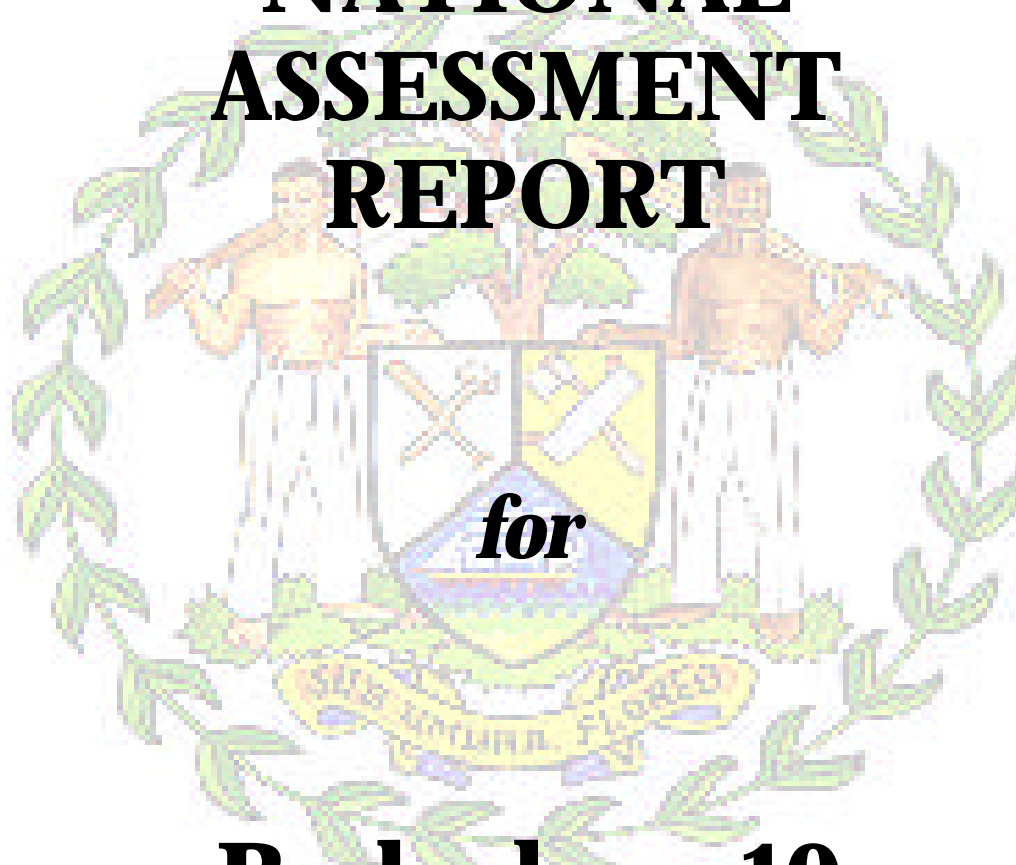

NATIONAL ASSESSMENT REPORT



Barbados +10

Government of Belize
September 2003

Table of Contents

	<u>Page No.</u>
Executive Summary	2
Introduction	5
1.0 Socio economic context	6
1.1 Key characteristics	6
1.2 Key challenges	7
1.3 Key responses	9
2.0 National Framework for sustainable development	10
2.1 National framework for sustainable development	10
2.2 National sustainable development policies	10
2.3 Mechanisms and frameworks for sustainable development	11
3.1 National progress made and problems encountered in the implementation of BPOA	11
3.1 Climate change and sea-level rise	11
3.2 National framework for risk management	13
3.3 Coastal and marine resources	15
3.4 Land resources – including terrestrial biodiversity	17
3.5 Energy	19
3.6 Management of wastes and provision of water	23
3.7 Tourism	29
3.2 Cross-Sectoral Areas	
3.2.1 Financing and Investment for Sustainable Development	32
3.2.2 Capacity Building and Cooperation	33
4.0 Trade, investment, capacity building and cooperation	34
4.1 Key concerns and vulnerabilities	34
4.2 National level or community-based initiatives.....	35
4.3 Sub-regional or regional cooperative mechanisms	35
4.4 Principal vulnerability concerns	35
4.5 Sub-regional and regional cooperative mechanisms	36
5.0 Millennium Development Goals	36
5.1 Poverty reduction	36
5.2 Education and the reduction of child mortality	37
5.3 Gender equality and the empowerment of women	38
5.4 HIV/AIDS, Malaria and other diseases	39
5.5 Environmental sustainability	41
5.6 Global partnership for development	42
6.0 Emerging concerns	42
6.1 Emerging concerns	42
Annex One – Emerging Framework for Sustainable Development	45
Annex Two – Terms of Reference for National Sustainable Development Council .	48
References	50
Acronyms	52

EXECUTIVE SUMMARY:

In 1992, the nations of the world convened in Rio de Janeiro for the United Nations Conference on Environment and Development. Agenda 21 was adopted as the Plan of Action for countries to implement the commitments made at the Conference. Small Island Developing States, having realized their particular vulnerabilities, met in 1994 in what became known as the first Global Conference on the Sustainable Development of Small Island Developing States (SIDS) in Barbados. This conference adopted the Barbados Programme of Action (BPOA), which outlined specific steps for the achievement of sustainable development of SIDS. Ten years later the SIDS will again meet to determine the state of implementation of the Plan.

The BPOA speaks to fifteen areas targeted toward achieving sustainable development of SIDS at the national, regional and international levels. These include Climate Change and Sea Level Rise; Natural and Environmental Disasters; Management of Wastes; Coastal and Marine Resources; Freshwater Resources; Land Resources; Energy Resources; Tourism Resources; Biodiversity Resources; National Institutions and Administrative Capacity; Regional Institutions and Technical Cooperation; Transport and Communication; Science and Technology; Human Resource Development and; Implementation, Monitoring and Review.

Belize participated in the Global Meeting of SIDS in 1994 and aligns itself with the alliance of small island developing states in the UN system. Currently, Belize is one of the two vice-chairs of the AOSIS.

Having adopted the Barbados Programme of Action, as well as other plans and programmes geared towards achieving sustainable development, Belize has initiated a set of comprehensive national plans and strategies, as well as participated in various regional and international initiatives with sustainable development as the focus.

There are a number of key socio economic challenges to the achievement of sustainable development in Belize. Some of the challenges identified are globalization, liberalization, natural disasters, natural resources depletion, and chronic health diseases. The National responses to these challenges are outlined in the Medium Term Strategy for the Government of Belize for 2003 - 2005.

Belize signed the United Nations Framework Convention on Climate Change in 1992. Though it has not ratified the Kyoto Protocol, Belize is committed to accede to the goals of the protocol. One of the constraints to Belize responding to its climate change vulnerabilities is the inadequacy of resources available for mitigation and adaptation measures.

In the area of natural disaster management and mitigation, Belize has developed a comprehensive response system that includes the formation of the National Emergency Management Organization (NEMO). NEMO has completed a comprehensive national disaster plan, which focuses on disaster preparedness training across all sectors; and developed operational committees that develop plans of action for emergencies.

The management of the coastal resources in Belize are managed by the Coastal Zone Management Authority and Institute and the Fisheries Department. There is an Integrated Coastal Zone Management Strategy for Belize, as well as a Coastal Zone Management Act. The implementation of the ICZM Strategy is hampered by weaknesses in the legislative framework and insufficient financing of the programmes.

There are a number of national projects, which introduced sustainable development approaches to the management of Belize's land resources. The most recent examples are:

- The Southern Development Project;
- The Sustainable Human Development Project (SHD); and
- The Community Initiated Agricultural Resources Management Project (CARD).

There are four energy networks that meet the energy demands for Belize. These networks are supplied by six sources of energy. There have been a number of developments in the energy sector since the BPOA in 1994, including the commissioning of a hydroelectric generation facility, and the signing of a contract with Mexico for the supply of electricity. Additionally, there are a number of projects for the development of alternative supplies of energy for Belize.

Among the constraints to the achievement of sustainable development in energy is the lack of capacity to identify and develop projects; the need for heightened awareness by policy makers, executives and engineers; and the need for greater awareness in the general population to appreciate the need for greater energy efficiency.

Tourism is one of the fastest growing sectors of the Belizean economy and receives high priority within the Belizean government. There have been great strides in the marketing of the product. The problems identified are mostly in the areas of human resources development and diversification of the product. Major effort in tourism development is ongoing through a number of national and regional projects. These projects cover a range of activities from training to archaeological sites development.

Despite the growth in tourism, Belize continues to rely heavily on agriculture, although its development still appears to progress with insufficient guidance about land use potential. There is need also for additional enforcement of the environmental laws and regulations.

And although Belize is self sufficient in basic staples, trade in agricultural primary products is still of critical importance. The loss of preferential access to North American and European markets poses new threats to Belize. In this context, the Ministry of Agriculture has been promoting a range of new, nontraditional crops for both local and export consumption.

Realizing the interconnection of the three pillars of development – environmental, economic and social, the Government of Belize has placed the development of the individual and the society high on its priorities. As such, the Government of Belize has developed a National Poverty Elimination Strategy and Action Plan, which is aimed at developing programmes and projects for poverty reduction.

The recent investments in primary education infrastructure and curriculum development have led to improved primary school participation. One notable problem confronting the education sector is the relatively large component of its budget (85%) spent on recurrent expenses.

The Women's Department of the Ministry of Human Development, Local Government and Labour has undertaken a range of activities aimed at the empowerment of women. The Department of Women has a new legal framework within which it currently operates with the passage of the National Gender Policy. Specific steps have been taken to train public officers in gender analysis for planning purposes. Also, women now have easier access to credit, fair wages and equal protection under the law.

The growing threat of the HIV/AIDS pandemic encouraged the creation of the National Aids Commission of Belize in 2002 to coordinate, monitor and develop programmes and projects for the prevention and control of HIV/AIDS in Belize. Currently, there are three principal agencies working in the area of HIV/AIDS control and prevention. These include the National Aids Commission, and two local NGOs - the Alliance Against Aids, and the Belize Family Life Association.

Malaria is not as significant a threat as it once was in Belize. The Ministry of Health has maintained a vector control programme, which depends on the cooperation of the "Community Nurses Aides" and "Voluntary Collaborators" for its success. Important bilateral programmes exist between Mexico and Belize and between Belize and Guatemala for the control of both malaria and dengue.

The establishment of the International Cooperation Unit of the Ministry of Foreign Affairs was seen as an important achievement in securing some of the resources for sustainable development. In the context of declining development assistance resources to Belize, it is even more important that this assistance is used in an integrated planned framework.

A National Consultation to assess Belize's achievement of BPOA was hosted on July 25, 2003. This event established that critical to the achievement of Sustainable development in Belize was the continuing evolution of the National Sustainable Development Council. Also, the present gender policy, criminal activity, development of the tourism industry and the modalities for the use of our human resources were some of the most important emerging concerns for Belize.

A follow-up consultation with technical persons of government ministries was held on August 26, 2003 to finalize the document prior to its adoption by the Government of Belize.

The inclusions in the document then, reflect the input of the various government ministries, departments, private and civil society agencies and organizations.

INTRODUCTION:

The United Nations Conference on the Environment and Development (UNCED) in 1992 formalized the approach to be taken by the nations of the world in the realization of sustainable development. Agenda 21 emerged from the Conference as the global programme to achieve such development. Small Island Developing States (SIDS)¹ realizing their particular needs and constraints met in Barbados in 1994 to define their own path. SIDS adopted the Barbados Programme of Action (BPOA) as their set of actions towards achieving sustainable development.

The BPOA details the actions to be undertaken by SIDS, with the assistance and cooperation of the international community in fifteen priority areas. These areas include: Climate Change and Sea Level Rise; Natural and Environmental Disasters; Management of Wastes; Coastal and Marine Resources; Freshwater Resources; Land Resources; Energy Resources; Tourism Resources; Biodiversity Resources; National Institutions and Administrative Capacity; Regional Institutions and Technical Cooperation; Transport and Communication; Science and Technology; Human Resource Development and; Implementation, Monitoring and Review.

The World Summit on Sustainable Development in 2002 adopted actions in the Johannesburg Plan of Action that calls special attention to the SIDS and their special issues and concerns. In a follow-up to Johannesburg 2002, the United Nations General Assembly at its 57th Session adopted Resolution (A/57/262), which, among other things, calls for a comprehensive review of the Barbados Programme of Action.

The United Nations Commission on Sustainable Development at its eleventh session in May 2003, held special meetings, both in plenary and in informal sessions, to discuss the proposed Ten-year Review of the BPOA and subsequently reaffirmed the support for a comprehensive review of the BPOA. The Review will take place in an International Meeting in August 2004.

As part of the preparatory process, SIDS are asked to complete their National Assessment Reports, illustrating the actions taken to implement the BPOA. These NARs will be used to guide the regional and inter-regional meetings preceding Barbados +10. The Caribbean Regional Meeting will take place from October 6-10, 2003 and the Inter-regional meeting for all SIDS will take place from January 26-30, 2004.

¹ Belize aligns itself with SIDS by virtue of its shared vulnerabilities including its low-lying coast, its coastal communities and island townships, and its open vulnerable economy.

1.0 SOCIO ECONOMIC CONTEXT:

1.1 KEY CHARACTERISTICS:

1.1.1 Location:

Belize is located in northern Central America isthmus and is bordered on the east by the Caribbean Sea, on the north by Mexico and on the west and south by Guatemala. The geographic coordinates of Belize are 15 degrees 53' to 18 degrees 30' north latitude and 87degrees 15' to 89 degrees 15' west longitude. The national territory covers about 46,620 sq. Km (18,000 sq. miles), of which 22,960 sq Km (8867 sq miles) is land, it also includes about 1,060 cayes, extending over some 12 miles of territorial waters. The coastline extends for 280 Km (168 miles); running parallel to the coastline is the Belize Barrier Reef - the second largest in the world and the largest in the northern hemisphere. It extends for about 200 km (132miles) from the Mexican border in the north to the Sapodilla Cayes in the south.

1.1.2 Climate:

The climate is sub-tropical, with temperatures ranging from 21 degrees Celsius from October to February, and increasing to 32.2 degrees Celsius during May to September. The annual mean relative humidity is 81.8%, while total annual rainfall varies from 1,588 mm in the north to 4,290 mm in the south. There are two distinct seasons: the rainy season, which normally begins in late May and lasts until November, and the dry season, which begins in December and ends in early May. Topographic variations throughout the country are responsible for major fluctuations in air temperature, humidity and rainfall.

1.1.3 Physiography:

The northern half and eastern fringes of the southern half of the country is made up of low-lying plains. The Maya Mountains - 300 to 1,100 m in altitude - occupy the south and dominate much of the remainder of the country. These mountains rise to a maximum of 1,120 m at Victoria Peak in the Cockscomb Range, and then slope down into the Vaca Plateau in the west. The third major physiographic feature of the country comprises karst landscapes, sometimes hilly and sometimes rolling on the north and west of the Maya mountains. Prominent discontinuous foothill ranges exist in the southern interior and comprise much of the remainder of the Toledo District.

1.1.4 Hydrology:

Though Belize is a relatively low country, its 18 rivers and many perennial streams supply most of its water needs. The country is well endowed with both surface water and water stored in aquifers. There are 32 watersheds identified by the National Hydrological Service of Belize.

1.1.5 Political System:

Independent since 1981, Belize has a bicameral system of government, based on the Westminster model. The National Assembly is made up of the House of Representatives comprised of 29 elected members and a Senate made up of 12 nominated members. The National Assembly normally has a 5-year term, and it is selected through general elections contested primarily by 2 major political parties.

Belize is a member of the United Nations, the Commonwealth, the Organization of American States, the Association of Caribbean States, the Central American Integration System, the

Alliance of Small Island States, the Caribbean Community as well as most of the major multilateral trading and banking institutions.

Table 1: BELIZE IN FIGURES

Dimensions	170 mls (274 Km) N-S, 68 mls. (109 Km) E-W
Area	8,867 sq. mls. (22, 700 Km)
Rainfall (annual average)	51 ins (1,295 mm) N, 175 ins (4, 445 mm) S
Temperature range	10°- 35° C (50° - 95°F)
Population	273,700 (mid-year 2003)
Population density	31 / sq. ml (12 /sq. km) (mid-year 2003)
Life expectancy	Females: 73.5 yrs., Males: 66.7 yrs
Population growth rate	3.0 %
Currency	Dollar (BZE\$), fixed exchange rate, BZE \$2.00 = US \$1.00

Source: CSO 2001

Table 2

Key Indicators	Belize 2001
GNP per capita	US\$ 2, 2876 (2001)
Infant Mortality Rate	16.9:1000 live births (2001)
Under-five mortality rate	21.5:1000 live births (2001)
Maternal mortality rate	54.7:100,000 live births (2000)
Fertility rate	3.4 (2001)
Adult literacy rate	76.6 % (2000)
Basic schooling (percentage of children completing Primary school)	66.6 % (2001)
Immunization rates for six most dangerous childhood diseases	79.8 % (1999 FHS)
Access to safe water supply	92 % (2000 Census)
Access to adequate sanitation	50 % (2000 Census)

Source: CSO 2001

1.2 KEY CHALLENGES:

Like other developing countries, Belize faces key challenges in its quest for sustainable development. The most profound of these challenges include the effects of globalization, liberalization, natural resource depletion, natural disasters, and other issues such as crime and security, chronic health diseases, the HIV/AIDS pandemic and access to adequate water and sanitation services.

1.2.1 Globalization:

This phenomenon has had a serious negative impact on the Belizean economy, through its continuous erosion of the country's access to preferential markets. The outlook for the future is uncertain, since there are ongoing negotiations under the Caricom Single Market and Economy, the Free Trade Area of the Americas and the World Trade Organization, which will all have varying impacts on Belize. The agricultural sector is the sector most seriously affected, particularly the crops most relied upon for revenue generation - sugar, bananas and citrus.

1.2.2 Liberalization:

Though trade liberalization has had serious impacts on Belize, there is further erosion that may occur since the new liberalized regime threatens investment in much the same way as any other commodity to be traded. There still may be some opportunities that will arise for the country to access non-traditional markets.

1.2.3 Natural Disasters:

There have been four serious tropical hurricanes and storms that affected Belize between 1998 and 2001. These disasters directly affected approximately 40% of the country's population and threatened the tourism and agriculture industries. This has brought to the forefront of the nation's consciousness the need for enhanced policy, planning and response capacity, to ensure that there are appropriate disaster management and mitigation policies and systems in place. In addition, these natural phenomena placed a significant strain on the economy, and Belize was forced to rely on external financial sources of assistance to rebuild the damaged parts of the country.

1.2.4 Natural Resource depletion:

While Belize is endowed with about 60% forest or vegetation cover, this figure displays a reduction from the estimates of 20 and 10 years ago. Ten years ago prior to the implementation of the Tropical Action Forestry Programme, it was estimated that Belize had up to 90% vegetation cover, although this figure included about 3% that was comprised of mangrove ecosystems in the coastal zone. However, there was no classification of the vegetation cover. One of the activities carried out under the USAID funded Natural Resources and Management Project (NARMAP) was an exercise to measure the rate of deforestation. That survey, utilizing the satellite imagery and aerial photographs that were available revealed that natural forests were being lost at a rate of approximately 25,000 Ha during the period 1989-1994.² The loss of forest was due mainly to changing land use, in which most of the changes could be attributed to major expansion in the agricultural sector (both in crops and aquaculture). Approximately 80% of the forest loss was in broad leaf forest. The other 20% was in thickets, pine forest, bamboo and riparian vegetation and mangrove. Housing subdivisions, road infrastructure increases and some types of logging practices all factored into the deforestation process.

Belize is fortunate in that there is a certain degree of diversity in its development sectors, hence relatively lower economic vulnerability than some of its Caribbean partners. Tourism and agriculture are the two major revenue generators. The first depends on the maintenance of the natural ecosystems (marine and terrestrial) that together attract the major number of the tourists. The degradation of these features would directly affect the economy of the country. The marine resource is important for fisheries production, as well as tourism attraction. Fish products account for a considerable percentage of the annual gross domestic product. Records maintained by the fisheries department recently revealed downward trends in the catch of certain species, including the Nassau grouper. A few years ago a similar trend was noted for the lobster catch in the middle of the three fishing zones off the coast of the country. Such observations could indicate harvesting of the products at rates that are greater than the replenishment.

The challenge is to conduct the development activities while minimizing the negative environmental impacts. Decisions about the best and most sustainable use of the resources have to be derived through proper planning to include mitigation measures, combined with

² Table 3 provides additional detail on the rate of forest cover loss.

social and environmental surveillance and monitoring during the implementation phases in order to ensure that the conditions for compliance are met and maintained.

Table 3: Rates of Forest Cover Loss in Mainland Belize for 1989 – 1994

Period	Loss (ha)	Annual rate (ha/yr)	Location in country
1989-1994	24,495	4,899	South
1990-1994	26,832	6,708	Central
1992-1994	26,749	13,374	North

Source: White, Raney and Tremblay 1996

1.2.5 Health – chronic diseases:

Belize has also experienced the transition from having communicable diseases as major causes of death to that of chronic diseases and deaths due to external causes. Chronic diseases include all diseases and complications related to diabetes, arterial hypertension, cardiovascular disorders, strokes, e.g., and violent deaths, such as road traffic accidents and homicides. This demands that the emphasis and resources allocated to address these problems should stem from the human behavior and preventative approach.

1.3 KEY RESPONSES:

The Government of Belize has outlined in its Medium Term Economic Strategy for the period 2003 - 2005 the key set of responses to address the country's vulnerabilities and is, thus, seen as critically important to the country's sustainable development. The most glaring of these include the:

- A programmed reduction of the fiscal deficit to sustainable levels;
- Sustained and balanced growth of 5-6% over the medium term;
- Strengthening and protecting the country's foreign exchange reserves;
- Strengthening the capacity in land use planning, environmental management and environmental planning;
- Poverty reduction;
- Health sector reform and development so as to improve the quality and equity of access of the health sector;³
- Industrial and agriculture development;
- Improving the quality of the education sector and equity access;
- Disaster mitigation and management; and
- Development of well informed positions to guide Belize's trade negotiations

The Poverty Elimination Strategy and Action Plan for the period 2003-2008 will also address the issues seen as critically important to the achievement of sustainable human development. This Action Plan will be setting up specific targets for Belize based on the Millennium Development Goals, particularly, reducing extreme poverty by one half by the year 2015. Moreover, it will be the instrument to guide government policies and actions aimed at economic growth, increased competitiveness and poverty reduction.

³ The health of a country represents productivity potential. The Government of Belize through the Ministry of Health embarked on a Health Sector Reform Project. The ultimate goals of the project should represent reorganization of the health service structure, rationalization of health services, and sustainability. The project is underway with all three components launched. The Ministry of Health is confident that these strategies will guarantee equity, accessibility and affordability of health services to the entire population.

2.0 NATIONAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

2.1 NATIONAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

In 1999, with the assistance of ALIDES and CIDA, Belize drafted legislation for the establishment of National Sustainable Development Council. However, since that time no actions were taken in its establishment. Earlier this year, the Ministry of Natural Resource and the Environment, Commerce and Industry re-established discussions on the Council's establishment. These discussions have primarily taken place at the Chief Executive Officer level. To date, there exist concept paper and draft Terms of Reference for the Council. It is proposed that the Council draw from already existing mechanisms, and be a process-oriented body.

These existing coordination mechanisms include committees such as the National Human Development Advisory Council (NHDAC), which although housed in one Ministry, is comprised of representatives from several government departments and the non-government sectors. The NHDAC seeks to advise the Government of Belize on issues related to the social aspects of poverty elimination. Other institutions include the Economic Advisory Council and National Task Force for Sustainable Development. The previous was created earlier this year and is chaired by the Prime Minister. The latter was created as a result of the Quasi-Cabinet responsibility held by the Prime Minister in CARICOM – Environment, Sustainable Development and Natural Disaster Management.

As a follow up to the 1992 United Nations Conference on Environment and Development (UNCED), the Government of Belize signed the agreement establishing the Central American Alliance for Sustainable Development (ALIDES). In this 1994 agreement, Belize joined the other Central American countries, who committed themselves to:

- ❖ Establish National Councils for Sustainable Development – made up of the Public Sector, the Private Sector and Civil Society; and
- ❖ Create the Central American Council for Sustainable Development – made up of the Heads of Government of Central America.

2.2 NATIONAL SUSTAINABLE DEVELOPMENT POLICIES:

While there may not be any specific or comprehensive national sustainable development policy, a number of strategies have been developed and implemented with this as the goal. The comprehensive sustainable development policy may, therefore, evolve through the integration of the objectives and activities of those strategies. The national programmes introduced by the government were designed and introduced to address the broad issues of Poverty, Health and Education.

Sustainable development plans and strategies include the draft “Towards a National Protected Areas Systems Plan for Belize” (NARMAP), the “National Biodiversity Strategy and Action Plan” (Jacobs and Castañeda, 1998) and the Land Management Programme. These were drafted to address land-use issues and threats to biological diversity.

The National Poverty Elimination Strategy and Action Plan (1998 – 2003) was formulated by the GOB to provide guidance for policy and program development with regard to poverty elimination initiatives, particularly as they relate to the social sector. It is also a tool to guide, monitor and

evaluate the implementation of integrated programs including those related to poverty elimination and overall socio-economic development. Currently, assistance is being provided to GOB in its efforts to update and strengthen the current NESAP and support its implementation.

In 2001, Belize committed to become a part of a CARICOM initiative to establish a CARICOM Sustainable Development Task Force.

2.3 MECHANISMS AND FRAMEWORKS FOR SUSTAINABLE DEVELOPMENT:

The Government of Belize continues to plan for sustainable development within policy and legislative and institutional frameworks across the areas of the environment, economic development and social/human development. These include the creation of the several advisory bodies, the development of strategies and action plans and programmes. Annex 1 provides an overview of the process, utilizing the priority areas detailed in the BPOA.

3.0 NATIONAL PROGRESS MADE AND PROBLEMS ENCOUNTERED IN THE IMPLEMENTATION OF BPOA:

3.1 SECTORAL AREAS: Progress Made and Problems Encountered

3.1.1 CLIMATE CHANGE AND SEA-LEVEL RISE:

Belize signed the United Nations Framework Convention on Climate Change (UNFCCC) in June of 1992. The convention was later ratified in 1994. Belize acceded to the Kyoto Protocol on September 26, 2003.

3.1.1.1 National or sub-regional projects:

Belize has participated in several national and sub-regional projects related to the UNFCCC and the Kyoto Protocol, including the Central American Climate Change Vulnerability Analysis in 1995, which was funded under the United States Country Studies Programme. Vulnerability studies were undertaken in agriculture, coastal zone and water resources.

From 1997 to 2001 Belize, along with other member states of CARICOM, participated in the CPACC project. This was a Global Environmental Facility Stage I adaptation project implemented by the World Bank and executed by the Organization of American States. Belize participated in four regional components:

- Establishment of a network of tide gauges and climate monitoring stations;
- Establishment of a database;
- Compiling of an inventory of coastal resources;
- Drafting of a national policy framework on adaptation to climate change; and
- One pilot component: - coral reef monitoring.

In 2002, Belize finalized its first National Communication to the Conference of the Parties of the UNFCCC. This exercise was funded by the GEF and implemented by the United Nations Development Programme (UNDP). In preparing its first National Communication a lack of

adequate data was noted as a constraint in compiling the inventory of sources and sinks of the greenhouse gases.

During 2002, Belize also participated in the Central American Regional Project on Forestry and Climate Change funded by the Government of the Netherlands. The objective of this project was to access and strengthen the capacity of the forestry sector to participate in Clean Development Mechanism projects.

Belize is currently a participant in the Adaptation to Climate Change in the Caribbean (ACCC) project. This Canadian funded project continues and builds upon the work began under the CPACC. Belize will participate in the Mainstreaming Adaptation to Climate Change, a project recently approved by the GEF as a Stage II adaptation project.

Belize is the host country of the Caribbean Community Climate Change Centre (CCCCC).

3.1.1.2 Key constraints:

As a signatory to the Framework Convention on Climate Change, Belize is obligated to assess its vulnerability to the impacts of climate change, to develop adaptation options, to implement adaptation measures and to prepare its National Communications, as required by the Conference of the Parties (COP).

Like many other countries, the resources provided to Belize by the international community to conduct objective vulnerability studies have proven to be insufficient. Consequently, proper adaptation options have not been formulated and, therefore, adaptation measures cannot be implemented. National capacity must also be enhanced to enable the country to undertake the relevant studies.

In preparing its first National Communication a lack of adequate data was noted as a constraint in compiling the inventory of sources and sinks of the greenhouse gases. The capacity to compile, store and analyze data must be enhanced. It is proposed that the Meteorology Department be the repository for the collected data as they relate to the various sectors – energy for instance.

In addition, there is a need for more detailed contour maps (1:5000, with 1 metre contours) to monitor the effect of climate change on the coast as well as the valley areas. With the available data, Belize is unable to predict storm surges and as such how far inland these surges would reach.

The present goal is to draft the Second National Communication to the COP of the UNFCCC. There is however a lack of resources nationally to prepare this document, and thus the possibility of completing the document through regional efforts needs to be analyzed.

3.1.1.3 Progress made and problems encountered:

There are a few basic requirements that must be addressed, if Belize is to adequately assess its vulnerability to climate change and sea-level rise. The coastline and offshore cayes are extremely vulnerable to inundation. However, the extent of the threat cannot be assessed because of the lack of sufficiently detailed elevation and bathymetry data. Ground water is not being monitored; therefore, its vulnerability to contamination and salt-water intrusion cannot be assessed. Preliminary vulnerability studies undertaken for some crops must be expanded to

cover other crops and the software must be modified to address local crops. Agronomic data must be compiled to improve the modeling of the growing cycle. If these basic issues are not addressed then the adaptation options must be confined to no-regrets options.

3.1.2 THE NATIONAL FRAMEWORK FOR RISK MANAGEMENT AND DISASTER PREPAREDNESS:

3.1.2.1 Natural and Environmental Disasters:

Belize's national framework for disaster management is a comprehensive one that deals with all the various levels of the disaster cycle. All sectors play a vital role in the process, each participating in emergency management.

The National Emergency Management Organization Secretariat in collaboration with the Belize Red Cross organization has embarked on a family disaster orientation programme, which focuses on the family unit in times of disaster. To date, this programme has already addressed those communities that are most vulnerable (San Roman and Douglas villages in the North of Belize which are prone to flooding and Hopkins and Silk Grass Villages to the South, both coastal influence communities). However, it is envisioned that the programme will have addressed the most vulnerable communities by 2004.

Currently, the NEMO Secretariat has:

- Undergone instructional strengthening, through the development of its new headquarters and the strengthening of its human resources. It now has a larger team of specialists that attend on-going training in the fields of disaster management. This small staff, when compared to other Government agencies, has developed a comprehensive training package for the entire country addressing a wide spectrum of the disaster cycle in conjunction with various other private and public sector institutions and civil society;
- Moved away from the traditional limited response to hurricanes and has now developed the capability to deal with a wider range of natural and technological hazard emergencies;
- Developed a modern national communication network and a new emergency early warning system using a broadcast band compatible to both T.V and radio;
- Completed a comprehensive national disaster plan, which focuses on disaster preparedness training across all sectors; and
- Developed ten operational committees that reflect the various government ministries, which develop plans of action for times of emergency, although planning development with regular refinement is an on-going process.

3.1.2.2 National projects:

NEMO has presently embarked on the development of a National Mitigation Policy, which is in its first draft stages. It is realized that various Ministries are involved in mitigation as part of their day-to-day activities. The Ministry of Natural Resources and the Environment, Commerce and Industry is involved in land use planning activities, and the Ministry of Health focuses on vector control and prevention. It is proposed then that already existing resources be strengthened to

sustain these ongoing mitigation activities. The Central American Ministers of Health having just met in the last quarter supported the drafting of polices related to Mitigation

Parallel to this is the development of a policy for safer building practices, which focuses on safer building construction training and certifications at all levels, and the development and institutionalization of the Building Code, which is being developed in collaboration with The Caribbean Disaster and Emergency Response Agency (CDERA) and the Caribbean Development Bank (CDB).

3.1.2.3 Regional Projects:

Belize has been participating in many of the comprehensive training programmes sponsored by CDERA, which focus on all aspects of disaster management.

Fuerzas Aliadas Humanitaria (FA-HUM) is a programme organized and supported by the United States Southern Command (US SOUTHCOM) which has responsibility for the Central American and the Caribbean region. These annual programmes are conducted in the form of workshops and seminars, and are presented to participants from the Caribbean, Central and South American countries. These training sessions generally focus on the humanitarian relief within an emergency situation and strengthen risk management coordination within agencies in conjunction with the local disaster threats of the regions. Belize generally participates in these annual training sessions.

The Central American Center for Disaster Coordination (CEPREDENAC) is a regional specialized organization in the Central American Integration System (SICA) of which Belize is a member. It has offered training in vulnerability reduction, risk management, and support to development planning and the strengthening of institutional response. Belize attends the training sessions; however, only on an observer status. CEPREDENAC is encouraging Belize's full participation in this regional body within the next year.

3.1.2.4 International Workshops:

Belize has been participating in the United States, State-partnership programme through the Belize Ministry of Defense and the State of Louisiana National Guard and the Office of Louisiana Emergency Management. Because of the value of the training offered by this programme the NEMO Secretariat is invited to participate in the training in emergency response (International Workshop for Emergency Management - IWER).

3.1.2.5 National vulnerability assessments:

Belize has conducted several studies pertaining to vulnerability assessment in the areas of national storm surges and wind with the assistance of the Caribbean Disaster Mitigation Project (CDMP). Another area of recent study in terms of vulnerability was an inland and coastal flooding assessment map conducted by the Inter-Development Bank through the Hurricane Reconstruction and Rehabilitation Project in Belize.

Several other equally important assessments are required, such as fire hazard analyses for Belize City and the other larger district towns, which have high percentages of wooden structures and critical infrastructure.

3.1.2.6 National progress and constraints:

The great advancement of the NEMO Secretariat is its ability to coordinate with the other government ministries, which are intimately involved with the process of disaster management.

Challenges:

The greatest challenge is to be able sustain coordination in the long term, and, to review existing laws in order to provide legal accountability, since the NEMO Secretariat cannot hold any ministry or organization accountable.

Another challenge is to secure from the Government of Belize, the financial and human resources to properly fund hazard management. Also, the Policy procedure and legislation now in place must be enforced to bind both government and private sectors with equal accountability and transparency.

3.1.2.7 Sub-regional/regional mechanism(s):

The NEMO Secretariat is a part of The Caribbean Disaster and Emergency Response Agency (CDERA). This organization provides comprehensive training in all aspects of disaster management, information sharing, technical assistance and aid in times of crisis. FA-HUM and CPREDENAC of Central America provide some training and specialized technical assistance for the Central America pool.

Key constraints:

The key constraints are the lack of financial resources and field equipment designed to provide flexibility to the NEMO Secretariat in its ability to respond to any crisis away from the main support of NEMO Secretariat Headquarters. The financial resources will provide the needed resources to provide educational materials to aid in public awareness, education and training, which have not been budgeted. The addition of basic equipment would increase the Secretariat's capability especially when dealing with hazardous material and chemical spills. This will reduce the time necessary to effectively deal with such emergencies.

A lack of transportation and the insufficient allocation of fuel to the Secretariat and district coordinators have forced them to resort to other organizations as a means of transportation to conduct assessments- and training in remote areas.

There is a lack of adequate legislation and regulations to legally bind institutions, especially government organizations during pre to post emergency operations. Presently, all operations are conducted in an atmosphere of volunteerism by the various sectors. However, the instability of such a situation can cause a major disruption in NEMO Secretariat operations. Therefore, there is need for a legally binding arrangement to maintain the operational capability of NEMO.

3.1.3 COASTAL AND MARINE RESOURCES - INCLUDING COASTAL AND MARINE BIODIVERSITY RESOURCES:

3.1.3.1 Ratification of agreements:

Belize signed the United Nations Convention on the Law of the Sea on December 10, 1982 and ratified the convention on August 13, 1983.

Belize continues to participate in meetings dealing with the Cartagena Protocol on Biosafety, but has not yet signed unto this Protocol. Under this protocol Belize is developing its National Biosafety Framework, which is funded by UNEP/GEF.

By signing the UN Convention on Biological Diversity on June 13, 1992, Belize became a party to the convention, with ratification effective on December 30, 1993.

Delineation of the EEZ:

There has been no delineation of Belize's EEZ; however, there is a proposal for the delineation of the Belize EEZ under the proposals for the settlement of the Belize-Guatemala Differendum.

3.1.3.2 Relevant national, sub-regional and regional projects:

National projects include the UNDP/GEF and EU funded project "Sustainable Use and Conservation of the Belize Barrier Reef Complex" nationally executed by the Coastal Zone Management Authority and Institute. The CZMAI supports the Government of Belize in implementing an integrated coastal zone management program by undertaking targeted interventions for biodiversity protection in a sustainable manner.

Regional projects include the Meso-American Barrier Reef System Project involving Belize, Mexico, Guatemala and Honduras supported by the WB/GEF, with the main objective of enhancing the protection of the ecologically unique and vulnerable marine ecosystems comprising the MBRS, through the strengthening and coordinating of national policies, regulations and institutional arrangements for the conservation and sustainable use of the MBRS.

The Mainstreaming Adaptation to Climate Change (MACC) Programme, a CARICOM initiative, aims to facilitate the creation of an environment for climate change adaptation in the CARICOM Small Island and coastal developing states. The Caribbean Community Climate Change Center, which is located in Belize, will implement the Programme.

The CARICOM Regional Fisheries Mechanism is a regional initiative to sustainable manage fishery resources in the Caribbean, in particular, straddling stocks of pelagic fish, funded by the CARICOM.

3.1.3.3 Key national constraints:

While there is a National Integrated Coastal Zone Management Strategy for Belize, which supports the objectives of the Convention on Biodiversity, the implementation of this has been hindered by a weakness in coordination amongst regulating agencies involved in biodiversity protection, and gaps or grey areas in the legislative framework, creating overlaps. In addition the absence of mechanisms for sustainable financing of ICZM programs and Marine Protected Areas is a major inhibitor to the fulfillment of the CBD for coastal and marine resources. Lastly, the lack of relevant policies, such as a National Protected Areas Policy restricts the effectiveness of the conservation and sustainable use of coastal and marine resources since there are no standards or regulations set for monitoring, priority research areas, public participation, educational awareness, and so on. It is anticipated that these issues will be targeted and resolved in 2003 through the implementation of recently formulated mechanisms or the adoption of recently approved strategies.

There is also a need for an increased emphasis on the connectivity between land use and coastal zone.

Approaches and tools:

In relation to the ecosystem approach, the Government of Belize recently approved the National Integrated Coastal Zone Management (ICZM) Strategy in February 2003, which approaches the management of activities within the coastal zone based on the premise that nutrients, larvae and pollutants have no geographical limitations and it is, therefore, necessary to view activities within the coastal zone based on whole ecosystems and their potential impacts. Under this ICZM Strategy, a CZM plan is being developed for Belize, and a CZM program will be implemented shortly, following the completion of the UNDP/GEF project, to facilitate the execution of the CZM Plan.

A total of thirteen marine protected areas have been established for Belize with seven of these sites declared as World Heritage Sites in 1996, under the UNESCO World Heritage Convention. Under the “Conservation and Sustainable Use of the Belize Barrier Reef” Project, a network of six marine reserves were strengthened through infrastructure development, full complement of staff, and training and capacity building for effective management. It is expected that a national system for MPA revenue generation will be developed to sustain the management in these MPAs and further strengthening of monitoring and enforcement procedures.

3.1.4 LAND RESOURCES – INCLUDING TERRESTRIAL BIODIVERSITY:

The UN Convention on Biological Diversity (UNCCBD) was signed in 1992 at UNCED, while the Convention on Persistent Organic Pollutants was recently signed in 2003.

3.1.4.1 National, sub-regional, and regional projects:

The 1999 draft of the Environmental and Social Technical Assistance Project’s (ESTAP) Regional Development Plan for southern Belize stated that deforestation was occurring at a rate of approximately 26,000 hectares or 98 square miles per year in 1996. The same study used satellite imagery, site inspections, and over-flights to assess the extent of vegetation that had been cleared in the Toledo District and in all of the country. ESTAP estimated that 117 square miles or 31,000 hectares of virgin forest had been cleared between 1984 and 1996. About 47% of this vegetation had been cleared to make way for Milpa cultivation or subsistence farming. The expanding network of logging roads has helped to increase the rate of deforestation and subsequent land degradation.

Examples of projects related to the sustainable use, management and conservation of land resources include: -

The Natural Resources Management and Protection Project (NARMAP), implemented between 1991 and 1996 provided technical and financial support to government departments and non-government organizations involved with natural resources management. It provided for institutional strengthening and capacity building for the relevant agencies. That USAID funded grant project placed emphasis on protection of the environment, management of Protected Areas, Sustainable Agricultural Production, and institutional strengthening of non-government organizations.

The seven-year (1991 to 1998) Forest Management and Land Use Planning Project (FPMP) complemented NARMAP by similarly providing technical and financial support to the

government agencies responsible for forest management and land use planning. Training of staff, procurement of vehicles and electronic equipment (including Geographic Information Systems) were some of the benefits to the Forest and Lands and Surveys Departments.

Other national projects intended to help to achieve sustainable use and proper management of land resources include: -

- The Southern Development Project funded by the Inter-American Development Bank (IDB), is designed to support economic, social, and physical planning activities. Investments will also be made in rural enterprise and sustainable farming techniques aimed at enhancing economic opportunity and social development in the region. Those traditional farming methods causing increased pressure on the land should eventually be phased out.
- The Organization of American States (OAS) funded the recently completed Sustainable Human Development Project which provided for the establishment and strengthening of participatory mechanisms for local government bodies. Greater local autonomy should contribute to sustainable development, due to the communities having greater control of their own resources.
- The Caribbean Development Bank (CDB) in conjunction with International Fund for Agricultural Development (IFAD) funds the Community Initiated Agricultural Resources Management Project (CARD) in the southern districts.
- The recently approved Land Management Program (LMP), funded by an IDB loan and counterpart funding from the Government of Belize intends to improve land management in Belize by completing four components – national cadastre and property rights registration, the expansion of land administration, land use planning and development review and land policy reform and ministry-wide strengthening.

In addition to the above projects, there is a fledging Other Minerals Sector. Two foreign companies are engaged in the mining of dolomite and marble for agricultural and construction purposes. Exploration is ongoing for the exploitation of alluvial gold and granite(s). A geotourism project for gold is being activated by the Ministry of Natural Resources and the Environment, Commerce and Industry in 2004.

Regional Projects with which Belize is involved include the Meso-American Biological Corridors Project, in which Belize participates, and the Forest and Climate Change Project of Central America.

Constraints:

Agricultural development appears to have progressed with little or no guidance by the reports about the land use potential. While the guiding policy may have been one of self-sufficiency, there has been little technical input based on soil suitability. There has been little cohesion by government agencies in ensuring that proper development would or has taken place. This is the direct result of the lack of a Comprehensive Land Use Policy and Regulations legislated and adopted at the national level.

There was little or no awareness of the phenomena of desertification occurring in Belize prior to the signing the articles of the Convention to Combat Desertification. The changes in land quality

and shortage of water in certain localities were not acknowledged as something that required attention. All activities in the name of development were directed to the Five-year National Development Plans designed by the successive administrations. A Department of the Environment had been established since 1989, but the laws and regulations were mostly overlooked or not enforced. Land use planning was an exercise conducted on only a few parcels of land. The existing land use survey reports and those reports recommending appropriate agricultural practices were adopted have had minimal use by planning agencies or developers.

One of the outputs of the Land Management Programme presently being implemented by the MNREI is a Land Use Policy. The absence of such a framework for proper land use planning and implementation continues to be a constraint affecting the sustainable use, management and conservation of land resources.

The absence of a comprehensive set of Forest Management plans for all reserves and national lands leave these resources vulnerable to misuse and mismanagement. In addition, the continued development and application of the National Biodiversity Policy is necessary for the protection and sustainable management of the country's biological diversity.

The strengthening of the Land Utilization Authority in relation to the land subdivision process will contribute further to sustainable management of land. A Forest Policy that is perceived to be obsolete by some is considered to be a constraint of sustainable lands use and management.

Existing institutional structures are inappropriate to effectively address the cross sector and overarching coordination issues related to forestry land use, biodiversity conservation, and sustainable land use practices.

3.1.4.2 Sub-regional and regional projects:

The Central American Alliance for Sustainable Development (ALIDES), which includes all the countries of Central America, has called on its members to manage their resources in a sustainable and integrated manner, in order to ensure the conservation of the regions' biodiversity for the benefit of the regions' people and for humanity on a whole. As a signatory to the agreement, it is incumbent on the Government of Belize to pursue a developmental policy that reflects the spirit of this convention. The Alliance has identified the depletion of the regions' renewable resources as major obstacles to development and specifically mentions deforestation and water degradation as the most serious issues that must be addressed.

In June of 2003, Belize assumed the position of Pro-tempore Presidency of the Central American Commission on Environment and Development (CCAD). During the six-month period of the chairmanship, Belize will be responsible for the implementation of activities common to the sub-region.

3.1.5 ENERGY:

The large majority of Belizeans are supplied with energy services by way of the Commercial Energy System. The Energy System is made up of four separate networks, including:

- Electricity network;

- Butane network;
- Fossil fuel network; and
- Bagasse (from sugar cane production).

Except for bagasse, these networks have independent players and distribute energy sources across the country. It should be noted that there is an estimated 16% of households and 55% in the Toledo District still uses wood for cooking.

The major energy sources and uses are:

Fossil fuel:	diesel, gasoline, and kerosene for transportation in general, lighting in some rural areas, and for some electricity generation;
Butane:	for water heating, cooking, and transportation;
Electricity:	for residential, commercial, and industrial purposes;
Bagasse:	for electricity generation, steam generation, crop drying;
Renewable:	solar and wind: for hot-water, electricity production, pumping; and
Hydrological:	for electricity production and a little pumping.

3.1.5.1 Energy Related Activities in Belize:

Much has been done before and after the Barbados Program of Action in 1994. In 1992, the Electricity Act was passed, which closed the Government of Belize (GOB) owned Belize Electricity Board, and made possible the beginning of Belize Electricity Limited (BEL) as a private electricity service provider (with majority shares owned by GOB). This also opened the door for a private developer to build the Mollejon hydroelectric facility. In 1999, the Electricity Act was revised, the Public Utilities Commission was formed, BEL fully privatized, electricity generation was unbundled and generation was opened for competition by any developer. The following are a series of activities that have helped to change the landscape of electrical energy production and distribution in Belize:

- Mollejon hydroelectric generation facility (owned by BECOL) was commissioned in 1995, with about 90 miles of 115 kv transmission line (grid) into Belize City. This is a run-of-the-river generating plant with 25 Megawatt installed capacity;
- In 1997/8 BEL constructed about 85 miles 115 kv transmission line (extending the 115 kv grid) from near Belize City to Belize's border with Mexico, including a sub-station in Mexico. BEL constructed a 34.5 kv undersea cable supply to San Pedro, one of our larger islands; and also built a 34.5 kv link extending the 115 grid into Stann Creek, a southern district. Presently, BEL is further extending the grid into Toledo, Belize's most southern district. In the process of building and extending the high-voltage grid BEL has provided electricity to many villages along the grid or within economic reach of the grid; and
- BEL has a contract with CFE (a Mexican company) for the purchase of electricity into Belize; this helps with providing electricity while Belize continues system building;

Besides projects related to energy generation, there are others such as:

- Formulation of National Energy Plan for Belize (Sector Diagnostic and Policy Recommendations). This project started in December of 2002 and has one-year

duration. It is intended to do an analysis of the energy system, and then make policy recommendations to the policy makers;

- BEL is pursuing a process to develop a Power Purchase Agreement (PPA) with Hydro Maya. When the PPA is signed, it will allow Hydro Maya to develop a 2.2-megawatt hydroelectric facility in Toledo. This facility is expected to be commissioned by January of 2006;
- BEL is pursuing a process to develop a Power Purchase Agreement (PPA) with Belize Co-generation Energy Limited (BELCOGEN). When the PPA is signed it will allow BELCOGEN to develop a 13.5-megawatt bagasse burning facility in Orange Walk. This facility is expected to be commissioned by January 2006;
- BECOL (owner of the Mollejon Project) is implementing the Chalillo project. This will build a dam some 18 km upstream of the Mollejon project, together with a 7-megawatt generating facility at the toe of the dam. The dam and the new generation will allow for the increase of hydroelectric energy from the present 85-gigawatt-hours to some 160-gigawatt-hours annually;
- BEL has constructed a 21.5-megawatt gas turbine at 8-1/2 miles on the western highway. This unit will be used as a peaking, emergency and black-start facility;
- There is ongoing petroleum (hydrocarbon) exploration by the GOB. Based on numerous oil seeps, there is indication on land, offshore and through other existing data that the possibility for hydrocarbons to be found in commercial quantities in Belize to be good.

3.1.5.2 National, sub-regional and regional projects:

The following are projects in which Belize currently participates:

1. The Caribbean Energy Information System:

In cooperation with sixteen Caribbean Countries, Belize developed a proposal that led to the Caribbean Renewable Energy Development Project (CREDP). This project:

- Keeps close track of the UNFCCC and related activities, for potential impact on the Caribbean;
- Facilitated the development and delivery of a workshop in Baseline Considerations in Electricity generation to meet the potential impact of the Clean Development Mechanism (from the Kyoto Protocol); and
- Produces an Energy Minister's Bulletin for Caribbean Countries in which energy issues are brought to the attention of readers;

2. The Caribbean Renewable Energy Development Project (CREDP) has as its main objectives to:

- Implement identified renewable energy (RE) projects;
- Pilot and disseminate RE projects, and so serve as a catalyst for possible RE industry; and
- Change the business-as-usual scenario for electricity generation, and help to reduce greenhouse gas production.

3. **Development of Energy Efficiency in the Caribbean Project, which has as its main objectives to:**
 - Recommend projects to overcome barriers to the application, implementation and dissemination of least-cost energy efficient technologies;
 - Promote efficient distribution and use of electrical energy;
 - Improve efficiency and competitiveness in the commercial and industrial sectors; and
 - Building and enhancing national energy efficiency capabilities.

4. **Solar and Wind Energy Resource Assessment, which has as its main objectives to:**
 - Provide solar and wind resource data and geographic information assessment tools to energy market executives;
 - Support sustainable energy practices through increased investment in renewable energy projects; and
 - Reduce production of greenhouse gasses.

5. **Plan Puebla Panama, which has as its main objectives to:**
 - Create and/or improve basic infrastructure throughout Central America to support and facilitate economic development; and
 - Generate regional focus on issues of: sustainable development; capacity development; facilitation of trade; energy interconnection; highway integration;

6. **National Energy Plan for Belize is an existing project which will:**
 - Do a diagnosis of the energy sector;
 - Recommend policy options to be reviewed by policy makers, and hopefully be a vehicle for development of an Integrated Energy Plan; and
 - Propose pilot dissemination project/s.

7. **Mollejon Hydro Electric Project was completed in 1995 and currently:**
 - Produces some 85 gigawatt-hours electricity annually; and
 - Offers highly probable benefits of increased energy production to some 130-gigawatt-hours annually;

8. **Chalillo Hydroelectric Project is currently under construction and will:**
 - Construct a dam about 18 kilometers upstream of Mollejon Project;
 - Construct a 7-megawatt-hours generating unit at the toe of the dam;
 - The combined project expected to produce a minimum of 160 gigawatt-hours annually;
 - Contribute to increased energy security, and to reduce dependency on petroleum; and
 - Contribute to more stable electricity prices, and slows potential increased cost due to inflation.

9. **Belize Co-Generation Energy Limited (BELCOGEN) is a new company with a project which will:**
 - Further commercialize the use of bagasse for energy production;
 - Build a 13.5-mega generating unit near the Belize Sugar Industries in northern Belize;
 - Bring additional support to the sugar industry and, therefore, to the economic health of the country; and
 - Reduce dependency on petroleum, as well as reduce greenhouse gas production;

3.1.5.3 Key Constraints to Achieving Energy Sustainability:

The following are of the key constraints to achieving energy sustainability in Belize:

1. Capacity and opportunities:

- Establishment of one place to build and locate the capacity to identify and support for proposals or projects; and
- Location and use of opportunities for training, and also conduct periodic workshops by and among those whose capacity had been developed;

2. Awareness and Information:

- Increased awareness of and confidence in RE technologies by politicians, executives, and engineers;
- Development of a critical (mass) number of politicians, executives, and engineers in the awareness of energy efficiency and RE technologies, to support ongoing acceptance and implementation of energy efficiency and RE technologies;
- Awareness in the general population. There is a tendency to take energy for granted, until there is noticeable loss in quality of service, or an increase in cost of power; and
- Generally, the population needs to better understand and appreciate energy efficiency and renewable energy technologies,

3. Financial:

There does not appear to be a noticeable financial constraint to energy development in Belize. In the recent past, Belize had the Mollejon Hydroelectric project, and presently it has the Hydro Maya hydroelectric project, Chalillo hydroelectric project, Bagasse-to-electricity project, and the Gas Turbine peaking and black-start facility. Also, there have been other proposals for renewable and non-renewable energy projects. In short, Belize has been fortunate to have project developers that have sought out the needed finance.

4. Policy:

There is the development of policy initiatives such as:

- An Integrated Energy Plan that takes a holistic view of energy in Belize;
- Identification of benefits received by non-renewable and grid-connected technologies; and
- A systematic effort to ensure that all energy producing technologies and efficient energy technologies receive a level playing field.

3.1.6. MANAGEMENT OF WASTES AND PROVISION OF WATER AND SANITATION SERVICES:

3.1.6.1 Solid Waste Management:

Solid waste management in Belize continues to pose a challenge to Government and management authorities. There have been significant improvements in the areas of public health, public education and awareness, health services and access to sanitation. There have been formal management systems for solid waste established over the last few years. However,

there are still limitations, problems and lack of coherence in the way the relevant authorities are coping with the issues.

The early 1990s was characterized by neglect of the waste management sector and, thus, resulted in almost total lack of services. This was as a result of various factors, including lower demographic pressure, lower organization of the civil society, and lack of resources. Prior to the mid 1990s, when privatization was limited to Belize City, there were no established policies, laws and methodology for the management, treatment and disposal of solid waste.

Traditionally, solid waste collection at the municipality level was vested in the City and Town administrations. A percent of the total annual budget was allocated for the collection and disposal of solid waste in each municipality. The first contractual agreement between a local government and a private company was issued in Belize City to Belize Waste Control in 1992.

It was not until 1998 that the country saw its first change of policy to formal expansion of the privatization of waste collection services. However, this privatization was not based on competitiveness or on sustainability, but instead was financed by the Central Government. Collection services in Town Councils were for bidding, but the contractual sum was equivalent to an equal sum of each Town's annual subvention from the Central Government. Today, several municipalities have contracts with private companies for the collection and disposal of waste.

a) The Existing Situation:

It is estimated that Belize produces approximately 112,000 tons of solid waste annually from domestic households and commercial establishments. This means that each person living in Belize produces approximately 1.32 kg/person/day (Stantec, National Solid Waste Management Project 1999 and CSO 2002). This estimate was conducted for nine urban centers, one at large size, two at medium size and six at small size.

Municipal waste includes waste generated by the commercial and business sectors located within or near municipalities. It also includes very little industrial waste.

There is no data on the municipal versus domestic waste, as there is no separation at source.

b) Summary of National Constraints:

Solid waste management in Belize is a complex issue stemming from the lack of resources for its proper management. The lack of resources is conducive to inadequate enforcement of environmental and health laws, inadequate personnel and equipment for enforcement of laws, inadequate public education on solid waste practices, inadequate disposal practices, and poor maintenance of land fill and dump sites.

In Belize, all landfills do not meet the technical qualifications required of technically designed sanitary landfills. While the original plan for their establishment was to manage these sites as a sanitary landfill, lack of funds resulted in discontinuation of maintenance and these sites degenerated into modified landfills and open dumps.

Before the recently developed National Solid Waste Management Plan (NSWMP), solid waste management in Belize was deficient in all of its scope. Deficiencies have been identified in policy at the management level, in conflicting legislation, in design and site criteria of land fills, in collection, transportation and disposal of waste and in technological and public knowledge of waste management.

The NSWMP has resulted in the preparation of a comprehensive long-term management plan for solid waste, and has recently commenced its pre-implementation stage.

Major achievements of the NSWMP include the removal of obstacles, such as the issue of conflicting legislation on waste management, establishment of a management structure to oversee waste management, identification of the most suitable alternatives for waste collection, transport, treatment and disposal, finalization of technical designs for sanitary landfills and transfer sites and is currently exploring the issue of financial sustainability for the plan.

Until the NSWMP becomes fully implemented, deficiencies that existed, will still persist in the areas of local municipal management of solid waste, the operation of landfills, technical designs of landfills, sustainability of waste sector at the local level, and the inadequate treatment and final disposal of waste. Deficiencies also exist in terms of public knowledge and education on issues of waste separation at source, waste containment at source, payment for solid waste services, handling of waste and general health related issues.

Prior to 1992, solid waste management was vested in the authority of local governments. Belize has two cities and seven towns. The larger of the two cities - Belize City - was the first to see privatization of solid waste management. It was not until 1997, that the privatization of solid waste management was established in the other municipalities. Today, only three municipalities do not have a private company contracted for managing solid waste. These are Belmopan City (the Capital), Punta Gorda and San Pedro towns. The privatization of solid waste management included, in most cases, the contracting out of the maintenance of landfills.

Privatization of waste management services was limited to the collection, transportation and final disposal of contained waste. In most instances, contracts issued for solid waste management included provisions for the management of landfills, and for the removal of cleared vegetation. However, contracts specified the collection of wastes and most cleared vegetation in containers. Contracts also made provisions for collection of user fees from the business and industrial sector, but not for private residents. This has long become a problem of both enforcement of containment and anti-littering laws, and has resulted in lack of sustainability of the collection service.

Solid waste management poses similar problems in rural areas, except that at villages and small communities, the demographic pressures are less, thus minimizing the impacts of waste disposal. Nonetheless, in these villages solid waste is still disposed at designated local dumps, and in many cases, illicit rural sites are used. Illicit rural dumps are often found on roadsides, in gullies, creeks, swamps and open or abandoned land.

Industrial waste is generated from the Citrus, Banana, Sugar and Shrimp Industries. These are the most important industries that generate solid waste. However, over the past few years, the shrimp industry has multiplied substantially. As a result, the disposal of shrimp heads is becoming an increasing concern. Shrimp heads are usually buried for decomposition, but the decomposition process has recently been found to be retarded by the high clay content of the sites where shrimp farms are located. As a result, shrimp heads may need to be incinerated as an alternative.

3.1.6.1.1 National, Sub- Regional and Regional Projects:

The National Solid Waste Management Project

In 1997, an agreement for a Technical Assistance Project funded by the Japanese Government was signed, between the Government of Belize (GOB) and the Inter American Development Bank (IDB) for the preparation of a National Solid Waste Management Plan (NSWMP). The National Solid Waste Management Project, under which the NSWMP was developed, was divided in to four phases, as follows:

- ✚ Phase 1: Initial Data Gathering;
- ✚ Phase 2: Preparation of a conceptual Solid Waste Management Plan;
- ✚ Phase 3: Development of Public Awareness Programmes and Preliminary designs of Priority Regional Waste Management Program(s); and
- ✚ Phase 4: Preparation of detailed Engineering Drawings for one Sanitary Landfill Site.

As part of its analyses of alternatives for project development, several options were evaluated, of which option the Project Advisory Committee (PAC) selected six. The options selected are:

- ✚ Design and construction of a Central Sanitary Landfill to accommodate the entire Western Highway Corridor;
- ✚ Establishment of Transfer Stations at Cayes, Belize City and Western Landfill;
- ✚ Barging of wastes from Cayes and then trucking it to the Sanitary Landfill;
- ✚ Upgrading of existing sites in Orange Walk and Corozal;
- ✚ Construction of three new sites in South (Dangriga, Placencia and Punta Gorda) which will be a landfill type operation (including those of the north); and
- ✚ Development of a rural collection system for rural and small communities.

The project has now phased into the pre-implementation stage. Initially, funds will need to be allocated for commencement of the construction and design of a sanitary landfill at Mile 22 on the Western Highway. One of the principal activities of priority at this point, for which financing is currently being discussed between the Authority, the Central Government and the IDB, is the construction and operation of this Central Sanitary Landfill.

In addition to its functions as the interim Secretariat of the Authority, the Department of Environment will carry out continuous monitoring of the operations of the landfill and all solid waste management issues throughout Belize, once the Authority becomes fully functional.

3.1.6.2 Integrated Water Resources Management in Belize:

a) Background:

Belize has been uniquely endowed with substantial surface and groundwater resources. It has a total of 18 major river catchments with another 18 sub-catchments, which drain the Maya Mountains and discharge into the Caribbean Sea. Boles (1999) identifies 18 principal watersheds which he roughly grouped into 6 main watershed regions, based on general characteristics of topography, geology, soils, rainfall and land use. He defines a watershed region as a cluster of watersheds that share many structural, climatic and often impact characteristics. The watershed regions include: the Northern Watershed Region, the Northeastern, the Central, the Southeastern, the Southwestern and the Southern Watershed Region.

The total volume of freshwater available per capita in Belize in 1995 was 80.8 thousand cubic meters, the highest in Latin America (CCAD, 1998; Belize First National Communications COP/UNFCCC, 2000). In additions, numerous freshwater and brackish water lakes or lagoons are scattered in the central and northern coastal and inland low-lying areas.

However, increase in demands for freshwater resulting from increasing population, economic activity and agricultural expansion are threatening the quality and availability of freshwater. Coupled with this is the added stress on the resource induced by increasing climatic variability witnessed during the past decade or two.

b) Water Supply:

Potable water supply for urban communities and some rural settlements, and the provision of sewerage services for Belize City and Belmopan are provided by Belize Water Services (BWS), a private water company, which bought over the assets and liabilities of the former Water and Sewerage Authority of Belize (WASA) in 2000. The company manages water supply systems for 9 urban areas and some 56 rudimentary systems. The average daily water supply from river sources is approximately 3.79 million gallons, from groundwater sources it is 0.59 million gallons and from springs 0.38 million gallons (Johnson, 1996).

Groundwater is a vital source for freshwater in rural Belize, where almost 95 % of the freshwater supply comes from groundwater (Rural Water Unit, Ministry of Rural Development).

Groundwater is extracted in rural areas through the use of hand pumps and rudimentary water systems. The Rural Water Unit is primarily responsible for drilling wells and installing pumps. They also work closely with the community in the development of rudimentary water systems, which are financed jointly by the Government of Belize through the Social Investment Fund, the Basic Need Trust Fund and international agencies, such as: UNICEF, PAHO and DFID.

c) Stakeholders:

In Belize there are several agencies and organization that have a stake in water use and management. Consequently, in their endeavor to execute their duties and achieve their goals, overlaps and duplication of efforts among these agencies is common, while some important responsibilities remain unattended. As a result, the Government of Belize, through the Ministry of Natural Resources and the Environment, Commerce and Industry (MNREI), earlier this year reactivated the National Pro-tem Water Commission, which was active in the early 90s, but became defunct with change in administrations. The national Pro-tem Water Commission has as its primary objectives to:

- Develop an integrated water resources management policy;
- Make recommendations for the establishment of a National Water Commission;
- Develop a Draft Water Resources Act ;
- Provide advice to the Minister with responsibility for water on the function of the Commission and related matters; and
- Serve as a liaison with international agencies on matters of water.

The current Pro-tem Water Commission, is chaired by the Chief Environmental Officer, and is in the process of revising the proposed activities, as outlined in the 1994 Report of the Food and Agriculture Organization of the United Nations (FAO) November 1994. The FAO Technical Cooperation Program entitled, "Water Resources Management Policy, Planning and Organization" recommended that the Water Commission be activated, and that Government put

in place the legal framework and the institutional capacity for the sustainable management of Belize's water resources.

Membership of the Pro-tem Water Commission for the next two years include the: Department of the Environment, Meso-American Barrier Reef System, Lands Department, Meso-American Biological Corridors, Forest Department, Meteorology Department, Ministry of Rural Development, PAHO, Belize Water Services Ltd., Public Utilities Commission, Conservation Division (Forestry), Public Health Bureau, Ministry of Agriculture, Belize Electricity Ltd., Belize Audubon Society and a Legal Council (MNREI).

The Hydrology Unit of the National Meteorological Service of Belize is responsible for collecting and analysis of data on the quantity, quality, and variability of Belize's water resources. It is also responsible for the publication and dissemination of water resources information, provision of hydrological advice for engineering and other water related projects, dissemination of early warning for floods and inundations generated by extreme hydro-meteorological events, and warning related to dam regulation and dam break. The Hydrology Unit currently manages and maintains 27 hydrological observation sites in all but two of the 18 major watersheds. The 2 watersheds, with no stage gauge monitoring sites, are the Temash and Sarstoon. The plan for the near future is to expand the hydrological monitoring network into these more remote watersheds in southern Belize.

Other agencies and institutions in water supply and management include: the Belize Water Services Limited, which is responsible for the provision of potable water to urban and some rural communities; and, for providing functional sewerage services to Belize City and Belmopan. The Rural Water Unit is responsible for drilling wells for rural communities and the development of Rudimentary Water Supply Systems. The Public Health Bureau and Coastal Zone Management Authority both conduct water quality monitoring. The Department of the Environment (DOE) has a mandate which cuts across the responsibilities of all other water related agencies under the Environmental Protection Act of 1992. Although legally empowered, the availability of human and financial resources limits the efforts of the DOE.

The Ministry of Works is responsible for the construction and maintenance of navigable waterways and bridges. Engineering works, land reclamation, drainage and facilitating transportation along flooded roads are also their responsible. Some other important players in water related issues include the Ministry of Agriculture, the Public Utilities Commission, local Bottled Water Companies, PAHO, Belize Electricity Limited, Audubon Society, and various NGOs and national focal points of regional and international agencies such as UNEP, the Global Water Partnership (GWP-CATAC), UNDP and others.

No comprehensive water-quality monitoring program exists in Belize. A number of agencies monitor water quality for their own purposes. Some of these agencies include the Department of the Environment, Public Health Bureau, Fisheries Department, Coastal Zone Authority, Belize Water Services, environmental NGOs and consulting agencies. It is proposed then that a central database be created to store information on water quality, taking into account both an increase in the type of number testing done.

3.1.6.2.1 Challenges to Integrated Water Resources Management:

Integrated Water Resources Management (IWRM) is one approach to promote sustainable water resources use and management. This is the paradigm promulgated by the Global Water Partnership (GWP) and is essentially a stakeholder/community-based, holistic approach for the

management of a country's water resources. The GWP defines IWRM as a process that promotes the coordinated development and administration of water, land and related resources, in order to maximize the social and economic benefit in an equitable way, without jeopardizing the sustainability of vital ecosystems (TAC, Background Paper, No. 4/GWP; p.22). As a member of the Central American Integration System (SICA), Belize participates actively in regional efforts to coordinate the management of the region's water resources. Some of these initiatives include the: "Vision on Water, Life and the Environment for the 21st Century", conducted in 2000 by the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC); Workshops and seminars on groundwater related issues and water legislations conducted by the Central American Technical Advisory Committee (CATAC) of the GWP; Commission for Hydrology of the World Meteorological Organizations regional and international meetings and workshops; the Water Quality Standard Project for Belize conducted by PAHO, Red Cross and the Belize Public Health Bureau, and CDERA initiatives in disaster management and flood mitigation.

Belize's water resources are vitally important for the economic development of the nation and the welfare of its people. The resource is finite and vulnerable to degradation. Like in most places, water is considered a free resource and available for the benefit of all (Belize First National Comm. To COP/UNFCCC, 2000). People use it with little consideration of the needs of others or of its sustainability. Water resources in shared watersheds are the property of co-basin countries; however, little consideration has been given to the proportional ownership and level of responsibility for its protection. Groundwater abstraction is unregulated and the use of freshwater for irrigation keeps increasing in the cultivation of banana, rice and citrus, without any restriction.

The Vision for sustainable water resources management in Belize will need to address these problems and misguided practices. It will need to consider an integrated approach to water resources management, which requires the participation of all stakeholders, communities and decision-makers. The Pro-tem Water Commission must undertake proactive actions and strategies to change the public's attitude toward sustainable water use and conservation, and submit binding and effective policy recommendations to the Government of Belize which should help in regulating the use of Belize's freshwater and safe-guard this vital resource for present and future generations of Belizeans.

3.1.7 TOURISM:

Tourism in Belize has been going through some revolutionary changes that have placed it high on the priority list for the Government of Belize. Over the last five years significant strides have been made in strengthening Belize's market position, through effective and streamlined marketing programs and by improving the product, whether it is our human resources or the actual physical infrastructure within the country.

The tourism industry in Belize is, undoubtedly, an important sector in the diversification of the Belizean economy. One in every four jobs in Belize is tourism related, it represents eighteen percent of GDP and it generated approximately US \$265.6 M in 2002. Tourist expenditure has grown by 500% since 1998, and is expected to increase in 2003, since there has been a tremendous growth in cruise ship arrivals and an increase in airline capacity.

3.1.7.1 National, sub-regional and/or regional projects:

Through the partnerships developed with international organizations such as the Inter-American Development Bank (IDB), USAID and the Organization of American States (OAS), Belize has been able to secure funding for the implementation of several projects that focus on sustainable development and capacity building of our human resources. The following projects are currently being implemented:

1. The Tourism Development Project is a four year, fourteen million US dollar project that is being funded by a loan from the Inter-American Development Bank. This project will enhance our major archaeological sites through consolidation works, the construction of visitor facilities and the improvement of access roads leading to our major archaeological sites. It is also designed to build the capacity and improve the quality of life for people living in buffer communities.
2. Training has been high on the priority list for the Government of Belize and, as such, several programs and projects that focus on increasing the quality of service and the standards in the tourism industry are being implemented. Such projects include the following:
 - The establishment of a Tourism Training Unit, which is a three-year project, which is developing and providing standardized training programs throughout the country;
 - The Small Tourism Enterprises Program for Sustainability (STEPS) is providing technical assistance in computers, website design, operations and culinary arts for small hotels all across the country;
 - The Caribbean Program for Economic Competitiveness (CPEC) project is designed to deliver training directly to the tourism industry, by complimenting the activities of the Belize Tourism Training Unit. The strategy involves an aggressive introduction of skills training in the following three areas:
 - Small hotels skills training;
 - Supervisory and specialist skills training; and
 - Environmental walk-throughs for small hotels.
3. Belize offers a unique 'melting-pot' of cultures. Recognizing the importance of culture, the Government has developed museums and cultural centers, countrywide, which will further enhance the tourism product. In an effort to preserve our rich and diverse cultures, the Government of Belize recently established the National Institute of Culture and History (NICH). NICH's mandate is to develop and promote the rich cultural assets and history of Belize.
4. The activities of the Community Management of Marine Protected Areas Tour Guiding Project is aimed at providing training for fisher folks and tour guides with the knowledge, skills and attitudes that will assist them to become efficient tour guides. The program is divided into three sections: a preparatory program; a basic tour guide training program, so that users can apply for their tour guide license; and the development and execution of the Advanced Marine Guiding Program.
5. Belize is the present chair of the SITCA (Tourism Secretariat of Central America), by virtue of its presidency of the Central American Integration System for the last half of this year. The

SITCA is presided over by the Minister of Tourism of Belize and has representation of all Tourism Ministers in Central America. The San Jose Declaration, signed by the Presidents of Central America and the Prime Minister of Belize on December 13, 2002, committed these countries to the sustainable development of the region with specific emphasis on culture, tourism and its impact on new generations. The countries further agree to integrate culture and sustainable tourism as primary strategic sectors within the framework of policy, social and economic development at national and regional levels. Current projects being considered include, but are not limited to:

- A project proposal for the development of tourism in Central America. The International Spanish Cooperation Agency has submitted an outline for a proposal that looks at developing Central American tourism. All parties concerned are currently discussing the project to determine its feasibility.
 - The Central American Tourism Invigoration Plan focuses mainly on the areas of marketing and promotion via the CATA mechanisms. A small component includes institutional strengthening and administrative activities. Funding from this project is being sought from the Republic of China.
 - Other areas of development include Investment Promotion, Immigration facilitation, transportation, cruise projects, air security, tourism security, and a regional tourism satellite account.
6. The global objective of the Mesoamerican Barrier Reef Project is to enhance protection of the ecologically unique and vulnerable marine ecosystems comprising the MBRS, by assisting the littoral states to strengthen and coordinate national policies, regulations and institutional arrangements for the conservation and sustainable use of this global public good.

The Project seeks to conserve this globally important resource by strengthening existing programs and, at the same time, create a variety of new mechanisms to safeguard its integrity and continued productivity. These include: (i) facilitating the harmonization of relevant policies and regulations related to sustainable management of shared trans-boundary resources, including reaching agreement on the establishment of environmental standards for monitoring coastal water quality and other indicators of coral reef ecosystem health; best practice and regional environmental certification programs for sustainable tourism development, and harmonizing regulations governing harvesting and conservation of shared fish stocks; (ii) strengthening the system of Marine Protected Areas (MPAs) within the MBRS to maintain vital ecological processes and increase representation in the existing system; and (iii) building capacity through training, environmental education and improved information systems to enhance public and private participation in the conservation of the MBRS and the benefits from its sustainable use.

3.2 CROSS-SECTORAL AREAS

3.2.1 Financing and Investment for Sustainable Development

The Global Environmental Facility has been active, providing different levels of investment and technical support in Belize since 1990. The establishment of the Coastal Zone Management Authority and the CZM Institute as Statutory Bodies to Monitor and assist in managing the coastal zone were two of the major achievements of this international partner. The UNDP's GEF/Small Grants Programme continues to provide small grants to community based and non-government organizations for implementation of projects focusing on environmental protection, biodiversity protection and climate change. The UNDP also assisted Belize to develop and publish the National Biodiversity Strategy and Action Plan. UNEP/GEF has also been a significant contributor to local development projects. UNEP/GEF provided support for the development of national biosafety framework, and a regional programmatic framework for Integrating Global Environmental Concerns into the Initiative for Sustainable Development of Latin America and the Caribbean.

The Inter-American Development Bank has provided several loans to Belize dedicated to development. Examples of these include the loan for the rehabilitation of the Southern Highway and another to fund the Land Administration Project, and its successor, the Land Management Program.

The Government of Belize through the Development Finance Corporation and the Social Investment Fund provides most funds geared towards development projects, particularly in agriculture, tourism and infrastructure. The DFC loan portfolio was in excess of \$265.8 M in 2001, with the majority of funds concentrated in the areas of housing, services, tourism and agriculture, respectively.

The Social Investment Fund, a statutory body of the GOB responds to the needs of the poorest groups of people in the society. It provides resources to community-based projects aimed at delivering basic services and infrastructure to the poor and needy, with the assistance of community-based organizations and non-government organizations. Through the micro-credit program administered by the Belize Enterprise for Sustainable Technology, \$1.04 M was disbursed, where 56% were loans to women. Financing for the SIF comes from the GOB, World Bank, the CDB, Commonwealth Debt Initiative and the UK Provision of Basic Needs Program.

Belize also benefits from financing provided through bi-lateral assistance. The governments of the United States of America, the United Kingdom, Cuba and the Republic of China provide the most resources for projects aimed at sustainable development. These range from the construction of school facilities to the provision of rudimentary water systems.

Constraints:

There exists a lack of human resources and capacity to access on funds available for financing development projects. The International Cooperation Unit of the Ministry of Foreign Affairs was created with the intent of filling this gap.

3.2.2 Capacity Building and Cooperation

Belize is a member of several regional and sub-regional organizations that afford coordination and capacity building within the region. These include the Central American Integration System, the Caribbean Community, the Association of Caribbean States, and their associated regional agencies.

The development of the International Cooperation Unit of the Ministry of Foreign Affairs was seen as an important step forward. Given Belize's declining access to development assistance, this institution would bring greater coherence to the country's international cooperation policies and strategies.

It is also envisioned that the Unit would organize internal coordination between and among recipients of international cooperation resources in Belize. Though the consultations to prepare this report it was noted that all sectors needed to be fully integrated into the international cooperation process, and that the involvement of the private and civil society sectors was not done on an ad hoc basis. It was recommended that their involvement begin at the planning stage and followed through to full implementation of projects and programmes.

While there have been several initiatives and programmes aimed at achieving sustainable development, these efforts have been somewhat isolated or confined to the particular sector. Government's Medium Term Development Strategy serves as a framework for sustainable development by identifying the areas that needed to be addressed, the resources that should be invested, and the targeted stakeholder and a timeframe for achievement of the objective (ie. for the successful implementation of the projects/activities). However, the strategy does not include or describe a/the mechanism for implementation. As a framework to guide development, the absence of a coordinating mechanism was a gap that was left open. The result is that certain sectors display greater evidence of development than others.

The lack of coordinated implementation may be attributed to the lack of capacity in the areas of trained human resources, the availability of finances on demand, or even the lack of other resources such as technology. The tendency to rely on self as a source of all resources is another constraint. Partnerships such as those being promoted in the International Community need to be adopted in the smaller developing countries like Belize. Public Private Partnerships is an increasingly used tool to transfer technology and achieve objectives. These temporary or permanent liaisons between government, the business sector, and the beneficiary facilitate efficient use of scarce resources through jointly implemented activities. Each partner is better able to utilize its strengths, the weaknesses are reduced, best practices can be determined and applied through consultation, and duplication and redundancy is avoided or minimized.

There are fewer government-private sector partnerships than there are government-civil society partnerships. The best examples of these GOB-CSO partnerships exist in the protection and management of protected areas. The government has even indicated its willingness to support initiatives that relieve the administrative burden on the central government to provide basic services.

4.0 TRADE, INVESTMENT, CAPACITY BUILDING AND COOPERATION AND THE STATUS OF VULNERABILITY:

4.1 KEY CONCERNS AND VULNERABILITIES:

Belize is a small developing country with limited natural resources at its disposal. The country has a small production capacity, which translates to a lack of economies of scale. This means that without significant reform of industries and the trading environment itself, the productive sectors will be unable to cope with increasing competition brought by trade liberalization. Economies of scale production is further constrained by the small population and limited domestic market. High costs of inputs including transportation, energy, insurance and labour further contributes to high unit costs of production and is another major impediment to productivity. The rapid pace of trade liberalization has created severe difficulties as the administrative and technical capacity to deal with these issues are very limited and in some areas non-existent.

Belize's small population of 273,700 (Mid year estimate 2003) translates to a very small domestic market, which cannot support many firms operating in the market place. Other economic activities like tourism has increased domestic consumption overall but this is still seasonal and not very predictable. Exporting production is the only other avenue that can assist in meeting scale production and a competitive productive sector in the medium to long-term.

Belize is an open economy that makes it vulnerable to external shocks. The export base of the economy relies on a very narrow range of export goods and services, namely: bananas, sugar, citrus, tourism and fisheries (including aquaculture), which are concentrated in a few preferential markets in particular the USA and the European Union. Examples of vulnerability to external shocks are evident with the decrease in tourist arrivals to Belize in the immediate aftermath of September 11th and the decline in foreign exchange earnings as a result of the WTO ruling on bananas. Belize is also very vulnerable to natural disasters, with the country being directly in the path for late season hurricanes.

Government is encouraging investments in agribusiness, aquaculture and tourism in particular, and a steady flow continues. New negotiating trade disciplines to include investment, government procurement etc. are being promoted by the developed economies. This is being approached with caution, as small states like Belize are not yet convinced that multilateral approaches in these areas will allow the flexibility required to spur economic growth in new areas. Rigid rules in the investment and services area that do not take into account the vulnerability of small economies may in itself become a major vulnerability as we are marginalized out of these areas as we attempt to diversify our economies.

As an agricultural driven economy, Belize produces the majority of food to meet national consumption however imports of seasonal and processed foods are required. As a member of the African, Caribbean and Pacific Group of States (ACP), Belize receives non-reciprocal preferential market access into Europe in respect of its major export commodities. Under the WTO and internal EU reform, these preferential arrangements are under threat and as experienced with bananas this is causing immediate decline in remuneration to producers and significantly affect the national economy. The arrangements for sugar are now being challenged in the WTO and this may have significant impact on Belize and the region's economy. Preferential access is also granted to the US market under the CBI and this may also come under threat.

4.2 NATIONAL LEVEL OR COMMUNITY-BASED INITIATIVES:

The Ministry of Agriculture and Fisheries has encouraged and facilitated farmers to diversify from the traditional export agricultural products such as sugarcane, citrus and banana. In the northern and western parts of the country some farmers are cultivating papayas for export. In the south, some Mayan farmers have established a niche market in the United Kingdom for organically grown cacao. In the north and west, red kidney and other beans are grown for export to the Caribbean. Expansion in soybean cultivation has led to another area of industrial agricultural activity. In other areas, non-traditional crops such as onions and potatoes have been introduced for local import substitution.

The Government of Belize, CDB and IDB funded CARD projects (US \$14M) currently being implemented in the two southern districts is intended to reduce the poverty levels in this seriously affected part of the country through the upgrade of farm technology. In addition the EU funding for Belize's Country Support Strategy will focus on poverty reduction through rural agriculture development and diversification (Euro 7.8 M).

Government continues to upgrade its investment and business facilitation programmes and in particular to identify methods to broaden the benefits to include small and medium enterprises. Recent amendments to the Fiscal Incentives Act now facilitate SME's access to this programme. A review of the entire regulatory framework for investments is to be undertaken.

4.3 SUB-REGIONAL OR REGIONAL COOPERATIVE MECHANISMS OR PROGRAMMES:

Belize has limited human resources and lacks the full complement of experts to negotiate in the multiple trade negotiating theatres. Belize is currently involved in external trade negotiations in the WTO, FTAA, ACP, and Caricom Single Market. To complement the national effort, the Caribbean established the Caribbean Regional Negotiating Machinery to assist with technical studies, coordination of negotiating positions and in specific areas negotiations itself.

At the national level, GOB recently established a National Trade Negotiating Commission (NTNC), comprised of private sector, civil society and public sector representatives. GOB recognizes the vital need for stakeholder inputs in trade negotiations and the NTNC primary mandate is to advise government on these issues. Capacity building to including all stakeholders is seen as critical to Belize's ability to secure its interest in the plethora of trade negotiations.

CARICOM has been at the forefront in establishing a working group in the FTAA and the WTO to address the concerns of small economies. In the WTO, Belize has traditionally benefited from the flexibility of Special and Differential treatment (S&D) granted to developing countries.

4.4 PRINCIPAL VULNERABILITY CONCERNS:

National vulnerability concerns such as the lack of economies of scale in production, the high costs of inputs and narrow productive sector are issues that can be addressed over an extended period of time but at significant costs. However, small economies will never be able to compete fairly with the larger production units especially multinational corporations. This is a well recognized reality but one that the larger and more developed economies are reluctant to

address. The explicit definition and implementation of meaningful “special and differential treatment” in the global trading system is key to mitigating vulnerability.

Capacity constraints to negotiate more favorable trade terms is a significant vulnerability especially as small economies are unable to implement existing trade obligations yet new areas for which we lack expertise are being forced on the agenda. Much has been said in this regard but very little offers have actually materialized into significant training and institutional building. Funding and technical assistance to conduct national impact studies and competitiveness assessment are urgently required.

The rapid pace of liberalization has caused strain on the productive sector and national economies as a certain level of related uncertainty affects new investments. Adjusting the national economy, increasing competitiveness and diversifying out of some areas will take time and incur significant costs. Special attention must be paid by the donor community and the IFIs to assist the smaller economies in this process. Without this vulnerability addressed, developing countries will find it impossible to proceed with new trade negotiations especially as existing preferential markets are eroded.

4.5 SUB-REGIONAL AND REGIONAL COOPERATIVE MECHANISMS OR PROGRAMMES RELATED TO SUSTAINABLE DEVELOPMENT OR VULNERABILITY:

Current negotiations focus on “Special and Differential Treatment (S&D)” for developing countries in connection with the Free Trade Area of the Americas Agreement. The principle of S&D is the acknowledgement that countries have different levels of development and indicators such as GDP per capita (the basis for the UN definition of “developing countries” where SIDS and CARICOM are classified) does not present a true picture of a country’s vulnerability. Significant work has been done by the Commonwealth Secretariat and UNCTAD to better define vulnerability but there is strong resistance to substantially address these issues.

The developing countries are similarly negotiating for the recognition of S&D in the World Trade Organization both in the existing texts and any new agreement. The spirit of the WTO “Doha Development Agenda” adopted on 2001 must now be implemented.

5.0 MILLENNIUM DEVELOPMENT GOALS:

5.1 POVERTY REDUCTION:

At present Belize is in the process of conducting a second poverty survey. The last Country Poverty Assessment (CPA) conducted in Belize was in 1995/96 under the auspices of the National Assessment Team for Poverty (NAT). The major findings of the CPA showed that 25.3% of households or 33% of the total population fell below the national poverty line. The reduction of poverty is a high priority for the GOB. For that reason, the Government produced the first national Poverty Elimination Strategy and action Plan 1998-2003 and has committed itself to investing in projects that in the long run benefit the poor.

The Social investment Fund (SIF) is a statutory body created by the GOB to respond to the basic human needs of the poorest of the poor in Belize using an approach that is participatory, collaborative and demand-driven. A board comprising of members from strategic government ministries, the private sector and civil society, governs the SIF.

SIF's objectives are to provide resources for community-based projects which address social and economic needs; develop and deliver basic services and infrastructure to the poor and needy through NGOs, community organizations and other local agencies; finance small scale projects such as the basic infrastructure, health, education, social services and income generating activities; and, provide assistance for the improvement of living conditions, infrastructure and community participation.

In January 2002, SIF assumed the operations of the Basic Needs Trust Fund, which is also geared toward providing basic services for the poor. There are three sub-programs under the BNTF, the Caribbean Development Bank BNTF, the UK Provision of Basic Needs Program, and the Commonwealth Debt Initiative Program.

The National Human Development Advisory Committee is a multi-sectoral body, including representatives from civil society, the public and private sectors. It was established in 1997 and mandated by the Government to provide informed advice on the development of sustainable human development policies and initiative in Belize, with special emphasis on poverty elimination.

Additionally, there has been much emphasis on the provision of more accessible credit services for poor communities through programmes administered by the Social Investment Fund and the Small Farmers and Business Bank. The Belize Enterprise for Sustainable Technology, a local NGO, serves as the financial intermediary for the Social Investment Fund, where it manages a micro-enterprise credit program. BEST also runs its own micro-credit program for communities, reflecting the involvement of NGOs in poverty reduction in Belize. There is also easier access to better housing, through programmes administered by the Development Finance Corporation and member Credit Unions of the Belize Credit Union League

National Constraints

Government recognizes that in order to combat poverty it is necessary that poor people themselves have access to the decision-making process that affects them. There is also a need to strengthen mechanisms for local government such as municipalities and village councils as a means of empowering communities. Government has carried out programs to address these issues.

5.2 EDUCATION AND THE REDUCTION OF CHILD MORTALITY:

5.2.1 Education

The Government of Belize has signaled education as one of the major priorities to ensure sustainable human development. GOB allocated some 20% of the national budget to education in the years 1997-2001, where some 80% was devoted to primary schools. The primary school drop-out rate decreased significantly in 2000 to only 2%.

Belize has put in place several measures aimed at ensuring universal primary education. These include:

- The introduction of a vigorous school facilities improvement programme that is intended to increase school places. Six hundred additional classrooms were constructed and two hundred classrooms were renovated during 1989 and 2003;

- The National Truancy programme resulted in almost one thousand primary school aged children being brought back to school. Parents were assisted with grants to purchase textbooks and uniforms and advised through counseling sessions; and
- A Language Teacher Support programme was introduced to address teaching of English as a second language.

In addition, some 25% of 3 to 5 year olds are attending pre-school institutions with 50% of the group coming from urban communities. The GOB plans to increase the participation rates to about 80% during the five-year period (2003 to 2008).

National Constraint

The rapid enrollment increase will increase the pressure on limited financial resources, most of which (85%) is required for the payment of salaries.

5.2.2 Reduction of Child Mortality

The infant mortality rate has been steadily reducing from 26 in 1996 to 16.9 in 2001 (in every 1,000 live births). The causes for infant mortality range from prematurity in the neonatal period to respiratory infections during the first year of life.

Through the Maternal Child Health Program the GOB has instituted measures aimed at reducing infant mortality. These include the holding of clinics countrywide, at least one day per week, where expecting mothers are attended to for at least 6 months prior to delivery. Here they learn basic health care, proper nutrition, counseling, child spacing, family life education and caring for the child. HIV tests are also encouraged both pre and post birth. Nurses are specially trained to cater to mothers and infants visiting the clinics. In addition, the GOB manages an immunization program to prevent early childhood diseases.

National Constraint

The reliability and timely release of data is viewed as the biggest constraint to obtaining accurate statistics.

5.3 GENDER EQUALITY AND THE EMPOWERMENT OF WOMEN:

5.3.1 Gender Equality

The Women's Department in the Belize Ministry of Human Development, Local Government and Labour has undertaken certain activities intended to deal with gender issues and, more specifically, the empowerment of women. Towards this end the following have been accomplished:

- A communication strategy to create awareness on the issue of gender has been developed and implemented. The programme produced brochures, posters and radio and television advertisements;
- A national plan to address gender-based violence has been developed and implemented; and
- A manual on gender issues has been designed and introduced for primary school teachers with activities for children.

5.3.2 Empowerment of Women:

To ensure the empowerment of women, Belize has put in place several measures, including the approval of a National Gender Policy, the phasing in of a Gender Budget Initiative, the development of a manual to train public officers on gender analysis and planning and the facilitation of loans for women through the Small Farmers and Business Bank. In addition, National Legislation has been amended to:

- Ensure a fair and equitable minimum wage;
- Place an economic value on the care of home and domestic duties during the division of matrimonial property;
- Recognize common-law unions; and
- Recognize rape in marriages.

In addition, particularly for women - specific programmes and projects have been promoted for skills training, personal development and entrepreneurship development.

National Constraint

The traditional attitude of people, in general, and the limited financial and human resources needed to ensure that gender issues are integrated into all development planning are the main constraints faced in this area.

5.5 HIV/AIDS, MALARIA AND OTHER VECTOR BORNE DISEASES:

5.5.1 HIV/AIDS:

Belize has the highest ratio of HIV/AIDS cases in Central America, and the fifth highest in the Caribbean region. Recent studies estimate the rate of infection as one new case per day. The trend indicates the most affected group being those in the reproductive age group of 15-44 years. In 2002 the Government of Belize appointed a multi-sectoral National AIDS Commission (NAC) mandated to facilitate, coordinate and monitor the prevention and control of HIV/AIDS in Belize. The Commission has representation at the highest levels of government, NGOs, business, religious leaders, community-based groups, multi- and bi-lateral agencies, and people living with HIV/AIDS. Other partners who represent youth, gender, and the military, the police and prisons are also involved.

In addition, the GOB has introduced antiretroviral treatment, expanding the HIV anti-retroviral drugs programme, as well as an AIDS awareness campaign and a HIV/AIDS education programme. The Ministry of Health has been playing a leading role in the fight against HIV infection and AIDS. From the beginning of the epidemic the Ministry of Health began allocating resources to health education and promotion geared towards modifying the high-risk human behavior. Curative care of HIV/AIDS cases has been limited to a few opportunistic infections, partly due to diagnostic capability has been upgraded, and presently, a specific budget has been allocated to provide antiretroviral medication to persons with AIDS.

Programs being implemented by the National AIDS Commission include the:

- Establishment of a functional secretariat;
- Decentralization through district level commissions;
- Development of sector plans to complement the National Strategic Plan;
- Completion of phase one on the Policy and Legislation development project;
- Nation-wide awareness billboard campaign;
- Completion of the Behavioral Change Educational Package; and,

- First, second, and Third Global Fund Proposal submission.

Two local NGOs (also members of the National AIDS Commission) that are active the prevention and support for persons living with HIV/AIDS include the Alliance Against AIDS and the Belize Family Life Association. Each has a set of programmes that they implement. These include:

Alliance Against AIDS

This non-government organization established the first support group for and of persons living with HIV/AIDS.

- Established a Helpline; and
- Provided Counseling and home care for Persons Living with HIV/AIDS and their immediate family members.

Belize Family Life Association

- This non-government organization provides sexual and reproductive health services for vulnerable populations, such as women and youth;
- Provides peer education for youth; and
- Established the Behavioral Change Communication program.

Belize hosted a Caribbean Regional Planning Workshop, “Managing the Impact of HIV/AIDS on Public Sector Human Resources”, from September 17 – 19, 2003, with representation from twelve Caribbean countries. The Communiqué of the workshop recommended the integration and mainstreaming of HIV/AIDS in Public Sector Reform, investing resources in developing and implementing mitigation measures aimed at safeguarding existing skills and human resources in the public sector, among other measures.

5.5.2 Malaria in Belize:

The Government of Belize, through the Ministry of Health, has been implementing the Vector Control Programme for the prevention and control of Malaria and Dengue. The Programme strategies include: environmental sanitation; control of the vector; surveillance; health education; and diagnosis and treatment. The cases decreased from 1,800 cases in 1999 to 1,100 cases in 2001.

The human resource distribution throughout the country is a significant feature of this programme. An informal group called “Community Nurses Aides, and/or Voluntary Collaborators”, who live in almost all the localities throughout the country, complements permanent staff deployed by government. These persons are the front line operatives detecting fever cases, taking blood samples, and providing treatment and health education to the population.

The government maintains a fixed recurrent budget and a supplementary budget for the prevention and control of malaria and dengue. Assets that are deployed at the district level include house spraying equipment and Ultra Low Volume sprayers installed in vehicles based in each of the districts.

Regional Programmes:

Belize enjoys the assistance of regional nations in the prevention of malaria and dengue. Bi-lateral programmes exist with Mexico and Guatemala, where Mexico provides additional aid in

the vector control programme by assisting with indoor and outdoor spraying. The Caribbean Research and Epidemiology Centre (CAREC) in Trinidad and Tobago provides support for the laboratory component. And, PAHO has supported sub-regional initiatives against malaria and dengue, which have benefited Belize.

5.6 ENVIRONMENTAL SUSTAINABILITY:

“Belize is generally regarded as a leader in conservation and sustainable development in the region. The country puts environmental considerations high on the agenda when planning national development projects.”⁴ While there is no explicit policy on sustainable development in Belize, the government ensures the incorporation of its considerations in policy documents of the Government, including the Medium Term Economic Strategy, the National Poverty Elimination Strategy and Action Plan, the National Protected Areas System Plan for Belize (1995) and the National Biodiversity Strategy and Action Plan. The Belize Audubon Society, a prominent local NGO, also produced the State of the Environment Report and its follow-up, the Environmental Agenda 2002 and Beyond. The National Environmental Action Plan should also be noted for its incorporation of sustainable development considerations.

Over 45.8% of Belize's terrestrial resources and 350,000 acres of coastal waters are under protected areas status as of December 2001. The Environmental Protection Act was enacted in 1992 and speaks to the rational use of the natural resources of the country and the control of pollution. In addition, the preamble commits to a plan to preserve the natural heritage and to ensure that the exploitation of resources are consistent with maintaining an ecological balance.

The regional Meso-american Biological Corridors Project and the Meso-american Barrier Reef Project both involve stakeholder participation (potential users – tourism and fishing industries) in the enhancement and replenishment of biodiversity, both marine and terrestrial, and the better management of the resources.

National Constraints

Earlier sustainable development projects implemented in the southern districts failed to level the impact projected because they intended to target populations had not been consulted or involved during the design stage. Projects such as TRDP and IFAD had been designed and implemented by foreign consultants who might not have done proper feasibility studies or who did not understand the unique issues of those populations. The lack of stakeholder participation and involvement at every stage of the process is now a recognized constraint to sustainable development. The ongoing CARD project may be a better example of a project that could achieve the desired result.

The capacity to monitor and evaluate the progress of projects during the implementation phase is another constraint. Programmes and projects are usually only evaluated at the midterm and at the end. By this time it might be too late to make modifications and take corrective measures if the programme/project is going or has gone awry, and considerable investment in time and resources might not have been used effectively. Skills need to be developed to ensure continuous monitoring during implementation, but this same capacity should be available to determine and recommend the corrective measures that would be required to improve the output of the programme/project.

⁴ National Capacity Self-Assessment Proposal for GEF Funding,

5.7 GLOBAL PARTNERSHIP FOR DEVELOPMENT:

The Government of Belize signed the Debt for Nature Swap with the United States Government and local Belize NGOs⁵ on 28 September 2001. The US Government with grant funding from The Nature Conservancy retired US \$9 M in debt from the GOB. In turn the GOB will issue two bonds in the amount of US \$7.2 M, which will be used in collaboration with local NGOs to protect valuable forests in the country. The local NGOs will ensure that these tropical forests are conserved and managed, and the endowments will be used for future conservation efforts.

As part of its efforts to bring more comprehensive attention to the needs of youth, the Prime Minister in May 2002 launched the Youth for the Future Initiative. The Initiative seeks to build the relationship between the Government, implementing partners and the international donor community. The elements of the Initiative include fostering entrepreneurship, nurturing youth governance, fostering sports and other initiatives aimed at breaking the cycle of violence and providing positive pathways. To date, there have been contributions to the Initiative from the Governments of the Korea and the United Kingdom as well as UNICEF.

National Constraint:

In the past the lack of coordination between and among various government ministries made it difficult to engage and sustain partnerships. However, the recent creation of the International Corporation Unit within the Ministry of Foreign Affairs is intended to facilitate partnerships, channel international resources and provide overall guidance to cooperation process. The focus then should be on the strengthening of the Unit to provide the assistance required to the various Ministries.

6.0 EMERGING CONCERNS

The emerging concerns were identified in the national consultation that was held on July 25, 2003, as well as the follow-up consultation on August 26, 2003.

6.1 EMERGING CONCERNS:

6.1.1 Proposed National Sustainable Development Council:

The evolution of the National Sustainable Development Council was one of the major issues raised at the National Consultation Workshop held on July 25, 2003. It is becoming increasingly apparent that if Belize is to meaningfully participate in regional and international processes, this participation cannot be on an ad hoc basis. There needs to be an established process for Belize's participation and input into ongoing efforts at achieving sustainable development, such as the Millennium Development Goals, the Johannesburg Plan of Action, and other regional and international initiatives – the LAC Initiative.

Participants advised that the further development of the NSDC should focus on the process for its effectiveness rather than on the creation of a new institution. It was also felt that any new initiative should prioritize the use of existing institutions for implementation and build on existing frameworks and work previously done by other advisory bodies.

⁵ The local Belize NGOs include the Belize Audubon Society, Programme for Belize, Toledo Institute for Development and Environment, as well as the proposed "National Foundation for Biodiversity Protection", to be developed by the Protected Areas Conservation Trust

The draft Terms of Reference for the NSDC is attached at Annex Two.

6.1.2 Gender Policy:

Another issue of high concern was the lack of focus on the critical problems of men in Belizean society as a component of the National Gender Policy. There was a general observation that men in Belize have been participating less in formal education and are becoming less equipped or unable to perform their role as leaders, spouses or fathers. Policy responses need to be identified based on the study, "From Boys to Men", to ensure that young men have the tools to be productive citizens in the society.

6.1.3 Criminal Activity:

The increase in criminal activity is a growing concern for the law enforcement authorities and the general population. The authorities attempt to deal with the incidents that are brought to their attention, but these recorded or reported incidents are thought to be considerably lower than the actual crimes occurring. The murders, kidnappings, and other criminal activity, which are all on the increase, are believed to be related to the socio-economic problems in the society.

The Government has put in place measures to stem the crime activity. A National Crime Committee has just been formed, which is made up of a cross-section of public, private and civil society sectors. In addition, the University of Belize has been commissioned to conduct scientific research into the nature and causes of crime with the objective of determining possible policy recommendations.

6.1.4 Tourism:

The tourism industry has seen unprecedented growth in the last few years. And while the industry has put in place measures at ensuring its sustainable development, there are initiatives that must be considered, including the continuing need for proper and adequate training; the integration with other government ministries, and the monitoring of policy guidelines to ensure that the industry operates according to internationally agreed standards, the proper management of the cruise ship industry, as well as meeting the 2004 deadline for ensuring that Belize meets the International Maritime Organization Standards on Port Security.

6.1.5 Human Resources:

There is a perception that the nation has a continuing trend to lose its skilled human resources. This could pose problems for the country's development since it will continue to make investments in training and capacity development, which would not accrue to the nation.

There were three areas of capacity building that were highlighted for attention namely, project development and management, planning and diplomacy and negotiation. Improved capabilities in these areas would allow improvements in the implementation of projects and programmes both at the institutional and the national levels.

It is envisioned that the newly established University of Belize would become vital to developing the educational, research and training needs for Belize. There is a concern however that the institution is currently not sufficiently responsive to the national demand for professional training in both the public and private sectors.

6.1.6 Traffic

The increase in road traffic accidents is of growing concern to the country. There have been a reported 23 cases from January 2003 to date resulting in death from traffic accidents on our major Highways. The major causes for these accidents have been identified as a lack of information on traffic laws and proper driving practices, inadequate enforcement and lack of proper traffic and safety signs.

6.1.7 Youth

Belize is characterized by a young population. Sixty-five percent of the population is under the age of thirty. Of growing concern is the disproportionate involvement of young people in criminal activity. 93% of inmates at the Hattieville Correctional Facility are twenty-five years and less.⁶ This data indicates that most young inmates are first offenders incarcerated for petty crimes. There is also evidence that points to the involvement of youth in criminal activity due to lack of economic and educational opportunities.

⁶ Hancock, F. and Sanderslay, D. (1999)

ANNEX ONE - Emerging Framework for Sustainable Development

Barbados Programme of Action

BPOA Issues	Policy and Legislative Framework	Institutional Arrangements	Initiatives and Ongoing Efforts
Climate Change and Sea Level Rise		<ol style="list-style-type: none"> 1. National Coordinating Committee. (CPACC/MACC) 2. National MET Service 3. Coastal Zone Mgmt. Authority and Institute 	<ol style="list-style-type: none"> 1. 1st National Communication Report to the UNFCCC – 2002 2. Montreal Protocol Initiative 3. Participation in MACC 4. Strengthening Capacity for Early Warning MET
Natural and Environmental Disasters	<ol style="list-style-type: none"> 1. Disaster Preparedness and Response Act – 2000 	<ol style="list-style-type: none"> 1. National Emergency Management Organization 	<ol style="list-style-type: none"> 1. Emergency/Contingency Planning Framework – ongoing 2. National Mitigation Policy – being developed
Management of Wastes		<ol style="list-style-type: none"> 1. Solid Waste Management Authority 2. Local Government Authorities 	<ol style="list-style-type: none"> 1. Solid Waste Management Project Assessment – completed 2. Solid Waste Management Project - Anticipated
Coastal and Marine Resources	<ol style="list-style-type: none"> 1. Coastal Zone Management Act 2. Integrated Coastal Zone Management Strategy 	<ol style="list-style-type: none"> 1. Coastal Zone Management Authority and Institute 2. Fisheries Department 	<ol style="list-style-type: none"> 1. Financial Sustainability of Coastal Zone Management Authority 2. Execution of the ICZM 3. MBRS
Freshwater Resources	<ol style="list-style-type: none"> 1. Water Industries Act – 2001 2. Water Resources Act - anticipated 	<ol style="list-style-type: none"> 3. Pro-tem Water Commission 4. MNREI / Forest Dept. 5. National Water Commission - anticipated 	<ol style="list-style-type: none"> 1. Integrated Water Resources Management Policy and Strategy – anticipated
Land Resources	<ol style="list-style-type: none"> 1. Registered Lands Act 2. Land Utilization Act 	<ol style="list-style-type: none"> 1. Land Utilization Authority 2. MNREI – all depts. 3. Est. of Physical Planning and Land Information Centre 	<ol style="list-style-type: none"> 1. Land Administration Project – completed 2. Land Management Program – 2001-2004 3. CARD 4. MBC
Energy Resources	<ol style="list-style-type: none"> 1. Electricity Act, passed – 1992; amended – 1999 	<ol style="list-style-type: none"> 1. Public Utilities Commission 	<ol style="list-style-type: none"> 1. Power Purchase Agreements with BELCOGEN and Hydro Maya – being developed 2. Mollejon and Chalillo Hydroelectric Projects 3. National Energy Plan – underway
Tourism Resources	<ol style="list-style-type: none"> 1. 10-year sector strategy – Blackstone Report 2. Belize Tourist Board Act (and 	<ol style="list-style-type: none"> 1. Belize Tourism Board 2. Belize Tourism Industry Association 3. Belize Hotel Association 4. Belize National Tour 	<ol style="list-style-type: none"> 1. Tourism Development Project 2. STEPS 3. Caribbean Program for Economic

	<ul style="list-style-type: none"> 3. revised edition 2000) Regulations on tour guides –1994; tour operators – 1999; local water passenger and water sports vessels – 2002 4. Hotels and Tourist Accommodation Act, chapter 285; Hotels and Tourist Accommodation 5. Belize National Tourism Council Act – 2000 6. Minimum Standards Act 7. Dive Policy 8. Cruise Ship Policy 	<ul style="list-style-type: none"> 5. Operators Association Belize Cruise Ship Industry Association 	<ul style="list-style-type: none"> 4. Competitiveness Community Management of Marine Protected Areas
Biodiversity Resources	<ul style="list-style-type: none"> 1. National Parks System Act 2. Wildlife Protection Act 3. National Biodiversity Strategy and Action Plan 	<ul style="list-style-type: none"> 1. Protected Areas Conservation Trust 2. Biodiversity NGOs 	<ul style="list-style-type: none"> 1. Enabling activities for biodiversity strengthening 2. National Protected Areas System Plan 3. National Protected Areas Policy – being developed
National Institutions and Administrative Capacity	<ul style="list-style-type: none"> 1. National Environmental Act 2. National Environmental Action Plan 3. National Environmental Strategy 4. Medium Term Economic Strategy – 2000 – 2002 and 2003-2005 5. National Poverty Elimination Strategy and Action Plan 	<ul style="list-style-type: none"> 1. National Task Force on Sustainable Development 2. Cooperation Council – High level and technical council 3. National Trade Negotiation Commission 4. National Human Development Advisory Council 5. Economic Advisory Council 	<ul style="list-style-type: none"> 1. Proposal for a National Sustainable Development Coordinating body
Regional Institutions and Technical Cooperation		<ul style="list-style-type: none"> 1. CARICOM Quasi-Cabinet resp. for Environment, Sustainable Development and Natural Disaster Management 2. Chair of Sustainable Development Task Force Caribbean Community Climate Change Centre 	
BPOA Issues	Policy and Legislative Framework	Institutional Arrangements	Initiatives and Ongoing Efforts

Transport and Communication	<ol style="list-style-type: none"> 1. Telecommunications Act (regulate, restructure and develop industry) 2. Telecommunications policy paper 	<ol style="list-style-type: none"> 1. Office of Telecommunications 	<ol style="list-style-type: none"> 1. Provision of 5,000 computers to schools, countrywide – ongoing 2. Ensuring community phone and internet access - ongoing
Science and Technology			
Human Resource Development	<ol style="list-style-type: none"> 1. National Poverty Elimination Strategy and Action Plan 2. Empowering Rural Communities for Sustainable Development – 5 yr. work programme formulated 	<ol style="list-style-type: none"> 1. Small Farmers and Farmers and Business Bank 	<ol style="list-style-type: none"> 1. Industrial Development Office 2. Public Service capacity building 3. Youth for the Future Initiative

Ministry of Natural Resources and the Environment, Commerce and Industry
August 29, 2003

ANNEX TWO

DRAFT

Terms of Reference for National Sustainable Development Council

The National Sustainable Development Council (NSDC) serves as the highest-level advisory body to the Government of Belize in issues related to sustainable development; “Sustainable Development is a process that pursues progressive change in the quality of human life and which targets humans as the central and primary target of development. It is achieved through economic growth with social equity and changes in production and consumption patterns, based on ecological equilibrium and the support of the region. This implies respect for regional, national and local ethnic and cultural diversity, and the enhanced and full participation of all citizens, living together in peace and harmony with nature, not jeopardizing but rather guaranteeing the quality of life of future generations.”⁷

The NSDC is chaired by the Ministry of Natural Resource and the Environment, Commerce and Industry and will report to the Cabinet. The Caucus of CEOs will coordinate the activities of the Council, with leadership representation from the ministries of Human Development, Economic Development and Finance and representation from the Private and Civil Sectors.

The membership of the NSDC will be taken from a broad cross section of Belize’s Social, Economic and Environment sectors.

The NSDC will meet at a minimum once per quarter, with other meetings called as necessary.

Responsibilities:

The NSDC must ensure the integration of sustainable development considerations into the national decision making process. It will:

Information exchange / Public Awareness:

1. Spearhead the development and encourage the implementation of a public education strategy and program on the concept of sustainable development and its national, regional and international considerations;

Development of Policies / Strategies:

2. Spearhead the development a National Policy on Sustainable Development;
3. Provide guidance and support to the preparation and implementation of other national policies, including the National Poverty Assessment Strategy and Action Plan and the Medium Term Economic Strategy;

⁷ Concept used by the Central American Alliance for Sustainable Development to define Sustainable Development

Coordination and Sustainability:

4. Establish and maintain an effective channel of communication with other advisory bodies, including linkages that draw from the existing framework(s) utilized at the local, regional and national,
5. Coordinate the programs established by the existing and emerging framework(s)
6. Assess the sustainability of programs and actions proposed in the framework of the Medium Term Economic Strategy and the National Policy on Sustainable Development;
7. Guide Belize's participation in regional and international conferences on sustainable development;

Monitoring / Evaluation:

8. Monitor developments nationally, regionally and internationally that could affect sustainable development in Belize;
9. Develop the mechanisms and evaluate the progress made towards achieving sustainable development. And,

Reporting:

10. Prepare annual reports on Belize's achievements resulting from the efforts made by the NSDC.

August 4, 2003

REFERENCES

Boles, R. *The Sibun River Watershed Atlas*. Sibun Watershed Association. GOB Printers, p. 4. 1999

CATHALAC, 2000. *Vision on Water, Life and the Environment for the 21st Century: Regional Consultation, Central America*. Panamá, March 2000.

CCAD, 1998. *Estado del Ambiente y Los Recursos Naturales en Centroamérica 1998*.

Coastal Zone Management Authority and Institute. *National Coastal Zone Management Strategy for Belize*. Belize City, Belize. February 2003.

Environmental and Social Technical Assistance Project (ESTAP). *Regional Development Plan for Southern Belize: A Plan for the Southern Region of Belize* developed in collaboration with Communities, the Government of Belize, and the Inter-American Development Bank. Belmopan, Belize. April 2000.

Government of Belize. *First National Communications to the Conference of the Parties of the United Nations Framework Convention on Climate Change*, Belize. January 2000. UNDP Project/98/G31?A/1/99.

Government of Belize. *Medium Term Economic Strategy 2003-2008*. Belmopan, Belize. July 2003.

Government of Belize. (draft) *National Capacity Self-Assessment Proposal to the GEF*. Belmopan, Belize. 2003

Government of Belize, National Human Development Advisory Committee. *National Poverty Elimination Strategy and Action Plan 1998-2003*. Belmopan, Belize. 1998.

GWP-CATAC, 2000. *Report: Regional Workshop on Water Legislation*. Antigua, Guatemala. Dec. 4-5, 2000

Hancock, F., Sanderslay, D. *Report on the Inmate Population of the Department of Corrections of Belize*. (unpublished report). 1999

IDB, UNDP, UICN, WRI, USAID and the Swedish Government.

Johnson, K., 1996. *National Report on Water Resources: Belize, Country Report*. In *Water Resources Assessment and Management Strategies in Latin America and the Caribbean*. Proceedings of the WMO/IDB Conference. San Jose Costa Rica, 6-11 May, 1996.

King, R. B., Pratt, J. H., Warner, M. P., and Zisman, S. (1993) *Agricultural Development Prospects in Belize*. NRI Bulletin 48. Chatham, United Kingdom: Natural Resources Institute.

King, R. B., Baillie, I. C., Abell, T. M. B., Dunsmore, J. R., Gray, D. A., Pratt, J. H., Versey, H. R., Wright, A. C. S., and Zisman, S. (1992) *Land Resource Assessment of Northern Belize*. Natural Resources Institute Bulletin 43. Chatham, United Kingdom: Natural Resources Institute.

White, W., Raney, J., Tremblay, T.A. and Crawford, M., Smith, S. (1996). *Deforestation in Belize 1989/92 – 1994/96*. Bureau of Economic Geology, the University of Texas at Austin, Centre for Space Research, the University of Texas at Austin and the Government of Belize. July 1996.

ACRONYMS

ACCC	Adaptation to Climate Change in the Caribbean
ACS	Association of Caribbean States
AOSIS	Alliance of Small Island Developing States
BELCOGEN	Bagasse burning facility in Orange Walk
BPOA	Barbados Programme of Action
CARD	Community Initiated Agricultural Resources Management Project
CCCCC	Caribbean Community Climate Change Centre
CEIS	Caribbean Energy Information System
CDM	Clean Development Mechanism
CDERA	Caribbean Disaster Emergency Response Agency
CPACC	Caribbean Planning for Adaptation to Climate Change
CREDP	Caribbean Renewable Energy Development Program
CSO	Central Statistical Office, Government of Belize
CZMAI	Coastal Zone Management Authority and Institute
DFC	Development Finance Corporation
ESTAP	Environmental and Social Technical Assistance Project
FPMP	Forest Management and Land Use Planning Project
GOB	Government of Belize
Hydro Maya	Hydro electric facility in Toledo
LMP	Land Management Program
MACC	Mainstreaming Adaptation to Climate Change
MBC	Meso American Biological Corridors Project

MBRS	Meso American Barrier Reef Systems Project
MNREI	Ministry of Natural Resources and the Environment, Commerce and Industry
NARMAP	Natural Resources and Management Project
PPP	Plan Puebla Panama Public Private Partnerships
PUC	Public Utilities Commission
SIDS	Small Island Developing States
SIF	Social Investment Fund
STEPS	Small Tourism Enterprise Program for Sustainability
TAFP	Tropical Action Forestry Program
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme
WSSD	World Summit on Sustainable Development