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# **NATIONAL IMPLEMENTATION OF THE SIDS/POA: A CARIBBEAN PERSPECTIVE**



**UNITED NATIONS  
ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN  
Subregional Headquarters for the Caribbean  
CARIBBEAN DEVELOPMENT AND COOPERATION COMMITTEE  
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## FOREWORD

In November 1997 the Economic Commission for Latin America and the Caribbean (ECLAC) Subregional Headquarters for the Caribbean, with the support of a number of different organizations and agencies, convened the first Caribbean Ministerial Meeting on the Programme of Action for the Sustainable Development of Small Island States (SIDS POA). The meeting was hosted by the Government of Barbados.

Caribbean governments, agencies and NGOs all provided input to the deliberations that ensued in trying to obtain a clear picture of the status of the region in the implementation of the SIDS POA, and the future actions that should be pursued.

ECLAC is now pleased to present **National Implementation of the SIDS/POA: A Caribbean Perspective** which represents the results of a questionnaire survey relating to the status of implementation of the various chapters of the SIDS POA in Anguilla, Antigua and Barbuda, Aruba, Barbados, Belize, British Virgin Islands, Cuba, Dominica, Dominican Republic, Grenada, Jamaica, Netherlands Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines and Trinidad and Tobago, as well as the status of activities undertaken by developmental and other agencies and groups in the region. This questionnaire was applied by ECLAC as part of the preparatory activities prior to convening the November 1997 meeting.

We gratefully acknowledge the valuable cooperation and contribution of our member governments, collaborative agencies and NGOs who continue to work towards a sustainable future for us all.



Len Ishmael  
Director

## **ACKNOWLEDGEMENTS**

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## ACRONYMS AND ABBREVIATIONS

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ACS	Association of Caribbean States
ACP	African, Caribbean and Pacific States
AOSIS	Alliance of Small Island States
CAMWORK	Caribbean Association of Media Workers
CANARI	Caribbean Natural Resources Institute
CARDI	Caribbean Agricultural Research and Development Institute
CARICAD	Caribbean Centre for Development Administration
CARICOM	Caribbean Community
CARIRI	Caribbean Industrial Research Institute
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CBU	Caribbean Broadcasting Union
CCA	Caribbean Conservation Association
CCST	Caribbean Council for Science and Technology
CDB	Caribbean Development Bank
CDCC	Caribbean Development and Cooperation Committee
CDERA	Caribbean Disaster Emergency Response Agency
CEHI	Caribbean Environmental Health Institute
CERN	Caribbean Environmental Reporters Network
CFRAMP	CARICOM Fisheries Resource Assessment and Management Programme
CIMAS	(Climate change model for Saint Lucia and Saint Kitts and Nevis)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLI	Caribbean Law Institute
CMI	Caribbean Meteorological Institute
CMO	Caribbean Meteorological Organization
CNG	Compressed Natural Gas
CPACC	Caribbean Planning for Adaptation to Climate Change
CPDC	Caribbean Policy Development Centre
CSD	Commission on Sustainable Development
CTO	Caribbean Tourism Organization
DESA	Department for Economic and Social Affairs
ECCB	Eastern Caribbean Central Bank
ECLAC	Economic Commission for Latin America and the Caribbean
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMA	Environmental Management Authority
ENCORE	Environmental and Coastal Resources Project
EU	European Union

FAO	Food and Agriculture Organization
GEF	Global Environment Facility
GIS	Geographic Information Systems
IABIN	Inter-American Biodiversity Network
ICRI	International Coral Reef Initiative
ICZM	Integrated Coastal Zone Management
IDB	Inter-American Development Bank
IDNDR	International Decade for the Reduction of Natural Disasters
IICA	Inter-American Institute for Cooperation on Agriculture
IMO	International Maritime Organization
IOCARIBE	Intergovernmental Oceanographic Commission Sub-Commission for the Caribbean and Adjacent Regions
IRF	Island Resources Foundation
ITU	International Telecommunications Union
JET	Jamaica Environmental Trust
LPG	Liquefied Petroleum Gas
MARPOL	International Convention for the Prevention of Pollution from Ships
NAFTA	North American Free Trade Agreement
NGO	Non-Governmental Organization
NEPO	National Emergency Preparedness Organization
NRCA	Natural Resources Conservation Authority
OAS	Organization of American States
OECD	Organization for Economic Cooperation and Development
OECS	Organization of Eastern Caribbean States
OECS-NRMU	Organization of Eastern Caribbean States - Natural Resources Management Unit
PAHO	Pan American Health Organization
PEPA	Portland Environmental Protection Agency
REMPEITC - Carib	Regional Marine Pollution Emergency Information and Training Centre Caribbean
SDC	Sustainable Development Council
SDNP	Sustainable Development Networking Programme
SIDS	Small Island Developing States
SIDS/POA	Small Island Developing States/Programme of Action
SIDSNET	Small Island Developing States Information Network
SIDSTAP	Small Island Developing States Technical Assistance Programme
SPAW	Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean.
SPREP	South Pacific Regional Environment Programme
SRU	Seismic Research Unit (UWI)
SVG	Saint Vincent and the Grenadines
UNCED	United Nations Conference on Environment and Development

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP/RCU	United Nations Environment Programme Regional Coordinating Unit
UNCHS	United Nations Centre for Human Settlements
UNCLOS	United Nations Convention on the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNIC	United Nations Information Centre
UN-IPCC	United Nations Intergovernmental Panel on Climate Change
UNV	United Nations Volunteer Programme
USA	United States of America
UWI	University of the West Indies
UWICED	University of the West Indies Centre for Environment and Development
WCISW	Wider Caribbean Initiative for Ship-Generated Waste
WTO	World Trade Organization

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## **Introduction**

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In 1994, 111 Governments from Small Island Developing States (SIDS) around the world gathered in Barbados to discuss issues stemming from the 1992 United Nations Conference on Environment and Development (UNCED). Building on the Rio Declaration on Environment and Development and Agenda 21, the representatives from these Governments formulated the Barbados Declaration and Programme of Action. This document articulated “the specific policies, actions and measures to be taken at the national, regional and international levels to enable small island developing States to achieve sustainable development.”

The Small Islands Developing States Programme of Action (SIDS/POA) is divided into 15 priority areas:

- i. Climate Change and Sea-Level Rise
- ii. Natural and Environmental Disasters
- iii. Management of Wastes
- iv. Coastal and Marine Resources
- v. Freshwater Resources
- vi. Land Resources
- vii. Energy Resources
- viii. Tourism Resources
- ix. Biodiversity Resources
- x. National Institutions and Administrative Capacity
- xi. Regional Institutions and Technical Cooperation
- xii. Transport and Communication
- xiii. Science and Technology
- xiv. Human Resource Development
- xv. Implementation, Monitoring and Review

The SIDS/POA describes in detail each of these priority areas and the related actions to be undertaken. For the first 14 priority areas, the document outlines actions, policies and measures to be taken at the national, regional and international levels. For the final priority area, (Implementation, Monitoring and Review), the document identifies seven major categories requiring attention, also at the national, regional and international levels. These seven critical cross-sectoral issues are:

1. Finance
2. Trade
3. Technology
4. Legislation
5. Institutional Development
6. Information and Participation
7. Human Resource Development

In 1999 the United Nations General Assembly will convene a special session to review the status of implementation of the Plan of Action (POA) of the SIDS and to elicit the views from Small Island Developing States about the issues and concerns arising from it.

In preparation for this Special Session, the governments of the Caribbean met to discuss their progress on the SIDS/POA implementation to date and to chart the way forward. The Caribbean Ministerial Meeting on the Implementation of the Programme of Action of Small Islands Developing States was held 10-14 November 1997. The meeting was convened by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), secretariat of the Caribbean Development and Cooperation Committee (CDCC) and hosted by the Government of Barbados. All 23 CDCC member countries were invited to attend, and over 150 representatives from intergovernmental groups, donor agencies, non-governmental organizations and international agencies were present for the technical session of the meeting.

In preparation for the meeting, two questionnaires were distributed. One, the country questionnaire, was distributed to governments and consisted of two major categories. The first major category highlighted key issues under each of the first 14 priority areas in the SIDS/POA, requesting respondents the status of various initiatives within their countries. This section also asked governments to identify specific initiatives under each priority area currently undertaken or supported by the government. The second major category of the questionnaire asked a series of open-ended questions dealing with major successes in SIDS/POA implementation, lessons learnt and prioritisation of the 14 priority areas and seven cross-sectoral issues.

The second questionnaire (the agency questionnaire) was distributed to agencies, NGOs and intergovernmental organizations. This questionnaire contained open-ended questions involving prioritisation of issues, successes, lessons learnt and plans for future SIDS/POA implementation.

The country questionnaire was distributed to 23 countries, of which 16 responded with complete questionnaires. The agency questionnaire was distributed to 65 organizations of which 22 responded. A list of organizations that responded is available in Annex A.

The following report contains three major sections:

- (1) **Questionnaire Findings.** This part reviews major trends, concerns and areas requiring attention as identified by the questionnaire respondents.
- (2) **Country Profiles.** Profiles have been prepared for all countries that responded to the questionnaire. These profiles discuss government initiatives at greater length and are presented in a format that makes them easy to compare to one another.

- (3) **Agency Overview.** This section discusses, in some detail, agency initiatives at both the national and regional levels, including their future role in implementation of the SIDS/POA.

This report attempts to present a clear picture of where the Caribbean is now in terms of SIDS/POA implementation and the future actions that will be pursued. It is intended to be a tool for defining the present state of sustainable development and charting the way forward for the region.

# PART ONE

## Questionnaire Findings

## 1.0 Questionnaire Findings

### 1.1 14 Priority Areas of the SIDS/POA

#### 1.1.1 Priority Areas at the Regional Level

Governments were asked to rate the 14 Priority Areas of the SIDS/POA by assigning each area a rating of “very high”, “high”, “medium”, “low” or “not applicable”. The average rating of each issue was then determined by assigning numerical values to each response as indicated in the table below.

Overall, respondents identified Coastal and Marine Resources and Natural and Environmental Disasters as the two areas requiring the most attention. These were followed closely by Climate Change and Sea-Level Rise and Management of Waste. At the regional level Energy Resources was considered the least important. In general, however, most respondents ranked all issues as being relatively equal in importance, with all, but four of the 14 issues receiving an average rating that would be equivalent to a ranking of “high”. It is also important to note that the ratings for any single priority area were consistent from country to country. This would imply some consensus in the region regarding the importance of the Priority Areas, although this consensus is limited to the notion that all areas are more or less equal in importance.

Table 1.1 shows average ratings for each of the 14 Priority Areas.

**TABLE 1.1 AVERAGE RATING OF THE 14 PRIORITY AREAS OF THE SIDS/POA AT THE REGIONAL LEVEL**

Priority Areas at the Regional Level	Average Rating
Climate Change	3.1
Natural and Environmental Disasters	3.3
Management of Waste	3.1
Coastal/Marine Resources	3.3
Freshwater Resources	3.0
Land Resources	3.0
Energy Resources	2.3
Tourism Resources	3.0
Biodiversity Resources	2.8
National Institutions and Administrative Capacity	3.0
Regional Cooperation	2.6
Transport and Communication	2.9
Science and Technology	2.6
Human Resources	2.6

Average Ratings were determined according to the following scale: 4=“very high,” 3=“high,” 2=“medium,” 1=“low.”



### 1.1.2 Priority Areas at the National Level

Governments were asked to rate the 14 Priority Areas at the national level using the same system as above. Tourism Resources received the highest average rating of 3.5, followed by Coastal and Marine Resources and Natural and Environmental Disasters, both with an average rating of 3.3. As at the regional level, Energy Resources was given the lowest priority, with an average rating of 2.3.

The average rating of each priority issue is listed in Table 1.2.

**TABLE 1.2 AVERAGE RATING OF THE 14 PRIORITY AREAS OF THE SIDS/POA AT THE NATIONAL LEVEL**

Priority Areas at the National Level	Average Rating
Climate Change	3.1
Natural and Environmental Disasters	3.3
Management of Wastes	3.1
Coastal/Marine Resources	3.3
Freshwater Resources	3.0
Land Resources	3.0
Energy Resources	2.3
Tourism Resources	3.5
Biodiversity Resources	2.8
National Institutions and Administrative Capacity	3.0
Regional Cooperation	2.6
Transport and Communication	2.9
Science and Technology	2.6
Human Resources	2.6

Average Ratings were determined according to the following scale: 4="very high," 3="high," 2="medium," 1="low."

The range of ratings for each issue varied widely at the national level. Some issues, for example, Tourism Resources and Coastal and Marine Resources, received consistent ratings from all respondents. Other issues, such as Climate Change and Natural and Environmental Disasters, received a wide range of responses. This can be attributed to the fact that participating countries have widely differing national environmental agendas.

It is interesting to note that the issues that were given high ratings by all countries, of which Tourism is one example, did not always correspond to the issues that were ranked highest at the regional level. Thus there is a clear distinction between: (a) issues that are considered important throughout the region at the national level; and (b) issues that are considered important at the regional level. Figure 1.1 illustrates the comparison between priorities at the national and regional levels.



## 1.2 Cross-Sectoral Issues

The questionnaire asked respondents to rank the cross-sectoral issues in SIDS/POA implementation. Owing to the additional responses obtained, the original seven priority areas defined in the POA were altered slightly to include issues of Poverty and Involvement of Marginalised Groups thereby bringing the total number of issues to nine.

### 1.2.1 Cross-Sectoral Issues at the Regional Level

The questionnaire asked respondents to rank cross-sectoral issues in order of priority from highest (10) to lowest (1). Governments ranked Financial and Capacity Building issues as the most important, with an average rating of 8.8 and 7.9, respectively. Again, the difference between the higher and lower rated issues was relatively small. All but one of the categories rated between 8.8 and 6.6, with the notable exception of Involvement of Marginalised Groups, which scored consistently lowest as a regional priority with an average rating of 5.6. Table 1.3 shows the ratings for each of the critical cross-sectoral issues.

**TABLE 1.3 AVERAGE RATING OF CROSS-SECTORAL ISSUES AT THE REGIONAL LEVEL**

Cross Sectoral Issues at the Regional Level	Average Rating
Policy	7.4
Capacity Building	7.9
Technical	6.6
Financial	8.8
Information	7.4
Training	7.1
Regulation	7.7
Governance	7.7
Involvement of Marginalised Groups	5.6

In contrast to the 14 Priority Area ratings, however, the ratings for each cross-sectoral issue varied widely from country to country. For example, one government ascribed Policy Issues a rating of 10 (highest priority), while another government ranked Policy Issues as 1 (lowest priority). In fact, every cross-sectoral issue received at least one very high mark (9 or 10) as well as one very low rating (1-3). Therefore the general consensus that exists for the 14 Priority Areas does not exist for the cross-sectoral issues. It can be inferred that while there is agreement on the importance of the issues pertaining to sustainable development in the Caribbean, there is no such agreement on the avenues that should be taken to tackle these issues, as represented by the lack of consensus on the cross-sectoral issues.

### **1.2.2 Cross-Sectoral Issues at the National Level**

The ratings for cross-sectoral issues at the national level are quite similar to the ratings at the regional level. Policy and Poverty Issues were ranked the highest, each with an 8.3 rating. The top-rated issues at the regional level, Financial and Capacity Building, followed closely. As at the regional level, Involvement of Marginalised Groups was rated the lowest (6.0). The average ratings are listed in Table 1.4 below.

**TABLE 1.4 AVERAGE RATING OF CROSS-SECTORAL ISSUES AT THE NATIONAL LEVEL**

<b>Cross-Sectoral Issues at the National Level</b>	<b>Average Rating</b>
Policy	8.3
Capacity Building	7.9
Technical	6.6
Financial	7.7
Information Management	6.4
Training	7.4
Legislation	6.7
Poverty	8.3
Involvement of Marginalised Groups	6.6

### **1.3 Constraints and Ideas for Overcoming Constraints**

Governments were asked to identify constraints to implementation of the SIDS/POA. The questionnaire asked for specific barriers encountered when addressing each of the critical cross-sectoral issues. The questionnaire then asked respondents to list ideas for overcoming constraints to each of the cross-sectoral issues. Finally, Governments were asked to state the major challenges to implementation that they would face in the next year, followed by their strategies for meeting these challenges.

### **1.3.1 Constraints and Ideas at the Regional Level**

The most frequently cited constraint to SIDS/POA implementation at the regional level was lack of adequate funds or resources. This cause was cited at least once under each of the cross-sectoral issues except for Policy Issues. Lack of funds was cited most often as a barrier to Capacity Building. The second most frequently cited barrier was lack of a regional vision and approach. This response was given as a constraint to Policy Issues, Capacity Building and Information Management.

Availability of, and access to, programmes was another frequently cited constraint, and was noted as a barrier to Information Management and Technical Issues. Respondents also noted a lack of commitment from regional institutions as a barrier to both Training and Technical development. There was a general appeal for greater exchange of technical expertise among countries to advance Policy Issues, Legislation and Capacity Building.

Adoption of a regional approach to issues of Policy, Legislation, Technical and Financial Development was espoused most frequently as a means of overcoming constraints. Development of exchange programmes and information centres to improve regional coordination were further suggested. The need for increased financial aid was another frequently cited idea, although no government offered a more specific approach to addressing financial constraints.

### **1.3.2 Constraints and Ideas at the National Level**

Lack of funds was again listed most frequently as a barrier to SIDS/POA implementation at the national level. Respondents identified a number of political issues as constraints to sustainable development, including lack of political will, weak institutional capability and lack of responsiveness to community needs at the national level. These issues were noted as barriers to Information Management, Policy Issues and Legislation.

Human Resource Issues were also cited frequently, including high turnover of personnel, need for more training and general lack of human resources. Emphasis was also placed on the need for appropriate and up-to-date technology and improved baseline information and environmental data to address Technical Issues. Many respondents also noted a failure to use existing means, citing sub-optimal use of resources, lack of discipline and scattered efforts, among their constraints.

Again governments were asked to identify ideas for overcoming these barriers. Most frequently suggested were the development of central coordinating agencies, the development of policy and the procurement of more funds. Training and technical assistance and creation of a common vision were also listed.

### **1.3.3 Challenges and Strategies**

The final question dealt with specific challenges and strategies regarding SIDS/POA implementation. Responses to this question, especially at the regional level were sparse.

At the regional level, responses mirrored those given in Section 1.3.1. Regional cooperation, information sharing and regional political determination were offered as challenges. Networking and coordination of efforts were cited as strategies. One respondent suggested that regional institutions should offer more support to national initiatives.

At the national level, respondents gave more specific responses. Governments expressed the need for national unity and commitment to environmental issues. They also stated that it was necessary to define roles within the region and to increase their financial resources. Strategies for meeting these challenges featured an integrated approach to development planning and increased public participation and awareness.

# **PART TWO**

## **COUNTRY PROFILES**

### **Questionnaire Findings**



# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Anguilla**

The Parliamentary Secretary's Office of the Ministry of Home Affairs in Anguilla, British West Indies, provided the information for this report.

### **2.1 *Status Report on the 14 Priority Areas of the SIDS/POA***

#### **2.1.1 Climate Change and Sea-Level Rise**

The Government of Anguilla has neither developed nor upgraded national legislation to address climate change issues. Enabling activities and measures to address greenhouse sinks and resources, anthropogenic emissions and technology for emission reduction have not taken place at this time.

#### **2.1.2 Natural and Environmental Disasters**

The Government has established new management institutions and disaster mitigation plans and strengthened existing ones to deal with natural and environmental disasters. However, policies that deal specifically with natural and environmental disasters have not been established.

Economic/fiscal instruments and regulatory measures have not been developed to address natural and environmental disasters. However, the Government has developed public participatory measures to address this issue. A disaster emergency fund has not been proposed for Anguilla at this time, and disaster policy has not been integrated into the national development planning process.

#### **2.1.3 Management of Waste**

The Government has developed regulations and fostered public participation to ensure the sustainable management of waste. At this time, clean technologies and recycling programmes do not exist, but a National Trust is pending. The government has promoted public awareness and educational campaigns that deal with waste management, but information systems and baseline data do not exist at this time. The Government has not formulated national laws with respect to banning of the importation of hazardous waste from Organization for Economic Cooperation and Development (OECD) States.

#### **2.1.4 Coastal and Marine Resources**

In an effort to encourage coastal zone management, the Government of Anguilla has established new coastal zone management institutions, administrative and legislative

capacities and strengthened existing ones. However, management institutions, administration and legislation for watersheds and Exclusive Economic Zones (EEZs) do not exist at this time.

In an effort to encourage coastal zone management, the Government has initiated pilot studies, and development of national capabilities to ensure that sustainable harvesting and processing of fisheries occur. Education and awareness programmes promoting the sustainable use of coastal and marine resources are also underway. However, the Government has not designed comprehensive research programmes for coastal and marine resources. Public participation is being encouraged with regard to these initiatives.

Coastal zone planning has now been established and existing plans have been adapted and strengthened. However, systems for coastal engineering, Environmental Impact Assessments (EIAs) and hydrography have not been developed. Programmes/policies exist to address oil spills, namely the National Oil Spill Contingency Plan. Other issues related to marine pollution are not being addressed.

The Government has adhered to the International Coral Reef Initiative (ICRI) and has worked to protect the corals from anchor damage.

#### **2.1.5 Freshwater Resources**

The Government of Anguilla has established a programme to reduce water loss in distribution systems, but programmes and policies for watershed protection, irrigation and roof collection do not exist at this time. There is no national water resources management plan.

Fresh water issues have gone largely unattended, as the Government has not established regulatory measures, incentives, water quality standards or related decision-making tools. National capacities have not been strengthened in this regard. However, the Government has promoted the use of desalination systems and rainwater collection systems.

#### **2.1.6 Land Resources**

Land use plans have been prepared, and the Draft National Land Use Plan was submitted to the Government for approval in November 1996. To date, these plans have neither been reviewed nor implemented. The Government has developed land information systems, and Geographic Information Systems (GIS) have recently been established in the Physical Planning Department.

The Government encouraged appropriate forms of land tenure through the



Cadastral and Land Registration Project of 1974. Land administration, which included the mapping and registering of all land, was also improved through this project. The Government has also implemented policy to encourage the use of soil conservation methods, to control freely roaming animals and to regulate the cutting of trees in order to prevent and reduce soil degradation.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for parks, protected area systems and beaches. It has also supported appropriate afforestation programmes and reafforestation programmes.

The Government has not expressed strong support for the housing sector, and neither a national housing plan nor strategy exists. The Government has not intervened with sites, services, credit or housing.

Physical Planning Offices have been strengthened through training, and with the introduction and use of decision-making tools like EIAs and GIS.

#### **2.1.7 Energy Resources**

Oil was listed singularly as the most important source of energy in the country. The Government has neither implemented appropriate public education programmes, nor has it promoted energy conservation measures. There has been no government promotion of either the use of alternative sources of energy or the efficient use of non-renewable energy sources.

#### **2.1.8 Tourism Resources**

The Government has put measures in place to ensure that its tourism development and environmental management are mutually supportive. It has also adopted integrated planning and appropriate policies to ensure sustainable tourism development. The Government has formulated general tourism policies, as well as eco-tourism and cruise ship policies.

Although no measures have been taken to protect the cultural integrity of the island, the Government has developed policies to increase local ownership within the tourism sector. No incentives have been provided regarding the use of sustainable technology for water, energy or waste issues.

#### **2.1.9 Biodiversity Resources**

Limited national legislation exists to conserve terrestrial biodiversity, and the

Government has implemented legislation for protection of marine biodiversity resources. The Government has not initiated efforts for conservation of biodiversity, biotechnology, biosafety or protection of biogenetic resources. Legislation regarding terrestrial and marine protected areas exists, but at the present time such parks do not exist. The Government has undertaken detailed inventories of existing biodiversity resources. There are currently no measures to ensure protection of indigenous/local technology, knowledge or practices.

#### **2.1.10 National Institutions and Administrative Capacity**

The Government of Anguilla has strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. It has also increased awareness and involvement of NGOs, CBOs and the public in the national decision-making process for the implementation of sustainable development programmes.

The Government has neither proposed environmental laws nor initiated public awareness programmes that incorporate the principles of sustainability. No domestic legislation has been enacted for the implementation of international environmental conventions. There has been no development of national information nodes.

#### **2.1.11 Regional Institutions and Technical Cooperation**

The Government has supported regional initiatives through Anguilla's membership in regional organizations and through improved coordination among regional bodies. By sending government representatives to regional seminars and working closely with regional bodies like the Caribbean Community (CARICOM), the Government has also encouraged collaboration.

#### **2.1.12 Transport and Communication**

With regard to transportation, the Government has sustained efforts related to safety, although measures to address environmental protection, energy efficiency or low costs do not exist.

Telecommunication links have been upgraded, and regulatory measures and public participation are linked to these efforts.

#### **2.1.13 Science and Technology**

The Government has not encouraged the use of endogenous, environmentally-

acceptable technologies. It has, however, developed and ensured access to databases on environmentally-sound technologies of local relevance. Consistent time-series of data for monitoring the performance of sustainable development indicators have been collected.

#### **2.1.14 Human Resource Development**

The Government has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans by emphasising self-sufficiency, the minimisation of import dependency, and research and development training. Research and development has been promoted in areas where endogenous technologies and traditional practices have great relevance, including agriculture, agricultural processing, waste recycling, biotechnology and construction.

Sustainable development ideas have been infused into education curricula at primary and secondary levels of education. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in rural settlements.

Distance training has been used to meet expanding educational demand. Moreover, the roles of women, youth, communities, farmers, the academic community and the private sector have been strengthened through sustainable development initiatives. Efforts have also been made to strengthen the roles of churches, the business community and statutory bodies.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded, and the Government has also attempted to improve the quality of adult and continuing education, family life education and tourism awareness education.

The use of traditional knowledge and skills in the areas of environmental resource management and health have been encouraged by the Government, in areas including environmental resource management, health, youth development and cultural preservation. Community groups have also been encouraged to assist in promoting environmental awareness.

## **2.2 General Overview Of Implementation Activities and The Way Forward**

When asked to list the five most successful initiatives towards implementing the SIDS/POA, no response was given. The 14 priority areas in the SIDS/POA are rated in

Table 2.1 with respect to national and regional/international levels of implementation. The highest rated national priority areas were Coastal and Marine Resources, Tourism Resources, Freshwater Resources and Land Resources.

No responses were given regarding regional/international priorities.

**TABLE 2.1 THE 14 PRIORITY AREAS IN THE SIDS/POA IN ANGUILLA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>
Climate Change and Sea-Level Rise	Medium
Natural and Environmental Disasters	Medium
Management of Wastes	Medium/High
Coastal and Marine Resources	Very High
Freshwater Resources	Very High
Land Resources	Very High
Energy Resources	High
Tourism Resources	Very High
Biodiversity Resources	High
National Institutions and Administrative Capacity	High
Regional Institutions and Technical Cooperation	High
Transport and Communication	High
Science and Technology	Medium
Human Resource Development	Very High

No answers were provided for the following sections of the questionnaire:

- National constraints to implementation;
- Regional/international constraints to implementation;
- Actions recommended to overcome constraints; and
- Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years.



# SIDS/POA Implementation Profile

# **SIDS/POA Implementation Profile: Antigua and Barbuda**

The Environment Officer of the Environment Unit of the Ministry of Planning in Antigua and Barbuda provided the information for this report.

## **3.1 Status Report on the 14 Priority Areas of the SIDS/POA**

### **3.1.1 Climate Change and Sea-Level Rise**

The Government of Antigua and Barbuda has ratified the Montreal Protocol, United Nations Framework Convention on Climate Change (UNFCCC) and is participating in the Caribbean Planning for Adaptation to Climate Change (CPACC) Project. However, the Government has not developed or upgraded national legislation to address climate change issues.

The Government has not undertaken enabling activities to develop national inventories of greenhouse gas resources or greenhouse gas sinks, but national communications strategies, which include a climate change component have been developed.

Although the Government has not promoted the development and/or use of technology to reduce emissions, it has participated in jointly implemented projects in this area, working with international organizations.

### **3.1.2 Natural and Environmental Disasters**

The Government has established and strengthened management institutions to deal with natural and environmental disasters. Policies that deal specifically with natural and environmental disasters have been established, and new disaster mitigation plans have been established and existing ones strengthened.

Economic/fiscal instruments and regulatory measures have been developed to address natural and environmental disasters and the Government has encouraged public participation in addressing this issue. A disaster emergency fund has been proposed for Antigua and Barbuda and a plan that integrates disaster policy into the national development planning process has been developed.

### **3.1.3 Management of Waste**

The Basel Convention, the London Convention (1972), the Cartagena Convention (Oil Spills Protocol) and International Convention for the Prevention of Pollution from Ships (MARPOL) have all been ratified as a means of addressing the management of

waste. Regulations, economic instruments and public participation have all been developed by the Government to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have not been established, but systems to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft have been developed.

The Government has proposed the use of clean technologies, such as the disposal of solid waste in landfills, to ensure the sustainable management of waste. The Government has promoted public awareness and has conducted educational campaigns. Although NGOs are not involved in any formal recycling programmes, various members of the business sector are involved in recycling programmes, for example, by offering financial incentives to customers who return glass bottles and hotels which utilise “grey” water for upkeeping gardens.

Public awareness and educational campaigns have been promoted by the Government of Antigua and Barbuda. Information systems and baseline data have been developed with respect to waste management, and baseline data have been developed for information systems. The Government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **3.1.4 Coastal and Marine Resources**

In order to encourage Integrated Coastal Zone Management (ICZM), the Government has established coastal zone, EEZ and watershed management institutions. Legislation has been established for watershed management (for example, the 1961 Antigua and Barbuda Water Regulations Act) and EEZ management (the 1983 Fisheries Act). Draft legislation exists with respect to coastal zone, EEZ and watershed management. Moreover, coastal zone, watershed and EEZ management institutions and administrations have been strengthened by initiatives such as attempts to ICZM with other avenues of economic development. Coastal zone, watershed and EEZ management legislation have also been strengthened.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. For example as components of a project to establish a Coastal Zone Management Plan, the Government has collaborated with the University of Puerto Rico Sea Grant College in the establishment of setback guidelines which are approximately 0.5 km on the northwest coastline.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and

implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

Management strategies, which include economic/fiscal instruments, enabling legislation, regulations, non-binding guidelines and public participation have been developed for coastal and marine resources. With respect to the coastal and marine zone, the Government has strengthened coastal zone planning and regulations for coastal engineering. Also, the concept of EIAs as decision-making tools has been introduced and is being developed.

The Government has developed new, or strengthened existing programmes and policies to address the following coastal and marine resource issues:

- Oil spills;
- Land-based sources of marine pollution (Dumping at Sea Act);
- Water quality (Public Utilities Act); and
- Effluent standards (Public Health Act).

Antigua and Barbuda has ratified the United Nations Convention on the Law of the Sea (UNCLOS) and the Cartagena Convention. Although the Government has not ratified the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks, it has adhered to its principles. The Government has also adhered to ICRI, Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities and the Convention on International Trade in Endangered Species (CITES).

### **3.1.5 Freshwater Resources**

Protected watershed areas, irrigation policy and a programme to reduce water loss in distribution systems have been established. However, a roof collection policy has not yet been established. The Government has ratified the Convention on Desertification.

A national water resources management plan exists. As a component of this plan, the Government has promoted the use of incentives, such as reducing charges to industries that use less water and increasing charges to domestic consumers who use “non-essential” water. Regulatory measures, community participation and forest management are being used as strategies for the management of fresh water resources. Water quality standards have also been established.

The Government has developed decision-making tools, including forecasting models. It has also strengthened national capacities for effective decision-making. Procedures to monitor and respond to impacts on water resources have been undertaken. With respect to appropriate technology, the Government has promoted the use of desalination and rainwater collection systems.



### **3.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared and implemented land-use plans. The most recent plan dates back to 1988. Land Information Systems and GIS have been developed as decision-making tools and attempts have been made to incorporate the Ministry of Agriculture in the process of parcelling and sale of lands.

In order to prevent/reduce soil degradation, Antigua and Barbuda has implemented policies to encourage the use of soil conservation methods, to control freely roaming animals and to regulate the cutting of trees. The Government has improved land administration by encouraging community consultations in cases where agricultural lands are to be sold. Moreover, it has promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, and park and protected area systems, has used economic instruments and has rationalised land-use/resource management. Appropriate reafforestation programmes have also been supported.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services, credit and houses. It has also provided support for investors intending to construct housing complexes and has made preferential interest rates available to civil servants who have provided many years of service. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. Attempts have been made to establish concrete liaison between the Offices responsible for Physical Planning, the Environment and Finance.

### **3.1.7 Energy Resources**

The three most important sources of energy used in Antigua and Barbuda in order of increasing preference are natural gas, oil and steam. Although the Government has supported the concept of energy conservation, it has neither promoted nor implemented public education and awareness programmes in this regard. However, energy efficient technologies have been promoted.

### **3.1.8 Tourism Resources**

Tourism is a major contributor to Antigua and Barbuda's economy. The Government has put measures in place to ensure that its development and environmental management are mutually supportive. It has promoted public awareness/education

programmes for sustainable tourism. The Government has also adopted integrated planning and policies to ensure sustainable tourism development.

The Government has formulated policies for tourism in general, including recreational and cruise ship. Policies for marine-based activities, for example, yachting and recreational fishing have been formulated. The development of appropriate economic/fiscal instruments, regulatory measures and public participation have occurred as a tourism management strategy.

Although measures to protect the cultural integrity of Antigua and Barbuda have not been developed, a Cultural Department, intended to perform this function has been established. The Government has developed policies to increase local ownership within the tourism sector through the “Antiguanisation Programme” which provides concessions to local people who are desirous of building hotel complexes or to invest in such initiatives.

### **3.1.9 Biodiversity Resources**

Antigua and Barbuda has ratified the Convention on Biological Diversity, CITES and the SPAW Protocol. The Government has developed national legislation to conserve biodiversity in terrestrial and marine resources, and has formulated and implemented strategies for the conservation and sustainable use of these resources. Marine and terrestrial national parks have been established. Public awareness/education programmes have been promoted, as well as public participation in the conservation of biodiversity.

The Government has conducted research on systems for the management of biodiversity. Integrated pest control management has been promoted. Ownership of intellectual property rights is adequately and effectively protected. Regulatory measures and public participation have been developed as strategies for the conservation of biodiversity resources, but the use of economic/fiscal instruments has not been developed.

### **3.1.10 National Institutions and Administrative Capacity**

Antigua and Barbuda has strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. Implementation strategies and schedules including financing have been developed.

The Government has established national information nodes on sustainable development to encourage the development of the Small Island Developing States Information Network (SIDSNET), and to facilitate the exchange of experiences among SIDS.

### **3.1.11 Regional Institutions and Technical Cooperation**

Antigua and Barbuda has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved coordination and collaboration among regional bodies and between the international community and regional programmes.

In efforts to encourage coordination and collaboration among regional bodies, the Government has obtained membership in the Organization of Eastern Caribbean States (OECS) and contributes to the OECS Natural Resources Management Unit (NRMU) and the Caribbean Conservation Association (CCA). It also participates in Organization of American States (OAS)-sponsored regional projects for protection of natural resources. Coordination between the international community and regional programmes has been facilitated through collaboration with the United Nations Environment Programme (UNEP) and the International Maritime Organization (IMO).

### **3.1.12 Transport and Communication**

The Government has continued efforts to strengthen transport services, giving regard to safety, energy-efficiency and low cost.

The Government has improved international telecommunication links. Economic/fiscal instruments, regulatory measures and public participation have been developed with respect to transport and communication management strategies.

### **3.1.13 Science and Technology**

The Government has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans, emphasising elements such as self-sufficiency and research and development training for science and technology. The development and use of information and communication technology to overcome size and isolation problems have also been emphasised.

Research and development in agricultural processing has been promoted.

The Government has encouraged the use of endogenous, environmentally-acceptable technologies by establishing regulations, standards and economic/fiscal instruments.

The Government has developed or ensured access to databases on environmentally-sound technologies of local relevance. Also, the role of women in science and technology disciplines has been promoted and strengthened.

### **3.1.14 Human Resource Development**

Sustainable development ideas have not yet been infused into education curricula. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements. The elimination of poverty in these settlements is also being given priority.

Distance training has been used to meet expanding educational demand and the demand for knowledge and training in the area of the environment. The roles of women, youth, communities, farmers and the academic community have been strengthened through sustainable development initiatives. Moreover, with respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for women, youth and communities.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; national management/planning capacities; and labour market linkages. The Government has encouraged the use of traditional knowledge and skills in the health sector.

## **3.2 General Overview Of Implementation Activities and The Way Forward**

A national sustainable development policy and action plan are being prepared.

The five most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt are listed in Table 3.1.

**TABLE 3.1 THE FIVE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN ANTIGUA AND BARBUDA**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. Integrated Development Planning Project	Political will and pressure from multilateral agencies	Cross-sectoral communication
2. Establishment of a Director of Finance and Planning	Political will	Promotion of an integrated approach

The 14 priority areas in the SIDS/POA are rated in Table 3.2 with respect to national and regional/international levels of implementation. In general, all issues were

rated as having considerable priority, with Climate Change and Sea-Level Rise being rated lowest on the national level.

**TABLE 3.2 THE 14 PRIORITY AREAS IN THE SIDS/POA IN ANTIGUA AND BARBUDA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: "NOT APPLICABLE", "LOW", "MEDIUM", "HIGH", OR "VERY HIGH"**

<b>Priority Area</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	Low	Medium
Natural and Environmental Disasters	High	High
Management of Waste	High	High
Coastal and Marine Resources	High	High
Freshwater Resources	Very High	Very High
Land Resources	High	High
Energy Resources	High	High
Tourism Resources	Very High	Very High
Biodiversity Resources	Medium	Very High
National Institutions and Administrative Capacity	Medium	High
Regional Institutions and Technical Cooperation	Medium	Low
Transportation and Communication	High	High
Science and Technology	High	High
Human Resource Development	High	Very High

In order of priority from highest to lowest, national and regional/international cross-sectoral issues are ranked by category in Table 3.3. The two cross-sectoral issues deserving the highest priority at both national and regional levels were:

- Financial Issues; and
- Policy Issues.

The involvement of marginalised groups and poverty were viewed as least important at both national and regional levels.

Constraints to implementation are specified by category in Table 3.4. Constraints such as lack of adequate remuneration of technical staff, limited financial resources and weak institutional capacity were identified. Recommended actions to overcome constraints to implementation are listed in Table 3.5, while major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 3.6.

**TABLE 3.3 CROSS-SECTORAL ISSUES FOR ANTIGUA AND BARBUDA RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	5	8
Institutional/Capacity building	10	8
Technical	7	9
Financial	10	10
Information management	7	9
Training	7	8
Legislation	6	9
Poverty	8	9
Involvement of marginalised groups (e.g. women, youth, rural communities)	5	7

**TABLE 3.4 CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN ANTIGUA AND BARBUDA BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>	<b>Regional/International Constraints</b>
Policy	Lack of political will	Insularity
Institutional/Capacity Building	Finances and lack of political will	Lack of collaboration
Technical	Lack of finances	Lack of resources
Financial	Lack of foresight	Efforts too dispersed
Information management	Few general resources	Resources lacking
Training	Finances lacking	No consideration of the specific needs of the territories
Legislation	Lack of exposure, foresight and political will	Lack of a unified view of the outcome

**TABLE 3.5 RECOMMEND ACTIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION OF SIDS/POA IN ANTIGUA AND BARBUDA**

<b>Category</b>	<b>National</b>	<b>Regional/International</b>
Policy (including fiscal/economic)	Integration of all sectors with financial goals	More unified structure needed; communication necessary
Institutional/Capacity Building	Integration of all sectors with financial goals	Determine how to capitalise on strengths, eliminate failing programmes
Technical	Integration of all sectors with financial goals	Determine how to capitalise on strengths, eliminate failing programmes
Financial	Integration of all sectors with financial goals	Determine how to capitalise on strengths, eliminate failing programmes
Information management	Integration of all sectors with financial goals	Determine how to capitalise on strengths, eliminate failing programmes
Training	Integration of all sectors with financial goals	Determine how to capitalise on strengths, eliminate failing programmes
Legislation	Integration of all sectors with financial goals	Determine how to capitalise on strengths, eliminate failing programmes

**TABLE 3.6 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY REQUIRED FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN THE NEXT FIVE YEARS IN ANTIGUA AND BARBUDA**

	<b>National</b>	<b>Regional/International</b>
Challenges	<ul style="list-style-type: none"> <li>Changing views to encompass all sectors in a “horizontal” strategy</li> </ul>	<ul style="list-style-type: none"> <li>Maintaining links between territories which are physically separated</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>Competing efficiently and effectively on the regional and global market</li> </ul>	<ul style="list-style-type: none"> <li>Presenting a unified front to multilateral agencies</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>Integrated plans for economic development, not just “growth”</li> </ul>	<ul style="list-style-type: none"> <li>Core of qualified persons and concrete strategy applicable to all territories</li> </ul>

The Government concluded its responses by stating that:

“Present legislation needs to be less general and should cater to specific requirements in development of policies for sustainable development (must consider present trends)”.





# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Aruba**

The Director of Housing, Physical Development and Environment in Aruba provided information for this report.

### **4.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **4.1.1 Climate Change and Sea-Level Rise**

The Government of Aruba has ratified the Montreal Protocol and but has not ratified UNFCCC, and is not participating in the CPACC Project. Also, new national legislation addressing climate change is being developed and existing legislation upgraded.

The Government has undertaken activities to develop national inventories of greenhouse gas resources but not sinks, and although it has formulated measures to address anthropogenic emissions, development of national communications strategies with respect to these issues has not been addressed. The Government has not promoted the sustainable management of sinks or reservoirs of greenhouse gases, and has not participated in jointly implemented projects with public or private agencies.

#### **4.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing, management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established.

Economic/fiscal instruments and regulatory measures have been developed to address natural and environmental disasters, but public participatory measures to address this issue have not been developed. Although a disaster emergency fund has not been established for Aruba, a plan that integrates disaster policy into the national development planning process has been developed.

#### **4.1.3 Management of Waste**

As a means of addressing the management of waste, The London (1972) and the Cartagena Conventions (Oil Spills Protocol) have both been ratified, but the Basel Convention has not. To ensure the sustainable management of waste, the Government has, so far, developed a Waste Management Plan.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed but are not established at this time. Systems to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft are yet to be developed.

The Government has not yet proposed the use of clean technologies, but recycling programmes for glass, paper, hazardous chemicals, metals and oil do exist. Although NGOs are not presently involved in formal recycling programmes, the business sector is involved in recycling and reuse activities. The Government has promoted public awareness and has conducted educational campaigns in an attempt to better inform the public about waste management. Baseline data have been developed for waste management. Neither information systems nor baseline data have been developed with respect to pollution control.

The Government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **4.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established the National Ordinance for the Use of Public Waters and Beaches and declared national decrees to implement this Ordinance.

The Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries and has developed appropriate management strategies including regulations, non-binding guidelines and has encouraged public participation. Coastal zone planning has been established.

The Government has developed the National Oil Spill Plan to address oil spills and has strengthened existing policies regarding oil spills. The Masterplan Sewerage Plan has been established to address water quality.

The Government of Aruba has ratified UNCLOS and the Cartagena Convention but has not adhered to ICRI or any other Action Plan for protection of the marine environment.

#### **4.1.5 Freshwater Resources**

A programme to reduce water loss in distribution systems has been established. However, the Government has not ratified the Convention on Desertification.

The Government has not developed a national water resources management plan, and water quality standards have not yet been established.

With respect to appropriate technology, the Government has promoted the use of cost-effective sewerage disposal and desalination systems as well as recycling waste water programmes.

#### **4.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared land use plans which were established in 1981 and which are presently being reviewed.

Appropriate forms of land tenure in the form of long leasing of public lands, which are subject to conditions of the Land Administration Service, have been encouraged. The Government has improved land administration through recent re-organization and upgrading of the Land Administration Service.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services, houses, limited subsidies for low-income groups and guaranteed funding for the construction of private homes. Increased awareness and strengthening of physical planning offices have occurred through training.

#### **4.1.7 Energy Resources**

The three most important sources of energy used in Aruba are oil, solar and Liquefied Petroleum Gas (LPG). The Government has promoted energy conservation, and has implemented appropriate public education and awareness programmes.

Although the Government has not encouraged the use of any alternative and renewable sources of energy, the efficient use of non-renewable sources of energy has been promoted.

#### **4.1.8 Tourism Resources**

The Government has promoted public awareness/education campaigns for sustainable tourism. It has also formulated policies for general tourism. It has also expressed its support in this area through the development of economic/fiscal and regulatory measures as management strategies.

Measures to protect the cultural integrity of Aruba through the organization of local “folkloristic” and cultural events have been adopted. The Government has not yet provided incentives within the tourism industry for the use of sustainable technology with respect to water resources energy, beach recovery and waste disposal.

#### **4.1.9 Biodiversity Resources**

Although Aruba has not ratified the Convention on Biological Diversity and CITES, it has indeed ratified the Protocol concerning Specially Protected Areas and Wildlife (SPA) Protocol and the Ramsar Convention. The Government has developed national legislation and has formulated and implemented strategies for the conservation and sustainable use of both terrestrial and marine biodiversity. National parks have been established for terrestrial resources. Education, awareness and public participation have been promoted with respect to biodiversity, biotechnology and biosafety.

The Government of Aruba has, so far, not established any measures to ensure the reintroduction of biogenetic resources after a disaster. Research with respect to biological resources has been conducted on management systems, and on strategies to quantify intrinsic socio-economic and cultural values of biodiversity.

Although the Government has not conducted detailed inventories of existing biodiversity resources or promoted integrated pest control management, it has ensured that the ownership of intellectual property rights is adequately and effectively protected. Questions regarding the adequate and effective protection of indigenous/local technology, knowledge and traditional practices were marked as “not applicable”.

#### **4.1.10 National Institutions and Administrative Capacity**

The Government of Aruba has established new, and strengthened existing environmental agencies with adequate financial and human resources. However, it is yet to address the issue of institutional arrangements and administrative and legal capacities in order to integrate environment and economic policy into national planning.

#### **4.1.11 Regional institutions and Technical Cooperation**

The Government of Aruba has supported regional organizations through membership, and has encouraged improved collaboration and coordination among regional bodies and between the international community and regional programmes. Actions to this end include membership and participation in Association of Caribbean States (ACS). Aruba also participates in, and offers strong support to, the Caribbean Action Plan.

#### **4.1.12 Transport and Communication**

In order to strengthen transport services, efforts have been made to improve environmental safety and to address cost-effectiveness. Telecommunication services have been improved through upgrading of international telecommunication links.

#### **4.1.13 Science and Technology**

The Government of Aruba has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans by emphasising the development and use of information technology to overcome size and isolation problems.

#### **4.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at the primary level. Population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in urban settlements.

The Government of Aruba has not encouraged the use of distance technology to meet demands for knowledge and training in the area of the environment. The role of NGOs in this respect has been strengthened through sustainable development initiatives

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded.

Although the use of traditional knowledge and skills has not been encouraged in health and environmental resource management, the Government has encouraged the use of community groups to assist in promoting environmental awareness.

### **4.2 General Overview Of Implementation Activities And The Way Forward**

A national policy dealing specifically with sustainable development and a sustainable development action plan are available at this time.

The 14 Priority Areas in the SIDS/POA with respect to national and regional/international levels of implementation are rated in Tables 4.1. All issues were

**TABLE 4.1 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR ARUBA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>
Climate Change and Sea-Level Rise	Very High
Natural and Environmental Disasters	Very High
Management of Waste	High
Coastal and Marine Resources	Very High
Freshwater Resources	Very High
Land Resources	Very High
Energy Resources	Low
Tourism Resources	Very High
Biodiversity Resources	Medium
National Institutions and Administrative Capacity	Medium
Regional Institutions and Technical Cooperation	Low
Transport and Communication	Medium
Science and Technology	Medium
Human Resource Development	High

**TABLE 4.2 CROSS-SECTORAL ISSUES FOR ARUBA RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>
Policy	8
Institutional/Capacity Building	8
Technical	4
Financial	5
Information management	6
Training	7
Legislation	8
Poverty	5
Involvement of marginalised groups (e.g. women, youth, rural communities)	4

considered to be of equal importance except for Energy Resources and Regional Institutions and Technical Cooperation, which were accorded slightly lower priority. Cross-sectoral issues are ranked by category in Table 4.3.

Constraints to implementation are specified by category in Table 4.3. Limited human resources was cited most often. No responses were given under the heading of recommended actions to overcome constraints to implementation. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 4.4.

**TABLE 4.3      CONSTRAINTS TO IMPLEMENTATION OF SIDS/POA IN ARUBA BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>
Policy (including fiscal/economic)	Human resources and control
Institutional/Capacity Building	Human and financial resources
Technical	Human resources
Financial	Limitations and bureaucratic procedures
Information management	Limited data acquisition
Training	
Legislation	Inadequate control mechanism

**TABLE 4.4      MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN ARUBA IN THE NEXT FIVE YEARS**

	<b>National</b>
Challenges	<ul style="list-style-type: none"> <li>• Balancing tourism with environmental issues</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>• Waste, air pollution and the marine environment</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>• Public awareness and involvement</li> </ul>





# SIDS/POA Implementation Profile

# SIDS/POA Implementation Profile: Barbados

The Parliamentary Secretary of the Environment Division of the Ministry of Health and the Environment in Barbados provided the information for this report.

## **5.1 Status Report on the 14 Priority Areas of the SIDS/POA**

### **5.1.1 Climate Change and Sea-Level Rise**

The Government of Barbados has ratified the Montreal Protocol and UNFCCC and is participating in the CPACC Project. However, the Government has not developed national legislation to address climate change issues.

The Government has commenced enabling activities to develop national inventories of greenhouse gas resources, but national inventories of greenhouse gas sinks have not been undertaken. Measures to address anthropogenic emissions have not been formulated. However, national communications strategies, which include a climate change component have been developed.

The Government has promoted the development and/or use of technology to reduce emissions, and it has cooperated in the sustainable management of sinks and reservoirs of greenhouse gases. The Government has participated in jointly implemented projects in this area, working with bilateral public agencies, private agencies and international organizations.

### **5.1.2 Natural and Environmental Disasters**

The Government has established and strengthened management institutions to deal with natural and environmental disasters. New disaster mitigation plans have also been established and existing ones strengthened. However, policies that deal specifically with natural and environmental disasters have not been established.

Economic/fiscal instruments and regulatory measures have not been developed to address natural and environmental disasters. However, the Government has developed public participatory measures to address this issue. A disaster emergency fund has been proposed for Barbados and a plan that integrates disaster policy into the national development planning process has been developed.

### **5.1.3 Management of Waste**

The Basel Convention, the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) have all been ratified as a means of addressing the

management of waste. Regulations, economic instruments and public participation have all been developed by the Government to ensure the sustainable management of waste. Additionally, an environmental levy on non-recyclable goods has been implemented.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been established. Moreover, systems have been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft.

The Government has proposed the use of clean technologies, such as technologies for composting and hazardous waste disposal, to ensure the sustainable management of waste. It has also developed and/or supported recycling programmes for glass, paper and oil. The Government has promoted public awareness and has conducted educational campaigns. NGOs are not involved in any formal recycling programmes, but various members of the business sector are involved in recycling programmes.

Information systems and baseline data have been developed with respect to waste management, and baseline data has been developed for pollution control. The government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **5.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established coastal zone, EEZ and watershed management institutions. Legislation has been established for watershed management (for example, the 1982 Barbados Water Authority Act) and EEZ management. Draft legislation exists with respect to coastal zone management. Moreover, coastal zone, watershed and EEZ management institutions and administrations have been strengthened by initiatives such as the Coastal Zone Management Unit. Coastal zone and watershed management legislation have also been strengthened.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. For example, as components of a project to establish a Coastal Zone Management Plan, various studies were undertaken around the Barbados coastline, with an emphasis on the densely populated south and west coasts of the island.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

Management strategies, which include economic/fiscal instruments, enabling legislation, regulations, non-binding guidelines and public participation have been developed for coastal and marine resources. With respect to the coastal and marine zone, the Government has strengthened coastal zone planning and regulations for coastal engineering. Also, the concept of EIAs as decision-making tools has been introduced and is being developed.

The Government has developed new, or strengthened existing programmes and policies to address the following coastal and marine resource issues:

- Oil spills (for example, an Oil Spill Contingency Plan);
- Land-based sources of marine pollution; and
- Water quality (for example, a Water Monitoring and Clarification Programme).

Programmes/policies to address effluent standards have not yet been developed.

Barbados has ratified UNCLOS and the Cartagena Convention. Though the Government has not ratified the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks, it has adhered to its principles. The Government has also adhered to the ICRI and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

### **5.1.5 Freshwater Resources**

Protected watershed areas, a roof collection policy and a programme to reduce water loss in distribution systems have been established. However, an irrigation policy has not been established. The Government has ratified the Convention on Desertification.

A national water resources management plan exists. As a component of this plan, the Government has promoted the use of incentives, regulatory measures, community participation and forest management as strategies for the management of fresh water resources. Water quality standards have also been established.

The Government has developed decision-making tools, including forecasting models. It has also strengthened national capacities for effective decision-making, and institutional/intersectoral coordination. Procedures to monitor and respond to impacts on water resources have been undertaken. With respect to appropriate technology, the Government has promoted the use of rainwater collection systems.

### **5.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared, implemented and reviewed land-use plans. The most recent plan dates back to 1988. Land Information Systems and GIS have been developed as decision-making tools.

Appropriate forms of land tenure have been encouraged; for example, 45,000 acres of land have been set aside for agricultural use only. In order to prevent/reduce soil degradation, Barbados has implemented policies to encourage the use of soil conservation methods, to control freely roaming animals and to regulate the cutting of trees. The Government has improved land administration through its Specific Conservation Act. Moreover, it has promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, and park and protected area systems, and has rationalised land-use/resource management. Appropriate afforestation and reafforestation programmes have also been supported. However, the Government has not employed the use of economic instruments to encourage sustainable and integrated use.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services, credit and houses. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. Decentralisation strategies have been developed in order to minimise rural/urban drift.

### **5.1.7 Energy Resources**

The three most important sources of energy used in Barbados in order of increasing preference are solar, natural gas and oil. Though the Government has promoted the development of environmentally-sound sources of energy including solar and wind power, it has not promoted or implemented public education and awareness programmes for energy conservation. Similarly, the development of energy efficient technologies, and the use of economic instruments and incentive structures have not been promoted.

The Government has promoted geothermal, hydroelectric and biomass resources as alternative and renewable sources of energy. The efficient use of non-renewable sources of energy has not been promoted.

### **5.1.8 Tourism Resources**

Tourism is a major contributor to Barbados's economy. The Government has put measures in place to ensure that its development and environmental management are

mutually supportive. It has promoted public awareness/education programmes for sustainable tourism. The Government has also adopted integrated planning and policies to ensure sustainable tourism development.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism and cruise ships. However, policies for marine-based activities, for example, yachting, diving and recreational fishing have not been formulated. Although public participation has been developed as a tourism management strategy, the development of appropriate economic/fiscal instruments and regulatory measures has not occurred.

Measures have been adopted to protect the cultural integrity of Barbados. For example, the Government supports the Barbados National Trust and other Non-Governmental Organizations (NGOs) who are involved in the protection of Barbados's cultural heritage. Incentives in the tourism industry have been provided for the use of sustainable technology or strategies in respect of energy. However, the Government has not developed policies to increase local ownership within the tourism sector.

#### **5.1.9 Biodiversity Resources**

Barbados has ratified the Convention on Biological Diversity and CITES, but the SPAW Protocol has not been ratified. The Government has developed national legislation to conserve biodiversity in terrestrial and marine resources, and has formulated and implemented strategies for the conservation and sustainable use of these resources. Marine national parks have been established, but no terrestrial national parks exist. Public awareness/education programmes have been promoted, as well as public participation in the conservation of biodiversity.

In order to ensure the reintroduction of biogenetic resources, especially after a disaster, the Government has generated and maintained buffer stocks and gene banks. This programme is conducted with specific reference to certain species, for example sugar cane and black belly sheep. Research has been conducted on management systems and strategies to quantify intrinsic socio-economic and cultural values with respect to biological resources.

The Government is currently conducting detailed inventories of existing biodiversity resources. Integrated pest control management has been promoted. However, the Government has not ensured that the ownership of intellectual property rights is adequately and effectively protected. Measures to ensure that adequate and effective protection is offered to indigenous/local technology, knowledge and traditional practices have not been implemented. Regulatory measures and public participation have been developed as strategies for the conservation of biodiversity resources, but the use of economic/fiscal instruments has not been developed.

## **1.10 National Institutions and Administrative Capacity**

Barbados has strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. Implementation strategies and schedules including financing have been developed. New environmental agencies have been established and existing ones strengthened with adequate financial and staff resources. Increased awareness and involvement of NGOs, Community-Based Organizations (CBOs) and the public in the national decision-making process for the implementation of sustainable development programmes have occurred. The Government has also given sustainable development task forces the official authority and validity to allow their continued meeting as advisory bodies.

Comprehensive domestic legislation required for the implementation of the wide range of international environmental conventions is being generated. Environmental laws that incorporate the principles of sustainability have been developed and the Government has promoted public awareness and education in the area of environmental legislation. However, adequate resources for the enforcement of environmental regulations have not been provided.

The Government has established national information nodes on sustainable development to encourage the development of SIDSNET, and to facilitate the exchange of experiences among SIDS.

### **5.1.11 Regional Institutions and Technical Cooperation**

Barbados has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved coordination and collaboration among regional bodies and between the international community and regional programmes.

In efforts to encourage coordination and collaboration among regional bodies, the Government has hosted several workshops and meetings, including the 1994 SIDS conference, and the forthcoming Caribbean Ministerial Meeting. The Government has also participated in several regional projects and events. Coordination between the international community and regional programmes has been facilitated by Barbados' participation in projects and programmes sponsored by international agencies.

### **5.1.12 Transport and Communication**

The Government has continued efforts to strengthen transport services, giving regard to environmental protection, safety, energy-efficiency and low cost.

The Government has upgraded domestic communication facilities, including radio and television coverage to remote communities. Moreover, the Government has improved international telecommunication links. Economic/fiscal instruments, regulatory measures and public participation have been developed with respect to transport and communication management strategies.

### **5.1.13 Science and Technology**

The Government has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans, emphasising elements such as self-sufficiency, the minimisation of import dependency, and research and development training for science and technology. The development and use of information and communication technology to overcome size and isolation problems have also been emphasised.

The Government has promoted research and development in areas where endogenous technologies and traditional practices have great relevance. These include:

- Agriculture and agricultural processing;
- Waste recycling;
- Biotechnology;
- Construction; and
- Renewable energy.

The Government has encouraged the use of endogenous, environmentally-acceptable technologies by establishing economic/fiscal instruments. However, neither regulations nor standards have been established.

The Government has developed or ensured access to databases on environmentally-sound technologies of local relevance. It has collected, for certain issues, consistent time-series of data for monitoring the performance of sustainable development indicators. Moreover, the role of women in science and technology disciplines has been promoted and strengthened.

### **1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at secondary and tertiary levels of education, but not at the primary level. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements. The elimination of poverty in these settlements is also being given priority.



Distance training has been used to meet expanding educational demand and the demand for knowledge and training in the area of the environment. The roles of women, youth, communities, farmers, the academic community, NGOs and the private sector have been strengthened through sustainable development initiatives. Moreover, with respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for women, youth, communities and NGOs.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; national management/planning capacities; and labour market linkages.

The Government has encouraged the use of traditional knowledge and skills in the areas of environmental resource management, health, agriculture and fisheries. The use of community groups to assist in promoting environmental awareness has also been encouraged.

## **5.2 General Overview Of Implementation Activities and The Way Forward**

A national sustainable development policy and action plan are being prepared.

The five most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt is listed in Table 5.1.

**TABLE 5.1 THE FIVE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN BARBADOS**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. CZMU Project	Allocation of human, financial and technical resources	---
2. CFC Recycling and Training in Refrigeration	Provision of equipment and trainers	---
3. CPACC Project	In its initial stages, therefore too early to specify	---
4. NBSAP	Funding provision	---
5. MARPOL – Port Facilities	The management of the Port recognising the importance of waste disposal	Sound economic reasoning for action

The 14 priority areas in the SIDS/POA are rated in Table 5.2 with respect to national and regional/international levels of implementation. In general, all issues were rated as having considerable priority, with Transport and Communication being rated lowest on the national level and Regional Institutions and Technical Cooperation ranking lowest on the regional/international level.

**TABLE 5.2 THE 14 PRIORITY AREAS IN THE SIDS/POA IN BARBADOS RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority Area</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	Very High	Very High
Natural and Environmental Disasters	Very High	Very High
Management of Waste	Very High	Very High
Coastal and Marine Resources	Very High	Very High
Freshwater Resources	Very High	Very High
Land Resources	High	High
Energy Resources	High	Medium
Tourism Resources	Very High	High
Biodiversity Resources	Medium	Medium
National Institutions and Administrative Capacity	Medium	Medium
Regional Institutions and Technical Cooperation	Medium	Low
Transportation and Communication	Low	Medium
Science and Technology	Medium	Medium
Human Resource Development	High	Medium

In order of priority from highest to lowest, national and regional/international cross-sectoral issues are ranked by category in Table 5.3. The three cross-sectoral issues deserving the highest priority at both national and regional levels were:

- Institutional/Capacity Building;
- Policy issues; and
- Legislation.

The involvement of marginalised groups and poverty were viewed as least important at both national and regional levels.

**TABLE 5.3 CROSS-SECTORAL ISSUES FOR BARBADOS RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	9	9
Institutional/Capacity building	10	10
Technical	7	5
Financial	6	7
Information management	5	6
Training	4	4
Legislation	8	8
Poverty	3	3
Involvement of marginalised groups (e.g. women, youth, rural communities)	2	2

Constraints to implementation are specified by category in Table 5.4. Constraints such as lack of adequate remuneration of technical staff, limited financial resources and weak institutional capacity were identified. Recommended actions to overcome constraints to implementation are listed in Table 5.5, while major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 5.6.

**TABLE 5.4 CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN BARBADOS BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>	<b>Regional/International Constraints</b>
Policy	Lack of a comprehensive policy	Need for a regional policy approach
Institutional/Capacity Building	Too many separate agencies dealing with sustainable development issues	Not enough commitment by regional institutions
Technical	Lack of remuneration benefits to keep technocrats at home	Lack of exchange of technology and skills
Financial	Need for more financial aid	Lack of finances
Information management	Lack of adequate technology and lack of baseline information	Insufficient persons skilled in information management
Training	There are area-specific needs	Lack of regional training programmes
Legislation	New legislation is now in its developmental stages, and the old legislation is inadequate	Lack of policies to encourage legislation
Other (Please specify)	Need for regional programme development and participation	Need for improved enforcement capacity and procedural policy

**TABLE 5.5 RECOMMENDED ACTIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN BARBADOS**

<b>Category</b>	<b>National</b>	<b>Regional/International</b>
Policy (including fiscal/economic)	Policy development and adoption	A regional approach to policy issues needed
Institutional/Capacity Building	Develop a central agency with responsibility for environmental matters and sustainable development	Encourage exchange programmes
Technical	Make remuneration (financial and non-financial) more attractive	Develop training programmes in regional institutions
Financial	Develop new ways and means of funding initiatives, through non-traditional sources	Regional cooperation and contribution
Information management	Develop baseline data. Obtain and train persons in information-technology equipment	Develop a coordinated system at national and regional levels.
Training	Should be increased	Regional exchanges and in-house programme development
Legislation	Must be established	Need to develop policies which will feed into the development of legislation
Other (Please specify)	Encourage awareness building programmes	

**TABLE 5.6 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY REQUIRED FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN THE NEXT FIVE YEARS IN BARBADOS**

	<b>National</b>	<b>Regional/International</b>
Challenges	• The need for financial resources	• The need for regional cooperation initiatives
Priorities	• Legislation development and enforcement	• The need for regional cooperation initiatives
Elements of strategy	---	---

The Government concluded its responses by stating that:

“Implementation of the SIDS/POA will form part of an overall sustainable development policy. This will ensure that sectoral planning is cognizant of sustainability and also of how this sector impacts on others and vice versa”.



# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Belize**

The Senior Environmental Officer of the Department of the Environment in Belize provided the information for this report.

### **6.1 *Status Report on the 14 Priority Areas of the SIDS/POA***

#### **6.1.1 Climate Change and Sea-Level Rise**

The Government of Belize has ratified UNFCCC, is participating in the CPACC Project and is about to ratify the Montreal Protocol. However, the Government has neither developed nor upgraded national legislation to address climate change issues.

Activities to develop national inventories of greenhouse gas resources and sinks or to address anthropogenic emissions have not been undertaken. However, national communications strategies that include a climate change component have been developed.

The Government has promoted the use of technology to reduce emissions, and it has cooperated in the sustainable management of sinks and reservoirs of greenhouse gases. The Government has participated in jointly implemented projects among private agencies and NGOs. However, to date, no public agencies or international organizations have participated in jointly implemented projects with the Government.

#### **6.1.2 Natural and Environmental Disasters**

The Government has not established management institutions to deal with natural and environmental disasters, but new disaster mitigation plans and policies have been established and existing ones strengthened. While economic/fiscal instruments and regulatory measures have not been developed to address natural and environmental disasters, the Government has developed public participatory measures to address this issue. A disaster emergency fund has been established for Belize, and a plan that integrates disaster policy into the national development planning process has been developed.

#### **6.1.3 Management of Waste**

The Basel Convention, MARPOL and the Cartagena Convention (Oil Spills Protocol) have been ratified as a means of addressing the management of waste. Regulations and public participation have been developed by the Government to ensure the sustainable management of waste.

Port/marina reception facilities have not been established in accordance with Annex V of MARPOL 73/78 at this time. Moreover, systems to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft have not yet been developed.

The Government has not proposed the use of clean technologies, but has developed and/or supported existing recycling programmes for paper and metal scraps. Recycling programmes for glass, oil and hazardous chemicals have not been developed. Members of the business sector are involved in reuse or recycling programmes for paper, aluminum cans and scrap iron. Public awareness campaigns support these initiatives.

Information systems and baseline data have been developed with respect to waste management and pollution control. The Government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **6.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established coastal zone and watershed management institutions and administration. Legislation has been established for watershed, coastal and EEZ management. Moreover, coastal zone management institutions and administrations have been strengthened.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. Comprehensive research and monitoring programmes for coastal and marine resources have not been designed, but the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and public awareness programmes promoting the sustainable use of coastal and marine resources.

The Government has developed management strategies including economic/fiscal instruments, enabling legislation, non-binding guidelines and public participation for coastal and marine resources. With respect to the coastal and marine zone, new systems for coastal zone planning and EIAs have been developed and/or existing ones strengthened.

The Government has developed and/or strengthened programmes and policies to address the following issues:

- Oil spills;
- Land-based sources of marine pollution;
- Water quality; and
- Effluent standards.

Belize has ratified UNCLOS and the Cartagena Convention and has adhered to the ICRI and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **6.1.5 Freshwater Resources**

The Government of Belize has established protected watershed areas and a programme to reduce water loss in distribution systems. However, irrigation and roof collection policies have not been established. The Government has not ratified the Convention on Desertification.

A national water resources management plan does not exist at this time. The Government has, however, promoted the use of regulatory measures, community participation and forest management as strategies for the management of fresh water resources. Water quality standards have also been established.

The Government has developed decision-making tools, including forecasting models. It has also strengthened national capacities for effective decision-making and institutional and intersectoral coordination. Procedures to monitor and respond to impacts on water resources have been undertaken. With respect to appropriate technology, the Government has promoted the use of rainwater collection systems, cost-effective sewerage disposal systems, desalination systems and recycling waste water programmes.

#### **6.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared, implemented and reviewed land-use plans. Land Information Systems, Conservation Information Systems and GIS have been developed as decision-making tools.

Appropriate forms of land tenure have been encouraged as well. In order to prevent/reduce soil degradation, Belize has implemented policies to encourage the use of soil conservation methods, to control freely roaming animals, and to regulate the cutting of trees. The Government has improved land administration and promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for park and protected area systems and has rationalised land-use/resource management. However, the Government has not employed the use of economic instruments to encourage sustainable and integrated land use, and beaches are not currently included in these efforts.



A housing plan/strategy has not been formulated to address issues of shelter. The Government has, however, intervened by providing sites and services, credit and houses. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs.

#### **6.1.7 Energy Resources**

The three most important sources of energy used in Belize in order of increasing preference are wood, oil and hydroelectricity. Though the Government has promoted energy and environmentally-sound sources of energy by using economic instruments and incentives, public education and awareness programmes for energy conservation are not in place.

The Government has promoted hydroelectric power as an alternative and renewable source of energy, but has not promoted the use of wind, solar, geothermal, wave, biomass or ocean thermal as alternative sources. The efficient use of non-renewable sources of energy has not been promoted.

#### **6.1.8 Tourism Resources**

The Government of Belize has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has promoted public awareness/education for sustainable tourism. The Government has also adopted integrated planning and policies to ensure sustainable tourism development.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism, and marine-based tourism including diving, yachting and cruise ships. Policies have not been formulated for recreational fishing. Tourism management strategies include the use of economic/fiscal instruments, public participation and regulatory measures.

Measures have been adopted to protect the cultural integrity of Belize, and the Government has developed policies to increase local ownership within the tourism sector. Incentives exist in the tourism sector to foster sustainable approaches to waste management.

#### **6.1.9 Biodiversity Resources**

Belize has ratified the Convention on Biological Diversity and CITES, but the SPAW Protocol has not been ratified. The Government has developed national legislation to conserve biodiversity in terrestrial and marine resources, but has not yet formulated and implemented strategies for the conservation and sustainable use of these resources. Marine and terrestrial national parks have been established. Public awareness, education and participation have revolved around biodiversity issues.

The Government has not taken measures to ensure the reintroduction of biogenetic resources after a disaster. At the current time, there are no initiatives regarding research on management systems and strategies to quantify intrinsic socio-economic and cultural values with respect to biological resources.

The Government is currently promoting integrated pest control management. However, the Government has not ensured that the ownership of intellectual property rights is adequately and effectively protected, nor has it conducted inventories of existing biodiversity resources. Measures to ensure that adequate and effective protection is offered to indigenous/local technology, knowledge and traditional practices have not been implemented. Regulatory measures and public participation have been developed as strategies for the conservation of biodiversity resources, but the use of economic/fiscal instruments has not been developed.

#### **6.1.10 National Institutions and Administrative Capacity**

Belize has strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning, but more effort is required in this area. Environmental agencies have been established, but lack adequate financial and staff resources. Awareness and involvement of NGOs, CBOs, and the public in the national decision-making process has increased and the implementation of sustainable development programmes has occurred. However, adequate resources for the enforcement of environmental regulations do not exist. The Government has not enacted comprehensive domestic legislation required for the implementation of international environmental conventions.

The Government has established national information nodes on sustainable development to encourage the development of SIDSNET, and to facilitate the exchange of experiences among SIDS.

#### **6.1.11 Regional Institutions and Technical Cooperation**

Belize has supported regional organizations through both membership and budgetary contributions. The Government has also encouraged improved coordination and collaboration among regional bodies and between the international community and regional programmes.

### **1.12 Transport and Communication**

The Government of Belize has continued efforts to strengthen transport services, giving regard to safety, energy-efficiency and low cost. The Government has also upgraded communication facilities, including radio and television coverage to remote

communities, and has improved international telecommunication links as well. Economic/fiscal instruments, regulatory measures and public participation have all been developed in this sector.

#### **6.1.13 Science and Technology**

Minimal implementation of the SIDS/POA has occurred with respect to science and technology. None of the SIDS/POA criteria listed in the questionnaire have been implemented. The Government has not developed integrated science and technology policies which are linked to environmental strategies and sustainable development plans, and has not promoted research and development in areas where endogenous technologies and traditional practices have great relevance. There have been no efforts to encourage the use of environmentally-sound technologies, and the role of women in science has not been addressed.

#### **6.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at the tertiary level of education. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements. Attempts are also being made to address the elimination of poverty in these settlements.

The Government has not encouraged the use of distance training to meet the demand for knowledge and training in the area of the environment, because it is of the opinion that these methods for expanding educational demand is not applicable. The roles of women, youth, communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives. With respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for women, youth and communities.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities.

The Government has encouraged the use of traditional knowledge and skills in the areas of environmental resource management and health. The use of community groups to assist in promoting environmental awareness has also been encouraged.

## 6.2 General Overview Of Implementation Activities and The Way Forward

A national policy and an action plan dealing specifically with sustainable development are currently being developed.

When asked to list the five most successful initiatives towards implementing the SIDS/POA, no response was given. The 14 priority areas in the SIDS/POA with respect to national and regional/international levels of implementation are rated in Table 6.1. The highest rated priority areas were:

- Management of Waste;
- Natural and Environmental Disasters, and
- Coastal and Marine Resources.

**TABLE 6.1 THE 14 PRIORITY AREAS IN THE SIDS/POA IN BELIZE RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	Medium	Medium
Natural and Environmental Disasters	Very High	High
Management of Waste	Very High	-
Coastal and Marine Resources	Very High	-
Freshwater Resources	Low	Low
Land Resources	Low	Low
Energy Resources	-	-
Tourism Resources	High	-
Biodiversity Resources	Medium	-
National Institutions and Administrative Capacity	-	-
Regional Institutions and Technical Cooperation	-	-
Transport and Communication	-	-
Science and Technology	High	Medium
Human Resource Development	-	-

In order of priority from highest to lowest, cross-sectoral issues are ranked by category in Table 6.2. Technical issues were ranked as the cross-sectoral issues deserving the highest priority.

**TABLE 6.2 CROSS-SECTORAL ISSUES IN BELIZE RANKED FROM HIGHEST (10) TO LOWEST (1) BY CATEGORY**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Financial	9	9
Poverty	9	-
Training	8	8
Technical	10	10
Policy	8	8
Institutional/Capacity building	9	7
Information management	9	9
Legislation	9	8
Involvement of marginalised groups (e.g. women, youth, rural communities)	8	8

No answers were provided for the following sections of the questionnaire:

- National constraints to implementation;
- Regional/international constraints to implementation;
- Actions recommended to overcome constraints; and
- Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years.



# SIDS/POA Implementation Profile

# **SIDS/POA Implementation Profile: British Virgin Islands**

The Chief Minister's Office of the Ministry of Finance, Planning and Foreign Affairs in the British Virgin Islands (BVI) provided the information for this report.

## **7.1 Status Report on the 14 Priority Areas of the SIDS/POA**

### **7.1.1 Climate Change and Sea-Level Rise**

The Government of the British Virgin Islands has ratified the Montreal Protocol, but has not ratified UNFCCC and is not participating in the CPACC Project.

The Government has not undertaken activities to develop national inventories of greenhouse gas resources or sinks, or to address anthropogenic emissions. Questions regarding the management of greenhouse gas sinks and reservoirs and joint projects with agencies and governments were considered “not applicable.”

### **7.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

Economic/fiscal instruments and regulatory measures have been developed to address natural and environmental disasters, and in addition, the Government has developed public participatory measures to address this issue. A disaster emergency fund has been established for BVI and there is a plan that integrates disaster policy into the national development planning process.

### **7.1.3 Management of Waste**

The Basel Convention, the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) have all been ratified as means of addressing the management of waste. In addition, the Government has developed regulations and encouraged public participation to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed, but are not established at this time. Systems have been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft.

The Government has not proposed the use of clean technologies, and recycling programmes exist only for glass. Formal recycling programmes for paper, oil and hazardous chemicals are not established, and there are no formal programmes by NGOs. Members of the hotel division of the business sector are involved in recycling glass, wood and cans. The Government has promoted public awareness and has conducted educational campaigns with respect to recycling of waste.

Baseline data and information systems have been developed with respect to waste management and pollution control. The Government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **7.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established institutions, administration and legislation for coastal zone, watershed and EEZ management. Existing institutions, legislation and administration have all been strengthened as well.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. Examples include the Beef Island Airport Project EIA, the Four Lane Highway EIA, the Cane Garden Beach System and the Beef Island Development Scheme.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

The Government has developed management strategies including economic/fiscal instruments, enabling legislation, regulations, non-binding guidelines and encouraged public participation for coastal and marine resources. The Government has established new systems for coastal zone planning, regulations for coastal engineering, EIAs and hydrography and strengthened existing ones.

The Government has developed and/or strengthened programmes and policies to address oil spills, land-based sources of marine pollution, effluent standards and water quality. These projects include the Cane Garden Sewerage System, the Oil Spill Contingency Plan in conjunction with Shell (Caribbean) Ltd., and the Solid Waste Incineration programme.

The British Virgin Islands has ratified UNCLOS, the Cartagena Convention and the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. The



Government has also adhered to the ICRI and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **7.1.5 Freshwater Resources**

Protected watershed areas, roof collection policies, irrigation policy and a programme to reduce water loss in distribution systems have been established. The Government has ratified the Convention on Desertification.

The Government has developed a national water resources management plan, which includes forest management strategies, community participation and the use of regulatory measures. Water quality standards have been established and the government has developed decision-making tools.

National capacities for effective decision-making and institutional/intersectoral coordination have been strengthened through initiatives like the Integrated Development Strategy Project. Procedures to monitor and respond to impacts on water resources have also been strengthened. With respect to appropriate technology, the Government has promoted the use of cost-effective sewerage disposal systems, desalination systems, rainwater collection systems and wastewater recycling programmes.

#### **7.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared and reviewed land-use plans. The most recent plan is the National Land Use Plan of July 1997. Land Information Systems and GIS have been developed as decision-making tools, and the Government has also developed the National Physical Addressing System for building.

Appropriate forms of land tenure have been encouraged, notably through titles and licensing. In order to prevent/reduce soil degradation, BVI has implemented policies to control freely roaming animals, regulate the cutting of trees, and discourage forest farming through land acquisition. It has also made efforts to assure that road design and home and development sites on slopes do not further aggravate soil degradation.

The Government has improved land administration through Cadastral Facilities, the titling system, licensing administration and regulations. It has also promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas, and has supported programmes for reafforestation. The Government has

employed the use of economic instruments and has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has not been formulated with respect to shelter. Moreover, the Government has intervened by providing sites and services, house lots, infrastructure and credit. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. The Government has also worked to increase the technical capacity of the Physical Planning Department through a UNCHS-coordinated Planning Project. Decentralisation strategies in order to minimise rural/urban drift have also been developed.

#### **7.1.7 Energy Resources**

The Government has promoted solar energy as an alternative and renewable source of energy, but has not promoted the use of wind, geothermal, hydroelectricity, wave, biomass or ocean thermal options. The efficient use of non-renewable sources of energy has been promoted as well.

#### **7.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism, diving, yachting, recreational fishing and cruise ships. Policy also exists for small inns and villas owned primarily by small national investors. Public participation has been encouraged as a tourism management strategy, and the development of economic/fiscal instruments and regulatory measures have occurred.

The Government has adopted measures to protect the cultural integrity of the British Virgin Islands by promoting local dance, drama and music in the United States of America (USA) and Europe through tourist offices and residents. Local ownership within the tourism sector has been encouraged through joint/cooperative marketing strategies, consultancies, technical assistance, lines of credit, investment incentives and income tax relief. The Government has provided incentives within the tourism industry for the use of sustainable technology with respect to water resources and waste disposal.

#### **7.1.9 Biodiversity Resources**

The British Virgin Islands has ratified the Convention on Biological Diversity, CITES, and the SPAW Protocol. The Government has developed national legislation and

has formulated and implemented strategies for the conservation and sustainable use of both terrestrial and marine biodiversity. Terrestrial and marine national parks have been established. Education, awareness and public participation have been promoted with respect to biodiversity, biotechnology and biosafety.

The Government has not taken measures to ensure the reintroduction of biogenetic resources after a disaster. However, research with respect to biological resources has been conducted on management systems, and on strategies to quantify intrinsic socio-economic and cultural values of biodiversity.

The Government has conducted detailed inventories of existing biodiversity resources and has promoted integrated pest control management. The Government has also taken steps to ensure that the ownership of intellectual property rights is adequately and effectively protected. Measures to ensure that adequate and effective protection is offered to indigenous/local technology, knowledge and traditional practices have been implemented. Regulatory measures, economic/fiscal instruments and public participation have been developed as strategies for the conservation of biodiversity resources.

#### **7.1.10 National Institutions and Administrative Capacity**

The British Virgin Islands has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. The Government has also strengthened institutional arrangements and administrative capacity through the use of National Integrated Development plans developed through the United Nations Development Programme (UNDP). Strategies and schedules including financing and public awareness programmes have been established. Environmental agencies with adequate funding and human resources have been established and existing ones strengthened. Sustainable development task forces have been given the official authority and validity to allow their continued meeting as advisory bodies. However, adequate resources necessary for the enforcement of environmental legislation are not available. Domestic legislation required for the implementation of international conventions has not been enacted.

The Government has established national information nodes on sustainable development to encourage the development of SIDSNET.

#### **7.1.11 Regional Institutions and Technical Cooperation**

The British Virgin Islands has supported regional organizations through both membership and budgetary contributions. However, the Government has not encouraged improved collaboration and coordination among regional bodies or between the international community and regional programmes.

### **7.1.12 Transport and Communication**

In order to strengthen transport services, efforts have been made to improve environmental protection, safety and energy efficiency. Telecommunications, however, were not improved through upgrading of domestic communication facilities, and the Government has not improved international telecommunication links. Regulatory measures and public participation programmes have not been developed for transport and communication. However, economic/fiscal instruments have been developed.

### **7.1.13 Science and Technology**

The Government of the British Virgin Islands has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans by emphasising self-sufficiency. The Government has promoted research and development in endogenous technologies and traditional practices related to agriculture and agricultural processing, and the use of endogenous, environmentally-sound technologies has been encouraged through standards and economic/fiscal instruments.

The Government has developed databases on environmentally-sound technologies of local relevance, but has not collected consistent time-series data for monitoring the performance of sustainable development. The role of women in science and technology has not been strengthened.

### **7.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at all levels. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements.

The Government has encouraged the use of distance technology to meet demands for knowledge and training in the area of the environment. Moreover, the roles of women, youth, communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives. With respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for NGOs and communities.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded.

The use of traditional knowledge and skills has been encouraged in the health field. The Government has encouraged the use of community groups to assist in promoting environmental awareness.

## **7.2 General Overview Of Implementation Activities and The Way Forward**

A national policy dealing specifically with sustainable development and a sustainable development action plan are being prepared.

The most successful initiative towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt, is listed in Table 7.1.

**TABLE 7.1 THE MOST SUCCESSFUL INITIATIVE TOWARDS IMPLEMENTING THE SIDS/POA IN THE BRITISH VIRGIN ISLANDS**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. National Integrated Development Plan	<ul style="list-style-type: none"> <li>Integrated approach to decentralised planning</li> </ul>	<ul style="list-style-type: none"> <li>working together and making planning decisions jointly about the same space</li> </ul>

The 14 Priority Areas in the SIDS/POA are rated in Table 7.2 with respect to national and regional/international levels of implementation.

Cross-sectoral issues are ranked by category in Table 7.3. Capacity Building, Policy Issues and Financial Issues were ranked as the three cross-sectoral issues deserving the highest priority on the national level, while Policy Issues, Capacity Building and Technical Issues topped the list of regional priorities. Poverty and the Involvement of Marginalised Groups were viewed as least important at the national level, while Information Management and Legislation were ranked least important regionally.

**TABLE 7.2 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR THE BRITISH VIRGIN ISLANDS WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	-	-
Natural and Environmental Disasters	Very High	Medium
Management of Wastes	Medium	Low
Coastal and Marine Resources	Medium	Low
Freshwater Resources	Low	-
Land Resources	Low	Medium
Energy Resources	Medium	Very High
Tourism Resources	Very High	Low
Biodiversity Resources	Low	High
National Institutions and Administrative Capacity	Medium	Medium
Regional Institutions and Technical Cooperation	Medium	Medium
Transport and Communication	High	High
Science and Technology	Medium	High
Human Resource Development	High	Low

**TABLE 7.3 CROSS-SECTORAL ISSUES IN THE BRITISH VIRGIN ISLANDS RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	9	10
Institutional / Capacity Building	10	9
Technical	7	8
Financial	8	7
Information management	5	2
Training	4	4
Legislation	6	3
Poverty	2	5
Involvement of marginalised groups (e.g. women, youth, rural communities).	3	6

Constraints to implementation are specified by category in Table 4. Constraints such as limited financial and human resources and failure to recognise the SIDS/POA

priorities were the most important national barriers. No responses were given to the call to identify actions to overcome constraints at the national and regional/international level. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years is provided in Table 7.5.

**TABLE 7.4      CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN THE BRITISH VIRGIN ISLANDS BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>
Policy (including fiscal/economic)	Lack of awareness of the SIDS/POA
Institutional/Capacity Building	Financial and human resources
Technical	Appropriate human resources
Financial	Low priority given to some areas
Information management	Absence of appropriate tools to obtain the data
Training	Not enough resources, the absence of a plan
Legislation	Commitment and will of policy makers

**TABLE 7.5      MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN THE NEXT FIVE YEARS IN THE BRITISH VIRGIN ISLANDS**

	<b>National</b>	<b>Regional/International</b>
Challenges	<ul style="list-style-type: none"> <li>Building a strong national consensus and regional political determination</li> </ul>	<ul style="list-style-type: none"> <li>Political will and allocation of resources</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>Building institutional capacity and development of comprehensive SIDS related policies</li> </ul>	<ul style="list-style-type: none"> <li>Unknown</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>An integrated approach to development planning</li> </ul>	<ul style="list-style-type: none"> <li>Unknown</li> </ul>



# SIDS/POA Implementation Profile



## **SIDS/POA Implementation Profile: Cuba**

The Ministerio de Ciencia, Tecnología y Medio Ambiente (Ministry of Science, Technology and the Environment) in Cuba provided the information for this report.

### **8.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **8.1.1 Climate Change and Sea-Level Rise**

The Government of Cuba has ratified the Montreal Protocol and UNFCCC, and it is participating in the CPACC Project. The Government has also developed and upgraded national legislation to address climate change issues.

The Government has undertaken activities to develop national inventories of, and promote the sustainable management of greenhouse gas resources and sinks, as well as to address anthropogenic emissions. It has also cooperated in the development and use of technology to reduce emission.

The Government has worked to develop a related national communications strategy, although joint projects with public, private and international agencies or NGOs are not underway at this time.

#### **8.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing, management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

Economic/fiscal instruments and regulatory measures have been developed to address natural and environmental disasters and, in addition, the Government has developed public participatory measures to address this issue. A disaster emergency fund has been established for Cuba and a plan that integrates disaster policy into the national development planning process has been developed.

#### **8.1.3 Management of Waste**

The Basel Convention, the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) have all been ratified as a means of addressing the management of waste. To ensure the sustainable management of waste, the Government has developed regulations and encouraged public participation. They have also embarked on the establishment of national inventories of hazardous waste and sources of pollution.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been established. Systems have been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft.

The Government has proposed the use of clean technologies, and recycling programmes exist for glass, paper and oil, but not for hazardous chemicals. There is also a recycling programme for sugar industry waste. There are formal programmes for NGOs, including projects in which children's organizations and community workers recover recyclable materials. In the business sector, the organization concerned with recovery of raw materials comprises 50 agroindustries working together in the field. The Government has promoted public awareness and has conducted educational campaigns.

Baseline data and information systems have been developed with respect to waste management and pollution control. The Government has formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **8.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established institutions, administration and legislation for coastal zone, watershed and EEZ management. Existing institutions, legislation and administration have all been strengthened as well.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. These studies and projects include:

- The GEF-UNDP project dealing with the biodiversity protection in the Sabana-Camaguey Archipelago, which covered 75,000 sq. km.;
- The Bahías GEF-UNDP project coving 5.1 sq. km.; and
- Beach Recovery Projects at Playa Varadero and Playa del Este, covering 22 km and 12 km respectively.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed, and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

The Government has developed economic/fiscal instruments, enabling legislation, regulations and public participation as management strategies. The Government has established new, and strengthened existing systems for coastal zone planning, regulations for coastal engineering, EIAs and hydrography.

The Government has developed new and/or strengthened existing programmes and policies to address oil spills, land-based sources of marine pollution, effluent standards and water quality. These projects include contingency plans, EIA regulations and water temperature monitoring projects.

Cuba has ratified UNCLOS, the Cartagena Convention and the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. Although the Government has not adhered to the ICRI, it has adhered to the Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities and the Food and Agriculture (FAO) Code of Conduct for Responsible Fishing.

### **8.1.5 Freshwater Resources**

Protected watershed areas and irrigation policy have been established. The Government has ratified the Convention on Desertification.

The Government has developed a national water resources management plan, which includes forest management strategies, community participation, and the use of regulatory measures and hydrological basin management. The Government has also used incentives that include charges for water consumption, both at the household level and in the industrial and agricultural sectors. Water quality standards have been established and the Government has developed decision-making tools with respect to these standards.

National capacities for effective decision-making and institutional/intersectoral coordination have been strengthened through a number of initiatives. The Ministry of Science, Technology and the Environment was created, along with the Environmental Agency. The Government has also created the National Institute of Hydrological Resources. Procedures to monitor and respond to impacts on water resources have also been strengthened. With respect to appropriate technology, the Government has promoted the use of cost-effective sewerage disposal systems, desalination systems, rainwater collection systems, wastewater recycling programmes in some industries and mini-hydroelectric stations.

### **8.1.6 Land Resources**

The Government has promoted awareness of the need for integrated land-use practices. In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas, and has supported programmes for afforestation and reafforestation. The Government has employed the use of economic instruments and has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has been formulated in respect of shelter. Moreover, the Government has intervened by providing sites and services, houses, low consumption households, development of aquaculture communities and credit. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs and the creation of provincial physical planning departments. The Government has developed decentralisation strategies in order to minimise rural/urban drift.

#### **8.1.7 Energy Resources**

The most important sources of energy in descending order are oil, biomass and hydroelectricity. The Government has implemented appropriate public education and awareness programmes, which have covered energy conservation, the development of environmentally-sound sources of energy, the development of energy efficient technologies and the use of economic instruments and incentive structures.

The Government has promoted wind, solar, hydroelectric, biomass and biogas energy as alternative and renewable sources of energy. The efficient use of non-renewable sources of energy has been promoted as well.

#### **8.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism, diving, yachting, recreational fishing and cruise ships. Policies also exist for health-related and scientific tourism. Public participation has been developed as a tourism management strategy, and the development of economic/fiscal instruments and regulatory measures has occurred.

The Government has adopted measures to protect the cultural integrity of Cuba through the efforts of the Ministry of Culture and legislation regarding national heritage. The tourism sector is being improved at the local level, although not through private ownership. The Government has provided incentives within the tourism industry for the use of sustainable technology with respect to water resources energy, beach recovery and waste disposal.

#### **8.1.9 Biodiversity Resources**

Cuba has ratified the Convention on Biological Diversity and CITES, but has not ratified the SPAW Protocol. The Government has developed national legislation and has formulated and implemented strategies for the conservation and sustainable use of both

terrestrial and marine biodiversity. Terrestrial and marine national parks have been established. Education, awareness and public participation have been promoted with respect to biodiversity, biotechnology and biosafety.

The Government has taken measures to ensure the reintroduction of biogenetic resources after a disaster by maintaining buffer stocks and gene banks. Research with respect to biological resources has been conducted on management systems, and on strategies to quantify intrinsic socio-economic and cultural values of biodiversity.

The Government has conducted detailed inventories of existing biodiversity resources. Integrated pest control management has been promoted. The Government has not, however, taken steps to ensure that the ownership of intellectual property rights is adequately and effectively protected.

#### **8.1.10 National Institutions and Administrative Capacity**

Cuba has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. Government has also strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. Strategies and schedules including financing and public awareness programmes have been established. Environmental agencies with adequate funding and human resources have been established and strengthened. Sustainable development task forces have been given the official authority and validity to allow their continued meeting as advisory bodies. Adequate resources are available for the enforcement of environmental legislation.

Domestic legislation required for the implementation of international conventions has been enacted, covering:

- The Convention on Climate Change;
- The Convention on Biological Diversity;
- CITES;
- The Convention on the Law of the Sea;
- The Basel Convention;
- The Montreal Convention, and others.

The Government has established national information nodes on sustainable development to facilitate the exchange of experiences among SIDS, but has not encouraged the development of SIDSNET at this time.

#### **8.1.11 Regional Institutions and Technical Cooperation**

Cuba has supported regional organizations through both membership and budgetary contributions. The Government has encouraged and improved collaboration and coordination among regional bodies as well as between itself and the international community and regional programmes. These efforts have included the establishment of the Joint Commission of CARICOM, the implementation of the framework for action for the Regional Offices of UNEP, the Commission on Sustainable Development (CSD) and the Intergovernmental Oceanographic Commission for the Caribbean and Adjacent Areas (IOCARIBE).

#### **8.1.12 Transport and Communication**

In order to strengthen transport services, efforts have been made to improve environmental protection, safety, cost and energy efficiency. Telecommunications were improved through upgrading of domestic communication facilities and the Government has also improved international telecommunication links. Regulatory measures, economic/fiscal instruments and public participation programmes have been developed for transport and communication.

#### **8.1.13 Science and Technology**

The Government of Cuba has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans by emphasising self-sufficiency, the minimisation of import dependency, the development and use of information technology to overcome size and isolation problems, and research and development training. The Government has promoted research and development in endogenous technologies and traditional practices related to agriculture and agricultural processing, waste recycling, biotechnology, construction, fishing and renewable energy. The use of endogenous, environmentally-sound technologies has been encouraged through standards and regulations.

The Government has developed databases on environmentally-sound technologies of local relevance, and has collected consistent time-series of data for monitoring the performance of sustainable development. The role of women in science and technology has been strengthened as well.

#### **8.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at all levels. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation

with local communities, has given priority to the improvement of basic needs in both urban and rural settlements.

The Government has encouraged the use of distance technology to meet increased demands for education in general and more specifically, demands for knowledge and training in the area of the environment. Moreover, the roles of women, youth, communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives. With respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for women, youth, decision-makers and communities. Members of the agriculture, sugar industry, mining, tourism and fishing sectors also use this information.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded.

The use of traditional knowledge and skills has been encouraged in environmental resource management, health, agriculture, fishing and programmes devoted to the economic and social development of mountain regions. The Government has encouraged the use of community groups to assist in promoting environmental awareness.

## **8.2 General Overview Of Implementation Activities and The Way Forward**

A national policy dealing specifically with sustainable development and a sustainable development action plan are available at this time.

The five most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt, are listed in Table 8.1.

The 14 Priority Areas in the SIDS/POA are rated in Table 8.2 with respect to national and regional/international levels of implementation. All issues were considered to be of equal importance except for Management of Waste, which was accorded slightly lower priority. Cross-sectoral issues are ranked by category in Table 8.3.

**TABLE 8.1 THE FIVE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN CUBA**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. National Environmental Strategy	<ul style="list-style-type: none"> <li>• Identification of major environmental problems</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of relying on a document based on the political environment</li> </ul>
2. Environmental Law	<ul style="list-style-type: none"> <li>• Possessing a legal framework for the national situation</li> </ul>	<ul style="list-style-type: none"> <li>• Possibilities of intersectoral cooperation</li> </ul>
2. Hydrographic Basins Commission	<ul style="list-style-type: none"> <li>• Inclusion of all the stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• The importance of good basin maintenance</li> </ul>
3. GEF-PNUD Project to protect the Sabana-Camagüey	<ul style="list-style-type: none"> <li>• Useful information regarding important environmental and economic areas</li> </ul>	<ul style="list-style-type: none"> <li>• Development of an integrated coastal management system</li> </ul>
4. Beach recovery projects at Playa de Varadero and others	<ul style="list-style-type: none"> <li>• Important contribution to the national economy</li> </ul>	<ul style="list-style-type: none"> <li>• It is necessary to maintain control of the coastal zone in order to avoid erosion.</li> </ul>

Constraints to implementation are specified by category in Table 8.4. Constraints such as trade embargoes and financial constraints were cited most often. No responses were given under the heading of recommended actions to overcome constraints to implementation. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 8.5.



**TABLE 8.2 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR CUBA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	Very High	Very High
Natural and Environmental Disasters	Very High	Very High
Management of Waste	High	High
Coastal and Marine Resources	Very High	Very High
Freshwater Resources	Very High	Very High
Land Resources	Very High	Very High
Energy Resources	Very High	Very High
Tourism Resources	Very High	Very High
Biodiversity Resources	Very High	Very High
National Institutions and Administrative Capacity	Very High	Very High
Regional Institutions and Technical Cooperation	Very High	Very High
Transport and Communication	Very High	Very High
Science and Technology	Very High	Very High
Human Resource Development	Very High	Very High

**TABLE 8.3 CROSS-SECTORAL ISSUES FOR CUBA RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	10	10
Institutional/Capacity Building	9	10
Technical	10	10
Financial	8	10
Information management	8	10
Training	10	10
Legislation	10	10
Poverty	10	10
Involvement of marginalised groups (e.g. women, youth, rural communities)	10	10

**TABLE 8.4 CONSTRAINTS TO IMPLEMENTATION OF SIDS/POA IN CUBA BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>	<b>Regional/International</b>
Policy (including fiscal/economic)	Economic limitations, economic embargoes, political and financial	Access to financing
Institutional/Capacity Building		Finances and access to projects and programmes
Technical	Blockades	Limitations of access to appropriate technology
Financial	Blockades	Blockades and decreasing aid for development
Information management	Appropriate technology	Finances and access to technology
Training	-	Access to and organization of correspondence courses which meet national needs
Legislation	-	

**TABLE 8.5 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN CUBA IN THE NEXT FIVE YEARS**

	<b>National</b>	<b>Regional/International</b>
Challenges	<ul style="list-style-type: none"> <li>• Elimination of the embargo</li> </ul>	<ul style="list-style-type: none"> <li>• Financing</li> <li>• Better international coordination</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>• SIDS/POA implementation</li> </ul>	<ul style="list-style-type: none"> <li>• SIDS/POA implementation</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>• Continue to perfect environmental policy and management</li> </ul>	<ul style="list-style-type: none"> <li>• International and regional cooperation</li> </ul>

The Government concluded its response with the following comments:

“For Cuba, the SIDS/POA is a high priority issue, and particularly in the Caribbean context. As stated in the document, nevertheless, there are serious economic limitations which have been encountered and which have thus limited the activities planned for social, economic and environmental development. Cuba has achieved progress in spite of the blockade by the United States.”



# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Dominica**

The Coordinator of the Sustainable Development Council of the Ministry of Finance in Dominica provided the information for this report.

### **9.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **9.1.1 Climate Change and Sea-Level Rise**

The Government of Dominica has ratified the Montreal Protocol, UNFCCC and is participating in the CPACC Project. However, the Government has not developed or upgraded national legislation to address climate change issues.

Though the Government has not undertaken enabling activities such as the development of national inventories of greenhouse gas resources and sinks, or formulated measures to address anthropogenic emissions, a proposal to facilitate such enabling activities has been submitted to the UNDP for submission to the GEF for funding. National communications strategies, which include a climate change component, have been developed as a component of Dominica's National Communications Report and Action Plan for the UNFCCC.

Though the Government has not promoted the development or use of technology to reduce emissions, it has cooperated in the sustainable management of sinks and reservoirs of greenhouse gases. There has been no participation in jointly implemented projects with any public (bilateral) or private agencies, NGOs or international organizations.

#### **9.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters, such as Project Clear Waters. Disaster mitigation plans have also been established and strengthened. However, policies that deal specifically with natural and environmental disasters have not been established.

Economic/fiscal instruments have not been developed to address natural and environmental disasters. However, a model act is being considered by the Caribbean Disaster Emergency Response Agency (CDERA) with respect to the development of regulatory measures. Moreover, the Government has developed public participatory measures to address this issue. Dominica has neither established nor proposed a disaster emergency fund and relies on the regional emergency fund. The Government has proposed a plan with respect to integrating disaster policy into the national development planning process.

### **9.1.3 Management of Waste**

The Cartagena Convention (Oil Spills Protocol) has been ratified as a means of addressing the management of waste, but neither the Basel Convention nor the London Convention (1972) has been ratified. Regulations, economic instruments and public participation have all been developed by the Government to ensure the sustainable management of waste.

Though the MARPOL Convention has not yet been ratified, in accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed. Financing for this project was secured under the OECS/World Bank Waste Management Project. Moreover, systems have been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft.

The Government has neither introduced the use of clean technologies nor developed recycling programmes to ensure the sustainable management of waste. However, it has promoted public awareness and has conducted educational campaigns.

Information systems and baseline data have been developed with respect to waste management, and baseline data has been developed for pollution control. The Government has formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

### **9.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established coastal zone and EEZ management institutions. An administrative framework for watershed management has also been established. Legislation, in the form of the model OECS legislation, has been established for coastal zone and EEZ management. However, neither watershed management institutions nor the appropriate legislation have been established. Moreover, existing coastal zone and EEZ management institutions and administrations have been strengthened as well as EEZ management legislation.

The Government has initiated prefeasibility studies, pilot studies and comprehensive projects to encourage ICZM. Initiatives include the CPACC project along Dominica's entire coastline and a project at Scotts Head Marine Park.

Comprehensive research and monitoring programmes for coastal and marine resources have not been designed. However, the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries, and has developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

Economic/fiscal instruments and enabling legislation have not been developed as strategies to facilitate the management of coastal and marine resources. However, the Government has developed regulations, non-binding guidelines and encouraged public participation as management strategies. With respect to the coastal and marine zone, the Government has developed EIAs and hydrography as management strategies.

The Government has developed and/or strengthened programmes and policies to address a variety of coastal and marine issues, including the following:

- Oil spills (for example, the Clear Waters Project);
- Land-based sources of marine pollution;
- Water quality; and
- Effluent standards (for example, the World Bank Waste Management Project).

Dominica has ratified UNCLOS, the Cartagena Convention and the CITES Convention. Though the Government has not ratified the Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, it has adhered to its principles. The Government has also adhered to ICRI, and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **9.1.5 Freshwater Resources**

Protected watershed areas for the management of freshwater resources have been established, but neither irrigation nor roof collection policies, nor a programme to reduce water loss in distribution systems have been established.

Ratification of the Convention on Desertification is currently being considered by the Government, and other global conventions which include fresh water components, for example, the CPACC Project, Biological Diversity and CITES Conventions have already been ratified.

Though a specific national water resources management plan does not exist, the Government has promoted the use of regulatory measures, community participation and forest management as strategies for the management of fresh water resources. Water quality standards have also been established.

The Government has not developed decision-making tools, including forecasting models. Also, it has not strengthened national capacities for effective decision-making, and institutional/intersectoral coordination. Procedures to monitor and respond to impacts on water resources have not been undertaken. With respect to appropriate technology, the Government has promoted the use of cost effective sewerage disposal systems and rainwater collection systems.

### **9.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared and implemented land-use plans. The most recent plan was prepared in 1984, and, to date, has not been reviewed.

Though the Government has not developed Land Information Systems as a decision-making tool, it has developed GIS. In this regard, a UNDP/UNCHS Environmental Protection Project will assist forward planning and the CPACC Project is supposed to strengthen the GIS system at the Physical Planning Office.

Appropriate forms of land tenure have been encouraged. In order to prevent and reduce soil degradation, Dominica has implemented policies to encourage the use of soil conservation methods and to regulate the cutting of trees. Road-cutting standards have also been set, as well as streamside reserves demarcated for water protection. Improvement of land administration and the promotion of awareness of the need for integrated land-use practices were viewed as inapplicable.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, and park and protected area systems. Appropriate afforestation and reafforestation programmes have also been supported. However, the Government has not employed the use of economic instruments or rationalised land-use/resource management as strategies to encourage sustainable and integrated use.

A housing plan or strategy has not been formulated in respect of shelter. However, for the housing sector the Government has intervened by providing sites and services, credit and houses. The Government has also provided fiscal incentives for upgrading sanitary facilities and has improved access to such facilities.

Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. For example, the existing Town and Country Planning Act will be amended to make provisions for EIAs. Collaboration with the OECS/NRMU has facilitated research to investigate the capability of agencies collaborating with the Physical Planning Division with respect to EIAs. A National EIA Plan of Action has been prepared with the assistance of the OECS/NRMU and is currently awaiting Cabinet's approval. Decentralisation strategies have not been developed in order to minimise rural/urban drift.

### **9.1.7 Energy Resources**

The three most important sources of energy used in Dominica in order of increasing preference are hydroelectricity, oil and LPG. The Government has implemented public education and awareness programmes. It has promoted energy

conservation and the development of environmentally-sound sources of energy and energy efficient technologies. Moreover, it has promoted the use of economic instruments and incentive structures.

The Government has promoted wind, solar, biomass and photovoltaic energy as alternative and renewable sources of fuel. In addition, the efficient use of non-renewable sources of energy has also been promoted.

#### **9.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also promoted public awareness and education for sustainable tourism, but has not adopted integrated planning and policies to ensure sustainable tourism development.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism and marine-based activities (both diving and cruise). However, policies have not been formulated for yachting and recreational fishing. Economic/fiscal instruments, regulatory measures and public participation have not been developed as tourism management strategies.

Measures have been adopted to protect the cultural integrity of Dominica. For example, the National Parks and Protected Areas Act, Chapter 42:02, provides for the conservation of historical and cultural resources. Moreover, the Government has developed policies to increase local ownership within the tourism sector through duty-free concessions and tax incentives. Incentives in the tourism industry have also been provided for the use of sustainable technology or strategies in respect of energy through the development of hydro-electricity capabilities.

#### **9.1.9 Biodiversity Resources**

Dominica has ratified the Convention on Biological Diversity, CITES and the SPAW Protocol. The Government has also developed national legislation to conserve biodiversity in terrestrial and marine resources, and has formulated and implemented strategies for the conservation and sustainable use of these resources. Both terrestrial and marine national parks have been established and public awareness/education programmes have been implemented.

Measures to ensure the reintroduction of biogenetic resources after a disaster have not been implemented. However, research has been conducted on management systems with respect to biological resources. Strategies to quantify intrinsic socio-economic and cultural values have not been developed.



Integrated pest control management has occurred on a limited scale. The conduct of detailed inventories of existing biodiversity resources, and strategies to ensure that intellectual property rights are adequately protected were viewed as not applicable. Measures to ensure that adequate and effective protection is offered to indigenous/local technology, knowledge and traditional practices were also viewed as not applicable. Similarly, the development of economic/fiscal instruments, regulatory measures and public participation were viewed as not applicable to biodiversity resources.

#### **9.1.10 National Institutions and Administrative Capacity**

Dominica has strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning through the establishment of the Sustainable Development Council with the assistance of the Caribbean Centre for Development Administration (CARICAD), UNDP and the Caribbean Development Bank (CDB) under the Capacity 21 Project. The activities of the SDC have facilitated increased awareness and involvement of NGOs, CBOs and the public in the national decision-making process for the implementation of sustainable development programmes. However, sustainable development task forces have not been given the official authority to allow their continued meeting as advisory bodies.

The Government has not yet developed implementation strategies and schedules, the most important of which is financing. Neither has it developed appropriate environmental laws that incorporate the principles of sustainability. Domestic legislation required for the implementation of a wide range of international environmental conventions has not been enacted. Promotion of public awareness and education in the area of environmental legislation has occurred on a limited scale. Adequate resources for the enforcement of environmental regulations have not been provided.

The establishment of national information nodes on the sustainable development of SIDS to encourage the development of SIDSNET is presently being considered by CARICAD under the Capacity 21 Project. Measures to facilitate the exchange of experiences among SIDS have not yet been undertaken.

#### **9.1.11 Regional Institutions and Technical Cooperation**

Dominica has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved coordination and collaboration among regional bodies and between the international community and regional programmes.

In an effort to encourage coordination and collaboration among regional bodies, the Government has participated in several regional projects including Capacity 21, and has become involved in the work programmes of various regional institutions.

Coordination between the international community and regional programmes has been facilitated by Dominica's membership in regional institutions, for example, the OECS/NRMU.

#### **9.1.12 Transport and Communication**

Continued efforts to strengthen transport services, giving regard to environmental protection, safety, energy-efficiency and low cost were viewed as inapplicable.

Telecommunications of Dominica Limited has facilitated government upgrading of domestic communication facilities, including radio and television coverage to remote communities. Moreover, the Government has improved international telecommunication links. Regulatory measures, which are applicable to transport and communication have been developed. However, economic/fiscal instruments have not been developed and public participation has not been promoted.

#### **9.1.13 Science and Technology**

Minimal implementation of the SIDS/POA has occurred with respect to science and technology. Some of the SIDS/POA criteria were viewed as not applicable and others have not been implemented.

When asked whether the Government had ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans, emphasising elements such as self-sufficiency, the minimisation of import dependency and research and development training for science and technology, the response was "not applicable." Similarly, when asked whether the Government had promoted research and development in areas where endogenous technologies and traditional practices have great relevance, the response was "not applicable."

The Government has not encouraged the use of endogenous, environmentally-acceptable technologies by establishing regulations, standards or economic/fiscal instruments. Neither has it developed or ensured access to databases on environmentally-sound technologies of local relevance. Consistent time-series of data for monitoring the performance of sustainable development indicators have not been collected.

The Government has promoted and strengthened the role of women in science and technology disciplines through training.

#### **9.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at primary, secondary and tertiary levels of education. Gender issues have been

incorporated into the mainstream of the Government's decision-making and planning process through the strengthening of the Women's Bureau, while the incorporation of population issues is currently being considered. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements. Attempts are also being made to address the elimination of poverty in these settlements.

The Government has encouraged the use of distance training to meet expanding educational demand and demand for knowledge and training in the area of the environment. Moreover, the roles of women, youth, communities, farmers, the academic community, NGOs and the private sector have been strengthened through sustainable development initiatives. With respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for NGOs.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities through Dominica's Basic Education Reform Programme. However, labour market linkages were not upgraded.

The Government has encouraged the use of traditional knowledge and skills in the areas of environmental resource management and health. The use of community groups to assist in promoting environmental awareness has also been encouraged.

## **9.2 General Overview Of Implementation Activities and The Way Forward**

Neither a national policy nor an action plan dealing specifically with sustainable development has been developed. However, other relevant and available plans include a national socio-economic development plan and a tourism master plan.

The five most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt is listed in Table 9.1.

**TABLE 9.1 THE FIVE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN DOMINICA**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. Ecotourism	Ecotourism site development	<ul style="list-style-type: none"> <li>• Commitment</li> <li>• Site location</li> </ul>
2. Community environmental Management	ENCORE (CANARI) project facilitated cross-sectoral involvement	<ul style="list-style-type: none"> <li>• Organization of community groups</li> </ul>
Cross-sectoral coordination	Establishment of the Sustainable Development Council	<ul style="list-style-type: none"> <li>• Institutionalisation mechanisms</li> </ul>
3. Human Resource Development	Increased training opportunities	<ul style="list-style-type: none"> <li>• Type of skills required</li> </ul>
5. Disaster Management	Collaborative projects with NEPO and CDERA	<ul style="list-style-type: none"> <li>• The need for financial consideration of the potential implications</li> </ul>

The 14 Priority Areas in the SIDS/POA are rated in Table 9.2 with respect to national and regional/international levels of implementation. The highest rated priority areas were:

- Management of Wastes;
- Tourism Resources;
- National Institutions and Administrative Capacity; and
- Regional Institutions and Technical Cooperation.

In order of priority from highest to lowest, cross-sectoral issues are ranked by category in Table 9.3. Financial issues, Poverty and Training were ranked as the three cross-sectoral issues deserving the highest priority. Legislation and the Involvement of Marginalised Groups were viewed as least important. Issues were not ranked at the regional level.

**TABLE 9.2 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR DOMINICA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority Area</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	Medium	Medium
Natural and Environmental Disasters	Medium	Medium
Management of Waste	High	High
Coastal and Marine Resources	High	High
Freshwater Resources	Medium	Medium
Land Resources	Medium	Medium
Energy Resources	Low	Low
Tourism Resources	High	High
Biodiversity Resources	High	Medium
National Institutions and Administrative Capacity	High	High
Regional Institutions and Technical Cooperation	High	High
Transportation and Communication	Medium	Medium
Science and Technology	Low	Low
Human Resource Development	Medium	Low

**TABLE 9.3 CROSS-SECTORAL ISSUES FOR DOMINICA RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>
Policy	6
Institutional/Capacity Building	5
Technical	7
Financial	10
Information management	4
Training	8
Legislation	3
Poverty	9
Involvement of marginalised groups (e.g. women, youth, rural communities).	2

Constraints to implementation are specified by category in Table 9.4. Constraints such as limited human resources, lack of sustainability of programmes, and the need for

more meaningful networking, require major resources and priority in order for them to be rectified. Recommended actions to overcome constraints to implementation are listed in Table 9.5. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years is provided in Table 9.6.

**TABLE 9.4 CONSTRAINTS TO IMPLEMENTATION OF THE SIDA/POA IN DOMINICA BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>	<b>Regional/International Constraints</b>
Policy (including fiscal/economic)	Limited baseline information and research	Limited networking
Institutional/Capacity Building	Limited human resources	Limited resources
Technical	Lack of sustainability of programmes	Limited availability
Financial	Limited accessibility	Limited resource mobilisation
Information Management	Limited collaboration and coordination	Limited networking
Training	Limited applicability	Limited regional institutionalisation
Legislation	Limited commitment	Limited networking

**TABLE 9.5 RECOMMEND ACTIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION**

<b>Category</b>	<b>National</b>	<b>Regional/International</b>
Policy (including fiscal/economic)	Sustainable development policy	Coordinated work programmes among institutions
Institutional/Capacity Building	Human resource development	Institutional strengthening
Technical	Long term sustainability	Workshops and seminars
Financial	Mobilisation	Mobilisation
Information management	Networking	Networking and the establishment/strengthening of information centers
Training	Technical/vocational	Both comprehensive and selective where applicable
Legislation	Sustainable development legislation	Harmonious legislation

**TABLE 9.6 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN DOMINICA IN THE NEXT FIVE YEARS**

	<b>National</b>	<b>Regional/International</b>
Challenges	<ul style="list-style-type: none"> <li>• The need for integrated planning and the commitment of all parties involved.</li> </ul>	<ul style="list-style-type: none"> <li>• The need for networking and information sharing</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>• Financial resources</li> <li>• Legislation</li> <li>• Increased coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Increased coordination and networking</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>• Education system</li> <li>• Use of existing agencies</li> <li>• Public awareness</li> </ul>	<ul style="list-style-type: none"> <li>• Regional institutionalisation</li> </ul>



# SIDS/POA Implementation Profile



# **SIDS/POA Implementation Profile: Dominican Republic**

The Coordinator of the Capacity 21 Project of the Oficina Nacional de Planificación (National Planning Office) in the Dominican Republic provided information for this report.

## **10.0 Status Report on the 14 Priority Areas of the SIDS/POA**

### **10.1.1 Climate Change and Sea-Level Rise**

The Government of the Dominican Republic has ratified the Montreal Protocol, but has not ratified UNFCCC and is not participating in the CPACC Project.

The Government has not undertaken activities to develop national inventories of greenhouse gas resources or sinks, but has formulated measures and communications strategies to address anthropogenic emissions. The Government has not promoted the sustainable management of sinks or reservoirs of greenhouse gases, and has not participated in jointly implemented projects with public or private agencies or NGOs.

### **10.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

Regulatory measures have been developed to address natural and environmental disasters, and in addition the Government has developed public participatory measures to address this issue. A disaster emergency fund has not been established for the Dominican Republic at this time, and a plan that integrates disaster policy into the national development planning process has yet to be developed.

### **10.1.3 Management of Waste**

The London Convention (1972) has been ratified, although the Basel and Cartagena Conventions have not. The Government has developed regulations to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed but are not established at this time. Systems to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft have yet to be developed.

The Government has proposed the use of clean technologies, including the use of filters to trap gases. Recycling programmes exist for glass, paper and oil. Formal recycling programmes for NGOs feature plastic recycling, and the business sector is involved in glass recycling and reuse. The Government has promoted public awareness and has conducted educational campaigns. Baseline data have been developed for waste management.

The Government has not formulated national laws with respect to banning of the importation of hazardous wastes from OECD States.

#### **10.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established and strengthened institutions for coastal zone and watershed management, as well as watershed management administration and EEZ management legislation.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. Examples include projects on the South Coast and in the coastal marine protected areas.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

The Government has developed management strategies including regulations and public participation. The Government has also established new, and strengthened existing systems for coastal zone planning, EIAs and hydrography.

The Government has developed and/or strengthened programmes and policies, for example, Nordon 36 to address oil spills, land-based sources of marine pollution, effluent standards and water quality.

The Dominican Republic has not ratified UNCLOS, the Cartagena Convention or the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. The Government has, however, adhered to ICRI.

#### **10.1.5 Freshwater Resources**

Protected watershed areas, irrigation policy and a programme to reduce water loss in distribution systems have been established. The Government has ratified the Convention on Desertification.

The Government has not developed a national water resources management plan, although it has promoted forest management strategies, community participation and the use of regulatory measures. Water quality standards have been established for drinking water, but not for water at the source.

National capacities for effective decision-making and institutional/intersectoral coordination have been strengthened through initiatives like the creation of intersectoral and inter-institutional commissions. Procedures to monitor and respond to impacts on water resources have also been strengthened. With respect to appropriate technology, the Government has promoted the use of rainwater collection systems.

#### **10.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared, implemented and reviewed land-use plans. Land Information Systems and GIS have been developed as decision-making tools.

Appropriate forms of land tenure have been encouraged. In order to prevent/reduce soil degradation, the Dominican Republic has implemented policies to encourage the use of soil conservation methods, to control freely roaming animals and to regulate the cutting of trees. The Government has improved land administration through Cadastral Facilities and has promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas, and has supported programmes for afforestation and reafforestation. The Government has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services, houses and credit. Increased awareness and strengthening of physical planning offices have occurred through training and the use of decision-making tools such as EIAs. There is also a National Commission for Physical Planning. The Government has developed decentralisation strategies in order to minimise rural/urban drift.

#### **10.1.7 Energy Resources**

The three most important sources of energy used in the Dominican Republic in order of increasing preference are wood, hydroelectricity and oil. The Government has

promoted energy conservation, and has implemented appropriate public education and awareness programmes.

With NGO support, the Government has promoted wind, solar, hydroelectric and biomass energy as alternative and renewable sources of energy. The efficient use of non-renewable sources of energy has also been promoted.

#### **10.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism, eco-tourism and cultural tourism, but there are no marine-based tourism policies at this time. The Government has also expressed its support in this area by joining in the Declaration of the Caribbean Sea as a Sustainable Tourism Region. Public participation has been developed as a tourism management strategy, and the development of regulatory measures has occurred.

The Government has not adopted measures to protect the cultural integrity of the Dominican Republic; however, local ownership within the tourism sector has been encouraged. The Government has not yet provided incentives within the tourism industry for the use of sustainable technology with respect to energy, water resources or waste disposal, but it has been supportive to hoteliers engaged in these efforts.

#### **10.1.9 Biodiversity Resources**

The Dominican Republic has ratified the Convention on Biological Diversity and CITES, but has not ratified the SPAW Protocol. The Government has developed national legislation and has formulated and implemented strategies for the conservation and sustainable use of both terrestrial and marine biodiversity. Terrestrial and marine national parks have been established. Education and awareness have been promoted with respect to biodiversity, biotechnology and biosafety.

In order to ensure the reintroduction of biogenetic resources after a disaster, the Government has maintained gene banks. The Government has not conducted research with respect to biological resources.

The Government has conducted detailed inventories of existing biodiversity resources. Integrated pest control management has been promoted. The Government has also taken steps to ensure that the ownership of intellectual property rights is adequately and effectively protected. Questions regarding the adequate and effective protection of

indigenous/local technology, knowledge and traditional practices were marked as “not applicable.”

#### **10.1.10 National Institutions and Administrative Capacity**

The Dominican Republic has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. The Government has also strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. Strategies and schedules including financing and public awareness programmes have been established. Environmental agencies with adequate funding and human resources have been established as well. Sustainable development task forces have been given the official authority and validity to allow their continued meeting as advisory bodies. Adequate resources are available for the enforcement of environmental legislation and public awareness has been promoted in this area. The Government is in the process of developing domestic legislation required for the implementation of international conventions.

The Government has established national information nodes on sustainable development to facilitate the exchange of experiences among SIDS.

#### **10.1.11 Regional Institutions and Technical Cooperation**

The Dominican Republic has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved collaboration and coordination among regional bodies and between the international community and regional programmes. Actions to this end include membership and participation in ACS. The Dominican Republic also participates in, and offers strong support to the Caribbean Action Plan.

#### **10.1.12 Transport and Communication**

In order to strengthen transport services, efforts have been made to improve environmental protection, safety and energy efficiency. Telecommunication services were improved through upgrading of domestic communication facilities and international telecommunication links. Regulatory measures, economic/fiscal instruments and public participation programmes have been developed for transport and communication.

#### **10.1.13 Science and Technology**

The Government of the Dominican Republic has ensured that science and technology policy is closely linked to national environmental strategies and sustainable

development plans by emphasising research and development training for science and technology and the development and use of information and communication technology to overcome size and isolation problems. The Government has promoted research and development in endogenous technologies and traditional practices related to agriculture and agricultural processing, biotechnology, construction and renewable energy. The use of endogenous, environmentally-sound technologies has been encouraged through standards.

The Government has developed databases on environmentally-sound technologies of local relevance, but has not collected consistent time-series of data for monitoring the performance of sustainable development. The role of women in science and technology has been strengthened.

#### **10.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at all levels. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to improvement of basic needs and elimination of poverty in both urban and rural settlements.

The Government has not encouraged the use of distance technology to meet demands for knowledge and training in the area of the environment. The roles of women, youth, communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded.

The use of traditional knowledge and skills has been encouraged in the health and environmental resource management fields. The Government has encouraged the use of community groups to assist in promoting environmental awareness.

### **10.2 General Overview Of Implementation Activities and The Way Forward**

A national policy dealing specifically with sustainable development and a sustainable development action plan are being prepared.

The 14 Priority Areas in the SIDS/POA are rated in Table 10.1 with respect to the national level of implementation. Regional/international priorities for implementation were not identified.

**TABLE 10.1 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR THE DOMINICAN REPUBLIC WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>
Climate Change and Sea-Level Rise	Low
Natural and Environmental Disasters	Low
Management of Waste	Low
Coastal and Marine Resources	Medium
Freshwater Resources	Very High
Land Resources	High
Energy Resources	Not applicable
Tourism Resources	Very High
Biodiversity Resources	Medium
National Institutions and Administrative Capacity	High
Regional Institutions and Technical Cooperation	High
Transport and Communication	Very High
Science and Technology	Low
Human Resource Development	High

Cross-sectoral issues are ranked by category in Table 10.2. Policy and financial issues were ranked as the cross-sectoral issues deserving the highest priority on the national level, while poverty and technical issues were viewed as least important. Again, regional priorities were not ranked.

**TABLE 10.2 CROSS-SECTORAL ISSUES FOR THE DOMINICAN REPUBLIC RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>
Policy	10
Institutional / Capacity Building	8
Technical	4
Financial	10
Information management	8
Training	6
Legislation	9
Poverty	9
Involvement of marginalised groups (e.g. women, youth, rural communities).	5

No answers were provided for the following sections of the questionnaire:

- National constraints to implementation;
- Regional/international constraints to implementation;
- Actions recommended to overcome constraints; and
- Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years.





# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Grenada**

The Director-General of the Ministry of Finance and Planning in Grenada provided the information for this report.

### **11.1 *Status Report on the 14 Priority Areas of the SIDS/POA***

#### **11.1.1 Climate Change and Sea-Level Rise**

The Government of Grenada has ratified the Montreal Protocol and UNFCCC and is participating in the CPACC Project.

The Government has not undertaken activities to develop national inventories of greenhouse gas resources or sinks, or to address anthropogenic emissions. There have been no efforts to promote the sustainable management of greenhouse gas sinks and reservoirs and joint projects with agencies and governments have not been undertaken at this time.

#### **11.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing disaster mitigation plans and policies that deal specifically with natural and environmental disaster. However, economic/fiscal instruments and regulatory measures to address natural and environmental disasters have not been developed, and public participatory measures to address this issue do not exist. A disaster emergency fund has not been proposed for Grenada, and there is no plan that integrates disaster policy into the national development planning process.

#### **11.1.3 Management of Wastes**

Grenada has not ratified the Basel Convention, the London Convention (1972) or the Cartagena Convention (Oil Spills Protocol), although it has ratified the MARPOL convention. The Government has developed regulations, economic instruments, a solid waste management company and public participation measures to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed but are not established at this time. Systems have been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft as well as large commercial craft.

The Government has not proposed the use of clean technologies, and recycling programmes for glass, paper, oil or hazardous chemicals do not exist. There are no formal programmes for NGOs or members of the business sector. The Government has not promoted public awareness or educational campaigns with respect to management of waste.

Baseline data has been developed with respect to waste management. The Government has not formulated national laws for banning of the importation of hazardous waste from OECD States.

#### **11.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established systems within the Forestry Division to deal with coastal zone management, mangroves and swamps. The Coast Guard and the Fisheries Department also play a role in coastal zone and EEZ management, legislation and administration. However, there are no integrated management institutions to deal with coastal, watershed and EEZ management issues. The Terrestrial Seas/Marine Boundary Act has been consolidated both in 1978 and 1989.

The Government has initiated prefeasibility studies, including the port expansion scoping mission and the *ad hoc* tourism-related feasibility study. No comprehensive research and monitoring programmes for coastal and marine resources have been designed, but the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

Enabling legislation, regulations and public participation have all been developed by the Government as management strategies. The Government has established systems for coastal zone planning, regulations for coastal engineering, EIAs and hydrography.

The Government has developed new, and strengthened existing programmes/policies to address oil spills, land-based sources of marine pollution and water quality. These projects include new plans for oil spills.

Grenada has ratified UNCLOS and the Cartagena Convention, but not the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. The Government has also adhered to ICRI and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **11.1.5 Freshwater Resources**

Protected watershed areas and a programme to reduce water loss in distribution systems have been established. The Government has developed a national water

resources management plan, which includes forest management strategies and community participation measures. Water quality standards have been also established.

National capacities for effective decision-making and institutional/intersectoral coordination have been strengthened through initiatives like the SDC. Procedures to monitor and respond to impacts on water resources have also been strengthened. With respect to appropriate technology, the Government has promoted the use of cost-effective sewage disposal systems.

#### **11.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government utilises the 1982 Agricultural Land Use and Natural Vegetation Map. Land Information Systems and GIS, among others have been developed as decision-making tools.

Appropriate forms of land tenure have been encouraged, notably through the Grenada Model Farm, land distribution programmes and subdivision of residential areas. In order to prevent/reduce soil degradation, Grenada has implemented policies to control freely roaming animals, to regulate the cutting of trees, and to encourage the use of soil conservation methods. The National Parks System and the Tropical Forestry Action Programme support these initiatives. The Government has improved land administration through income tax review programmes, lands department strengthening and cadastral surveys.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas, and has supported programmes for reafforestation and a small amount of afforestation. The Government has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing houses and credit. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. Government has also used consultations and community participation in EIAs to strengthen the physical planning office. The Government has developed decentralisation strategies in order to minimise rural/urban drift with the help of CARICOM and the Petite Martinique Affairs Ministries, focusing on community-based employment strategies.

### **11.1.7 Energy Resources**

The four most important sources of energy used in Grenada are solar, wood, petroleum derivatives and oil. The Government has promoted energy conservation and public education and awareness programmes for energy conservation.

The Government has conducted studies of solar, wind, geothermal, hydroelectric and biomass energy as alternative and renewable sources of energy. The efficient use of non-renewable sources of energy has been promoted.

### **11.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education campaigns for sustainable tourism.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism, diving, yachting and cruise ships. A comprehensive Tourism Policy was formulated in 1996. The development of economic/fiscal instruments and regulatory measures to foster sustainable tourism has occurred.

Local ownership within the tourism sector has been encouraged through the reservation of certain areas of the tourism sector specifically for Grenadians, especially regarding auxiliary services. The Government has not yet provided incentives within the tourism industry for the use of sustainable technology.

### **11.1.9 Biodiversity Resources**

Grenada has ratified the Convention on Biological Diversity, but has not ratified CITES or the SPAW Protocol. The Government has not developed national legislation or strategies for the conservation and sustainable use of either terrestrial or marine biodiversity. Neither terrestrial nor marine national parks have been established, but biodiversity, biotechnology and biosafety have been promoted.

The Government has not taken measures to ensure the reintroduction of biogenetic resources after a disaster. Research relevant to biological resources has not been conducted, and detailed inventories of existing biodiversity resources are not routinely prepared.

The Government has not taken steps at this time to ensure that the ownership of intellectual property rights is adequately and effectively protected.

#### **11.1.10 National Institutions and Administrative Capacity**

Grenada has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. Government has also strengthened institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. Sustainable development task forces have been given the official authority and validity to allow their continued meeting as advisory bodies. However, adequate resources for the enforcement of environmental legislation, or for established environmental agencies are unavailable. Domestic legislation required for the implementation of international conventions has not been enacted.

The Government has established national information nodes on sustainable development to facilitate the exchange of experiences among SIDS.

#### **11.1.11 Regional Institutions and Technical Cooperation**

Grenada has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved collaboration and coordination among regional bodies as well as between the international community and regional programmes.

#### **11.1.12 Transport and Communication**

In order to strengthen transport services, efforts have been made to improve environmental protection, safety and low cost. Telecommunication services were improved through the upgrading of domestic communication facilities and international telecommunication links. Regulatory measures and public participation programmes for transport and communication have been developed although economic/fiscal instruments have yet to be put in place.

#### **11.1.13 Science and Technology**

The Government of Grenada has not ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans. However, the Government has promoted research and development in endogenous technologies and traditional practices related to biogas, wind and solar technology. Research is also being done in the field of animal food processing, as researchers attempt to increase the nutritive yields and reduce the costs of meat production. The Government stated that the Grenadian public should be better prepared to appreciate local technology and traditional practices.

The Government has neither developed databases on environmentally-sound technologies of local relevance, nor has it collected a consistent time-series of data for monitoring the performance of sustainable development. The role of women in science and technology has not been strengthened.

#### **11.1.14 Human Resource Development**

Sustainable development ideas have been infused into education curricula at all levels. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs and the elimination of poverty in both urban and rural settlements.

The Government has encouraged the use of distance technology to meet demands for knowledge and training in the area of the environment. Moreover, the roles of women, youth, communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives. Development of national land use databases and the dissemination of information for sustainable development has not occurred.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have not been upgraded.

The use of traditional knowledge and skills has been encouraged in the environmental resource management and health fields. The Government has encouraged the use of community groups to assist in promoting environmental awareness.

### **11.2 General Overview Of Implementation Activities and The Way Forward**

A National Sustainable Development Policy is being prepared and a Sustainable Development Action Plan is available.

The most successful initiatives towards implementing the SIDS/POA, outlining lessons learnt, are listed in Table 11.1.

**TABLE 11.1 THE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN GRENADA**

<b>Successful initiatives</b>	<b>Lessons learnt</b>
1. Sustainable Development Council	• Need to give body legislative teeth.
2. Tourism Master Plan	• Implementation should be coordinated
3. National Agricultural Plan	-

The 14 Priority Areas in the SIDS/POA are rated in Table 11.2 with respect to national levels of implementation. Rankings at the regional/international level were not stated. Cross-sectoral issues are ranked by category in Table 11.3.

**TABLE 11.2 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR GRENADA WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>
Climate Change and Sea-Level Rise	High
Natural and Environmental Disasters	Very High
Management of Wastes	High
Coastal and Marine Resources	High
Freshwater Resources	High
Land Resources	High
Energy Resources	Low
Tourism Resources	Very High
Biodiversity Resources	High
National Institutions and Administrative Capacity	High
Regional Institutions and Technical Cooperation	High
Transport and Communication	Very High
Science and Technology	Very High
Human Resource Development	Very High



**TABLE 11.3 CROSS-SECTORAL ISSUES FOR GRENADA RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	10	10
Institutional/Capacity Building	10	10
Technical	9	9
Financial	10	10
Information management	9	9
Training	10	10
Legislation		
Poverty	10	10
Involvement of marginalised groups (e.g. women, youth, rural communities).	10	10

Constraints to implementation are specified by category in Table 11.4. Constraints such as limited financial and human resources and the need for training are the most important national and regional barriers. Actions were recommended to overcome constraints, and are listed in Table 11.5. Major challenges, priorities and elements of strategy for the future implementation of the SIDS-POA in the next five years are provided in Table 11.6.

**TABLE 11.4 CONSTRAINTS TO IMPLEMENTATION OF THE SIDA/POA IN GRENADA BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>	<b>Regional Constraints</b>
Policy (including fiscal/economic)	Technical assistance to institutions responsible for policy	Efficient coordination
Institutional/Capacity Building	Lack of technical assistance to implement institutional reform	Lack of funding
Technical	Relevant training to developed cadre of technicians	Funding for training for technicians
Financial	Tight fiscal situation	Decreased financial assistance
Information management	Coordination of information flows	Coordination of information flows
Training	Financial assistance	Financial assistance
Legislation	Lack of trained legal experts	Funding for legal training

**TABLE 11.5 RECOMMEND ACTIONS FOR OVERCOMING CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN GRENADA**

<b>Category</b>	<b>National Actions</b>	<b>Regional Actions</b>
Policy (including fiscal/economic)	Provision of technical assistance to develop policy	Increase funding
Institutional/Capacity Building	Provision of technical assistance to develop implementation	Increase funding
Technical	Training for technicians	Funding for training
Financial	Prudent macro-management	Support for prudent macro management
Information management	Efficient coordination structure	
Training	Increase training	Increase funding for training
Legislation	Increase number of legal draftsmen trained in sustainable development	Funding to obtain legal draftsmen trained in sustainable development

**TABLE 11.6 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN GRENADA IN THE NEXT FIVE YEARS**

	<b>National</b>	<b>Regional/International</b>
Challenges	<ul style="list-style-type: none"> <li>Design and implementation of a legislative agenda for sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Funding for technical assistance to assist in legislative agenda</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>Institutional strengthening and information management</li> </ul>	<ul style="list-style-type: none"> <li>Coordination of information flow</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>Awareness at government and grass roots levels</li> <li>Incorporation of SD issues in national planning</li> </ul>	<ul style="list-style-type: none"> <li>Funding technical assistance and other support</li> </ul>



# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Jamaica**

The Ministry of Foreign Affairs in Jamaica provided the information for this report.

### **12.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **12.1.1 Climate Change and Sea-Level Rise**

The Government of Jamaica has ratified the Montreal Protocol and UNFCCC, and it is participating in the CPACC Project. However, it has not developed or upgraded national legislation to address climate change issues.

The Government has not undertaken activities to develop national inventories of greenhouse gas resources or sinks, or to address anthropogenic emissions. Technology to reduce emission has been developed, but is not currently in use. The Government has not, at this time, promoted the sustainable management of greenhouse gas sinks and reservoirs, and have made no plans to facilitate joint projects with agencies and governments.

#### **12.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

Economic/fiscal instruments and regulatory measures have been developed to address natural and environmental disasters, and, in addition, the Government has developed public participatory measures to address this issue. A disaster emergency fund has been proposed for Jamaica but is not yet established, and no plan that integrates disaster policy into the national development planning process has been developed.

#### **12.1.3 Management of Waste**

The London Convention (1972), Civil Liability Convention (1992), Convention on Oil Pollution (1992), Preparedness Response and Cooperation Convention (1995) and the Cartagena Convention (Oil Spills Protocol) have all been ratified as means of addressing the management of waste. The Government has developed regulations, economic instruments and public participation to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed but are not established at this time. Systems of monitoring which could ensure compliance with the use of port/reception facilities by small pleasure and recreation craft or large commercial craft have not been developed.

The Government of Jamaica has not proposed the use of clean technologies, but recycling programmes for glass, paper, oil and hazardous chemicals exist. Formal recycling programmes for NGOs have been established, notably those involving the Jamaica Environmental Trust (JET) and Portland Environmental Protection Agency (PEPA). The business sector, including the Cement Company of Jamaica, Wisynco, and Desnoes & Geddes Glass is also involved in recycling programmes. The Government has promoted public awareness and has conducted educational campaigns.

Baseline data and information systems have not yet been developed with respect to waste management or pollution control. Laws with respect to banning of the importation of hazardous wastes from OECD States are currently in draft form.

#### **12.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established administrative capabilities and legislation for coastal zone, watershed and EEZ management. The Maritime Areas Act and the EEZ Act are two such initiatives. Legislation and administration measures, notably beach policy, have also been strengthened, and other policies for marine culture have also been strengthened. The Coastal Zone Management Plan is currently in draft form.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage integrated coastal zone management. Examples include:

- The Montego Bay Coastal Zone Project;
- The Swedish Coastal Zone Plan;
- The South Coast Development Project; and
- The North Coast Highway Improvement Project.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

The Government has developed management strategies including economic/fiscal instruments, enabling legislation, regulations, non-binding guidelines and public

participation. The Government has also established new systems and strengthened existing ones with respect to coastal zone planning, EIAs and hydrography.

The Government has developed and/or strengthened programmes and policies to address oil spills, land-based sources of marine pollution, effluent standards and water quality. These projects include the Oil Response Team, Spill Preparedness Response Plan and Natural Resources Conservation authority (NRCA) Draft Effluent Standards.

Jamaica has ratified UNCLOS and the Cartagena Convention, but has not ratified the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. The Government has also adhered to ICRI and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **12.1.5 Freshwater Resources**

Protected watershed areas, irrigation policy and a programme to reduce water loss in distribution systems have been established. The Government has not ratified the Convention on Desertification, but the Ramsar Convention on Wetlands has been ratified.

The Government has developed a national water resources management plan, which includes forest management strategies, community participation and the use of regulatory measures. Water quality standards have been established and the government has developed decision-making tools with respect to management of freshwater resources.

National capacities for effective decision-making and institutional/intersectoral coordination have been strengthened. Procedures to monitor and respond to impacts on water resources have also been strengthened. With respect to appropriate technology, the Government has promoted the use of cost-effective sewage disposal systems.

#### **12.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared, implemented and reviewed land-use plans. Land Information Systems and GIS have been developed as decision-making tools.

Appropriate forms of land tenure have been encouraged, notably through the leasehold and freehold programmes of Operation Pride. In order to prevent/reduce soil degradation, Jamaica has implemented policies to regulate the cutting of trees and to discourage forest farming through land acquisition. The 1996 Forest Act and the 1991 NRCA Act have aided in these efforts.

The Government has improved land administration through the merger of the Land Valuation Department and the Lands Department. In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas, and has supported programmes for appropriate afforestation and reafforestation. The Government has employed the use of economic instruments and has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services, houses, joint venture projects and credit. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. Government has also developed decentralisation strategies in order to minimise rural/urban drift.

#### **12.1.7 Energy Resources**

The four most important sources of energy used in Jamaica in order of increasing preference are hydroelectric, solar, wood and oil. The Government has promoted energy conservation, the use of economic instruments and incentive structures, the development of environmentally-sound sources of energy, public education and awareness programmes for energy conservation.

The Government has promoted a number of alternative and renewable sources of energy. These initiatives have included:

- The Wind Farm at Monroe College which promotes wind energy;
- Several commercial and residential buildings utilizing solar power;
- Eight hydroelectric sites; and
- Over 100 biomass plants.

Plans for the development of wave and ocean thermal energy are in the proposal stage. The efficient use of non-renewable sources of energy has been promoted.

#### **12.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism and cultural tourism. Eco-tourism and marine tourism policies are not in existence at this time. Public

participation has been developed as a tourism management strategy, and the development of economic/fiscal instruments and regulatory measures has occurred.

The Government has adopted measures to protect the cultural integrity of the island, as evidenced by the Jamaica Cultural Heritage Trust. Local ownership within the tourism sector has been encouraged through incentives offered to various sub-sectors. Incentives within the tourism industry for the use of sustainable technology have also been provided. These include incentives for solar heating, tax exemptions for sewage plants and equipment and incentives related to the sustainable use of swimming pool equipment, electrical transformers and water treatment plants.

#### **12.1.9 Biodiversity Resources**

Jamaica has ratified the Convention on Biological Diversity, CITES, and the Ramsar Convention for Wetlands. The Government has developed national legislation and is in the process of formulating strategies for the conservation and sustainable use of both terrestrial and marine biodiversity. Terrestrial and marine national parks have been established. Education, awareness and public participation have been promoted with respect to biodiversity, biotechnology and biosafety.

The Government has not taken measures to ensure the reintroduction of biogenetic resources after a disaster. Research with respect to biological resources has been conducted on management systems.

The Government has not conducted detailed inventories of existing biodiversity resources at this time. While integrated pest control management has been promoted, the Government has not taken steps to ensure that the ownership of intellectual property rights is adequately and effectively protected. Measures to ensure that adequate and effective protection is offered to indigenous/local technology, knowledge and traditional practices have not been implemented.

Regulatory measures, economic/fiscal instruments and public participation have been developed as strategies for the conservation of biodiversity resources.

#### **12.1.10 National Institutions and Administrative Capacity**

Jamaica has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. Government has also strengthened institutional arrangements and administrative capacity in order to integrate environmental and economic policy into national planning. Strategies and schedules including financing and public awareness programmes have been established. Environmental agencies with adequate funding and human resources have also been established and strengthened. Sustainable development



task forces have been given the official authority and validity to allow their continued meeting as advisory bodies. While appropriate environmental laws that incorporate the concepts of sustainability have been enacted, adequate resources for enforcement of this legislation are not available. Jamaica has enacted domestic legislation required for the implementation of international conventions, including legislation regarding EEZs and the draft Shipping and Fisheries Bill.

The Government has established national information nodes on sustainable development to encourage the development of SIDSNET and facilitate the exchange of experiences among SIDS.

#### **12.1.11 Regional Institutions and Technical Cooperation**

Jamaica has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved collaboration and coordination among regional bodies through its work with the ACS and the Regional Unit of UNEP.

#### **12.1.12 Transport and Communication**

No efforts have been made by the Government to strengthen transport services with regard to environmental protection, safety, cost or energy efficiency. Telecommunication services, however, were improved through upgrading of international telecommunication links.

#### **12.1.13 Science and Technology**

The Government of Jamaica has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans by emphasising self-sufficiency, the minimisation of import dependency, and the development and use of information and communication technology to overcome size and isolation problems. The Government has promoted research and development in endogenous technologies and traditional practices related to agriculture and agricultural processing, waste recycling, biotechnology and renewable energy. The use of endogenous, environmentally-sound technologies has been encouraged through standards.

The Government has undertaken limited development of databases on environmentally-sound technologies of local relevance, but has not collected consistent time-series of data for monitoring the performance of sustainable development. The role of women in science and technology has not been strengthened.

### 12.1.14 Human Resource Development

Sustainable development ideas have been infused into education curricula at all levels. However, gender and population issues have not been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs and the elimination of poverty in both urban and rural settlements.

The Government has encouraged the use of distance technology to meet expanding demands for knowledge. Moreover, the roles of communities and NGOs have been strengthened through sustainable development initiatives. Programmes have yet to be developed for the establishment of national land use databases and the dissemination of information for sustainable development.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education and national management/planning capacities.

The use of traditional knowledge and skills has not been encouraged, but the Government has encouraged the use of community groups to assist in promoting environmental awareness.

## 12.2 General Overview Of Implementation Activities and The Way Forward

A national sustainable development policy and a sustainable development action plan are being prepared.

The most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success are listed in Table 12.1.

**TABLE 12.1 THE FIVE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN JAMAICA**

<b>Successful initiatives</b>	<b>Major contributing factors</b>
1. Protected Areas Plan	-
2. Phase out of ozone depleting substances	<ul style="list-style-type: none"><li>• Structured programme</li><li>• Availability of funds</li></ul>
3. Environmental Impact Assessment	-
4. Public Participation in policy development	-
5. Accession to treaties	-

The 14 Priority Areas in the SIDS/POA are rated in Table 12.2 with respect to the national level of implementation. Questions regarding regional/international levels of implementation were not answered.

**TABLE 12.2. THE 14 PRIORITY AREAS IN THE SIDS/POA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

Priority areas by SIDS/POA	National
Climate Change and Sea-Level Rise	Very High
Natural and Environmental Disasters	Very High
Management of Wastes	High
Coastal and Marine Resources	-
Freshwater Resources	Very High
Land Resources	Very High
Energy Resources	Very High
Tourism Resources	Very High
Biodiversity Resources	High
National Institutions and Administrative Capacity	Very High
Regional Institutions and Technical Cooperation	High
Transport and Communication	High
Science and Technology	High
Human Resource Development	Very High

Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years is provided in Table 12.3.

**TABLE 12.3. MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN JAMAICA IN THE NEXT FIVE YEARS**

	National	Regional/International
Challenges	<ul style="list-style-type: none"> <li>Resources and commitment</li> </ul>	<ul style="list-style-type: none"> <li>Resources and commitment</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>Finding information for decision-making</li> </ul>	
Elements of strategy	<ul style="list-style-type: none"> <li>Involvement of decision makers</li> </ul>	

No answers were provided for the following sections of the questionnaire:

- National and regional priorities regarding cross-sectoral issues;
- National constraints to implementation;
- Regional/international constraints to implementation; and
- Actions recommended to overcome constraints.

At the close of the questionnaire, the respondent noted:

“The SIDS/POA is one of many programmes and plans for the Region, including Agenda 21 and Summit of the Americas. There is much overlap. There should be a clear focus at the national and regional levels on what are to be the priorities.”



# SIDS/POA Implementation Profile

# **SIDS/POA Implementation Profile: Netherlands Antilles**

The Department of Urban and Regional Development Planning and Housing in Curaçao provided the information for this report.

## **13.1 Status Report on the 14 Priority Areas of the SIDS/POA**

### **13.1.1 Climate Change and Sea-Level Rise**

The Government of the Netherlands Antilles has ratified the Montreal Protocol, but has not ratified UNFCCC. The country is, at present, not participating in the CPACC Project.

The Government has not at this time, undertaken activities with respect to greenhouse gas resources and sinks, anthropogenic emissions or other emission reduction measures.

### **13.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

The Government has developed public participatory measures to address disaster issues, but no disaster emergency fund has been yet established. A plan to integrate disaster policy into the national development planning process has been proposed.

### **13.1.3 Management Of Waste**

The Government has ratified the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) as a means of addressing waste management. To ensure the sustainable management of waste, the Government has formulated regulations, but has not yet developed public participation activities or economic instruments.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed. There are no systems to ensure compliance with the use of port/reception facilities by small pleasure/recreation craft or large commercial craft.

The Government has not proposed the use of clean technologies, and no general recycling programmes exist at this time. However, the Government is working with businesses to develop scrap iron and plastic bottle recycling programmes. It is also establishing a levy system for the reclamation of materials from automobile accidents.

There is a public awareness and educational campaign regarding the sustainable management of waste.

Baseline data and information systems have not been developed with respect to waste management or pollution control. The Government has not formulated national laws regarding banning of the importation of hazardous waste from OECD States.

#### **13.1.4 Coastal and Marine Resources**

The Government has neither established institutions, administration and legislation for coastal zone, watershed or EEZ management nor initiated any studies or projects to encourage ICZM. Management strategies which would target the sustainable use of coastal and marine resources do not exist and the Government has not established systems for coastal zone planning, regulations for coastal engineering, EIAs or hydrography. However, programmes to address land-based sources of marine pollution and water quality have been developed.

The Netherlands Antilles has ratified the Cartagena Convention. The Government has neither adhered to nor ratified UNCLOS, ICRI, or Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **13.1.5 Freshwater Resources**

The Government has not ratified the Convention on Desertification. There are currently no national management plans for water resources or water quality standards and there are no initiatives regarding the use of appropriate technologies with regard to fresh water. National capacities for effective decision-making and institutional/intersectoral coordination have not been strengthened.

#### **13.1.6 Land Resources**

The Government's most recent land-use plan was formulated in May 1997. Appropriate forms of land tenure have not been encouraged, but improvements to the land administration are currently underway. There are no policies in place to deal with soil degradation and the Government has not promoted awareness of the need for integrated land-use practices.

A housing plan/strategy has been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services and houses.

### **13.1.7 Energy Resources**

The most important source of energy is oil. The Government has promoted the development of environmentally-sound sources of energy, notably wind power.

### **13.1.8 Tourism Resources**

The Government has promoted public awareness/educational campaigns for sustainable tourism. It has formulated policies and economic/fiscal instruments for general tourism. Other measures regarding the cultural integrity of the Netherlands Antilles, private ownership and sustainable technology have not been undertaken.

### **13.1.9 Biodiversity Resources**

The Netherlands Antilles has ratified CITES, but has not ratified the SPAW Protocol or the Convention on Biological Diversity. There is no national legislation regarding the conservation of terrestrial or marine biodiversity, although terrestrial and marine national parks have been established.

The Government has not taken any measures related to biogenetic resource preservation. However, it has taken steps to ensure that the ownership of intellectual property rights is adequately and effectively protected.

### **13.1.10 National Institutions and Administrative Capacity**

The Netherlands Antilles has established and strengthened environmental agencies with adequate funding and human resources. At the current time, no other initiatives related to national institutions or administrative capacity have been undertaken.

### **13.1.11 Regional Institutions and Technical Cooperation**

The Netherlands Antilles has encouraged and improved collaboration and coordination among regional bodies as well as between itself and the international community and regional programmes. These efforts have included participation in regional conferences and the submission of national reports.

### **13.1.12 Transportation and Communication**

Telecommunication services were improved through upgrading of domestic communication facilities and the Government has also improved international



telecommunication links. Regulatory measures have been developed for transport and communication.

### **13.1.13 Science and Technology**

The Government of the Netherlands Antilles has not participated in efforts related to the development of environmentally-sound technologies.

### **13.1.14 Human Resource Development**

Sustainable development ideas have not been incorporated into education curricula. However, population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements.

The Government has not been involved in the use of distance technology, nor has it broadened public participation in sustainable development initiatives. The Government has, however, sought to improve the quality of education, training and human resources by upgrading primary and secondary education and technical/vocational training.

## **13.2 General Overview Of Implementation Activities and The Way Forward**

The most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt, are listed in Table 13.1.

**TABLE 13.1. A LIST OF THE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN THE NETHERLANDS ANTILLES**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. Spatial Planning in Curaçao	• Perseverance of public servants	• Difficulties of implementation
2. Land-based and Marine Parks	• Efforts of nature conservationists and NGOs	• Need for legal protection of natural resources

The 14 Priority Areas in the SIDS/POA are rated in Table 13.2 with respect to national and regional/international levels of implementation. Cross-sectoral issues are ranked by category in Table 13.3.

**TABLE 13.2. THE 14 PRIORITY AREAS IN THE SIDS/POA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	High	High
Natural and Environmental Disasters	Medium	High
Management of Waste	High	High
Coastal and Marine Resources	Very High	Very High
Freshwater Resources	High	Very High
Land Resources	High	High
Energy Resources	High	High
Tourism Resources	Medium	High
Biodiversity Resources	High	High
National Institutions and Administrative Capacity	Very High	Very High
Regional Institutions and Technical Cooperation	High	High
Transport and Communication	High	High
Science and Technology	Very High	Very High
Human Resource Development	Very High	Very High

**TABLE 13.3. CROSS-SECTORAL ISSUES IN THE NETHERLANDS ANTILLES RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	9	9
Institutional / Capacity Building	10	10
Technical	5	5
Financial	6	6
Information management	3	3
Training	4	4
Legislation	8	8
Poverty	7	7
Involvement of marginalised groups (e.g. women, youth, rural communities).	2	2

Constraints to implementation are specified by category in Table 13.4. Constraints such as lack of awareness, vision and capacity were cited most often. Recommended actions to overcome constraints to implementation are listed in Table 13.5. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 13.6. No answers were given to these final three questions at the regional level.

**TABLE 13.4. CONSTRAINTS TO IMPLEMENTATION OF THE SIDA/POA IN THE NETHERLANDS ANTILLES IDENTIFIED BY CATEGORY**

<b>Category</b>	<b>National</b>
Policy	Lack of capacity to formulate policy Lack of discipline to implement policy
Institutional/Capacity Building	Lack of vision Conflicting interests
Technical	Small scale
Financial	Unbalanced distribution of financial measures
Information management	Lack of awareness of importance Lack of education to participate
Training	Lack of vision Local realities of educational system
Legislation	Outdated Lack of discipline to implement

**TABLE 13.5. RECOMMENDED ACTIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN THE NETHERLANDS ANTILLES**

<b>Category</b>	<b>National</b>
Policy	Greater demand for good governance
Institutional/Capacity Building	Vision and consensus on direction Willingness
Technical	More regional and international cooperation
Financial	Redistribution and more effective use of funds
Information management	Awareness of importance Better education
Training	Permanent education based on modern vision and local needs
Legislation	Modern legislation Discipline in implementation

**TABLE 13.6. MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN THE NETHERLANDS ANTILLES IN THE NEXT FIVE YEARS.**

<b>Challenges</b>	Keep the nation together and define its role in the Caribbean region.
<b>Priorities</b>	Establish good governance
<b>Elements of Strategy</b>	Public awareness and participation

The Government concluded its response with the following comments:

“The SIDS [Programme of Action is] unfortunately not yet being recognised. There are too [many] conflicting individual interests regarding structural and integrated intent to embark on the formulation and implementation of what has to be done.”



# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Saint Kitts and Nevis**

The Ministry of Tourism, Culture and Environment in Saint Kitts and Nevis provided the information for this report.

### **14.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **14.1.1 Climate Change and Sea-Level Rise**

The Government of Saint Kitts and Nevis has ratified the Montreal Protocol and UNFCCC and is participating in the CPACC Project. However, the Government has not developed or upgraded national legislation to address climate change issues.

The Government has undertaken enabling activities to develop national inventories of greenhouse gas resources, as well as national inventories of greenhouse gas sinks.

The Government has not promoted/cooperated in the development or use of technology to reduce emissions, but it has promoted/cooperated in the sustainable management of sinks and reservoirs of greenhouse gases. The Government has participated in jointly implemented projects with international organizations.

#### **14.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions and policies to deal with natural and environmental disasters. Disaster mitigation plans have also been established, but not yet strengthened.

The Government has not yet developed economic/fiscal instruments and regulatory measures to address natural and environmental disasters. A plan with respect to integrating disaster policy into the national development plan has not yet been developed.

#### **14.1.3 Management of Waste**

The Basel Convention has been ratified as a means of addressing the management of waste. However, the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) have not been ratified. Economic instruments, regulations and public participation have all been developed by the Government to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed. Moreover, systems have been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft and large commercial craft.

The Government has not proposed the use of clean technologies to ensure the sustainable management of waste. It has developed and/or supported recycling programmes for glass, but similar programmes do not exist for paper, oil or hazardous chemicals. NGOs are not involved in any formal recycling programmes, but various members of the business sector are involved in recycling programmes. A recent initiative focused on recycling beverage and beer bottles.

Information systems and baseline data have been developed with respect to waste management, but similar systems have not yet been developed for pollution control. The Government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **14.1.4 Coastal and Marine Resources**

Legislation is currently under review regarding coastal zone management, and the Government has listed this issue as one of its primary points of focus in the upcoming year. However, at this time, no coastal zone, EEZ or watershed management institutions have been established to encourage ICZM. No legislation has been established for watershed management, EEZ management or coastal zone management.

The Government has initiated pilot studies to encourage ICZM. These results will be used as a guide for all national watershed management issues.

Comprehensive research and monitoring programmes for coastal and marine resources have not been designed, and the Government has not yet developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has, however, developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

Enabling legislation, non-binding guidelines and public participation have all been developed by the Government as management strategies. With respect to the coastal and marine zone, the Government has introduced EIAs as a decision-making tool.

The Government has developed new, and/or strengthened existing programmes and policies to address oil spills and water quality, including accession to related conventions and the development of physical planning regulations. Programmes and policies to address land-based sources of marine pollution and effluent standards have not been developed.

The Government of Saint Kitts and Nevis has ratified UNCLOS, but not the Cartagena Convention or the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. The Government has not adhered to ICRI, or to Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **14.1.5 Freshwater Resources**

The Government has ratified the Convention on Desertification. However, to date, the Government has not established protected watershed areas, roof collection policy, irrigation policy or any programme to reduce water loss in distribution systems.

A national water resources management plan does not exist, and water quality standards have not yet been established. The Government has not developed decision-making tools or strengthened national capacities for effective decision-making or institutional/intersectoral coordination. Procedures to monitor and respond to impacts on water resources have not been undertaken.

#### **14.1.6 Land Resources**

At this time, the Government has not prepared land-use plans, nor have decision-making tools been developed.

In order to prevent/reduce soil degradation, the Government of Saint Kitts and Nevis has implemented policies to encourage the use of soil conservation methods and to regulate the cutting of trees. It has also promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches and park and protected area systems. A housing plan/strategy has also been formulated. Moreover, the Government has intervened by providing sites and services, credit and houses. Increased awareness and strengthening of physical planning offices has occurred through training and the on-going review of national physical plan legislation.

#### **14.1.7 Energy Resources**

The three most important sources of energy used in Saint Kitts and Nevis are wood, natural gas and oil. The Government has not promoted the development of environmentally-sound sources of energy, nor has it promoted or implemented public education and awareness programmes for energy conservation. Similarly, the



development of energy efficient technologies and the use of economic instruments and incentive structures have not been promoted.

The Government has not yet promoted alternative and renewable sources of energy or the efficient use of non-renewable sources of energy.

#### **14.1.8 Tourism Resources**

Tourism is a major contributor to the economy of Saint Kitts and Nevis. The Government has put measures in place to ensure that its development and environmental management are mutually supportive. It has promoted public awareness and education for sustainable tourism. The Government has also adopted integrated planning and policies to ensure sustainable tourism development.

The Government has formulated policies for general tourism, eco-tourism, cultural tourism and marine-based tourism including yachting, diving, recreational fishing and cruise ships. Tourism management strategy includes the development of economic/fiscal instruments and public participation.

Measures to protect the cultural integrity of Saint Kitts and Nevis are currently under consideration. Similarly, the Government is currently considering providing incentives for the use of sustainable technology with respect to energy, water and waste. However, policies which could increase local ownership within the tourism sector have not been developed.

#### **14.1.9 Biodiversity Resources**

Saint Kitts and Nevis has ratified the Convention on Biological Diversity and CITES, but the SPAW Protocol has not been ratified. The Government has developed national legislation to conserve biodiversity in terrestrial and marine resources, and has formulated and implemented strategies for the conservation and sustainable use of these resources. Terrestrial national parks exist, but marine national parks and protected areas do not. Public awareness and education programmes have been promoted, as well as public participation in the conservation of biodiversity.

The Government has not, at this time, taken measures to ensure the reintroduction of biogenetic resources after a disaster. Research on biological resources is not being carried out. Initiatives with regard to national inventories of existing biodiversity resources, integrated pest control management or intellectual property rights protection have not been undertaken.

#### **14.1.10 National Institutions and Administrative Capacity**

Saint Kitts and Nevis has increased awareness and involvement of NGOs, CBOs and the public in the national decision-making process for the implementation of sustainable development programmes. Environmental laws that incorporate the principles of sustainability have been developed, and the Government has promoted public awareness and education in the area of environmental legislation. The Basel Convention, Montreal Protocol, Vienna Convention, IOPC Fund Convention, UNFCCC and CITES all have the force of law locally.

The Government has not made steps towards the development of SIDSNET.

#### **14.1.11 Regional Institutions and Technical Cooperation**

Saint Kitts and Nevis has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved coordination and collaboration among regional bodies and between the international community and regional programmes.

#### **14.1.12 Transport and Communication**

The Government has improved international telecommunication links. However, efforts to strengthen transport services at this time have not been undertaken.

#### **14.1.13 Science and Technology**

Minimal implementation of the SIDS/POA has occurred with respect to science and technology. The Government has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans through research and development training for science and technology and development and use of information technology to overcome size and isolation problems. Research and development in areas where endogenous technologies and traditional practices have relevance has not occurred.

The Government has not encouraged the use of endogenous, environmentally-acceptable technologies by establishing regulations, standards or economic/fiscal instruments. It has, however, ensured access to databases on environmentally-sound technologies of local relevance. Consistent time-series of data for monitoring the performance of sustainable development indicators has not been collected.

#### **14.1.14 Human Resource Development**

Sustainable development ideas are currently being infused into education curricula at primary and secondary levels of education. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements. Attempts are also being made to address the elimination of poverty in these settlements.

The Government has encouraged the use of distance training to meet expanding demand for knowledge and training in the area of the environment. Moreover, the roles of women, youth, communities, farmers, the academic community and the private sector have been strengthened through sustainable development initiatives. These initiatives have focused on awareness, antipoverty programmes and skills training. With respect to national land use databases and the dissemination of information for sustainable development, the Government has developed programmes for women, youth, communities and NGOs. The Government has also worked to disseminate information to groups involved with community gardening and formation of co-operatives.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; national management/planning capacities and labour market linkages. While the use of community groups to assist in promoting environmental awareness has been encouraged, the Government has not encouraged the use of traditional knowledge and skills.

### **14.2 General Overview Of Implementation Activities and The Way Forward**

A national policy dealing specifically with sustainable development is currently being developed. A sustainable development action plan is not available at this time.

Examples of successful initiatives in SIDS/POA implementation were not given. The 14 Priority Areas in the SIDS/POA are rated in Table 14.1 with respect to national and regional/international levels of implementation. The highest rated priority areas were:

- Management of Waste;
- Land Resources; and
- Natural and Environmental Disasters.

**TABLE 14.1 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR SAINT KITTS AND NEVIS RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	Medium	Medium
Natural and Environmental Disasters	Very High	Very High
Management of Waste	Very High	Very High
Coastal and Marine Resources	High	High
Freshwater Resources	High	High
Land Resources	Very High	Very High
Energy Resources	Low	Medium
Tourism Resources	High	High
Biodiversity Resources	High	High
National Institutions and Administrative Capacity	High	High
Regional Institutions and Technical Cooperation	High	High
Transport and Communication	Low	High
Science and Technology	-	-
Human Resource Development	High	High

In order of priority from highest to lowest, cross-sectoral issues are ranked by category in Table 14.2. Policy, Financial and Training Issues were ranked as the three cross-sectoral issues deserving the highest priority. Legislation and Information management were viewed as least important. Rankings on a regional/international level were not given.

Constraints to implementation are specified by category in Table 14.3. Constraints such as limited capacity, limited opportunities, and the need for greater speed in updating legislation require major resources and priority in order for them to be rectified. Recommended actions to overcome constraints to implementation are listed in Table 14.4. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 14.5. Constraints, recommendations and strategies at the regional level were not identified.

**TABLE 14.2 CROSS-SECTORAL ISSUES FOR SAINT KITTS AND NEVIS RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>
Policy	8
Institutional/Capacity building	7
Technical	7
Financial	8
Information management	6
Training	8
Legislation	6
Poverty	7
Involvement of marginalized groups (e.g. women, youth, rural communities).	7

**TABLE 14.3 CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN SAINT KITTS AND NEVIS IDENTIFIED BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>
Policy (including fiscal/economic)	Not high enough priority
Institutional/Capacity Building	High turn-over of personnel
Technical	Limited capacity
Financial	Very limited locally
Information management	When available, not routinely distributed
Training	Limited opportunities
Legislation	Slowness in updating/and or passing subsidiary rules

**TABLE 14.4 RECOMMENDATIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN SAINT KITTS AND NEVIS**

<b>Category</b>	<b>National Recommendations</b>
Policy (including fiscal/economic)	Awareness cultivation
Institutional/Capacity Building	Improve terms and conditions of work
Technical	Increase the capacity via training
Financial	Give realistic values to sustainable development strategies
Information management	Allow easier access and distribution
Training	Increase access to additional opportunities
Legislation	Accelerate legal update and reform

**TABLE 14.5 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN THE NEXT FIVE YEARS**

<b>Issue</b>	<b>National Level</b>
Challenges	<ul style="list-style-type: none"> <li>• Political will to implement decisions</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>• Institutionalization of Coastal Zone Management</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>• Rationalized land use</li> <li>• Enforceable laws</li> </ul>



# SIDS/POA Implementation Profile

## **SIDS/POA Implementation Profile: Saint Lucia**

The Ministry of Finance and Planning in Saint Lucia provided the information for this report.

### **15.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **15.1.1 Climate Change and Sea-Level Rise**

The Government of Saint Lucia has ratified the Montreal Protocol, UNFCCC and is participating in the CPACC Project. However, the Government has neither developed nor upgraded national legislation to address climate change issues.

The Government has undertaken enabling activities to develop national inventories of greenhouse gas resources and greenhouse gas sinks. Measures to address anthropogenic emissions have not been formulated. However, national communications strategies that include a climate change component have been developed.

The Government has neither promoted the development or use of technology to reduce emissions, nor has it promoted the sustainable management of reservoirs of greenhouse gases. It has, however, promoted/cooperated in the sustainable management of sinks of greenhouse gases, and has participated in jointly implemented projects with international organizations.

#### **15.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. Disaster mitigation plans and policies that deal specifically with natural and environmental disasters have not been established.

Economic/fiscal instruments and regulatory measures have not been developed to address natural and environmental disasters. However, the Government has developed public participatory measures to address this issue. A disaster emergency fund has not yet been proposed for Saint Lucia and there is no plan that integrates disaster policy into the national development planning process.

#### **15.1.3 Management of Waste**

The Basel Convention, the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) have all been ratified as a means of addressing the management of waste. To ensure the sustainable management of waste, the Government



has developed public participation, private sector involvement and the Solid Waste Management Authority.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed but are not established at this time. Systems have not yet been developed to ensure compliance with the use of port/reception facilities by small pleasure and recreation craft or large commercial craft.

The Government has not proposed the use of clean technologies, and recycling programmes exist only for glass and metals. Formal recycling programmes for paper, oil and hazardous chemicals are not established, and there are no formal programmes for NGOs or members of the business sector. The Government has promoted public awareness and has conducted educational campaigns.

Baseline data has been developed with respect to waste management, but no data have been developed for pollution control. The Government has not formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

#### **15.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established coastal zone and watershed management administrations. However, institutions and legislation have not been developed for coastal zone, watershed or EEZ management, and administrative capacity has not been established for EEZ management. The Government has, however, advanced plans for the establishment of a Coastal Zone Management Unit.

The Government has initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM. Examples include Marine Management Areas and the Northwest Coastal Conservation Project.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed and the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

The Government has developed management strategies, which include economic/fiscal instruments, enabling legislation, regulations, non-binding guidelines and has encouraged public participation. While Government has not established coastal zone planning or regulations for coastal engineering, EIA capacity has been developed.

The Government has developed new, and/or strengthened existing programmes and policies to address oil spills, land-based sources of marine pollution, effluent standards and water quality.

Saint Lucia has ratified UNCLOS and the Cartagena Convention and the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks. The Government has also adhered to ICRI and Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **15.1.5 Freshwater Resources**

Protected watershed areas and a programme to reduce water loss in distribution systems have been established. However, irrigation and roof collection policies have not been formulated. The Government has ratified the Convention on Desertification.

The Government has not developed a national water resources management plan. Forest management strategies are employed, however, as a means of managing fresh water resources. Water quality standards do exist.

The Government has not developed decision-making tools, and national capacities for effective decision-making and institutional/intersectoral coordination have not been strengthened. With respect to appropriate technology, the Government has promoted the use of cost-effective sewage disposal systems.

#### **15.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared, implemented and reviewed land-use plans. The most recent plan dates back to 1990. Land Information Systems and GIS have been developed as decision-making tools.

Appropriate forms of land tenure have been encouraged, notably through the Land Registration and Titling Project of 1984-1987, which also improved land administration. In order to prevent/reduce soil degradation, Saint Lucia has implemented policies to encourage the use of soil conservation methods, to regulate the cutting of trees, and to discourage forest farming through land acquisition. It has also implemented the River Retaining Programme and the River Bank Stabilisation Programme. Moreover, it has promoted awareness of the need for integrated land-use practices.

In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, and has supported programmes for appropriate afforestation and reafforestation. The Government has employed the use of economic instruments and has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has not been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services and houses. Increased awareness and strengthening of physical planning offices has occurred through

training and the use of decision-making tools such as EIAs. Offices have also employed GIS and UNV Technical Assistance in their efforts to strengthen and build awareness. The government has developed decentralisation strategies in order to minimise rural/urban drift.

#### **15.1.7 Energy Resources**

The four most important sources of energy used in Saint Lucia in order of increasing preference are solar, wood, natural gas and oil. The Government has promoted energy conservation, the use of economic instruments and incentive structures, the development of environmentally-sound sources of energy, public education and awareness programmes for energy conservation.

The Government has encouraged wind, solar and geothermal energy as alternative and renewable sources of energy, and the efficient use of non-renewable sources of energy has also been promoted.

#### **15.1.8 Tourism Resources**

The Government has not yet put measures in place to ensure that tourism development and environmental management are mutually supportive. It has, however, promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism and cruise ships. However, policies have not yet been formulated for eco-tourism, cultural tourism, or marine-based activities, for example, yachting, diving and recreational fishing. Public participation has been developed as a tourism management strategy, and the development of economic/fiscal instruments and regulatory measures has occurred.

While the Government has not adopted measures to protect the cultural integrity of Saint Lucia, the OECS-NRMU is developing measures for possible adoption. Local ownership within the tourism sector has been encouraged through the Tourism Incentives Act and individual Cabinet decisions. The Government has not provided incentives within the tourism industry for the use of sustainable technology.

#### **15.1.9 Biodiversity Resources**

Saint Lucia has ratified the Convention on Biological Diversity, CITES, the SPAW Protocol, and the International Convention for the Protection of Whales. The Government has developed national legislation to conserve biodiversity in terrestrial resources, and has formulated and implemented strategies for the conservation and sustainable use of both terrestrial and marine biodiversity. Terrestrial and marine

national parks have been established. Education and public participation have been promoted with respect to biodiversity, biotechnology and biosafety.

The Government has not taken measures to ensure the reintroduction of biogenetic resources after a disaster. Research has been conducted on management systems with respect to biological resources.

The Government has not at this time conducted detailed inventories of existing biodiversity resources. Integrated pest control management has been promoted. However, the Government has not ensured that the ownership of intellectual property rights is adequately and effectively protected. Measures to ensure that adequate and effective protection is offered to indigenous/local technology, knowledge and traditional practices have not been implemented. Regulatory measures and public participation have been developed as strategies for the conservation of biodiversity resources, but the use of economic/fiscal instruments has not been developed.

#### **15.1.10 National Institutions and Administrative Capacity**

Saint Lucia has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. Development of implementation strategies, appropriate environmental laws, public awareness and education programmes, and sustainable development task forces are not being undertaken.

The Government has not yet established national information nodes on sustainable development to encourage the development of SIDSNET.

#### **15.1.11 Regional Institutions and Technical Cooperation**

Saint Lucia has supported regional organizations through both membership and budgetary contributions. The Government has encouraged improved coordination and collaboration among regional bodies and between the international community and regional programmes.

In an effort to encourage coordination and collaboration among regional bodies, the Government has participated in several regional conferences and views membership in regional organizations and financial support of regional initiatives as crucial to the success of these efforts. Regarding efforts between the International community and regional programmes, the Government advocates channeling of international initiatives through regional institutions and supports regional projects being taken to the international level.

### **15.1.12 Transport and Communication**

Initiatives regarding the strengthening of transport services were not indicated. Telecommunication services, however, were improved through upgrading of domestic communication facilities, including radio and television coverage to remote communities. Moreover, the Government has improved international telecommunication links. Regulatory measures and public participation which are applicable to transport and communication programmes have been developed. However, economic/fiscal instruments have not yet been developed.

### **15.1.13 Science and Technology**

The Government of Saint Lucia has ensured that science and technology policy is closely linked to national environmental strategies and sustainable development plans by emphasising self-sufficiency, the minimisation of import dependency and the development and use of information and communication technology to overcome size and isolation problems.

The Government has promoted research and development in endogenous technologies and traditional practices related to agriculture, but the use of endogenous, environmentally-sound technologies have not been encouraged through regulations, standards or economic/fiscal instruments.

### **15.1.14 Human Resource Development**

Sustainable development ideas have not been infused into education curricula at any level. Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in both urban and rural settlements. Attempts are also being made to address the elimination of poverty in these settlements.

The Government has encouraged the use of distance technology to meet expanding educational demand. Moreover, the roles of women, youth, communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives. With respect to national land use databases and the dissemination of information for sustainable development, programmes have been developed for women, youth and communities. Notable projects in these areas include the Poverty Eradication Pilot Project and the Mabouya Valley Development Project.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. However, labour market linkages were not upgraded.

The use of traditional knowledge and skills has not been encouraged as a tool of environmental resource management. The Government has, however, encouraged the use of community groups to assist in promoting environmental awareness.

## 15.2 General Overview Of Implementation Activities and The Way Forward

A national policy dealing specifically with sustainable development has been developed, and a sustainable development action plan is being prepared.

The five most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt, is listed in Table 15.1.

**TABLE 15.1 THE FIVE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN SAINT LUCIA**

Successful initiatives	Major contributing factors	Lessons learnt
1. National Environmental Action Plan	<ul style="list-style-type: none"> <li>• Need for integrated environmental management</li> </ul>	<ul style="list-style-type: none"> <li>• Broad-based cooperation is essential to success</li> </ul>
2. Coastal Zone Management Initiative	<ul style="list-style-type: none"> <li>• Increasing and competing demands for Coastal Zone resources</li> </ul>	<ul style="list-style-type: none"> <li>• Need for conflict resolution and resource conservation</li> </ul>
3. Solid waste Management	<ul style="list-style-type: none"> <li>• World Bank funding</li> <li>• Sub-regional approach</li> <li>• Poor public sector management</li> </ul>	<ul style="list-style-type: none"> <li>• Success dependent on early involvement of stakeholders</li> </ul>
4. Watershed and Environmental Management Project	<ul style="list-style-type: none"> <li>• Effects of Storm Debbie</li> <li>• Soil conservation and protection of watershed</li> </ul>	<ul style="list-style-type: none"> <li>• Usefulness of Island Systems approach</li> </ul>
5. National Immunisation Programme	<ul style="list-style-type: none"> <li>• Need for protection of the nation's health</li> </ul>	<ul style="list-style-type: none"> <li>• Trans-sectoral linkages with waste management, drinking water quality</li> </ul>

The 14 Priority Areas in the SIDS/POA are rated in Table 15.2 with respect to national and regional/international levels of implementation.

**TABLE 15.2 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR SAINT LUCIA RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas of SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	High	Very High
Natural and Environmental Disasters	High	Very High
Management of Waste	Very High	Very High
Coastal and Marine Resources	Very High	Very High
Freshwater Resources	Very High	Very High
Land Resources	Very High	Very High
Energy Resources	High	High
Tourism Resources	Very High	Very High
Biodiversity Resources	High	High
National Institutions and Administrative Capacity	Very High	Very High
Regional Institutions and Technical Cooperation	High	High
Transport and Communication	Medium	High
Science and Technology	High	Very High
Human Resource Development	Very High	Very High

In order of priority from highest to lowest, cross-sectoral issues are ranked by category in Table 15.3.

**TABLE 15.3 CROSS-SECTORAL ISSUES FOR SAINT LUCIA RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>	<b>Regional</b>
Policy	8	4
Institutional/Capacity Building	9	5
Technical	4	6
Financial	5	9
Information management	6	7
Training	7	8
Legislation	2	3
Poverty	10	10
Involvement of marginalised groups (e.g. women, youth, rural communities).	3	2

Poverty, Capacity Building and Policy Issues were ranked as the three cross sectoral issues deserving the highest priority on the national level, while Poverty, Financial Issues and Training topped the list of regional priorities. Legislation and the Involvement of Marginalised Groups were viewed as least important at both levels.

Constraints to implementation are specified by category in Table 15.4.

**TABLE 15.4 CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN SAINT LUCIA IDENTIFIED BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>	<b>Regional/International Constraints</b>
Policy (including fiscal/economic)	Lack of comprehensive policy	Weak mechanisms for moving from policy to action
Institutional/Capacity Building	Weak	Not sufficiently flexible to meet national priorities
Technical	Sub-optimal use of technical capabilities	Driven by organizational goals rather than recipient needs
Financial	Investment capital scarce	Contraction of donor assistance
Information management	Poor history of information management and use	Need for greater coordination and supportive roles
Training	Not available at national level	Greater emphasis needed
Legislation	Need to strengthen legislative framework	Seems to be low priority area

Constraints such as limited financial resources, historically weak institutional arrangements and lack of urgency top the list of barriers. Recommended actions to overcome constraints to implementation are listed in Table 15.5. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years is provided in Table 15.6.



**TABLE 15.5 RECOMMENDATIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN SAINT LUCIA**

<b>Category</b>	<b>National</b>	<b>Regional/International</b>
Policy (including fiscal/economic)	Meeting of stakeholders to develop an integrated approach to development planning	A programme approach to support national efforts
Institutional/Capacity Building	Awareness building at political level Better investment of resources	Sustainable Development programmes need to focused priority attention
Technical	Institutions should be established and redirected to address SIDS issues	Greater support for national and regional initiatives
Financial	More resources needed	Greater aid to be channeled to areas of national priority
Information management	Training in the use of information and technology as management tool	Creation and management of data bases and flows
Training	Need for short term training in areas that support sustainable development	Provision of short courses in areas that support sustainable development
Legislation	Legislation should be consolidated and strengthened as needed	Should offer guidance and coordination

**TABLE 15.6 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN SAINT LUCIA IN THE NEXT FIVE YEARS**

	<b>National</b>	<b>Regional/International</b>
Challenges	<ul style="list-style-type: none"> <li>Need to address SIDS/POA by incorporating it into national development strategy</li> </ul>	<ul style="list-style-type: none"> <li>Reviews should be followed by concrete action; not other reviews</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>Development of integrated sustainable development plans</li> </ul>	<ul style="list-style-type: none"> <li>Support national initiatives</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>Establishing Sustainable Development Units with appropriate mandates and resources</li> </ul>	<ul style="list-style-type: none"> <li>Support/take lead in initiating national action</li> </ul>

The Government concluded its responses with reflections on the role of the SIDS/POA in national decision-making. It stated that:

“There is no deliberate national policy to implement the SIDS/POA. Rather, government pursues its development strategy by addressing a wide range of issues, several of which fall within the SIDS/POA.”



# SIDS/POA Implementation Profile

# **SIDS/POA Implementation Profile: Saint Vincent and the Grenadines**

The Ministry of Health and the Environment in Saint Vincent provided information for this report.

## **16.1 Status Report on the 14 Priority Areas of the SIDS/POA**

### **16.1.1 Climate Change and Sea-Level Rise**

The Government of Saint Vincent and the Grenadines has ratified the Montreal Protocol and UNFCCC, but is not participating in the CPACC Project.

The Government has not undertaken activities to develop national inventories or management of greenhouse gas resources or sinks, or to address anthropogenic emissions. It has, however, participated in jointly implemented projects with public agencies, private agencies, NGOs and international organizations.

### **16.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

Regulatory measures have been developed to address natural and environmental disasters, and in addition the Government has developed public participatory measures to address this issue. A disaster emergency fund has not been established for Saint Vincent and the Grenadines, but a plan that integrates disaster policy into the national development planning process has been proposed.

### **16.1.3 Management of Waste**

The Basel Convention, the London Convention (1972) and the Cartagena Convention (Oil Spills Protocol) have all been ratified as a means of addressing the management of waste. The Government is also in the process of developing regulations to ensure the sustainable management of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities have been proposed but are not established at this time. Systems have been developed to

ensure compliance with the use of port/reception facilities by large commercial craft, but not by small pleasure and recreation craft.

The Government has not proposed the use of clean technologies, and recycling programmes exist only for glass. Formal recycling programmes for paper, oil and hazardous chemicals are not established, and there are no formal programmes for NGOs. In the business sector, bottling companies are engaged in reuse programmes. The Government has promoted public awareness and has conducted educational campaigns.

Baseline data and information systems have not been developed with respect to waste management or pollution control.

#### **16.1.4 Coastal and Marine Resources**

At this time, the Government has not established legislation, institutions or administrations to handle coastal zone, watershed or EEZ management. The Government has, however, initiated prefeasibility and feasibility studies, pilot studies and comprehensive projects to encourage ICZM.

Comprehensive research and monitoring programmes for coastal and marine resources have not been designed, but the Government has developed national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and awareness programmes promoting the sustainable use of coastal and marine resources.

Enabling legislation, regulations and public participation have all been developed by the Government as management strategies. The Government has established new, and strengthened existing systems for coastal zone planning, regulations for coastal engineering and EIAs with respect to the coastal and marine zone.

The Government has developed new, and/or strengthened existing programmes and policies to address oil spills, land-based sources of marine pollution and water quality. Saint Vincent and the Grenadines has not ratified UNCLOS or the Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks, but it has ratified the Cartagena Convention. The Government has not adhered to either ICRI or the Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **16.1.5 Freshwater Resources**

Protected watershed areas and a programme to reduce water loss in distribution systems have been established. The Government has ratified the Convention on Desertification.

The Government has not developed a national water resources management plan, but uses incentives, regulatory measures and forest management to address fresh water issues. Water quality standards have not been established and the government has not yet proposed decision-making tools.

National capacities for effective decision-making and institutional/intersectoral coordination have been strengthened. The development of appropriate technology in this area has not been promoted by the Government.

#### **16.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure the optimal and sustainable use of land, the Government has prepared and implemented land-use plans. The most recent plan is being developed for 1998. GIS have been developed as decision-making tools, and the Government has encouraged appropriate forms of land tenure. In order to prevent/reduce soil degradation, Saint Vincent and the Grenadines has implemented policies to encourage the use of soil conservation methods and to regulate the cutting of trees.

The Government has improved land administration. In order to encourage the sustainable and integrated use and management of land and its natural resources, the Government has formulated laws for beaches, parks and protected areas, and has supported programmes for afforestation and reafforestation. The Government has employed the use of economic instruments and has rationalised land-use/resource management to encourage sustainable and integrated use.

A housing plan/strategy has not yet been formulated to address issues of shelter. Moreover, the Government has intervened by providing sites and services as well as credit. Increased awareness and strengthening of physical planning offices has occurred through training and the use of decision-making tools such as EIAs. The Government has not, however, developed decentralisation strategies in order to minimise rural/urban drift.

#### **16.1.7 Energy Resources**

The four most important sources of energy used in Saint Vincent and the Grenadines in order of increasing preference are hydroelectricity, natural gas and oil. The Government has not promoted energy conservation, the use of economic instruments and incentive structures, the development of environmentally-sound sources of energy, or public education and awareness programmes for energy conservation.

The Government has neither promoted any alternative or renewable source of energy, nor has it promoted the efficient use of non-renewable sources of energy.

### **16.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism, eco-tourism and yachting. Public participation has been developed as a tourism management strategy, and the development of economic/fiscal instruments and regulatory measures has occurred.

The Government has not at this time adopted measures to protect the cultural integrity of Saint Vincent and the Grenadines. Local ownership within the tourism sector has been encouraged, but no incentives have been offered within the tourism industry with regard to the use of sustainable technology.

### **16.1.9 Biodiversity Resources**

Saint Vincent and the Grenadines has ratified the Convention on Biological Diversity, CITES and the SPAW Protocol. The Government has developed national legislation for the conservation and sustainable use of both terrestrial and marine biodiversity, but no strategies have been formulated to deal with conservation and sustainable use of either of these resources. Terrestrial and marine national parks have been established.

The Government has not taken measures to ensure the reintroduction of biogenetic resources after a disaster. Research with respect to biological resources has not been conducted, and no detailed inventories of existing biodiversity resources have been undertaken. The ownership of intellectual property rights has not been adequately and effectively protected.

### **16.1.10 National Institutions and Administrative Capacity**

Saint Vincent and the Grenadines has increased awareness and involvement of NGOs, CBOs and the public in the national decision-making process for the implementation of sustainable development programmes. Government has also strengthened institutional arrangements and administrative capacity in order to integrate environmental and economic policy into national planning. Appropriate environmental laws that incorporate the principles of sustainability have been developed, and adequate resources are available for the enforcement of this legislation. Furthermore, public education and awareness has been promoted in this area. However, sustainable development task forces have not been given the official authority and validity to allow their continued meeting as advisory bodies. Domestic legislation required for the implementation of international conventions has not been enacted.

The Government has not established national information nodes on sustainable development.

#### **16.1.11 Regional Institutions and Technical Cooperation**

Saint Vincent and the Grenadines has supported regional organizations through membership. However, the Government has not encouraged improved collaboration and coordination among regional bodies or between the international community and regional programmes.

#### **16.1.12 Transport and Communication**

The Government has not continued efforts to strengthen transport services with regard to environmental protection, safety, cost or energy efficiency. Telecommunication services, however, were improved through upgrading of domestic communication facilities and international telecommunication links. Regulatory measures, economic/fiscal instruments and public participation programmes have been developed for transport and communication.

#### **16.1.13 Science and Technology**

The Government of Saint Vincent and the Grenadines has not taken steps to ensure that science and technology policy is closely linked to national environmental strategies and sustainable development plans. The Government has not promoted research and development in endogenous technologies and traditional practices, and the use of endogenous, environmentally-sound technologies has not been encouraged.

The Government has not developed databases on environmentally-sound technologies of local relevance, nor has it collected consistent time-series of data for monitoring the performance of sustainable development. The role of women in science and technology has not been strengthened.

#### **16.1.14 Human Resource Development**

Gender and population issues have been incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs in urban settlements and the elimination of poverty in rural settlements.

The Government has not encouraged the use of distance technology. However, the roles of women, youth, communities and the academic community have been strengthened through sustainable development initiatives.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education;



technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded.

The use of traditional knowledge and skills has not been encouraged. The Government has encouraged the use of community groups to assist in promoting environmental awareness.

## 16.2. General Overview Of Implementation Activities and The Way Forward

Neither a national sustainable development policy nor a sustainable development action plan is available at this time.

The most successful initiatives towards implementing the SIDS/POA, outlining major contributing factors to their success and lessons learnt, are listed in Table 16.1.

**TABLE 16.1 THE MOST SUCCESSFUL INITIATIVES TOWARDS IMPLEMENTING THE SIDS/POA IN ST VINCENT AND THE GRENADINES**

<b>Successful initiatives</b>	<b>Major contributing factors</b>	<b>Lessons learnt</b>
1. Freshwater Resource Management	<ul style="list-style-type: none"> <li>• Metering/management of water by the CWSA</li> <li>• Work of forestry division.</li> </ul>	<ul style="list-style-type: none"> <li>• Intersectoral collaboration is most effective tool in sustainability</li> </ul>
2. Coastal and marine resource management	<ul style="list-style-type: none"> <li>• The development of technical capability by planning</li> <li>• Support of OECS/NRMU</li> </ul>	<ul style="list-style-type: none"> <li>• The importance of in-house capability and national planning</li> </ul>
3. Waste management	<ul style="list-style-type: none"> <li>• OECS/World Bank Solid Waste Project</li> </ul>	<ul style="list-style-type: none"> <li>• Management of locally generated waste must be most important</li> </ul>

The 14 Priority Areas in the SIDS/POA are rated in Table 16.2 with respect to national implementation. Questions regarding regional/international levels of implementation were not completed.

**TABLE 16.2 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR SAINT VINCENT AND THE GRENADINES RATED WITH RESPECT TO NATIONAL AND REGIONAL /INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: "NOT APPLICABLE", "LOW", "MEDIUM", "HIGH", OR "VERY HIGH"**

<b>Priority areas by SIDS/POA</b>	<b>National</b>
Climate Change and Sea-Level Rise	Medium
Natural and Environmental Disasters	Very High
Management of Waste	Very High
Coastal and Marine Resources	Very High
Freshwater Resources	High
Land Resources	High
Energy Resources	High
Tourism Resources	High
Biodiversity Resources	Very High
National Institutions and Administrative Capacity	High
Regional Institutions and Technical Cooperation	Medium
Transport and Communication	Medium
Science and Technology	Medium
Human Resource Development	Medium

Cross-sectoral issues are ranked by category in Table 16.3. Policy issues were given highest priority on the national level. Again, regional priorities were not ranked.

**TABLE 16.3 CROSS-SECTORAL ISSUES FOR SAINT VINCENT AND THE GRENADINES RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>
Policy	10
Institutional / Capacity Building	9
Technical	8
Financial	9
Information management	7
Training	8
Legislation	7
Poverty	8
Involvement of marginalised groups (e.g. women, youth, rural communities).	9

No answers were provided for the following sections of the questionnaire:

- National constraints to implementation;
- Regional/international constraints to development;
- Actions recommended to overcome constraints; and
- Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years.



# **SIDS/POA Implementation Profile**

## **SIDS/POA Implementation Profile: Trinidad and Tobago**

The Office of the Permanent Secretary in the Ministry of Planning and Development and the Environmental Management Authority in Trinidad and Tobago provided the information for this report.

### **17.1 Status Report on the 14 Priority Areas of the SIDS/POA**

#### **17.1.1 Climate Change and Sea-Level Rise**

The Government of Trinidad and Tobago has ratified the Montreal Protocol and UNFCCC, and it is participating in the CPACC Project. However, the Government has not developed national legislation to address climate change issues.

The Government has undertaken activities to develop national inventories of, and promote the sustainable management of greenhouse gas resources and sinks. National communications strategies have also been established. The Government has also cooperated in the development and use of technology to reduce emissions and has promoted/cooperated in the sustainable management of sinks and reservoirs of greenhouse gases.

The Government has recently developed a related national communications strategy, through joint projects with public, private and international agencies.

#### **17.1.2 Natural and Environmental Disasters**

The Government has established new, and strengthened existing management institutions to deal with natural and environmental disasters. New disaster mitigation plans and policies that deal specifically with natural and environmental disasters have also been established and existing ones strengthened.

Although economic/fiscal instruments and regulatory measures to address natural and environmental disasters have not yet been developed the Government of Trinidad and Tobago has, however, developed public participatory measures to address this issue. A disaster emergency fund has been proposed for Trinidad and Tobago.

### **17.1.3 Management of Waste**

The Basel Convention and the Cartagena Convention (Oil Spills Protocol) have both been ratified as a means of addressing the management of waste. To ensure the sustainable management of waste, the Government has developed regulations and encouraged public participation. The Government is presently in the process of developing a management framework for the overall treatment and disposal of waste.

In accordance with Annex V of MARPOL 73/78, port/marina reception facilities and systems to ensure compliance with these proposed facilities by small pleasure and recreation craft and large commercial craft have been proposed.

Although the Government has not yet proposed the use of clean technologies, recycling programmes for glass, paper and oil, but not for hazardous chemicals do exist. There is also a recycling programme for sugar industry waste. There are informal programmes for recycling of glass and plastic by local community groups in collaboration with the private sector. The business sector is also engaged in the recycling of glass and paper. The Government has promoted public awareness and has conducted educational campaigns.

Baseline data for waste management have been developed and information systems for waste management and pollution control are in the process of being developed. The Government has not yet formulated national laws with respect to banning of the importation of hazardous waste from OECD States.

### **17.1.4 Coastal and Marine Resources**

In order to encourage ICZM, the Government has established new institutions and strengthened existing ones for watershed management. New administrative capacity for coastal zone, watershed and EEZ management has been established and existing ones have been strengthened. The administrative arm operates through the Coast Guard, Fisheries Division and the Water Resources Agency.

The Government has initiated pilot studies to encourage ICZM.

Comprehensive research and monitoring programmes for coastal and marine resources have been designed, but the Government has yet to develop national capabilities to ensure sustainable harvesting and processing of fisheries. It has also developed and implemented educational and public awareness programmes promoting the sustainable use of coastal and marine resources.

The Government of Trinidad and Tobago has developed enabling legislation, non-binding guidelines, regulations and encouraged public participation as management strategies for coastal and marine resources. The Government has also established new, and strengthened existing, systems for EIAs and hydrography.

The Government has developed new, and/or strengthened existing programmes and policies to address oil spills, land-based sources of marine pollution, effluent standards and water quality

Trinidad and Tobago has ratified UNCLOS and the Cartagena Convention. Although the Government has adhered to ICRI, it has not adhered to the Global Programmes of Action for the Protection of the Marine Environment from Land-Based Activities.

#### **17.1.5 Freshwater Resources**

Protected watershed areas and a programme to reduce water loss in distribution systems have been established. The Government has, however, not yet ratified the Convention on Desertification.

The development of a national water resources management plan is in progress. Water quality standards have been established and the Government has developed decision-making tools, for example, forecasting models, with respect to water resource management.

National capacities for institutional/intersectoral coordination have been strengthened through the establishment of the Environmental Management Authority whose mandate is to co-ordinate environmental management activities as well as to develop a strategy for sustainable development. Procedures to monitor and respond to impacts on water resources have also been strengthened. With respect to appropriate technology, the Government has promoted the use of wastewater recycling programmes in some industries.

#### **17.1.6 Land Resources**

In order to reduce conflicts between land uses and to ensure optimal and sustainable use of land, the Government of Trinidad and Tobago has developed land-use plans, the most recent having been established in 1997. The Government has promoted awareness of the need for integrated land-use practices. GIS are also being used as a decision-making tool. Land Tenure Policy Statements and the accompanying legislation, as well as programmes and procedures for security of tenure in residential and agricultural areas have been established.

In order to prevent/reduce soil degradation, the Government has encouraged the use of soil conservation methods and has attempted to regulate the cutting of trees. Land administration systems have also been improved. The Government has promoted awareness of the need for integrated land-use practices. The sustainable and integrated use and management of land and its natural resources, has been encouraged through the

formulation of laws for systems of parks and protected areas, rationalised land-use/resource management and support for appropriate afforestation and reafforestation programmes.

A housing plan/strategy has been formulated in respect of shelter. Moreover, the Government has intervened by providing sites and services, credit and houses. Increased awareness and strengthening of physical planning offices has occurred through the use of decision-making tools such as EIAs. The Government has developed decentralisation strategies.

#### **17.1.7 Energy Resources**

The most important sources of energy in descending order are natural gas, oil and wood. The Government has not yet implemented appropriate public education and awareness programmes.

Although the Government has promoted the efficient use of non-renewable sources of energy, the use of alternative sources of energy has not been encouraged.

#### **17.1.8 Tourism Resources**

The Government has put measures in place to ensure that tourism development and environmental management are mutually supportive. It has also adopted integrated planning policies and promoted public awareness/education for sustainable tourism.

The Government has formulated policies for general tourism, eco-tourism and cultural tourism. Public participation has been developed as a tourism management strategy, and the development of economic/fiscal instruments has occurred.

Measures are being adopted to protect the cultural integrity of Trinidad and Tobago. The tourism sector is being improved at the local level.

#### **17.1.9 Biodiversity Resources**

Trinidad and Tobago has ratified the Convention on Biological Diversity and CITES, but has not ratified the SPAW Protocol. The Government has developed and is currently reviewing national legislation, and is in the process of formulating strategies for the conservation and sustainable use of both terrestrial and marine biodiversity. Education, awareness and public participation have been promoted with respect to biodiversity, biotechnology and biosafety.



The Government has not yet taken measures to ensure the reintroduction of biogenetic resources after a disaster. Integrated pest control management has been promoted and public participation in this regard has been encouraged.

#### **17.1.10 National Institutions and Administrative Capacity**

Trinidad and Tobago has increased awareness and involvement of NGOs, CBOs, and the public in the national decision-making process for the implementation of sustainable development programmes. The Government is also in the process of strengthening institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning. Environmental agencies with adequate funding and human resources have been established and strengthened.

#### **17.1.11 Regional Institutions and Technical Cooperation**

Trinidad and Tobago has supported regional organizations through both membership and budgetary contributions. The Government has encouraged and improved collaboration and coordination among regional bodies as well as between itself and the international community and regional programmes. These efforts include the recognition of initiatives by other regional bodies and efforts to prevent duplication of activities and conflict.

#### **17.1.12 Transport and Communication**

Telecommunication services were improved through upgrading of both domestic and international communication facilities.

#### **17.1.13 Science and Technology**

The Government of Trinidad and Tobago is in the process of promoting research and development training in practices related to agriculture and agricultural processing, waste recycling and construction. The use of endogenous, environmentally-sound technologies has not been encouraged.

The Government is in the process of developing databases on environmentally-sound technologies of local relevance. The role of women in science and technology has not been promoted.

#### **17.1.14 Human Resource Development**

Sustainable development ideas are currently being infused into education curricula at all levels. Gender and population issues are also being incorporated into the mainstream of the Government's decision-making and planning process. The Government, in consultation with local communities, has given priority to the improvement of basic needs and the elimination of poverty in both urban and rural settlements.

The roles of communities, farmers, NGOs and the academic community have been strengthened through sustainable development initiatives.

The Government has sought to improve the quality of education, training and human resources by upgrading primary, secondary and tertiary education; technical/vocational training; and national management/planning capacities. Labour market linkages have also been upgraded.

The use of traditional knowledge and skills has been encouraged in environmental resource management. The Government has encouraged the use of community groups to assist in promoting environmental awareness.

### **17.2 General Overview Of Implementation Activities and The Way Forward**

A national policy dealing specifically with sustainable development and a sustainable development action plan are in preparation.

The 14 Priority Areas in the SIDS/POA are rated in Table 17.1 with respect to national and regional/international levels of implementation. All issues were considered to be of equal importance except for Management of Waste, which was accorded slightly lower priority. Cross-sectoral issues are ranked by category in Table 17.2.

**TABLE 17.1 THE 14 PRIORITY AREAS IN THE SIDS/POA FOR TRINIDAD AND TOBAGO RATED WITH RESPECT TO NATIONAL AND REGIONAL/INTERNATIONAL LEVELS OF IMPLEMENTATION USING THE OPTIONS: “NOT APPLICABLE”, “LOW”, “MEDIUM”, “HIGH”, OR “VERY HIGH”**

<b>Priority areas by SIDS/POA</b>	<b>National</b>	<b>Regional/International</b>
Climate Change and Sea-Level Rise	High	Very High
Natural and Environmental Disasters	Medium	
Management of Waste	High	High
Coastal and Marine Resources	Medium	Very High
Freshwater Resources	High	
Land Resources	Medium High	Low
Energy Resources	Low	Low
Tourism Resources	High	High
Biodiversity Resources	High	High
National Institutions and Administrative Capacity	Low	Medium
Regional Institutions and Technical Cooperation	Medium	Medium
Transport and Communication	High	High
Science and Technology	Low	Low
Human Resource Development	Medium	Medium

**TABLE 17.2 CROSS-SECTORAL ISSUES FOR TRINIDAD AND TOBAGO RANKED FROM HIGHEST (10) TO LOWEST (1)**

<b>Category</b>	<b>National</b>
Policy	3
Institutional / Capacity Building	8
Technical	8
Financial	10
Information management	9
Training	7
Legislation	8
Poverty	9
Involvement of marginalised groups (e.g. women, youth, rural communities)	7

Constraints to implementation are specified by category in Table 17.3. Constraints such as lack of funding, inadequate research, lack of technology and attitudes were cited most often. Recommended actions to overcome constraints to implementation at the national level included education programmes, securing funding and training and are presented in Table 17.4. Major challenges, priorities and elements of strategy for the future implementation of the SIDS/POA in the next five years are provided in Table 17.5.

**TABLE 17.3 CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN TRINIDAD AND TOBAGO IDENTIFIED BY CATEGORY**

<b>Category</b>	<b>National Constraints</b>
Policy (including fiscal/economic)	Attitude and behavioural norms
Institutional/Capacity Building	Funding
Technical	Inadequate research
Financial	
Information management	Lack of technology and structural mechanisms for updating and monitoring
Training	Lack of opportunities for relevant and "hands-on" training
Legislation	Human resources

**TABLE 17.4 RECOMMENDED ACTIONS TO OVERCOME CONSTRAINTS TO IMPLEMENTATION OF THE SIDS/POA IN TRINIDAD AND TOBAGO IDENTIFIED BY CATEGORY**

<b>Category</b>	<b>National</b>
Policy (including fiscal/economic)	Conduct education programmes to influence/change behavioural patterns
Institutional/Capacity Building	Devise innovative ways of securing funding for programmes/projects
Technical	Structural research in critical areas
Financial	
Information management	Secure appropriate technology to implement information systems
Training	Source relevant training opportunities
Legislation	Train legal personnel in drafting of legislation; obtain consulting services

**TABLE 17.5 MAJOR CHALLENGES, PRIORITIES AND ELEMENTS OF STRATEGY DEVELOPED FOR FUTURE IMPLEMENTATION OF THE SIDS/POA IN TRINIDAD AND TOBAGO IN THE NEXT FIVE YEARS**

	<b>National</b>
Challenges	<ul style="list-style-type: none"> <li>• Changing attitudes and behavioural patterns</li> <li>• Direct funds from international donors for specific environmental problems</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>• Waste management</li> <li>• Poverty alleviation</li> <li>• Sustainable resource use</li> <li>• Human resource capability</li> </ul>
Elements of strategy	<ul style="list-style-type: none"> <li>• Political commitment to be sustained</li> <li>• Participation by all stakeholders</li> </ul>

# **PART THREE**

## **AGENCY OVERVIEW**

### **Questionnaire Findings**

## 18.0 FINDINGS FROM THE QUESTIONNAIRE

### 18.1 Agency Activities and the SIDS/POA Priority Areas

Agencies and organizations were asked to identify the initiatives which are currently being undertaken under each of the 14 points of the SIDS/POA. The responses were tabulated in two ways:

- a) Number of initiatives undertaken in each Priority Area;
- b) Number of agencies involved in each Priority Area.

For example, there are 14 Climate Change initiatives currently being carried out by 10 organizations.

There are therefore two ways to rank the Priority Areas in relation to agency activities. Both are discussed below and illustrated in Table 18.1.

The highest number of initiatives was reported under Biodiversity Resources, with 22 initiatives currently underway. Tourism Resources followed with 17 activities reported. Fewest initiatives are being undertaken in the category of Energy Resources, with only four energy-related initiatives currently underway.

The highest number of organizations reported that they are currently involved in Freshwater Resources and Land Resources, with 14 organizations reporting activities under these headings. Again, very few organizations were involved with Energy Resources, with only four agencies reporting activity in this field.

**TABLE 18.1 INITIATIVES CURRENTLY UNDERWAY BY AGENCIES AND ORGANIZATIONS**

Issues	Projects	Agencies
Natural Disasters	14	12
Management of Wastes	7	7
Coastal and Marine Resources	12	12
Freshwater Resources	16	14
Land Resources	13	14
Energy Resources	4	4
Tourism Resources	17	12
Biodiversity Resources	22	13
National Institutions and Administrative Capacity	13	9
Regional Institutions and Technical Cooperation	11	11
Transportation and Communication	10	7
Science and Technology	9	9
Human Resources	14	13

It is now possible to compare the priorities that Governments assigned to each of the 14 areas with the number of initiatives and agencies involved in each area. Table 18.2 below compares four rankings:

- a) Priority assigned by governments at the **regional** level;
- b) Priority assigned by governments at the **national** level;
- c) Number of **agencies** involved in activities in this area;
- d) Number of **initiatives** being undertaken in this area.

**TABLE 18.2 COMPARISON OF NATIONAL AND REGIONAL PRIORITIES WITH RESPECT TO NUMBER OF INITIATIVES BEING UNDERTAKEN BY AGENCIES**

	<b>Regional Priorities (Average Rank)</b>	<b>National Priorities (Average Rank)</b>	<b>Number of Agencies Involved</b>	<b>Number of Agency Initiatives</b>
1	Coastal/Marine	Tourism Resources	Freshwater Resources	Biodiversity
2	Natural Disasters	Coastal/Marine	Land Resources	Tourism Resources
3	Land Resources	Human Resources	Biodiversity	Freshwater Resources
4	Waste Management	Land Resources	Human Resources	Climate Change
5	National Institutions	National Institutions	Natural Disasters	Natural Disasters
6	Climate Change	Natural Disasters	Coastal/Marine	Human Resources
7	Freshwater Resources	Freshwater Resources	Tourism Resources	Land Resources
8	Tourism Resources	Waste Management	Regional Cooperation	National Institutions
9	Biodiversity	Biodiversity	Climate Change	Coastal/Marine
10	Science & Tech	Regional Cooperation	Science & Tech	Regional Institutions
11	Transport & Communication	Transport & Communication	National Institutions	Transport & Communication
12	Human Resources	Climate Change	Transport & Communication	Science & Tech
13	Regional Cooperation	Science & Tech	Waste Management	Waste Management
14	Energy Resources	Energy Resources	Energy Resources	Energy Resources

By studying this comparison, it is evident that in most areas, the governments' prioritisation of initiatives is more or less mirrored by the number of activities being undertaken. Most notably, Energy Resources received the lowest rating from Governments at both the national and regional levels, and the fewest number of agencies and initiatives related to this priority area.

In a few areas, agency activities do not parallel government priorities. For example, while Coastal and Marine Resources merited a rating of 1 and 2 on the regional and national levels respectively, it ranked only sixth among the number of agencies, and only ninth among number of initiatives. Similarly, National Institutions and Administrative Capacity ranked fifth on the governments' list of priorities, but only eleventh among agency activities. It can be inferred that more activities should be undertaken and more agencies should become involved in these areas.



Conversely, Biodiversity rated ninth on the governments' list of priorities, but first among agency activities. The same pattern can be found for Freshwater Resources (seventh among governments but first among agencies and third among initiatives). Indeed, it is more difficult to draw conclusions from these findings. On the one hand, it is possible that there are a disproportionate amount of resources being devoted to these areas. On the other hand, it is possible that these areas received low ratings from governments precisely because of the large number of successful initiatives already underway in these areas.

## 18.2 Agency Priorities and Cross-Sectoral Issues

Agencies were asked to rank cross-sectoral issues in terms of importance at the national and regional level. They were asked to use the following rating system: 0 = Not Applicable; 1 = Low; 2 = Medium; 3 = High; 4 = Very High. Table 18.3 lists the average rating for each cross-sectoral issue at the national and regional levels. At both of these levels, Policy Issues were ranked the highest, followed by Capacity Building.

**TABLE 18.3 AVERAGE RATING OF CROSS-SECTORAL ISSUES AT THE NATIONAL AND REGIONAL LEVELS**

Cross-Sectoral Issues	National Level Average Rating	Regional Level Average Rating
Policy	3.6	3.6
Capacity Building	3.5	3.4
Technical Assistance	2.9	3.2
Financial Assistance	3.2	3.1
Information Management	3.4	3.3
Training	3.3	3.3
Legislation	3.1	2.8
Poverty	3.0	3.1
Involvement of Marginal Groups	2.6	2.5

It is now possible to compare these ratings to those given by governments as demonstrated in Table 18.4.

**TABLE 18.4 COMPARISON OF GOVERNMENT PRIORITIES AND AGENCY PRIORITIES AT THE NATIONAL AND REGIONAL LEVELS**

<b>National Priorities Governments</b>	<b>National Priorities Agencies</b>	<b>Regional Priorities Governments</b>	<b>Regional Priorities Agencies</b>
Policy	Policy	Financial	Policy
Poverty	Capacity Building	Capacity Building	Technical
Capacity Building	Info. Management	Legislation	Capacity Building
Financial	Training	Poverty	Training
Training	Financial	Info. Management	Info. Management
Legislation	Legislation	Policy	Financial
Marginal Groups	Technical	Training	Poverty
Technical	Poverty	Technical	Marginal Groups
Info. Management	Marginal Groups	Marginal Groups	Legislation

National Priorities are largely the same for agencies and governments. The exceptions are Poverty, which rated higher among governments than among agencies, and Information Management, which rated higher among agencies than among governments.

Regional priorities are not as aligned. Information Management rated fourth for both agencies and governments, while Involvement of Marginal Groups rated either the lowest or almost the lowest. Capacity Building ranked second for governments and third for agencies. However, the other six issues differed by two or more places between the two lists. This implies a lack of agreement as to which approaches should be taken to SIDS/POA implementation at the regional level. This echoes the governments' statement that a lack of regional vision is one of the greatest constraints to SIDS/POA implementation.

### **18.3 Factors in Agency Initiative Success**

Agencies were asked to identify the key factors responsible for their successful initiatives. The most frequent response was close cooperation between private and public sectors. Other common answers included a demonstrated need for the initiative and regional cooperation. Support, both from communities and governments, was also cited as crucial to initiative success.

Some factors responsible for successful initiatives dealt directly with the agencies. Respondents noted that the visibility of the organization often helped them to carry out their activities, and that technical ability and fiscal prudence within the agency was vital to its success. One respondent recognised the importance of the vision of the donor agency that funded the organization.

Other factors related to the context of the organization and its activities. Political commitment played a key role in many initiatives, as did bilateral agreements and information availability.

#### **18.4 Constraints to SIDS/POA Implementation**

Agencies were also asked to identify constraints to SIDS/POA implementation at the national and regional levels. As with the governments' responses, the most common answer at both the national and regional levels was "inadequate funding or resources."

At the regional level, agency responses echoed government responses. A lack of coordination and regional vision was cited as a barrier to every cross-sectoral issue, most notably Capacity Building and Information Management. Some agencies noted a duplication of efforts throughout the region and the competition for scarce human and financial resources as an impediment to regional cooperation.

At the national level, many respondents cited insufficient human resources. Agencies also identified inadequate training as a major constraint. Others expressed the concern that cultural barriers impeded the development of technology or the recognition of key issues.

At both levels, a large number of respondents saw the source of their difficulties as related to governments. Many stated that the absence of an integrated approach to issues at the national level created a barrier to their success. Some respondents stated that the government's lack of commitment to and/or understanding of issues related to the SIDS/POA created problems for their organizations. Lack of political will, weak institutional support and slow bureaucracies were all listed as constraints. It was also noted that there is a lack of clear policy at the national level, often compounded by a failure to enforce existing regulations and legislation. Some organizations stated that it was difficult to communicate with decision-makers, while others emphasised that apathy at both the government and civil society levels was a serious impediment.

#### **18.5 Ideas for Overcoming Constraints**

Again, the most frequent response to the call for ideas was to increase allocations from international donors. However, a number of agencies provided ideas for more efficient use of existing funds. These ideas included optimisation of the role of existing regional coordinating mechanisms, identification of other existing organizations that could play a coordinating role in their field and reallocation of funds.

Sharing and networking was another common theme among solutions for regional barriers. Agencies suggested exchange of technical expertise to address Capacity Building, Training, Technical Issues and Legislation.

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While fund-raising topped the list of ideas at the national level, Training and Capacity Building closely followed. Many respondents noted the need for coordinating mechanisms at the national level as well as integrated policy and legislation. The suggestion of making better use of existing means came up again, as respondents suggested compliance with existing national sustainable development plans and improved fiscal management. Networking and idea sharing were also frequently cited.

Ideas for addressing political constraints were vague. Most respondents stated that by increasing governmental awareness of issues and easing bureaucratic demands, agency efforts could be expedited.

At both levels, respondents suggested development of databases that would facilitate networking and technical exchange. Training programmes were also emphasised, along with upgrades in technology.

## **18.6 Agency Roles in SIDS/POA Implementation**

Agencies were asked to define their future roles in SIDS/POA implementation. Each organization listed the initiatives it planned to undertake in each of seven cross-sectoral issues. Issues of Poverty and Involvement of Marginal Groups were omitted from this question.

Policy and Technical initiatives topped the list, each comprising 17 per cent of the total number of initiatives. Financial initiatives were the fewest. Figure 18.1 illustrates the comparison of initiatives to be undertaken by agencies.

In general, the number of initiatives was in keeping with the priorities that agencies defined.

## **19.0 Summary**

Overall, both agencies and governments consider all of the 14 Priority Areas to be important. At the regional level, Coastal and Marine Resources and Natural and Environmental Disasters were found to be the greatest concerns. At the national level, Tourism was the number one issue. At the current time, there are a large number of Biodiversity, Freshwater and Land Resources initiatives being undertaken by agencies and organizations. Energy seemed to be the least important, ranking last among national and regional priorities as well as among number of initiatives and agencies involved. From the questionnaire responses, it can be inferred that there is general consensus among countries regarding the importance of the Priority Areas. Governments also differentiated between issues that were important for all countries at the national level and issues that should be addressed at the regional level.

Analysis of the rating of cross-sectoral issues revealed consensus on the national level, but broad disagreement at the regional level. Policy was at the top of national issues as defined by both agencies and governments. Capacity Building and Poverty followed closely as national priorities. However, Governments indicated that Financial Issues and Capacity Building topped the list of regional priorities, while agencies put Policy and Technical Issues first. There was also disagreement among responding Governments with respect to priorities at the regional level.

The most important constraint to implementation of the SIDS/POA as defined by both governments and agencies at the national and regional levels is lack of adequate funds. Other key constraints include a lack of regional vision, the need for more training and technical exchange and political support for implementation initiatives.

Governments and agencies suggested the development of training and exchange programmes, and the establishment of information centres and databases to overcome these barriers. It was also suggested that existing mechanisms of national and regional coordination should be improved and that existing funding should be optimised through reallocation and greater fiscal prudence.

Key ingredients to successful implementation were defined as well. Political and public support for initiatives is vital to success, as is cooperation from the public and private sectors. When there is a demonstrated and acknowledged need for an initiative, it becomes easier for that initiative to succeed. Public education and awareness programmes can build the support and cooperation needed to achieve success in SIDS/POA implementation.

## **Appendix A**

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### **AGENCIES THAT RESPONDED TO THE QUESTIONNAIRE**

Caribbean Conservation Association  
Caribbean Meteorological Institute  
Caribbean Meteorological Organization  
Division for Sustainable Development, Dept. for Economic and Social Affairs  
The Future Centre Trust  
International Maritime Organization/Regional Marine Pollution Emergency Information  
and Training Centre - Caribbean  
International Maritime Organization/Wider Caribbean Initiative for Ship-Generated  
Waste  
Island Resources Foundation  
Organization of American States  
Organization of Eastern Caribbean States  
Pan American Health Organization  
Saint Lucia National Trust  
The Toco Foundation  
United Nations Centre on Human Settlements – Barbados  
United Nations Development Programme, Barbados  
United Nations Development Programme - GEF Small Grants Programme, Barbados  
United Nations Development Programme - GEF Small Grants Programme, Trinidad  
United Nations Development Programme - Special Unit for TCDC  
United Nations Environment Programme - Caribbean Regional Coordinating Unit  
University of West Indies Centre for Environment and Development  
The World Bank

