



**CAPACITY-BUILDING FOR
ENVIRONMENTAL MANAGEMENT
IN ANTIGUA AND BARBUDA**

STRATEGY AND ACTION PLAN

2007 - 2012

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LIST OF ACRONYMS

APUA	Antigua Public Utilities Authority
CBD	Convention on Biological Diversity
CBH	Central Board of Health
CBO	Community Based Organisation
CDI	Capacity Development Initiative
CEHI	Caribbean Environmental Health Institute
DCA	Development Control Authority
ESDU	Environment and Sustainable Development Unit
GARDC	The Gilbert Agricultural and Rural Development Centre
GDP	Gross Domestic Product
GIS	Geographical Information System
GPS	Geographical Positioning System
MAL&F	Ministry of Agriculture, Lands and Fisheries
NAP	National Action Programme for CCD
NBSAP	National Biodiversity Strategy and Action Plan
NCDS	National Capacity Development Strategy
NCM	National Co-ordinating Mechanism for Environmental Conventions
NCSA	National Capacity Self-Assessment
NGO	Non-Governmental Organisation
NODS	National Office of Disaster Services
NPA	National Parks Authority
NRMU	Natural Resources Management Unit (OECS)
NSWMA	National Solid Waste Management Authority
OAS	Organisation of American States
OECS	Organisation of Eastern Caribbean States
TAC	Technical Advisory Committee
UNCBD	United Nations Convention on Biodiversity
UNCCD	United Nations Convention to Combat Desertification
UNEP	United National Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WTO	World Trade Organisation

EXECUTIVE SUMMARY

1. Antigua and Barbuda, as is typical of many other Small Island Developing States (SIDS), has national development and management driven and affected by factors external to the country. Due to the country's size these factors tend to have immediate effects that make the country extremely vulnerable to global environmental problems. In an effort to reduce its vulnerability to external and national concerns, Antigua and Barbuda as is the case with other SIDS, **must expend a disproportionately higher amount of resources than larger countries.** The vulnerability of Antigua and Barbuda to climate change coupled with the high cost of environmental management makes the development of an approach to capacity building for Antigua and Barbuda an important and crucial exercise.
2. Antigua and Barbuda's ability to address external environmental problems is limited if assessment of limitations is done solely on a national basis. Like many other countries that participated in the Rio convention of 1992, the country, recognizing that a **multilateral approach is best**, and in some cases the only approach, has signed three main conventions emanating from that process. These are the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD), and United Nations Convention to Combat Desertification (UNCCD). Each of these conventions clearly outlines the respective commitments of parties which include the development of action plans, capacity building and reporting.
3. Notwithstanding the high cost of environmental management in SIDS, Antigua and Barbuda is determined to meet its commitments to **the Multilateral Environmental Agreements (MEAs)** to which it is a party. To this end the GEF (Global Environmental Facility) has made resources available to assist Antigua and Barbuda in the design of a national capacity building strategy that will provide a guide to the development of the country's capacity to effectively and efficiently manage the environment while meeting its international obligations. Antigua and Barbuda's approach, to the NCSA process was nationally driven and captured the special characteristics of a SIDS.
4. The process included extensive participation of all stakeholders. To ensure their full participation, the NGO community was provided a grant from the project funds to develop their own capacity building strategy. Suggestions coming from the NGO strategy included training, direct access to funding opportunities and legislation that would legitimize the role of NGOs in the national processes. The NGO strategy as with the national strategy followed the guidelines provided within the operational strategy of the GEF, and those for the NCSA specifically.
5. This activity posed a significant challenge to the NGO community. The process to capture the views of as many groups as possible took over one year to complete. Notwithstanding these challenges, the final document added value to the overall NCSA strategy.
6. The final NCSA was developed by following a process aimed at identifying the way forward for general environmental management in Antigua and Barbuda. The two major outputs from this

process is a National Environmental Management Strategy (NEMS) and an Enabling Draft Legislation both of which provide a plan for environmental management and a focused framework for capacity building strategy. The NEMS contains several principles which includes the implementation of the MEAs and captures the cross cutting issues and synergies of all of the relevant MEAs. The Draft Environmental Legislation captured the policy direction of the MEAs and the synergies report. The final draft legislation has been submitted to the Attorneys General Office and will be included on the Order Paper for one of the sittings of Parliament for 2006. With the policy documents completed the capacity needs and gaps in Environmental management for Antigua and Barbuda became clear. The final strategy is therefore considered a true reflection of the capacity needs for Antigua and Barbuda for the implementation of the Rio conventions.

7. The Antigua and Barbuda's, NCSA process benefited from parallel activities related to the development of a Second phase of the Biodiversity Enabling Activity, i.e. the Development of Antigua and Barbuda's first Full Size GEF Project. Additionally, other processes to benefit include the development of the National Implementation Plan for the POPs (Persistent Organic Pollutants) convention. All of these activities contributed significantly to the development of the NEMS and the Environmental Legislation, which embodies the recommendations for the country to achieve real synergies between the Rio Conventions and the basis on which the NCSA was developed.
8. The project was executed by the Environment Division within the Ministry of Works, Transportation and Environment, and was implemented over a period of 30 months. The project management included the establishment of a technical advisory committee with the reports from the project being tabled at the National Coordinating Mechanism (NCM). UNEP was selected as the GEF implementing agency and was a valuable Partner in the Development of the NCSA. UNEP demonstrated a level of flexibility and strong technical support without which the project would not have been so effective. The project faced several delays and although this is regrettable, it is the view of the Staff of the Environment Division that the final document is a true reflection of the needs of the Country.
9. The final NCSA identified several areas as a priority for capacity Building. (see section below)
10. Now that the NCSA is completed Antigua and Barbuda in partnership with UNEP will be taking steps to apply for a GEF Medium Size Project to implement the recommendations of the NCSA.

INTRODUCTION

As a Party to all three Rio Conventions Antigua and Barbuda was eligible to receive financial assistance to conduct a detailed exercise to assess its national capacity to implement these Conventions. The project was initiated in 2003, with UNEP as the Implementing Agency and Funding from the GEF.

The NCSA process was executed by the Environment Division, the focal point of the GEF and the agency with the mandate to coordinate the implementation of the conventions on the ground. The process essentially followed the guidelines and steps suggested by the GEF and UNEP with some deviations. These steps included:

1. Thematic report for Climate Change;
2. Synergies Report
3. Preparation of a National Environmental Strategy (NEMS);
4. A Draft Environmental Management Legislation;
5. A National Environmental Strategy (including that for NGOS);

A thematic Approach to Biodiversity and Desertification was not considered to be a necessary part of this process since recent parallel processes produced similar documents. These documents included “Capacity Building for In Situ and Ex – Situ protection and management of Biodiversity in Antigua and Barbuda (1995), and National Assessment Program (NAP) for CCD (2005). Information and consultations from these processes was used for the production of the Synergise report.

Extra emphasis was placed on the development of the Capacity building strategy for NGOs and Community groups. This document was constructed with considerable consultation and took a period of one year with the end result being the production of two outputs; the NGO capacity Assessment and Building Strategy and an “NGO consultation Strategy. Both documents and their recommendations were incorporated into the final NCSA strategy.

The final NCSA document was submitted in April 2006 and the project completed in May 2006.

1. BACKGROUND

1.1 Environmental Context in Antigua and Barbuda

Antigua and Barbuda has limited mineral resources with no petroleum based reserves. The Country is blessed however with a rich diversity of natural resources whose interactions form the basis for the country’s culture and economy. Being the largest of all the Leeward Islands in the Lesser Antilles, Antigua, and its sister island of Barbuda, are home to a number of unique and some endemic species (see photographs below). The biodiversity is unique due to geographic isolation and environmental difference, which have played an important role in the evolution of the species.



Frigate Birds in Barbuda, one of the few places in the world they can be seen in all their glory.

A wide range of coastal and marine habitats is represented within the country including coral reefs, seagrass beds, lagoons, beaches and mangrove forests. These habitats support many globally rare fauna such as marine turtles, and corals. Given the small size of the islands these marine habitats are generally located in close proximity to terrestrial habitats including lowland tropical forests, xeric formations and montane forests. Although these terrestrial environments are relatively depauperate in terms of absolute numbers of species, they harbour a significant variety of restricted-range species, particularly birds.

Threats to the environment are mainly due to human activities as well as natural disasters¹. The loss of habitat to housing and tourism development is the greatest threat to biodiversity while a legacy of historically poor agricultural practices and roaming livestock is the major cause of land degradation. Over the past ten years extreme climatic conditions such as droughts and hurricanes have wreck havoc on the coast resulting in significant erosion and loss of built structures. It is anticipated that these threats will continue to be the most significant in the management of the local and global environment. Pollution also presents a continuous threat to the marine and terrestrial environment mainly as a result of excessive nutrients or sewage discharge into coastal waters. Coral reefs are severely stressed not only due to poor water quality but also due to over fishing and exposure to hurricanes.



The Antigua Racer Snake is one of the rarest in the world

In response to these threats the Government has taken steps to review national environmental legislation and institutional arrangements with the aim to ensure the efficient, effective and optimal management of the natural resources of the country.

1.2 The Status of the Implementation of the RIO Conventions

¹ More details related to threats can be found in the NBSAP

Antigua and Barbuda has signed and brought into law² the UNFCCC, CBD and CCD. Along with responsibilities relating to other international environmental agreements such as the Basel Convention, the Montreal Protocol on Ozone Depleting Substances, and the Convention on Trade in Endangered Species (CITES), the UNFCCC, CBD, and UNCCD represent a considerable attempt to promote international cooperation in environmental stewardship. However, the conventions also establish obligations and responsibilities that in many instances present challenges in implementation for small-island developing States like Antigua and Barbuda. This is due to the limited availability of technical, scientific and financial resources within the country.

1.3 Institutional Arrangements for the implementation of the conventions

This section provides an overview of institutional arrangements for the implementation of the Rio conventions in Antigua and Barbuda. An overview is also provided of the National Coordinating Mechanism for Environmental Conventions, the draft Environmental Management Legislation and the National Environmental Management Strategy and Action Plan. All these represents integrated approaches to the coordinated implementation of the MEAs.

1.3.1 UNFCCC (United Nations Convention on Climate Change)

Responsibilities for implementation of the UNFCCC once resided within the Office of the Prime Minister. Actual day-to-day management and coordination of these responsibilities rested with a Project Coordinator appointed on a contractual basis and reporting directly to the Permanent Secretary. These arrangements changed in 2005 when the Environment Division became the focal point of the UNFCCC and assumed the responsibilities for implementation.

The climate change enabling activity project has completed the first phase and is about to enter the second phase. The intent of the second phase is to build capacity for meeting the requirements of the UNFCCC. During the first phase of the project, the objective of which was the preparation and submission of Antigua and Barbuda's Initial National Communications to the UNFCCC, a steering committee was in place to provide technical guidance on the implementation of project outputs. The committee comprised representatives from many of the government agencies involved in various aspects of work related to climate change. Agencies involved in the steering committee included the Meteorological Office, the Antigua Public Utilities Authority (APUA), the National Office of Disaster Services (NODS), the Environment Division, the Fisheries Division, the Ministry of Planning, Director of Statistics, as well as the Environmental Awareness Group. A new committee will be formed for the implementation of the second phase of the project.

² The UNFCCC was ratified in February 1993, the CBD in March 1993, and the UNCCD in June 1997. The Kyoto Protocol was ratified by Antigua and Barbuda in October 1998.

At the national level the now completed Caribbean Planning for Adaptation to Climate Change (CPACC) project, and its successor projects, have been implemented by the Fisheries Division of the Ministry of Agriculture. This project achieved important strides in building capacity for climate change through various workshops and the development of a draft policy for management of climate change impacts. Under the CPACC and successor projects emphasis has been placed on capacity building for climate change impact assessment in coastal and marine areas, data compilation, and linkages to key economic sectors.

In terms of coordination with other environmental conventions, the Climate Change Coordinator has participated in, and on several occasions provided written and oral reports to, the National Coordinating Mechanism (NCM) on Environmental Conventions coordinated by the Environment Division. Representatives of the Fisheries Division have also participated in the proceedings of the NCM.

Important institutional relationships also exist at the international and regional levels. One outcome of the now completed regional CPACC project and its successor projects has been the establishment of an informal regional network of technicians involved in climate change issues. This has been further facilitated by participation of most of these same technicians in meetings held under the auspices of the UNFCCC. These regional and international linkages have offered opportunities for cooperation in project implementation (for example through use of common consultants), have fostered use of tried and tested best practices, and allowed for development of harmonized or common regional positions on climate change issues.

International negotiations and attendance at meetings is the responsibility of the Environment Division, the Metrological Office (focal point for the IPCC) and the Ministry of Foreign Affairs (New York Mission). Technical meetings are attended by agencies that will be directly impacted on the issues being discussed.

1.3.2 CBD (Convention on Biological Diversity)

Management of activities linked to the Biodiversity Convention is the responsibility of the Environment Division. Initial implementation of the CBD was undertaken through a Coordinator hired on a contractual basis by the Permanent Secretary in the Office of the Prime Minister. This arrangement was used for the preparation of Antigua and Barbuda's first Report on Biodiversity which was completed and submitted in 2001. A steering committee consisting of representatives from various governmental and non-governmental agencies comprised a technical project steering Committee for the implementation of this convention. .

The Environment Division formally assumed responsibility for the management of the project in 2003. Since then project activities have included various public awareness programmes and the successful implementation of a project linked to the Cartagena Protocol on Bio-safety for development of a national framework for Bio-safety in Antigua and Barbuda. A Technical Advisory Committee provides technical input to the implementation of the project with membership drawn from the Ministry of Agriculture, the Central Board of Health, the Ministry of Health, the Plant Protection Unit, and other governmental agencies.

Regular reports on implementation of the activities of the biodiversity convention are provided to the meetings of the National Coordinating Mechanism (NCM).

The administrative responsibilities for the Bio-safety Protocol reside with the Plant Protection Unit of the Department of Agriculture, and implementation responsibilities with the Environment Division. A Technical Advisory Committee comprises representatives from the ministries and departments of agriculture, health, environment, as well as stakeholders from farmers to non-governmental organizations.

The proposed institutional structure for regulatory control of Bio-safety in Antigua and Barbuda envisages the Environment Division as the Bio-safety focal point supported by a Bio-safety Board as the Competent National Authority supported by a risk assessment team; the Plant Protection Unit is responsible for administration and enforcement and is also the Bio-safety Clearing House; an inspectorate consisting of the Plant Protection Unit, the Livestock Division, the Price Control Division, and the Central Board of Health is responsible for such measures as food quality and labeling. These arrangements have not yet been legally mandated.

1.3.3 UNCCD (United Nations Convention to Combat Desertification)

As with the other conventions the focal agency is the Environment Division with operational responsibility within the Ministry of Agriculture. Antigua and Barbuda submitted its first national report to the UNCCD in June 2000. The report contains an initial national action plan for desertification including public awareness, rehabilitation of water resources, and legislative improvements. A multi-stakeholder Technical Advisory Committee (TAC) is currently preparing the National Action Plan (NAP) for the convention working under the technical guidance of the project coordinator. The TAC reports to the Environment Division and submits its report to that agency. Most members of the TAC are, or have been, also members of other environmental technical committees such as Bio-safety or climate change.

1.4 NATIONAL COORDINATING MECHANISM FOR ENVIRONMENTAL CONVENTIONS

The National Coordinating Mechanism (NCM) provides a forum for the coordinated follow-up at the national level to all environmental conventions ratified by the Government of Antigua and Barbuda. The role of the NCM is to strengthen communication links between the relevant ministries and departments of Antigua and Barbuda directly involved with the implementation of international environmental conventions. It consists of a network of government agencies/divisions, national focal points, competent authorities and NGOs working together to facilitate a coordinated and timely response to Antigua and Barbuda's treaty obligations as well as providing a forum for discussions on work-programmes for government agencies. At present the main role of the NCM relates to the important function of sharing information among agencies.

The Environment Division currently serves as the secretariat for the NCM. The present Chairman is Ambassador Dr. John Ashe, Antigua and Barbuda's Permanent Representative to the United Nations. A web-server located within the Environment Division provides electronic communication on the activities of the NCM.

1.5 ASSESSMENT OF IMPLEMENTATION OF THE CONVENTIONS:

Antigua and Barbuda has struggled earnestly to ensure that the country meets its commitment to the MEAs. The past few years have seen the country making adjustments to its institutional and legal framework to meet this challenge. The country's effort has reached a point however, where without a significant injection of resources the progress over the past few years will not be sustained. Several areas of weakness include the preparation of reports, national Environmental monitoring and effective participation in the International process.

It is hoped that as a part of the NCSA process some resources will be made available to overcome these challenges.

2. NCSA DEVELOPMENT STRATEGY - INTEGRATION OF ENVIRONMENT MANAGEMENT INTO NATIONAL PLANNING AND BUDGET PROCESS

2.1 NCSA - Approach and Methods

The NCSA process was approached with recognition of the need to develop a synergistic method for the implementation of the Rio Conventions. In addition, the NCSA process would develop the framework for the integration of the Rio Conventions into the national planning and budgeting process in Antigua and Barbuda. The NCSA approach used was the embodiment of the various commitments of the conventions into a National Environmental Management Strategy (NEMS) with the necessary enabling Legislation for its implementation. The NEMs and Draft Legislation capture as well as provide a sustainable approach to the institutional arrangement for the continued implementation and negotiation of the Conventions. They also ensure the establishment of a process that will see their transparent and inclusive periodical review.

The NCSA process was designed to ensure that there is effective participation by all interested parties particularly civil society and the private sector as well as to ensure the full participation of NGOs while building their capacity. An NGO, the Environmental Awareness Group, was contracted to produce a national Capacity Building Strategy for NGOs and a Civil Society Participation Strategy. This process began at the earliest stage of the project.

2.1.1 Objectives of the Strategy

The objective of the Action Plan is to facilitate and support the development and strengthening of capacities for the effective implementation of the National Environmental Management Strategy and Relevant Environmental Legislation related to the Rio Convention. The Action Plan is designed to build capacities with the Public sector as well as NGOs.

To achieve the objective, the Action Plan will provide a framework for identifying the needs at the country, ministerial and department levels. The plan will identify priorities, mechanisms of implementation as well as sources of funding.

2.1.2 The NCSA – Implementation Strategy

The strategy was developed with considerable consultations among Government agencies and NGOs. It is expected to be incorporated within the National Environmental Management Strategy as well as any future policy documents. The Strategy is anticipated to be implemented by incorporating it into the work program of Government agencies and NGOs. It will be used as a guide for the allocation of resources to agencies. Furthermore, the Strategy will be used by International Donors and Private Sectors as a guide for providing technical and financial resources for Capacity Building.

The following mechanisms will be used for the implementation of the Strategy:

- Development of appropriate Institutional framework;
- Inclusion of the strategy within the individual work programmes of Agencies and NGOs;
- Allocation of funds within the national budget to ensure the sustainability of the implementation of the Strategy;
- Development of Indicators and reporting format for the Strategy;
- Develop and Deliver Training workshops;
- Access funding through the Global Environment Facility, as well as technical assistance via the UNEP Bali Capacity Building Strategy, OECS and other initiatives;
- Develop a network within the private and public sectors to assist with the implementation of the Strategy;

2.1.3 Institutional Arrangement

Antigua and Barbuda has several agencies that have been allocated responsibilities for aspects of implementation of the Conventions. The implementation of the strategy will place a strong emphasis on the coordination of the activities for the conventions through these agencies. Presently, the institutional arrangements for the implementation of environment issues and the implementation of the MEAs are fragmented. This fragmentation is further complicated by some level of duplication among agencies.

To ensure efficiency, the Environment Division, the office of the GEF focal point as well as the focal point for all three Rio Conventions, will take the lead in the implementation and reporting on the progress of the NCSA. The National Coordinating Mechanism (NCM) will be used as the formal coordination forum for decision making and implementation of the Strategy. The NCM is expected to meet three times annually to review reports from relevant agencies. The reports of these meeting will be sent directly to the Cabinet of Ministers via the Minister responsible for Foreign Affairs.

In addition to the Environment Division and the NCM, there is a large number of institutions involved in activities associated with the implementation of the Conventions. These institutions include government ministries, statutory bodies, NGO's and community groups. A list of these and their responsibilities are included within Annex ?



The NCSA could have benefited more by identification of priority agencies for the Capacity Building. However, the identification of the agencies that will benefit for capacity building (particularly from international funding) was found to be difficult at this stage of the NCSA. Based on the capacity building needs identified this exercise will be an important step because of the high cost of and limited access to funding. The country is in the early stages of defining policies governing the management process as it was felt that this process should be completed. What was made clear however, was the fact that most of the stakeholders were not in favour of the popular approach to reduce fragmentation. In fact, it was felt that fragmentation is a necessary level of duplication that provides alternate approaches to solving environmental problems. It was also made clear that agencies involved in coordination should be given priority in Capacity building.

It is anticipated that the clear definition of agency responsibilities will be finalized within a year of the submission of the Strategy. The country's fragmented environmental policy framework has spawned a deeply embedded culture of turf protection which has made this aspect of the project difficult.

With respect to the NCSA implementation it will not be possible to build capacity in all these agencies even when the roles and responsibilities are clear. Capacity building activities will be limited to a few agencies that can deliver the maximum impact on the

implementation of the Convention. The agencies were not specifically identified as part of this exercise but a potential list is provided within **Annex?**

Those agencies involved in the implementation of the NCSA will be expected to include elements of the Strategy within their work programmes and budgetary requests. Furthermore, they will be required to provide periodic reports to the NCM. These reports will be used as part of the national reports to the Conventions secretariats.

2.1.4 NGO Participation

Non-Governmental Organizations (NGOs) have played an important role over the last ten years in drawing public attention to environmental issues particularly the Conventions. They have cause public involvement in issues such as sand mining, solid waste management and the destruction of wetlands. Additionally, many civic and community groups have participated in projects such as tree planting and beach clean up activities. More recently NGOs have taken on a more substantive role by becoming involved in efforts to improve community management of coastal areas, providing training to stakeholders in practices that conserve reefs, off-shore island ecosystems and mangrove wetlands.

NGOs will therefore be an important partner in the implementation of the NCSA strategy and as with Government agencies, there will have to be strategies in the allocation of resources to these groups. These groups will be expected to implement the plan through activities such as public awareness, training workshops, implementation of projects and the integration of elements of the strategy within their work programmes.

These groups are expected to report in a similar manner as Government agencies.

2.1.5 NCSA - Monitoring, Reporting and Accountability

Antigua and Barbuda like other parties to the conventions is required to report on the activities related to the implementation of the Conventions. As such, the progress of the implementation of the NCSA will of course be part of the report. As mentioned before, each of the agencies and NGOs involved with the implementation will be required to provide reports which will be collated and submitted as the overall report for Antigua and Barbuda. The Environment Division will be establishing standard reporting formats for the agencies to inform of their progress. Reports will include the implementation of work programmes and projects developed under the NCSA.

Information will be gathered from NGOs and Community groups via individual interviews and group consultations.

2.2 Outputs of NCSA Process

1. National Environmental Management Strategy;
2. Draft National Environmental Legislation;
3. Synergies of three Rio Conventions;
4. Civil Society Participation Strategy;
5. Civil Society Capacity Building Strategy;
6. Capacity Building Strategy;
7. GEF MSP

2.2.1 NATIONAL ENVIRONMENTAL MANAGEMENT STRATEGY AND ACTION PLAN

Antigua and Barbuda, along with other OECS countries, has initiated work on a National Environmental Management Strategy and Action Plan (NEMS). This has involved a consultative process among a wide variety of governmental, community and non-governmental stakeholder and interests groups, with the aim of identifying a set of guiding principles and related activities for steering sustainable environmental management.

The NEMS initiative is result of not only the NCSA process but as part of a regional output of the OECS St. Georges Declaration which enunciates seventeen principles for environmental management in the OECS region. Antigua and Barbuda's NEMS focuses on five of the principles of the St Georges Declaration with these relating to economic tools and incentives; developing relations with civil society; public awareness and education; comprehensive environmental legislation; and building on the opportunities of the international environmental conventions. Many of the recommended actions outlined in the NEMS are aimed at promoting synergy and synthesis between agencies involved in implementation of environmental responsibilities including the environmental conventions.

The Strategy is to be implemented through projects and annual work programs that will further detail the specific tasks and mechanisms for implementation. The NEMS process provides an important set of principles, based on public consultation, for developing environmental strategies and actions for Antigua and Barbuda. In addressing the five principles the NEMS identifies a number of activities that will facilitate the realization of these objectives. These are generally cross-cutting activities that target a range of methods and stakeholders.

The measures identified in the NEMS have strong positive overlaps and linkages with activities relating to implementation of international environmental conventions. It is these activities that have been extracted and developed in detail within the NCSA.

2.2.2 DRAFT ENVIRONMENTAL MANAGEMENT LEGISLATION

A draft Environmental Management Act has been prepared under the guidance of the Environment Division and as part of the NCSA process. The drafting process is now completed and the document is at the office of the AGs.

As presently structured the Act establishes a Department of the Environment as the principal executive agency responsible for implementing the provisions of the Act. The draft provides for the appointment of inspectors and other officers as well as the establishment of an Environment Trust Fund. Part III of the draft details the requirement and procedures for conduct of Environmental Impact Assessments including establishment of a Unit within the department to pursue these activities.

The legislation also establishes Units within the Department for climate change and ozone depletion, both being subjects arising out of multilateral environmental conventions. Other Parts of the draft that reflect obligations from international environmental conventions relate to management of wastes, biodiversity and national parks as well as protection of the marine environment. Other subject areas dealt with include coastal resources, sustainable **forestry management**, and water quality management.

The draft also establishes a National Coordinating Mechanism on Environmental Conventions (NCM) “which shall be responsible for coordinating the management and implementation of international environmental agreements”. Under the Draft Bill the NCM reports to the Minister responsible for foreign affairs.

The Draft Act can be accessed on the Environment Division’s website at www.environmentdivision.info.

2.2.3 IDENTIFICATION OF SYNERGIES

In general while the implementation of the individual conventions has proceeded separately, there has been considerable overlap in implementation at the technical level arising from the limited available pool of technical agencies and individuals in Antigua and Barbuda. Three important instruments, the already functioning NCM, the draft Environmental Management Act and the National Environmental Management Strategy, provide significant opportunities for improving the level of integration of cross cutting environmental issues between agencies and organizations involved in implementation of programs and activities pertaining to the three Rio conventions.

The extent of interconnection between biodiversity, land degradation and climate change particularly for SIDS makes it impossible to isolate them in terms of their scientific inter-linkages and causes. Climate change is expected to be among the major threats to biodiversity at species and ecosystem levels as well as contributing to land degradation and desertification. Globally, the loss of floral biodiversity is a major contributing factor

to desertification and changing climate. Changes in climate will exceed the adaptive capacity of flora and fauna to respond to alterations in the natural environment. In most instances, pollution and other anthropogenic impacts particularly deforestation, have already seriously affected the ability of ecosystems, and the species within them, to respond to forecast changes in global climate.

The global conversion and degradation of grassland and forest ecosystems, which are significant driving forces underlying species extinction and loss of critical ecosystems, are also a major source of the greenhouse gases that cause climate change. They are also primary contributors to processes of land degradation and desertification. Climate change is also likely to have a serious effect on desertification processes. In areas where the environment becomes drier and the soil further degraded through erosion and compaction, desertification processes will intensify. The global hydrological cycle is likely to intensify as a result of climate change and could have major impacts on biodiversity, especially in areas where water quality and supply are already challenged by aridity.

In addition to the thematic and policy linkages that exist between the various environmental agreements in such areas as forests, technology transfer, and sustainable development there are important institutional linkages that are also relevant to the types of linkages that should be established on the ground, particularly at the national level, to give effect to the requirements arising from the conventions themselves. These institutional linkages include reporting, research and monitoring, development of national plans, and financial arrangements.

2.2.3.1 REPORTING REQUIREMENTS

Each of the three conventions and their related instruments require the submission of reports on activities being undertaken in relation to the implementation of their provisions. In some instances reporting represents one of the principal requirements of the convention as this is crucial to building an official database of information on matters relating to the convention. The Responsibility for reporting resides with one central agency, the Environment Division. Each report is developed with wide consultation with relevant agencies, NGOs and even the private sector.

Antigua and Barbuda submitted its first national report to the CBD in 2000. This provided information on the status of implementation of the CBD in Antigua and Barbuda including general information on economic, social, climatic, and other factors relevant to biodiversity issues.

Guidelines for submission of the second national reports require completion of an in-depth questionnaire aimed at securing information on the state of national implementation of the various articles of the CBD and relevant decisions of the Conference of the Parties. The guidelines for the report recommend that “Contracting

Parties involve a wide range of stakeholders in the compilation of information that is presented in the report, in order to ensure a participatory and transparent approach to its development”. This is also important given the cross-sectoral nature of many of the responses required. The format for the third national reports will require even more detailed information and actions being taken to implement the convention.

In the case of the UNFCCC extensive reporting is also required³. Articles 4 and 12 of the convention establish and stipulate reporting requirements for developed (annex I) and developing (non-annex I) country parties to the convention, such as Antigua and Barbuda. As with the CBD, the UNFCCC National Communications are expected to provide information across a wide range of subjects relevant to climate change. This includes information on the country’s national circumstances (climatic features, geography and natural resources, economy, demographics etc); a detailed scientific inventory of greenhouse gas (GHG) emissions and removals⁴; information pertaining to measures being taken for adapting to and mitigating against climate change; as well as information relating to systematic observation, public awareness, and capacity building for climate change.

In relation to reporting requirements under the UNCCD, Article 26(1) provides that “each Party shall communicate to the Conference of the Parties for consideration at its ordinary sessions, through the Permanent Secretariat, reports on the measures which it has taken for the implementation of the Convention. The Conference of the Parties shall determine the timetable for submission and the format of such reports”. Article 26(2) stipulates that Parties to the convention shall provide a description of the strategies and related information that they are undertaking as part of their efforts to achieve the goals of the convention.

Article 26(6) indicates that information provided pursuant to the article should be submitted “as soon as possible” to the Conference of the Parties without stipulating any specific time frame. Antigua and Barbuda is up to date with all of its report to this Convention. As with the UNFCCC and CBD, and other environmental conventions, reporting under the UNCCD encompasses input and activities of a number of sectors and stakeholders and therefore requires multi-sectoral and multi-agency input.

However, providing reports to the Conventions is difficult due to the lack of research and storage of information within databases. This is further complicated by the lack of will for the timely sharing of data.

2.2.3.2 RESEARCH AND MONITORING

³ The Kyoto Protocol will also require substantial reporting under Articles 7 and 8 of the Protocol.

⁴ The inventory utilizes methodologies developed and agreed upon by the Intergovernmental Panel on Climate Change (IPCC). In the first national communications parties were required to report on CO₂, CH₄ and N₂O, and encouraged to report on other GHGs (PFCs, HFCs, SF₆) and precursor gases (CO, NO_x, and VOCs). Parties are now expected to report on all six of the listed GHGs, and are encouraged to report on precursor gases.

The three conventions and their related instruments also each contain a number of implied or explicit requirements for scientific research and monitoring towards the overall achievement of the goals of the convention. In many cases there is important overlap and commonality among the information needs and outputs of these agreements. Article 12 of the CBD, entitled Research and Training, encourages national and international efforts to establish and maintain programmes for scientific education and training. Similarly, article 5 of the UNFCCC entitled “research and systematic observation” obligates parties to the convention to cooperate in their scientific and research endeavors relating to climate change. Under the UNCCD, articles 16 and 17 dealing with information collection, analysis and exchange, and research and development, urge international cooperation in the acquisition and exchange of data and information in fulfillment of the obligations of the convention.

In the case of all the conventions, information is required for the evaluation of institutional, legislative and capacity-related issues. In most cases much of the data that is fundamental to analysis and assessment under a particular convention is of considerable relevance to reporting, policy development, and analysis under other environmental conventions. This would include information pertaining to physical, economic and social data (GDP, demographics, government expenditures etc.) as well as more specific environmental information and data relating to such aspects as land use, vegetation type, climate, topography, and infrastructure.

Given that different agencies and organizations will be involved in implementation of different environmental conventions and different elements within the conventions, the challenge in such circumstances is to set in place institutional arrangements that allow shared access to information needed for the fulfillment of obligations under the various environmental conventions.

2.2.3.3 ACTION PROGRAMMES

Another area in which the convention requirements of the Rio conventions overlap relates to the preparation of the various national action plans and programmes for giving effect to the objectives of these agreements. Given the interconnected nature of the concerns being addressed, it is inevitable that there will be significant thematic and other linkages between policies or programmes aimed at overcoming problems associated with particular environmental conventions. It is important that there be consistency between findings and recommendations in the separate action programmes. It is also important that as far as possible the results of experiences acquired in one convention are utilized where needed in other conventions.

In the case of the UNCCD, the root causes and consequences of land degradation and desertification encompass a range of climatic, socio-economic, biological, and institutional elements. Preparation of national reports is therefore necessarily expected to incorporate multiple stakeholder interests including those pertaining to climate and biodiversity. In addition

to national reports, parties to the UNCCD are also expected to participate in the preparation of regional and sub-regional action programmes. These action programmes are to be fully integrated into other national policies for sustainable development and are expected to be flexible, and to be modified as circumstances change.

Under article 4.1(b) of the UNFCCC, countries are expected to “formulate, implement, publish and regularly update” programmes relating to mitigation of climate change “and to facilitate adequate adaptation to climate change”. The cross-sectoral nature of the measures required for adaptation and mitigation means that climate change plans and programmes will comprise material relevant to issues of land degradation and biodiversity.

For the CBD, article 6 requires that countries “develop national strategies, plans, or programmes for the conservation and sustainable use of biological diversity”, with the intention of as far as possible integrating sustainable use of biodiversity into relevant programmes and plans. Establishment of a biodiversity strategy and action plan is one of the principal obligations of parties to the agreement, and is an activity that requires substantial cross-sectoral and multi-stakeholder involvement.

The Environment Division is responsible for the implementation and review of Antigua and Barbuda’s Biodiversity Strategy and Action Plan (BSAP). The BSAP identifies a number of priority concerns and outlines recommendations for responding to these matters. Many of the key concerns of the BSAP are variants of, or related to, the concerns of the UNCCD and UNFCCC including in sectors such as coastal resources, water resources, and human health. The Environment Division has also implemented a project aimed at facilitating Antigua and Barbuda meeting its commitments under the Cartagena Protocol on Biosafety through adoption of policy frameworks, public awareness, and other measures.

Antigua and Barbuda’s NAP is being implemented by the Ministry of Agriculture and the Agencies responsible for Lands and Physical Planning.

2.2.3.4 PUBLIC AWARENESS

Public awareness represents an extremely important cross-cutting set of activities and is identified in all of the conventions as a matter for action. The interconnectivity of the environmental concerns addressed under the three conventions, and the similarity of the required responses means that opportunities should exist for shared and joint awareness raising activities drawing on resources emanating from a variety of sources.

The importance of programs relating to awareness, education, and training is identified in a number of articles throughout the three conventions particularly Article 6 of the UNFCCC, Article 13 of the CBD, and Article 19 of the UNCCD. The various activities implemented under specific agreements clearly present opportunities for collaboration in terms of information inputs, sharing of limited financial and technical resources, and harmonization of actions. Given

the significance of awareness raising activities it is particularly important that measures are maximized to allow for fullest possible harmonization and coordination of awareness activities among the conventions.

2.2.3.5 FINANCIAL MECHANISM

One significant feature of the Rio conventions is that they seek to establish financing instruments for funding certain responsibilities and obligations arising from the conventions. In the CBD Article 21 establishes a Financial Mechanism to provide funds to developing countries for biodiversity activities, under the supervision of the Conference of the Parties. This is supportive of Article 20 of the CBD that calls on Parties to the convention, particularly developed countries, to provide financing for biodiversity activities. Article 11 of the UNFCCC also provides for establishment of a Financial Mechanism under the direction of the Conference of the Parties. In the case of the UNCCD, Article 21 calls on the Conference of the Parties to “promote the availability of financial mechanisms” for supporting developing countries efforts against desertification and land degradation.

In practice the role of financial mechanisms for the conventions has gone to the Global Environment Facility (GEF) established as a joint initiative between The World Bank, the United Nations Development Program (UNDP), and the United Nations Environment Program (UNEP)⁵. At the national level the GEF is represented by an operational focal point and a political focal point. The Chief Environment Officer presently serves as Antigua and Barbuda’s GEF operational focal point responsible for in country coordination of GEF projects, approval of GEF projects, and other operational matters. Political focal points are responsible for GEF governance issues and policies. Antigua and Barbuda’s political focal point is presently its ambassador to the UN.

The existence of a single financing mechanism for the three conventions provides an opportunity for ensuring complimenting activities and cohesion in funding requests at the national level among the conventions, and this is aided by the presence of a single GEF national focal point. The presence of the national focal point also ensures technical capability for accessing resources. Implementation of GEF financed projects in Antigua and Barbuda is managed in conjunction with UNDP and UNEP regional and international offices. Interactions between national level officials and these offices include financial reporting, monitoring and evaluation.

2.2.3.6 CONCLUSION

The Rio Conventions contain a number of similar thematic elements and requirements. These include reporting requirements, development of action program, scientific research and monitoring, financing, and public awareness. These in turn require the elaboration of appropriate institutional structures for their implementation. Critical to the success of implementation is the ability to coordinate and share resources, particularly personnel, across different ministries and

⁵ The second GEF Assembly in October 2002 designated land degradation as a focal area of the GEF as a means to support the UNCCD.

departments including access to required information. The importance of coordination and collaboration increases given the limited number of personnel involved in Antigua and Barbuda, the interrelatedness of the concerns, and the need to advance implementation of the goals and activities of the environmental conventions.

3. CAPACITY B BUILDING STRATEGY 2006 – 2011

The results of the synergy report and the NGO consultation strategy and Capacity Building strategy have been incorporated into the Action Plan outlined below.

Summary of Priority Areas

The following key areas, which require capacity-building initiatives, were identified based on different situations, needs, capabilities and stages of development of each government agency or NGO;

1. Strengthening and or amendments to relevant legislation and the improvement of the methods of enforcement;
2. Coastal Zone Monitoring and adaptation strategies;
3. Research, assessment, inventory and monitoring of environmental indicators related to the three Rio conventions and social indicators related to the NEMS.
4. Development of information systems, and information management and exchange, linked with the clearing-house mechanism of all three Conventions;
5. Development and strengthening capacities of NGOs and community groups to communicate in a manner that will increase their effectiveness when participating in the decision making process and project implementation;
6. Building capacity to develop and implement a Formal Education program and awareness strategy that focuses on specific target groups;
7. Human resources development and training at all levels, particularly in the area of legal drafting, protected areas management and international negotiations.
8. Targeted capacity building to promote synergies between the three conventions at the national level.

1. Environmental Legislation

The development of environmental legislation in most commonwealth countries has traditionally adopted an enforcement measure that is heavily reliant on the Courts. In SIDS where the society is so closely interwoven enforcement becomes difficult and frequently abandoned for alternative means of resolution. Further, if the situation reaches the courts the process is lengthy. If significant and or permanent damage has already been done to the environment with no means of rehabilitation this process is not an effective approach to the prevention of damage. It must not be forgotten that legislation should be designed to protect

the environment and as such should be designed as an effective deterrent to environmental degradation. The courts should be a measure of last resort.

The NCSA process reviewed the existing legislation with the view to have the Courts involvement a last resort. Therefore, measures such as mediation, the use of the media, the establishment of Environmental Management systems and a system of large fines were built into the draft legislation.

After a careful review of the capacity constraints in this area, the following Environmental Legislations should be given priority for capacity building initiatives:

- The Draft Environmental Management Act 2005;
- The Town and Country Planning Act 2004;
- The Draft Forestry Act;
- The Draft Fisheries Act;
- The Lands Act;

Capacity needs:

1. Trained personnel in the areas in International Environmental Law, EIA, and the Monitoring of development activities;
2. A well equipped lab or a system for the certification of private labs, for environmental assessment;
3. Equipment for monitoring, particularly in the coastal areas;
4. Institutionalized training for law enforcement officials;
5. Increase environmental awareness in line persons as well as management personnel in the construction industry and management levels in all other relevant industries;
6. Harmonize reporting and information sharing between agencies;
7. Establishment of a law enforcement unit within the Environment Division;
8. Update and draft regulations for the above mentioned legislation;
9. Public awareness and access to information;

2. Coastal Zone Management

Climate change and past poor land use practices have created severe problems within the coastal areas. Taking into consideration that the majority of the national Biodiversity is found within the coastal areas it is important that a comprehensive plan be developed to manage this resource.

Capacity Constraints

- The collection of baseline data and monitoring;
- Development of and the establishment of accurate zoning and local area plans;
- Development of and integrated coastal zone management plan with necessary regulations

Capacity needs;

1. Extensive training in coastal processes and engineering at all possible levels;

2. Equipment e.g. GIS to facilitate efficient data collection and monitoring;
3. integrating the monitoring protocol into the Curricula of the Antigua and Barbuda State College, thus utilizing much needed human resource while building the capacity of the country to monitor its resources ;
4. Draft and pass legislation for research in the coastal areas to ensure that data collected is fed back into the decision making process;
5. training in monitoring in coastal water quality assessment as well as coastal zone management;

3. Research, Assessment and Monitoring;

One of the greatest weaknesses in the implementation of the conventions is the collection of information for research, monitoring and reporting. The main institution for research is the National Tertiary Institution, Antigua and Barbuda State College. Although it has unlimited potential this college rarely utilize students to collect and provide independent analysis of data and where it occurs very little is published. The country is therefore reliant on government agencies to collect and analyse information which not only provides an opportunity to introduce bias but the process is lengthy. This coupled with the lack of data sharing between agencies does not provide for an independent source of research data for the management and or monitoring of Biodiversity Loss, impacts of climate change, and or land degradation.

After careful review it was established that the capacity building strategy for research, and monitoring should involve the development of a culture of research, independent assessment and timely publication of results, within our tertiary institutions and government agencies. This can be accomplished working closely with local, regional and international universities.

Capacity constraints:

- Teachers have Limited knowledge of the international process, the relevance of the curricula and the work of the students in the implementation of the convention at the national levels;
- Unwillingness of Government agencies to work with international universities in the area of research;
- The protection of turf;
- The lack of a forum for the recognition of published local research work;

Capacity Needs:

1. Improvement of the curricular at the Antigua State College to include nationally important research among the priority areas;
2. Need for acquisition and maintenance of technical facilities and equipment for research, particularly in the area of Biodiversity and climatic changes;

3. Development of research programmes, with associated student grants, to address gaps in information requirements;
4. Create a program of simple research methods to facilitate the involvement of NGOs and Community groups;
5. Develop forum for the presentation of scientific work and to provide incentives for technical officers to conduct research work;

4. Information Management

Information management and dissemination is critical to the management of the Conventions as well as the public awareness activities. Antigua and Barbuda has been historically weak in this area. The main problem is limited access by the target population as well as even government agencies to computer and internet facilities. This coupled with a culture of not assigning value to the importance of historical information and or using this information for decision making places additional constraints on information management in the country.

Capacity Constraints:

- Limited access to Internet among Government Agencies;
- No requirement for the agencies to share information with each other;
- Limited trained individuals in the area of database development and management, particularly in the area of GIS.
- Limited post graduates within this area of the service.

Capacity needs:

1. Provision of training in the area of information management and dissemination;
2. Upgrade of the Environment Division's website;
3. Provision of software and equipment to agencies and research facilities to provide and share information;
4. The development of a data sharing protocol between agencies;
5. Establishment of a central Environmental GIS Unit within the Lands and Survey department or the Environment Division;
6. Provide incentives for the collection, analysis and publication of information;
7. Make data more accessible to the public and professionals such as EIA specialists, teachers etc;

5. Education and Public Awareness

The NCSA process brought many stakeholders together and the consensus was that the most effective and efficient use of funding for this program was the formal education system. This strategy is based on the infusion of environmental concerns into the curricular at all levels of the education system. As part of Antigua and Barbuda's NSCA process this concept was tested with great results.

Capacity Constraints:

- Coordination between agencies is weak but growing;
- Limited access of students and teachers to the internet
- Limited access to tools and equipment;
- Limited integration of local environmental issues into the curricula;
- Limited trained teachers in the areas of environmental science and law;
- Very limited publication designed to provide information on local environmental issues;

Capacity Needs:

1. Development of teacher's guides and student texts for all level of classes including tertiary level. These documents should be based on the national circumstances and local knowledge.
2. Development of online library resources for students at all levels;
3. Develop an awareness among students and researchers about the various Clearing House Mechanisms for the Conventions;
4. Tools and equipment for science and environmental projects, including student research;
5. Development and establishment of professional short courses in environment management, e.g. handling of chemicals for pesticide controllers and farmers, selecting clearing techniques for heavy duty equipment controllers; Certification of Environmental Auditors, Eco-Tour Guides;
6. Training in Public awareness techniques and strategies including feedback mechanisms to determine effectiveness;
7. Full time trained Environmental Educator and communication expert within the agency which is the focal point of the Conventions to assist with the development and implementation of formal education program.

6. Institutional and Human Resource Development – Short and Long Term;

Human resource is precious and limited within SIDS. Antigua and Barbuda has been fortunate to have a significant amount of trained personnel but international recruitment efforts have changed this. International opportunities have become increasingly attractive to trained technical officers particularly with the increase in inflation and low wages. The increase cost of tertiary education makes it difficult for nationals to return home and find employment that can provide them with the ability to service student loans. It is therefore difficult to attract qualified personnel to work on projects and programmes funded by the Government. The benefits are not competitive with the local private sector or jobs available in developed countries and international agencies.

Capacity Constraints;

- Limited persons with the necessary training and experience in the areas of coastal zone management, particularly in the area of adaptation strategies for coastal protection.
- Limited training in the area of Public awareness, media relations and communication;

- Limited training in the communicating with specific target groups such as community groups and NGOs;
- Low salaries and limited prospect for scholarships in the areas of Environmental Law, coastal engineering, beach restoration etc.
- Limited legal framework that supports the development of a private sector that the Government can have access to;

Capacity Needs;

1. Develop a national strategy for the Human resource development and retention within the various fields of environmental management
2. Establishment of environmental courses within the tertiary schools;
3. Provide scholarships in the area of Environmental Impact assessments, GIS database management, Environmental Law; Taxonomy, Climate Change;
4. Develop environmental legislation that will encourage the development of a core of professionals within the private sector;
5. Increase financial and non-financial incentives to retain qualified personnel in Government. These include adequate opportunities for advancement and opportunities for professional development.

7. Capacity Building for NGOS and Community Groups; (see report)

The NCSA process provided the NGO community with resources for the assessment of their own capacity needs and the relevant strategy. The strategy is available in **Annex** and summarized here.

Capacity Constraints:

- Lack of legislation that provide a framework for NGOs to be recognized by the Government and or international agencies;
- Capacity is transient since funding is limited to provide permanent full time staff;
- Limited access to Internet and other communication tools;
- Limited capacity to design and implement projects.
- Inadequate capacity to access international funding from the GEF and other sources;
- Inadequate funding both nationally, regionally and internationally;

Capacity Needs:

1. Establishment of legislation and or the integration of NGOs into key legislation;
2. Further training for the implementation of the National Environmental Strategy;
3. Need full time staff to assist community groups in the development and implementation of projects and getting access to both national and international funding;
4. Provide funding support for the NGO network;

5. Institute a wide range of training opportunity to enable NGOs to perform more effectively and efficiently;
6. The Capacity building project would benefit by making assistance available for institutional strengthening of civil society organizations;
7. The NGO Network should be strengthened to provide support to NGOs and community group;
8. Provide for paid positions on government Boards and advisory bodies;

8. Capacity building specifically for improvement of synergies between Conventions at the national level

This section provides an indication of certain actions that can be taken to advance integration and synthesis between the Rio conventions. These comprise various human resource development initiatives (training and public awareness), administrative actions and processes, actions for strengthening information availability and access.

In general, there is substantial overlap and integration between these measures. They are intended to provide an enabling environment for advancing integration and synthesis in the implementation of the objectives of the Rio agreements and enhance capacity building at systemic, institutional, and individual levels. These initiatives will not only contribute to the implementation of the Conventions but also the wider environmental management concerns. All of these measures also fall into the framework for action identified in the NEMS.

As mentioned earlier the NCSA strategy for Antigua and Barbuda was based on the principle of the integration of all aspects of the Conventions into the national planning and budget process. Since the Conventions are dynamic capacity building measures they must take into consideration the need for periodic updates of national plans and budgets to reflect new and emerging issues.

Capacity constraints

- Limited public awareness of the conventions and the decision process;
- Low salaries, cannot attract professionals with the training and experience to participate in the international process, project management and national government process;
- General lack of funding;
- Limited access to the internet;
- Intuitional barriers to Integration, “turfism” is a key impediment;
- No formal training available locally for the participation in the international negotiation processes;
- Not enough funds for adequate size delegation to COPS (the ideal is two delegates for each COP);
- Not enough funds available for the coordination at the regional level;

Capacity needs:

1. Establish an annual three weeks training program for participation within the international process with specific references to each of the Rio conventions within the Antigua and Barbuda's State College;
2. Enshrine the National Coordinating Mechanism within the legislation of the Environment Division;
3. Provide internet access to all agencies that are part of the NCM process;
4. Develop a targeted Communication Campaign aided by professional communication training;
5. Institutionalized Training Seminar for Permanent Secretaries and other senior officials in Government;
6. Increase salary allocated to posts that are involved with the Implementation of Conventions.
7. Assign full time staff to assist with Inter-Agency coordination and collaboration;

or Capacity Building

	Specific Objectives	Specific Activities
<p>tion</p> <p>As at the identification of training needs into the plans. At this time, the identification of legislation and policies. This is important to consolidate the national legislation. Draft National Environmental Strategy. This process of the environmental issues commitments to</p>	Identify specific training needs for priority legislation;	Engage consultant to review legislation and identify the training needs and where possible, for institution of the training program at the national level outside of the country, particularly within the region for both long and short term. Identification of training and internship opportunities for staff in the Environment Division, Survey Department, Education Department etc.
	a. Identification of tools and equipment that will be necessary to ensure the efficient implementation of the legislation.	I. Conduct an audit of the Government and APUA Laboratories and identify quality management II. Conduct assessment of the Surveys department and Lands Division with the use of GIS in land management;
	b. Establishment of a cadre of trained personnel in the private sector	I. Establish a licensing regime for environmental auditors, EIA professional code of conduct. II. Establish certification courses in areas such as the handling of toxic chemicals
	c. Establishment of a systems of National parks and Protected Areas;	I. Demarcation and declaration of parks and establish boundaries; II. Declare parks under the DCA Act and or the National Environmental Management Act III. Identification of private sector investors for Parks; IV. Identification of lands for Agriculture, Biodiversity, recreation and water areas under the DCA Act.
	d. Ensure the awareness of the public on the importance of the legislation and their rights and responsibilities.	I. Establish a financial award system for persons that report environmental II. Design television and radio programmes for two eight periods for the news III. Publish easy to read handbooks with illustrations that reflect the culture IV. Establish website with legislation and where necessary case studies;
	e. Improve awareness within the Judiciary and Enforcement agencies	I. Conduct workshops for Judges and make full use of UNEP's Judges Program to facilitate and promote this program locally; II. Organize workshops for Customs, Police, Coast Guard and Community III. Organize short lunches and brunches for the media;
	f. Establishment of an Institutional arrangement that will ensure the full enforcement of the legislation for 24 months.	I. Identification of the needs of the departments of the DCA, Environment Division, Survey Department, Government Land and Forestry Department MSP II. Identification of Budget requirement and obtain Cabinet Decision with re funds;
	g. Update and or draft regulations for new legislation	I. Draft regulations for the Town and Country Planning Act 2004; II. Draft regulations for National Environmental Management Bill (draft) III. Review and amend regulations for Fisheries and Forestry Acts;
h. Continual update of legislation, policies and plans	I. Establish a scientific technical committee that will provide for a forum for emerging national and international issues and identify if and when the national legislation; II. Establish within the legislation a requirement to prepare and review plans agreed by all stakeholders.	

	Specific Objectives	Specific Acti
GEMENT h greatest and the area that is nge and its impacts. vestments and so on.	1. Develop a database of baseline information	i. Provide training in GIS, database devel technical personnel within the Govern ii. Identify all monitoring programmes wi rationalization and identification of Ga iii. Provision of equipment for the GIS Un iv. Develop a data sharing protocol as wel publication of this information;
	2. Establish a monitoring Program for ecosystems, and issues related to climate change	i. Identification of important spe commercial value; ii. Establishment of a pattern of s the rate of erosion; iii. Establishing Climate Monitor wind, sea-level, temperature, l
	3. Establish protected and or Managed areas;	i. Identify, Beaches, mangrove swamps a management; ii. Identification of areas that may not hav development; iii. Establish financial incentives mechanis the areas;
	4. Coastal quality assessment	i. Identification of equipment and laborat ii. Identification and or certification of pri iii. Establish standards for coastal water qu iv. Provide a framework for data sharing f general public;
	5. Improve capacity in project planning and implementation	
	6. Develop a coast management plan	i. Establishment of a coastal Monitoring ii. Develop coastal zone strategy for the a iii. Provide institutional and legal support iv. Public awareness program for the plan v. Build capacity within key agencies for
	7. Institutional development	i. Special capacity building measures wit related to physical planning; ii. Provide training in physical planning w Environment Division and Developme iii. Provide access to the GIS equipment f Environment Division

	Specific Objectives	Specific Activities
<p>very expensive and this is countries. The is high and frequently. nulated a filing system. accessible and that it is there.</p>	<p>Improve the level of communication between key government agencies, the NGOs and CBOs.</p>	<p>Conduct assessment of access to Internet among government agencies; devise a cost effective and sustainable strategy in partnership with the Ministry of finance to ensure that over the next five years access is integrated into Government budgets for agencies; Provide training in the use of the Internet to permanent Secretaries within the communities;</p>
<p>the conventions the other would the structure that city building d</p>	<p>Provide legal and institutional requirements for reporting among government agencies;</p>	<ol style="list-style-type: none"> i. Review key legislation to determine where requirements for reporting are contained; ii. Provide additional staff where necessary to assist with reporting requirements; iii. Provide training workshop in the reporting requirements to government agencies as well as Permanent Secretaries;
	<p>Increase the cadre of person working within the Government agencies that are competent in database management</p>	<ol style="list-style-type: none"> i. Identification of database managers within key agencies; ii. Identification and source training in as many areas of data management as possible including land management, species and ecosystems management;
	<p>Provide a central depository for information related to the conventions;</p>	<ol style="list-style-type: none"> i. Identification of key agency for the deposition of environmental information; ii. Provide institutional support including equipment and training; iii. Develop and publish data access and sharing protocol for government agencies and private sector; iv. Establish linkages with the CHM;

	Specific Objectives	Specific Activities
<p>T AND</p> <p>Successful ventions. This ate Change the progress of 0 target for the for research istent and ua and reliable</p>	<p>Increase the number of students conducting research in all areas of the convention</p>	<ul style="list-style-type: none"> i. Develop a program of grants for students, teachers and to conduct research; ii. Establish a scientific review committee to evaluate the findings; iii. Identify a local/regional magazine for the publication of research;
	<p>Increase access of international students to conduct studies in Antigua and Barbuda</p>	<ul style="list-style-type: none"> i. Pass legislation that encourages research and provide a framework for the research; ii. Provide low cost housing and transportation for overseas students; iii. Develop programs for overseas students to work with local researchers and publications;
<p>however, this s need to nd analysis of s are not</p>	<p>Improved capacity of the State College to conduct research that is directly relevant to the implementation of the conventions and the implementation of the NEMS</p>	<ul style="list-style-type: none"> i. Review the curricula of the various courses and the state of research; infusion of monitoring programmes within the Lab assignments; ii. Provide text books and guides for students and teachers relevant to adaptation to new areas of studies; iii. Provide for internships to students that are interested in the field;
	<p>Increase the interest of Media and decision makers in the results of the studies</p>	<ul style="list-style-type: none"> i. Provide an independent forum for the presentation of research; ii. "translate" results of studies into easy to read information for decision makers can understand; iii. create a page on the website for publication of these findings;
	<p>Improve number of "grey" research particularly for NGOs and Community groups. Social data and anecdotal information from community groups is important for improving the understanding of the people in the area and can be invaluable for management.</p>	<p>Provide community groups with funds to conduct research within the area. This should be important to the implementation of the Conventions and to the use of resources;</p>
	<p>Provide a cost effective alternative to monitoring programs for the purpose of monitoring and reporting.</p>	<ul style="list-style-type: none"> i. Establish a well defined monitoring program for each of the areas; ii. Identify areas where students and community groups can assist in the establishment of rain water monitoring devices in schools; iii. Provide a panel of experts that can review the work of the monitoring groups for quality and continuity; iv. Prepare reports in easy to read formats so that the results are easily accessed by the maximum amount of persons and of course;

Objectives	Specific Activities
a. Infusion of Environment Education at all levels.	I. Identification of curricula of each class level and These texts will be specifically designed for Anti-information. II. Ensure that the environment Division has a representation development committee;
b. Increase internet access for teachers and Students	I. Establish Internet stations within schools; II. Identification of Sponsors from the private sector II. Provide training for teachers in the use of the Internet Clearing House Mechanisms.
c. Improve the delivery of environmental education within schools and communities;	I. Increase access to audio visual equipment in schools II. Establish a technician at all schools to assist with audio visual and computer equipment; II. Design field work that take children away from the V. Establish an education bus within the environment electricity or renewable energy and will be used
d. Increase research and information used as indicators for reporting and decision making	I. Establish a grant program for students pursuing projects II. Provide a forum for the publication of data; II. Provide assistance to teachers from within various assessment of students work in areas that the teacher
e. Increase access to international funding;	I. Provide training in GEF Small Grant Project development II. Provide training in the access of grants for both countries II. Promote the establishment of education grants at the V. Establish a full time staff member within the Environment development, reporting and Implementation.
f. Public Awareness	I. Develop the environmental cadet program within II. Continue the development of the Ecozone television the international media; II. Develop species specific education materials and
g. Train educators for community groups and NGOs.	I. Develop a cadre of environmental educators; II. Engage NGOs and community groups to conduct and among target groups;
h. Provide opportunities for advancement and professional development in environmental educators	I. Teachers from time to time should be included in the Clearing House Mechanism; II. Development of grant programmes for teachers to environmental text and teachers guides for public II. Identify training opportunities and internships;

a	Specific Objectives	Specific Activities
<p>Resource</p> <p>akes for the on requires that he activities. This ng should be given sue is not common his will mean a tutional building, rtant therefore that tions so that the interrupted.</p>	<p>Provide adequate training for staff in all areas of the conventions. These areas should be identified and prioritized.</p> <p>Reduce high turnover and loss of interest in staff;</p> <p>Improve the development of a professional private sector</p> <p>Provide legislative and institutional framework for the recognition of the rights of NGOs and community groups</p>	<p>i. Identify location training in the areas of all three conventions. Sp identified within the Synergies Report;</p> <p>ii. Where possible develop short certification courses locally so that the country to enhance their skills. This also reduces the cost asso</p> <p>iii. Where possible produce manuals that are easy to understand.</p> <p>iv. Enter a MOU with the Ministry and Board of Education to provide for the courses identified;</p> <p>i. Improve the salary and benefits allocated to technical officers in The level of compensation should be raise to that of 2/3 of the pr 50% increase in basic salary;</p> <p>ii. Provide an allowance for persons working on projects. This will will improve the performance in project implementation;</p> <p>i. Identification of opportunities for implementation of the various than hiring permanent staff;</p> <p>ii. Provide certification in the area of EIA, analysis, collection and a for government agencies to conduct this work, with the only rema review.</p> <p>iii. Provide a list for professionals, and a review board that can hand persons;</p> <p>i. Develop draft consultation and policy paper for the inclusion of M</p> <p>ii. Develop legislation;</p> <p>iii. Provided resources for the implementation of the convention;</p> <p>iv. Provide internet access for community groups in key agencies su Department, Public Library and community centers where availa</p> <p>v. Provide direct subsidized funding to key NGOs in the area of sta utilities</p>
	<p>Provide easier access to funding to NGOs and community Groups</p>	<p>i. Legislate the right to access funding to community groups;</p> <p>ii. Include funding to groups within national budgets;</p> <p>iii. Include funding to groups from GEF enabling activities and other</p> <p>iv. Provide direct funding for implementation of projects within com</p>

	Specific Objective	Specific Activities
<p>NGOs and</p> <p>NGOs is one Barbuda to the MEAs. time, based public entation of tention to l and e capacity to jects, assist d on.</p>	Establish legal framework for the recognition of NGOs	<ul style="list-style-type: none"> i. Develop legislation and conduct consultations among government ii. Identify legislation that can/should be amended to include NGOs iii. Provide training and public awareness on the legislation and communities to the decision making process; iv. Include information on the legislation and the process to develop Web site;
	Improve access to Internet and other communication tools	<ul style="list-style-type: none"> i. Identification of key areas for the effective location of computer ii. Provide necessary equipment and develop partnerships with access; iii. Provide budgetary support for maintenance of equipment once
	Improve knowledge of convention among key members of the community and NGO groups;	<ul style="list-style-type: none"> i. Identify knowledge gaps among groups and design and implement ii. Provide free access to short courses being delivered by Government iii. Provide access to scholarships and short courses in international iv. Develop a list of workshops and PA events for groups as part of agencies and key NGOs.
	Improve the ability of groups to develop and implement projects that can attract both local and international funding;	<ul style="list-style-type: none"> i. Provide permanent technical assistance within the Environment assist with project development reporting and problem solving ii. Provide periodic but sustained training courses in project development iii. Identification of funding opportunities both locally and International
	Increase the predictability and access to funding;	<ul style="list-style-type: none"> i. Provide budgetary support to the NGO network; ii. Establish and provide budgetary support for a community network iii. Establish a protocol for the interaction of Government agency to ensure that groups do not feel compromised;

	Specific Objectives	Specific Activities
<p>Antigua and Barbuda has Conventions will limited institutional capacity of them to knowledge has the policy level the Ministries political priority is public views and policy decision</p>	<p>Improve the knowledge on the conventions within targeted groups</p>	<ul style="list-style-type: none"> i. Design group specific Public awareness and or consultation media groups, Ministers, Insurance agencies, farmers etc; ii. Provide easy to read reports to key agencies and groups on the role of the country in the negotiation process;
	<p>Improve the level of coordination among government agencies</p>	<ul style="list-style-type: none"> i. Provide legal status to the NCM , this should include clear participants; ii. Improve the operation of the CHM and the Environment D iii. Provide training to key agencies in the role of the Convention Antigua and Barbuda;
	<p>Improve Knowledge of the Convention Process</p>	<ul style="list-style-type: none"> i. Identification of short and long-term courses related to Int ii. Identification of a cadre of professionals that should be tra and negotiations; iii. Provide national reports in an easy to read format that is ac
	<p>Simplify institutional arrangements for the timely and efficient decision making process;</p>	<ul style="list-style-type: none"> i. Revise the current institutional arrangements for the imple make recommendations that will ensure the efficient and e ii. Identify strategies to overcome Ministerial lines of commu coordination and project implementation; iii. Provide review of the benefits for persons engaged in the i

Persons Consulted

Bibliography

Annexes

Annex I Inventory of Environmental Laws of Antigua and Barbuda

Planning, Land Use/Development

Planning, land use and development in Antigua and Barbuda are governed by several enactments, the principal of which are the *Land Development Control Act (No. 15 of 1977)* and the *Town and Country Planning Ordinance (Cap. 278, 1948)* and *Regulations (SRO No. 24 of 1953)*

Land Development Control Act (No. 15 of 1977)

The Development Control Authority (DCA) was established under this statute. The statute empowers the competent Minister to appoint a town and country planner. The Authority is required to –

- grant or refuse development permission in respect of applications to develop or build on land; and
- prepare a development policy for the entire country designed to constitute guidelines for land use and development.

The DCA is currently administered out of the office of the Prime Minister. It is presently engaged in developing a physical development plan for the country and a GIS database. In the discharge of these duties it has been collaborating with the Environmental Division and other relevant stakeholders.

The effective implementation of the Land Development Control Act has been limited due to the lack of human resources to elaborate the national development plan and to monitor compliance

with development initiatives approved by the competent authorities. As a result, uncontrolled and unplanned development is the order of the day.

Town and Country Planning Ordinance (Cap. 278, 1948) and Regulations (SRO No. 24 of 1953)
This Act is administered by a recently established Ministry of Planning, Implementation and Public Service Affairs. This Ministry is expected to provide the lead in integration of planning activities and to function as a key coordinator with respect to overlapping responsibilities of different ministries.

Saint John's Development Corporation Act, 1986

This Act empowers the Corporation to initiate development without reference to the national development plan required under the Land Development Control Act, 1977.

Antigua and Barbuda Agricultural Development Corporation Act, 1978

Like the St. John's Development Corporation, the Agricultural Development Corporation is authorized under this statute to conduct development activities outside of the requirements of the national development plan. The effect of this power can operate to compromise the successful implementation of the *Land Development Control Act*.

Crown Lands (Regulation) Act, (Cap. 130, 1917) and Land Settlement Regulations, (SRO No. 42, 1952)

Under this Act and Regulations, the right of the State to determine the use of lands vested in the State whether alienated temporarily by way of lease or permanently through sale thereof, to manage water bodies and to take appropriate action for forest conservation. Regulations have been prescribed to assess watershed management. The Lands Division which is established under the Ministry of Agriculture, Lands and Fisheries is responsible for the management and control of all government lands, including land reclamation, land-use and sub-division of land. Since a little less than half of the land in Antigua and Barbuda is government-owned this Division has a key role in determining the conversion of land to non-agricultural use.

Land Acquisition Act, 1982

The Cabinet with the approval of the Legislature has the authority to acquired land for public purposes. The corresponding legal procedures are established in the Act. The public purpose for which the land is required must be determined by the Cabinet. A Board of Assessment assesses, awards and apportions compensation in accordance to the provisions of the Act. The Governor-General shall cause the Board to be appointed. An appeal shall lie against a decision of the Board to the Court of Appeal.

Burial Ground Act, 1926

This Act determines the areas which may be used for the purposes of burial.

Public Works and Road Act (Cap. 281)

This Act requires the classification of roads and establishment of widths corresponding to each class. The Act gives the Governor General a wide discretion to declare and declassify roads and empowers the Surveyor to make temporary roads over any land as is convenient. It establishes minimum distances for the erection of buildings and the placement of machinery from such roads in the interest of public safety.

Agriculture

Four enactments govern land use for agricultural purposes. These are the *Agricultural Small Holdings Act, 1939*, the *Agricultural Small Holdings (Regulation of Rental) Act, 1953 (Cap. 91)*, the *Pesticides Control Act, 1973* and the *Plant Protection Act (Cap. 102)*.

Agricultural Small Holdings Act, 1939

This Act requires the tenants to practice good husbandry and entitles the landlord to terminate a tenancy where such practices are not observed. Such practices include the taking of proper measures to maintain the fertility of the soil and to prevent its erosion.

Agricultural Small Holdings (Regulation of Rental) Act, 1953

This Act regulates the level of rentals permitted by the Agricultural rent Board.

Pesticides Control Act, 1973

This statute establishes the Pesticides Control Board and vests it with power to make regulations for various activities concerned with the use of pesticides in Antigua and Barbuda. The Board has the function of inquiring into and concerning any matter involving pesticides. It also regulates the importation, manufacture, sale and use of pesticides and for incidental matters.

Plant Protection Act (Cap. 102)

This Act provides a framework within which the incidence of plant disease or plant infestation may be minimised. The Act allows restrictions to be placed on the importation and movement or distribution of plants. There are also certain requirements for the importation of plants and powers to authorise destruction of plants.

Forestry

The legislative enactments that govern this area are the *Forestry Act, 1944*, the *Barbuda Local Government Act, 1976* and the *Forestry Regulations*.

Forestry Act, (Cap. 99, 1941) and Regulations (SRO No.13, 1941 and SRO No. 42, 1952)

This Act establishes the power to declare forest reserves on State lands and requires forest reserves to be acquired by the State. Provision is made in the Act for compensation to private owners of private land brought under the operation of its provisions on complying with prescribed procedures on prescribed conditions. The Governor General is empowered to make regulations in respect of specified matters, including the management of protected forests and

forest reserves. The Act authorises the Chief Forest Officer to prepare a national forest plan and gives them the power to prosecute for breaches of the Act.

The Forestry Division is vested with responsibility for managing the country's forests and woodland areas and in recent years has taken on activities related to the conservation of biodiversity. A Soil and Water Conservation Unit has responsibility for soil conservation activities within the Ministry. It also assists farmers with the development of irrigation systems and in improving drainage.

The Plant Protection Unit is responsible for the implementation of plant protection recommendations and has responsibilities for plant quarantine at ports of entry into Antigua and Barbuda.

A Pesticides Control Board is also established in the Ministry of Agriculture and is responsible for all aspects pertaining to the importation, use and disposal of pesticides used in domestic, animal and plant protection. A draft *Pesticides and Toxic Chemicals Act* is presently in its final stages of drafting and contains provisions regarding the reconstitution of the existing Board and expanding the scope and coverage of its functioning.

Barbuda Local Government Act, 1976

This Act requires the local authority to administer forestry services in Barbuda and subordinate legislation established thereunder regulates the cutting of timber in the locality.

Bush Fires Act (Cap. 62, 1901)/Bush Fires Act (Cap. 303)

These Acts establish an offence regime regarding bush fires.

Water

The controlling legislation for national water resources management is to be found in the *Public Utilities Act, 1973* and the *Watercourses and Waterworks Regulations, 1954 and 1961*.

Public Utilities Act (No. 10 of 1973)

This Act requires the competent authority to supply potable water supplies and empowers the Minister to make regulations for the protection of watercourses and catchment areas.

Watercourses and Waterworks Regulations, 1954 and 1961.

These regulations prescribe methods for the extraction of water to protect against contamination.

Beaches

Beach Protection Act 1957 as amended by Acts in 1992 and 1993

The Minister responsible for Public Works has the authority to issue regulations to carry out the provisions of the Act and to prohibit the excavation, removal or conveyance of sand, stone, shingle or gravel for building, construction or ballast, except in accordance with a written permit from the Director of the Public Works or “authorized officer.” Section 9 (added by the Act of 1992) authorizes the Minister to prohibit such activities for any purpose. Those authorized officials have the discretion to issue permits for those activities on any beach or seashore. Under section 4 (3), no permit shall be granted for any purpose other than building or construction purposes, or for the purpose of providing ballast for vessels. Permits may not exceed one month. Contravention of the Act results in a fine not exceeding five thousand dollars or imprisonment for two years and in addition the Magistrate may order that the vehicle or equipment used be seized and forfeited to the State.

Beach Control Act of 1959

This Act declared all rights in and over the foreshore and floor of the sea to be vested in the Crown and prohibits its being encroached upon or its use without a license for public, trade, business or commercial purpose, with certain exceptions. The Act controls activities on beaches and adjoining lands within fifty yards of the landward limit of the foreshore and prohibits the use

thereof except with the permission of the Minister who is also empowered to make regulations under the Act to ensure the maintenance of sanitary conditions in the areas concerned.

The Minister responsible for Crown lands has broad discretionary authority to grant and condition licenses for the use of the foreshore or floor of the sea. Licenses can be granted for any public purpose or in connection with trade, business or commercial enterprise. Before granting the permits the Minister shall consider the public interest in regards to fishing, bathing or recreation or in regard to any future development of land adjoining that part of the foreshore in respect of which the application is made. The Minister may provide for the protection of such interests by and in the terms of the license or otherwise under the Act. An appeal shall lie with the Cabinet from a decision of the Minister as to whether such license should be granted or not. The decision of the Cabinet shall be final and not be questioned in any legal proceeding.

The Cabinet shall determine the needs and requirements of the public in relation to the use of the foreshore and any land adjoining the foreshore in connection with any form of lawful recreation, or for any economic development and the beaches thereof. The Cabinet has the power to acquire in the name of the Crown any portion of land adjoining the foreshore or any right or interest over such land for the use of the public. Such power of acquisition shall be exercised in accordance with the provisions of the *Land Acquisition Act*, or successor Act.

The Cabinet may make regulations generally for the proper carrying out of the purposes and provisions of the Act. In particular, it may issue regulations for securing the observance of clean and sanitary conditions and practices in the use of the foreshore, adjoining lands, and the sea to which members of the public habitually resort. It may also issue regulations for public protection and public order in those areas. The Cabinet is specifically authorized to regulate construction on any beach or adjoining land to which the public habitually resort of bath-houses or huts, booths, tents, sheds, stands and stalls (whether fixed or movable). However, nothing in this Act shall affect any land used for agriculture or any other immediate pre-existing rights, including fishing rights.

The “floor of the sea” means the soil and subsoil of the sea off the coast of Antigua and Barbuda between low water mark and so far out to sea as is deemed by law to be within the territorial sea.

“Adjoining land” means the land adjoining the foreshore and extending not more than fifty yards beyond the landward limit of the foreshore. The term “foreshore” is not defined in the Act.

The Act makes it an offence to take materials such as sand, stone gravel and shingle from public beaches. The Act makes it an offence to take any such materials along a public road without a license from the Minister responsible for public works. Despite these prohibitions, public beaches continue to suffer from illegal sand mining and this suggests the need for more enforcement measures.

Marine Pollution

Maritime Areas Act of 1982, as amended by 1986 Territorial Waters Act

The Act is intended to implement many of the provisions of the U.N. Convention on the Law of the Sea, particularly the jurisdictional provisions. The Minister of External Affairs has the authority to regulate the use of the internal waters, the archipelagic waters and the territorial sea. The Minister may make regulations for maritime traffic, the safety of navigation, the conservation of the living resources of the sea, the control of pollution and the preservation of the marine environment of Antigua and Barbuda. Upon conviction of contravening any regulation, the Minister may annex a fine of twenty thousand dollars and/or imprisonment for two years. These regulations shall be subject to affirmative resolution of the Legislature and shall be judicially noticed.

This Act provides for the extension of the limits of the territorial sea of Antigua and Barbuda to twelve nautical miles. It defines the internal waters, archipelagic waters, territorial seas, contiguous zone, continental shelf, exclusive economic zone, and fishery zone of Antigua and Barbuda. It provides for the drawing of archipelagic baselines and the enclosing of archipelagic waters in relation to Antigua and Barbuda. It establishes Antigua and Barbudan jurisdiction over these waters, subject to international law. It also provides mechanisms to make provisions for the continental shelf and for the contiguous, exclusive economic and fishing zones and for matters connected there with or incidental thereto.

Merchant Shipping Act of 1985

The Minister with responsibility for shipping has authority to register Antigua and Barbuda ships and to administer merchant shipping. The Act has a few sections on salvage proceedings and apportionment. Part VII deals with shipping casualties, jurisdiction and legal proceedings. Part VIII makes it an offense for the owner or master of a ship to discharge from the ship into a harbor or into the sea any oil or oily mixture within one hundred miles from the coast or any land. The court may order the convicted person to defray the expense of removing the pollution. The Minister may ratify four International Conventions in order to prevent, combat or contain damage done by pollution of the sea by oil from ships and to compensate the victims. The Minister is directed to draft regulations in relation to the prohibitions of discharge of oil to implement Part VIII. Part IX deals with passenger ships. Part X deals with carriage of goods by sea and Part XI deals with liability of ships.

Protection of Natural Resources

National Parks Act of 1984 as amended in 1986

Subject to policy directions of the Minister responsible for this subject, the National Parks Authority has authority to preserve, protect, manage and develop the natural resources and cultural heritage of Antigua and Barbuda. The Authority shall encourage public access to the National Parks through provision and improvement of facilities and has authority to facilitate use of the sea adjoining the parks for recreational purposes. The Authority shall consult and cooperate with departments, divisions and agencies of the Government and with other bodies having functions, aims or objects related to those of the Authority.

The Authority shall, with the approval of the Minister, appoint a Parks Commissioner to manage the affairs and undertakings of the Authority. The Parks Commissioner shall prepare and keep under review plans for the management and development of Parks.

The Minister subject to affirmative resolution of the Legislature may, on the request of the Authority, declare any area of land or water or both land and water to be a National Park. The

Authority can request that any portion of Crown land within a Park be leased to the Authority and if necessary or desirable for the better carrying out of its functions it can request the Crown to acquire private land within the Park under the Land Acquisition Act.

Marine Areas (Preservation and Enhancement) Act, No 5 of 1972

This Act empowers the competent Minister to declare any marine area a restricted one for the purpose of preserving its natural beauty and resources. This power is similar to that accorded the Minister under the *Fisheries Act* and may be employed to achieve the same objective identified there. Regulations authorizing controlling activities in restricted areas have been established and Diamond and Saltfish Tail Reefs in Antigua and Palaster Reefs in Antigua and Barbuda have been declared restricted areas.

The Fisheries Division is vested with powers under this Act, to restrict fishing in certain areas and to preserve habitats, flora and fauna, areas of natural beauty or shipwrecks in marine areas.

Fisheries Act of 1983

The Minister with responsibility for fisheries has broad authority to develop and manage fisheries in Antigua and Barbuda waters, both domestic and foreign. Antigua and Barbuda waters means the waters defined in the Territorial Waters Act of 1982 and any other waters over which Antigua and Barbuda claims fisheries jurisdiction. A Chief Fisheries Officer and other fisheries officers and assistants may be appointed by the Minister. The Act empowers the Minister to declare any adjacent coastal waters of Antigua and Barbuda marine reserve for the purpose of protecting its main flora and fauna and their natural habitats and for promoting scientific reserve.

Part II of this Act provides for the development of fishery management plans, including the issuance of licenses to local and foreign fishing vessels and fish processing operations. The Minister may designate an area as a local fisheries management area or a fishing priority area and any local authority as the local fisheries management Authority for that area. The Chief Fisheries Officer shall prepare and keep under review a plan for the management and

development of fisheries. A Fishery Advisory Committee, including the Chief Fisheries Officer, may be appointed by the Minister to advise on the management and development. Any decision of the Chief Fisheries Officer may be appealed to the Minister, whose decision shall be final.

Under Part III, the Minister may declare any area of Antigua and Barbuda waters and as appropriate, any adjacent or surrounding land, to be a marine reserve where special protection is considered necessary. Special protection may be necessary to protect the flora and fauna (in particular those in danger of extinction) and preserve the natural breeding grounds and habitats of aquatic life. Special measures may also be necessary to allow for the natural regeneration of aquatic life in areas where such life has been depleted, to promote scientific research or to preserve and enhance the natural beauty of such areas.

Under Part IV, the Minister may designate authorized officers including members of the enforcement authority of any country or of any regional marine enforcement entity to enforce the Act. Authorized officer means any fisheries officer, any customs officer or police officer or any other person designated by the Minister. The Minister is authorized to issue regulations for the management and development of fisheries and in particular for the management and protection of marine reserves and fishing priority areas.

The Fisheries Division has responsibility for the development of the fisheries sub-sector, monitoring fish stocks and marine resources, as well as a regulatory role in policing fishing practices.

Wild Birds Protection Act, 1912

This Act absolutely prohibits the catching or taking of specified categories of birds and prohibits the hunting of others except in the open season. The Act however does not cover a wide range of wild life which may be threatened with depletion or extinction.

Turtle Act, 1927

This Act prohibits the taking of turtles under a specified weight and permits hunting for them only in the open season.

Waste Management and Pollution Control

Public Health Act, 1957

This Act is largely concerned with controlling the accumulation and disposal of wastes. The Central Board of Health is established under this Act and is empowered to issue abatement notices in respect of nuisances but effective enforcement of the enactment is compromised by inadequate personnel and low level penalties for breach of the provisions of the Act.

The Board presently falls under the administration of the Ministry of Health and Social Improvement which is also responsible for the prevention and spread of infectious diseases and the handling of liquid and solid waste.

Litter Act, No. 7 of 1983

This Act defines “litter” to mean any solid or liquid material or product or combination of these including any bottles, tins, logs, sawdust, cartons and any other material that is designated as litter by the Minister by notice in the Gazette. It makes it an offence for any person without reasonable excuse to deposit litter in any public place. The Act is however not effectively, if at all, enforced.

National Solid Waste Management Authority Act 1995

Subject to policy directions of the Minister responsible for the subject of solid waste, the National Solid Waste Management Authority is authorized to manage solid waste. In performance with its functions the Authority shall comply with the Public Health Act. The Authority has the duty of providing collection and storage facilities for solid waste and procuring

equipment for the collection, transportation, and disposal of solid waste. Solid waste means residential, industrial, commercial, institutional, ship-generated and special waste. Special waste means wastes that require special handling.

The functions of the Authority include converting existing dumps into sanitary landfill sites, developing and managing new sanitary landfill sites and other disposal methods. It is also responsible for providing facilities for the treatment and disposal of medical and hazardous wastes, introducing measures to encourage recovery of recyclable items from solid waste, introduces cost recovery methods for services provided by the Authority, preparing plans and programs to address the problems of solid waste management in Antigua and Barbuda and managing the implementation of the OECS Management Waste Project and any other regional and international project activities.

The Minister may, after consultation with the Authority, make regulations for the proper carrying out of the provisions.

Legislative Framework For *Antigua and Barbuda Petroleum Act*

The Act regulates the storage and transportation of liquid petroleum and this has been implemented by regulations.

Minerals (Vesting) Act, 1949

This Act vests property in minerals in the State and requires a license from the competent authority to explore or mine for any mineral.

Radioactive Minerals Act, 1948

The Governor-General is empowered under this Act to establish conditions for the granting of mining licences.

ANNEX II

List of Multilateral Environmental Agreements to which Antigua and Barbuda is a Party

ENVIRONMENT TREATY REGISTER

<i>No.</i>	<i>Instrument & Title</i>	<i>Place & Date of Signature</i>	<i>Ratification</i>	<i>Date of Application</i>	<i>National Legislation</i>	<i>Comments</i>
1		March 22 nd 1989	April 5 th 1993	April 7 th 1993		No comments
2	Basel	March 21 st 1994 (entry into force)	February 2 nd 1993 Ratification			No comments
3	Kyoto Protocol	December 11 th 1997	October 28 th 1998			No comments
4	UN Convention to Combat Desertification In Those Countries Experiencing Serious Droughts and/or Desertification Particularly Africa	October 14 th 1994 Paris	June 6 th 1997 Ratification			No comments
5		June 5 th 1992 Rio de Janeiro	March 9 th 1993 Ratification	December 29 th 1993		No comments
6	Biological Diversity	January 29 th 2000 Montreal	May 24 th 2000 (signature)			No comments
7	Protocol Concerning Pollution From Land Based Sources And Activities in the Wider Caribbean Region (Protocol to the Catagena Convention)	October 6 th 1999 Aruba				Not yet signed
8	Protocol Concerning Specially Protected Areas and Wildlife (SPAW Protocol to the Catagena Convention)	January 18 th 1990 Jamaica	January 18 th 1990 Signature			Not yet ratified
9			October 6 th 1997			
10		December 3 rd 1992	December 3 rd 1992 (accession)			No comments
11		December 17 th 1973 (entry into force)	January 11 th 1983 (accession)	January 2 nd 1984		No comments
12		September 16 th 1987 Montreal	March 12 th 1992 (accession)	March 3 rd 1993		No comments
13		29 th June 1990 London	February 23 rd 1993 (accession)			No comments

14		December 25 th 1992	July 19 th 1993		No comments
15		Copenhagen September 17 th 1997	(accession) February 10 th 2000		No comments
16		Montreal December 2 nd 1946	ratification	None	Art.9 requires contracting states to punish infractions by persons on vessels under its jurisdiction. Antigua and Barbuda has no such legislation
17	Convention On The Prohibition Of Military Or Any Other Hostile Use Of Environmental Modification Techniques		October 25 th 1988	succession	No comments
18	Agreement Establishing Caribbean Environmental Health Institute				Not yet ratified Status and date Also Bermuda, Cayman Islands, Turks & Caicos s 18 Oct 82. R 29 th nov.82. BVI s 16 th July 81. R 1 st Dec 82.
19		London Nov. 1990	November 25 th 1998		No comments
20		2001	ratification		

Thematic capacity constraints and capacity requirements

Work program for the National Environmental Management Strategy