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**CHALLENGES IN IMPLEMENTATION OF THE
MAURITIUS STRATEGY FOR FURTHER IMPLEMENTATION OF THE
SMALL ISLANDS DEVELOPING STATES PROGRAMME OF ACTION (MSI)
IN THE CARIBBEAN**

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ABSTRACT

Caribbean Small Island Developing States (SIDS) convened their first meeting on sustainable development in Barbados in 1993. This meeting resulted in the Barbados Programme of Action for SIDS and focused on specific thematic areas related to sustainable human development that SIDS would be expected to implement. This meeting was followed by a five-year review and then a 10-year review that took place in Mauritius in 2005 and resulted in the Mauritius Strategy for Further Implementation of the Barbados Programme of Action (MSI). In order to identify the challenges that SIDS might be encountering or anticipate that they might encounter in implementing the MSI, in August 2006 the Economic Commission for Latin America and the Caribbean (ECLAC) prepared and served a questionnaire to 23 Caribbean Development and Cooperation Committee (CDCC) member countries and 11 regional agencies.

Overall, 50 per cent of the target group responded to the questionnaire over a period of a month and a half. Essentially SIDS reiterated that they were still encountering difficulties in accessing financial and technical resources and that public awareness of the MSI was deficient. The introduction of new technologies in the areas of renewable energy and waste management were inhibited by the lack of technical expertise and lack of information on these innovative, environmentally-sound applications. Establishment of National Sustainable Development Councils remained a major challenge to the subregion. The need for institutional strengthening was expressed and this has not changed since it was documented in 2002 and 2003. More specific challenges focused on the role and availability of insurance companies in disaster management as well as the need for training in surveillance and monitoring of coastal and marine resources and for safety of the lives of users of these resources.

It is clear that countries require support from the international and regional communities in implementation of several areas of the MSI and, as such, it is recommended that the Regional Coordinating Mechanism (RCM) for implementation of the MSI be institutionalised as soon as possible. It is expected that this RCM would provide direction and oversight of activities related to implementation of the MSI and would be supportive of the subregion in promoting environmental governance as has been, to date, effective in the Dominican Republic.

1. Introduction

Twenty years after the first global environment conference in Stockholm, the United Nations sought to help governments rethink economic development and find ways to halt the destruction of irreplaceable natural resources and pollution of the planet. This was realised in the United Nations Conference on Environment and Development ([UNCED](#), 1992) that took place in Brazil. The conference was the culmination of two years of negotiations by the Preparatory Committees (PrepComs). However, it was recognized that as a group, SIDS had special needs if they were to develop in a sustainable way. They shared characteristics that made them economically, environmentally and socially vulnerable to shocks over which they exercised little or no control, placing them at a distinct disadvantage in comparison with larger countries. UNCED therefore marked the beginning of the SIDS movement.

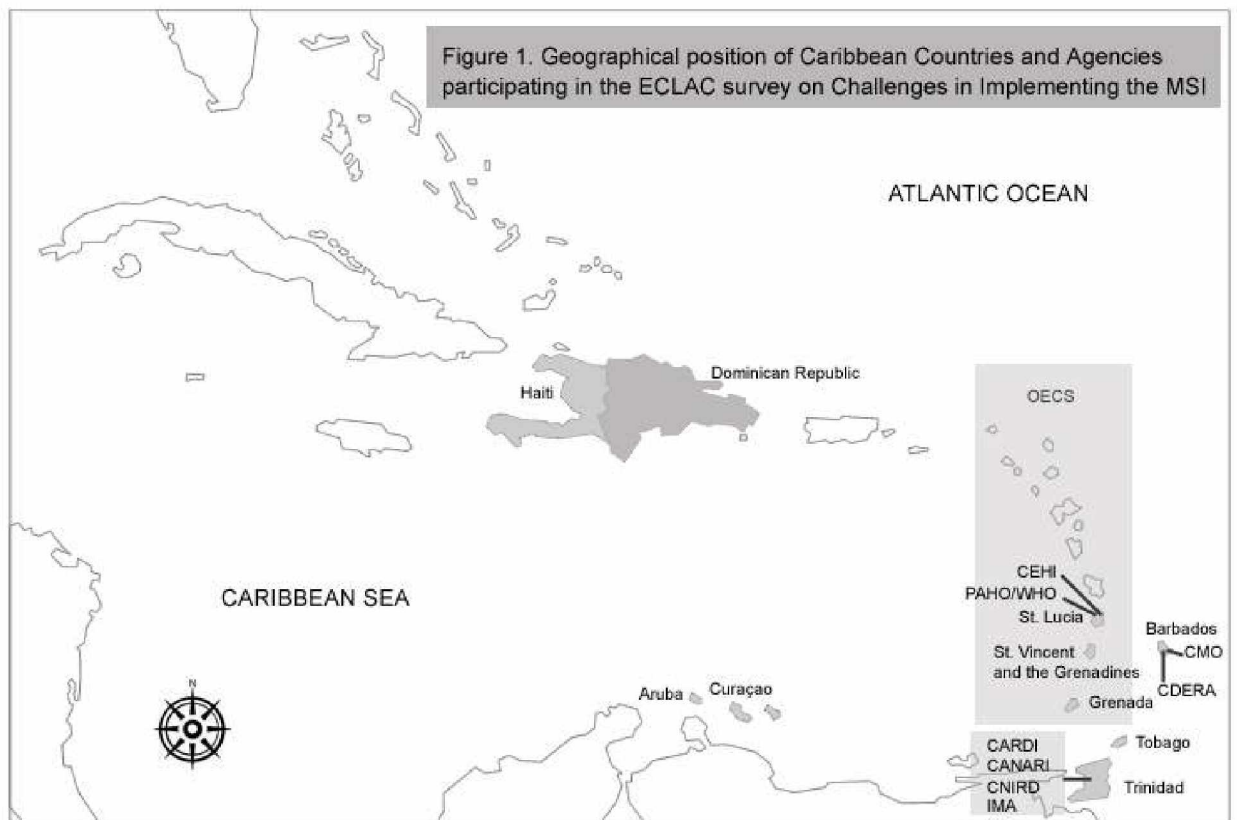
Five major agreements on global environmental issues were signed. Two of these, [The Framework Convention on Climate Change](#) and [The Convention on Biological Diversity](#), are formal treaties whose provisions are binding on the parties. The other three UNCED agreements are [Agenda 21](#), a wide-ranging assessment of social and economic sectors with goals for improving environmental and developmental impact of each; the [Rio Declaration](#), that summarizes consensus principles of sustainable development; and the [Statement on Forest Principles](#) that pledges parties to more sustainable use of forest resources. These three agreements are non-binding statements on the relationship between sustainable environmental practices and the pursuit of social and socio-economic development.

The SIDS Programme of Action (SIDS/POA) therefore had its genesis in the Rio or Earth Summit as the meeting was referred to when the international community recognized, in Chapter 17 of Agenda 21, that small islands are a special case and an important part of the diversity of nations. A decision was taken to convene a meeting focused entirely on the issues surrounding these island States. Such an effort to give concrete international expression to that specificity was the adoption of the SIDS Programme of Action in Barbados in 1994 ([BPOA](#)), which defined various challenges that SIDS faced in their efforts to achieve sustainable development. SIDS were then charged with implementation of a Programme of Action based on their articulated needs that, to many, proved reprehensible as evidenced by the five-year review of the BPOA and again by the 10-year review in Mauritius in 2004. This 10-year review resulted in the Mauritius Strategy for Further Implementation of the BPOA in SIDS ([MSI](#)) at which discussions addressed recommendations for further and successful implementation of the BPOA inclusive of new areas of focus, and appeals went out to the international community to provide much-needed and critical support to SIDS in implementation of the MSI.

2. Methodology

In an attempt to determine the challenges that Caribbean SIDS have faced and may anticipate in implementation of the MSI, a questionnaire survey was conducted. The questionnaire (Annex 1) was arranged thematically and was served to focal points for the environment in government ministries through the ministries of foreign affairs (copied to the Permanent Representatives to the United Nations) of 23 CDCC countries (Annex 2), as well as to

11 regional organizations that have placed sustainable development on their agendas (Annex 2). The questions were presented thematically (and are reported as such) as expressed in the MSI. In general, respondents were prompted with possible suggestions where one or more responses could have been selected, but were also allowed to freely express concerns not represented in the questionnaire in several open-ended questions. Additionally, respondents were invited to prioritise challenges. Responses were obtained from eight governments¹ (35 per cent) and nine regional organizations (81 per cent)² (figure 1). The responses were coded and entered in a Microsoft Excel spreadsheet. Tables were generated in Microsoft Word. Data were analysed and all graphics generated in Microsoft Excel Version 2003. The results are presented thematically for a sample size of 17 in Section 3.



¹ Aruba, Belize, Dominican Republic, Haiti, Netherlands Antilles, Saint Lucia, St. Vincent & the Grenadines, Trinidad & Tobago.

² Caribbean Natural Resources Institute (CANARI), Caribbean Agricultural Research and Development Institute (CARDI), Caribbean Disaster Emergency Response Agency (CDERA), Caribbean Environmental Health Institute (CEHI), Caribbean Meteorological Organization (CMO), Caribbean Network for Integrated Rural Development (CNIRD), Institute of Marine Affairs (IMA), Organisation of Eastern Caribbean States (OECS), Pan-American Health Organization/ World Health Organization (PAHO/WHO).

3. Results

3.1 Climate change and sea level rise

In general, countries have ratified the Kyoto Protocol (question 1), the only exceptions being Aruba and the Netherlands Antilles. Some of the challenges in so doing include lack of political will, lack of awareness of the benefits of the Protocol, technical constraints in preparation of annual reports to the Protocol Secretariat and financial constraints in meeting commitments. The necessary national legislation needs to be enacted to ensure execution of the requirements of the Protocol (question 2).

In addressing challenges that may be anticipated in looking at climate change through adaptation and mitigation (question 3) the majority (82 per cent) of respondents indicated that access to financial resources and technical expertise (76 per cent) were the biggest constraints (table 1); while 47 per cent cited lack of appropriate technology as well as the need for a coordinating mechanism for climate change as deterrents. Approximately 35 per cent indicated that lack of knowledge was a problem.

However, lack of political will was cited by some respondents as an additional deterrent in this regard. The need for a coordinating centre for climate change was also expressed and the engagement of civil society at the community level as important in addressing climate change. A process for monitoring and evaluating the impacts of climate change was deemed necessary and weaknesses in intra-institutional collaboration in management of the energy sector proved to be a challenge. The need for a coordinated, synergistic approach to implementation of national plans and policies related to climate change especially in meeting commitments under relevant environmental conventions was also expressed. An additional concern cited was the sustainability of actions within the context of climate change since funding was usually obtained from external sources.

Table 1. Challenges anticipated by the Caribbean in addressing Climate Change through Adaptation and Mitigation (%). n=16

Access to financial resources	82
Access to technical expertise	76
Lack of knowledge	35
Lack of appropriate technology	47
Lack of a coordinating mechanism	47
Insufficient understanding of the impacts of climate change by the political directorate and need for political will	6
Needs a coordinating centre for climate change	6
Engagement of civil society at the community level	6
Co-ordinated, synergistic approach to implementation of national plans and policies related to environmental issues	6
Sustainability of actions questioned since funding is usually from external sources	6

Questions 4 and 5 sought to determine any challenges that might have been experienced or that were anticipated in promotion of energy efficiency and renewable energy (RE)

technology, respectively. With respect to the promotion of energy efficiency, the majority (76 per cent) of respondents viewed lack of public commitment as a constraint, while 71 per cent mentioned that lack of public awareness presented a challenge. A little more than half (53 per cent) of the respondents cited lack of technology as a barrier to energy efficiency. Additionally, lack of an energy policy and access to financial resources for equipment upgrade were identified as further challenges. The low cost of energy was a deterrent for 29 per cent of respondents and 24 per cent cited lack of information on energy efficiency as a challenge. Additionally, the lack of an appropriate regulatory mechanism was indeed a challenge to promoting energy efficiency as well as the low cost of traditional sources of energy compared with the relatively high cost of modern energy.

With respect to challenges in promoting the use of renewable sources of energy, 65 per cent thought that access to financial resources was important (table 2), 59 per cent viewed the formation of public/private partnerships as essential, 53 per cent mentioned that lack of an energy policy was a deterrent, 41 per cent stated lack of technology and public awareness of renewable energy technologies and 24 per cent indicated that the low cost of fossil fuel energy and access to information presented constraints.

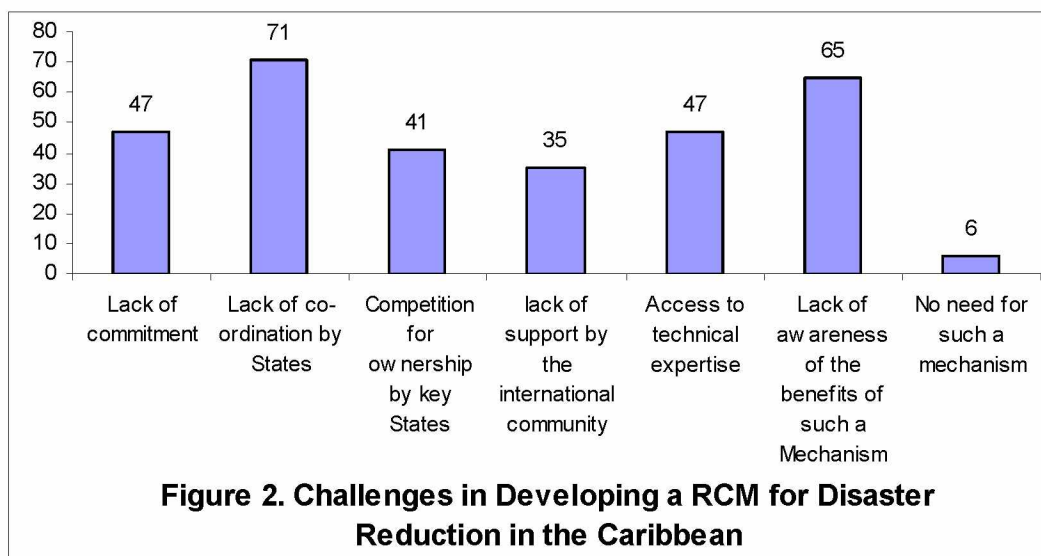
Table 2. Challenges in Promoting the Use of Renewable Energy in the Caribbean (%)

Lack of an energy policy	53
Access to financial resources	65
Access to public/private partnerships	59
Lack of technical expertise	35
Lack of technology	41
Lack of public awareness	41
Low cost of fossil fuel energy	24
Access to information	24

The importance of raising awareness among civil society in understanding its role in the promotion of renewable energy was expressed and, as such, community participation was necessary. The low level of government subsidy for the use of renewable energy was an additional concern as well as weaknesses in intra-institutional involvement in management of the energy sector.

3.2 Natural and environmental disasters

Question 6 sought to determine challenges in developing an RCM for disaster reduction as a means of mainstreaming risk reduction into development planning. In this regard, approximately 71 per cent and 65 per cent, respectively, indicated that lack of coordination by States and lack of awareness of the benefits of such a mechanism were challenges in establishing a disaster RCM (figure 2).



Approximately 47 per cent cited lack of commitment of countries as well as access to relevant technical expertise as constraints, while 41 per cent indicated that competition for ownership of resources by key States was indeed a challenge. Approximately 35 per cent cited lack of support by the international community as a concern while the minority (6 per cent) saw no need for such a mechanism.

Additional concerns focused around the real need to develop such a Mechanism since the some agencies indicated that such Mechanisms do exist and the challenge will emerge in embracing the wider Caribbean family since relationships will need to be built/strengthened. Further challenges include the use of technology at the national level among Caribbean SIDS and the absence of an early warning network and appropriate technology.

Question 7 sought to assess the anticipated challenges in gaining commitment from insurance companies in taking into account damage from natural disasters. The majority (88 per cent) of responses stated that incomplete and inadequate coverage for all types of disasters and the increased and high premiums that clients faced in sourcing adequate insurance were indeed challenges (table 3).

Table 3. Anticipated Challenges in Gaining the Commitment of Insurance Companies to Consider Damage from Natural Disasters (%)

Perceptions of reduced profits by companies	76
Increased and high premiums on the part of clients	88
Incomplete and inadequate coverage for all types of disasters	88
Lack of awareness by clients on the availability of insurance	53

However, 76 per cent stated that if such insurance was bought into, there was a perception of reduced profits by companies. Approximately 53 per cent of the respondents stated that clients were unaware of the availability of such insurance. One country viewed the sensitisation of civil society to the value of insurance as a challenge.

In response to Question 8 that examined the challenges in responding to emergency situations, 47 per cent of respondents stated that they were equally concerned with access to financial resources and geographic vulnerability of the Caribbean islands (table 4). Another 41 per cent stated that lack of infrastructure for use as shelters was a challenge, while approximately 35 per cent viewed access to technology, lack of technical expertise and lack of public awareness as deterrents to responding to emergency situations.

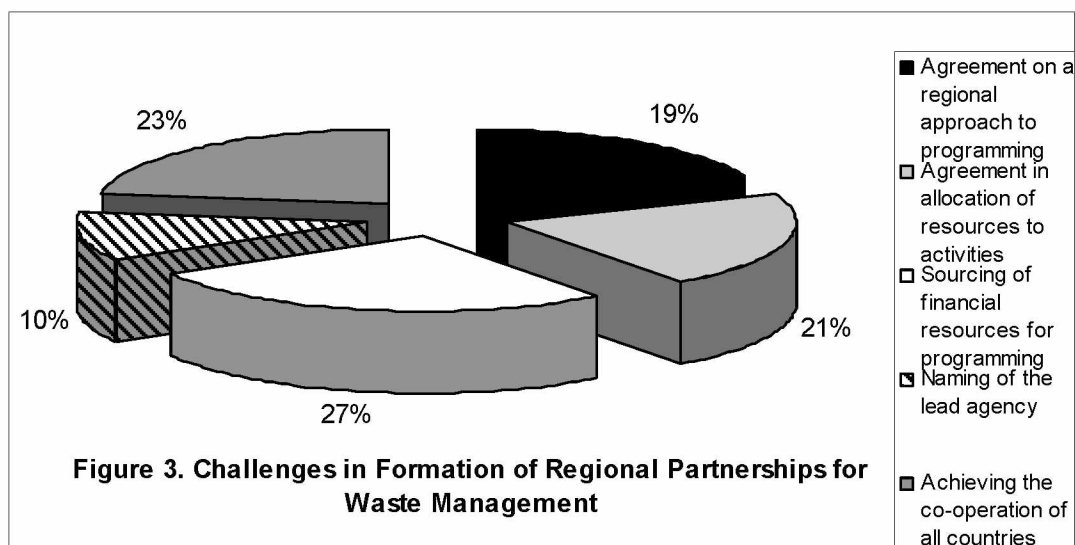
Table 4. Challenges Facing the Caribbean Region in Responding to Emergency Situations (%)

Access to financial resources	47
Access to technology	35
Lack of infrastructure for use as shelters	41
Lack of public awareness	35
Geographic vulnerability	47
Lack of technical expertise	35
Ensuring that risk reduction is mainstreamed	6

One agency viewed mainstreaming of risk reduction as another challenge. One country stated that accessibility to rural areas was an additional constraint and the insufficient maintenance of sea port, airport and road infrastructure as well as long delays in infrastructure rehabilitation were challenges.

3.3 Management of wastes

Question 9 sought to determine any anticipated challenges in the formation of regional partnerships for waste management. The majority of respondents (27 per cent) stated that the sourcing of financial resources was their biggest concern (figure 3), while 23 per cent viewed agreement on the allocation of resources to activities as constraints. Another 21 per cent stated that achieving regional cooperation was important while 19 per cent indicated that a regional approach to programming presented a challenge. A minority (10 per cent) viewed the naming of a lead agency to coordinate activities as a challenge.



One agency stated that six of their member countries already had established fully functional and operational solid waste management entities and state-of-the-art landfills. One country indicated that an additional challenge arose from the fact that countries had different priorities and waste management might not have the same level of priority. Additionally, national constraints to addressing landfills and implementation of laws for waste management were evident.

Question 10 examined any challenges encountered or anticipated in promotion of sustainable waste management. Approximately 65 per cent of respondents stated that the promotion of reduction, re-use and recycling of waste and waste management initiatives was a challenge (table 5) and may even be considered too costly. Identification of cost-effective and environmentally sound waste management systems was cited by 59 per cent of respondents as difficult, while 53 per cent stated that exploring and engaging in innovative forms of financing of waste management infrastructure, such as environmental trust funds and developing projects for SIDS for the use of waste as a resource, for example for producing energy as a waste management solution, was a challenge.

Table 5. Challenges in Promotion of Sustainable Waste Management in the Caribbean (%)

Identifying cost-effective and environmentally sound waste management systems	59
Exploring and engaging in innovative forms of financing of waste management infrastructure e.g. environmental trust funds	53
Promoting reduction, reuse and recycling of waste and waste management initiatives	65
Developing projects for SIDS for the use of waste as a resource e.g. for producing	53
Need to develop public/private partnerships	6
Need to develop cost-effective systems	6

Additionally, the development of public/private partnerships and of waste management systems needs to be cost effective while the lack of institutional leadership and legal difficulties in sustainable waste management remain challenging.

In response to question 11 that sought to determine whether or not countries were signatory to the Oil Spills Protocol, six out of eight countries indicated that they had indeed signed it, with only Guyana and Haiti responding negatively.

With respect to question 12 on anticipated challenges in addressing the transboundary movement of hazardous waste, 65 per cent of respondents indicated that agreeing on a regional approach was the biggest challenge, while 53 per cent viewed implementing the requirements of the Basel Convention as a concern and 47 per cent indicated that arriving at consensus with developed countries that use the Caribbean as a trans-shipment point for nuclear waste as a challenge (table 6). Difficulties in putting in place the required institutional structures necessary for fulfilling commitments under the Basel Convention were cited by 12 per cent of respondents as constraints in becoming signatory.

Table 6. Anticipated Challenges in Addressing the Transboundary Movement of Hazardous Waste (%)

Signing the Basel Convention	12
Implementing the Basel Convention if already signed	53
Agreeing with countries on a regional approach	65
Arriving at consensus with developed countries who use the Caribbean as a trans-shipment point for nuclear waste	47
Resources to support the work of the Basel Regional Centre	6

Additional challenges arose in mobilizing resources to support the work of the Basel Regional Centre, in implementing the “polluter pays” principle, ratifying the Convention and addressing the dilemma of marine pollution of plastic waste in relation to its movement to neighbouring islands.

3.4 Coastal and marine resources

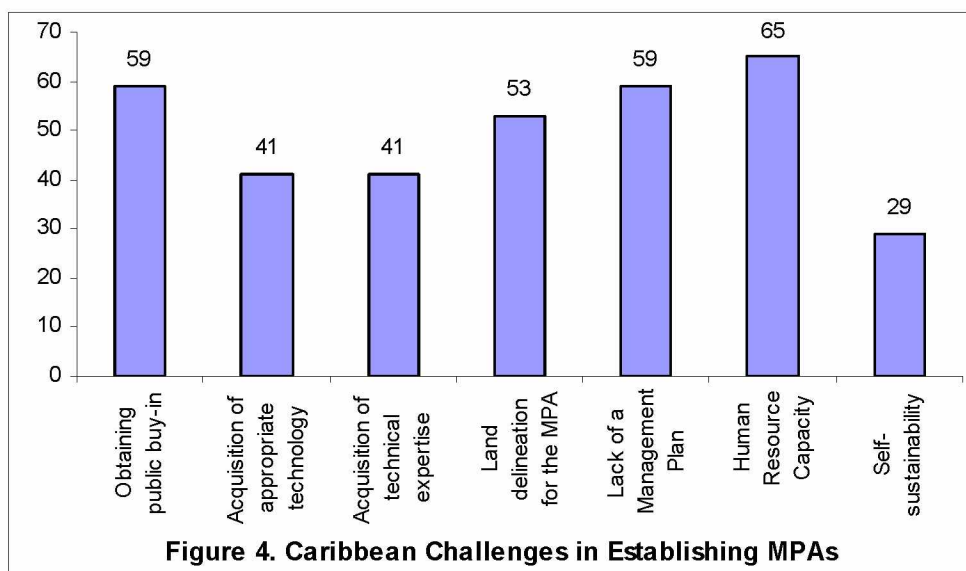
Question 13 sought to determine whether or not any challenges in implementing key conventions relating to coastal and marine resources were being encountered. Approximately 59 per cent of respondents considered the delimitation of maritime boundaries equally important to the assessment of non-living and living seabed resources within national jurisdictions and the full implementation of surveillance and monitoring systems (table 7).

Table 7. Challenges in Implementing Key Conventions Relating to Coastal and Marine Resources in the Caribbean (%)

Completion of the delimitation of maritime boundaries	59
Preparation and submission of claims to the Continental Shelf Commission by 13 May 2009 under UNCLOS	35
Assessment of living and non-living seabed resources within your national jurisdiction	59
Establishment of effective monitoring, reporting and enforcement and control of fishing vessels especially as flag States to address unreported and unregulated fishing	47
Full implementation of surveillance and monitoring systems	59
Analysis and assessment of the status of fish stocks	41
If not already done, to become party to the following: UNCLOS	12
Agreement on Conservation and Management of Straddling and Highly Migratory Fish Stocks	24
FAO Agreement to promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas	12
Establish or enhance the appropriate capabilities to ensure effective compliance with, and implementation and enforcement of international law e.g. vessels flying their flags	29
Distant fishing nations providing technical and financial resources to enhance the effective and sustainable management of fisheries resources	35

Establishment of effective monitoring, reporting and enforcement and control of fishing vessels especially as flag States to address unreported and unregulated fishing was cited by 47 per cent of respondents as a challenge, while 41 per cent indicated that analysis and assessment of fish stocks was a deterrent. Another 35 per cent stated that preparation and submission of claims to the Continental Shelf Commission under the United Nations Convention on the Law of the Sea (UNCLOS) was equally important to the provision of technical and financial resources by distant fishing nations to enhance sustainable management of fisheries resources. Another 29 per cent of respondents stated that it was necessary to establish or enhance the appropriate capabilities to ensure effective compliance with, and implementation and enforcement of international law e.g. vessels flying their flags. With respect to becoming signatories to International Fisheries Agreements, 24 per cent have not become party to the Agreement on Conservation and Management of Straddling and Highly Migratory Fish Stocks while 12 per cent have not ratified UNCLOS and the Food and Agriculture Organization (FAO) Agreement to promote Compliance.

With respect to challenges anticipated in the establishment of Marine Protected Areas (MPAs) (question 14), a majority of respondents (65 per cent) stated that human resource capacity presented constraints (figure 4) while 59 per cent cited obtaining public buy-in and lack of a management plan as challenges. Approximately 53 per cent viewed the need for land delineation for MPAs as a concern, while 41 per cent anticipated that acquisition of appropriate technology and technical expertise were of concern. Self-sustainability of MPAs was cited by 29 per cent of respondents as a problem.



An additional concern expressed was the necessary political will to establish MPAs. Furthermore, one agency was of the opinion that MPAs might not necessarily be the only or the best solutions in all cases since the majority were under-performing and it would be useful to investigate the causes. It was also thought that the ability to negotiate trade-offs in the establishment of multi-stakeholder MPAs might not be available.

Question 15 sought to determine the extent of optimism regarding the provision of technical and financial assistance to the Caribbean subregion in the management of marine resources. Approximately 59 per cent of the respondents stated that they were indeed optimistic that the international community would provide support in monitoring efforts and Global Ocean Observing Systems; 24 per cent expected support in the establishment of the Intergovernmental Oceanographic Commission's marine science programmes; 29 per cent were optimistic that support would be provided for strengthening representative networks of MPAs consistent with the decisions of the Convention on Biological Diversity (CBD) and; 53 per cent stated that they thought that they would receive assistance in addressing the impacts of coral bleaching including enhancing and recovery of reefs.

Challenges in full implementation of the Global Programme of Action for the Protection of the Marine Environment from land-based activities within the context of the vulnerability of SIDS was the focus of question 16. In this regard, 59 per cent of respondents stated that ensuring prior assessment of activities that might have significant adverse impacts on the marine environment was a concern, while 53 per cent were equally challenged by the application of preventative, precautionary and anticipatory approaches to avoid degradation of the marine environment, integration of protection of the marine environment into development policies and development of economic incentives for the application of clean technologies such as the "polluter pays" principle (table 8). With respect to applying the techniques outlined in the global

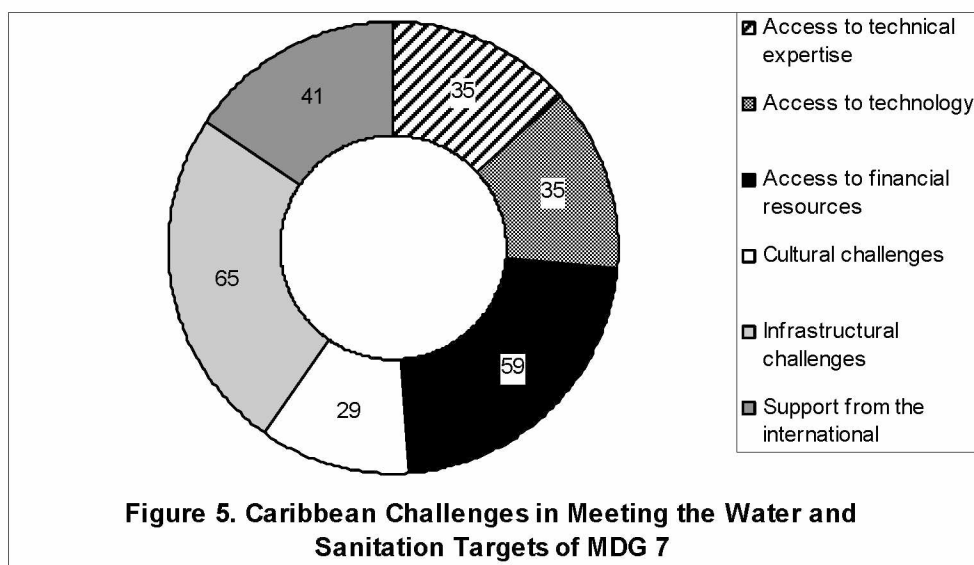
programme in improving the lives of coastal communities, 41 per cent viewed that as a challenge.

Table 8. Challenges in Implementing the Global Programme of Action for the Protection of the Marine Environment (%)

To apply preventative, precautionary and anticipatory approaches to avoid degradation of the marine environment	53
To ensure prior assessment of activities that may have significant adverse impacts on the marine environment	59
To integrate protection of the marine environment into development policies	53
To develop economic incentives for the application of clean technologies e.g. the “polluter pays” principle to avoid degradation of the marine environment	53
To improve the living standards of coastal communities	41

3.5 Freshwater resources

Challenges in meeting the water and sanitation targets of Millennium Development Goal 7 were sought in responses to question 17. A majority of respondents (65 per cent) indicated that infrastructural challenges was a limiting factor in meeting these targets while 59 per cent mentioned that access to financial resources was indeed a challenge (figure 5). Approximately 41 per cent stated that they anticipated challenges in obtaining support from the international community to meet the targets and 35 per cent indicated that they were equally concerned with access to technical expertise as well as technology. Cultural challenges were the concern of 29 per cent of the respondents.



One country expressed an additional concern on the targets in that the sustainable and public awareness components were inadequate; and one agency considered the interactive

participation of communities in the planning, development, implementation, monitoring and evaluation of plans and projects intended to meet targets as important.

3.6 Land resources

Question 18 focused on anticipated challenges on several aspects of sustainable land management (SLM). A majority of respondents (76 per cent) considered the development of capacity to implement agreements relevant to sustainable management of land resources as the primary challenge, while 65 per cent viewed as concerns the strengthening of land tenure and management systems as well as the creation of an enabling environment for sustainably enhancing agricultural productivity and promoting food security (table 9).

Table 9. Challenges in Promotion of Sustainable Land Management (%)

Developing capacity to implement the agreements relevant to sustainable management of land resources	76
Developing capacity for sustainable land management e.g. agro-ecosystems, livestock and aquaculture production, traditional land use planning within the context of competition for land from tourism, urbanisation	59
Strengthening of land tenure and management systems	65
Moving from primary to tertiary agricultural production	47
Diversifying agriculture sustainably for food security	59
Implementation of the UNCCD	53
Creating an enabling environment for sustainably enhancing agricultural productivity and promoting food security	65
Removing production constraints and building programmes in seed production and integrated pest management systems	53
Enhancing food processing, marketing and by-products and quality control	41
Promoting relevant research and development and the use of appropriate modern technologies	41
Promoting sustainable aquaculture	35

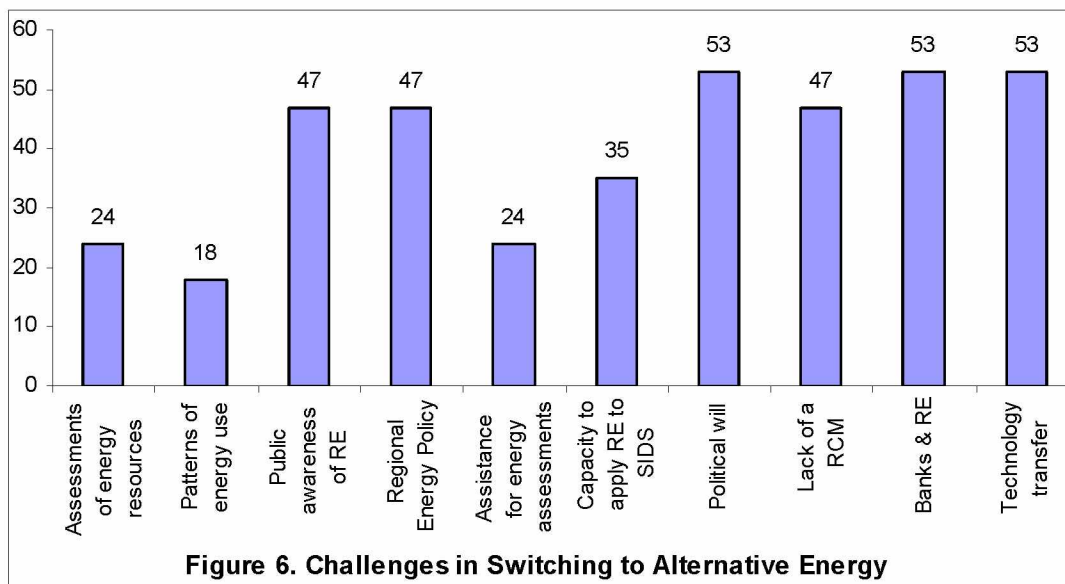
Approximately 59 per cent stated that they were concerned with diversifying agriculture and developing capacity for SLM. Another 53 per cent were equally concerned with challenges associated with implementation of the United Nations Convention to Combat Desertification (UNCCD) removing production constraints and building programmes in seed production and integrated pest management, while 47 per cent cited moving from primary to tertiary agricultural production as challenges. Approximately 41 per cent of respondents stated that enhancing food processing, marketing and by-products and quality control of these products as well as promoting relevant research and development and the use of appropriate modern technologies were important. Promoting sustainable aquaculture was viewed as a challenge by 35 per cent of respondents.

Question 19 focused on anticipated challenges in achieving sustainable forest management. Approximately 47 per cent of the respondents indicated that ensuring adherence to national forest policies and legislation to safeguard the intellectual property rights of resource owners was a challenge, while 35 per cent were concerned with increasing stakeholder

participation in all discussions on the development, management and conservation of forest and tree resources. Increasing awareness, promotion, adoption and enforcement of legislation to ensure that sustainable rotational logging practices and replanting initiatives were implemented, formulation of policy and legislation for sustainable forest management, development of databases assessment of mineral and aggregate resources and the use of environmental and social impact assessments as project evaluative tools were cited by 29 per cent of respondents as challenges. Only 24 per cent considered developing and strengthening partnerships for sustainable forest management a challenge.

3.7 Energy resources

Challenges in switching to alternative sources of energy were assessed in question 20. Lack of political will, lack of support for technology transfer on mutually agreed terms and capacity building, and lack of support for promotion of renewable energy technology by regional banks were viewed as challenges by 53 per cent of respondents, while 47 per cent stated that lack of public awareness of alternative energy, absence of an RCM for development of a Regional Energy Policy (REP) and absence of a REP presented challenges (figure 6).



The need for building capacity to apply prevailing technology in SIDS was considered a challenge by 35 per cent of respondents; while 24 per cent cited difficulties in the conduct of comprehensive assessments of energy resources and lack of technical assistance for such assessments to be challenges; and 18 per cent stated the need for current and projected patterns of energy use to be documented.

3.8 Tourism resources

The use of tourism resources as a sustainable development activity was addressed in question 21. Approximately 76 per cent of respondents indicated that assessment of the carrying

capacity of the environment as well as developing sustainable tourism plans through the inclusion of all stakeholders were challenges (table 10). Another 71 per cent stated that the availability of technical and financial support to conduct assessments of carrying capacity were concerns, while 65 per cent opined that developing community-based initiatives on sustainable tourism were limiting. Approximately 59 per cent viewed monitoring the impacts of tourism development, developing appropriate partnerships to assess technical and financial support for the conduct of assessments, implementation of guidelines on biodiversity and tourism and building of civil society capacity for sustainable tourism as challenges.

Table 10. Caribbean Challenges in Use of Tourism Resources (%)

Monitoring the impacts of tourism development	59
Assessing the carrying capacity of the environment	76
Availability of technical and financial support to conduct assessments of carrying capacity	71
Developing appropriate partnerships to assess technical and financial support for conduct of assessments	59
Implementation of guidelines on biodiversity and tourism as adopted by the COP to the CBD at the 7 th Meeting	59
Developing sustainable tourism development plans taking into account the views of all stakeholders	76
Developing community-based initiatives on sustainable tourism	65
Building capacity of civil society for sustainable tourism	59

3.9 Biodiversity resources

Question 22 focused on sustainable use of biodiversity resources. Approximately 65 per cent of the respondents indicated that they anticipated challenges in controlling the spread of alien invasive species, developing human and institutional capacity for biodiversity research, supporting the development and implementation of national bio-safety frameworks and building community capacity to conserve important species, sites and habitats (table 11).

Table 11. Caribbean Challenges in Use of Biodiversity Resources (%)

Integrating of biodiversity protection into national sustainable development strategies	53
Building partnerships with stakeholders for conservation and sustainable use of biodiversity resources	53
Addressing island biodiversity under the CBD within the context of climate change and land degradation	59
Implementing guidelines for the CBD and tourism developed	53
Establishment of protected areas consistent with international law and based on scientific information	29
Controlling the spread of alien invasive species and	65
Developing local capacities for protecting the traditional knowledge of indigenous group	59
Promoting cooperation among SIDS for shared ecosystem management through networking	29
Participation in forums to address intellectual property rights	35
Developing human and institutional capacity for biodiversity research	65
Supporting the development and implementation of national bio-safety frameworks	65
Building community capacity to conserve important species, sites and habitats	65

Another 59 per cent of the respondents viewed addressing island biodiversity under the CBD within the context of climate change and land degradation, and developing local capacities for protecting the traditional knowledge of indigenous groups as challenging. The integrating of biodiversity protection into national sustainable development strategies, building partnerships with stakeholders for conservation and sustainable use of biodiversity resources and implementing guidelines for the CBD and tourism development were viewed by 53 per cent of respondents as challenges, while approximately 35% stated that participation in forums to address intellectual property rights were concerns. The promotion of cooperation among SIDS for shared ecosystem management through networking and the establishment of protected areas consistent with international law and based on scientific information were cited as challenges by 29 per cent of stakeholders.

3.10 Transport and communications

Question 23 addressed challenges in improving transport and communication in the Caribbean subregion. Approximately 71 per cent of respondents viewed the development of viable regional transportation arrangements as a challenge (table 12), while 53 per cent stated that bridging the digital divide in rural communities were challenges. Further liberalization of the telecommunications sector to increase competitiveness, maximization of the full value of liberalization through economies of scales and eliciting the support of the international community were difficult for 41 per cent of Caribbean SIDS.

Table 12. Challenges Experienced and/or Anticipated by the Caribbean in Addressing Transport and Communication (%)

Developing viable regional transportation arrangements	71
Eliciting the support of the international community	41
Access to basic telecommunications	12
Maximisation of the full value of liberalisation through economies of scale owing to the	41

small size of the markets	
Access to the use of Information and Communication Technology (ICT)	35
Bridging the digital divide in rural communities	53
Further liberalisation of the telecommunications sector to increase competitiveness	41
Development of adequate national communication regulatory frameworks to support liberalisation	24

Approximately 35 per cent of respondents indicated that access to Information and Communication Technology (ICT) was indeed a challenge, and 24% expressed the need for the development of adequate national communication regulatory frameworks to support liberalization, while a minority (12 per cent) thought that access to basic telecommunications was a challenge.

3.11 Science and technology

The role of science and technology in sustainable development was the focus of question 24. Incorporating appropriate science and technology elements into national sustainable development strategies was viewed as a challenge by approximately 65 per cent of respondents while, for 59 per cent, a review of science and technology activities in relation to environmentally sound technologies and reducing environmental risk in the application of science and technology were indeed challenging (table 13). Approximately 41 per cent of respondents stated that obtaining the support of the international community for science and development was difficult, while for 35 per cent the reduction of environmental risk in the utilization of indigenous knowledge and establishment of networks to further cooperation and sharing of experiences utilizing national institutions were challenging. Obtaining financial support for establishment of a Spanish-language portal were regarded as difficult by 12 per cent of the respondents.

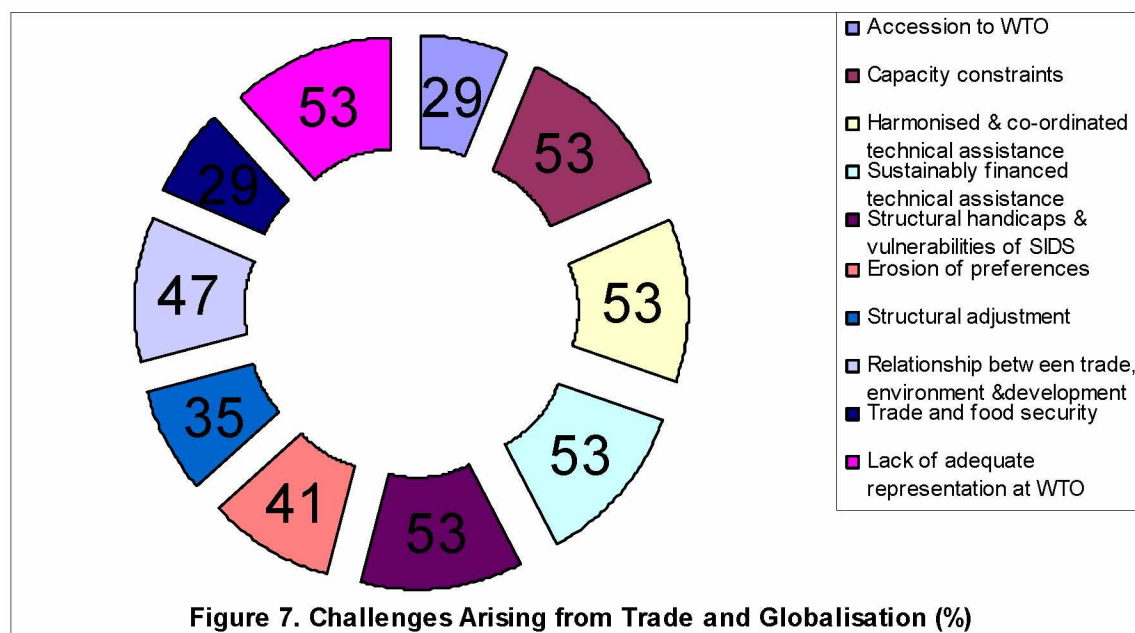
Table 13. Challenges Related to Science and Technology (%)

Incorporating appropriate science and technology elements into national sustainable development strategies	65
Support by the international community for science and development	41
A review of science and technology activities in relation to environmentally sound technologies	59
Reducing environmental risk in the application of science and technology	59
Reducing environmental risk in the utilization of indigenous technologies	35
Establishment of networks to further cooperation and sharing of experiences utilizing national institutions	35
Obtaining financial support for establishment of a Spanish-language portal to improve networking	12

3.12 Trade: globalization and trade liberalization

The challenges presented by trade within the context of globalization and liberalization were addressed in question 25. Capacity constraints, harmonized and coordinated technical assistance, sustainably financed technical assistance and structural handicaps, lack of adequate

representation at the World Trade Organization (WTO) and vulnerabilities of SIDS were viewed as challenges by 53 per cent of the respondents (figure 7).



Integrating trade, environment and development was expressed as another challenge by 47 per cent of respondents, while 41 per cent cited the erosion of preferences and 35 per cent mentioned imposition of structural adjustment programmes as concerns. A minority (29 per cent) of respondents stated that accession to the WTO and trade and the relationship with food security were challenges to the Caribbean subregion.

3.13 Sustainable capacity development and education for sustainable development

Question 26 sought to determine the challenges in obtaining support from the international community in the development of sustainable capacity and education for sustainable development. Approximately 47 per cent of respondents cited challenges related to promotion of technical and vocational skills and strengthening the training and teaching of the principles and practices of good governance at all levels, particularly the protection of human rights (table 14).

Table 14. Challenges Related to Capacity Development and Education for Sustainable Development (%)

Institutional strengthening of ministries of education	24
Promoting comprehensive and accessible primary education	12
Ensuring gender equality emphasizing reducing illiteracy	18
Promoting technical and vocational skills	47
Strengthening distance-learning programmes	35
Integrating national sustainable development strategies and environmental education within the education systems (UNESCO support)	12
Assisting with curriculum development	29
Assisting with teacher training	29

Assisting with development of programmes for people with special needs, particularly children and youth	35
Strengthening the training and teaching of the principles and practices of good governance at all levels particularly the protection of human rights	47

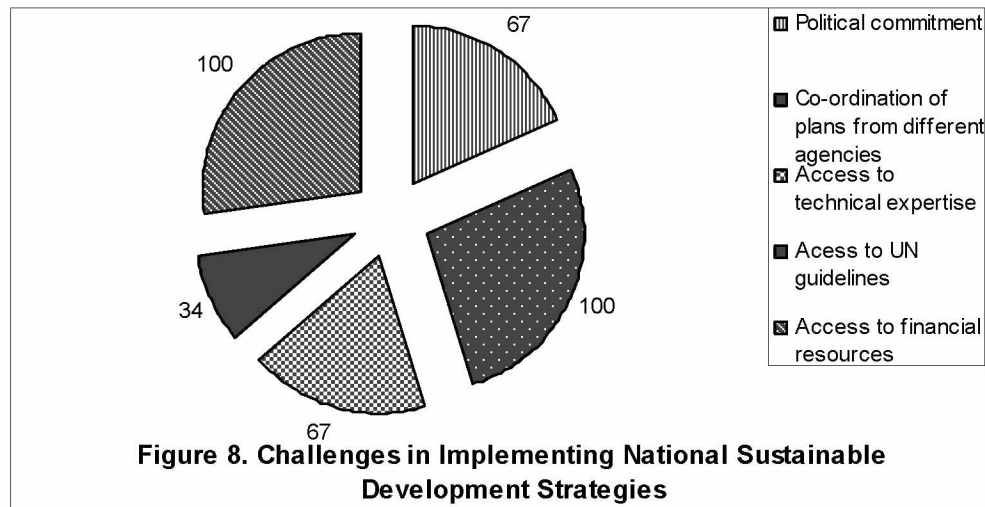
Another 35 per cent cited strengthening of distance-learning programmes and development of initiatives for people with special needs as difficult; while 29 per cent stated that curriculum development and teacher training needed support; and 24 per cent expressed difficulties in addressing the issue of strengthening of ministries of education. Approximately 18 per cent viewed ensuring gender equality within the context of reducing illiteracy as challenging, and the minority (12 per cent) saw the need to promote comprehensive and accessible primary education and integrate national sustainable strategies and environmental education within the education systems.

3.14 Sustainable production and consumption

Question 27 focused on challenges in promoting the concepts of sustainable production and consumption. Essentially, 35 per cent were equally of the opinion that, within the context of sustainable production and consumption, the consideration of relevant initiatives within the context of the three pillars of sustainable development, implementation of the 10-yr framework and assessing the need for appropriate programmes on strategies on the basis of national priorities and best practices were indeed challenges.

3.15 National and regional enabling environments

In response to the question on progress in formulation of national sustainable development strategies as agreed to in the Johannesburg Plan of Implementation (question 28), four respondents (23 per cent) have achieved progress and three have not been successful in achieving this action. Of the four that have formulated such strategies, three have begun implementation. Of the three respondents that have begun implementation of their national sustainable development strategies (question 30) 100 per cent cited challenges relating to coordination of plans from different agencies and access to financial resources (figure 8). Additionally, 67 per cent faced challenges in obtaining political commitment and accessing technical expertise, while 34 per cent stated that they were experiencing difficulties in accessing United Nations guidelines in implementing these strategies.



One agency further indicated that the region had not “clearly articulated what sustainable development means to SIDS and how it has to be operationalised within the changing geopolitical landscape”. On the other hand, although some islands had not yet formulated national sustainable development strategies they anticipated challenges in having access to technical expertise and in coordination of plans from different agencies in so doing.

Question 31 sought to determine challenges anticipated in obtaining support from the international community within the context of national and enabling environments. Approximately 65 per cent of respondents regarded making improvements in the legal, administrative and institutional structures for development and implementation of national sustainable development strategies as well as developing and implementing integrated planning systems and processes as challenges (table 15).

Table 15. Anticipated Challenges in Obtaining Support from the International Community for National and Enabling Environments (%)

Mainstreaming guiding principles of sustainable development into nationally-owned poverty reduction strategies and all sectoral policies and strategies	47
Developing national targets and indicators for sustainable development (SD) in meeting the MDGs and other global and regional targets	47
Improving legal, administrative and institutional structures to develop and implement sustainable development strategies	65
Creating and empowering SD task forces to function as interdisciplinary and communally representative advisory bodies	41
Rationalising legislation that affects SD at the national level	41
Improving coordination between legal frameworks and developing guidelines for those who must carry out legislative objectives	41
Developing and implementing integrated planning systems and processes	65
Involving youth in envisioning sustainable island living	41

Another 47 per cent of respondents anticipated difficulties in mainstreaming the guiding principles of sustainable development into nationally-owned poverty reduction strategies and all sectoral policies, as well as developing national targets and indicators for sustainable development in meeting the Millennium Development Goals and other global and regional targets. Approximately 41 per cent stated that creating and empowering sustainable development task forces to function as interdisciplinary and communally representative advisory bodies, rationalising legislation that affected sustainable development at the national level and improving coordination between legal frameworks and developing guidelines for those who must carry out legislative objectives and involving youth in envisioning sustainable island living were distinct challenges.

3.16 Health

Question 32 sought to determine the extent to which the Caribbean subregion viewed obtaining support from the international community in different aspects related to health. Approximately 65 per cent of respondents viewed obtaining support in developing and implementing effective surveillance initiatives at the local, national and regional levels as challenges (table 16). Another 59 per cent cited the strengthening of health management and financing systems and developing modern, flexible public legislation as difficult, while 47 per cent stated that increasing the availability of more effective pharmaceuticals, facilitating early information on possible outbreaks and increasing preparedness to respond rapidly to possible outbreaks as challenges. Enhancing data collection on demographic and epidemiological ends and implementing targeted environmental health programmes for waste management, control of air pollution and improved water quality were concerns for 41 per cent of respondents, while 29 per cent cited access to technical assistance and support for promoting the use of traditional medicines as concerns. Only 4 of the 17 respondents viewed the implementation of public policy and prevention programmes as a challenge.

Table 16. Caribbean Challenges in Obtaining Support from the International Community to Address HIV / AIDS, Malaria, Tuberculosis, Dengue Fever and Other Communicable Diseases (%)

Strengthening health management and financing systems	59
Obtaining technical assistance e.g from the Global Fund	29
Making effective pharmaceuticals more available	47
Implementing public policy and prevention programmes	24
Developing and implementing effective surveillance initiatives at the local, national and regional levels	65
Facilitating early information sharing on possible outbreaks	47
Preparedness to respond rapidly and effectively to outbreaks	47
Developing modern, flexible public legislation	59
Promoting the development of traditional medicines	29
Implementing targeted environmental health programmes e.g waste management, control of air pollution and improved water quality	41
Enhancing data collection on demographic and epidemiological trends	41

3.17 Knowledge management and information for decision-making

Challenges in obtaining support from the international community for knowledge management and information for decision-making were the focus of question 33. In this regard, the majority of respondents (71 per cent) stated that support was needed in developing databases, vulnerability indices and Geographic Information Systems (GIS) as well as in establishing national and regional information and database centres that allowed for analysis and data sharing as well as identifying and addressing data gaps (table 17). Approximately 65 per cent stated that addressing gaps in data was a challenge while 59 per cent of stakeholders viewed as challenging issues related to cyber-security, and 47 per cent cited the establishment of land use databases and providing training in, and access to, GIS and remote sensing as difficult. Seven (41 per cent) stated that support was needed in expanding and extending the Partnership in Statistics for Development Initiative and 35 per cent indicated that characterizing information related to economic, social, environmental and cultural areas as challenging. A minority (18 per cent) stated that strengthening and establishing, if necessary, postgraduate programmes at regional tertiary institutions was difficult.

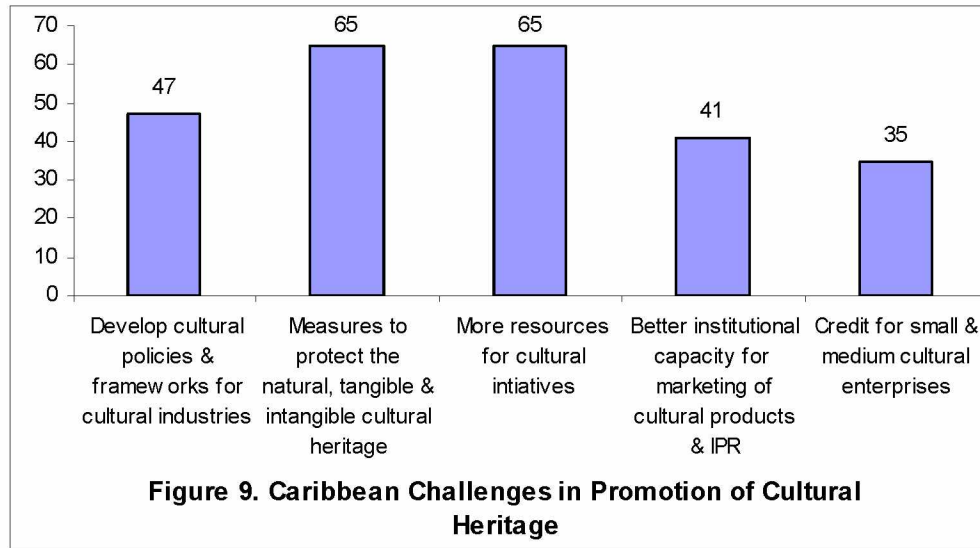
Table 17. Caribbean Challenges in Addressing Knowledge Management for Decision-making (%)

Identifying and addressing gaps in data	65
Characterising information related to economic, social, environmental and cultural areas	35
Developing databases, vulnerability indices, Geographic Information Systems (GIS)	71
Establishing national and regional information and database centres that allow for analysis and sharing of data	71
Expanding and extending the Partnership in Statistics for Development in the 21 st century initiative (see last page)	41
Addressing issues related to cyber-security	59
Establishing land use databases	47
Providing training in, and access to, GIS and remote sensing	47
Strengthening and establishing, if necessary, postgraduate programmes at the regional tertiary level institutions	18

Only 7 out of the 17 stakeholders responded to question 34 that sought to determine whether or not support from the international community was obtained in establishment of a task force to elaborate a resilience index, and they indicated that such support had not been obtained.

3.18 Culture

Question 35 sought to address culture within the context of policies, legislative frameworks, heritage, intellectual property rights (IPR) and institutional capacity. As such, approximately 65 per cent of respondents indicated that measures to protect the natural, tangible and intangible cultural heritage needed to be developed and additional resources should be allocated for developing and strengthening national and regional cultural initiatives (figure 9).



The development of cultural policies and legislative frameworks in support of cultural industries was viewed by 47 per cent of respondents as necessary, while improvements in institutional capacity for advocacy and marketing of cultural products and the protection of IPR was important to 41 per cent of stakeholders. Six respondents (35 per cent) saw the need for seeking venture capital and improving access to credit for small and medium-sized cultural enterprises.

4. Discussion

This study revealed that Caribbean SIDS continued to face challenges in implementation of the MSI. Overall, access to appropriate technology for addressing climate change (47 per cent), promoting energy efficiency (53 per cent) and renewable energy (35 per cent), emergency response (35 per cent), establishment of MPAs (41 per cent) and meeting the water and sanitation targets of Millennium Development Goal 7 (35 per cent) were apparent challenges to the subregion. This point was initially expressed in the synthesis of the national assessment reports of the BPOA where the need for new and efficient technology to meet the challenges being encountered by Caribbean SIDS was reiterated, and action to reverse an aversion to risk involved in adopting new technologies was indicated (UNEP, 2003). It was apparent that support in the use of technological applications towards successful implementation of the MSI was still necessary.

Access to technical expertise for addressing: climate change (76 per cent), renewable energy technology (35 per cent), disaster management (47 per cent), response to emergency situations (35 per cent), establishment of MPAs (41 per cent), meeting the water and sanitation goals of Millennium Development Goal 7 (35 per cent), operationalization of national sustainable development strategies (100 per cent) and health issues (29 per cent) was a major challenge being experienced by SIDS. This difficulty was identified in that there was no formalized technical cooperation programme at the broader CARICOM level, through which governments and the private sector could share scarce expertise, in critical areas such as

Environmental Impact Assessments (EIA), environmental law, environmental engineering, environmental diplomacy, community-based resource management, marine law, environmental economics, natural resource accounting, remote sensing and climatology (UNEP, 2003). Secondly, there was no policy at the national or regional level to retain scarce expertise (UNEP, 2003).

Access to financial resources for addressing climate change (82 per cent), renewable energy (65 per cent), emergency response (47 per cent), meeting the water and sanitation targets of Millennium Development Goal 7 (59 per cent), issues related to trade and globalization (53 per cent), operationalization of national sustainable development strategies (100 per cent) and health (59 per cent) appear to be difficult for Caribbean SIDS. These deficiencies impact on the adoption of policies, plans and programmes for addressing climate change and sea level rise, alternative sources of energy, disaster preparedness, assessment of impacts of tourism, waste management, management of freshwater, coastal, marine and land resources as well as in protection of traditional knowledge. It appears that the situation in this regard has not changed much since 1998, when Caribbean governments and agencies indicated that inadequate funding and resources were the major challenges in implementation of the BPOA (ECLAC, 1998). There seems to be no significant improvement in accessing financial resources over the last six years when financial constraints limited implementation of the BPOA (ECLAC, 2001). The need for these resources ranged from the necessity to implement projects that were beyond the resources of Caribbean SIDS, to severe handicaps in establishment and strengthening of infrastructure as well as need for capacity-building initiatives, resulting in a retreat from the sustainable development commitment and ideals agreed to at the Earth Summit in 1992 (ECLAC 2001).

In general, lack of public awareness was also cited as a constraint in promotion of energy efficiency (71 per cent), alternative energy technologies (41 per cent), emergency response (35 per cent), and access to information sharing for improving health practices (47 per cent), for promoting renewable energy technology (24 per cent) and for improving communications (25 per cent). Lack of human resource capacity was also a deterrent to implementation of the MSI especially in the areas of renewable energy and the establishment of MPAs. This was consistent with the ECLAC report that identified capacity constraints and information management as key to achieving the overall goals of the BPOA (ECLAC, 1998). Furthermore, duplication of efforts throughout the subregion and competition for scarce human and financial resources were cited as impediments to regional cooperation (ECLAC, 1998). At the national level, both governments and agencies viewed insufficient human resources and inadequate training and cultural barriers as major constraints in implementing the MSI. This was consistent with the opinions expressed by both governments and agencies in reviews of the BPOA (ECLAC 1998, 2001).

The use of environmentally-sound technologies for research programmes in science and technology present a challenge for 59 per cent of Caribbean SIDS. Of particular note were technologies for waste management. The establishment of appropriate institutional, technical and human resource capacity to utilise technologies such as reduce, re-use and recycle and the use of waste materials as sources of clean energy seemed to be challenges for Caribbean SIDS. However, it should be recognised that the use of such technologies had twin objectives since waste was utilised sustainably to produce valuable energy with tremendous economic returns.

The need for institutional strengthening for implementation of the MSI was articulated by the majority of Caribbean SIDS. This was expressed in the 2002 review of progress made since UNCED and the United Nations Global Conference on Small Island Developing States (UNGCSIDS) that revealed that the capacity of national institutions and administrative capacity were real challenges in BPOA implementation. Of particular note, this void was reflected in achieving progress with respect to management of coastal and marine resources, natural and environmental disasters and tourism management (ECLAC, 2002). Again in 2003, institutional challenges emerged in terms of integrating the POA into national planning and decision-making; the absence of integrated planning for sustainable human development; lack of education/public awareness; the need for capacity-building; training; adjustments in organizational behaviour; establishment of sustainable development councils and the establishment of an RCM (ECLAC, 2003). In 2006, four years later, this remains a challenge for the subregion.

The political will needed to implement the MSI seems to be less than what is necessary. This view had been expressed by one country with respect to climate change in that awareness of the benefits of signing the Kyoto Protocol appeared to be absent. It also seems that there was lack of political will in providing support for application of alternative energy technologies (53 per cent) and in the development of national sustainable development strategies (67 per cent). One country was of the opinion that political support for the establishment of MPAs was not apparent. The need for obtaining support from the political directorate for implementing the MSI was cited by participants at the inter-regional preparatory meeting held in Nassau, Bahamas in January 2004 (Earth Negotiations Bulletin, 2004).

More specific challenges included the awareness and availability of insurance coverage for countries in times of disaster. Respondents were not really aware of the existence of such schemes and, of those who did know, there was a general feeling that the premiums would be high and therefore inaccessible. One agency, however, was championing the reduction of disaster risk and as such indicated that one of the expected outcomes of the comprehensive disaster management review process was to introduce a programmatic approach to disaster risk reduction initiatives in the subregion. This potentially has the ability to minimize the competition for ownership if there is broad-based buy-in to the programmatic approach. The subregion had already expressed its support for and adopted the CDM Strategy and Framework. Furthermore, the United Nations Development Programme (UNDP), under the Caribbean Risk Management Initiative, proposed to publish a Caribbean Disaster Risk Report that should feature a disaster risk index specific for the disasters threatening the Caribbean subregion.

Surveillance and monitoring at sea emerged as a challenge for 59 per cent of Caribbean SIDS. In this regard, the Food and Agriculture Organization (FAO) put in place a programme to build the capacity of fisher folk in utilization of surveillance equipment. Additionally, given the increasing importance of tourism to the subregion, 76 per cent of Caribbean SIDS expressed the view that assessments of the carrying capacity of the environment needed to be conducted and that decision-making with respect to management of tourism resources should be participatory. Furthermore the threat of spread of alien invasive species was a further challenge to biodiversity resources of the Caribbean since these species were usually introduced without their natural predators and rapidly multiplied and, in themselves, became pests. Biological invasions operated

now on a global scale and would undergo rapid increase in this century due to interactions with other global changes such as increasing globalization of markets, explosive rises in global trade, travel, tourism, and exchange of goods. Alien invasive species was being addressed under the CBD.

In general, Caribbean SIDS expressed the need for coordinating of activities in many areas including transboundary movement of hazardous waste (65 per cent), naming of a lead agency for management of waste (10 per cent), operationalization of national sustainable development councils (100 per cent), disaster management (71 per cent) and climate change (47 per cent). In this regard, the need for a regional approach to management of resources was deemed necessary and this inevitably would require a coordinating mechanism.

5. Conclusions and recommendations

There was general consensus that, despite tremendous effort, not much had been achieved with regard to the implementation of the MSI since the convening of the historic UNGCSIDS, (ECLAC, 1997). Simultaneously, achievement of the Millennium Development Goals was also proceeding at a slow pace in the Caribbean (United Nations, 2005) since progress in this regard was interlinked with implementation of the MSI.

Strategies to overcome these challenges and constraints were proposed some eight years ago where optimization of the roles of existing regional coordinating mechanisms and identification of other existing organizations that could play a coordinating role in their respective fields were seen to be important in achieving progress in implementing the MSI. (ECLAC, 1998). Additionally, the need for dedicated coordinating mechanisms at the national level as well as integrated policy and legislation were perceived to be useful. The need for coordinating at the regional level was also expressed by CARICOM in January 2004 (CARICOM, 2004), and reiterated by CDCC countries and agencies in this survey. In this regard, efforts were being made to establish an RCM that would have oversight in coordination of activities towards implementation of the MSI. This RCM would comprise an Inter-governmental Council (IGC), a Technical Advisory Committee (TAC) as well as an RCM Secretariat.

The need for sharing of information especially best practices among member States as well as networking were cited as mechanisms for bridging the digital divide (ECLAC, 1998, 2002). This would enhance national capacity, raise the level of awareness and educate the populace in order to obtain support for programme conceptualization, design and implementation. The development of databases would greatly enhance an exchange of expertise and, in this regard, ECLAC, through its social and statistical unit, could provide the necessary support.

The establishment of National Sustainable Development Councils (NSDCs) would help to coordinate activities towards implementation of the MSI at the national level in pursuit of the SIDS agenda. Efforts have been made in many countries in this regard, and even though they have been established in many Caribbean countries, they remain dormant institutions. It is

recommended that these councils be established and/or operationalized and their work programmes filter into formulation of the work programme of the RCM. It would be necessary to coordinate the activities of such national councils with those of the RCM in order to avoid duplication of efforts which had been cited by SIDS as a tremendous challenge.

Technical and logistical support to CDCC countries in ratification and implementation of the CBD, the United Nations Framework Convention on Climate Change (UNFCCC) and the UNCCD would assist in implementation of the MSI. Caribbean SIDS expressed the need for support in preparation of proposals for submission to the Secretariats of these Conventions and, in this regard, the commitment of ECLAC to provide such support was reiterated (ECLAC, 2002).

In general, environmental governance was a key concept in implementation of the MSI. This arose during the process of monitoring and evaluation of programmes and projects where lack of effective monitoring of funds had proved to be a great difficulty in evaluating and measuring progress (ECLAC, 2002). There was therefore need to pay greater attention and to provide support to CDCC countries in addressing governance issues for implementation of the MSI.

To rectify the above problems, the Dominican Republic established the Secretariat for the Environment and Natural Resources (SEMARN) in 2000, bringing under one roof all public institutions dealing with environmental issues (World Bank 2004). The World Bank has supported SEMARN through a Learning and Innovation Loan, and SEMARN has made significant progress since its inception by issuing environmental regulations, standards and impact assessment procedures, among other reforms and improvements.

SEMARN still has important challenges ahead: (i) systematic monitoring of key environmental data in the environmental health and natural resources management sectors; (ii) implementing laws and regulations for balancing the interests of stakeholders in the environment; (iii) developing consensus-building mechanisms with the other secretariats, public institutions and the private sector to mainstream environmental management; and (iv) changing the culture of the institutions under its umbrella from development promoters to environmental managers. These challenges can be met through staff training and capacity building, organizational changes, budgetary reallocations, by turning the Environmental Council into an environmental mainstreaming tool and by initiating the Environmental Fund to finance the growing environmental agenda and possible decentralization efforts. The Caribbean could well learn from and emulate this system.

More specifically, the necessary political will can be obtained if Caribbean leaders see the value of meeting the targets of the MSI and develop the appropriate policies, plans and programmes to address the various aspects of the MSI. In this regard, attention needs to be given to underperforming MPAs as they are a vital mechanism for conservation of biodiversity as well as repositories for valuable economic resources, such as fisheries and tourism. Utilization of the Clean Development Mechanism of the Kyoto Protocol should reap benefits to the subregion through the joint output of waste reduction and generation of clean energy. In this regard, the subregion, through the RCM, could well investigate the institutional, human resource, technical

and financial capacities necessary to operationalize this Mechanism and research the proposed benefits to the subregion.

It is hoped that with support for, and operationalization of, the RCM the capacity of Caribbean SIDS would be strengthened through the adoption of a regional approach to implementation of the MSI thereby facilitating cooperation critical to sustainable human development.

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Annex 1
Questionnaire

21 August 2006

**QUESTIONNAIRE ON
CHALLENGES IN IMPLEMENTATION OF
THE MAURITIUS STRATEGY**

Information provided by:	
Country:	
Name of Ministry/Office:	
Date:	
Submitted by:	
Mailing address:	
Telephone:	
Telefax:	
E-mail:	

Introduction

The Programme of Action for the Sustainable Development of Small Island Developing States (SIDS/POA) remains a blueprint for SIDS and the international community to address national and regional sustainable development that takes into account economic, social and environmental issues that are the pillars of a holistic and integrated approach to sustainable development. This process began with the SIDS/POA resulting from the Barbados Meeting in 1994 and was followed by the five-year ministerial review that took place in 1999. The 10-year review of this programme to assess progress made in implementation of the SIDS/POA took place in Mauritius in 2005 and realised the Mauritius Strategy (MSI).

The Economic Commission for Latin America and the Caribbean (ECLAC) is desirous of assessing the extent to which SIDS perceive their situation of preparedness for implementation of the Mauritius Strategy. As such, ECLAC is conducting a questionnaire survey in order to receive first-hand information from each Caribbean Development and Cooperation Committee (CDCC) member country as to constraints and challenges that they face or anticipate that they might encounter in meeting the targets of the Mauritius Strategy. The questionnaire is structured along the lines of the Mauritius Strategy for Implementation (MSI) utilizing the identical subheadings that are articulated in the strategy. This survey would be used to ascertain the current status of implementation of the MSI, to determine gaps and challenges in its implementation with a view to identifying future areas of support. The results would be presented for discussion at the level of the CDCC and the proposed Regional Coordinating Mechanism (RCM).

We would, therefore, appreciate if you would assist us in the conduct of this exercise by providing replies to the questions which reflect the main aspects of the Strategy. The results of this survey will be compiled and analyzed and made available to participating countries and will also be used to develop a programme of assistance to these very countries.

You are encouraged to rank your responses, where applicable, in order of priority with 1 being the most critical. Should you also wish to make suggestions to overcome the identified challenges these would be most welcome.

(A) Climate change and sea-level rise		PLEASE TICK APPROPRIATE BOX <input checked="" type="checkbox"/>	
No.	QUESTIONS	Coding Categories	
		Yes	No
1.	Have you ratified the Kyoto Protocol?	<input type="checkbox"/>	<input type="checkbox"/>
2a.	If you have not ratified the Kyoto Protocol, do you see any challenges in doing so?	<input type="checkbox"/>	<input type="checkbox"/>
2b.	<p>If the answer to 2a is yes, what do you consider to be some of the main challenges?</p> <p>i. Political will <input type="checkbox"/></p> <p>ii. Lack of awareness of the benefits of the Protocol <input type="checkbox"/></p> <p>iii. Technical constraints in preparation of annual reports <input type="checkbox"/></p> <p>iv. Financial constraints in meeting commitments <input type="checkbox"/></p> <p>v. Other challenges:</p> <p>a. _____</p> <p>b. _____</p> <p>c. _____</p>		
3.	<p>What do you anticipate are the challenges in addressing climate change through adaptation and mitigation?</p> <p>i. Access to financial resources <input type="checkbox"/></p> <p>ii. Access to technical expertise <input type="checkbox"/></p> <p>iii. Lack of knowledge <input type="checkbox"/></p> <p>iv. Lack of appropriate technology <input type="checkbox"/></p> <p>v. Lack of a coordinating mechanism <input type="checkbox"/></p> <p>vi. Other challenges:</p> <p>a. _____</p> <p>b. _____</p> <p>c. _____</p>		

4.	What are the challenges in promoting energy efficiency?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	i. Lack of an energy policy ii. Lack of public awareness iii. Lack of public commitment iv. Access to information v. Lack of technology to support energy efficiency vi. Access to financial resources to upgrade equipment vii. Low cost of energy viii. Other: a. _____ b. _____ c. _____	
5.	What challenges do you anticipate in promoting the use of renewable energy?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	ii. Lack of an energy policy iii. Access to financial resources iv. Access to public/private partnerships v. Lack of technical expertise vi. Lack of technology vii. Lack of public awareness viii. Low cost of fossil fuel energy ix. Access to information ix. Other: a. _____ b. _____ c. _____	
(B) Natural and environmental disasters		
6.	Do you foresee any challenges in developing a Regional Coordinating Mechanism for Disaster Reduction in the Caribbean as a means of mainstreaming risk reduction into development planning?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	i. Lack of commitment ii. Lack of coordination by States iii. Competition for “ownership” of key positions iv. Lack of support by the international community v. Access to technical expertise vi. Lack of awareness of the benefits of such a Mechanism vii. Other: a. _____ b. _____ c. _____	

7.	<p>What challenges do you anticipate in gaining the commitment of insurance companies to take into account damage from natural disasters?</p> <ul style="list-style-type: none"> i. Perceptions of reduced profits by companies <input type="checkbox"/> ii. Increased and high premiums on the part of clients <input type="checkbox"/> iii. Incomplete and inadequate coverage for all types of disasters <input type="checkbox"/> iv. Lack of awareness by clients of the availability of insurance <input type="checkbox"/> v. Other: a. _____ b. _____ c. _____
8.	<p>What challenges do you face in responding to emergency situations?</p> <ul style="list-style-type: none"> i. Access to financial resources <input type="checkbox"/> ii. Access to technology <input type="checkbox"/> iii. Lack of infrastructure for use as shelters <input type="checkbox"/> iv. Lack of public awareness <input type="checkbox"/> v. Geographical vulnerability <input type="checkbox"/> vi. Lack of technical expertise <input type="checkbox"/> vii. Other: a. _____ b. _____ c. _____
<p>(C) Management of wastes</p>	
9.	<p>What challenges have you encountered or do you anticipate in the formation of regional partnerships for waste management in implementation of the Mauritius Strategy?</p> <ul style="list-style-type: none"> i. Agreement on a regional approach to programming <input type="checkbox"/> ii. Agreement on allocation of resources to activities <input type="checkbox"/> iii. Sourcing of financial resources for programming <input type="checkbox"/> iv. Naming of the lead agency <input type="checkbox"/> v. Achieving the cooperation of all countries <input type="checkbox"/> vi. Other: a. _____ b. _____ c. _____

10.	In the promotion of sustainable waste management, have you encountered or do you foresee any challenges in the following?		
	i. Identifying cost-effective and environmentally sound waste management systems?	<input type="checkbox"/>	
	ii. Exploring and engaging in innovative forms of financing of waste management infrastructure e.g environmental trust funds?	<input type="checkbox"/>	
	iii. Promoting reduction, reuse and recycling of waste and waste management initiatives?	<input type="checkbox"/>	
	iv. Developing projects for SIDS for the use of waste as a resource e.g. for producing energy as a waste management solution?	<input type="checkbox"/>	
	v. Other:		
	a. _____		
	b. _____		
	c. _____		
11.	Have you signed the Oil Spills Protocol to the Cartagena Convention?	Yes	No
		<input type="checkbox"/>	<input type="checkbox"/>
12.	What challenges do you foresee in addressing the transboundary movement of hazardous waste?		
	i. Signing the Basel Convention	<input type="checkbox"/>	
	ii. Implementing the Basel Convention if already signed	<input type="checkbox"/>	
	iii. Agreeing with countries on a regional approach	<input type="checkbox"/>	
	iv. Arriving at consensus with developed countries who use the Caribbean as a trans-shipment point for nuclear waste	<input type="checkbox"/>	
	v. Other:		
	a. _____		
	b. _____		
	c. _____		

(D) Coastal and marine resources

13.	<p>Is implementation of any of the following challenging to your country?</p> <ul style="list-style-type: none"> i. Completion of the delimitation of maritime boundaries <input type="checkbox"/> ii. Preparation and submission of claims to the Continental Shelf Commission by 13 May 2009 under UNCLOS <input type="checkbox"/> iii. Assessment of living and non-living seabed resources within your national jurisdiction <input type="checkbox"/> iv. Establishment of effective monitoring, reporting and enforcement and control of fishing vessels especially as flag States to address unreported and unregulated fishing <input type="checkbox"/> v. Full implementation of surveillance and monitoring systems <input type="checkbox"/> vi. Analysis and assessment of the status of fish stocks <input type="checkbox"/> vii. If not already done, to become party to the following: <ul style="list-style-type: none"> a. UNCLOS <input type="checkbox"/> b. Agreement on Conservation and Management of Straddling and Highly Migratory Fish Stocks <input type="checkbox"/> c. FAO Agreement to promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas <input type="checkbox"/> viii. Establish or enhance the appropriate capabilities to ensure effective compliance with, and implementation and enforcement of international law e.g. vessels flying their flags <input type="checkbox"/> ix. Distant fishing nations providing technical and financial resources to enhance the effective and sustainable management of fisheries resources <input type="checkbox"/>
14.	<p>What do you anticipate as challenges in the establishment of Marine Protected Areas (MPAs)?</p> <ul style="list-style-type: none"> i. Obtaining public buy-in <input type="checkbox"/> ii. Acquisition of appropriate technology <input type="checkbox"/> iii. Acquisition of technical expertise <input type="checkbox"/> iv. Land delineation for the MPA <input type="checkbox"/> v. Lack of a Management Plan <input type="checkbox"/> vi. Human Resource Capacity <input type="checkbox"/> vii. Self-sustainability <input type="checkbox"/> viii. Other: <ul style="list-style-type: none"> a. _____ b. _____ c. _____

15.	As outlined in the Mauritius Strategy are you optimistic that the international community would provide technical and financial resources for the following?	Yes	No
	i. Regional monitoring efforts and Global Ocean Observing Systems	<input type="checkbox"/>	<input type="checkbox"/>
	ii. Intergovernmental Oceanographic Commission marine science programmes that are relevant to SIDS	<input type="checkbox"/>	<input type="checkbox"/>
	iii. Strengthening, if appropriate, of representative networks of MPAs consistent with decision VII/28 of the Conference of Parties (COP) to the Conference on Biological Diversity (CBD)	<input type="checkbox"/>	<input type="checkbox"/>
	iv. Activities to address the impacts of coral bleaching including enhancing and recovery	<input type="checkbox"/>	<input type="checkbox"/>
16.	Are you encountering challenges in fully implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities within the context of the vulnerability of SIDS?		
	i. To apply preventative, precautionary and anticipatory approaches to avoid degradation of the marine environment	<input type="checkbox"/>	
	ii. To ensure prior assessment of activities that may have significant adverse impacts on the marine environment	<input type="checkbox"/>	
	iii. To integrate protection of the marine environment into development policies	<input type="checkbox"/>	
	iv. To develop economic incentives for the application of clean technologies e.g. the “polluter pays” principle to avoid degradation of the marine environment	<input type="checkbox"/>	
	v. To improve the living standards of coastal communities	<input type="checkbox"/>	

(E) Freshwater resources

17.	What challenges do you foresee in meeting the water and sanitation targets of MDG 7, i.e. halving the number of people without access to safe water and sanitation by 2015?		
	i. Access to technical expertise ii. Access to technology iii. Access to financial resources iv. Cultural challenges v. Infrastructural challenges vi. Support from the international community vii. Other:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	a. _____		
	b. _____		
	c. _____		

(F) Land resources

18.	<p>Do you anticipate challenges in the following?</p> <ul style="list-style-type: none"> i. Developing capacity to implement the agreements relevant to sustainable management of land resources <input type="checkbox"/> ii. Developing capacity for sustainable land management e.g. agro-ecosystems, livestock and aquaculture production, traditional land use planning within the context of competition for land from tourism, urbanisation <input type="checkbox"/> iii. Strengthening of land tenure and management systems <input type="checkbox"/> iv. Moving from primary to tertiary agricultural production <input type="checkbox"/> v. Diversifying agriculture sustainably for food security <input type="checkbox"/> vi. Implementation of the UNCCD <input type="checkbox"/> vii. Creating an enabling environment for sustainably enhancing agricultural productivity and promoting food security <input type="checkbox"/> viii. Removing production constraints and building programmes in seed production and integrated pest management systems <input type="checkbox"/> ix. Enhancing food processing, marketing and by-products and quality control <input type="checkbox"/> x. Promoting relevant research and development and the use of appropriate modern technologies <input type="checkbox"/> xi. Promoting sustainable aquaculture <input type="checkbox"/>
19.	<p>With respect to sustainable forest management, have you encountered or do you anticipate challenges in achieving the following?</p> <ul style="list-style-type: none"> i. Developing and strengthening partnerships for sustainable forest management e.g Iwokrama project in Guyana <input type="checkbox"/> ii. Increasing stakeholder participation in all discussions on the development, management and conservation of forest and tree resources <input type="checkbox"/> iii. Ensuring the adherence to national forest policies and legislation to safeguard the intellectual property rights of resource owners <input type="checkbox"/> iv. Increasing awareness, promotion, adoption and enforcement of legislation to ensure that sustainable rotational logging practices and replanting initiatives are implemented <input type="checkbox"/> v. Formulation of policy and legislation for sustainable forest management <input type="checkbox"/> vi. Development of databases and assessment of mineral and aggregate resources <input type="checkbox"/> vii. Evaluation of mineral sector projects, including the use of Environmental Impact Assessments (EIAs), and Social Impact Assessments (SIAs) <input type="checkbox"/>

(G) Energy resources

- | | | |
|-----|---|--------------------------|
| 20. | What challenges do you anticipate in switching to alternative sources of energy? | |
| | i. Comprehensive assessments of energy resources | <input type="checkbox"/> |
| | ii. Current and projected patterns of energy use | <input type="checkbox"/> |
| | iii. Public awareness of alternative sources of energy | <input type="checkbox"/> |
| | iv. Absence of a Regional Energy Policy | <input type="checkbox"/> |
| | v. Lack of technical assistance for assessments of energy needs | <input type="checkbox"/> |
| | vi. Capacity to apply prevailing technology to SIDS | <input type="checkbox"/> |
| | vii. Lack of political will | <input type="checkbox"/> |
| | viii. Lack of a Regional Coordinating Mechanism for development of a Regional Energy Policy | <input type="checkbox"/> |
| | ix. Support for promotion of renewable energy technology by regional banks | <input type="checkbox"/> |
| | x. Lack of support for technology transfer on mutually agreed terms and for capacity building initiatives | <input type="checkbox"/> |

(H) Tourism resources

- | | | |
|-----|---|--------------------------|
| 21. | Have you encountered or do you foresee any challenges in the following? | |
| | i. Monitoring the impacts of tourism development | <input type="checkbox"/> |
| | ii. Assessing the carrying capacity of the environment | <input type="checkbox"/> |
| | iii. Availability of technical and financial support to conduct assessments of carrying capacity | <input type="checkbox"/> |
| | iv. Developing appropriate partnerships to assess technical and financial support for conduct of assessments | <input type="checkbox"/> |
| | v. Implementation of guidelines on biodiversity and tourism as adopted by the COP to the CBD at the 7 th Meeting | <input type="checkbox"/> |
| | vi. Developing sustainable tourism development plans taking into account the views of all stakeholders | <input type="checkbox"/> |
| | vii. Developing community-based initiatives on sustainable tourism | <input type="checkbox"/> |
| | viii. Building capacity of civil society for sustainable tourism | <input type="checkbox"/> |

(I) Biodiversity resources

22. Have you encountered or do you anticipate any challenges in achieving the following?
- i. Integrating biodiversity protection into national sustainable development strategies ☐
 - ii. Building partnerships with stakeholders for conservation and sustainable use of biodiversity resources ☐
 - iii. Addressing island biodiversity under the CBD within the context of climate change and land degradation, considering the uniqueness of the region ☐
 - iv. Implementing the guidelines for the CBD and tourism development ☐
 - v. Establishment of protected areas consistent with international law and based on scientific information ☐
 - vi. Controlling the spread of alien invasive species ☐
 - vii. Developing local capacities for protecting and developing traditional knowledge of indigenous groups taking into account the CBD and the Bonn guidelines ☐
 - viii. Promoting cooperation among SIDS for shared ecosystem management through networking ☐
 - ix. Participation in fora to address intellectual property rights ☐
 - x. Developing human and institutional capacity for research on biodiversity especially taxonomy ☐
 - xi. Supporting the development and implementation of national biosafety frameworks ☐
 - xii. Building community capacity to conserve important species, sites and habitats ☐

(J) Transport and communication

23. What challenges have you met or do you anticipate in improving transport and communication with the region?
- i. Developing viable regional transportation arrangements ☐
 - ii. Eliciting the support of the international community ☐
 - iii. Access to basic telecommunications ☐
 - iv. Maximisation of the full value of liberalisation through economies of scale owing to the small size of the markets ☐
 - v. Access to the use of Information and Communication Technology (ICT) ☐
 - vi. Bridging the digital divide in rural communities ☐
 - vii. Further liberalisation of the telecommunications sector to increase competitiveness ☐
 - viii. Development of adequate national communication regulatory frameworks to support liberalisation ☐

(K) Science and technology

24.	Have you encountered or do you foresee any challenges in achieving the following?	
	i. Incorporating appropriate science and technology elements into national sustainable development strategies	<input type="checkbox"/>
	ii. Support by the international community for science and development	<input type="checkbox"/>
	iii. A review of science and technology activities in relation to environmentally sound technologies	<input type="checkbox"/>
	iv. Reducing environmental risk in the application of science and technology	<input type="checkbox"/>
	v. Reducing environmental risk in the utilization of indigenous technologies	<input type="checkbox"/>
	vi. Establishment of networks to further cooperation and sharing of experiences utilizing national institutions	<input type="checkbox"/>
	vii. Obtaining financial support for establishment of a Spanish-language portal to improve networking	<input type="checkbox"/>

(L) Trade: globalization and trade liberalization

25.	With respect to the impacts of globalisation and trade liberalisation and integrating into the global economy do you anticipate challenges in meeting/addressing the following?	
	i. Accession to the WTO	<input type="checkbox"/>
	ii. Capacity constraints	<input type="checkbox"/>
	iii. Harmonised and coordinated technical assistance	<input type="checkbox"/>
	iv. Sustainably financed technical assistance	<input type="checkbox"/>
	v. Structural handicaps and vulnerabilities of SIDS	<input type="checkbox"/>
	vi. Erosion of preferences	<input type="checkbox"/>
	vii. Structural adjustment programmes	<input type="checkbox"/>
	viii. Relationship between trade, environment & development	<input type="checkbox"/>
	ix. Trade and the relationship with food security	<input type="checkbox"/>
	x. Lack of adequate representation at WTO headquarters	<input type="checkbox"/>

(M) Sustainable capacity development and education for sustainable development

26. Have you experienced any challenges in obtaining technical and/or financial support from the international community in achieving the following?
- i. Institutional strengthening of Ministries of Education ☐
 - ii. Promoting comprehensive and accessible primary education ☐
 - iii. Ensuring gender equality emphasizing reducing illiteracy ☐
 - iv. Promoting technical and vocational skills ☐
 - v. Strengthening distance-learning programmes ☐
 - vi. Integrating national sustainable development strategies and environmental education within the education systems (UNESCO support) ☐
 - vii. Assisting with curriculum development ☐
 - viii. Assisting with teacher training ☐
 - ix. Assisting with development of programmes for people with special needs, particularly children and youth ☐
 - x. Strengthening the training and teaching of the principles and practices of good governance at all levels particularly the protection of human rights ☐
-

(N) Sustainable production and consumption

27. Have you experienced or do you foresee challenges in achieving the following?
- i. Consideration of initiatives relating to sustainable consumption and production considering the three pillars of sustainable development ☐
 - ii. Implementation of the 10-year framework on sustainable consumption and production ☐
 - iii. Assessing the need for programmes on sustainable consumption and production strategies on the basis of national priorities and best practices on sustainable consumption and production ☐
-

(O) National and enabling environments			
28.	Have you formulated national sustainable development strategies as agreed to in the Johannesburg Plan of Implementation?	Yes	No
		<input type="checkbox"/>	<input type="checkbox"/>
29.	If you did formulate such strategies, have you begun implementation?	<input type="checkbox"/>	<input type="checkbox"/>
30.	What challenges did you encounter in formulating and implementing such strategies? <ul style="list-style-type: none"> i. Political commitment <input type="checkbox"/> ii. Coordination of plans from different agencies <input type="checkbox"/> iii. Access to technical expertise <input type="checkbox"/> iv. Access to UN guidelines <input type="checkbox"/> v. Access to financial resources <input type="checkbox"/> vi. Other: <ul style="list-style-type: none"> a. _____ b. _____ c. _____ 		
31.	Do you anticipate any challenges in obtaining support from the international community for achievement of the following: <ul style="list-style-type: none"> i. Mainstreaming guiding principles of sustainable development into nationally-owned poverty reduction strategies and all sectoral policies and strategies <input type="checkbox"/> ii. Developing national targets and indicators for sustainable development (SD) in meeting the MDGs and other global and regional targets <input type="checkbox"/> iii. Improving legal, administrative and institutional structures to develop and implement sustainable development strategies <input type="checkbox"/> iv. Creating and empowering SD task forces to function as interdisciplinary and communally representative advisory bodies <input type="checkbox"/> v. Rationalising legislation that affects SD at the national level <input type="checkbox"/> vi. Improving coordination between legal frameworks and developing guidelines for those who must carry out legislative objectives <input type="checkbox"/> vii. Developing and implementing integrated planning systems and processes <input type="checkbox"/> viii. Involving youth in envisioning sustainable island living <input type="checkbox"/> 		

(P) Health

32. In addressing HIV/AIDs, malaria, tuberculosis, dengue fever and other non-communicable diseases as well as mental health, do you anticipate any challenges in obtaining support from the international community in achieving the following?
- i. Strengthening health management and financing systems ☐
 - ii. Obtaining technical assistance e.g from the Global Fund ☐
 - iii. Making effective pharmaceuticals more available ☐
 - iv. Implementing public policy and prevention programmes ☐
 - v. Developing and implementing effective surveillance initiatives at the local, national and regional levels ☐
 - vi. Facilitating early information sharing on possible outbreaks ☐
 - vii. Preparedness to respond rapidly and effectively to outbreaks ☐
 - viii. Developing modern, flexible public legislation ☐
 - ix. Promoting the development of traditional medicines ☐
 - x. Implementing targeted environmental health programmes e.g waste management, control of air pollution and improved water quality ☐
 - xi. Enhancing data collection on demographic and epidemiological trends ☐

(Q) Knowledge management and information for decision-making

33. Are you experiencing challenges in addressing the following:
- i. Identifying and addressing gaps in data ☐
 - ii. Characterising information related to economic, social, environmental and cultural areas ☐
 - iii. Developing databases, vulnerability indices, Geographic Information Systems (GIS) ☐
 - iv. Establishing national and regional information and database centres that allow for analysis and sharing of data ☐
 - v. Expanding and extending the Partnership in Statistics for Development in the 21st century initiative (see last page) ☐
 - vi. Addressing issues related to cyber-security ☐
 - vii. Establishing land use databases ☐
 - viii. Providing training in, and access to, GIS and remote sensing ☐
 - ix. Strengthening and establishing, if necessary, postgraduate programmes at the regional tertiary level institutions ☐

34.	Has any progress been made in accessing support from the international community in the establishment of a task force to elaborate a resilience index?	Yes	No
		<input type="checkbox"/>	<input type="checkbox"/>

(R) Culture

- | | |
|-----|--|
| 35. | <p>Are any of the following proving to be challenges to your country?</p> <ul style="list-style-type: none"> i. Developing and implementing cultural policies and legislative frameworks to support development of cultural industries e.g in art, music, literary and culinary arts fashion, festival, theatre, film, sports and cultural tourism <input type="checkbox"/> ii. Developing measures to protect the natural, tangible and intangible cultural heritage <input type="checkbox"/> iii. Increasing resources for development and strengthening of national and regional cultural initiatives <input type="checkbox"/> iv. Improving institutional capacity for advocacy and marketing of cultural products and the protection of intellectual property <input type="checkbox"/> v. Seeking venture capital and access to credit for small and medium-sized cultural enterprises e.g through establishment of culture support funds <input type="checkbox"/> |
|-----|--|

For Q 34

Partnership in statistics for development in the 21st century (PARIS21) Web Site



The PARIS21 Web Site at www.paris21.org

Established in November 1999 in response to the UN Economic and Social Council resolution on the goals of the UN Conference on Development, the Partnership in Statistics for Development in the 21st Century (PARIS21) was launched to act as a catalyst for promoting a culture of evidence-based policymaking and monitoring in all countries, and especially in developing countries.

The PARIS21 Consortium is a partnership of policymakers, analysts, and statisticians from all countries of the world who focus on promoting high-quality statistics, making these data meaningful, and designing sound policies. PARIS21's role is to foster more effective dialogue among those who produce development statistics and those who use them, through facilitating international events, country-based activities, regional workshops, and subject-matter task teams.

PARIS21's objective is to encourage all low-income countries to design a National Strategy for the Development of Statistics (NSDS) by 2006 in order to have nationally owned and produced data for all MDG indicators by 2010.

PARIS21 is serviced by a small secretariat hosted by the Development Co-operation Directorate in the Organisation for Economic Cooperation and Development in Paris, France. The work of the Consortium is guided by a steering committee with representatives of developing and transition countries from each region of the world, bilateral donors, and the United Nations, the OECD, the World Bank, the International Monetary Fund, and the European Commission.

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