to Mitch was limited to the organization of rescue operations and the administration of resources sent by the international community. This proved once more to be the case with the earthquakes of January and February 2001.
- 2. Hurricane Mitch clearly highlighted the lack of coordination and cooperation between the various entities at the central and local levels; and even more between non-governmental organizations and the Government.
- 3. Social groups with low purchasing power found themselves in conditions of food insecurity at the time of Hurricane Mitch. Their condition was further exacerbated

- once the emergency food programme was concluded, because such groups suffer from serious structural weaknesses, especially the rural population.
- 4. The areas hit hardest by the hurricane were the low-lying areas of hydrographic basins, which cover more than one-quarter of the national territory, and especially in the Departments of Usulután, San Miguel and La Paz (particularly in the low-lying regions of the River Lempa).
- 5. The greatest damage was concentrated in the area of the lower Lempa. This was because the reservoir burst its banks on 15 September, discharging up to around 15 000 m³ of water per second. The local people were not prepared, as no previous discharge of this kind had ever exceeded 6 000 m³. As a result, entire crops and communities were inundated and submerged.
- 6. Environmental management of the disaster was hampered by the lack of coordination among the efforts of various national and international cooperation agencies. Indeed, it was the competition between those agencies that governed that management, with the consequent damage inflicted on vulnerable population groups living in vulnerable or marginal regions.
- 7. Poverty in rural areas has continued to grow and the food vulnerability of such areas is shown by the declines in their productive programmes. Those programmes lack the sponsorship and support of the State, which has suspended its entities for the provision of technical assistance and technology transfer to these sectors. To this we should add the lack of funding for food production, and especially basic grains, among small farmers.
- 8. There is a need to implement programmes for diversification of the farming production of small and medium-size farmers, providing funding sources that will restore the activities of such farmers to the productive globalization.
- 9. The Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) needs to strengthen its institutional capacities in the area of Food Security, since activities for the follow-up of this problem within its various departments have been cut. At present, the only institutional support unit is the Georeferenced Information System. It would not be appropriate, however, to integrate this unit into SICIAV.
- 10. In the same way, the system of statistical information for following up and evaluating harvests and national food balances is not being implemented, despite the fact that technical staff have been trained to do this in the past.
- 11. Special efforts must be made, together with international cooperation agencies, to ensure that the present classification of El Salvador, as a country with a high percapita income, is not excluded from food-aid programmes. Even if it is certainly the case that this classification reflects national indicators, it is equally certain that income is not distributed equally across the population especially in rural areas.

## **ANNEXES**

<u>Appendix 1 : Tropical cyclones</u> <u>Appendix 2</u>: Responsible and collaborators to this study

Annex 1 to 20: Statistical data from Central America region

## **Appendix 1:Tropical cyclones**

Tropical cyclones are meteorological phenomena that develop over tropical waters and circulate on the surface in an organized and defined form, in an anti-clockwise direction.

These phenomena are classified as follows, depending on the strength of the accompanying winds:

- Tropical disturbance or tropical wave. Consists of light surface winds with a non-organized rain mass.
- Tropical depression. Circulation of sustained surface winds around an axis, reaching 61 kilometres per hour, with an organized mass.
- **Tropical storm.** Has the same characteristics as the tropical depression, but with winds that reach a force of 62 to 115 kilometres per hour.
- Hurricane. Like the two previous categories, the hurricane has surface winds that circulate around an axis at speeds above 116 kilometres per hour.

Depending on their strength, the **Saffir–Simpson Scale** classifies them as follows:

- o Category 1: Wind speeds between 118 and 153 km/h.
- o Category 2: Wind speeds between 154 and 177 km/h.
- o Category 3: Wind speeds between 178 and 209 km/h.
- Category 4: Wind speeds between 210 and 249 km/h.
- o Category 5: Wind speeds above 250 km/h.

### Appendix 2: Responsible and collaborators to this study

#### 1. Direct Responsible and collaborators to this study:

#### **List of Consultants:**

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Mario Castellanos

Honduras: Daniel Meza – Coordinator UTN Nicaragua: Luis Olivas – Coordinator UTN

#### **WFP**

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Duilio Pérez, Duilio Pérez Tuesta, Project Official

El Salvador: Guy Gauvreau - Representative

Idylle Mathieu

Nicaragua: Maren Egedorf – Project officer

Guillermo Chávez VAM

#### **UNDP**

Ruth Williams, UNDP Emergency Program.

William Peitez, Coordinator, General Project 2001 (NHDI), Honduras: Jorge Guevara –Risk management Officer

#### UNICEF

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Vicente Gavidia, Communications Official,

El Salvador: Vicente Gavidia – Oficer in Communication

#### **OPS**

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Germán Aguilar – Consultant

El Salvador: Jorge Merino (INCAP)

#### **European Union**

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Nicaragua: Massimo Canosa, Co-Director, Europe, UESA (Food Security

Strategies Unit).

OIM:

Nicaragua: Linda Erickson (International organization for Migration)

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Guatemala: Administrative officers

El Salvador: Tom Oomen - Representative for Guatemala and El Salvador

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#### Other special collaboration:

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- Social Investment Fund (FIS) Guatemala: Rafael Salinas
- Central Reserve Bank of El Salvador Luis Adalberto Aguino.
- Center for Disaster Protection (CEPRODE). Luis Romano, Director,
- El Salvador Ecological Association (UNES). Ulises Milton Campos, Risk Management Coordinator,
- El Zamorano: Mayra Falck, Director of Monitoring and Follow-up,.
- Foro Ciudadano Honduras: Victor Meza
- SOYNICA Nicaragua: Lucy Morren
- Initiative group of Cabildeo (GPC) Nicaragua: Cirilo Otero

## 2. People Interviewed

#### Belize:

- Daniel Silva, Minister of Agriculture, Fisheries and Cooperatives.
- Sergio García, General Secretary, Ministry of Agriculture.
- Mario Castellanos, FAO Counterpart, Belize.
- Carlos Moreno, General Manager, Belize Marketing Board.
- Elías Awe, Director, Help for Progress.

#### **Guatemala:**

- Danilo González, Ministry of Agriculture, Livestock and Food.
- Mario Montenegro Pineda, Deputy Executive Director, National Peace Fund (FONAPÁZ).
- Germán Aguilar, Consultant, PAHO/WHO.
- Carlos Morales Castilla, Health and Environment Consultant, PAHO/WHO.
- Alejandro Maldonado Lutomirsky, Executive Secretary, CONRED.
- Sergio Cabañas, Emergency Management, CONRED.
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#### El Salvador:

- Mario de León, Guatemala Red Cross.
- Tania Meza, Guatemala Red Cross.
- Hugo Alexander Flores, El Salvador Foundation for Cooperation and Community Development (CORDES).
- Clemente San Sebastián, Program Official, UNDP.
- Benjamín Quijandría, International Fund for Agricultural Development (IFAD).
- Jorge Pleitez, Ministry of Agriculture.
- Gerardo Merino, INCAP (PAHO/WHO).
- Ricardo Zapata, Coordinator, ECLAC.
- Antonio Tapia, ECLAC.
- Byron Miranda, Regional Coordinator, Hillsides Project, IICA.
- Jon Van Wambeke, CTA Project, FAO (GPC/ELS/004/NET).
- Delmy Linares, Program Assistant, FAO.

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- Enrique Deloma, Coordinator, SPFS/FAO, Central America.
- Marta Trejo, Latin American Federation of Agricultural Workers.
- Miguel Machuca, Director, PAHO/WHO.
- Francisco Salinas, Project Official, WFP.
- Roberta van Hoften, USAID.
- Marta Larios, Food Security Officer, USAID.
- Karen McHugh, Director, European Union.
- Victor Meza, Director, Honduras Documentation Center.
- Mario Lizardo, Policy Director, Ministry of Agriculture and Livestock.
- Yasmina Acosta, Ministry of Agriculture and Livestock.

#### Nicaragua:

- Pedro Romero, Program Official, WFP.
- María Rosa Rensi, Economic Consultant, UNDP.
- Lola Ocón, Gender Specialist, UNDP.
- Gloria Elena Navas, Representative, INCAP.
- Dalia Membreño, Policy Director, Department of Social Action (SAS).
- Javier Lacayo, Regional Director, Save the Children, León/Chinandega.
- Silvia Marín, Project Director, Sustainable Development Project for Southern Nicaragua (PROCESUR).
- Fidel Castro Gutiérrez, Planning Officer, PROCESUR.
- Wilfredo Somarriba, Regional Representative, CARE.
- Cirilo Otero, Director, GPC (Lobbying & Action Group).
- Alvaro Fiallos, Vice-president, National Union of Farmers and Livestock Breeders (UNAG).
- María Antonia Siero, Delegate, RESAL (EC Food Security Network), Latin America.
- Xantis Suárez, Representative, Regional Food-security Initiative, Central American Parliament (PRLACEN).
- Rafael Hernández, Co-author, Analysis of Risks and Vulnerability in Central America and Mexico, OXFAM, United Kingdom.
- Oscar Neyra, Policy Director, MAGFOR (Ministry of Agriculture and Forestry).
- Maritza Pallavicini, Food Security Officer, MAGFOR.
- Marta Loyman, Director, Geographical Data System, MAGFOR.

	Annex 1									
INFLAT	INFLATION RATES OF COUNTRIES AFFECTED BY HURRICANE MITCH (*)									
Year	Belize	Guatemala	El Salvador	Honduras	Nicaragua	Inflation				
						Region				
1995	3,9	8,4	11,4	29,5	10,9	12,8				
1996	6,4	11,1	7,4	23,8	11,6	12,1				
1997	-0.5	9,3	1,9	20,2	9,2	8,1				
1998	-0.9	6,6	4,2	13,7	13,0	7,5				
1999	-1.0	5,2	-1,0	11,6	11,2	5,4				
2000**	1,4	6,6	3,1	11,1	10,0	6,4				

SOURCE: Annual Reports of Central Banks.

(\*): Accrued Inflation Rate at December of each year.

\*\* preliminary figures

TF	RADE BALA		Ann OF COUN Millions of	ITRIES A		ED BY M	ITCH	
CATEGORY	COUNTRY	1994	1995	1996	1997	1998	1999	2000
	Belize	259,9	258,6	257,0	288,1	296,4	369,8	n/d
	Guatemala	2 781,4	3 292,5	3 146,2	3 851,9	4 650,9	4 560,0	4 885,3
CIF Imports	El Salvador	2 589,0	3 348,2	3 240,3	3 766,5	3 991,0	4 108,0	5 001,0
	Honduras	1 946,2	2 193,9	2 411,4	2 705,6	3 060,6	3 284,2	2 964,0
	Nicaragua	769,7	850,0	940,8	1 329,3	1 383,6	1 683,2	1 647,7
	Total	8 346,2	9 943,2	9 995,7	11 941,4	13 382,5	14 005,2	14 498,0
	Belize	156,3	164,3	171,3	199,9	194,4	201,4	n/d
	Guatemala	1 550,2	1 990,8	2 056,3	2 390,6	2 561,9	2 492,8	2 708,5
FOB Exports	El Salvador	1 256,0	1 661,5	1 798,7	2 440,0	2 455,1	2 511,9	2 969,0
	Honduras	1 367,3	1 715,4	1 939,1	2 211,0	2 529,9	2 383,3	1 984,0
	Nicaragua	335,2	444,6	485,3	625,9	573,2	543,8	645,1
	Total	4 665,0	5 976,6	6 450,7	7 867,4	8 314,5	8 133,2	8 306,6
	Belize	-103,6	-94,3	-85,7	-88,2	-102,0	-168,4	n/d
	Guatemala	-1 231,2	-1 301,7	-1 089,9	-1 461,3	-2 089,0	-2 067,2	2 177,0
Trade Balance	El Salvador	1 333,0	1 686,7	1 441,6	-1 326,5	-1 535,9	-1 596,1	-2 032,0
	Honduras	-578,9	-442,5	-472,3	-494,5	-530,7	-900,9	-980,0
	Nicaragua	-434,5	-405,4	-455,5	-703,4	-810,4	-1 139,4	-1 002,6
	Total	-1 015,2	-557,2	-661,8	-4 073,9	-5 068,0	-5 872,0	-6 191,6
	Belize	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	Guatemala	1,7	2,0	1,9	2,3	2,8	2,8	3,0
Import Index)	El Salvador	27,0	34,9	33,8	39,3	41,6	42,8	52,1
(1990=100	Honduras	145,0	163,4	179,6	201,5	228,0	244,6	220,8
	Nicaragua	492,5	517,3	572,6	809,1	842,1	1 024,5	1 002,7
	Total	666,1	717,6	787,9	1 052,2	1 114,5	1 314,6	1 278,6
	Belize	100,8	116,3	115,1	105,4	105,2	99,6	n/d
	Guatemala	1,3	1,6	1,7	2,0	2,1	2,1	2,28
Export Index)	El Salvador	28,4	37,6	40,6	55,1	55,5	56,8	67,1
(1990=100	Honduras	137,1	175,6	241,8	221,7	253,7	239,0	199,0
	Nicaragua	26,7	26,8	29,2	37,7	34,5	32,7	38,8
	Total	294,3	357,9	428,4	421,8	451,0	430,2	307,2

N/a: Not available
SOURCE: Annual Reports of Central Banks

# Annex 3 GROSS DOMESTIC PRODUCT OF COUNTRIES AFFECTED BY HURRICANE MITCH By sector of economic activity, 1994 – 1999 (Figures in millions of dollars)

		Beliz	:e			Guate	emala		El Salvador			
	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000
National GDP	1 040,2	1 051,3	1 154,9	n/d	16 617,1	17 640,1	18 077,6	19 033,4	11 134,7	11 989,3	12 466,9	13 216,9
Primary Activity	206,5	200,8	217,5	n/d	3 938,3	4 127,8	4 175,9	4 348,0	1 494,9	1 448,5	1 340,1	1 338,8
Agriculture	163,3	150,0	155,1	n/d	2 410,2	2 538,6	2 522,2	(a)	997,1	901,0	871,1	(a)
Livestock	0,0	0,0	0,0	n/d	1 224,8	1 279,6	1 336,3	(a)	378,2	430,2	375,2	(a)
Fisheries	25,6	33,8	42,1	n/d	43,3	45,4	50,1	(a)	34,4	39,1	26,8	(a)
Forestry	17,6	17,0	20,3	n/d	260,0	264,2	267,3	(a)	85,2	78,2	67,0	(a)
Secondary Activity	208,9	205,6	228,9	n/d	2 758,5	2 910,6	2 982,9	2 996,0	2 863,8	3 139,7	3 400,5	3 724,8
Construction	58,0	59,6	73,1	n/d	386,2	419,1	459,4	378,6	473,7	526,4	545,6	575,7
Manufacturing Industry	144,5	139,8	148,6	n/d	2 289,5	2 380,9	2 416,1	2 518,0	2 339,3	2 566,0	2 805,2	3 096,3
Mining	6,4	6,2	7,2	n/d	82,8	110,6	107,4	99,4	50,8	47,3	49,7	52,8
Tertiary Activity	624,8	644,9	708,5	n/d	9 920,3	10 601,7	10 918,8	11 689,4	6 776,0	7 401,1	7 726,3	8 153,3
Trade	191,1	199,1	243,5	n/d	4 126,9	4 346,7	4 433,1	4 663,3	2 187,2	2 313,3	2 370,4	2 452,9
Central Government	125,4	133,6	136,8	n/d	1 240,0	1 325,2	1 343,0	1 439,5	757,5	858,2	922,4	978,7
Transport and Communications	109,6	109,4	121,9	n/d	1 488,0	1 590,3	1 670,6	1 829,5	873,5	967,1	1 052,5	1 137,8
Banking and Insurance	73,3	73,2	76,1	n/d	843,2	911,7	949,9	997,2	399,9	449,1	526,5	566,0
Energy and Water	31,0	35,9	31,4	n/d	466,3	604,3	655,1	793,2	173,3	240,3	230,9	268,7
Real Estate	69,9	69,8	73,3	n/d	783,7	805,7	829,8	875,0	1 359,8	1 460,7	1 506,1	1 569,4
Other Services	24,5	23,9	25,5	n/d	972,2	1 017,8	1 037,3	1 091,7	1 024,8	1 112,4	1 117,5	1 179,8

n/d: Not available (a): No dispatching by branch of activity, with the exception of Nicaragua.

(b): No include Belize in the total.

SOURCE: Economic Indicators from Central Banks SIECA

#### Annex 3

#### GROSS DOMESTIC PRODUCT OF COUNTRIES AFFECTED BY HURRICANE MITCH

By sector of economic activity, 1994 – 1999

( Figures in millions of dollars)

CONCEPT		Hond	luras			Nicara	agua			All Cou	ıntries	
	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	<b>2000</b> (b)
National GDP	4 599,1	5 186,8	5 335,4	5 903,6	2 149,4	2 236,8	2 394,1	2 503,6	35 540,5	38 104,3	39 428,9	40 657,5
Primary Activity	946,6	850,4	741,1	795,6	612,5	633,8	664,4	738,0	7 198,8	7 261,3	7 139,0	7 220,4
Agriculture	658,9	576,6	487,6	(a)	390,2	410,1	442,3	482,6	4 619,7	4 576,3	4 478,3	(a)
Livestock	162,8	154,8	142,3	(a)	181,3	178,0	179,3	205,8	1 947,1	2 042,6	2 033,1	(a)
Fisheries	53,0	50,2	43,7	(a)	35,3	39,65	36,64	43,2	191,6	208,2	199,3	(a)
Forestry	71,9	68,8	67,5	(a)	5,8	5,97	6,17	6,4	440,5	434,2	428,3	(a)
Secondary Activity	983,1	1 121,9	1 237,4	1 372,6	573,0	603,8	688,4	699,2	7 387,3	7 981,6	8 538,1	8 792,6
Manufacturing Industry	725,6	826,0	900,1	1 002,7	447,9	457,5	472,5	484,2	5 946,8	6 370,2	6 742,5	7 101,2
Construction	187,5	214,5	245,0	268,6	100,9	111,4	170,9	181,0	1 553,3	1 677,1	1 494,0	1 403,9
Mining	70,0	81,4	92,3	101,3	24,2	34,95	45,1	34,0	310,9	356,9	301,7	287,5
Tertiary Activity	2 669,4	3 214,5	3 356,9	3 735,4	963,9	999,2	1 041,3	1 066,4	20 954,4	22 861,4	23 751,8	24 644,5
Trade	400,6	543,6	582,9	636,9	382,0	400,7	426,1	435,9	7 287,8	7 803,4	8 056,0	8 189,0
Central Government	240,6	265,6	289,4	317,8	166,2	166,7	163,3	164,6	2 529,7	2 749,3	2 854,9	2 900,6
Transport and Communications	187,5	220,5	238,6	259,4	103,4	108,3	115,2	118,0	2 762,0	2 995,6	3 198,8	3 344,7
Banking and Insurance	371,5	479,3	485,0	549,1	65,7	68,7	72,0	74,3	1 753,6	1 982,0	2 109,5	2 186,6
Energy and Water	224,2	228,4	223,6	262,8	69,3	71,4	72,1	73,6	964,1	1 180,3	1 213,1	1 398,3
Real Estate	223,8	256,9	278,0	307,5	85,5	87,7	91,7	96,0	2 522,7	2 680,8	2 778,9	2 847,9
Other Services	1 021,2	1 220,2	1 259,4	1 401,9	91,9	95,74	100,78	104	3 134,6	3 470,0	3 540,5	3 777,4

n/d: Not available a): No dispatching by branch of activity, with the exception of Nicaragua.

(b): Not include Belize in the total.

SOURCE: Economic Indicators from Central Banks

### Annex 3-A

#### GDP RATES OF COUNTRIES AFFECTED BY MITCH

By sector of economic activity, 1994 - 1999

#### **Growth Rates**

Category	Belize				Guate	mala			El Salv	vador		Honduras				Nicaragua				
	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000
National GDP	0,03	1,1	9,9	n/d	2,87	6,2	2,5	5,3	8,6	7,7	4,0	6,0	14,0	12,8	2,9	0,14	5,10	4,07	7,40	4,30
Primary Activity	-0,03	-2,8	8,3	n/d	3,90	4,8	1,2	4,1	11,7	-3,1	-7,5	-0,1	22,0	-10,2	-12,9	7,4	8,30	3,50	7,50	8,30
Agriculture	0,06	-8,1	3,4	n/d	3,20	5,3	-0,6	(a)	13,0	-9,6	-3,3	(a)	4,6	-12,5	-15,4	(a)	9,70	5,10	9,10	7,90
Livestock	N/d	N/d	N/d	n/d	0,03	4,5	4,4	(a)	9,7	13,7	-12,8	(a)	0,0	-4,9	-8,1	(a)	6,10	-1,80	5,30	9,80
Fisheries	0,19	32,0	24,6	n/d	-0,72	4,8	10,4	(a)	1,0	13,7	-31,5	(a)	107,4	-5,3	-12,9	(a)	6,00	12,40	1,60	7,20
Forestry	-0,04	-3,4	19,4	n/d	2,46	1,6	1,2	(a)	7,4	-8,2	-14,3	(a)	49,9	-4,3	-1,9	(a)	3,20	3,30	3,40	3,70
Secondary Activity	0,01	-1,6	11,3	n/d	2,25	5,5	2,5	0,4	0,0	9,6	8,3	9,5	15,0	14,1	10,3	0,22	5,60	5,40	12,80	2,70
Manufacturing Industry	0,04	-3,3	6,3	n/d	3,15	4,0	1,5	4,2	7,8	9,7	9,3	10,4	15,2	13,8	9,0	10,40	3,80	2,10	3,70	2,00
Construction	-0,05	2,8	22,7	n/d	0,40	8,5	9,6	-17,6	6,7	11,1	3,6	5,5	16,8	14,4	14,2	5,50	10,00	10,40	47,30	10,40
Mining	-0,03	-3,1	16,1	n/d	2,39	33,6	-2,9	-7,4	10,2	-6,9	5,1	6,2	8,7	16,3	13,4	6,10	24,70	44,60	21,60	-20,00
Tertiary Activity	0,05	3,2	9,9	n/d	2,75	6,9	3,0	7,1	7,3	9,2	4,4	5,5	11,0	20,4	4,4	11,3	2,90	3,70	4,00	2,70
Trade	0,08	4,2	22,3	n/d	3,53	5,3	2,0	5,2	6,9	5,8	2,5	3,5	-3,3	35,7	7,2	9,3	5,30	4,90	5,60	3,00
Central Government	0,01	6,5	2,4	n/d	1,43	6,9	1,3	7,2	7,9	13,3	7,5	6,1	17,3	10,4	9,0	9,8	-6,40	0,30	-1,00	-0,30
Transport and Communic.	0,06	-0,2	11,4	n/d	2,25	6,9	5,0	9,5	10,7	10,7	8,8	8,1	21,8	17,6	8,2	8,7	5,30	4,70	5,60	3,10
Banks and Insurance	0,08	-0,1	4,0	n/d	1,97	8,1	4,2	5,0	18,6	12,3	17,2	7,5	19,6	29,0	1,2	13,2	4,20	4,60	4,90	3,10
Energy and Water	0,03	15,8	-12,5	n/d	3,00	29,6	8,4	21,1	4,7	38,7	-3,9	16,4	4,5	1,9	-2,1	17,5	6,00	3,10	1,00	2,10
Real Estate	0,03	-0,1	5,0	n/d	1,87	2,8	3,0	5,4	10,3	7,4	3,1	4,2	14,4	14,8	8,2	10,6	4,00	2,50	4,70	4,60
Other Services	0,04	-2,4	6,7	n/d	9,18	4,7	1,9	5,2	-2,3	8,5	0,5	5,6	12,2	19,5	3,2	11,3	4,40	4,20	5,20	4,10

a): No dispatching by branch of activity, with the exception of Nicaragua.

n/d: Not available.

**SOURCE:** Economic Indicators from Central Banks

## Annex 4 Population Growth In thousands of inhabitants

			Census	Popul	casts	Growth	
Country	Penult.	Last	Growth	2000	2005	2010	Rate
	Census	Census	Rate				1995-2000
Total	13 625,5	22 505,5	2,5	29 625,7	33 899,0	38 385,3	2,4
Belize	215,5	240,2	2,7	249,8	272,6	303,1	2,6
Guatemala	5 160,2	8 332,9	0,6	11 389,3	12 951,5	14 613,1	1,1
El Salvador	3 551,5	5 118,6	2,3	6 276,1	6 936,5	7 440,7	2,0
Honduras	2 820,3	4 456,8	3,3	6 597,1	7 784,6	9 185,8	3,3
Nicaragua	1 877,9	4 357,0	3,6	5 113,4	5 953,8	6 842,6	3,1

Source: Institutes of Statistics and Censuses

			Annex 5				
	Rate of under-en		ent, Perio		• • •	( in %)	
YEAR	Rates	Belize	Guatemala	El Salvador	Honduras	Nicaragua	Average
	Unemploymen <b>t</b>	9,0	3,3	7,7	2,8	17,1	8,0
1994	Under-employment	5,6	48,3	33,2	26,4	12,2	25,1
	Total Unemployment	14,6	47,6	40,9	29,2	29,3	32,3
	Unemployment	12,5	0,5	7,7	4,2	16,9	8,4
4005	Under-employment	6,7	45,6	32,0	25,9	11,8	24,4
1995	Total Unemployment	19,2	46,1	39,7	30,1	28,7	32,8
	Unemployment	13,8	2,6	7,7	4,3	16,0	8,9
1996	Under-employment	9,0	46,2	30,0	24,5	11,6	24,3
1990	Total Unemployment	22,8	45,9	38,6	28,8	27,6	32,7
	Unemployment	12,7	3,9	8,0	3,2	14,3	8,4
1997	Under-employment	9,0	46,2	31,5	25,8	12,2	24,9
1991	Total Unemployment	21,7	44,6	38,0	29,0	26,5	32,0
	Unemployment	14,3	4,8	7,3	3,0	13,2	8,5
4000	Under-employment	9,4	46,2	31,5	25,2	11,6	24,8
1998	Total Unemployment	23,7	43,6	38,8	28,2	24,8	31,8
	Unemployment	12,8	n/d	6,4	3,3	10,7	6,6
1999	Under-employment	9,2	n/d	28,7	26,0	12,3	15,2
1333	Total Unemployment	22,0	n/d	35,1	29,3	23,0	21,9
	Unemployment	n/d	5,8	7,3	n/d	10,0	4,6
2000	Under-employment	n/d	41,3	27,1	n/d	13,0	16,3
2000	Total Unemployment	n/d	47,1	34,4	n/d	23,0	20,9

(\*): Percentage of Economically Active Population (EAP); N/a: Not available Source: Annual Reports of Central Banks

Annex 6

		TREND	S IN PRO	<u>Annex</u> DUCTIO		SIC GRAI	NS		
	Agricu		ycles 1994						
	Agric.	F	Rice	В	eans	Ma	aize	T	otal
Country	Cycle	ton.	%Growth	ton.	%Growth	ton.	%Growth	ton.	%Growth
	1994/1995	6,5	0,0	3,2	0,0	23,3	0,0		0,0
	1995/1996	9,6	48,3	3,1	-2,1	28,3	21,2	41,1	24,3
Belize	1996/1997	12,8	32,5	3,4	8,9			53,2	29,5
	1997/1998	16,8	31,1	4,2	22,1				9,8
	1998/1999	9,5	-43,5	3,1	-25,0	37,7	0,7	50,3	-13,9
	1999/2000	12,6	33,5	3,7	16,5		8,1	57,0	13,4
	2000/2001	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1994/1995	37,5	0,0	88,3	0,0	1 147,5	0,0		0,0
	1995/1996	29,6	-21,2	78,0	-11,7	1 025,7	-10,6		-11,0
Guatemala	1996/1997	31,5	6,5	90,3	15,8				7,6
	1997/1998	39,1	24,3	81,9	-9,3				-10,0
	1998/1999	39,3	0,6	81,5	-0,5				0,9
	1999/2000	44,0	11,9	85,8					2,4
	2000/2001	39,3	-10,7	81,5	-5,0	986,5	-1,8		-2,3
	1994/1995	38,2	0,0	60,5	0,0	473,9		572,6	
	1995/1996	30,2	-20,9	50,4	-16,7	638,1	34,6	•	25,5
El Salvador	1996/1997	34,5	14,2	58,2	15,5			713,7	-0,7
	1997/1998	39,0	13,0	66,6	14,4				-15,1
	1998/1999	30,9	-20,8	45,9	-31,1		· ·		4,3
	1999/2000	31,1	-20,3	65,5	-1,7	650,5			23,3
	2000/2001	28,4	-8,7	68,3	4,3	577,3	-11,3	674,0	-9,8
	1994/1995	47,5	0,0	59,4	0,0				0,0
	1995/1996	56,1	18,1	64,7	8,9	675,2	32,9	796,0	29,5
Honduras	1996/1997	59,8	6,6	54,2	-16,2	530,1	-21,5	644,1	-19,1
	1997/1998	50,3	-15,8	74,5	37,5	609,5	15,0	734,3	14,0
	1998/1999	13,8	-72,6	94,2	26,4	471,2	-22,7	579,2	-21,1
	1999/2000	13,0	-74,2	73,7	-1,1			562,8	-23,4
	2000/2001	12,9	-6,5	74,8	-20,6	481,0	2,1	568,7	-1,8
	1994/1995	113,4	0,0	83,5	0,0	241,2	0,0	438,1	0,0
	1995/1996	128,2	13,1	68,0	-18,6	330,1	36,9	526,3	20,1
Nicaragua	1996/1997	142,8	11,4	74,7	9,9	322,1	-2,4	539,6	2,5
	1997/1998	166,3	16,5	71,4	-4,4	263,5	-18,2	501,2	-7,1
	1998/1999	171,2	2,9	148,7	108,3	299,8	13,8	619,7	23,6
	1999/2000	135,5	-18,5	134,2	88,0	292,1	10,9	561,8	12,1
	2000/2001	102,4	-40,2	62,2	-58,2	256,5	-14,4	421,1	-32,0
	1994/1995	243,1	0,0	291,7	0,0	2 370,5	0,0	2 905,3	0,0
all	1995/1996	253,7	4,4	261,1	-10,5	2 669,1	12,6	3 183,8	9,6
Countries	1996/1997	281,4	10,9	277,4	6,3	2 570,7	-3,7	3 129,4	-1,7
	1997/1998	311,5	10,7	294,4	6,1	2 350,3	-8,6	2 956,2	-5,5
	1998/1999	264,7	-15,0	370,3	25,8	2 312,7	-1,6	2 947,7	-0,3
	1999/2000	236,2	-10,8	359,2	-3,0	2 422,9	4,8	3 018,3	2,4
	2000/2001	183,0	-22,5		-20,1	2 301,3		2 771,1	-8,2
			n/	d: Not a	vailable				

Source: Agriculture Ministries

#### Annex 7 TRENDS IN BASIC-GRAINS SOWING AREAS

Agricultural cycles 1994/95-1999/00 Thousands of Hectares

	Agric.	Mai		Bea		Rie	се	То	tal
Country	cycle	ha.	(%)*	ha.	(%)*	ha.	(%)*	ha.	(%)*
	1994/95	12,1	0,0	3,7	0,0	4,3	0,0	20,2	0,0
	1995/96	15,8	30,2	3,9	3,8	4,9	14,2	24,6	21,9
Belize	1996/97	14,7	-6,5	4,2	7,6	5,8	17,5	24,7	0,5
	1997/98	16,9	14,6	4,2	1,3	6,2	7,8	27,3	10,7
	1998/99	14,3	-15,0	4,6	9,2	5,2	-16,4	24,2	-11,6
	1999/00	14,8	3,0	4,6	-1,0	4,6	-11,8	23,9	-1,0
	2000/01	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1994/95	608,0	0,0	134,9	0,0	13,0	0,0	755,9	0,0
	1995/96	547,2	-10,0	121,4	-10,0	11,0	-15,1	679,6	-10,1
Guatemala	1996/97	576,2	5,3	122,8	1,2	11,8	7,6	710,8	4,6
	1997/98	588,4	2,1	124,6	1,5	12,3	3,6	725,2	2,0
	1998/99	588,7	0,1	124,6	0,0	13,3	8,6	726,6	0,2
	1999/00	589,8	0,2	125,7	0,8	14,0	5,3	729,4	0,4
	2000/01 (a)	588,7	-0,2	124,6	-0,8	13,3	-5,0	726,6	-0,4
	1994/95	315,3	0,0	74,3	0,0	14,9	0,0	404,5	0,0
	1995/96	294,6	-6,6	60,6	-18,4	9,6	-35,7	364,8	-9,8
El Salvador	1996/97	279,1	-5,3	67,7	11,7	10,7	11,7	357,5	-2,0
	1997/98	306,1	9,7	83,0	22,6	14,9	38,9	404,0	13,0
	1998/99	295,4	-3,5	78,1	-5,9	10,3	-30,6	383,8	-5,0
	1999/00	263,4	-14,0	151,9	83,0	10,9	-26,6	426,2	5,5
	2000/01	260,7	-1,0	79,7	-47,5	8,3	-24,0	348,7	-18,2
	1994/95	390,7	0,0	117,6	0,0	12,0	0,0	520,3	49,2
	1995/96	406,9	4,1	83,3	-29,2	15,0	25,0	505,2	-2,9
Honduras	1996/97	407,3	0,1	97,6	17,2	16,3	8,7	521,2	3,2
	1997/98	388,8	-4,5	144,3	47,8	16,2	-0,6	549,3	5,4
	1998/99	390,2	0,4	111,8	-22,5	5,7	-64,8	507,7	-7,6
	1999/00	370,7	-5,0	110,2	-1,4	3,6	-36,8	484,5	-4,6
	2000/01	458,4	23,7	79,5	-27,9	11,1	208,3	549,0	13,3
	1994/95	196,0	0,0	120,4	0,0	58,4	0,0	374,8	-22,6
	1995/96	279,9	42,8	138,5	15,0	62,9	7,7	481,3	28,4
Nicaragua	1996/97	279,0	-0,3	119,9	-13,4	67,6	7,5	466,5	-3,1
	1997/98	233,1	-16,5	135,0	12,6	74,9	10,8	443,0	-5,0
	1998/99	252,6	8,4	189,3	40,2	83,2	11,1	525,1	18,5
	1999/00	267,9	6,1	206,9	9,3	62,4	-25,0	537,2	2,3
	2000/01	363,5	35,7	250,7	21,2	71,3	14,3	685,5	27,6
	1994/95	1 522,1	0,0	450,9	0,0	102,6	0,0	2 075,6	0,0
	1995/96	1 544,3	1,5	407,7	-9,6	103,4	0,8	2 055,4	-1,0
all	1996/97	1 556,3	0,8	412,1	1,1	112,2	8,5	2 080,7	1,2
Countries	1997/98	1 533,3	-1,5	491,1	19,2	124,5	10,9	2 148,8	3,3
	1998/99	1 541,2	0,5	508,4	3,5	117,7	-5,4	2 167,3	0,9
	1999/00	1 506,5			17,9	95,5	-18,9	2 201,2	1,6
	2000/01	1 671,3	10,9	534,5	-10,8	104,0	8,9	2 309,8	4,9

n/d: Not available; (a): Preliminary Estimates

(%)\*= Growth rate; Source: Agriculture Ministries

		A	nnex 8				
Trend	ls in yields of						
0	Agric.	Maize		Bean		Ric	
Country	Cycle	Tonne/ha.	(%)*	Tonne/ha.	(%)*	Tonne/ha.	(%)*
	1994/1995	n/d	n/d		n/d	,	n/d
	1995/1996	2,93	n/d	1,30	15,0		12,9
Belize	1996/1997	3,96	35,2	1,48	13,8	·	11,4
	1997/1998	4,05	2,3		-12,2		12,8
	1998/1999	4,08	0,7	1,24	-4,6	·	-15,9
	1999/2000	4,26	4,4	1,47	18,5		0,0
	2000/2001	n/d	n/d	n/d	n/d	n/d	n/d
	1994/1995	1,89	n/d		n/d	,	n/d
	1995/1996	1,87	-1,1	0,64	-1,5	·	-7,2
Guatemala	1996/1997	1,90	1,6		1,6	·	-1,1
	1997/1998	1,66	-12,6		1,5		19,9
	1998/1999	1,68	1,2	0,65	-1,5		-7,2
	1999/2000	1,70	1,2	0,68	4,6		6,1
	2000/2001	1,68	-1,2	0,65	-4,4		-5,7
	1994/1995	1,50	n/d		n/d	,	n/d
	1995/1996	2,20	46,7	0,80	0,0	,	23,1
El Salvador	1996/1997	2,20	0,0	0,90	12,5		0,0
	1997/1998	1,60	-27,3		-11,1	·	-18,8
	1998/1999	1,90	18,8		-25,0		11,5
	1999/2000	2,00	25,0		0,0	·	7,7
	2000/2001	2,21	10,5		7,5	3,42	22,1
	1994/1995	3,00	n/d	1,40	n/d	,	n/d
	1995/1996	3,60	20,0	1,50	7,1	3,74	-5,6
Honduras	1996/1997	2,90	-19,4	1,40	-6,7	3,67	-1,9
	1997/1998	3,30	13,8		0,0		-15,5
	1998/1999	2,70	-18,2	1,10	-21,4	·	-21,9
	1999/2000	2,90	7,4	1,10	0,0	,	49,2
	2000/2001	1,05	-63,8	0,94	-14,5	1,16	-67,9
	1994/1995	0,90	n/d		n/d	,	n/d
	1995/1996	0,80	-11,1	0,40	-20,0		7,1
Nicaragua	1996/1997	0,81	1,3		10,0	1,60	6,7
	1997/1998	0,79	-2,5		-15,9		21,9
	1998/1999	0,83	5,1	0,55	48,6		-9,7
	1999/2000	1,09	31,3		16,4		23,3
	2000/2001	0,71	-34,9	0,25	-60,9	1,44	-33,6
	1994/1995	1,82	n/d	0,84	n/d	2,72	n/d
	1995/1996	2,12	16,2	0,84	-0,3	2,78	2,5
all	1996/1997	1,95	-7,8	0,85	1,5	2,78	0,0
countries	1997/1998	1,84	-5,9	0,81	-4,7	2,71	-2,6
	1998/1999	1,78	-3,3		-10,2	2,51	-7,4
	1999/2000	1,92	8,2		11,0		16,7
	2000/2001	1,41	-26,5	0,68	-16,1	2,25	-23,4

(%)\*= Growth Rate; Tonne/ha= Tonnes per hectare; N/a: Not available Source: Agriculture Ministries

## Annex 9 TRENDS IN MEAT PRODUCTION 1994-1999

	Year	Bee	f	Poi	rk	Chic	ken	Tot	tal
Country		kg millions	(%)*	kg millions	(%)*	kg millions	(%)*	kg millions	(%)*
	1994	1,30	0,0	0,70	0,00	6,80	0,00	8,80	0,00
	1995	1,50	15,4	0,70	0,00	7,10	4,41	9,30	5,68
	1996	1,40	-6,7	0,70	0,00	7,60	7,04	9,70	4,30
Belize	1997	1,50	7,1	0,70	0,00	5,50	-27,63		-20,62
	1998	1,50	0,0	0,80	14,29	7,60	38,18		28,57
	1999	1,20	-20,0	0,90	12,50	8,40	10,53	10,50	6,06
	1994	55,70	0,0	16,60	0,00	59,60	0,00	131,90	0,00
	1995	57,80	3,8	17,40	4,82	70,30	17,95	145,50	10,31
	1996	58,20	0,7	17,70	1,72	73,80	4,98	149,70	2,89
Guatemala	1997	69,20	18,9	15,00	-15,25	75,70	2,57	159,90	6,81
	1998	72,60	4,9	17,20	14,67	77,70	2,64	167,50	4,75
	1999	68,20	-6,1	17,30	0,58	79,30	2,06	164,80	-1,61
	1994	26,77	0,0	134,00	0,00	49,26	0,00	210,03	0,00
	1995	29,00	8,4	138,00	2,99	54,32	10,27	221,32	5,38
	1996	26,74	-7,8	129,00	-6,52	52,96	-2,51	208,69	-5,71
El Salvador	1997	34,68	29,7	149,30	15,74	56,86	7,38	240,84	15,40
	1998	34,02	-1,9	154,50	3,48	62,86	10,55	251,38	4,38
	1999	26,77	-21,3	156,50	1,29	69,46	10,48	252,72	0,53
	1994	116,00	0,0	13,50	0,00	46,50	0,00	176,00	0,00
	1995	123,20	6,2	14,00	3,70	49,10	5,59	186,30	5,85
	1996	128,00	3,9	14,70	5,00	49,20	0,20	191,90	3,01
Honduras	1997	133,10	4,0	15,40	4,76	50,20	2,03	198,70	3,54
	1998	138,30	3,9	16,10	4,55	56,90	13,35	211,30	6,34
	1999	143,80	4,0	16,70	3,73	60,10	5,62	220,60	4,40
	1994	51,30	0,0	4,90	0,00	29,80	0,00	86,00	0,00
	1995	49,00	-4,5	5,10	4,08	31,20	4,70	85,30	-0,81
	1996	48,60	-0,8	5,00	-1,96	31,10	-0,32	84,70	-0,70
Nicaragua	1997	51,70	6,4	5,40	8,00	29,60	-4,82	86,70	2,36
	1998	45,40	-12,2	5,60	3,70	32,70	10,47	83,70	-3,46
	1999	52,10	14,8	5,70	1,79	32,10	-1,83	89,90	7,41
	1994	251,07	0,0	169,70	0,00	191,96	0,00	612,73	0,00
	1995	260,50	3,8	175,20	3,2	212,02	10,4	647,72	5,7
all	1996	262,94	0,9	167,10	-4,6	214,66	1,2	644,69	-0,5
Countries	1997	290,18	10,4	185,80	11,2	217,86	1,5	693,84	7,6
	1998	291,82	0,6	194,20	4,5	237,76	9,1	723,78	4,3
	1999	292,07	0,1	197,10	1,5	249,36	4,9	738,52	2,0
			Source:	Agricultui	re Minist	ries			

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Annex 9A
Trends in production of milk and eggs
1994-1999

	Year	Mill	94-1999 k	Fc	ıgs
Country	i cai	Millions Itrs	Growth rate	Millions doz.	Growth rate
Country	1994	1,6		2,1	
	1994	1,6	0,0	2,1	0,0 -4,8
	1995	1,6	0,0 -12,5	2,3	15,0
Belize	1990	1,4	0,0	2,6	13,0
Delize	1998	1,4	0,0	3,5	34,6
	1999	1,6		2,9	-17,1
	1994	243,3		159,1	0,0
	1995	251,9		172,8	8,6
	1996	254,5		112,5	-34,9
Guatemala	1997	255,8		125,1	11,2
	1998	257,1	0,5	130,1	4,0
	1999		0,0		0,0
	1994	192,0	0,0	81,7	0,0
	1995	282,0	46,9	82,7	1,2
	1996	371,5	31,7	81,3	-1,6
El Salvador	1997	356,4	-4,1	83,4	2,5
	1998	331,5	-7,0	84,7	1,5
	1999	339,0	2,3	87,3	3,1
	1994	437,9		64,2	0,0
	1995	471,6		66,2	3,1
	1996	517,0		69,5	5,0
Honduras	1997	579,0		71,8	3,3
	1998	674,2		72,7	1,3
	1999	707,1	4,9	76,6	5,4
	1994	181,7	0,0	20,8	0,0
	1995	181,7		20,2	-2,9
	1996	181,7		20,9	3,5
Nicaragua	1997	202,5		22,7	8,6
	1998	212,6		21,7	-4,4
	1999	323,3	52,1	20	-7,8
	1994	1 056,5	0,0	327,9	0,0
	1995	1 188,8			4,9
all	1996	1 326,1			-16,7
Countries	1997	1 395,1		305,6	6,6
	1998	1 476,8			2,3
	1999	1 371,0		186,8	-40,3
		Source: Ag	riculture Ministi	ries	

Annex 10 Trends in agro-industrial production 1994-1999

	Year	Wheat	Flour	Suga	ar	Edible	Oil
Country		Tonnes	(%)*	Tonnes	(%)*	millions Itrs	(%)*
	1994	n/d	n/d	105,40	0,00	n/d	n/d
	1995	n/d	n/d	105,34	-0,05	n/d	n/d
	1996	n/d	n/d	109,00	3,47	n/d	n/d
Belize	1997	n/d	n/d	94,51	-13,29	n/d	n/d
	1998	n/d	n/d	118,11	24,97	n/d	n/d
	1999	n/d	n/d	116,07	-1,73	n/d	n/d
	1994	n/d	n/d	1 249,52	0,00	n/d	n/d
	1995	n/d	n/d	1 251,33	0,14	n/d	n/d
	1996	n/d	n/d	1 776,90	42,00	n/d	n/d
Guatemala	1997	n/d	n/d	1 731,16	-2,57	n/d	n/d
	1998	n/d	n/d	1 529,58	-11,64	n/d	n/d
	1999	n/d	n/d	1 529,58	0,00	n/d	n/d
	1994	n/d	n/d	318,78	0,00	n/d	n/d
	1995	n/d	n/d	307,02	-3,69	n/d	n/d
	1996	n/d	n/d	305,15	-0,61	n/d	n/d
El Salvador	1997	n/d	n/d	393,13	28,83	n/d	n/d
	1998	n/d	n/d	467,11	18,82	n/d	n/d
	1999	n/d	n/d	450,35	-3,59	n/d	n/d
	1994	103,30	0,00	157,60	0,00	55,74	0,00
	1995	98,00	-5,13	184,10	16,81	54,34	-2,50
	1996	98,50	0,51	235,20	27,76	50,13	-7,75
Honduras	1997	102,60	4,16	240,90	2,42	59,55	18,79
	1998	104,30	1,66	246,90	2,49	60,26	1,19
	1999	108,50	4,03	189,80	-23,13	58,54	-2,85
	1994	47,40	0,00	204,00	0,00	30,80	0,00
	1995	44,50	-6,12	258,00	26,47	31,40	1,95
	1996	56,50	26,97	306,30	18,72	33,60	7,01
Nicaragua	1997	68,00	20,35	347,80	13,55	25,80	-23,21
	1998	65,30	-3,97	348,60	0,23	22,70	-12,02
	1999	68,00	4,13	353,30	1,35	40,00	76,21
	1994	150,70	n/d	2 035,30	n/d	86,54	n/d
	1995	142,50	-5,44	2 105,80	3,46	85,74	-0,92
all	1996	155,00	8,77	2 732,55	29,76	83,73	-2,35
Countries	1997	170,60	10,06	2 807,50	2,74	85,35	1,93
	1998	169,60	-0,59	2 710,31	-3,46	82,96	-2,80
	1999	176,50	4,07	2 639,10	-2,63	98,54	18,78
	N/a:	Not availa	ble; Sour	ce: Agricultur	re Ministrie	S	

							Α	nnex '	11							
			Trend	s in Food	d Impo	rts – C	Cereals 1	994-19	999	In The	ousan	ds of T	onnes			
	Year		Maize	Э		Beans	6		Rice		٧	Vheat Fl	our	T	otal Ger	neral
Country		Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated
	1994	24,5	24,5	0,0	131,8	131,8	0,0	12,9	12,9	0,0	0,0	0,0	0,0	169,2	169,2	0,0
	1995	33,6	33,6	0,0	95,5	95,5	0,0	12,5	12,5	0,0	0,0	0,0	0,0	141,6	141,6	0,0
	1996	23,7	23,7	0,0	98,6	98,6	0,0	6,5	6,5	0,0	0,0	0,0	0,0	128,8	128,8	0,0
Belize	1997	35,0	35,0	0,0	61,4	61,4	0,0	3,7	3,7	0,0	0,0	0,0	0,0	100,1	100,1	0,0
	1998	26,2	26,2	0,0	39,8	39,8	0,0	7,6	7,6	0,0	0,0	0,0	0,0	73,6	73,6	0,0
	1999	28,1	28,1	0,0	12,1	12,1	0,0	11,0	11,0	0,0	0,0	0,0	0,0	51,2	51,2	0,0
	1994	150,8	150,8	0,0	0,0	0,0	0,0	16,5	16,5	0,0	361,2	361,2	0,0	528,5	528,5	0,0
	1995	173,8	173,8	0,0	0,5	0,5	0,0	33,5	33,5	0,0	236,0	236,0	0,0	443,8	443,8	0,0
	1996	213,8	213,8	0,0	0,1	0,1	0,0	24,7	24,7	0,0	193,6	193,6	0,0	432,2	432,2	0,0
Guatemala	1997	247,7	247,7	0,0	0,1	0,1	0,0	26,3	26,3	0,0	0,0	0,0	0,0	274,1	274,1	0,0
	1998	259,8	259,8	0,0	0,1	0,1	0,0	3,2	3,2	0,0	0,0	0,0	0,0	263,1	263,1	0,0
	1999	270,5	270,5	0,0	0,0	0,0	0,0	24,6	24,6	0,0	0,0	0,0	0,0	295,1	295,1	0,0
	1994	145,7	145,7	0,0	0,0	0,0	0,0	27,2	27,2	0,0	0,0	0,0	0,0	172,8	172,8	0,0
	1995	190,4	186,9	3,6	3,7	3,7	0,0	28,0	25,3	2,8	157,9	148,9	9,0	380,0	364,7	15,3
	1996	159,0	156,2	2,7	3,2	3,2	0,0	35,2	32,4	2,7	164,1	164,1	0,0	361,4	356,0	5,5
El Salvador	1997	326,2	325,9	2,9	63,2	63,2	0,0	34,3	34,3	0,0	173,1	171,6	1,6	596,8	595,0	4,5
	1998	260,0	259,0	9,7	7,2	7,2	0,0	46,1	44,7	1,4	217,1	213,9	3,2	530,5	524,9	14,4
	1999	367,7	361,3	6,4	18,1	18,1	0,0	82,1	75,1	7,0	214,0	214,0	0,0	681,8	668,4	13,4
	1994	34,1	34,1	0,0	0,1	0,1	0,0	9,5	9,5	0,0	225,4	225,4	0,0	269,1	269,1	0,0
	1995	17,4	17,4	0,0	0,1	0,1	0,0	21,0	21,0	0,0	99,6	99,6	0,0	138,1	138,1	0,0
	1996	42,4	42,4	0,0	7,1	7,1	0,0	49,1	49,1	0,0	89,7	89,7	0,0	188,3	188,3	0,0
Honduras	1997	100,2	100,2	0,0	0,6	0,6	0,0	50,1	50,1	0,0	142,1	142,1	0,0	293,0	293,0	0,0
	1998	86,7	86,7	0,0	2,0	2,0	0,0	71,1	71,1	0,0	134,1	134,1	0,0	293,9	293,9	0,0
	1999	114,0	114,0	0,0	2,0	2,0	0,0	81,6	81,6	0,0	226,8	226,8	0,0	424,4	424,4	0,0

								Annex	:11							
					Tre	nds in l	Food Impo	rts – Ce	ereals	199	4-1999					
							In Tho	usands	of Tonr	nes						
	Year		Maiz	Ð		Bean	s		Rice		'	Nheat F	lour	To	otal Gener	al
Country		Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated
	1994	16,0	11,1	4,9	6,9	2,8	9,2	43,6	36,8	6,8	43,6	36,8	6,8	110,1	87,5	27,7
	1995	3,2	1,1	2,1	3,7	1,9	15,1	49,8	44,8	5,0	49,8	44,8	5,0	106,5	92,6	27,2
	1996	3,4	1,9	1,6	3,6	2,6	31,3	67,6	63,6	4,0	67,6	63,6	4,0	142,2	131,7	40,9
Nicaragua	1997	1,4	1,4	0,0	1,8	1,8	0,0	79,5	79,5	0,0	79,5	79,5	0,0	162,2	162,2	0,0
	1998	4,0	4,0	0,0	9,8	9,8	0,0	61,8	61,8	0,0	61,8	61,8	0,0	137,4	137,4	0,0
	1999	3,4	3,4	0,0	8,0	8,0	0,0	38,4	38,4	0,0	38,4	38,4	0,0	88,2	88,2	0,0
	1994	371,1	366,2	4,9	138,8	134,7	9,2	109,6	102,8	6,8	630,2	623,4	6,8	1 249,7	1 227,1	27,7
	1995	418,4	412,8	5,7	103,5	101,7	15,1	144,8	137,1	7,8	543,3	529,3	14,0	1 210,0	1 180,8	42,5
all	1996	442,3	438,0	4,3	112,6	111,6	31,3	183,0	176,3	6,7	515,0	511,0	4,0	1 252,9	1 236,9	46,4
Countries	1997	710,5	710,2	2,9	127,1	127,1	0,0	193,9	193,9	0,0	394,7	393,2	1,6	1 426,2	1 424,4	4,5
	1998	636,7	635,7	9,7	58,9	58,9	0,0	189,9	188,5	1,4	413,0	409,8	3,2	1 298,5	1 292,9	14,4
	1999	783,7	777,3	6,4	40,2	40,2	0,0	237,7	230,7	7,0	479,2	479,2	0,0	1 540,7	1 527,3	13,4
							Source: /	Agricultu	ıre Minis	stries						

						Ann	ex 11-B						
				Tr	ends in	Food In	nports 199	94-1999					
	Year	Edible Oi	l (millior	ns of litres)	Chick	en (milli	ons of kilos)	Milk (r	nillions	of litres)	Eggs (r	nillions	of dozens)
Country		Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated
	1994	186,40	186,40	0,00	0,52	0,52	0,00	6,03	6,03	0,00	0,00	0,00	0,00
	1995	123,40	123,40	0,00	0,60	0,60	0,00	6,04	6,04	0,00	0,00	0,00	0,00
	1996	129,00	129,00	0,00	0,50	0,50	0,00	5,86	5,86	0,00	0,00	0,00	0,00
Belize	1997	109,50	109,50	0,00	0,50	0,50	0,00	5,28	5,28	0,00	0,00	0,00	0,00
	1998	99,00	99,00	0,00	0,70	0,70	0,00	9,38	9,38	0,00	0,00	0,00	0,00
	1999	131,00	131,00	0,00	0,80	0,80	0,00	5,77	5,77	0,00	0,00	0,00	0,00

			An	nex 11-B	Trer	nds in l	Food Import	S	1994-19	999			
	Year	Edible Oi	l (millior	ns of litres)	Chick	en (mill	ions of kilos)	Milk (ı	nillions	of litres)	Eggs (r	nillions	of dozens)
Country		Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated	Total	Trade	Donated
	1994	51,10	51,10	0,00	1,80	1,80	0,00	19,90	19,90		19,90	19,90	0,00
	1995	47,10	47,10	0,00	1,60	1,60	0,00	17,00	17,00	,	17,00	17,00	0,00
	1996	44,40	44,40	0,00	1,50	1,50	0,00	16,40	16,40		16,40	16,40	0,00
Guatemala	1997	49,70	49,70	0,00	12,90	12,90	0,00	26,10	26,10		26,10	26,10	0,00
	1998	51,70	51,70	0,00	15,10	15,10	0,00	28,40	28,40		28,40	28,40	0,00
	1999	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	1994	24,91	24,91	0,00	0,00	0,00	0,00	11,91	11,91	0,00	0,00	0,00	0,00
	1995	199,53	59,43	140,10	0,00	0,00	0,00	13,61	13,61	0,00	0,00	0,00	0,00
	1996	348,43	66,93	281,50	0,00	0,00	0,00	13,06	13,06	0,00	0,00	0,00	0,00
El Salvador	1997	75,67	75,67	0,00	0,00	0,00	0,00		6,95	The second secon	0,00	0,00	0,00
	1998	777,87	70,07	707,80	0,00	0,00	0,00		20,57	0,00	0,00	0,00	0,00
	1999	769,60	80,60	689,00	0,00	0,00	0,00	18,53	18,53	0,00	0,00	0,00	0,00
	1994	0,20	0,20	0,00	1,20	1,20	0,00	7,50	7,50	0,00	0,00	2,00	0,00
	1995	0,60	0,60	0,00	1,50	1,50	0,00	7,50	7,50	0,00	0,00	4,90	0,00
	1996	1,30	1,30	0,00	1,60	1,60	0,00	8,60	8,60	0,00	0,00	5,90	0,00
Honduras	1997	0,90	0,90	0,00	4,00	4,00	0,00	9,40	9,40		0,00	6,60	0,00
	1998	1,40	1,40	0,00	4,30	4,30	0,00	12,20	12,20	0,00	0,00	7,80	0,00
	1999	3,00	3,00	0,00	3,60	3,60	0,00	13,00	13,00	0,00	0,00	6,50	0,00
	1994	43,60	37,30	6,30	0,60	0,60	0,00	52,30	35,30	17,00	0,00	0,00	0,00
	1995	40,40	35,20	5,20	1,10	1,10	0,00	62,30	51,10	11,20	0,00	0,00	0,00
	1996	40,40	36,80	3,60	0,90	0,90	0,00	32,60	32,60	,	0,00	0,00	0,00
Nicaragua	1997	40,90	40,90	0,00	1,10	1,00	0,00	39,40	39,40	0,00	0,00	0,00	0,00
	1998	47,70	47,70	0,00	1,90	1,90	0,00		69,70		0,00	0,00	0,00
	1999	23,00	23,00	0,00	0,10	0,10	0,00	21,20	21,20	0,00	0,00	0,00	0,00
	1994	306,21	299,91	6,30	4,12	4,12	0,00	97,64	80,64	17,00	19,90	21,90	0,00
	1995	411,03	265,73	145,30	4,80	4,80	0,00	106,45	95,25	11,20	17,00	21,90	0,00
all	1996	563,53	278,43	285,10	4,50	4,50	0,00	76,52	76,52	0,00	16,40	22,30	0,00
Countries	1997	276,67	276,67	0,00	18,50	18,40	0,00	87,14	87,14		26,10	32,70	0,00
	1998	977,67	269,87	707,80	22,00	22,00	0,00	140,25	140,25		28,40	36,20	0,00
	1999	926,60	237,60	689,00	4,50	4,50	0,00	58,51	58,51	0,00	0,00	6,50	0,00

Source: Agriculture Ministries

						nnex 12						
				ds ir		<b>Exports</b>		<u>94-19</u>	99			
Country	Year	Maiz	Bean	Rice	Whea		Edible		Meat	:s	Egg	ıs
		е	s		Flour	'	Oil	Beef	Pork	Chicken	Mill	k
			Thous	sands	of tonn	es	mill.	Th	ousan	ds of	Mill.	1,00
							Itrs		tonne	es		0
												ton.
	1994	0,00	1,52	0,16	0,00	93,00	1,10	0,00	0,00	0,00	0,00	
	1995	0,00	1,53		0,00	92,32	0,44	0,00	0,00	0,00	0,00	
- n .:	1996	0,00	0,95		0,00	94,83	0,00	0,00	0,00	0,00	0,00	
Belize	1997	0,00	2,26		0,00	108,98	2,28	0,00	0,00	0,00	0,00	-
	1998	0,04	1,67	2,14	0,00	104,26	0,00	0,00	0,00	0,00	0,00	
	1999	0,37	2,29		0,00	104,06	0,00	0,00	0,00	0,00	0,00	
	1994	1,78	0,59	3,12	0,00	680,81	0,00	5,42	0,00	0,56	0,00	-
		48,72	0,36		0,00	849,45	0,00	3,56	0,00	0,57	0,00	
0	1996	-	0,02	2,81	0,00	769,27	0,00	1,00	0,00	0,61	0,00	
Guatemala	1997	81,33	0,44	2,52	0,00	998,08	0,00	0,90	0,00	1,22	0,00	
	1998		0,21	1,62	0,00	1 296,91	0,00	1,19	0,00	0,85	0,00	
		43,71	0,01	0,94	0,00	1 034,30	0,00	0,00	0,00	0,00	0,00	
	1994	0,00	0,00	0,00	0,00	76,00	0,00	0,00	0,00	0,00	4,27	
	1995	0,00	0,00		0,00	81,00	0,00	0,00	0,00	0,00	5,47	
	1996	0,00	0,00	0,00	0,00	150,00	0,00	0,00	0,00	0,00	7,16	
El Salvador	1997	0,00	0,00	0,00	0,00	234,00	0,00	0,00	0,00	0,00	7,99	0,00
Salvadoi	1998	0,00	0,00	0,00	0,00	177,00	0,00	0,00	0,00	1,27	10,70	3,38
	1999	0,00	0,00		0,00	102,63	0,00	0,00	0,00	0,00	31,36	
	1994	0,30	0,20		0,00	9,60			0,00	0,00	0,00	
	1995	0,00	0,20	0,00	0,00	13,20	3,80	6,00	0,00	0,00	0,00	
	1996	7,20	1,30	0,40	0,00	19,30	2,30	5,80	0,00	0,00	0,00	
Honduras	1997	0,70	0,50	0,00	0,00	24,90	3,00	5,50	0,00	0,00	0,00	
Hondardo	1998	8,10	2,60		0,00	23,20	30,00		0,00	0,00	0,00	
	1999	0,00	0,00	0,00	0,00	25,60	21,80	1,20	0,00	0,20	0,00	
	1994	8,80	17,50	3,10	0,00	53,80		23,90	0,00	0,00	0,00	
	1995		22,30		0,00	95,30		24,50		0,00		0,00
	1996		12,00		0,00	121,90		22,50	0,00	0,00		0,00
Nicaragua	1997		11,20		0,00	179,70		26,30	0,00	0,00		0,00
	1998		1,70		1,60	150,50		21,50	0,00	0,00		0,00
	1999		8,40		0,80	100,60		16,90	1,20	0,00		1,20
	1994			6,38	0	913,21		45,52	0,0	0,56	4,27	
		52,92	24,69		0	1 131,27		34,06	0,0	0,57	5,47	
all		26,35	14,27		0	1 155,30		29,30	0,0	0,61	7,16	
Countries		94,93	14,40		0	1 545,66		32,70	0,0	1,22	7,99	
		22,35		3,96	1,6	1 751,87		24,49	0,0	2,12	10,70	-
		45,48			0,8	1 367,19		18,10	1,2	0,2	31,36	
			Fuent	e: Min	isterios	de Agricult			ses.			

					Aı	nnex 13					
		Em	ploymer	nt & Per-ca	pita Wage	e, per Activ	ity Sector	r 1994	4-1999		
Country	Year	Tota	ıl	Rur	al	Urba	an	Indus Constr		Servi	ces
		Employees	Average	<b>Employees</b>	US\$	Employees	US\$	Employees	US\$	Employees	US\$
		Thousands	US\$	Thousands	Per capita	Thousands	Per capita	Thousands	Per capita	Thousands	Per capita
	1994	4,5	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1995	4,6	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Dali	1996	4,6	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Belize	1997	4,5	n/d	n/d	n/d	n/d	n/d	n/d			
	1998	4,4	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	
	1999	4,8	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1994	687,6	173,4	205,5	67,5	482,1	279,3	176,8	141,0	305,2	138,2
	1995	695,9	201,2	224,3	81,8	471,5	320,6	162,4	167,4	309,1	153,2
	1996	682,5	243,0	204,4	100,7	478,1	385,4	154,7	192,0	323,4	193,4
Guatemala	1997	681,7	271,3	212,8			435,7	160,9		,	
	1998	709,9		204,0	104,7	505,9	425,3	178,1	202,1	327,8	· ·
	1999	1 513,5	257,6	984,3	98,9	529,2	416,3	188,7	190,0	340,5	226,4
	1994	n/d	92,2	n/d	73,7	n/d	120,0	n/d	120,0	n/d	120,0
	1995	2 893,4	92,1	810,2	81,0	2 083,2	132,0	0,0	132,0	n/d	132,0
E1 0 1 1 1	1996	3 151,4	93,3	866,7	81,0	2 284,7	132,0	0,0	132,0	n/d	132,0
El Salvador	1997	3 201,7	97,4	883,7	81,0		132,0	0,0			,
	1998	3 298,5	104,2	903,8	,		144,0	0,0	144,0	n/d	,
	1999	3 474,0	104,7	1 005,4	81,0	2 468,6	144,0	0,0	144,0	n/d	144,0
	1994	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1995	1 796,2	59,2	766,0	52,9	1 030,2	62,4	330,0	54,8	700,2	70,0
l llamatums s	1996	1 873,5		782,7	55,1	1 090,8	63,0	347,7	59,2	· · · · · · · · · · · · · · · · · · ·	66,6
Honduras	1997	1 955,0	· ·	799,7	63,5	1 155,3	70,8	366,4	65,8	788,9	
	1998	2 040,9		817,1	71,7	1 223,8	80,7	386,3			•
	1999	2 131,3	86,7	834,9	79,3	1 296,4	94,1	407,3	83,6	889,1	105,1

					Δ	nnex 13									
		E	mployme	nt & Per-c	apita Wag	e, per Activ	vity Sector	1994	<b>4-1999</b>						
Country	Year	Tota	al	Ru	ral	Urk	oan	Industry &	Construction	Serv	ices				
		Employees	Average	Employees	US\$	Employees	US\$	Employees	US\$	<b>Employees</b>	US\$				
		Thousands	US \$	Thousands	Per capita	Thousands	Per capita	Thousands	Per capita	Thousands	Per capita				
Nicaragua	1994	1 176,6	51,7	472,0	46,1	704,6	67,3	151,7	70,6	552,9	80,4				
	1995 1 228,2 50,0 497,2 44,2 731,0 63,9 160,6 104,1 570,4														
	1996	1 291,8	46,8	529,8	44,0	762,0	66,6	172,9	98,1	589,1	78,8				
	1997	1 369,9	49,4	574,5	44,5	795,4	79,2	182,6	136,4	612,8	80,3				
	1998	1 441,8	46,7	609,2	43,4	832,6	56,7	194,9	125,5	637,7	72,3				
	1999	1 544,2	47,6	655,3	44,3	888,9	55,7	225,1	121,3	663,8	69,7				
	1994	1 864,2	56,3	677,5	56,8	1 186,7	173,3	328,5	105,8	858,1	109,3				
	1995	6 618,2	100,6	2 297,7	65,0	4 315,9	144,7	653,0	114,6	1 579,7	109,4				
all	1996	7 003,8	110,5	2 383,6	70,2	4 615,6	161,8	675,3	120,3	1 655,6	117,7				
Countries	1997	7 212,8	121,3	2 470,7	74,0	4 737,5	179,4	709,9	136,4	1 709,7	128,3				
	1998	7 495,5	123,0	2 534,1	75,2	4 957,0	176,7	759,3	136,4	1 803,0	131,7				
	1999	8 667,7	124,2	3 479,9	75,9	5 183,1	177,5	821,1	134,7	1 893,4	136,3				
			N	l/a: Not avail	able;	Source: A	Agriculture N	linistries							

# Annex 14 Cost of Food Basket, Basic Food Basket and Basic Basket December 1994-December 1999

	Year	CPI		(	Cost of Baskets	s, US\$
Country		General	Foods	Food	Basic Food	Basic
	1994	100,0	100,0	n/d	n/d	n/d
	1995	102,9	102,7	n/d	n/d	n/d
	1996	109,5	109,3		n/d	
Belize	1997	110,6	111,2		n/d	n/d
	1998	109,7	110,1	n/d	n/d	
	1999	108,4	108,3		n/d	
	1999/94 %	108,4	108,30	n/d	n/d	n/d
	1994	628,8	725,8		158,6	
	1995	681,7	790,0		156,0	
	1996	757,1	880,6		177,8	
Guatemala	1997	827,0	940,7	124,5	184,3	
	1998	911,3	1028,7	114,0	169,5	
	1999	927,6	1005,6		147,8	·
	1999/94 %	147,5	138,6	92,9	93,2	92,9
	1994	166,8	n/d	•	n/d	,
	1995	183,5	n/d			· ·
	1996	201,4	n/d		n/d	,
El Salvador	1997	210,4	159,5	142,7	n/d	
	1998	215,7	170,4	140,6	n/d	
	1999	216,8	161,5		n/d	, i
	1999/94 %	130,0	101,3	112,0	n/d	112,0
	1994	n/d	n/d		n/d	
	1995	50,5	n/d		111,7	· ·
	1996	62,5	n/d	•	116,4	· ·
Honduras	1997	75,2	77,0	114,0	124,5	
	1998	85,5	85,9	123,1	134,6	
	1999	95,4	96,2	129,4	141,5	
	1999/94 %	188,9	124,9	126,6	126,7	126,7
	1994	100,0	100,0	23,6	89,4	136,5
	1995	110,9	112,0	23,6	89,4	135,5
	1996	123,8	124,7	22,4	90,4	137,4
Nicaragua	1997	135,2	136,0	22,4	89,6	140,3
	1998	152,9	155,4	22,4	89,8	141,0
	1999	170,0	163,9		84,8	137,6
	1999/94 %	170,0	163,9	89,8	94,8	100,8

N/a: Not available;

Source: National Institutes of Statistics and Censuses; Annual Reports of Central Banks

					Annex	15						
	_	Annual	per cap	oita av	ailabilit	y of foo	ods - 1	1994-1	999			
	Year/	Maize	Beans	Rice	Wheat	Sugar	Edible		Mea	ts	Eggs	Milk
Country	Standard				Flour		Oil	Beef	Pork	Chicken		
			kil	logran	ns		Lit.	-	Kilogra	ams	Doz.	Lit
	Standard	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1994	45,5	8,7	19,6	n/d	n/d	n/d	8,2	9,1	35,0	10,4	n/d
	1995	45,5	7,9	34,2	n/d	n/d	n/d	7,7	8,6		10,0	n/d
Belize	1996	45,5	11,6	37,1	n/d	n/d	n/d	6,8	7,3	36,4	10,9	n/d
	1997	45,5	8,7	48,2	n/d	n/d	n/d	7,7	6,8		12,2	n/d
	1998	45,5	6,3	16,7	n/d	n/d	n/d	7,4	5,6		15,2	n/d
	1999	45,5	5,7	32,9	n/d	n/d	n/d	6,2	5,7	38,2	12,4	n/d
	Standard	100,2	23,1	11,5	36,1	26,5	10,5	4,9	n/d	10,9	10,9	56,6
	1994	117,9	8,6	3,6	31,2	42,0	4,2	4,6	1,7	10,7	9,2	42,4
	1995	115,3	8,1	4,4	27,4	41,4		4,9	1,9		9,6	41
Guatemala	1996	113,4	6,9	2,4	32,5	38,1	4,2	5,2	1,7	11,1	9,8	42,4
	1997	88,5	6,1	2,8	32,5	37,4	5,2	5,4	2	11,9	9,6	46
	1998	93,6	6,9	1,7	37,4	38	5,5	5,4	2,3	12,4	9,2	45,4
	1999	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	Standard	80,3	28,4	19,8	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1994	123,0	18,0	12,0	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1995	121,0	19,0	13,0	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
El Salvador	1996	124,0	15,0	13,0	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1997	123,0	13,0	10,0	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1998	98,0	13,0	12,0	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	1999	110,0	13,0	12,0	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	Standard	157,5	25,7	16,5	7,8	16,7	11,1	11,0	3,8	8,5	12,2	47,6
	1994	54,1	11,1	9,7	19,6	37,8		8,2	1,5		7,3	11,6
	1995	63,0	8,1	13,9		38,9	11,3	8,4	1,5		7,3	11,3
Honduras	1996	50,3	12,2	12,2	21,2	43,7	11,0		1,6		7,4	11,0
	1997	58,5	27,8	11,9	23,6	44,0	10,7	6,4	1,6	8,7	7,5	10,7
	1998	57,9	29,2	12,1	23,9	45,6	11,3	6,3	1,6	9,3	7,7	10,6
	1999	57,3	30,6	12,3	24,2	47,2	11,9	6,2	1,6	9,9	7,9	10,5
	Standard	63,6	16,2	24,1	17,7	28,1	10,6	6,10	2,9	4,0	8,4	72,1
	1994	54,4	13,6	31,8					1,3			55,0
	1995	46,8	12,1	32,8					1,0		4,5	49,2
Nicaragua	1996	45,4	11,9	35,4			8,8		1,2			
	1997	45,4	11,7	42,3		34,5		5,70	1,2		5,0	
	1998	41,7	12,1	41,0					1,3		4,7	41,5
	1999	42,2	18,5	41,1				7,00	1,2		4,2	43,5
	Standard	100,4	23,4	18,0	20,5	23,8	10,7	7,33	3,4	7,8	10,5	58,8
	1994	75,4	14,9	16,9			8,2		3,4	15,3	8,0	36,3
Average	1995	78,8	11,1	19,5				6,58	3,3			
all	1996	76,1	11,8	20,4	21,8			6,58	3,0			30,0
Countries	1997	77,2	13,6	23,0	23,4	38,6	8,0	6,25	2,9	15,9	8,6	31,5
	1998	66,3	13,3	16,9	25,1	40,1	8,7	6,08	2,7	15,9	9,2	32,5
	1999	69,7	14,9	20,0	18,9	40,9	13,6	4,85	2,8	18,3	8,2	27,0
		N/a:	Not ava	ilable;	Source	: Agricu	ılture Mi	nistries	S			

								Ann	ex 16									
	_			F	ood Bal	ance fo	or Basic	Grains	- 1999	(in the	usands	of ton	nes)			_		
Category		Belize		G	uatemal	la	EI	Salvado	or	Н	ondura	S	N	licaragu	a		Total	
	Maize	Beans	Rice	Maize	Beans	Rice	Maize	Beans	Rice	Maize	Beans	Rice	Maize	Beans	Rice	Maize	Beans	Rice
Initial Inventory	n/d	n/d	n/d	0,0	-6,1		·	20,4	9,4	198,0	,		•	,	·	120,3	221,2	119,4
National Production	40,7			Í	Í		555,2	32,9	32,9	531,0	,	36,0		,	140,6	2 075,3	784,2	248,2
Imports	28,1	n/d	n/d	313,0	1,3	42,9	52,4	10,9	31,3	114,0	2,0	93,0	3,4	8,1	38,5	428,2	134,2	205,6
Total Availability (a)	40,7		n/d	1422,2	88,5	72,4		64,2	73,6	843,0	,			,	272,2	2 595,8	1 139,6	573,2
Human Utilization	16,3	n/d	n/d	1053,2	91,3	63,2	478,7	63,5	53,3	457,0	84,0	93,0	198,9	87,4	196,6	1 800,5	699,2	406,1
Use of Seed		n/d	n/d	20,0	2,1	0,0	5,5	4,1	1,4	7,0	5,0	1,0	10,0	8,0	8,4	36,9	21,2	10,7
Animal Use	24,4	n/d	n/d	345,5	0,0	0,0	62,1		2,3	270,0	0,0	0,0	16,9	0,0	0,0	451,2	270,0	2,3
Post-harvest Loss	n/d	n/d	n/d	0,0	3,7	1,6	55,5	2,3	1,6	109,0	6,0	4,0	5,9	34,0	5,9	63,1	149,0	13,1
Transport Loss	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Exports	0,4	n/d	n/d	9,5	0,6	23,5	2,2	1,8	0,8	0,0	0,0	0,0	1,5	8,4	0,0	14,3	10,8	24,3
Total Utilization (b)	41,1	n/d	n/d	1428,2	97,7	88,2		71,7	59,4	843,0	95,0			137,8	210,9	2 365,9	1 150,2	456,5
Final Inventory (a-b) Deficit	-0,4	n/d	n/d	-6,1	-9,2	-15,9	69,2	-7,5	14,2	0,0	0,0	57,0	152,9	6,1	61,4	229,8	-10,6	116,7

N/a: Not available

Source: Agriculture Ministries

	Annex 17										
Trends in maize price (In dollars/ quintal)											
Country	Year	Pr	oducer			holesal	_	(	Consume	r	
		Annual	highest		Annual	highest	lowest	Annual	highest	lowest	
		average		st	averag			average			
	4004	/-!	/ -!	/ -1	e ····································	/-1	/ -!	<i>I</i> -I	/ -I	/-1	
	1994 1995	n/d	n/d n/d	n/d n/d				n/d n/d	n/d	n/d	
	1995	n/d n/d	n/d	n/d		n/d n/d	n/d n/d	n/d	n/d n/d	n/d n/d	
Belize	1997	n/d	n/d	n/d		n/d	n/d	n/d	n/d	n/d	
Bellze	1998	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	
	1999	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	
	Highest	n/d	n/d	n/d		n/d		n/d	n/d	n/d	
	year	11/4	11/4	II/G	""	11/4	11/4	11/4	11/4	11/4	
	1994	8,78	9,10	8,45	10,87	11,35	10,39	11,03	11,68	10,39	
	1995	8,05	8,64	7,74		8,79		9,62	10,07	9,17	
	1996	12,94		11,58		14,76		15,29	15,89	14,83	
Guatemala	1997	11,76	12,13	11,46		13,81	11,02	13,89	14,55	13,23	
	1998	16,44	17,30	15,58	17,17	17,96	16,37	19,29	19,89	18,69	
	1999	12,40	12,63	12,16	13,04	13,56	12,51	14,67	14,37	15,07	
	Highest	16,44	17,30	7,74	17,17	17,96	8,19	19,29	19,89	9,17	
	year										
	1994	n/d	n/d	n/d					n/d	n/d	
	1995	8,45	10,28	6,35	· · ·	11,37	7,96	11,94	13,65	10,23	
	1996	11,68	18,72	7,19		23,89	8,53	15,81	26,16	11,37	
El Salvador	1997	12,47	14,21	9,00		15,58		15,92	18,20	13,65	
	1998	9,88	11,36	8,95		13,46	10,0	14,00	14,22	12,51	
	1999	7,87	8,62	6,94		9,67	8,00	11,83		10,23	
	Highest	12,47	18,72	6,35	14,05	23,89	7,96	15,92	26,16	10,23	
	year	0.60	14.00	6.00	10.00	16 20	7 10	11.00	17.20	7.00	
	1994 1995	9,60	14,80 10,60	6,00 5,50				11,80	17,20 12,50	7,80	
	1995	7,90 8,10	9,90	5,00		11,90 23,00		10,10 13,20	24,20	7,60 6,60	
Honduras	1997	11,30		11,00		15,60			16,40	9,20	
Tionauras	1998	8,90	0,00	0,00						8,70	
	1999	8,70	0,00	0,00						8,00	
	Highest	11,3	14,8	5,0		23,0		13,2	24,2	6,60	
	year	,•	1-1,0	0,0	,.	20,0	0,0	.0,2	,_	0,00	
	1994	9,28	15,75	6,46	11,67	17,40	9,14	16,45	22,92	13,64	
	1995	7,41	8,66	5,77		10,05		7,96	7,96	7,96	
	1996	10,65	19,50	6,50		27,13		17,37	31,95	11,21	
Nicaragua	1997	9,20	12,70	5,90		14,30	7,80	15,70	18,90	12,10	
	1998	8,13	12,77	5,27		13,94			17,06	10,36	
	1999	6,93	7,98	5,11	8,83	11,20	6,77	11,86	14,86	9,74	
	Highest year	10,65	19,50	5,11	13,34	27,13	6,77	17,37	31,95	7,96	

N/a: Not available from Agriculture Ministries

Source: Agriculture Ministries

Annex 17-b Trends in beans price												
			Ire		beans pr <u>ollars</u>	ice						
Country	Year	F	Producer	<u>iii u</u>		holesale	r	Co	nsumer			
		Annual	highest		highest				lowes			
		average	3	lowest	average	9		average	9	t		
	1994	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1995	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1996	n/d	n/d	n/d	n/d	n/d		n/d	n/d	n/d		
Belize	1997	n/d	n/d	n/d	n/d	n/d		n/d	n/d	n/d		
	1998	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1999	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	Highest year	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1994	25,69	26,17	25,21	32,14	32,62	31,65	38,12	38,66	37,86		
	1995	25,12	25,72	24,66		27,07			33,16			
	1996	40,27	40,88	39,90	41,64	42,39	41,26	50,49	51,10	49,96		
Guatemala	1997	23,00	23,52	22,71	23,74	24,25	23,52	28,96	29,25	28,66		
	1998	33,94	34,80	33,48	38,95	35,47	34,80	42,56	43,09	42,10		
	1999	28,64	28,93	28,23	29,45	29,74	29,16	35,62	36,09	35,33		
	Highest year	40,27	40,88	22,71	41,64	42,39	23,52	50,49	51,10	28,66		
	1994	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1995	20,83	24,51	18,24	25,64	29,58		32,19	39,81	28,44		
	1996	48,19	71,36	26,36	59,20	96,70		66,32	102,38			
El Salvador	1997	48,21	61,50	27,98	53,99	71,10			79,63	-		
	1998	35,77	43,08	27,72	42,91	49,53		54,94	62,57	45,50		
	1999	39,95	42,42	33,43	45,02	52,19	32,06	55,29	62,57	45,51		
	Highest year	48,21	71,36	18,24	59,20	96,7	22,75	66,32	102,38	28,44		
	1994	27,10	34,30	22,30	29,10	36,10	24,20	32,10	39,00	27,00		
	1995	19,00		15,60	21,10	28,70			30,20	19,90		
	1996	24,60	31,90	20,20	50,60	81,50	22,90	55,30	85,40	25,40		
Honduras	1997	42,50	43,30	42,30	44,10	60,40	29,30	49,30	64,20	33,30		
	1998	28,40		n/d		41,40				31,50		
	1999	31,40	n/d	n/d	37,50		30,00			36,00		
	Highest year	24,60	n/d	20,20	50,60	81,50	22,90	55,30	85,40	25,40		
	1994	25,05	29,39	13,08	30,09	37,27	17,58	35,44	39,52	22,78		
	1995	18,59		12,81	23,49	36,68		28,51	41,11			
	1996	41,03	70,85	22,07	46,74	72,08		55,60	79,14	33,85		
Nicaragua	1997	39,10		28,00		58,30			69,30			
	1998	36,72		23,94		53,44			61,21			
	1999	31,56	37,04	27,88	40,48	46,58	35,28	45,57	51,90			
	Highest year	41,03	70,85	12,81	46,74	72,08	16,45	57,80	79,14	19,97		

N/a: Not available

Source: Agriculture Ministries

	Annex 17-C Trends in RICE Prices (in dollars)											
Country	Year		I rends Producer	in RIC		(in do holesale			onsume	r		
y		Annual Highest Lowe		Lowest								
	1994	n/d	n/d	n/d		n/d	n/d	n/d	n/d	n/d		
	1995	n/d	n/d	n/d		n/d		n/d	n/d	n/d		
	1996	n/d	n/d	n/d		n/d	n/d	n/d	n/d	n/d		
Belize	1997	n/d	n/d	n/d		n/d	n/d	n/d	n/d	n/d		
	1998	n/d	n/d	n/d		n/d	n/d	n/d	n/d	n/d		
	1999	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	Highest year	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1994	26,66	26,98	26,17	26,17	26,98	24,22	38,82	39,87	38,26		
	1995	21,88	22,56	21,43		25,72	24,96	33,54	33,91	33,09		
	1996	20,97	21,57	20,44		24,98		32,32	32,93	32,17		
Guatemala	1997	23,44	23,88	·		27,56		39,09	36,45	35,64		
	1998	24,79				29,17		38,19	38,78	37,79		
	1999	24,27	24,74	23,86	28,06	25,52	27,65	36,90	37,25	36,67		
	Highest year	26,66	26,98	21,43	28,64	29,17	23,84	39,09	39,87	32,17		
	1994	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d		
	1995	5,92	6,46	5,35	24,89	26,94	22,36	29,01	29,81	28,66		
	1996	7,31	8,41	5,11	30,05	32,68	28,67	34,98	37,27	33,26		
El Salvador	1997	6,29	9,55	6,07	28,76	29,81	26,95	34,40	34,40	34,40		
	1998	9,43		6,63		28,09	26,37	34,40	34,40	34,40		
	1999	8,49	9,25	7,96	25,80	26,94	24,08	33,94	34,40	31,54		
	Highest year	9,43	11,21	5,11	30,05	32,68	22,36	34,98	37,27	28,66		
	1994	13,20	15,30	11,50	23,40	24,80	20,30	25,90	28,00	22,70		
	1995	13,60	16,10			27,00		26,70	28,40	25,40		
	1996	13,20	17,30			31,20		30,40	34,00	23,70		
Honduras	1997	15,20	n/d			29,10		30,80	31,20	30,50		
	1998	n/d	n/d			30,60			33,00	30,30		
	1999	n/d	n/d						30,70	29,40		
	Highest year	15,20	17,30	12,10	27,10	28,20	26,20	30,10	30,70	29,40		
	1994	10,12	15,75	6,46	22,64	26,16	20,67	23,76	26,44	22,50		
	1995	9,79	11,93		22,73	24,12	20,10	26,13	31,03	22,86		
	1996	10,98	12,56	9,41	23,87	28,13	21,30	28,47	33,58	25,56		
Nicaragua	1997	10,80	12,30		23,40	24,50		28,80	29,70	27,50		
	1998	10,18	11,34	9,83		22,96		28,23	29,13	27,43		
	1999	9,26	10,49	7,57	21,20	21,90	20,24	24,84	25,26	24,28		
	Highest year	10,98	15,75	6,46	23,87	28,13	20,10	28,80	33,58	22,50		

n/d: No disponible

Fuente: Ministerios de Agricultura; Secretaría del CORECA

	Annex 18													
Trends in Farm Credit														
Country	Year	Agric. Funding	Basic	าร	Maize			Beans			Rice			
		Total	000 US\$	%	000	000	000	\$/ ha	000	000	\$/ ha	000	000	\$/ ha
					ha	US\$	ha		US\$	ha		US\$	ha	
	1994	33 879,0		1,1	n/d	n/d	n/d	n/d	n/d	n/d	n/d	366,5	n/d	n/d
	1995	36 021,0		0,9	n/d	n/d	n/d	n/d	n/d	n/d	n/d	333,5	n/d	n/d
	1996	37 464,0	500,5	1,3	n/d	n/d	n/d	n/d	n/d	n/d	n/d	500,5	n/d	n/d
Belize	1997	43 788,5	611,0	1,4	n/d	n/d	n/d	n/d	n/d	n/d	n/d	611,0	n/d	n/d
	1998	40 487,0	612,5	1,5	n/d	n/d	n/d	n/d	n/d	n/d	n/d	612,5	n/d	n/d
	1999	34 189,5	260,0	0,8	n/d	n/d	n/d	n/d	n/d	n/d	n/d	260,0	n/d	n/d
	Average	37 638,2	447,3	1,2	n/d	n/d	n/d	n/d	n/d	n/d	n/d	447,3	n/d	n/d
	1994	75 222,0		22,6	739,3	13 445,8	599,5	22,43	905,9	133,0	6,81	2 646,5	6,81	1173,2
	1995	73 980,1	9 900,0	13,4	671,0	7 578,8	539,4	14,05	1 426,2	119,7	11,92	928,7	11,92	518,5
	1996	81 586,0		17,2	700,9	11 969,9	568,0	21,07	868,1	121,0	7,18	1 202,0	11,92	620,7
Guatemala	1997	96 369,5		14,0	714,6	11 199,4	579,9	19,31	761,8	122,8	6,20	1 588,3	11,92	809,9
	1998	78 494,2	9 200,0	11,7	715,0	7 821,6	580,3	13,48	687,1	122,8	5,60	672,5	11,92	351,1
	1999	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
	Average	81 130,4	12 720,0	15,7	708,2	10 403,1	573,4	18,07	929,82	123,9	7,54	1 407,6	10,9	694,7
	1994	201 603,4	2 101,7	1,0	n/d	1 306,9	1,9	0,7	152,1	n/d	n/d	642,7	1,6	0,4
	1995	222 281,0	1 803,5	0,8	n/d	1 181,9	1,7	0,7	36,2	n/d	n/d	585,4	2,0	0,3
	1996	366 229,1	4 982,9	1,4	n/d	4 194,3	1,1	3,8	57,1	n/d	n/d	731,4	1,0	0,7
El Salvador	1997	332 685,7	4 240,0	1,3	n/d	2 365,7	1,2	1,9	125,7	n/d	n/d	1 748,6	1,2	1,4
	1998	261 782,9	5 451,4	2,1	n/d	2 057,1	1,7	1,2	102,9	n/d	n/d	3 291,4	1,7	1,9
	1999	339 760,0		0,8	n/d	1 817,1	1,2	1,5	137,1	n/d	n/d	731,4	1,2	0,6
	Average	282 681,7	3 544,2	1,3	n/d	2 153,8	1,5	1,7	101,9	n/d	n/d	1 288,5	1,5	0,9
	1994	111 500,0	20 900,0	18,7	53,6	15 100,0	37,2	405,6	4 500,0	10,0	442,4	1 300,0	6,4	208,8
	1995	98 500,0		18,2	48,4	12 000,0	31,4	382,8	5 000,0	12,3	407,2	900,0	4,7	194,6
	1996	108 000,0	,	14,4	49,9	11 800,0	36,3	323,8	2 600,0	7,5	351,7	1 100,0	6,1	178,0
Honduras	1997	175 200,0		14,5	78,0	19 100,0	60,0	317,7	5 200,0	14,3	360,4	1 100,0	3,7	303,5
	1998	245 700,0		12,6	90,8	21 700,0	66,6	325,6	7 200,0	18,4	389,8	2 000,0	5,8	349,9
	1999	144 200,0	,	14,3	59,7	14 200,0	43,8	324,4	5 000,0	12,1	405,5	1 400,0	3,8	366,8
	Average	147 183,3	21 866,7	15,4	63,4	15 650,0	45,9	346,7	4 916,7	12,4	392,8	1 300,0	5,1	266,9

	Annex 18													
_	Trends in Farm Credit													
Country	Year	Agric. Funding	Basic	Gra	ins	M	aize			3eans			Rice	
		Total	000 US\$	%	000 ha	000 US\$	000 ha	\$/ ha	000 US\$	000 ha	\$/ ha	000 US\$	000 ha	\$/ ha
	1994	49 572,8	6 459,3	13,0	42,5	1 385,3	18,2	76,2	619,7	7,0	88,9	4 454,3	17,4	256,5
	1995	58 904,8	5 115,7	8,7	22,7	446,0	5,7	77,6	106,8	1,8	57,9	4 562,9	15,1	301,4
	1996	47 621,2	3 741,4	7,9	13,4	200,3	0,7	274,3	10,0	0,1	76,4	3 531,1	12,5	281,7
Nicaragua	1997	85 550,5	6 264,8	7,3	19,6	1 004,3	7,6	131,8	121,7	1,0	125,4	5 138,8	11,0	467,4
	1998	150 231,6	6 180,4	4,1	9,0	93,2	0,5	193,4	8,9	0,1	167,3	6 078,3	8,5	719,0
	1999	230 481,5	7 423,4	3,2	13,2	87,3	0,2	497,7	0,9	0,0	166,7	7 335,2	13,0	564,8
	Average	103 727,1	5 864,2	5,7	20,1	536,1	5,5	208,5	144,7	1,7	113,8	5 183,4	12,9	431,8
	1994	471 777,3	46 827,5	9,9	n/d	31 238,0	656,7	505,0	6 177,7	150,0	538,1	9 410,0	30,6	2 005,5
	1995	489 686,9	35 052,7	7,2	n/d	21 206,7	578,3	475,2	6 569,2	133,8	477,0	7 310,5	31,8	1 348,3
	1996	640 900,3	38 724,8	6,0	n/d	28 164,5	606,1	623,0	3 535,2	128,6	435,3	7 065,0	30,5	1 581,6
all	1997	733 594,2	50 015,8	6,8	n/d	33 669,4	648,8	470,7	6 209,2	138,1	492,0	10 186,7	26,6	2 193,2
Countries	1998	776 695,6	52 344,3	6,7	n/d	31 672,0	649,1	533,7	7 998,9	141,3	562,7	12 654,7	26,2	2 034,5
	1999	748 631,0	30 969,1	4,1	n/d	16 104,4	45,2	823,6	5 138,0	12,1	572,2	9 466,6	16,8	932,2
	Average	643 547,6	42 322,4	6,8	n/d	27 009,2	530,7	571,9	5 938,1	117,3	512,9	9 348,9	27,1	1 682,6

n/d: No disponible

Fuente: Bancos Centrales de los Países.

	Annex 19											
	National Migration Figures Showing Impact of Mitch* - 1994/1999											
Country	ountry 1995 1996 1997 1998 1999 All Countries											untries
	External	Rur/city	External	Rur/city	External	Rur/city	External	Rur/city	External	Rur/city	External	Rur/city
All Countries	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Belize	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Guatemala	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
El Salvador	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Honduras	185,0	n/d	259,5	n/d	277,1	n/d	347,7	n/d	1 070,1	n/d	2 139,4	n/d
Nicaragua	254,5	n/d	281,8	n/d	329,5	n/d	421,9	n/d	452,4	n/d	1740	n/d

\* Rur/city refers to internal migration from Rural Areas to the Cities

Source: Migration Departments/Institutes of Statistics/Agriculture Ministries

Annex 20											
Population Affected by Hurricane Mitch (People)											
Country	Country 1998 population										
Before Affected % Mitch											
Total	25 626 154	2 998 214	11,7								
Belize	238 500	75 000	31,4								
Guatemala	10 799 135	1 138 972	10,5								
El Salvador	6 046 257	346 910	5,7								
Honduras	3 735 535	1 120 984	30,0								
<b>Nicaragua</b> 4 806 727 316 348 6,0											
Sou	ırce: Nationa	I Damage Re	eports.								