

# BELIZE CZMP FINAL EVALUATION REPORT

N:\GEF\LITA\BELIZE\BELEVA4.DOC

## TABLE OF CONTENTS:

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>1 INTRODUCTION .....</b>	<b>5</b>
1.1 PROJECT OVERVIEW.....	5
1.2 EVALUATION METHODOLOGY.....	6
<b>2 OVERVIEW OF PROJECT PERFORMANCE.....</b>	<b>7</b>
2.1 THE PROJECT STRATEGY FOR PROMOTING BIODIVERSITY PROTECTION IN COASTAL BELIZE .....	7
2.2 UPDATES AND OBSERVATIONS IN REFERENCE TO THE SEPTEMBER 1997 PROJECT PERFORMANCE EVALUATION .....	9
2.3 IMMEDIATE OBJECTIVE 1 .....	10
2.4 IMMEDIATE OBJECTIVE 2 .....	12
2.5 IMMEDIATE OBJECTIVE 3 .....	13
<b>3 A CAPACITY ASSESSMENT.....</b>	<b>16</b>
3.1 THE PHASE I PLANNING AND MANAGEMENT PROCESS .....	16
3.1.1 <i>Initial Identification and Analysis of Management Issues</i> .....	16
3.1.2 <i>Involvement of Stakeholders in the Management Process</i> .....	18
3.1.3 <i>Consensus on the Goals of the Project</i> .....	19
3.1.4 <i>Specific Planning and Policy Formulation for Areas and Topics</i> .....	19
3.1.5 <i>Documentation of Baseline Conditions, Monitoring Change</i> .....	20
3.1.6 <i>Research and Technical Analysis</i> .....	20
3.1.7 <i>Inconsistencies in the Management Framework</i> .....	22
3.1.8 <i>National Ownership of the Program</i> .....	23
3.1.9 <i>Evidence of Adaptive Management</i> .....	24
3.2 PROGRESS TOWARDS A SUSTAINABLE INSTITUTIONAL FRAMEWORK FOR COASTAL MANAGEMENT.....	24
3.2.1 <i>Institutional Strengthening</i> .....	24
3.2.2 <i>Progress in Mitigating the Impacts of Development and Ecosystem Quality and Biodiversity</i> .....	25
3.2.3 <i>Formal Governmental Commitments to CZM</i> .....	26
<b>4 SUMMARY OF MAJOR RECOMMENDATIONS.....</b>	<b>28</b>
4.1 FORMULATION OF A PHASE II GEF PROJECT.....	28
4.2 STRENGTHENING CZM POLICIES, PLANS AND IMPLEMENTING ARRANGEMENTS.....	28
4.3 GENERATION OF KNOWLEDGE IN SUPPORT OF MANAGEMENT .....	30
4.4 BUILDING CONSTITUENCIES FOR THE CZM PROGRAM.....	31
<b>5 SOME LESSONS LEARNED .....</b>	<b>33</b>
<b>APPENDICES .....</b>	<b>34</b>
APPENDIX A: TERMS OF REFERENCE.....	34
APPENDIX B: CONSULTATION ITINERARY .....	36
APPENDIX C: REPORTS AND PAPERS CONSULTED DURING THE EVALUATION .....	40

## EXECUTIVE SUMMARY

Coastal management in Belize has made major advances since an initial workshop in San Pedro in 1989 and the initiation of this GEF-sponsored project in 1993. According to the coastal management cycle described by GESAMP (1996), Belize had completed many of the essential actions called for by Steps (1) and (2) and the Belize Legislature has recently made an initial formal commitment to a national coastal management program. This legislation is an important first step in the process of formalizing governance policies, management procedures and financial commitments called for by Step (3). Experience in policy implementation has been gained in the marine reserves and through the implementation of environmental impact assessments and permitting programs administered independently by various ministries.

- (1) A primary output of the pilot GEF project is the Coastal Zone Management (CZM) Authority that was formally enacted in March 1998. This creates a Statutory Instrument that for the first time provides Belize with a permanent formal institutional structure for conserving coastal biodiversity and managing coastal issues through a multi-institutional Board of Directors, an Advisory Council and a CZM Institute based at the University College of Belize. The responsibilities of the Authority, however, are limited to coordination and advising the Minister of Agriculture and Fisheries, the principal ministry entrusted with coastal resource management and conservation. The coastal zone is defined in the legislation to encompass territorial marine waters below the mean high water mark. It therefore does not link the management of resources and activities on coastal waters with resources and activities on coastal lands. The project recognizes this shortcoming and it has worked closely with the Forestry and Land Departments of the Ministry of Natural Resources to ensure that strong links are maintained between land-based activities and coastal management efforts.
- (2) The new legislation provides the CZM program with core funding from a fee levied on catch and release sport fisheries, and potentially, other user fees yet to be determined. In addition, the government of Belize has allocated B\$100,000 for FY 1998 and has committed to a similar sum for FY 1999. These two sources provide for a portion of the estimated annual costs of administering the program.
- (3) In 1996, and with the support of this project, seven of the Marine Reserves were designated as a World Heritage Site and thus received international recognition for their importance and their status as reserves.
- (4) As a result of project activities, many ingredients for an integrated set of policies and plans for the coastal region have been prepared. However, only Marine Reserves and Coastal Protected Areas have been formally enacted. Most of these nine protected areas have formally adopted management plans but on-site management and compliance with the regulations is weak or absent in several of these sites. Proposed policies and recommendations on such topics as dredging and development in the Cayes have not proceeded beyond the Project's Steering Committee (now the Board of the CZM Authority) but have been informally applied as guidelines.

- (5) Among the planning tools developed by the project is a GIS system is now operational in the Project offices. It contains a detailed map of subtidal habitat types and incorporates baseline information on some elements of the region's biodiversity including coral reef surveys and a baseline of the manatee population.
- (6) Among its capacity building efforts, the project has supported four Belizeans who have now earned Bachelor of Science degrees, one a Master's degree, and one who is currently completing a Ph.D. Six others have received specialized training in coastal resource management conservation. All of these individuals have returned, or expected to return, to government posts.
- (7) There is great concern both within government and the private sector representatives contacted during this evaluation over the pressures that threaten the qualities of coastal ecosystems in Belize. There is strong consensus over the urgent need for an integrated, internally consistent and well-implemented governance processes.

On the basis of this evaluation of the GEF project as well as discussions with many of those most involved in coastal management in Belize, we recommend a Phase II GEF-supported Project with the following characteristics:

- A stronger emphasis on the participation of communities and stakeholders in all phases of issue analysis, planning, implementation and evaluation. We support the proposed strategy of initially focusing such a co-management approach on a demonstration project in the Caye Caulker vicinity.
- We recommend redefining the goal of the national CZM Plan that has been called for since 1989 as a National Policy for the Management of the Coastal Region that would subsequently be implemented through a sequence of area- and issue-specific policies, plans and actions. Formal enactment of such a Management Policy by the legislature should be a primary goal for a Phase II GEF Project. It should clearly differentiate between national policies and goals and the individual projects that can contribute to specific elements of that policy. A Phase II GEF Project should be seen as one contribution to the realization of the national goals and policies for the Belize coastal region.
- We recommend that during a Phase II GEF intervention baseline related information and monitoring activities are refocused on issues and specific sites where information on short-term change (one to five years) in the condition and use of the coastal region is most urgently needed to inform the management process and to conserve biodiversity. This more focused and targeted approach would facilitate the identification of success indicators, enable a more precise assessment of the most viable and effective measures for long-term conservation management, and promote the future replication of best practices based on measurable and quantifiable results and impact.
- We recommend periodic self-assessments in which all of those involved in the CZM program participate. These stakeholder assessments would be designed to encourage an incremental, learning-based approach to coastal management.

- We recommend periodic widely distributed state-of-the-coast reports that summarize information on trends, disseminate best practices and progress achieved, and examine the broad implications of selected issues being addressed by the program.
- We recommend that training and public education be strategically targeted upon specific audiences and specific messages rather than promoting public “awareness” for the coast and its biodiversity.

# 1 INTRODUCTION

## 1.1 Project Overview

Country:	Belize
Project Number and Title:	BZE/92/G31/A/1G/31
Duration:	Five years
Executing Agency:	Office of Project Services (OPS) of the United Nations Development Programme (UNDP)
Implementing Agency:	Ministry of Agriculture and Fisheries
Government of Belize Contribution:	BZ \$1.8 million (US \$0.9 million)
UNDP Contribution:	US \$3 million

This Project was designed in 1993 to promote the formulation and initial implementation of a coastal zone management program in Belize. This process began in 1987 when the Belize Fisheries Department created the Hol Chan Marine Reserve and subsequently assembled an international workshop at which the major features of a national CZM strategy was prepared. In 1993, one of the Project's original purposes was to develop the capabilities of the coastal zone management unit in the Fisheries Department. This was modified in 1995 following a Project Steering Committee decision that the Project's staff and equipment should move out of the Fisheries Department with the expectation that it would eventually become a Technical Institute associated with the University College of Belize.

The Project has addressed the conservation and development needs in the Belize coastal region. This is a complex system consisting of the largest barrier reef in the Atlantic, three offshore atolls, patch reefs, seagrass beds, several hundred cays of sand and mangroves, extensive mangrove forests, coastal lagoons, and estuaries. The coastal region supports two of the country's major industries—tourism and fisheries. Tourism has been the fastest growing sector and is resulting in a development boom in the Cayes. The development process is resulting in the expansion of resorts and residential developments and intensifying visitation of reef areas.

This five-year project has worked to protect the high ecosystem qualities and biodiversity of the coastal region through institutional strengthening, planning, applied research, and enhanced public awareness. The GEF budget of US \$3 million was expended as follows:

National Personnel	690,433
Consultants	451,673
Support/Mission Costs (UNOPS/UNDP)	182,389
Local Travel	84,465
Operating and Maintenance Cost	360,583
Equipment	462,980
Training (Fellowships and Workshops)	409,778
Sub-contracts (Facilities and Research)	357,699

## **1.2 Evaluation Methodology**

This final evaluation was conducted by Stephen Olsen, Director of the University of Rhode Island's Coastal Resources Center (CRC) and Magnus Ngoile of the Marine Sciences Institute of Tanzania and former Director of Marine and Coastal Programs of the International Union for the Conservation of Nature (IUCN). The team reviewed a large number of documents provided by UNDP before visiting Belize. In Belize, a series of interviews were arranged by Ms. Janet Gibson, the Project's National Coordinator. These interviews and a field trip were conducted from April 20-24, 1998.

A long sequence of performance evaluations have been completed on this Project as part of UNDP's standard monitoring and evaluation requirements, as well as externally commissioned reviews. This Final Evaluation is therefore primarily in the form of a Capacity Assessment. Section 2, however, briefly summarizes what the Project has accomplished in relation to its three primary objectives and the End-of-Project situation as these are set forth in the 1993 Project Document. The overview in Section 2 is offered as a summary and update on the accomplishments as they were listed in the Project Performance Evaluation Report prepared in September 1997.

While a Performance Evaluation assesses the degree to which specified Project Objectives were achieved, a Capacity Assessment focuses on the adequacy of management structures and the governance process as these relate to generally accepted international standards and experience. A similar approach has been utilized in the final evaluations of GEF-sponsored projects that feature a coastal management approach and biodiversity protection in Patagonia and Cuba. In a management Capacity Assessment the purposes are to find ways to improve project design and implementation and to make adjustments to the internal workings of a project or program and to the coastal management strategies and practices that the project is promoting. As such, this document offers recommendations that are based on an assessment of the governance process, the current institutional capacity and lessons learned in the course of implementing this GEF Project. The Terms of Reference for this final evaluation are provided in Appendix A.

## **2 OVERVIEW OF PROJECT PERFORMANCE**

### ***2.1 The Project Strategy for Promoting Biodiversity Protection in Coastal Belize***

The fundamental feature of GEF-financed projects is that they must generate global benefits—in this case in terms of biodiversity protection—that can be justified as “incremental” and over and above a “baseline” of national benefits. Activities that produce only national benefits are expected to be funded by other sources. A fundamental problem is that it is difficult to differentiate clearly between the “national baseline” and the “incremental global benefits” that GEF grants are designed to address. In this Project, this has led to confusion and misunderstandings over those aspects of coastal management initiatives in Belize that are considered a national responsibility and those aspects that can appropriately be funded by the GEF. The perception of the majority of those that we interviewed was that the Belize Coastal Management Program and this GEF Project are one in the same. The reality, however, is that while the GEF funding can support the strengthening of the national CZM program, the emphasis is on activities directly in support of biodiversity protection and the accrual of benefits that presumably have global implications.

The threats to the unusually high quality and rich biodiversity of the Belize coastal ecosystems were already clear in 1993 and have increased in the subsequent five years. Large areas of land in the Cayes are open to development. Belize City is growing rapidly and the pressures from shrimp mariculture and other activities on the mainland coast are increasing. The strategy of this GEF project has been to support a wide diversity of activities spanning policy review and formulation, applied research management, monitoring protected areas, and public education. The expectation has been that the combined impact of these activities would move forward the process of formulating a detailed CZM Action Plan for the coastal areas of Belize. This Action Plan would feature a zoning scheme “which provides for a mosaic of different uses within the coastal zone” (Project Document, p. 9). The consistent expectation has been that this comprehensive Plan would be formally enacted by legislation and that the initial phases of its implementation would be underway by the end of the project in 1998. According to the GESAMP coastal management cycle this would mean having begun Step 4 (Program Implementation).

The 1993 Project Document defined the Belize coastal zone to include the shoreline, the coastal alluvial plains and watersheds, the lagoons and estuaries, the Cayes and atolls and the subtidal area within both the 12-mile territorial limit and the 200-limit EEZ (Project Document, p. 2). Although the Project Document does not give any guidance on which of these areas would be considered for planning purposes and which would be actively managed through a regulatory program, it is clear in subsequent documents produced by the project that the assumption has always been that the coastal zone would encompass the Cayes and the atolls as well as tidal waters. The very limited jurisdiction of the newly enacted CZM Authority falls far short of this expectation. Despite this limitation, the Project has worked within the framework of the wider definition as implied by the Project Document.

The original Project Strategy identified the Ministry of Fisheries and Agriculture and its CZM unit as the project's "lead implementing agency." This fundamental feature of the Project Strategy was modified in 1996, when following a Steering Committee decision the GEF Project moved its operations from the Fisheries Department (a Department of the Ministry of Fisheries and Agriculture) into independent rented quarters. This move was deemed necessary due to lack of space and inadequate accommodation provided for sensitive equipment purchased by the project. It was also felt that this move would serve to promote the multisectoral aspect of the project. Nevertheless, the Ministry of Agriculture and Fisheries remained the lead agency and chairs the Steering Committee. A revised approach to an institutional structure for CZM in Belize is laid out in the proposed Project Document revisions drafted in 1996. The revised project Document envisioned a legislatively mandated CZM Authority as the "lead agency" with leadership and authority vested in a Board of Directors representing the diverse line ministries with jurisdiction over coastal resources, the private sector, and civil society. Rather than relying on the staff of the CZMU to coordinate and implement the program, the proposed Project Document revisions called for converting the GEF Project Office into a Technical Institute on the campus of the University College of Belize and affiliated with the University through a Memo of Understanding. The proposed revisions to the Project Document, however, were not formally approved.

The Expected End-of-Project Situation, as set forth in the 1993 Project Document (pp. 9-10), sets forth the following expectations:

- The CZM Action Plan will have been completed and approved and its implementation will have begun
- The necessary policies and legislative framework will be in place
- The CZMU will be staffed with trained personnel and have begun to coordinate all activities in the coastal zone
- A comprehensive revenue-generated strategy will be in place
- Environmental impact assessments will be systematically carried out for all large development projects
- New permit systems will have been introduced to regulate specific activities
- Monitoring programs will be fully functional and providing results to management personnel
- The network of marine and coastal protected areas will have been expanded
- A research station will be operational on Middle Caye
- A tertiary educational program will have been developed in coastal studies

The 1996 Project Document's revisions simplified the objectives and outputs but did not substantially alter the expectation for what would be accomplished by the end of the project in 1998.



The reality today in 1998—as is the case for GEF projects in Patagonia and Cuba—is that the program is at the initial stages of Step 3 (formalization of an institutional framework) and not in Step 4. The implementation of the Belize project has been hampered by the absence of an explicit conceptual framework.

Another Project Design-related drawback/setback is that the Project Design did not provide guidance on how the many activities should be sequenced. There is no recognition of the interdependencies between clusters of activities as for example in combining public education and public involvement strategies in the detailed analysis of management issues. The result has been that the program was unable to effectively make the necessary strategic progression from an assessment of all the many management issues, to a limited and well-focused agenda that balances institutional capacity with short and medium term actions. The result is that the gap between technical analysis and planning on the one hand, and effective implementation on the other, continues to be present.

The experience gained from the ongoing GEF-sponsored project for East Asian Seas (see for example, Chua, 1997) and other coastal management initiatives in developing countries strongly suggests that tangible progress at the early stages of a coastal management program is often most likely to occur when resources are focused on one or more pilot sites. A strategy focused on pilot projects can maximize the prospects for proceeding through a complete coastal management cycle (Steps 1 through 5) in a confined area within five years. The approach is overtly experimental and if properly executed provides a context for developing, testing and refining new management procedures and negotiating interinstitutional collaborative relationships. Once a working model of integrated resource management is in place and both private sector stakeholders and the relevant governmental institutions have participated in its creation, it should be easier to scale up and address similar issues at a larger scale.

In Belize, the planning and implementation of the Hol Chan marine protected area is frequently looked to as a powerful example of how the coastal management philosophy can be applied to a Marine Protected Area. It appears that this successful process has not always proved to be transferable to other marine reserves. Belize urgently needs to demonstrate how the coastal management approach can be successfully applied to an area of the Cayes where both conservation and development needs must be balanced within the context of an operational master plan. As noted elsewhere in this evaluation, master plans at various scales have been prepared but none of them have been formally adopted and they do not provide the unequivocal reference point that the ongoing development process so urgently requires.

## ***2.2 Updates and Observations in Reference to the September 1997 Project Performance Evaluation***

This project has been the subject of a sequence of detailed performance reviews and evaluations. The most recent was a Project Performance Evaluation dated September 1997 prepared for a Tripartite Review the following month, as part of UNDP's standard monitoring and evaluation procedures. We have reviewed Section III of that report and concur with the statements on the status of the project according to the outputs described in the 1993 Project Document. In this section we highlight the status as of

April 1998 and offer our observations on what has been accomplished as these relate to the lists of activities under each Output and the End-of-Project situation as these were set forth in the 1993 Project Document. This section does not repeat the detailed enumeration of outputs and activities contained in the September 1997 document.

### **2.3 Immediate Objective 1**

*To establish and strengthen national institutions responsible for ensuring the sustainable use and conservation of the coastal resources of Belize.*

#### **Output 1.1**

*Firmly established institutional arrangements for governing and coordinating activities in the coastal zone.*

##### *Status*

- The Coastal Zone Management Act was formally approved in March of 1998. This creates a CZM Authority composed of a Board of Directors, an Advisory Council and a CZM Institute.
- The new CZM Authority is a result of the efforts of this GEF project to strengthen the pre-existing CZM Technical Committee (created in 1992) and the policy level Project Steering Committee created for the Project.
- The Ministry of Agriculture and Fisheries has formally created seven Marine Reserves and the Ministry of Natural Resources has created two protected areas covering portions of the Cayes. Citizen Advisory Committees have been created for some reserves.
- In December 1996, seven of the marine reserves were designated as World Heritage Sites. This accomplishment is in large part due to the efforts of the GEF project.

*Observations.* The Coastal Zone Management Act creates an Authority charged to advise the Minister of Agriculture and Fisheries. The Board includes representatives of four ministries, NGOs, UCB, and private sector representatives. The coastal zone over which the authority has purview is limited to waters below the mean high water mark extending out to the limits of the territorial sea. Thus the Authority does not meet a fundamental principal of coastal management, i.e., to link in a single coherent management program activities within land areas directly influenced by the sea with areas of the sea directly influenced by the land.

A major expectation of the project was that a national CZM Action Plan featuring a zoning scheme for the entire coastal region would have been formally adopted and in the initial stages of implementation by the end of the project. This has not occurred. Many elements of a potential national CZM Plan have been drafted but with the exception of the designation of seven marine reserves and two parks, most of which have management plans in place, all other proposed policies and management plans have yet to gain formal approval.

A considerable degree of interministerial information sharing and collaboration has been achieved through the monthly meetings of the Technical Committee and in recent years through the meetings of the Project's Steering Committee. These two mechanisms for interministerial collaboration are transformed by the CZM Act into the Advisory Council and the Board of Directors of the CZM Authority. Despite the fact that the powers of the Authority are advisory in nature, a major step has been achieved by transforming the Steering Committee from a project-sponsored and transitory structure into a statutory instrument. This makes a coordinating mechanism for coastal management a permanent and formal feature of the Belize governance system.

### **Output 1.2**

*Policies, strategies, laws and regulations, guiding development of the coastal zone.*

*Status.* The policies and plans prepared during the Project are listed in Table 1.

*Observations.* As illustrated by Table 1, a very considerable effort has been made to prepare policies and plans on a number of important topics and areas of concern. However, with the exception of plans for designated marine protected areas none of these draft policies and plans has been formally approved by the relevant Minister and been forwarded to the cabinet for their endorsement. They are being used in an informal manner as guidelines by the institutions concerned. The Emergency Response Plan was not prepared because this activity has been assumed by the Department of Environment. The Project, however, contributed to the Plan. The preparation of Memoranda of Understanding and Legislative Amendments to correct gaps and overlaps in the current governance structure that are listed under this Output have not been prepared. This is a major undertaking requiring collaboration among several agencies, many of which are in the process of revising their respective enabling acts.

### **Output 1.3**

*Strategies for Financing the Sustainable Operation of the CZM Program*

*Status.* The present financing for the program includes a B\$100,000 allocation from the Government of Belize for the current fiscal year and another B\$100,000 has been recommended for the next fiscal year. The CZM Act will provide some core funds to the Authority from a user fee that will be levied on catch and release sport fishermen. Other user fees may be proposed by the authority and applied with the approval of the Minister.

*Observations.* According to the estimates of the financial costs of the program calculated by Dr. Theodore Panayotou in 1996, the two current sources of funds will provide a portion of the annual costs of implementing the program. The revenues generated will depend upon the fee schedule and how it is administered.

### **Output 1.4**

*Twelve Belizeans trained and working in aspects of integrated coastal zone management*

*Status.* This output has been successfully realized with the training of 12 Belizeans all of whom have now returned to government service with the exception of the former Head of Fisheries who is still in the process of completing a Ph.D. Four Belizeans have

received Bachelor of Science degrees; one a Master's degree and six have received short-term training. The Project supported training workshops for teachers throughout the country, and a training workshop for government and local officials in wastewater treatment for coastal areas.

*Observations.* The study tours suggested as an activity in the Project Document have not been conducted and could have been very beneficial. It would have been useful to provide more group-training programs for those involved in CZM activities at both the community level and within government.

### **Output 1.5**

*A coastal studies program to train teachers at the tertiary level in marine environmental education.*

*Status.* As described in the 1997 evaluation, the Project has worked closely with two NGOs, Belize Audubon and Coral Cayes Conservation, and the University College of Belize in environmental education. It has also supported the publication of a manual for teachers. The manual, which addresses a broad range of environmental issues affecting terrestrial and marine topics and was introduced through a series of workshops held in all districts. A teacher's guide on coral reefs was prepared by the Coral Keys Foundation. A marine facility to serve as an education center for teacher workshops and student summer camps (Activity 1.5.4) has not been created. However, the Marine Research Center of the University College of Belize has established a marine base on Clalbash Caye which serves as a training center for teachers and summer camps. The Project has covered the salary for the Director of this Center and assisted in some of the workshops, such as one on mangrove ecology for teachers.

## **2.4 Immediate Objective 2**

*To update and improve the information base related to coastal resources which can be used for informed decision-making.*

### **Output 2.1**

*A preliminary zoning scheme for coastal areas.*

*Status.* A zoning scheme for the coastal region has not been prepared. The management plans for marine protected areas, however, all contain a use-zoning scheme and some of the plans prepared for individual cayes include proposed development and conservation zones. Some of the information required for an overarching zoning system is contained in the GIS habitat map.

*Observations.* The habitats map can only be considered one of the principal sources of information for a future zoning scheme for the coastal region. This must be complimented by information on current patterns of use, an analysis of the social and economic implications of zoning and a strong participatory program to delineate the zones and set the manner in which they will be managed. It must also be noted that restricting the Authority to water areas pre-empts its jurisdiction over the Cayes and the mainland coast. This is a very major limitation and one that must be surmounted if and when a zoning scheme for the coastal region is developed and formalized through future legislation. It should be noted, however, that the Project has worked with the Lands

Department to develop zoning schemes for coastal special development areas, and also with the Housing and Planning Departments on development guidelines for several of the Cayes. In both cases, the affected stakeholders contributed to the draft plans.

### **Output 2.2**

*Mechanisms for monitoring trends in changes in coral reefs and water quality.*

*Status.* As noted in the September 1997 evaluation, monitoring activities have encountered a series of difficulties and delays. Monitoring activities currently include routine water quality sampling. Baseline information has been gathered on manatees, crocodiles and some reef areas. The mooring buoy system that was included as an activity under this Output has also suffered setbacks due to a shortage of manpower and problems with equipment. Nonetheless, some buoys have been installed in marine reserves.

### **Output 2.3**

*Short, medium and long-term research projects integrated into a process of informed decision-making.*

*Status.* The major research projects are enumerated in Section 3.

*Observations.* The activities listed under this output in the Project Paper refer only to research directly related to species and habitats. This is unfortunate since the major factors limiting the effective protection and management of biodiversity are institutional and financial.

A study was conducted to document the effect of reserves on the abundance of fish and shellfish species of commercial value. Unfortunately the reserve area selected was not managed during the period of the study and the results are therefore inconclusive. The researcher contracted, the Wildlife Conservation Society, intends to continue supporting this study and it is hoped that meaningful results will be generated in the future once the full management of the reserve is in place.

### **Output 2.4**

*Basic physical infrastructure for efficient monitoring and research.*

*Status.* As noted in the September 1997 report, most equipment called for by the Project Document has been purchased.

*Observations.* The physical infrastructure for the CZM Program was originally foreseen as serving the CZM unit in the Department of Fisheries. The CZM legislation of 1998 calls for creation of a CZM Institute located at the University College of Belize. The Memorandum of Understanding has been signed, land has been allocated and bids for a building have been received. The bids, however, are substantially higher than the amount allocated for this purpose. Further progress has therefore been delayed.

## **2.5 Immediate Objective 3**

*To develop a strong commitment, amongst all sectors, to maintaining the environmentally sound development of coastal resources through sustainable management.*

### **Output 3.1**

*Forum for period public reviews during the planning and implementation process.*

*Status.* The Project has sponsored, directly or in collaboration with other institutions such as Belize Audubon, a wide variety of public education activities. In addition, committees have been organized to assist in the preparation of the plans for marine reserves and plans for areas of the Cayes.

### **Output 3.2**

*Meetings, presentations and reports to ensure that decision-makers in central and local government have a clear understanding of coastal management issues.*

*Status.* Much has been achieved in terms of information exchange and discussion through the Technical Committee and the Steering Committee. The Technical Committee was created before the GEF Project in 1992 and its subcommittees have generated the great majority of the proposed policies produced during the last five years. A large number of reports and papers have been generated but only some of these, for example the 1996 Coastal Profile, have received distribution outside the immediate circle of government functionaries involved. A concise video as called for Activity 3.3.2 has not been prepared. However, the Project did co-sponsor the completion of a video documentary entitled "The Sea of Belize" which has been widely shown and been highly praised. This video was produced by Great Belize Productions, a Belizean company, in partnership with UNESCO.

*Observations.* In the last year, the Chairman of the Technical Committee has begun preparing letters on the behalf of the Committee as a whole recommending or requesting specific actions or guidance of Department Heads and Permanent Secretaries. Despite the progress and considerable efforts outlined above, both horizontal and vertical communication continues to be a challenge. Lines of communication between the Technical Committee and the Steering Committee are not clear and frustration is expressed by many members of the Technical Committee interviewed for this evaluation.

Horizontal communication between central government and local government in the Cayes is also weak and this too is a source of frustration for some village councils and NGOs in the Cayes.

Despite these difficulties there appears to be a strong common understanding of the major coastal management issues. The difficulty lies in gaining agreement on how these issues should be addressed.

### **Output 3.3**

*An environmental education program, developed in collaboration with environmental NGOs, introduced into primary and secondary schools to form part of the established curriculum.*

*Status.* The Project has not succeeded in integrating its environmental education materials as part of the established primary or secondary school curriculum. The manual produced for teachers was endorsed by the Chief Education Officer but its use relies on the initiative and interest of individual teachers (see Output 1.5).

## 3 A CAPACITY ASSESSMENT

### 3.1 *The Phase I Planning and Management Process*

#### 3.1.1 Initial Identification and Analysis of Management Issues

The beginnings of coastal management in Belize can be traced back at least to the creation of the Hol Chan Reserve in 1987. This was a local initiative that resulted in the formal creation of a marine reserve managed by the Department of Fisheries. In 1989, the Belize Coastal Zone Management Workshop was convened in San Pedro and to review the issues and make an initial set of recommendations for a national coastal zone management initiative. This workshop produced a series of recommendations that have been maintained as the central features of coastal management in Belize ever since. The San Pedro workshop called for:

- An interministerial policy-making committee, led by the Ministry of Fisheries and Agriculture
- An Advisory Committee composed of representatives of ministries, NGOs and educational institutions
- A Coastal Zone Management Plan (foreseen at the time as being completed in 1992) that would feature a zoning scheme, a permit program, and a fees and licensing structure
- A research and technical support entity associated with the University of Belize
- A strong public awareness program
- Coordination with a diversity of NGOs
- Incorporation of a network of marine reserves

Two years later, in 1991, Janet Gibson and others who had played important roles in the San Pedro Workshop prepared a chapter on coastal management in Belize for the book, *Central America's Coast* (Foer and Olsen 1992). That document reports that a Coastal Zone Management Unit (CZMU) had been established in 1990 within the Fisheries Department and that a CZM Technical Committee that drew together representatives of departments in the relevant ministries had been established a year later in 1991. At that time, the creation of a policy-making Interministerial Committee was viewed as the top priority for consolidating a cross-sectoral institutional framework for coastal management. Meanwhile the CZMU had embarked upon a planning process that emphasized the gathering of physical and biological information, and the preparation of a GIS system that together would be the basis for the CZM Action Plan that would guide future development decisions, and the creation of further protected areas. At that time, the strategy envisioned the CZMU evolving into a statutory body which would be granted the authority to implement the Action Plan.

The GEF project was signed in March 1993. The 1993 Project Document identified two major issues:



(1) *Mounting pressures on the condition and biodiversity of the barrier reef complex brought by:*

- Clearance of mangroves
- Rapid expansion of tourism expressed as hotels and visitors
- Accelerating population growth (6.9% annually in 1991)
- Declines in traditional fisheries from over-fishing

The reasons given for these declines were development projects that occur without guidelines or a comprehensive plan. Concessions were being granted without a "set process."

(2) *Lack of a strong legal and institutional framework for coordinated CZM.* The Project Document found:

- The Hol Chan Marine Reserve is a "very successful model"
- "The CZMU needs to be formally designated as the central coordinating body for all activities which have a potential impact on the country's coastal resources"
- Overlaps in existing legislation
- New legislation and regulations are needed to address the risks of oil spills and industrial development
- Lack of enforcement and regulations
- Absence of a revenue-generating strategy for CZM
- Ecosystem processes and biodiversity are poorly understood or documented
- Insufficient water quality monitoring
- Inadequate public awareness and environmental education programs

The *State-of-the-Coastal Zone Report* completed in June 1996 is a 250-page compilation of information on the topics raised by the Project Document. It is organized in the form of an "inventory and recommendations" that provides a factual summary on each topic followed by a list of generic recommendations. The major categories of topics are:

- The institutional context
- The condition of the coastal environment
- Coastal activities
- A coastal management agenda.

The last of these topics includes an ICM "strategy." The report, however, is not strategic and features lists of recommended actions that are not integrated into an operational strategy with a time line or a budget. For example, the chapter on national policies recommends "adopt or maintain existing policies and guidelines relative to CZM and identify mechanisms for their initial or improved implementation." Five categories of policy are then identified but nothing is said about how they should be developed, in what order and specifically what "implementation mechanisms" are required. The final chapter suggests that adopting a Special Area Management Strategy might be an effective way to develop experience in implementation while addressing urgent problems. The suggestion is left, however, as one of many recommendations. The major limitation of the State-of-the-Coast Report is that it did not become the basis for a

process of scoping down to a limited agenda that would spearhead progress towards effective coastal management.

### 3.1.2 Involvement of Stakeholders in the Management Process

There are at least four major categories of stakeholders with interests in biodiversity protection and coastal management in Belize:

- Government officials in the Ministries and Departments with responsibilities for development and conservation in coastal waters and the Cayes
- Communities in the Cayes and along the coast that depend primarily on the condition and use of coastal ecosystems for their livelihoods
- Organized private sector user groups such as fishermen's organizations, tour guide organizations, hoteliers organizations
- Non-governmental organizations (NGOs) with a mission to conserve the biodiversity and qualities of a coastal region such as Belize Audubon, Coral Cayes Conservation and such community-based organizations as the Siwa Ban Foundation in Caye Caulker

The past and current practice of "stakeholder participation" is very largely devoted to initiatives and undertaken and negotiated among the first group—government departments. The majority of the plans and proposed policies that have been prepared during the GEF project are the product of working groups assembled primarily from the membership of the Technical Committee. The Technical Committee is comprised primarily of governmental officials but does include some non-governmental members.

Stakeholder participation in a coastal management program can be segregated into four levels:

- (1) Providing information
- (2) Consultation
- (3) Collaboration
- (4) Support to independent initiatives

Collaboration occurs when government officials share power with others participating in the process and important decisions are made only when there is consensus among the collaborators on a course of action. A collaborative approach can be termed "co-management" and it is a strategy that has gained considerable recognition in Belize. For example, the Ministry of Tourism and Natural Resources has negotiated agreements with such NGOs as Belize Audubon that provides them with the authority to manage such reserves as Half Moon Caye. It appears that the process of designating the boundaries of the Hol Chan Marine Reserve and the formulation of its Management Plan, as led by the Fisheries Department, is another example of a successful collaborative process between government, interested NGOs, tourism associations, and the affected fishermen. It was our impression, however, that collaborative participation

has faltered when management plans have been prepared for some of the other marine reserves and areas of the Cayes open to development.

Problems in the governance process in the Cayes is also reflected in the high incidence of noncompliance with existing regulations. In some cases, as for example in the construction of residential docks, there is confusion over whether local authorities can approve construction, but in other cases—such as platting small house lots in the designated buffer zone of a mangrove reserve on Ambergis Caye—and in the large incidence of illegal dredging, those involved ignore the law. The high degree of noncompliance was recognized in the 1993 Project Document and is openly acknowledged by those with whom we met. A more participatory approach to the formulation and implementation of management strategies, where possible as an expression of co-management, could be important in overcoming this problem.

### 3.1.3 Consensus on the Goals of the Project

The promise of coastal management as a means for balancing between the dual needs for biodiversity conservation and development in the coastal region was universally recognized by all those that we interviewed. The 1993 Project Document, however, does not differentiate between the broad scope of a national coastal management program and the much more limited objectives and strategies of a GEF project. Since the CZM Act adopted in 1998 has now created a formally constituted CZM-sponsored program, it will be important to differentiate between this national initiative and the contributions to its efforts that a future GEF project may make.

### 3.1.4 Specific Planning and Policy Formulation for Areas and Topics

Table 1 lists the major policies and plans that have been generated during the Project. Nearly all of these are the product of working groups assembled by the Technical Committee. The technical quality of these documents is good and this is a reflection of the generally high caliber of government officials. The problems appear to lie in the process by which such documents are formulated as these relate to their subsequent endorsement by the responsible Ministers and Cabinet and by compliance of those most directly impacted by their implementation. It is unfortunate that none of the policies developed by the Technical Committee have been formally adopted. The master plan for San Pedro, for example, is still not approved despite several revisions to the draft that was initially presented 11 years ago. The Marine and Mangrove Reserve for Caye Caulker was formally approved this year, nine years after the proposal was first put forward. Similarly, legislation to formally create a coastal management program has been a primary goal since the San Pedro Workshop in 1989, but was formally enacted in March of this year ten years later.

Frustration with the current planning regulatory process in the Cayes was expressed by many of those we interviewed. The members of the Caye Caulker Village Council (interviewed on April 22), although pleased by the detailed mapping of property lines and structures that had been conducted by the Project's Planner, felt disenfranchised from any meaningful planning process. Village Councils are not recognized by the Belize Constitution and a new Village Council Act is apparently stalled in the legislature. The complexity of the management challenge on Caye Caulker is apparently not atypical. The southern portion of the island, where much of the development is concentrated, is

administered as a part of Belize City and falls outside the jurisdiction of the Village Council. It is apparently inevitable that the construction of houses will continue on the northern portion of the island beyond the inlet that cuts this caye in two. The northern tip of this area has been incorporated into a newly created marine and mangrove preserve but a large stretch of currently undisturbed mangroves and high ground that is currently undeveloped is likely to be developed for residential use. This process has already begun and the clearing of mangroves is very evident from the water. A collaborative planning process on Caye Caulker would be welcome by those that we interviewed. Their concern is that if a planning and management process does get underway, it will take place in Belize City and the participation of the locals will be limited to giving and receiving opinions and information.

### 3.1.5 Documentation of Baseline Conditions, Monitoring Change

The GEF Project has made a major effort to prepare a detailed map of the subtidal habitats in the Cayes region. This is the core of the GIS system that is now housed in the project's offices. The system includes information on uses (such as dive sites, fisheries, marine protected areas) and information from the survey of manatees and the distribution of crocodiles is being entered into the system. Information from an aerial survey of mangroves will be added, but transferring this information has not yet begun.

Considerable research is conducted on the reefs by a great diversity of foreign individual investigators and organizations. All of these obtain a permit from the Fisheries Department and provide the Department with copies of their data. The project's strategy for baselines and monitoring, however, is designed to provide a basis for large-scale ecosystem change that is only likely to become apparent over periods of many years. The system has not been designed to provide the more immediate information that could be particularly useful in informing near-term management decisions. The GEF Project staff includes a full-time chemical oceanographer, Mr. Ariola, who monitors water quality at stations distributed along the coast. The choice of sampling sites for the water quality monitoring program combines areas of concern with control sites. Since the pace of development on some of the Cayes is rapid, it would also be useful to more strategically target a baseline and monitoring program on such specific issues as solid waste disposal, sewage disposal, and the impacts of high frequency touristic activity in selected high impact and control areas. This approach was taken in the design of a study funded by the Project that hoped to document the impact of areas closed to fishing on the abundance of species of commercial interest. Unfortunately, the reserve selected for this study was not enforced and the results of the sampling are therefore inconclusive (see the 1997 Project Performance Evaluation).

### 3.1.6 Research and Technical Analysis

A complete list of the reports produced by or supported by this GEF Project was not available at the time of the evaluation. The major documents produced, however, included the following:

- A baseline study on the size and distribution of the manatee population
- A baseline study on the size and distribution of the crocodile population
- A paper "Institutional Arrangements for Coastal Zone management in Belize"

- A paper “Coastal Zone Management, Institutional Development and Financing Mechanisms”
- A paper “A Review of the Environmental Impacts of Aquaculture in Belize and Guidelines for Sustainable Development”

The papers on institutional arrangements and financing mechanisms were reviewed in detail for this evaluation. In November 1995, before the release of the State-of-the-Coast Report, international consultants were retained by the Project to prepare a detailed analysis and recommendations on these two topics. The report on institutional arrangements by Professor David Freestone reviewed the current legislative and institutional arrangements and then suggested various alternatives for more effective coastal governance.

This report examines alternative structures drawn from nations operating within the traditions of British governmental structures. In considering options for the structure and authority, the author outlines several principles including:

- It should actually possess *authority*—the power to authorize
- The new structure should provide an *added value* by providing advantages not previously available.
- The new system should *avoid replication* of existing expertise.
- The system must be *sustainable*, financially and institutionally

Based on discussions with a wide range of governmental officials, the author rejected options that called for creating a new entity that would require the formal transfer of responsibility of existing ministries and options that would require a new entity to ratify specified decisions or review and comment on some decisions. The favored option, termed a “pure policy-making body,” would provide a new Authority with responsibility for developing policy and mediating jurisdictional disputes among ministries. The Authority would report directly to Cabinet. Execution would continue to be the exclusive responsibility of the “line ministries.” The Authority would be composed of two bodies, the Governing Board (essentially the existing project Steering Committee) and the Technical Committee. The major differences in this arrangement from the existing situation under the GEF project were (1) that both bodies would include representatives of the private sector and NGOs, and (2) that the Authority would not report to a specific ministry but directly to Cabinet through the Prime Minister’s office. The report ends by endorsing the concept of an Institute of Coastal Studies affiliated with the University of Belize that would absorb the staff created by the GEF project.

The evaluation was pleased to note that the institutional framework suggested by the Freestone Report is very close to the structure of the CZM Authority that was enacted in early 1998. The major difference is that the Authority reports to the Minister of Fisheries and Agriculture rather than to the Cabinet. The CZM Authority does include representatives from the private sector and NGO communities. The Freestone Report did not recommend a definition of coastal zone but observes that “typically [CZM Authority’s] responsibility would be all, or most, or a range of aspects of relevant land and sea use as well as coastal resource exploitation” (p. 13). It is clear that the expectation was that the policy-making powers of the Authority would extend over the Cayes and the atolls and not be limited to areas below the mean high water mark. The new Authority does not conform to the principles outlined above. The legislation does not provide a guiding set of policies that a planning and management process should

follow. The functions of the Authority are limited to advising the Minister, cooperating and coordinating with the governmental bodies responsible for coastal resources, reviewing the CZM Plan, and appointing committees and responsibility for the administration of the Technical Institute.

The second report, on Institutional Development and Financing Mechanisms, was prepared by Theodore Panayotou, Jennifer Clifford and Robert Faris. This report provides a careful analysis of the major coastal management issues and their long-term financial implications. The report examines a diversity of funding options and then makes recommendations that feature a fee system for diving and sport fishing. This report begins by stating as a principle that:

Only Belize can be responsible for managing and protecting this resource. Nevertheless, Belize cannot and should not expect to conserve this international treasure without the financial and technical assistance of the world community.

The report identifies four potential categories of funding for a CZM program:

- *General revenue* from the Government of Belize
- *External sources* in the form of official development aid and from NGOs and private foundations
- *Beneficiaries pay* which requires that those who benefit from a healthy coastal zone can contribute to coastal management
- *Polluters pay* which was seen as the most promising long-term solution to environmental problems.

The authors calculated that a diving and sport fishing permit system could generate between BZ\$1 million to BZ\$2 million annually. In addition, the authors recommend immediate implementation under the “polluters pays” category of (1) a product charge on pesticides administered through an import duty, and (2) an environmental royalty imposed on marine dredging activities.

The 1998 legislation authorizes (Section 28) the CZM Authority to levy a fee on catch and release sportfisheries. We gather from our interviews that the opinion was that imposition of a dive fee would have a chilling effect on tourism. The legislation (Section 27) enables additional fees to be charged if such fees are approved by the Minister.

### 3.1.7 Inconsistencies in the Management Framework

The 1993 Project Document and several subsequent reports note a number of inconsistencies in the management policies and procedures implemented by different governmental agencies in the coastal region. For example, the environmental impact assessments that are overseen by the Office of Petroleum and Minerals and are applied to dredging projects have different requirements from those required for activities subject to the Ministry of Natural Resources and the Ministry of Agriculture and Fisheries.

Another example is the different approaches of the Ministry of Natural Resources and the Ministry of Agriculture and Fisheries when they create a Reserve. The Fisheries Department's procedure calls for the preparation of a Management Plan before a Reserve is formally designated. These plans typically designate different use zones. The Ministry of Natural Resources in contrast, may prepare a Management Plan, but only after an area has been formally designated. Its plans do not provide for use zones. Another difference lies in how Reserves are administered under the two systems. The Fisheries Department retains its own ordinance and administers areas under its control directly. The Ministry of Natural Resources, on the other hand, favors delegation of administrative responsibility to an NGO—for example, Belize Audubon.

These differences in operating procedures should not be a major impediment to good management and the negotiation of a common approach should be a priority for the CZM Authority. There is, for example, a major opportunity to develop a collaborative approach when the Management Plan for the newly created Caye Caulker Reserve is prepared. This is the second Reserve to have been created through the joint action of the Ministry of Agriculture and Fisheries and the Ministry of Natural Resources.

The most significant problems in the existing management framework appear to be (1) controls over dredging and (2) a consistent and effective process for managing residential and resort development on the Cayes. Illegal or inappropriate dredging was raised as a concern in many of the interviews and was the impetus for the drafting of the Marine Dredging Policy. It would be useful to consider designating areas of the coastal region as “no dredge zones.” In such areas, a permit could be obtained only through a Special Exception, as for example, in an emergency situation following a hurricane. In other areas, dredging would continue to require a permit but would have to follow stringent performance standards.

The challenge of developing a management process for development on the Cayes is a far greater challenge. Some areas of the Cayes are designated as extensions of Belize City (e.g., St. Georges Caye and portions of Caye Caulker). Others have Village Councils while San Pedro has a Mayor and Planning Committee. The procedure for negotiating, formally adopting and implementing a master plan for these different areas is complex. Another priority for the newly created CZM Authority is to clarify how this process should unfold and then attempt to implement such a process through demonstration projects.

### 3.1.8 National Ownership of the Program

The GEF operational strategy states (page 14):

Sustainable achievements of global biodiversity benefits will greatly depend upon the extent to which GEF activities are country-driven.

The ownership of this GEF project decision-making authority over certain aspects of project management, have at times been a major issue. This was precipitated first by a major misunderstanding over the authorities and prerogatives of the Project Director and the Project's Chief Technical Advisor (CTA). The Project Director was named in 1993 as the Fisheries Administrator but the Terms of Reference for the CTA gave him authority over the resources of the project and the day-to-day management of all project activities. This follows the usual pattern in UNOPS-executed projects. In the second year of the

project, pursuant to a decision of the Steering Committee meeting, the Project's staff and equipment were moved from its quarters in the Fisheries Department building to a rented house which offered better facilities for both the Project's staff and the storing of sensitive equipment. This action caused considerable tensions that are still strong today among some officials in the Fisheries Department. These tensions have subsided but it will be important in a Phase II GEF project to structure the program so that issues related to decision-making authority and individual Terms of Reference are understood and agreed upon before implementation.

### 3.1.9 Evidence of Adaptive Management

The manner in which the project has been administered demonstrates considerable evidence at attempts to learn from experience and to adjust the design of the project and priorities among activities in light of experience and changing circumstances. Such learning and adaptation, however, has been internal to the project and does not appear to have involved such stakeholders outside the project as collaborating government institutions or the NGOs and communities that will feel the major impacts of improved management. The major expression of adaptive project management were the proposed revisions to the Project Document that were prepared in 1996. These called for rearranging Project Objectives and Activities into a more logical framework, linking the budget allocations to specific Outputs and Activities and sequencing Project Activities around a timeline. These revisions were a major undertaking that required a considerable effort. The revisions were approved in principle by the Steering Committee but were tabled until the results of an external evaluation were completed and accepted. This took the better parts of a year. In the end, the Project Document was not formally amended. This adds to the sense of frustration that can be felt across the project since so many other initiatives—such as the policies and plans, which that in Table 1—have failed to gain formal endorsements. As is the case with using policy recommendations prepared by the Technical Committee as informal guidelines, the proposed revisions to the Project were reflected in the 1997 Work Plan.

## **3.2 Progress Towards A Sustainable Institutional Framework for Coastal Management**

### 3.2.1 Institutional Strengthening

The institutional strengthening strategies of the Project have shifted considerably during its implementation. When the Project's staff and equipment was moved out of the Fisheries Department into separate facilities in a rented house, many of those involved saw this as a major shift away from that Department's dominant role in coastal management, other line Ministry representatives considered the move as a practical solution and an opportunity to ensure wider participation in the Project. The Project, however, has continued to work closely with the Fisheries Department. The CZMU, however, according to conversations with the officials most directly involved, has not been strengthened by the Project. There does, however, appear to be a free flow of information between the Fisheries Department and the Project and staff collaborate on a wide range of activities including, for example, the weekly water quality sampling. The two boats purchased by the Project are operated by, and shared with, the Fisheries



Department. Janet Gibson serves as the Secretary of the Technical Committee that meets monthly and is chaired by the Fisheries Administrator.

The major accomplishment of the Project in terms of institutional strengthening is the sustained work of the Technical Committee and the increased stature of the Project's Steering Committee. These bodies now form the core of the CZM Authority. The Plans and Policies listed in Table 1 have been generated primarily by the Technical Committee and the funds that have supported collaborating consultants, field work, equipment purchases, etc. have been provided by the Project. There is little evidence of institutional strengthening in such collaborating governmental units as the Land Survey and the Water Quality Laboratory of the Health Department. The Project has elected to place its staff, equipment and expertise in its project offices and to network with such existing units rather than investing its resources in pre-existing governmental offices. The project has, however, made major investments in training (see Section 2.3) that has benefited a number of the governmental departments involved.

Within the NGO community, the Project appears to have strengthened Belize Audubon by subcontracting its initial public education activities to them. It also provided funds for infrastructure, salaries and equipment for the Half Moon Caye natural monument which is managed by the Society. Some support has also flowed to the Siwa Ban Foundation on Caye Caulker.

### 3.2.2 Progress in Mitigating the Impacts of Development and Ecosystem Quality and Biodiversity

Notable progress has been made in Belize to protect ecosystem quality and biodiversity through the creation of reserves. There are now nine reserves in the coastal region and seven of these, due largely to the efforts of the GEF Project, have been designated as World Heritage Sites. Some of these reserves are effectively managed but others suffer from insufficient personnel, reserve boundaries are not clearly marked and conformance with management plans is less than optimal. Nonetheless, the existence of these reserves is significant. It is notable that the members of the National Fisheries Association interviewed on April 24 were unanimous in the opinion that the areas closed to fishing have had beneficial effects on the stocks of commercially important species. The challenge is to integrate the reserves into an overarching CZM framework that can direct the development process in the Cayes region. If this does not occur, the long-term benefits of the reserves will be severely compromised.

Many of the policies and plans formulated to shape development in the Cayes listed in Table 1 are being used as "guidelines" and this is providing important insights into the challenges of regulating the pressures that threaten the biodiversity of the coastal region and the quality of its ecosystems. The ongoing development process in such places as St. Georges Caye, Caye Caulker and San Pedro, all speak to mounting pressures to develop these low-lying and fragile areas. Large, currently undeveloped areas in the Cayes are open to development and that the value of houses and property is comparable to that of shorefront property in other top tourism destinations around the world. Property for sale in the Cayes is being advertised on the Worldwide Web. A development plan for Turniff Atoll demonstrated that this island—with a land area similar in size to Bermuda—could be developed into a number of resorts and residential communities. The majority of Ambergris Cayes is currently involved in a legal dispute between the North Ambergris Cayes Development Corporation, an organization

controlled by the Government of Belize, and a private development company. Here, too, there appears to be a real potential for intense development of a much larger area.

The success to date of the existing guidelines and CZM initiatives in directing and shaping this tourism development process appears to be very limited. Nevertheless, they have been significant in terms of providing guidance for EIAs and environmental clearance for coastal developments, for issuing leases, and for controlling subdivisions. It is therefore to be expected that the pressures on biodiversity and on the quality of the reserves is likely to increase steadily in coming years. The need for an overarching management framework with the authority and ability to direct the development process therefore is more urgently needed today than it was when the project began in 1993. The most significant potential check to this process is a major hurricane which would destroy or severely damage many of the structures on the Cayes and could potentially bring about a reassessment of the wisdom of investing in the current form of development of the Cayes.

It was freely acknowledged by both government officials and those familiar with the development process in the Cayes that the enforcement of the adopted governmental permit procedures, zones and compliance monitoring is often weak. We were told of several examples of development without permits (e.g., Franks Caye), of dredging without a permit or construction of piers without permits. This large body of experience in the difficulties of implementing “top down” policies and regulations should be the basis of a careful reassessment of the process by which policies and plans are developed and the strategies by which they are implemented.

### 3.2.3 Formal Governmental Commitments to CZM

Legislated governmental commitments to coastal management can be expressed in a variety of ways.

- (1) Legislation can provide a mandate for interministerial collaboration and planning; such legislation typically calls for the formulation of a coastal management plan within a set time period.
- (2) Legislation can formally enunciate the government’s policies on how coastal resources and coastal areas shall be conserved and developed and stipulate the decision-making process by which such policies shall be achieved.
- (3) The funding of specified elements of a coastal management program—or a “core” of implementing funds—are made an element of the recurring national budget.

Passage of the CZM Act in March of 1998 constitutes an expression of the first level of governmental commitment. The CZM Authority that has been created has a mandate to coordinate among the different Ministries in order to prepare a CZM Plan. The Authority, however, is advisory in nature and there are no explicit statements of governmental policy that can provide guidance to either the process. The government has twice provided BZ\$100,000 of financial support to the Authority. Such core funding is not, however, an element of the recurring national budget. The provision of the user fee on catch and release sport fisheries can be considered a long-term financial commitment

since such fees could have flowed into the national treasure or have been earmarked for some other purpose. The magnitude of this funding, however, is likely to fluctuate from year to year and it is likely to cover only a small portion of the annual operating costs of a national coastal management program.

## **4 SUMMARY OF MAJOR RECOMMENDATIONS**

### **4.1 Formulation of a Phase II GEF Project**

It is important that the many stakeholders concerned in the advance of CZM in Belize be granted the opportunity to reflect on the accomplishments and lessons learned from Phase I and to participate in shaping a Phase II effort. These stakeholders are both within and without government. It could be instructive to have discussions that draw together both governmental, NGO and private sector interests. We believe it would be useful to arrange for public workshops in those locations in the Cayes where the program has been, or plans to be, active. Besides soliciting reflections on this initial GEF project and comments on the design of a follow-on project, such workshops could clarify the limitation of GEF funding in terms of national and "incremental" activities. Workshops should also accompany key moments of Project implementation to maintain open lines of communication and solicit stakeholder ideas and reactions.

A draft of the proposal to the GEF should be circulated and commented upon during the project definition stage. In such discussions it will be important to clearly differentiate between the goals and constraints of the GEF and the broader mandate of the Authority as the custodian of a national CZM policy and agenda for Belize (see Section 4.1 (c)). We believe that the program has matured sufficiently that careful consideration should be given to national execution of the project rather than project execution by UNOPs. This national execution modality would serve to further strengthen a sense of full ownership of CZM initiatives in Belize. Since seven of the nine UNDP projects now underway in Belize are being successfully executed by national agencies, it would appear that there is good reason to expect that this arrangement would also function for a Phase II project.

### **4.2 Strengthening CZM Policies, Plans and Implementing Arrangements**

#### *(a) Define Operational Roles and Procedures Within the Authority.*

Formal enactment of the CZM Authority as a Statutory Instrument marks the beginning of a transition from a donor funded project to a national program. We strongly recommend that the Chief Executive Officer of the Authority be Belizean, and familiar with the inner workings of government and the culture of Belize. The qualification of the CEO should emphasize leadership, administrative abilities and an ability in managing a complex program involving many institutions and layers of government. Familiarity with the relevant natural sciences should be considered less important since these skills and knowledge reside in the director of the CZM Institute and the technical staff. The selection process should be competitive and transparent.

The Authority should move quickly to develop operational procedures (Sections 12 and 22 of the Act) in order to clearly define the manner in which the Board will relate to the Minister of Agriculture and Fisheries, the Institute and the Advisory Council. For example, it would be useful to specify the issues and decisions that most appropriately should be reviewed by the Advisory Council (e.g., complaints, notice of violations,

routine issues raised by EIAs, license applications) and clarify when the Council should formally submit recommendations to the Board or to the Heads of Departments in appropriate Ministries, or both. It would be highly desirable if some or all Ministries would delegate some decision-making authority to the Council and/or Board. Another possibility is to formalize the Board as a binding arbiter for disputes on specified topics. The ultimate objective should be to advance the Authority's role from information sharing and making recommendations to joint decision-making.

Recognizing the small size of Belize and the many demands placed upon government, it is important that the expertise, equipment and services vested in the Institute are closely linked, and strengthen, existing governmental technical services such as the laboratory of the Public Health Department (for water quality analysis and monitoring) and the Lands Information Center of the Ministry of Natural Resources (for the GIS system). Similarly a long-term strategy for collaborative action with the CZMU of the Fisheries Department should be developed.

*(b) A Demonstration Project in Participatory Management*

The progress made during this initial project and initial experience with co-management on the mainland makes it clear that governance in Belize is advancing towards a greater reliance upon public involvement and responsibility for all stages of the management process. We therefore strongly endorse the idea put forward in the proposal for the GEF II initiative those efforts to successfully link:

- Planning with implementation
- Management of adjoining areas of land and sea
- Governance at the community and central government levels

are focused in Phase II upon a pilot project in Caye Caulker.

We recommend that the preparation and initial testing of an integrated management plan that encompasses both the Caye and the newly created reserve and possibly additional areas of water around the Caye. The preparation of a special area management plan should occur principally on the Caye and not in Belize City or Belmopan. Case studies and guidelines for a community-based process are available. A Belizean example is the Five Blues co-management process and plan. It would be important for the Minister of Agriculture and Fisheries and the Minister of Natural Resources were to personally endorse and launch this pilot effort in integrated management. This pilot would make use of the land use maps prepared during the first project, the analysis of similar issues on other Cayes (e.g., Ambergis, St. George) and the information gathered in preparation of the plan for the new reserve. We recommend a sequential approval process whereby the integrated management plan is first approved by the local co-management body and then proceeds to the Authority and finally to the Ministers.

*(c) Define the CZM Plan as a National CZM Policy Framework.*

We believe that it is unrealistic and impractical to expect that a detailed and comprehensive management plan can or should be prepared for all of coastal Belize. Our suggestion is that one of the objectives of the GEF II Project should be for the Authority to prepare and seek enactment by the legislature of a national coastal zone policy framework with the following features:

- It addresses a coastal region defined to include the territorial sea, the Cayes, the reef and a yet to be determined swath of the mainland coast and/or specified activities or resources on the mainland
- It organizes statements of policy by management issue rather than by units of government
- Its policies are structured around a zoning scheme that allocates the coastal region to categories and intensities of use.

The many area and topic-specific plans and policies that have been prepared during Phase I would be formally adopted in an incremental manner as expressions of policy implementation.

A major benefit of the National Framework Plan will be that it would provide a coherent statement of national policy to which a variety of individual projects (funded by government, international donors, NGOs and the private sector) contribute. A UNDP GEF II Project would therefore assume its rightful place of one contribution to the implementation of a national agenda for the Belize coastal region.

*(d) Adopt a Financing Scheme for the Sustained Implementation of the Program.*

Another major objective of a UNDP GEF II Project and a feature of the second phase legislation should be to obtain secure funding for the program that draws from:

- Recurring core funding from the GOB or a financial mechanism such as a Trust Fund
- Income dedicated to the program from fees gathered by the implementation of the “beneficiaries pay” and “polluters pay” principles.

### **4.3 Generation of Knowledge in Support of Management**

*(a) Baselines*

The pilot phase of the Project developed a GIS system that contains baseline information on marine habitats, water quality, manatees, crocodiles, some reef areas and some Cayes. This is an excellent system that must be maintained. The information it contains must be disseminated and periodically updated—perhaps every five to ten years.

During a GEF II Project we recommend that the emphasis of baselines and monitoring be upon specific areas and topics that can inform the more immediate needs of an integrated management process. We recommend that baselines and monitoring be synoptic and, for example, in water quality, produce wet and dry season data for “hot spots” where pollution is known or believed to be an immediate problem. Data gathering on ecosystem condition and biodiversity should similarly be directed at specific sites where change is likely to be occurring in 1-5 years.

If the proposed regional Meso-American Barrier Reef proposal is funded, funding for reef-wide baselines and monitoring could come from that source leaving the proposed

Belize GEF II Project to focus on issue and area-specific monitoring of more immediate usefulness to an ongoing management program.

*(b) Periodic Self-Assessments of Progress Towards Effective Management*

We recommend that all participants in the program, and where appropriate the concerned public, participate in an assessment of progress, lessons learned and the identification of “instrumental adjustments” that should be made to how the program is being implemented. The fundamental questions are “what’s working, what isn’t, why?” Encouraging an incremental and adaptive approach to management would decrease the frustration that is apparent among many of those who participated in Phase I.

*(c) Periodic State-of-the-Coast Reports*

The pressures upon the coastal region are already severe and they are mounting. Change to the qualities of coastal ecosystems and to biodiversity are inevitable. State-of-the-Coast reports, if they focus on trends in the condition and use of the coastal region can provide major benefits by:

- Integrating and interpreting monitoring data
- Reflecting on the social, economic and environmental implications of trends
- Instigating interdisciplinary analysis
- Raising public awareness on important issues

#### **4.4 Building Constituencies for the CZM Program**

*(a) Strategically Targeted Awareness Building*

During a GEF II Project we recommend that awareness building and public education efforts be carefully targeted upon strategically important audiences. These have been identified to include:

- High governmental officials and legislators
- Young Belizeans—half the population is under 18
- New immigrants
- Developers operating in the Cayes

The strategy needs to define a few key messages and think through how such messages can be best conveyed. Gatherings of high officials and legislators for a social occasion that includes a brief discussion of a carefully selected issue by an appropriate speaker, opportunities to see and hear those involved in co-management, study tours to view how similar issues are being managed—or the consequences of mismanagement—in neighboring nations, can all have a major impact on this critically important potential constituency. Such activities and the resources to finance them will be crucial to the prospects of a second legislative initiative as suggested in 4.1.

*(b) Training*

We recommend that Phase II invest in training courses held in Belize that bring together mixed groups of governmental officials, NGOs and community activities to jointly examine selected management issues and techniques. The following topics should be considered:

- Moral leadership
- Consensus building and joint decision-making
- Non-regulatory approaches to ecosystem management
- Conflict resolution
- Project formulation, management and evaluation
- Planning processes at the community level

Study tours within Belize and neighboring countries should be considered.



## 5 SOME LESSONS LEARNED

- (1) The original Project Design was far too ambitious and complex. It suffered from the absence of an explicit conceptual framework. The 81 specific activities to be accomplished in the five years of the project were not linked to either a timeline or the budget. Furthermore, the design provided virtually no funds to instigate the on-the-ground practice of integrated management.
- (2) Major issues impeding the forward progress of effective CZM in Belize lie with well-entrenched practices of reserving all decision-making authority on permit applications and policy statements to the Ministers. There is a great need for a devolution of some decision-making authority to the operational level of the institutions of central government and to the community level.
- (3) The traditions of government in Belize restrict stakeholder involvement to “awareness raising” and the provision of “advice” from representatives of NGOs and stakeholder groups assembled as advisory committees. This limited approach to public involvement in the governance process is proving insufficient for either building strong constituencies in support of the program or promoting effective implementation through voluntary compliance.
- (4) Vesting some of the leadership of the Project in an expatriate Chief Technical Advisor raised major issues with some government representatives over decision-making authority and control over a national project. Careful attention must be given in a GEF II Project to a structure that affirms a belief in and commitment to the newly created CZM Authority.
- (5) There is also a need to clarify the differences between a nationally “owned” coastal management program and agenda and the more narrowly focused objectives of donor and NGO-driven projects. It must be clear during a GEF II Project that continuing GEF support can only contribute to some elements of a national strategy for the conservation and development of the Belize coastal region.

## APPENDICES

### ***APPENDIX A: TERMS OF REFERENCE***

Mr. Olsen and Dr. Ngoile will assist the Regional Bureau for Latin America and the Caribbean in providing an in-depth final evaluation of the GEF-financed project in Belize entitled: Sustainable Development and Management of Biologically Diverse Coastal Resources (SDM BDCR).

They will work closely with staff from the UNDP Country office and the project team, as required, to assess (1) the project's potential for advancing the conservation and sustainable use of coastal biodiversity in Belize, and (2) the sustainability of those impacts over the medium to long term. Based on these assessments, they will also recommend strategies and actions for a second phase of GEF support to this initiative.

Mr. Olsen's and Dr. Ngoile's activities will include the following:

- A. Review of material related to the project including the GEF Project document, previous project evaluations and other reports and assessments that may be provided during the mission.
- B. Interviews, consultations and meetings with project staff, government agencies, NGOs, local communities, civil society organizations, and the UNDP Country Office as arranged by project staff in Belize.
- C. The Evaluation shall be structured to address the following major topics:
  - (1) Analysis of the strategy for strengthening coastal management capabilities in Belize. The design of the project (scope, strategic focus, and balance among project components) will be assessed in light of the progress made towards the project's principal and immediate objectives. This section will highlight both substantive accomplishments and the lessons learned from the project" experience.
    - Review of how the project analyzed the principle factors (institutional, legal, social, technical) affecting coastal biodiversity and sustainable resource use.
  - (2) Progress in developing a viable institutional framework for coastal zone management
    - Progress and accomplishments in creating (a) a framework for coastal management, and (b) collaborative relationships with relevant local, national and international entities
    - Review and analysis of the proposed legislative and regulatory frameworks and their viability for an implementation phase
    - Analysis of the project's approach to resource mobilization especially securing long-term project financing

-- Analysis of use/establishment of monitoring and research capabilities.

(3) Evaluation of the process by which the CZM Plan was developed

- Review of how stakeholders were identified and their involvement in all steps taken to develop the CZM plan; assessment of the strengths and weakness of the approaches adopted
- Review of the environmental education component and its actual and potential contributions to building constituencies in support of the program's objectives
- Review of the impacts of the information produced and disseminated by the project on policy formulation and to develop the necessary technical basis for effective biodiversity conservation

D. A draft report on the above topics shall be delivered to UNDP/NYC and UNDP/Belize no later than 14 days after the end of the field visit on diskette and by e-mail in WP5.1 or MS Word.

Mr. Olsen has agreed to a constancy of 15 working days to consist of 5 days in the project site and 10 days in office.

Dr. Ngoile has agreed to a constancy of 10 working days consisting of 5 days in the project site and 5 days in office.

**APPENDIX B: CONSULTATION ITINERARY**

DATE AND TIME	CONSULTATION	RESPONSIBLE MEMBER	CONTACT
<b>Mon., 20<sup>th</sup> April</b>			
8.00 a.m.	Fisheries Department, Ministry of Agriculture and Fisheries	Olsen/Ngoile	Mr. Noel Jacobs <sup>1</sup> , Acting Fisheries Administrator Mr. James Azueta Head CZM Unit & Coordinator Princess Margaret Drive, Belize City Tel. (02) 326 23
10.00 a.m.	Coastal Zone Management Project	Olsen/Ngoile	Mrs. Janet Gibson, National Project Adviser 8 St. Mark Street, Belize City Tel (02) 307 19
12.00 noon	Lunch		
1.00 p.m.	Depart for Belmopan		
2.00 p.m.	United Nations Development Programme	Olsen/Ngoile	Mr. Moises Carl, <sup>2</sup> Programme Officer 34/36 Garza Avenue, Belmopan Tel. (08) 226 61
3.00 p.m.	Ministry of Tourism and Environment	Olsen/Ngoile	Dr. Vactor Gonzales <sup>2</sup> , Permanent Secretary , MTE Belmopan Tel. (08) 233 93
4.00 p.m.	Forestry Department	Olsen/Ngoile	Mr. Richard Belisle, <sup>1</sup> Chief Forestry Officer MNR, Belmopan Tel. (08) 222 49
<b>Tue., 21<sup>st</sup> April</b>			
8.30 a.m.	Coastal Zone Management Programme	Olsen/ Ngoile	Mr. Eugene Ariola, Chemical Oceanographer 8 St. Mark Street, Belize City Tel (02) 307 19
10.00 a.m.	Attend CZM Technical Committee Meeting Chaired by Fisheries Administrator	Olsen/ Ngoile	Mr. James Azueta Head CZM Unit & Coordinator MRS Princess Margaret Drive, Belize City Tel. (02) 326 23
12.00 noon	Lunch		
1.30 p.m.	Coastal Zone Management Project	Olsen/Ngoile	Mr. Hugo Matus, Data Analyst

<sup>1</sup> Member of the Technical Committee

<sup>2</sup> Member of the Steering Committee

DATE AND TIME	CONSULTATION	RESPONSIBLE MEMBER	CONTACT
			8 St. Mark Street, Belize City Tel (02) 307 19
3.00 p.m.	Belize Tourist Board	Olsen	Mr. Kevin Gonzales, Director 83 North Front Street, Belize City Tel (02) 772 13
	Ministry of Housing and Planning(Urban)	Ngoile	Ms Imani Fairweather Senior Planning Officer MHP
4.30 p.m.	Coastal Zone Management Project	Olsen/Ngoile	Mrs. Janet Gibson, National Project Adviser 8 St. Mark Street, Belize City Tel (02) 307 19
<b>Wed., 22<sup>nd</sup> April</b>			
8.40 a.m.	Depart for field trip to Caye Caulker		
9.30 a.m.	Caye Caulker Village Council	Olsen/Ngoile	..... Vice Chairman Caye Caulker Tel (022) 2142
10.30 a.m.	Belize Tourism Industry	Olsen/Ngoile	Ms. Maria Vega Caye Caulker Tel. (022) 2142
11.20 a.m.	Siwa Ban Foundation	Olsen/Ngoile	Ms. Ellen McRae Managing Director Caye Caulker Tel (22)2178
12.15 a.m.	Lunch Meeting with President, Caye Caulker Tour Guides Association	Olsen/Ngoile	Mr. Robert Blease President Caye Caulker Tour Guides Association Caye Caulker Tel. (022) 2154
1.30 p.m.	Leave for San Pedro		
2.30 p.m.	Meeting with Bacalar Chico Advisory Committee	Olsen/Ngoile	..... Mayor /Chairman Tel. ....
4.13 p.m.	Depart for Belize City		
<b>Thurs., 23<sup>rd</sup> April</b>			
9.00 a.m.	Ministry of Natural Resources	Olsen/Ngoile	Mr. Lindsay Belisle Permanent Secretary MNR, Belmopan Tel. (08) 22630. Did not Meet with him
9.30 a.m.	Lands and Surveys Department	Olsen/Ngoile	Mrs. Malikah Cardona Physical Planner MNR, Belmopan Tel. (08) 22630

DATE AND TIME	CONSULTATION	RESPONSIBLE MEMBER	CONTACT
10.00 a.m.	Lands and Surveys Department	Ngoile	Mrs. Malukah Cardona Physical Planner MNR, Belmopan Tel. (08) 22630 . . .continue
	Department of Environment	Olsen	Mr. Ismael Fabro, (Did not Meet him) Chief Environmental Officer MTE, 10/12 Ambergris Avenue Belmopan Tel.(08) 22816 (Met with .....
11.00 a.m.	Protected Areas Conservation Trust	Olsen	Mr. Humberto Paredes 2 Mango Street, Belmopan Tel. (08) 23637
	Land Information Center	Ngoile	Mrs. Noreen Fairweather Land Information Officer MNR, Belmopan Tel. (08) 22630
11.45 a.m.	UNDP, GEF Small Grants	Olsen/Ngoile	Mr. Phillip Balderamos GEF Small Grants Coordinator 34/36 Garza Avenue Belmopan Tel. (08) 22661
12.30 noon	Lunch Discussion	Olsen/Ngoile	Mr. Moises Carl, <sup>2</sup> Residence, Belmopan
2.30 p.m.	University College of Belize (UCB)	Olsen/Ngoile	Dr. Dorian Barrow Vice President (Academic) West Landivar, Belize City Tel. (02) 32732
3.30 p.m.	Coral Caye Conservation	Olsen/Ngoile	Mr. Jon Ridley Director West Landivar, Belize City Tel (02) 32787
<b>Fri., 24<sup>th</sup> April</b>			
9.00 a.m.	Belize Audubon Society	Olsen /Ngoile	Mr. Osmany Salas Executive Director Mr. Michael Summerville 12 Fort Street, Belize City Tel (02) 34987
10.00 a.m.	National Fisheries Association	Olsen/Ngoile	Allan Bevans Chairman Nidia Aeredia Executive Secretary Lit 849 Consuelo St. P.O. Box 751, Belize City, Belize Tel (02)
3.30 p.m.	Wrapping Up with CZM Staff and UNDP	Olsen/Ngoile	Mrs. Janet Gibson, National Project Adviser 8 St. Mark Street, Belize City

<sup>2</sup> Member of the Steering Committee

DATE AND TIME	CONSULTATION	RESPONSIBLE MEMBER	CONTACT
			(Meeting Place) Tel (02) 307 19 Mr. Moises Carl, <sup>2</sup> Programme Officer 34/36 Garza Avenue, Belmopan Tel. (08) 226 61

---

<sup>2</sup> Member of the Steering Committee

## **APPENDIX C: REPORTS AND PAPERS CONSULTED DURING THE EVALUATION**

1. Belize Coastal Zone Management Workshop, August 21 – 23, 1989
2. Central America's Coasts: Profiles and Agenda for Action – 1992
3. Project Document: Sustainable Development and Management of Biologically Diverse Coastal Resources (Published Version) – 1993
4. Project Document: Sustainable Development and Management of Biologically Diverse Coastal – 1993
5. Project Performance Evaluation Report - 1994
6. Project Implementation Review – 1995
7. Institutional Development and Sustainable Mechanisms for Coastal Zone Management in Belize – 1995
8. State of Coastal Zone Report – 1995
9. Project Performance Evaluation Report - 1996
10. Presentation of the Project Performance Evaluation Report – 1996
11. Project Implementation Review – 1995
12. Project Implementation Review – 1996
13. Revised Project Document – 1996
14. Project Performance Evaluation Report – 1997
15. Independent Project Evaluation – 1997
16. Coastal Zone Management Bill – 1998
17. Concept Paper: Conservation of Coastal and Marine Biodiversity through the Implementation of Belize's Coastal Management Plan
18. Belize City Cayes Development Guidelines – July 1996
19. Caye Caulker Development Guidelines – June 1996
20. Coastal Resources Management in Belize: Institutional Capacity – Issues and Answers (Mustafa Toure) 1995
21. Several Development Plans and Guidelines for Specific Areas and Issues