Sectoral Integration of Biodiversity in Belize

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1. Introduction
Belize reported that the Government of Belize’s approach to sectoral integration of biodiversity issues is based on the strategic interventions of the governmental entities responsible for biodiversity, environmental or natural resource management. This multifaceted approach enables the government sector that administers and guides the various thematic areas to focus on developing cross-sectoral plans and policies which integrate biodiversity ecosystem-level approach with planning and implementation.

Legal and Regulatory Framework
Existing measures and programmes currently in place at the national level are based on legislation enacted by the Government of Belize. The legal framework provides the basis on which biodiversity may be integrated into regulations and policies. Presently, Belize has a number of significant pieces of legislation, some of which are in the process of being amended, and others, which require amending to meet tomorrow’s needs.

There are two main Government entities which are responsible for protected area management, the Fisheries Department and the Forest Department. In addition to these two entities, a statutory body, the Institute of Archaeology is responsible for protected cultural sites and natural formations. There are approximately twenty-seven (27) pieces of legislation, reinforced by their supporting regulations, which have direct incidence on the administration, management, and use of Belize’s biological resources. Of note, is that presently there is no single piece of legislation that independently and directly addresses specific biodiversity considerations. However there are multiple government institutions that assist in the integration and implementation of biodiversity considerations in existing policies, strategies and plans. The present approach taken therefore, may sometimes fail to address the specific biodiversity issues related to use and overuse, exploitation or the impacts of sustainable development on biodiversity.

The main pieces of legislation directly related to the sustainable management of Belize’s natural and cultural resources include the Forest Act, the National Parks System Act, the Fisheries Act, the National Lands Act, Wildlife Protection Act and the National Institute for Culture and History Act. However, other pieces of legislation may be seen as supporting elements which envelope the principles of rational and regulative use, these are the Environmental Protection Act, the Land Utilization Act and their regulations.

2. The Forest Act
The original legislation dates back to 1927 and deals with the protection of forests and mangroves. This Act, administered by the Belize Forest Department, seeks to regulate the exploitation of forest produce

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in nationally held lands. It also regulates the collection of medicinal plants for local use or for research purposes (i.e. identification and cataloguing). However, a scientific collection/research permit for medicinal plants can also be issued under the Wildlife Protection Act.

Established in the 1920s, the Belize Forest Department is one of the oldest Government of Belize institutions. It is one of five (5) departments within the Ministry of Natural Resources and the Environment. Its Forest Policy seeks “to create, maintain permanently, and develop a national forest estate taking into consideration the need for agricultural development and the protection of the environment.” Up to the 1990s, the primary focus of the Forest Department had traditionally been timber resource exploitation; however, its scope of work of the Department has broadened to include protected areas, wildlife, and biodiversity management, and other non-traditional themes such as law enforcement and institutional development and collaboration. Along with the Fisheries Department and the Institute of Archaeology it administers the one hundred and two (102) protected areas throughout Belize.

3. Forests (Mangrove Protection) Regulations
The Forests (Protection of Mangrove) Regulations prohibits any alteration of mangroves (this includes cutting and defoliating of mangroves) on any land without a permit. In most cases, a multi-agency assessment is conducted prior to determining whether a permit is issued or denied. A permit may be denied if the proposed cutting is in proximity to areas known to be of high ecological value or where the cutting may undermine current efforts to protect critical habitats species. Alterations that involve dredging or filling can be authorized only in "exceptional circumstances“.

4. The National Parks System Act
The National Parks Systems Act provides for the creation of Protected Areas to be kept mainly in their natural state, with use being limited to scientific study, education, tourism, and recreation. Fishing is permitted under special license. This Act enables the Government of Belize to create, administer, and manage National Parks, Wildlife Sanctuaries, Natural Monuments, and Nature Reserves in accordance with IUCN guidelines.

5. Wildlife Protection Act
This Act provides mainly for the regulation of hunting and the commercial dealing in wildlife. It prohibits hunting of specific species, in closed areas and of immature wildlife or females accompanied by their young. It does not give a purpose or objective and does not apply to fish. Neither does it address the introduction of wild animals not normally resident in Belize which can cause disruption and ecological havoc. It is administered by the Forest Department of the Ministry of Natural Resources and the Environment (MNRE).

6. The Fisheries Act
The Act, administered by the Fisheries Department, seeks to control all aspects of commercial fishing by establishing regulations controlling minimum sizes and types of fishing equipment used. The territory of
enforcement is marine, but extendable to the inland waters and rivers by order of the Minister. There exist overlaps in legislation between this Act and the Wildlife Protection Act in that the Fisheries Act is responsible for the commercial aspects of all or any of the varieties of marine or fresh water animal or plant life, which is also addressed as part of the responsibility of the Forest Department in the Wildlife Protection Act.

The Fisheries Department is a department within the Ministry of Agriculture and Fisheries. Its major policy objective for the fisheries sector is to maintain a sustainable yield of the fisheries resources while continuing to contribute to food production, foreign exchange earnings and to improved nutritional status in the longer term. It seeks to encourage and promote sustainable fish production systems in both sea areas and inland fisheries, diversify production of the underutilized fish species in traditional waters so as to reduce pressure on high valued fish, encourage deep sea fishing to take advantage of the exclusive economic zone, increase value added activities in the production system, fish processing and prepared fish food, improve management of the ecological systems and marine environment of fish habitats, expand production of non-traditional fish species, retain product quality and remain competitive in export markets, improve the economic and social well-being of fishers and their communities.

7. The Environmental Protection Act
The Environmental Protection Act provides the Government and the Department of the Environment with comprehensive environmental protection authority it needs in order to address modern environmental problems. The Act also grants the Department of Environment broad regulatory and enforcement authority for the prevention and control of environmental pollution, conservation, and management of natural resources, and environmental impact assessment (EIA).

The Department of the Environment (DoE) in the Ministry of Natural Resources and the Environment is the entity that regulates anthropogenic interventions that have an impact on the natural environment and ecosystems in Belize. The DoE regulates development through a planning instrument required for anthropogenic interventions beyond an established threshold that would deleteriously affect the natural environment if mitigating measures are not introduced, maintained, and monitored for effectiveness. The Environmental Impact Assessment (EIA) is an important planning tool that seeks to address potential anthropogenic impacts by introducing measures that are conducive to maintaining a healthy and functional natural environment. The National Environmental Appraisal Committee (NEAC), a multi-disciplinary cross-sectoral legally instituted body, reviews the EIA and advises the Department of the Environment on the most rational approach to the proposed development.

8. Ancient Monuments and Antiquities Act
The National Institute of Culture and History (NICH) was created by the Government of Belize in 2003 to bring together diverse government departments, which had historically worked to preserve and promote Belizean culture; and, to allow for the management of newer endeavours. The Institute of Archaeology under NICH is directly responsible for the administration of the Ancient Monuments and
Antiquities Act. Section four of this act states that “all ancient monuments and antiquities however situate, whether upon any land or in any river, stream or watercourse, or under territorial waters of the country, and whether or not before the date of the commencement of this Act in private ownership, possession, custody or control, shall absolutely vest in the Government”.

9. Cayes Development Policy
The Cayes Development Policy has served to consolidate existing legislations, and to promulgate regulations and guidelines applicable to the development and sustainable management of all the cayes within the coastal zone of Belize. The Policy calls for a detailed planning system to control the use of land, and water development to cover the entire coastal zone. The policy also demarcates/recommends zones and a system of assigning development codes for the cayes.

10. Belize Tourism Policy
The National Tourism Strategy Plan developed for Belize was prepared with the goal of developing a strategy and action plan to stimulate economic growth while protecting the country’s environmental and natural resources and ensuring benefits to locals. The Belize Tourism Policy guides the development of all types of tourism. The new tourism policy is predicated on policies to also look at significant changes in the external environment.

11. National Lands Act
The Act is designed to establish a framework for the management of national lands. The Act applies to all lands (other than Reserved Forest) not already "located" or granted, including any lands acquired by or ceded to the Crown. They are classified as town, suburban, rural, mineral lands and beach lands.

12. Protected Areas Conservation Trust
A national trust was established in June 1996 by the Government of Belize through the application of a tax levied on non-Belizeans departing from Belize through any of the border points throughout the country. The Protected Areas Conservation Trust (PACT) is an environmental trust fund of US$2,500,000.00 and an endowment fund of US$1,000,000.00 designed to enable and empower conservation, preservation, enhancement, and management of Belize’s natural resources and protected areas while supporting national development goals. PACT efforts are supportive and essential to meeting the requirements of the UNCBD, by providing financial support for direct conservation projects or indirectly, through funding for alternative livelihoods projects for stakeholders involved in the management and use of Belize’s protected areas.

13. The Donor Community
The existing legal and regulatory framework facilitates the rational utilization of biological diversity for alternative livelihoods and poverty alleviation. Enabling local communities, adjacent to protected areas, to be managers of the natural (biological) resources provides them with alternative livelihood, therefore acting as incentives for the conservation and sustainable use of biological diversity
Opportunities are provided under capacity building programmes such as UNDP/GEF and the PACT Grant Programme. Most UNDP/GEF projects which incorporate capacity building have been carried out by groups that are co-managers of protected areas or by buffer communities around these areas. The training activities have resulted in co-management organizations being able to better carry out their responsibilities of protection and enforcement, environmental education, data collection and reporting. The GEF Small Grant Program (GEF-SGP) has taken the lead in funding several new co-management groups and has witnessed their growth, the increased visibility of the group and the work being done, and the respect and recognition the groups have attained.

The capacity building activities with communities have increased the number of stakeholders with special skills who are able to secure alternative livelihoods. For the most part, the capacity building training has focused on ecotourism and sustainable agriculture which coincides with national priorities. This has resulted in decreased reliance on fishing, hunting, unsustainable farming practices, and illegal extraction of forest products. The improved capacity, the realization of dwindling natural resources, and monetary gains from alternative livelihood activities, has resulted in grantees organizations and communities exhibiting a sense of ownership for the projects and true appreciation for the environment (UNDP SGP, 2006).

The Community Management of Protected Areas Conservation Programme (COMPACT) is a worldwide programme funded by the GEF Small Grants Programme and the United Nations Foundation. The programme has as its primary objective to ‘demonstrate how community-based initiatives can significantly increase the effectiveness of biodiversity conservation at World Heritage Sites, by complementing and adding significant value to existing conservation programmes’. In Belize, COMPACT is seeking to preserve the integrity and character of the Belize Barrier Reef Reserve System –World Heritage Site (BBRRS-WHS) by developing and supporting a range of conservation and sustainable livelihood activities through transparent and democratic partnerships with coastal communities and other stakeholders (UNDP Belize Website).

14. National Capacity Self-Assessment

In 2005, Belize conducted its National Capacity Self Assessment (NCSA) to identify its capacities to effectively address the requirements of the UNCBD. The NCSA process included a Biodiversity Stock-Take Report, a Thematic Assessment and a Legal and Cross-cutting Issues Assessment that were compiled in order to describe previous activities that addressed those UNCBD requirements, current conditions within the country, stakeholders involved and systemic, institutional and individual capacities that exist.

The Government of Belize is undertaking a follow-up project focused on ‘Strengthening Institutional Capacities for Coordination Multi-sectoral Environmental Policies and Programmes’. The overall objective of this project is to coordinate Belize’s natural resource and environmental policies in such a way that they create synergies for the national implementation of the United Nations Convention for Biodiversity (UNCBD); United Nations Convention to Combat Desertification and Drought (UNCCD); United Nations Framework Convention on Climate Change (UNFCCC).
15. Sustainable Land Management
The Government of Belize is cognizant of the impending developments in the productive, urban and commercial sectors and the increase in demand for land resource. Enhancement in sustainable land management capacities and the strengthening of the policy and legislative frameworks are critical at this point. Through the Forest Department, the Government of Belize is executing the ‘Mainstreaming and Capacity Building for Sustainable Land Management (SLM)’ project to establish ‘an enabling environment for sustainable land management enhanced through mainstreaming, capacity building and improvement in policy, legislative and institutional framework’. This project was developed through a consultative process and in line with the findings of Belize’s completed NCSA initiative and the recommendations of the National Awareness Seminar of the UNCCD.

The project builds on the existing baselines and ongoing projects supporting enhanced policy and planning frameworks such as the Land Management Project, FAO-Forest Policy Project and Belize Rural Development Project. It also provides an opportunity to incorporate SLM into programs designed to support coordination and capacity building among local governments.

This GEF-funded project is being executed by the Ministry of Natural Resources and the Environment through the Forest Department for three (3) years at a cost of USD$1,150,000.

Existing Measures and Programmes in Place for the Conservation of Biodiversity

16. The National Protected Areas System
Belize’s main approach to biodiversity conservation has been through the creation of the Protected Areas System of Belize. Presently, 102 protected areas of different categories, sizes and designations in the marine and terrestrial realm comprise the protected areas system of Belize. Consequently, Belize has made significant advances in its development of a comprehensive network of protected areas based on substantial biological, land use and other data. The Plan is geared towards species conservation as well as maintaining the integrity of certain critical habitats. According to a national study, protected areas with legal underpinnings cover 22.6% of the country.

In accordance with the Programme of Work for Protected Areas, Belize undertook to develop a National Protected Areas Policy and System Plan (NPAPSP). The Policy is Belize’s Agenda on protected areas. The Plan has as its foundation a set of underlying principles, the Ecosystem Approach, the Precautionary Principle, the Importance of Science, the Importance of Local and Indigenous Community Knowledge, Monitoring and Evaluation and Cost-effectiveness and Efficiency.

Consequently, the Plan for the protected areas of Belize has been developed to achieve four goals:

1) A comprehensive protective area policy that sets the general policy framework in which the National Protected Area Systems Plan is to be implemented;

2) An assessment and analysis of the Protected Area System which set out to assess the present protected area network and its characteristics in terms of comprehensiveness, representativeness,
adequacy, balance and coherency. Recommendations were made to optimise these qualities in a consolidated system;

3) Procedures for Management and Sustainable Use that assessed the current administrative and management procedures at system and site level and recommendations for improvements. This included all governance issues ensuring that the protected area system and its supporting legal instruments accommodate the full range of interests and rights in natural resource management, and;

4) Strengthening Management and Monitoring which covers the need to achieve effective protected area management through sound procedures, capacity building, adequate financing, obtaining and making good use of information, and through monitoring and self-assessment.

The management of protected areas is carried out through partnerships between the public sector and civil society partners. The co-management agreements are signed between the Government of Belize and NGOs or CBOs, and outline the roles and responsibilities of the parties to the agreement and specify the duration of the partnership. Generally, the civil society partner is the on-ground manager with the Government of Belize providing administrative, legal, and technical support on matter related to the management of the protected area.

Management Plans have been designed for several protected areas. These plans are based on a formally endorsed management plan template developed along with protected areas co-managers. The management plans integrate the principles of sustainable development and wise use of the natural resource for the benefit of the local communities and indigenous groups dependent on the resource, and with a central focus on biodiversity conservation.

17. Regional Partnerships

The Government of Belize is an active member of the Central American Integration System (SICA) and its environmental arm, the Central American Commission for the Environment and Development (CCAD). Through SICA, Belize is a member of the Organization for the Fishing and Aquaculture Sector of the Central American Isthmus (OSPESCA) and is part of the project “Regional Plan for the Inland Fisheries and Aquaculture Project” (PREPAC).

The CCAD pursues regional cooperation on aspects pertaining to conservation and natural resource use among its member states. The regional strategies developed and agreed by the member states chart, from a regional perspective, Belize’s direction on protected areas, forest, climate change, fire management, environment, and biodiversity issues. Regional projects such as the Mesoamerican Biological Corridors Project and the Mesoamerican Barrier Reef System Project were executed under the CCAD as part of their regional conservation strategies and plans.

The Mesoamerican Barrier Reef System (MBRS) Project assisted in concretizing the Tulum Declaration, which calls for the sustainable use and protection of the Barrier Reef System and its biodiversity. The MBRS Project was funded by the Global Environment Facility (GEF) and the Governments of Belize, Guatemala, Honduras, and Mexico. It was implemented by the World Bank and executed by the four
countries through CCAD. The MBRS project was executed by the Project Coordinating Unit (PCU) on behalf of CCAD, with headquarters in Belize City, Belize. However, it should be noted that funds available for the implementation of the project activities were shared among the four countries, on an annual basis, according to its operational plan. More than $11.6 million US dollars were disbursed to the four countries of the MBRS region during the life of the project.

The Fisheries Department is involved in other trans-boundary and regional projects (e.g. TRIGOH, BEMAMCCOR, CRFM, and PREPAC).

The Belize Agriculture and Health Authority conducts activities that are oriented towards agricultural health monitoring at the national, trans-boundary and regional level, as well as carry out capacity building activities (e.g. international training and short-term external training), and also has established technical partnership with PAHO and IICA. BAHA is also the implementing agency for international initiatives (e.g. UNCBD-Biosafety and FAO projects), and has formal MOUs with various international agencies including PAHO, OIE and USDA APHIS.

Belize has signed the United Nations Framework Convention on Climate Change (UNFCC) and the United Nations Convention to Combat Desertification, Land Degradation and Drought (UNCCD). This has lead to the establishment of a National Climate Change Adaptation Programme. The Caribbean Community Climate Change Centre (CCCCC) was officially established in August, 2005 with its headquarters in Belmopan, Belize. The Centre is implementing projects designed to prepare for and to reduce the harmful effects of climate change and sea level rise and seek ways in which CARICOM can benefit from any opportunities that may result from climate change. Additionally, the CCCCC positions the Region to prepare itself for work arising from the United Nations Framework Convention on Climate Change (UNFCC). The Centre is also serving CARICOM as a key node for information and initiatives regarding climate change by coordinating the CARICOM’s response to managing and adapting to climate change.

Belize has also signed several important agreements on Biodiversity at the regional level. Belize is signatory to the Convention for the conservation of Biodiversity and the Protection of Priority Areas of Central America (1992), and joined the Central American Alliance for Sustainable Development (ALIDES) in 1994. Belize has also signed the Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC). Other regional conventions signed include the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (The Cartagena Convention) and the Protocol Concerning the Cooperation in Combating Oil Spills in the Wider Caribbean Region (ratified Dec. 11, 1997), the Convention on Nature Protection and Wildlife Preservation in Western Hemisphere (The Western Hemisphere Convention), and signed the Belize/ Mexico Bilateral Agreement (signed September 1991).

18. International Agreements

Belize is party to several international and regional conventions that make specific mention of environmental protection and/or biodiversity conservation (see Table 1).


Table 1: International Conventions relating to Biodiversity Management

<table>
<thead>
<tr>
<th>International Convention/ Agreement</th>
<th>Date Ratified</th>
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<tbody>
<tr>
<td>United Nations Convention on Biological Diversity</td>
<td>December 30, 1993</td>
</tr>
<tr>
<td>Convention for the Conservation of Biodiversity and Protection of Priority Areas in Central America</td>
<td>June 5, 1992</td>
</tr>
<tr>
<td>The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (The Cartagena Convention) and the Protocol Concerning the Cooperation in Combating Oil Spills in the Wider Caribbean Region</td>
<td>December 11, 1997</td>
</tr>
<tr>
<td>Convention on the Conservation of Migratory Species of Wild Animals, Bonn (The Migratory Species Convention)</td>
<td></td>
</tr>
<tr>
<td>Convention on Nature Protection and Wildlife Preservation in Western Hemisphere (The Western Hemisphere Convention)</td>
<td></td>
</tr>
<tr>
<td>Convention Concerning the Protection of the World Cultural and Natural Heritage (The World Heritage Convention)</td>
<td>November 26, 1990</td>
</tr>
<tr>
<td>The Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention)</td>
<td>Acceded February 26, 1998</td>
</tr>
<tr>
<td>The United Nations Educational Scientific and Cultural Organization’s UNESCO’s Man and the Biosphere (MAB) Programme 1971 Biosphere Reserves</td>
<td></td>
</tr>
<tr>
<td>Inter American Convention for the Protection and Conservation of Sea Turtles</td>
<td></td>
</tr>
<tr>
<td>Convention on the Inter-Regional Organization for Plant and Animal Health (OIRSA)</td>
<td></td>
</tr>
<tr>
<td>International Plant Protection Convention</td>
<td>Acceded May, 1987</td>
</tr>
<tr>
<td>United Nations Framework Convention of Climate Change</td>
<td>October 31, 1994</td>
</tr>
<tr>
<td>Central American Commission on Environment and Development (CCAD) and the Central American Alliance for</td>
<td>December 12,</td>
</tr>
</tbody>
</table>
Mainstreaming biological diversity through the education system and capacity building

The education institutions at the primary, secondary and tertiary levels have included formal training in biodiversity conservation in their curricula. Nationally, conservation and natural resources-related topics have been integrated into formal curricula and are dedicated subjects especially in the Primary School System. All tertiary institutions have formal courses, with two having an associate degree course in natural resources management and environmental science.

Most schools at the primary secondary and tertiary levels include formal or informal training in biodiversity use and conservation. Most secondary schools include courses, lectures, and field biology courses in their program. All tertiary institutions have formal natural resources management courses in their curricula, while some have associate degree levels in either Environmental Sciences, or Natural Resources Management.

The civil society partners engaged in biodiversity conservation and management prioritise public education and awareness as part of their programs and have been involved in training on delivery of educational information to schools. At the same time, most NGOs and CBOs undertake a certain level of informal and occasionally formal educational programs. Research and training is of high priority to these institutions. The Fisheries Department, the Forest Department and the Protected Areas Conservation Trust (PACT) have also been active in outreach and education efforts.

PACT offers a yearly scholarship programme and is funding the four-year Natural Resources Management Programme (NRMP). The Smithsonian Institute is conducting research as well as providing scholarships for technical training for University of Belize Natural Resource Management students.

Public education and training opportunities at the primary and secondary school levels as well as for teachers and for the greater Belizean public have been facilitated through many different agencies. Institutions actively involved in education, training and awareness programmes include the Tropical Education Centre (TEC) of the Belize Zoo, the Belize Audubon Society (BAS), the Sibun Watershed Association (SWA) via an outreach programme targeting schools via the Watershed Mobile Classroom, Programme for Belize (PfB) through educational opportunities at Hill Bank and La Milpa field stations,
Las Cuevas Field Station in the Chiquibul Forest, the Mesoamerican Barrier Reef System Project, The Nature Conservancy (Freshwater Initiative and spawning aggregate studies) and other regional and international organizations working in Belize also provide educational materials, workshops and experiences. Belize Tourism Industry Association (BTIA) and the Belize Tourism Board (BTB) provide tour guide training programmes.