

### III. MACROECONOMIC EFFECTS

#### 1. Summary of damage

The totals of direct and indirect damage assessments of the several sectors are presented in Table 42. Total damage is estimated at BZ\$560.1 million (US\$280 million), of which direct damage, estimated at BZ\$423.3 million (US\$211.6 million) constitutes about 75 per cent. Direct damages were valued at present value or replacement cost at current prices — whichever seemed more appropriate for the specific sector. Indirect damages of BZ\$136.8 million (US\$68.4 million) were yielded on the basis of flows affected as the direct consequence of the disaster. Since some assumptions were necessary for these costs, the computed figure in some cases may underestimate the medium or long term impact in the Belizean economy.

The summary data on direct and indirect damage indicates that the most affected sectors are the productive ones: tourism and agriculture represent over 47 per cent of the direct damage measured. Total damage to the economic sectors is estimated to be BZ\$330.6 million, some 59 per cent of total damage estimated. Losses of infrastructure account for about 16 per cent of total damage. Their repair or replacement must be a priority as they perform a generator function to economic and social activity nation-wide.

Damage to the social sectors is almost as large as the damage to infrastructure and, considering that there tends to be some underestimate of the social effects, Keith had stronger negative consequences on societal variables than on physical ones. The most important social damage occurred in housing (over 12 per cent of total direct and indirect damages). Thus the urgency to face the challenge not only of replacing lost housing and other social infrastructure but to do so with new, more resilient criteria and giving full attention to risk reduction since — as Keith made apparent — Belizean society has a high level of exposed vulnerability.

It is clear that damage to housing, infrastructure and tourism must be repaired with urgency. A seriatim approach to repairs will not produce a satisfactory solution. Government should facilitate a broad front approach to rectifying damage in these areas in order to rehabilitate households (people), the tourism industry and the agricultural and agroindustrial activities, to keep economic activity alive. At the same time economic activity will generate income and lead to a recovery in the economy. Damage to the airport and harbour was relatively low.

In the table that follows a number of ratios are presented to complete the appreciation of the damage. The ratios compare damage with GDP, exports, imports, gross capital formation, domestic savings and consumption:

Table 42

## ASSESSMENT OF TOTAL DIRECT AND INDIRECT DAMAGE

(Thousands of Belize dollars)

	Direct damage	Indirect damage	Total damage
<b>Total</b>	423,281.4	136,812.3	560,093.7
<b>Social sector</b>	<u>73,307.7</u>	<u>2,239.4</u>	<u>75,547.1</u>
Housing	68,460.6	160.2	68,620.8
Health	2,558.0	1,330.0	3,888.0
Education	2,289.1	749.2	3,038.3
<b>Infrastructure</b>	<u>53,041.8</u>	<u>35,837.4</u>	<u>88,879.2</u>
Transport	46,735.8	33,633.6	80,369.4
Telecommunication	1,536.0	886.4	2,422.4
Energy & electricity	3,115.3	1,117.4	4,232.7
Water and sewerage	1,654.7	200.0	1,854.7
<b>Economic sectors</b>	<u>232,222.3</u>	<u>98,358.0</u>	<u>330,580.3</u>
Tourism	124,094.0	36,298.9	160,392.9
Agriculture, livestock & fisheries	77,469.0	46,889.1	124,358.1
Industry & commerce	30,659.3	15,170.0	45,829.3
<b>Environment</b>	<u>49,051.0</u>	<u>0.0</u>	<u>49,051.0</u>
<b>Miscellaneous</b>	<u>10,482.9</u>	<u>377.5</u>	<u>10,860.4</u>
Emergency expenditures	-	377.5	377.5
Cost of food	1,844.6	-	1,844.6
Cost of services	8,580.7	-	8,580.7
Cost of services interrupted	57.6	-	57.6
<b>Foreign assistance</b>	<u>5,175.7</u>	<u>0.0</u>	<u>5,175.7</u>

Source. ECLAC estimate.

Total damage as percentage of GDP (nominal estimate after Keith) *see table 45	45.7
Total damage as percentage of exports 1999	78.8
Total damage as percentage of imports 1999	64.3
Direct damage as percentage of gross capital formation 1999	92.0
Indirect damage as percentage of domestic savings 1999	45.5
Indirect damage as percentage of consumption 1999	12.7

Source. ECLAC estimate. All GDP figures used in ratios are current priced for 1999. GDP figures obtained from 18<sup>th</sup> Annual Report of Central Bank of Belize, 1999, Table 5.

Note. GDP expenditure in current prices.

The measure of Keith's effect in Belize may be very well be highlighted by pointing that direct damages (losses or damage to infrastructure) are equivalent to almost 93 per cent of the country's gross capital formation in 1999. Seen from another angle, Keith's indirect damage (negative impact on economic flows) is anticipated to be almost 46 per cent of the 1999 savings of Belizeans. Additionally, these reduced flows are equivalent to more than 12 per cent of 1999's domestic consumption).

## 2. The pre-disaster situation

### a) Overview <sup>29</sup>

The Belizean economy was facing a second year of rapid growth for 2000, after its recuperation of 1999. During the second quarter of 2000, total exports were estimated at BZ\$116.5 million — a 27 per cent increase over the total of the corresponding quarter of 1999. Contributing to this performance were bananas and citrus juices. Gross imports increased by 18.2 per cent to a figure of BZ\$223.6 million over the same comparison period as purchases from abroad of chemicals, manufactured goods and capital equipment impacted the import bill. Although no change in the Consumer Price Index was recorded during the second quarter, the annualized rate of inflation was 0.9 percent, reflecting the opposing effects of rising fuel and general import prices and the reduction of import duties to 20 per cent on more than one thousand items.

Arrivals of stay-over tourists increased by 19.6 per cent in the second quarter to 47,233 as large numbers of arrivals from North America indicated success in the country's marketing thrust. At the end of the first ten months of 2000, tourist arrivals had increased by 20 per cent over those of the corresponding period in 1999.

The net foreign assets of the banking system grew by BZ\$39.4 million as the net foreign assets of the commercial banks increased by BZ\$40.4 million while those of the Central Bank contracted by BZ\$1 million. Net domestic credit contracted by BZ\$24.3 million as net credit to Central Government decreased by BZ\$32.2 million, while credit to the private sector increased by BZ\$7.9 million. Central Government's domestic debt rose by BZ\$2.1 million to BZ\$160.7 million. An expansion of BZ\$2.6 million in its overdraft facility with the Central Bank outweighed amortization payments of BZ\$0.5 million. The public sector external debt increased by \$89 million as disbursements of BZ\$101.6 million outweighed amortization payments of BZ\$11.2 million. The broad money supply (M2) increased by BZ\$41.3 million to BZ\$907.4 million with M1 and M3 growing by BZ\$9.8 million and BZ\$31.5 million, respectively. Table 43 shows the evolution of Belize main economic indicators.

<sup>29</sup> The present description of main aspects of the Belizean economy was prepared from the second quarter analysis of the Central Bank of Belize with updates so far as the information available outside of published tables could allow. The projections that are addressed later in the chapter have made use of assumptions that are stated.

in the corresponding period a year earlier. In contrast, sugar production decreased less steeply by 2.9 per cent to 49,479 tonnes because of improvements in the quality of the cane and in factory efficiency. A lower volume of molasses produced reflected improved factory efficiency as more sugar was extracted from the canes, leaving a lower molasses residual production. Sugar revenues increased in the first half of the year and were expected to continue to increase up to the time of the hurricane. Indeed, revenues increased by 31.2 per cent in the period January to June 2000 to BZ\$240.3 million over the BZ\$183.2 million recorded over the corresponding period in 1999.

**Citrus products.** Citrus deliveries during the second quarter of 2000 increased by 72.6 per cent over the deliveries of the corresponding period in 1999 as young groves came into full production. Sales of citrus juices for export increased by 77.7 per cent in volume and by more than 100 per cent in value when compared with the second quarter of 1999. Sales of orange concentrate more than doubled to 1.1 million gallons (4.2 million litres) with a value of BZ\$17 million, most of which was sold in the United States where prices were more favourable.

**Marine Products.** During the second quarter of 2000, sales of marine products stood at 700 thousand pounds and carried a value of BZ\$5.1 million. This represented increases of 73.1 per cent and 17.7 per cent in volume and value, respectively when compared with sales in the second quarter of 1999. Lobster exports increased by 10 per cent while conch exports grew by 86.3 per cent in volume and an 86.5 per cent in value. Farmed shrimp exports contracted by 9.3 per cent in volume and 8.8 per cent in value as one of the farms was taken out of production.

**Bananas.** Production of bananas was boosted as total acreage under the fruit was expanded by 300 acres. A new marketing agreement has a price mechanism that encourages the shipment of the majority of bananas during the February to September period as a higher price is being offered during this period. The volume and value of bananas exported increased by 40 per cent in the first half of 2000.

**Tourism.** In the first half of 2000, stay-over tourist arrivals increased by 14.8 per cent to 102,927 when compared with arrivals in the corresponding period in 1999. Air arrivals increased by over 25 per cent from the half-year figure of 1999. Cruise ship arrivals increased from 18,245 in the first half of 1999 to 47,765 over a similar period in 2000. The economy was set for an increase of 6 to 7 per cent in 2000 from tourism. Indications are that the tourism industry may end the year with a 4 per cent increase in value added.

**Money supply.** As at June 2000, the money supply (M2) stood at BZ\$907.4 million, reflecting an increase of 4.8 per cent in the second quarter and an increase of 8 per cent over the six-month period, driven substantial inflows derived from foreign loans. The narrow money supply to June stood at BZ\$280.9 million. Quasi-money grew by 7.1 per cent with savings and time deposits increasing by 17.9 per cent and 3.3 per cent, respectively.

**International Trade and Payments.** The trade deficit increased by BZ\$9.6 million in the second quarter of 2000 over the deficit figure of BZ\$97.5 million observed in the corresponding quarter of 1999 as the import bill continued to exceed the value of exports. Imports of materials primarily for construction projects accounted for a large part of the increase in imports. By mid-year 2000, the trade deficit stood at BZ\$209 million, up from a deficit figure of BZ\$164.4 million at half year 1999.

The value of domestic exports increased in the second quarter as banana exports increased in value by 50.4 per cent, attributable to a higher export volume. Sugar revenues increased as a larger proportion of sales went to the EU market. In the first half of 2000, the price of imported fuel more than doubled as the price of crude oil rose from between US\$10 and US\$14 per barrel in 1999 to over US\$28 per barrel in 2000.

Table 44

## FACTORS RESPONSIBLE FOR MONEY SUPPLY MOVEMENTS

(Millions of Belize dollars)

	Position as at June 2000	Changes during		
		Mar 2000 – Jun 2000	Mar 1999 – Jun 1999	Dec 1999 – Jun 2000
Net foreign assets	276.7	39.4	38.5	91.7
Central Bank	191.4	-1.0	44.9	51.2
Commercial banks	85.3	40.4	-6.4	40.5
Net domestic credit	804.8	-24.3	1.1	30.4
Central Government (net)	85.6	-32.2	-0.7	-31.9
Other public sector	57.2	0.0	-9.7	49.7
Private sector	662.0	7.9	11.5	12.6
Central bank foreign liabilities (long-term)	91.0	19.4	-0.6	66.4
Other items (net)	83.1	-45.6	31.4	-11.5
Money supply (M2)	907.4	41.3	8.8	67.2
Money supply (M1)	280.9	9.8	10.7	25.8
Currency with the public	86.8	2.3	-1.1	2.6
Demand deposits	194.1	7.5	11.8	23.2
Quasi-money	626.5	31.5	-1.9	41.4
Savings deposits	177.9	16.2	-0.3	27.0
Time deposits *	448.6	15.3	-1.6	14.4

\* Includes Non-Residents' Foreign Currency Time Deposits of BZ\$34.6 million.

### 3. Economic forecast and outturn during 2000

The Belizean economy will suffer as a consequence of the passage of Keith. Its dynamism will be reduced more severely in 2001 than in the remainder of 2000 and it is expected that by 2002 it could regain its pre-disaster fast pace of growth. Its impact in 2000, though, is not negligible since it will reduce the estimated rate of growth by one percentage point (from a forecasted 6.9 to only 5.9 (at current prices, see table 45).

Table 45

## GROSS DOMESTIC PRODUCT, BY INDUSTRIAL ORIGIN, AT FACTOR COST

(Current prices) (Thousands of Belize dollars)

	1998	1999	2000		2001 a/	2002 a/
			2000 (Pre Keith) a/	2000 (Post Keith) a/		
GDP (nominal)	1,051,233	1,154,889	1,234,801	1,223,262	1,289,814	1,400,543
I. Primary activities	207,041	224,688	251,965	233,774	240,341	269,713
1.1 Agriculture	150,024	155,090	168,651	156,300	154,210	170,028
Sugarcane	33,138	33,224	32,848	31,300	26,000	27,100
Citrus	15,996	16,660	19,326	20,000	22,800	25,992
Banana	32,776	34,828	40,053	38,000	43,700	50,255
Other cops	45,420	47,274	52,946	49,000	45,000	49,500
Livestock	22,694	23,104	23,478	18,000	16,710	17,181
1.2 Forestry & logging	17,010	20,329	21,167	20,000	20,986	22,583
1.3 Fishing	33,801	42,062	54,681	50,474	58,046	69,655
1.4 Mining	6,206	7,207	7,466	7,000	7,100	7,448
II. Secondary activities	235,316	253,110	271,088	277,148	299,676	329,738
2.1 Manufacturing	139,827	148,603	151,016	155,200	154,100	160,218
Sugar	27,155	26,286	25,421	24,200	19,500	21,000
Citrus	9,431	12,543	14,174	20,000	22,600	25,538
Other manufacturing	103,241	109,774	111,421	111,000	112,000	113,680
2.2 Electricity & water	35,894	31,391	32,333	29,821	30,418	31,330
2.3 Construction	59,595	73,116	87,739	92,126	115,158	138,189
III. Service	653,117	722,562	758,489	759,080	797,581	850,121
3.1 Trade, rests., hotels	199,103	243,475	258,084	256,866	272,278	299,506
3.2 Transport & communications	109,388	121,942	125,600	125,112	128,866	135,309
3.3 Finance & insurance	73,170	76,095	81,802	81,802	87,937	94,533
3.4 Real estate & bus service	69,787	73,276	78,772	78,772	84,680	91,031
3.5 Public administration	133,608	136,758	141,178	142,174	147,268	150,128
3.6 Communications & other services	68,061	71,016	73,053	74,354	76,553	79,614
IV Imputed bank service charges [deduct]	44,240	45,471	46,741	46,740	47,784	49,028
Per capita GDP (\$)	4,417	4,753	4,881	4,835	4,951	5,216
Annual per cent change in GDP	1.1	9.9	6.9	5.9	5.4	8.6

Source: ECLAC, on the basis of data from the Central Bank of Belize.

a/ Estimates for 2000 and projections for 2001 and 2002 were made available by the Central Bank

One relevant observation is that the production and other indicators used, linked to the relationships established between sectoral performances have indicated a performance beyond what had been projected for 2000 in some instances. It has further been observed that the large

establishments that suffered significant physical damage and loss of business were insured. Some 60 percent of claims have or are being settled before the end of the year. The inflow of those funds will have effects on the balance of payments. Specific sector impacts are seen to be the following:

- The agricultural sector would suffer moderately in terms of loss of foreign exchange. More loss would have been sustained in subsistence agriculture. Overall, value added in the agricultural sector would fall short of the projected figure for 2000 by 7.7 per cent. The shortfall in the primary sector is expected to be of the order of 7.9 per cent below the projection for 2000.
- Loss of income in electricity and water might well be outweighed by value added outturns in excess of the 2000 projections as sugar and citrus manufacturing performed better than expected in 2000.
- The manufacturing sector which includes the processing of sugar and the extraction of citrus concentrate, is estimated to have performed some 4.7 per cent above the projected figure for 2000. The mission estimates that there was a 1.1 per cent improvement in the secondary activities categorisation over the projected figure for 2000.

The revised estimate based on the revised figures supplied by the Central Bank of Belize was a GDP figure of BZ\$1,223.3 million. Table 46 shows its evolution in constant (2000) prices. As indicated, the annual growth rates in both current and constant prices shows a decline in rate of growth of GDP in 2000, followed by further decline in 2001, with a resumption of an increased rate of growth in 2002.

Table 47 and Graph 7 summarize the GDP evolution, estimates and forecasts for the 1998-2002 period — in US dollar terms — as a means of illustrating the economic growth gap that was caused by Hurricane Keith.

Table 46

## GROSS DOMESTIC PRODUCT, BY INDUSTRIAL ORIGIN, AT FACTOR COST

(Constant 2000 prices) (Thousands of Belize dollars)

	1998	1999	2000 (Pre Keith) a/	2000 (Post Keith) a/	2001 a/	2002 a/
GDP (real)	1,097,612	1,165,242	1,234,801	1,223,262	1,253,490	1,336,331
I. Primary activities	202,451	225,752	251,965	233,774	234,604	259,568
1.1 Agriculture	146,920	157,819	168,651	156,300	148,628	159,537
Sugarcane	32,805	33,671	32,848	31,300	25,156	25,630
Citrus	15,016	17,163	19,326	20,000	21,716	23,837
Banana	32,531	34,947	40,053	38,000	42,698	48,462
Other Crops	45,695	47,788	52,946	49,000	43,648	47,045
Livestock	21,379	23,366	23,478	18,000	16,201	16,315
1.2 Forestry & logging	22,035	20,520	21,167	20,000	20,384	21,524
1.3 Fishing	32,056	42,744	54,681	50,474	56,013	65,534
1.4 Mining	6,830	7,289	7,466	7,000	6,884	7,072
II. Secondary activities	249,301	255,929	271,088	277,148	290,642	313,365
2.1 Manufacturing	143,484	150,502	151,016	155,200	149,196	151,723
Sugar	...	...	25,421	...	...	...
Citrus	.	..	14,174	...	.	..
Other manufacturing	...	...	111,421	...	...	...
2.2 Electricity & water	43,322	31,594	32,333	29,821	29,631	30,031
2.3 Construction	62,495	73,832	87,739	92,126	111,815	131,611
III. Service	699,886	729,434	758,489	759,080	774,685	810,179
3.1 Trade, rests., hotels	234,801	245,745	258,084	256,866	264,496	285,509
3.2 Transport & communications	114,843	123,704	125,600	125,112	124,565	127,730
3.3 Finance & insurance	73,208	76,679	81,802	81,802	85,562	90,403
3.4 Real estate & bus service	70,370	73,888	78,772	78,772	82,337	86,939
3.5 Public administration	136,716	137,579	141,178	142,174	143,524	144,037
3.6 Communications & other services	69,948	71,840	73,053	74,354	74,200	75,561
IV. Imputed bank service	43,796	45,873	46,741	46,740	46,441	46,780
Charges [deduct]						
Per capita GDP (\$)	4,612	4,795	4,881	4,835	4,812	4,977
Annual per cent growth in GDP	1.5	6.2	6.0	5.0	2.5	6.6
Implicit deflator	95.8	99.1	100	100	102.9	104.8

Source: ECLAC, on the basis of data from the Central Bank of Belize.

a/ Estimates for 2000 and projections for 2001 and 2002 were made available by the Central Bank.



Table 47

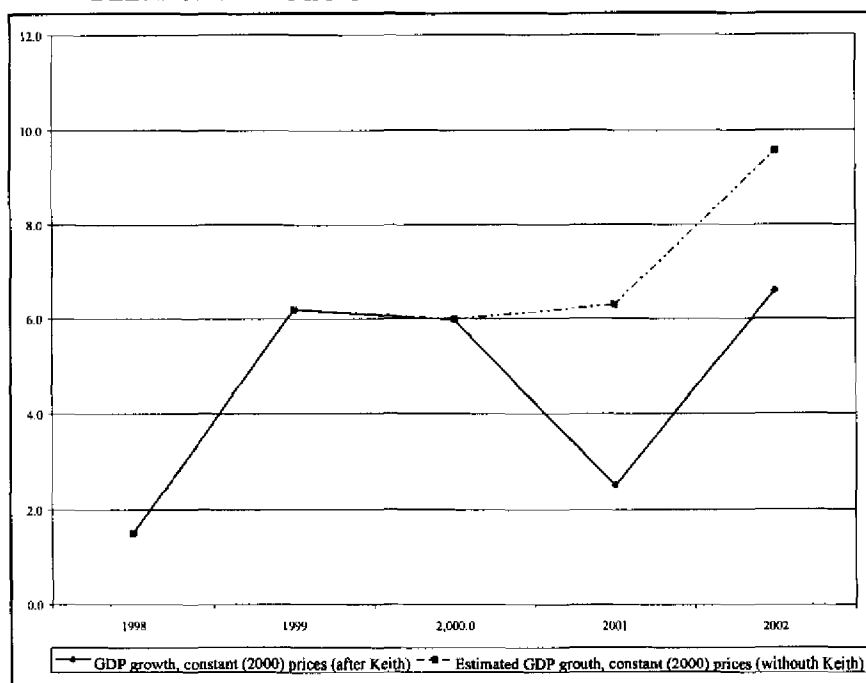
## BELIZE: GDP SUMMARY POST-KEITH

	1998	1999	2000		2001	2002
			Pre Keith	Post Keith		
(BZ\$ millions)						
GDP at current market prices	1,351.4	1,374.2	1,469.3	1,470.2	1,536.4	1,659.4
GDP by industry at current factor cost	1,051.2	1,154.9	1,234.8	1,223.3	1,289.8	1,400.5
GDP by industry at constant 2000 prices	1,097.6	1,165.2	1,234.8	1,223.3	1,253.5	1,336.3
(US\$ millions)						
GDP by industry at current factor cost	525.6	577.5	617.4	611.7	644.9	700.3
GDP by industry at constant 2000 prices	548.8	582.6	617.4	611.7	626.8	668.2
Percentage change in GDP at current prices	1.1	9.9	6.9	5.9	5.4	8.6
GDP growth, constant (2000) prices (after Keith)	1.5	6.2	6.0	5.0	2.5	6.6

Source: ECLAC.

Graph 9

## BELIZE: ECONOMIC GROWTH GAP GENERATED BY KEITH



#### **4. Fiscal policy and the central government's finances <sup>30</sup>**

For fiscal year 1999-2000, the Central Government had budgeted a fiscal deficit of approximately 1.3 per cent of GDP. This reflected a conscious attempt to manage the fiscal deficit, through all of the main determinants of the fiscal balance, namely the tax regime that had been recently modified and through restraint in current expenditure through the introduction of public sector reforms. The divestment policy of government was expected to result in capital revenues that would help reduce the overall deficit. The recurrent surplus was expected to decline from 0.4 per cent of GDP to 0.2 per cent, while the operating balance was programmed to swing from a deficit of 1.8 per cent of GDP to a surplus of 0.9 per cent.

At the end of June 2000, the fiscal account appeared headed for a better performance than previously budgeted. The fiscal deficit appeared to suggest an end of year position of 0.6 per cent of GDP, but that was before the hurricane. The tax revenue had performed weaker than had been expected and led to a decline. The estimate of tax revenue is estimated to have dropped from 21 per cent of GDP to 19.2 per cent of GDP. Tax revenues will decline in response to a temporary slowing down in tourist arrivals as reconstruction takes place in tourist areas.

The Government of Belize has switched its debt management strategy to a search for foreign concessional financing amounting to 3 per cent of GDP, and 0.8 per cent of GDP from foreign commercial sources.

Re-estimation of the fiscal deficit is being done at the time of writing. Latest preliminary calculations show that fiscal revenues have increased substantially through the modality of divestment. Indications are that the fiscal deficit, which in November 2000 stands at 3 per cent of GDP, will by the end of the first quarter of 2001 be slightly positive.

#### **5. Effects on population's income**

Hurricane Keith's devastation of the remote and rural areas was perhaps in relative terms more tragic than the damage done to the tourism plant and basic services which could be measured in terms of dollars and which for the most part was insured. Most of the flooding associated with the hurricane occurred in districts such as Orange Walk and Cayo, two of the poorest areas. The observation was made that there is a significant percentage of female-headed households (25 per cent to 38.5 per cent) in these areas. The conditions of high female unemployment, a high female-headed household ratio to total households in those districts and a high fertility rate, especially among the female population under the age of 25 years, make for the perpetuation of the vicious circle of poverty and misery. The teenage pregnancy rate in San Pedro is above the national average. There may be a strong correlation between poverty of the type that exists in some areas and the prevalence of communicable diseases.

The main concern of Government on the economic plane is the alleviation of poverty. Data coming out of the Caribbean Development Bank, ECLAC and OAS indicate that about 33

<sup>30</sup> This section draws heavily from an IDB document entitled BELIZE, Assessment on the sustainability of the Fiscal and External Accounts, written by Jaime Jaramillo-Vallejo. December 1999.

per cent of Belize's population has an annual income of less than US\$645 and thus lives below the poverty line. In rural areas, the figure has been estimated to be as high as 42.5 per cent of the population. Given the constant influx of refugees from neighbouring countries, there results an irresistible tendency towards an increase in the numbers of people below the poverty line. The incidence of poverty in rural and remote districts and among vulnerable groups is also reinforced. A quick estimate indicates that the average income lost among the affected population in these areas was of the order of BZ\$458 per person.

The hurricane has no doubt set back the government's poverty alleviation strategy that had set a target on containment of the Central Government deficit to no more than 2 per cent of GDP. With the new estimate indicating a fiscal deficit of 3 per cent of GDP, the target of poverty alleviation may have moved somewhat, delaying its achievement. Any alternative strategy that keeps the attainment of the poverty alleviation date fixed at the previously targeted date will place the foreign exchange parity at risk.

## **6. External sector and prices**

Hurricane Keith has impacted macroeconomic performance in a number of ways. There has been a fall-off in economic activity as attested to by the loss of property, hours of work, the loss of business and the loss of crops. These have impacted negatively on livelihoods, although the impact has not had an even incidence over the population. As an example, the subsistence farmers in the Orange Walk district and the lobster fishermen operating on Ambergris Caye who, because of the loss of their crops and fishing gear, respectively, are unable to feed their families, merit some consideration for relief. Export earnings from fishing are expected to decline in 2001. Exports and export earnings are estimated to have fallen as much damage was sustained in the tourism areas and in areas that cultivate export crops. Whereas there are no firm figures to quantify the extent of the phenomenon, indications are that the poorer households have been more adversely affected in terms of damage and displacement than other income groups in the population.

The loss of crops due to flooding has impacted negatively the supply of food to the domestic economy. A temporary increase in prices is expected to ensue, as the market mechanism will determine the distribution of the food. In addition, shortfalls in domestic supply will have to be imported, putting some pressure on the current account of the balance of payments.

The damage caused by the hurricane will have implications on the import bill. To the extent that direct damage will have to be repaired by reconstruction of houses and physical plant for which there is a high import content of materials, possibly of the order of 70 to 85 per cent of total cost of materials. To the extent that the damaged properties were insured, the settlement of insurance claims will result in capital inflows – a positive aspect of the country's balance of payments. Further, the reconstruction effort will result in increased activity in construction, which, in turn will create conditions for increased demand. The upsurge in construction activity may, however, require the importation of labour from adjacent countries.

The loss of tourist visitors, when combined with the estimates of direct and indirect damages to the sector will impact the balance of payments in the final three months of 2000 and into 2001. An estimated impact on international trade puts the import figure at BZ\$115.3 million to be spread over the rest of 2000 and 2001.

With well-organized support from friendly donor countries pledging investments in strategic areas and with proper project sequencing, the balance of payments may be able to avoid the pressure that would otherwise be brought to bear on the exchange rate parity of the country.

### **7. Effect on rate of investment**

Statistics from the Central Statistical Office and the Central Bank put the current-priced gross capital expenditure figure for 1999 at BZ\$459.9 million, representing some 33.5 per cent of GDP in current prices for 1999. The net addition to capital formation in 2000 did not appear to have been significant, allowing the analyst to work with the 1999 figure as a guide to 2000. The damage caused by Hurricane Keith resulted in net disinvestment, as a significant portion of the tourist plant was damaged and was taken out of service. To the extent that the investment was covered by insurance, in most cases reconstruction will take place. In the short run, the lower level of capital stock has led to lower returns on capital. This means that whereas the economic projections for the post-2000 years were predicated on the retention of the 1999 capital stock and additions, in fact production and return on investment declined. There are signs that reconstruction, hopefully with mitigation, will take place in 2001. There are also signs that productive capacity in the economy will not have operated at optimum level in 2001 because of the replacement of damaged capital. Existing plant and machinery will either have to be worked beyond specifications or would not be able to respond adequately to demand. The economy will then most likely operate with a resource gap throughout 2001. It is reasonable to expect a replacement of fixed capital investment by the end of the year. It is important, however, that the rate of addition to investment should be matched by a capacity to absorb the investment. If this does not happen, at the stage of construction, migrant workers in the construction sector and later, skilled workers in the relevant industrial or service activities will have to be contracted to service the industry. Investment should be accompanied by a programme for upgrading the skills of Belizeans to take the jobs that will be created by the investment.

### **8. Effect on rate of savings**

Total domestic savings for 1999 have been used as the proxy in the absence of a figure for 2000. The figure stood at BZ\$300.1 million. Given the problems of damage to property, some of which was not insured or in the case of many households, with a deductible that may be higher than the damage, the savings rate is expected to have fallen in 2000 as a result of the hurricane. This figure will continue to be reduced throughout 2001 as the economy seeks to recover from the damage caused by Hurricane Keith in October 2000. The rate of investment is therefore expected to moderate from the 1999 performance.

#### **IV. GUIDELINES FOR A REHABILITATION AND RECONSTRUCTION PROGRAMME**

Although different emphasis is required in each country depending the type of damage and the vulnerability existing prior to the disaster, the devastating consequences of hurricane Keith in Belize call for the adoption of new rehabilitation and reconstruction criteria to reduce the country's vulnerability. If anything Keith was a timely reminder that Belize is exposed to damages given its fragile ecosystems and geographical characteristics and location. Moreover, since the present development growth is predicated on activities that rely heavily on the environment, its sustainability and preservation – as are tourism and agriculture – the basis for future growth depend on the adoption of a rational management of risk.

Poverty factors and unequal distribution both of resources and income aggravate the country's structural vulnerability and it will only be through a combined effort of government, local authorities, private sector entrepreneurs and society at large that a new approach to development can take place. Physical fragility, health risks, environmental hazards, income differential and social dynamics all combine to determine a country's development pattern.

On occasion an event like Keith – fortunately enough without major losses of lives as has recently occurred in other countries-opens the opportunity for a change of policy and a soul – searching effort to avoid preserving or aggravating presently negative trends. Certainly Keith represents an economic setback in some aspects but it may be just the kind of reminder needed to give a hard look to ongoing processes that may be rectified.

It will be important – on the basis of this occurrence – to set priorities and consider the time frame and the necessary changes to design, construction and land use regulations in keeping with the situation in each country. In any event, reconstruction should be carried out on the basis of a significant qualitative improvement over the previous circumstances. Another fundamental factor regarding the viability of any reconstruction process is a country's internal capacity to conduct the process and programme it so that national capacity is not exceeded. Each country must decide on the time frame and priority of its actions and strike a balance between the urgent task of replacing what has been lost and its capacity to accomplish such works.

Once the emergency phase is over, rehabilitation and reconstruction programmes must be established in order to restore the facilities, assets and services damaged or destroyed by the devastating effects of the hurricane in each country. The content, priorities and scope of such programmes must necessarily be a national, sovereign decision of each country and respond as much to the magnitude of the damages as to a country's pre-existing conditions and economic and social policy criteria. Its foreign debt commitments and stabilisation policies must also be taken into account on determining the content, scope and scheduling of the programmes.

On addressing this topic, it is important to compile and analyse extensive background data so as to draw up investment and management programmes that will make optimum use of available resources while following the country's economic and social development objectives.

One factor to be borne in mind at this stage is that, given Belize's inception in the Central American isthmus, reconstruction cannot be carried out by the country on its own; it requires international cooperation. This section was included in this report to provide an idea of the investment projects deemed pertinent for repair and reconstruction. Some are merely profiles at this stage while others are more developed and still others are already funded. The list of projects neither replaces nor runs counter to the proposals submitted by national authorities to the Advisory Group. It is intended to assist in identifying needs and portraying the priorities that both international players, national actors and the specialists that took part in the evaluation would wish to see highlighted. In the final analysis any strategy must rest on strengthening the basis for sustained, less vulnerable development with growth. Thus any proposed mixture of components to reduce vulnerability to natural disasters must be compatible with sound economic policies and the necessary structural reforms that will in the short and long term allow more effective, and competitive integration into a globalise world. Specially in the case of small developing economies like Belize – not unlike its SIDS counterparts in CARICOM or its Central American neighbours – vulnerability and risk management has a double track meaning. On the one hand facing its physical, environmental and climatic challenges ; and in the other strengthening its resilience and capacity to respond to external shocks associated with financial crises or the world markets.

Consequently, this part of the evaluation is not intended on focusing on a national strategy which, as stated above, must be devised by the country in adequate consultation with those communities more severely exposed to disasters and risks. Its purpose is to develop the guiding principles behind the generation of projects and the basic guidelines to be followed on preparing rehabilitation and reconstruction plans and programmes. We believe this could be of assistance to national authorities on defining their strategy, which should be devised on the basis of consensus-reaching with society, particularly civil society, economic players, academic and non-governmental organisations and local authorities, among others.

### **1. Project generation**

The main aims of the proposed projects are to attend to victims of the disaster, rebuild and improve destroyed and damaged assets, re-establish productive and export processes, and in general help to reactivate the process of economic and social development.

The initiatives presented here are a sample of investment project profiles, currently being developed to provide basic information on their aims, scope, expected results, activities and tasks to be carried out, investment to be made, expected financing, and the special characteristics of each project. These profiles are compiled in addendum 1 to this document.

Each profile should subsequently be analysed in depth in order to draw up definitive projects and prioritise them so as to design repair and reconstruction programmes. This will make it possible firstly to improve the living conditions of disaster victims and recover the material and economic losses stemming from hurricane Keith's devastating effects; secondly to enhance the design standards in use prior to the disaster, and thirdly to carry out works and establish mechanisms to control and mitigate the enormous damage caused by the hurrican's wind and rains.

To carry out the projects efficiently – once they have been definitively assessed and ranked – it will be essential to develop execution programmes so as to bring resources into line with needs. It would first be advisable to draw up a rehabilitation programme part of which is already under way to deal with the emergency situations facing disaster victims, followed by a reconstruction programme to overcome economic and social adversities, restore and improve infrastructure and production facilities, and prevent or reduce the effects of similar events.

## **2. Rehabilitation stage**

This initial phase is focused on normalising the living conditions of victims – while also reactivating the economy – by meeting their vital needs and delivering basic services. The victims' food, health care and employment needs must take priority, and should be met expeditiously through the following actions:

- a) Provision of food.
- b) Provision of potable water.
- c) Medical attention to those at risk.
- d) Control and improve the prevention of diseases, particularly contagious diseases.
- e) Housing repair.
- f) Establishment of improved sanitation services.
- g) Generation of productive jobs.
- h) Provisional repair of access roads to affected areas.
- i) Supply of seeds and basic inputs to affected small and medium-scale farmers and fishers, along with financial support and soft loans.
- j) Repair of different types of infrastructure.

The suggested rehabilitation programme should be implemented as swiftly as possible, partly to meet vital and basic needs that are an ethical imperative, and partly due to the need to control and check the spread of diseases and epidemics in order to prevent hardships from becoming more acute. It is important to remember that the rainy season begins in April, so the rehabilitation programme must be concluded by that time.

Timely implementation of the above actions will bring the victims' living conditions back to relative normality and help to reactivate the country's economy.

### **3. Reconstruction stage**

This is the most crucial stage in economic and social terms, since it will lead to the full re-establishment of normal living conditions and the country's economic and social development momentum prior to hurricane Mitch.

This phase will bring about the implementation of specific projects – duly assessed, ranked, and coordinated – in line with available resources, i.e., fully programmed and provided for in the reconstruction programme, which should be worked out as soon as possible.

The main aim of the reconstruction stage and the projects thereof is to effectively overcome the direct and indirect problems stemming from the hurricane, although hurricane-prevention infrastructure and management deficiencies and flaws will also have to be addressed. For instance, the effects of the hurricane showed that a number of structures were unsafe and that other types of infrastructure, such as roads, bridges, hospitals, potable water systems, schools, etc. were inappropriately located; there is also an absence of watershed, infrastructure and environmental management schemes, and a lack of natural disaster prevention and control facilities – particularly for floods – to manage and mitigate their after-effects.

Moreover, on designing the reconstruction programme it will be important to take into account macroeconomic principles so as to prevent the undesirable consequences of overly ambitious reconstruction programmes. These include inflation, divergences in the exchange rate or in the supply and demand of certain resources such as labour and building materials, or undesired, disorderly migration.