

FINAL: Strategy Background Report



Policy Review, Synthesis and Gap Analysis

Development of a Land and Marine Management Strategy for Grenada

December, 2011



Submitted by:



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1.0 INTRODUCTION

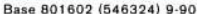
1.1 Project Background

This project involves a study of the policy, institutional, legislative and regulatory framework for land and marine management in Grenada and the preparation of a comprehensive and coherent strategy for land and marine management for Grenada¹ through a participative process with relevant stakeholders.

As clearly articulated in the terms of reference (TOR) for this project, the issues pertaining to land and marine management are invariably interconnected, especially in a small island context (Annex I). Land use practices, the management of forest reserves, freshwater resources and watersheds as well as waste management, all have an impact on the coastline. For Grenada, the challenges of achieving sustained socio-economic development and natural resources management in light of constraints that are both inherent and external are well understood and have been articulated in several national assessment reports. There are many sector strategies, policies and action plans that are currently developed and in various stages of implementation.

What is now required is a clear and coherent strategy which will bind these together within a wider framework, which will draw on the knowledge and aspirations of key stakeholders and the local population more widely, and which will inspire and require action and solutions in support of sustainable land and marine management.

¹ Here Grenada refers to the tri-island state of Grenada, Carriacou and Petit Martinique.



1.2 Objectives and expected results

The overall *objective* is to provide a coherent framework to ensure that national development is environmentally sustainable, while optimizing the contribution of the environment to economic, social and cultural development in the short, medium and long-term.

The *purpose* of this contract is to review the existing framework for land and marine management in Grenada and to develop an appropriate set of strategies to foster the productive and optimal utilization of land, freshwater, coastal and marine resources in an environmentally sustainable manner.

The expected results from the strategy development process are:

1. A mapping of the current policy, legislative, regulatory and institutional framework and capacity for the integrated management of land, freshwater, coastal and the marine resources of Grenada; all related gaps are identified and a comprehensive set of strategic options are presented;
2. A comprehensive land and marine management strategy for Grenada is developed; and
3. A broad-based consultative process for the drafting and finalisation of the proposed strategy is engaged.

This background strategy document presents the first result of the strategy process, that is the mapping and review of framework for land and marine management in Grenada. To meet the expressed objective of the contract, the land and marine management strategy for Grenada must have the following key characteristics:

- a) *Coherence* (A documentation for facilitating strategic governance; as a public policy instrument integrating all key issues of strategic management)
- b) *Strategic* (Integrating scales/level of functional delivery systems; their planning and implementation).

- c) *Comprehensive* (Covering all dimensions of national activity: economic, social, cultural etc).
- d) *Participative* (Involving inputs from all relevant stakeholders and sectors for purposes of buy-in, acceptance, ownership and for guarantee of future applications).
- e) *Internationally Globally Perceptive* (Considers applications, approaches and adaptive models of integrated land and marine management with respect to Small Islands anywhere).

1.3 Methodology of the Review

1.3.1 Review Process

As noted in Section 1.1 above, there are several recent and ongoing initiatives that contribute to this strategy formulation process. Specifically, reviews have been conducted on the institutional framework and capacity for integrated land and marine management resulting in the formulation of sector policies, strategies and management plans. Cognizant of the body of work that exists and initiatives currently being implemented, the approach of this review was to employ a didactic framework of analysis that allows for the identification of areas of convergence, divergence, enabling mechanisms and procedures, constraints and limitations to achieving sustainable land and marine management. The main goal was not to duplicate or conflict with what has already been achieved rather to build and reinforce so that the outputs of the strategy process contributes to meeting overall national sustainable development objectives. For this purpose the driving pressure state impact response (DPSIR) framework of analysis was utilized to map the current situation, identify gaps and present strategic options or policy responses. Section II of this background document provides more details on the DPSIR framework of analysis and key concepts utilized in the review process.

The review process involved three key steps as summarized in the process diagram below:

1. Data collection and review of existing documents (laws and regulations, policies, projects, programs, management plans, proposals, strategies)
2. Consultations with key stakeholders and management agencies at the fore of land and marine management to refine the outcomes of the review process (discuss gap analysis and strategic options for intervention)
3. Finalize background strategy document and key priority issues for the development of the national land and marine management strategy for Grenada.

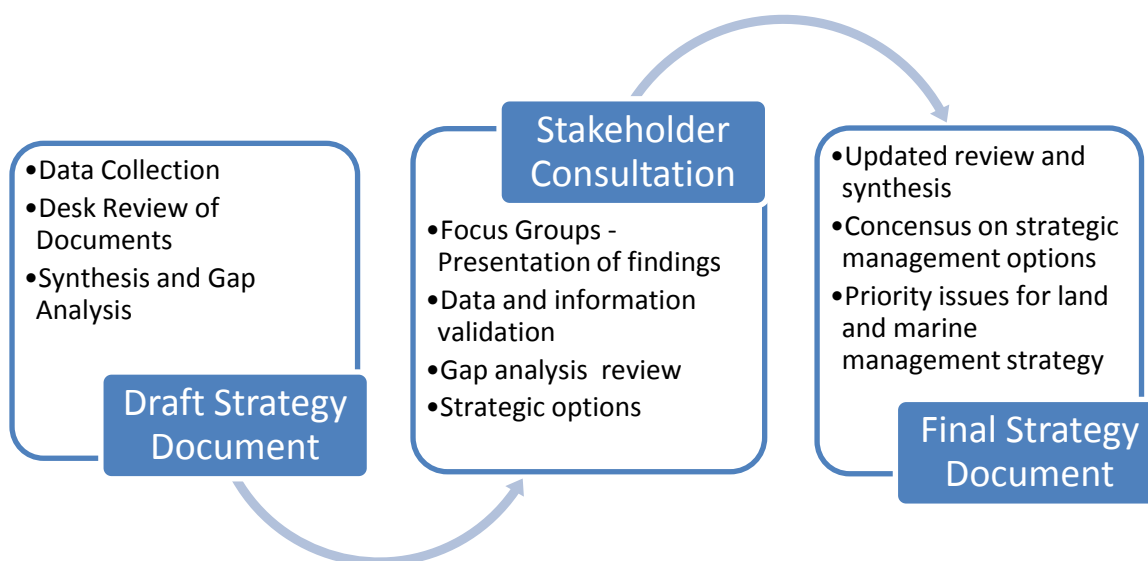


Figure 1.3 Review Process for Identification of Priority Areas for Action

1.3.2 Scope of Work

Our overall approach is informed by many years of experience in developing land and marine management strategies in Grenada and throughout the world. Based on our knowledge of the enabling mechanisms and constraints that affect the effective implementation of existing national strategies, it is our view that in this particular case a successful strategy will need to be:

- Founded on high quality information about the nature of land and marine resources, their actual and potential uses and values, and the various people or institutions that affect them, manage them, benefit from or are affected by them (*resource assessment; stakeholder analysis*).
- Informed by practical understanding of the formal and informal decision making processes which affect land and marine management (*institutional and decision analysis*)
- Informed by a practical understanding of the social and economic drivers, and practical constraints, which affect these decision making processes (*social and economic analysis; consultation*)
- Able to address issues of cumulative impact – of many small scale pressures/activities steadily accumulating their effects through time (*environmental capacity analysis*)
- Informed by high quality and concise analysis and communication of these issues (*reporting, presenting, facilitation, listening*) by engaging stakeholders
- Compatible with, and where possible building on/rationalising/integrating existing national policies and plans, and national and international agreements
- Innovative but realistic
- Driven by clear vision and outcomes with timeframes; supported by all key stakeholders
- Implemented through clear but adaptive mechanisms broadly supported by key stakeholders
- Concise, accessible and inspiring

1.3.3 Key issues for Consideration

We recognize and accommodate issues raised in the country background (provided in the TOR) for special attention:

- (i) Land /sea access, use, ownership.
- (ii) Social and economic drivers of land and marine resource use.
- (iii) Environmental management for vulnerabilities and resilience.
- (iv) Dependency of rural people on the sustainability of natural resources.
- (v) Marine management strategy accommodating recent strategy documents, and new policy measures currently being implemented.
- (vi) Recognition of the change-of-use of land/sea resources and the place of integrated planning for utilities infrastructure.
- (vii) Recognition of capacity-building measures and action plans for supporting the strategy.
- (vii) Planning for the potential outcomes of the Trinidad/Tobago–Grenada Marine Boundaries delimitation Treaty to be done in the context of
 - a. Exploitation of petroleum resources;
 - b. Exploitation of Fisheries resources; and
 - c. Environmental protection/conservation measures related to each and both.
- (viii) Recognition of the decreasing role of traditional agriculture as key livelihood option and the increasing role of the coastal zone and Tourism as having an increasing potential for livelihood and economy.
- (ix) The need for reconciliation/convergence of sector and integrated management so that the strategy is options-based rather than prescription-based. The strategy should therefore highlight mechanisms that make use of functional co-operation (local) among sectors using approaches such as highlighting *agency duties* of government entities with intersectoral dependencies; the strategy as a public policy document.
- (x) An integrated monitoring and evaluation framework as a key dimension to the strategy and that is stakeholder-friendly and having greatest ease of participative compliance (especially by the public sector).

1.4 Past Initiatives that contribute to the strategy

With respect to land management, a number of past initiatives should contribute to the strategy such as:

- Forestry and wildlife management strategy and action plan. (2000)

- The physical development plan (2000)
- The watershed management initiative (1980's)
- The Sea Ports expansion plan
- Recent sustainable land management initiatives e.g., Capacity building and mainstreaming of sustainable land management project; among others.

Land management issues should also recognise the two major categories of land ownership, public (crown lands) and private ownership and the resultant sets of issues.

With respect to marine management, the strategy should also consider:

- The biodiversity strategy and action plan;
- Developments in the yachting sector including the developments at a number of small natural harbours along the coast;
- The strategy must also address geo-political constraints to the sustainable exploitation within Grenada's EEZ (including deep sea fishing, oil-gas exploration, tourism etc.). For instance, Grenada shares the Grenadines, an internationally recognised haven for yachting, with neighbouring St. Vincent in the sister islands of Carriacou and Petit Martinique.
- Near-to-shore and off-shore zone management initiatives requiring shared administration by Fisheries, Sea-ports Authority, Customs, Coast Guard etc.

During the inception workshop for this strategy formulation process, stakeholders expressed concern on the potential for duplication of efforts and overlap between the ongoing sustainable land management (SLM) initiatives and this land management strategy. The chair of the steering committee for this project is also the chair for the SLM project and clarity was provided on the role of the latter. This strategy is seen as an added tool to ensure SLM can be achieved. A concept paper is presently being drafted under the SLM project that is intended to provide justification for having a land use policy for Grenada. The SLM project has clearly identified the main causes of poor land management in Grenada as well as issues that need to be addressed. This project will come to an end in June 2012.

1.5 New Initiatives that will contribute to the strategy

From discussions during the meeting with the steering committee and the inception workshop it was revealed that there are several other initiatives either underway or planned for implementation during the course of this project, which will have synergies and compliment the strategy formulation process. Among them are:

- St. John's Watershed Management Project - a watershed management plan will be developed as part of this initiative. Although one of the objectives of the project is to reduce the negative impact of land based pollution on the marine environment, it does not address the sewerage marine outfall in the St. George's Bay.
- Development of a national land management Agency - this world bank project is coordinated through the Prime Minister's Ministry and details have yet to be disseminated. It involves the bringing together of the cadastral unit, lands and survey department, lands registry and physical planning unit to create a seamless land database and management
- Land Degradation Assessment (LADA) Project - funded by FAO, this project is scheduled to be launched June 17th 2011 and is implemented by the Ministry of Agriculture. One of the likely outputs of the project will be a spatial mapping of land degradation sites in terms of physical, chemical and biological factors.
- Land Bank Project - funded by the FAO; this project is carded for implementation in third quarter of 2011. Preliminary discussions on the framework for implementation of this project include lease arrangements between private land owners and users; land acquisition by GOG where deemed necessary. The main objective is to bring abandoned land into productive use buying creating a formal institutional arrangement which also protects land ownership.
- EU/ACP Fish II Policy - Key objectives include development of a fisheries policy, conch survey, and training for fishermen to increase the economic viability of

their business. It is expected that this project will be launched within the duration of the strategy formulation process

- OPAAL System Plan for Land and Marine Protected Areas - this recently concluded project was undertaken through the Forestry Division. Output reports, management plans and project documents will be provided for sharing with this project National Implementation Support Partnership - this initiative is coordinated by The Nature Conservancy (TNC) who have signed an memorandum of understanding (MOU) with the Government of Grenada (GOG), to provide assistance with the implementation of a number of the international environmental agreements that GOG is signatory to.
- Ecosystem Valuation and Willingness to Pay Study - coordinated by the Forestry Department, this is an ongoing project being done for selected watersheds and protected areas.

1.6 Key issues, enabling factors and constraints

- In review of the terms of reference, present initiatives and work done so far, it was noted that several of the key stakeholders that are targeted to participate in the formulation of the land and marine management strategy are also involved in other initiatives that are concurrent. This will undoubtedly contribute to stakeholder fatigue, and every effort will be made that there are not conflicts with dates for consultations.
- There is dire need for information management as there is no single repository for government documents, policies, project outcomes etc. It seems that most information, especially electronic data, are contained in private collections making data collection difficult.
- The range of projects has resulted in increased awareness of the need for effective management of Grenada's limited land, freshwater, coastal and marine resources, thus making it easier to have buy in for this strategy formulation process.

- The chair of the steering committee for this project also serves as the chair for several complimentary initiatives. This will ensure data sharing and reduce the likelihood for duplication of efforts.
- The formation of a Steering Committee by the Ministry of Agriculture serves as a useful step in ensuring that the strategy formulation process is participatory and there is approval of the consultants work before adoption by stakeholders. Also the steering committee represents department heads and key frontline individuals who will be responsible for implementation of the strategy. They will be benefit from the learning and knowledge transfer that is expected from the workshops and the entire process.

2.0 CONTEXT - KEY CONCEPTS AND ANALYSIS TOOLS

2.1 DPSIR Framework of Analysis

The DPSIR framework of analysis is an auditing tool that is widely used to scope the complications involved in analyzing integrated watershed management, coastal change and natural resources management. "It is a way of identifying the key issues, questions, data/information availability, land use patterns, proposed developments, existing institutional frameworks, timing and spatial considerations" that are required for an integrated assessment of co-evolutionary bio/geophysical and socio-economic process and allow for a better understanding of complex phenomena" (Turner et al as cited in Jessamy, 2003)

There are four key aspects to the framework of analysis (Figure 2.1):

1. The biosphere (bio/geophysical and atmospheric systems) is linked to the political economy (human-use/market systems) through feedback effects from the flow of ecosystem goods and services and the impacts of human activities on ecological systems, which can be analyzed via the principles of ecological economics. In the context of integrated land and marine management in Grenada, examination of the political economy will lead to positions on the driving forces that contribute to the social construction and present situation of resource utilization or social and economic distribution of resources. Human actions modify the environment, and coupled with physical factors account for environmental pressures that lead to physical and ecological vulnerability.
2. An assessment of physical, ecological, social and economic factors for a particular place at any point in time provides an understanding of the state of environmental degradation, resource flows and ability to cope with changing variables especially those due to external shocks. External shocks may be natural hazards, global climate change and global economic trends. Mitigation measures serve to alter and

- should improve the status of resources and have effects on system functions but not likely on structure. That is these prescriptions may address symptoms but not the root causes of land and natural resource degradation, social and economic change. A policy response therefore may affect the status of a natural resource but not affect any changes to the political economy and the drivers and pressures.
3. Impacts of internal decision taking, external shocks and mitigation measures may be direct or indirect. Direct impacts include physical damage to the built environment and ecosystems and loss of life. Indirect impacts are largely associated with changes in flow of goods and services, so that communities far removed from the impact zone may be affected. For instance the decision to locate a tourism development project in a coastal area may have private benefits for the developer and the national economy but negatively affect resource users from surrounding communities who traditionally relied on the marine resources for sustainable livelihood. Consequently responses are a function of the scale and type of impacts. Responses may lead to secondary impacts if the choice of resource use and management options prove inadequate.
 4. Policy Responses can be grouped as mitigation (short term) or adaptation (long term) depending on whether they affect the value and quality of natural resources (functioning of systems) or drivers and pressures (structure of the political economy). The ability to respond and the selection of response measures are influenced by a combination of interrelated factors. These factors which operate at the level of the decision-making unit, whether individual, managerial or organizational, include: perception, interaction of formal and informal institutions and organizations, levels of community integration and availability of resources.

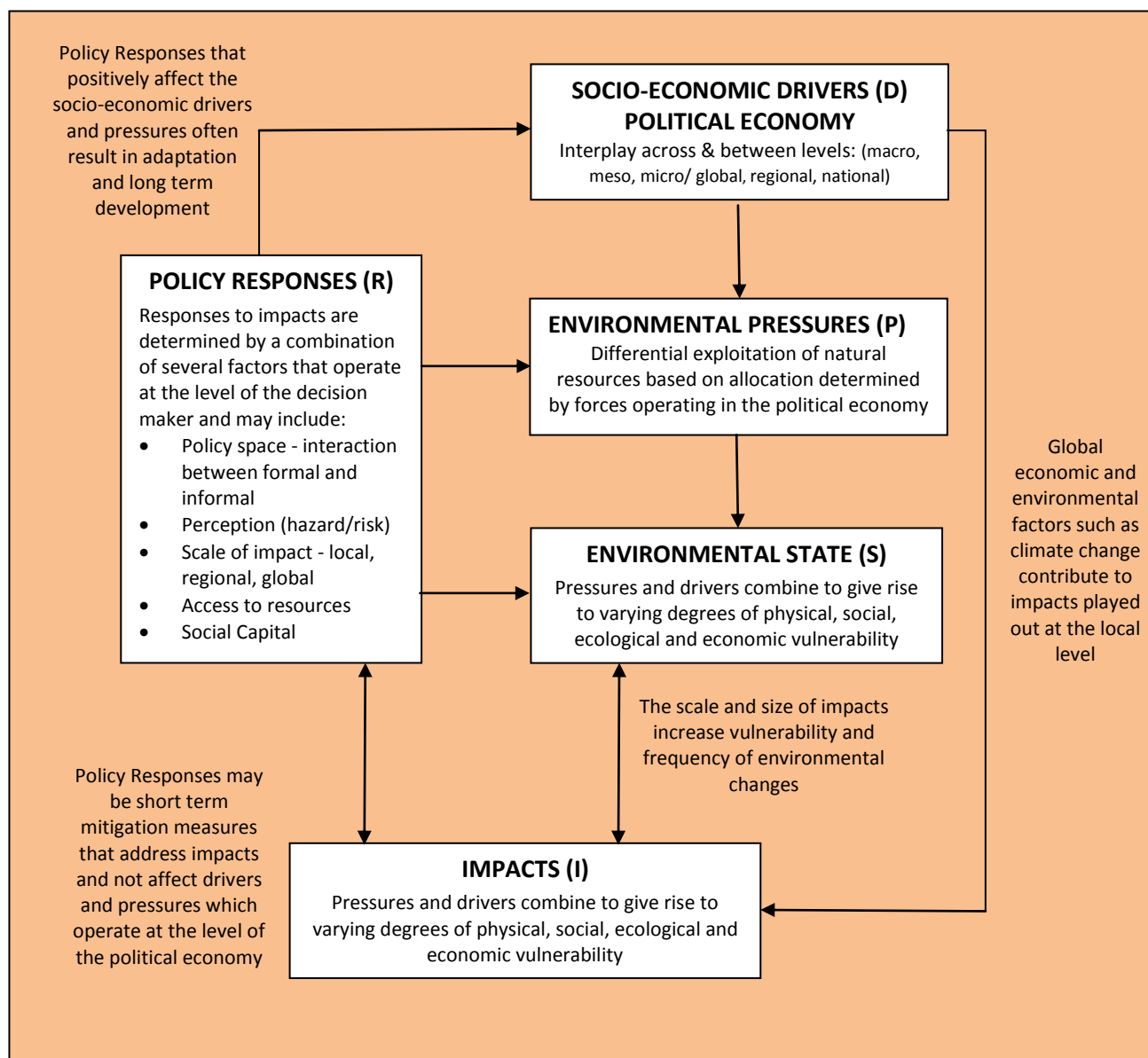


Figure 1-1 Driving Pressure State Impact Response (DPSIR) Framework of Analysis (modified from Jessamy, 2003)

For instance, interviews with local resource users in a coastal community revealed the perception that fisheries and environmental resources are limitless and naturally replenish (Jessamy, 2003). This perception is reinforced by the informal policy that all coastal resources are common property. Management options to manage coastal resources must therefore account for these factors to ensure success in implementation.

The underlying assumption is made that the selection of a mitigation or adaptation measure must be taken. In actual decision-making the outcome of the deliberative process of evaluating situations, weighing options and setting priorities, may be not to take any action at all. The failure to implement an option may be an adaptive strategy especially in cases where there is high uncertainty. However, the precautionary principle and the notion of safe minimum standards at acceptable costs tend to favor current policy response and management approaches (Jessamy, 2003).

2.2 Levels of Analysis

Since many of the drivers, pressures and policy responses are influenced by the global and regional political economy, the review and analysis of the current situation for land and marine management in Grenada must be conducted across several levels. National policies and programs of action are influenced by international conventions and multi-lateral environmental agreements. The ability to translate global, regional and national policies all the way through to the community and individual level where actual resource utilization takes place explains the ongoing challenge for achieving sustainable development (Figure 2.2). Often local communities are far removed from the decision making process and policies are not complementary to traditional norms and practices.

The challenge of meeting international commitments while at the same time addressing local resource capacity constraints, socio-economic development needs and cultural imperatives, requires that any analysis is done across all levels of influence.

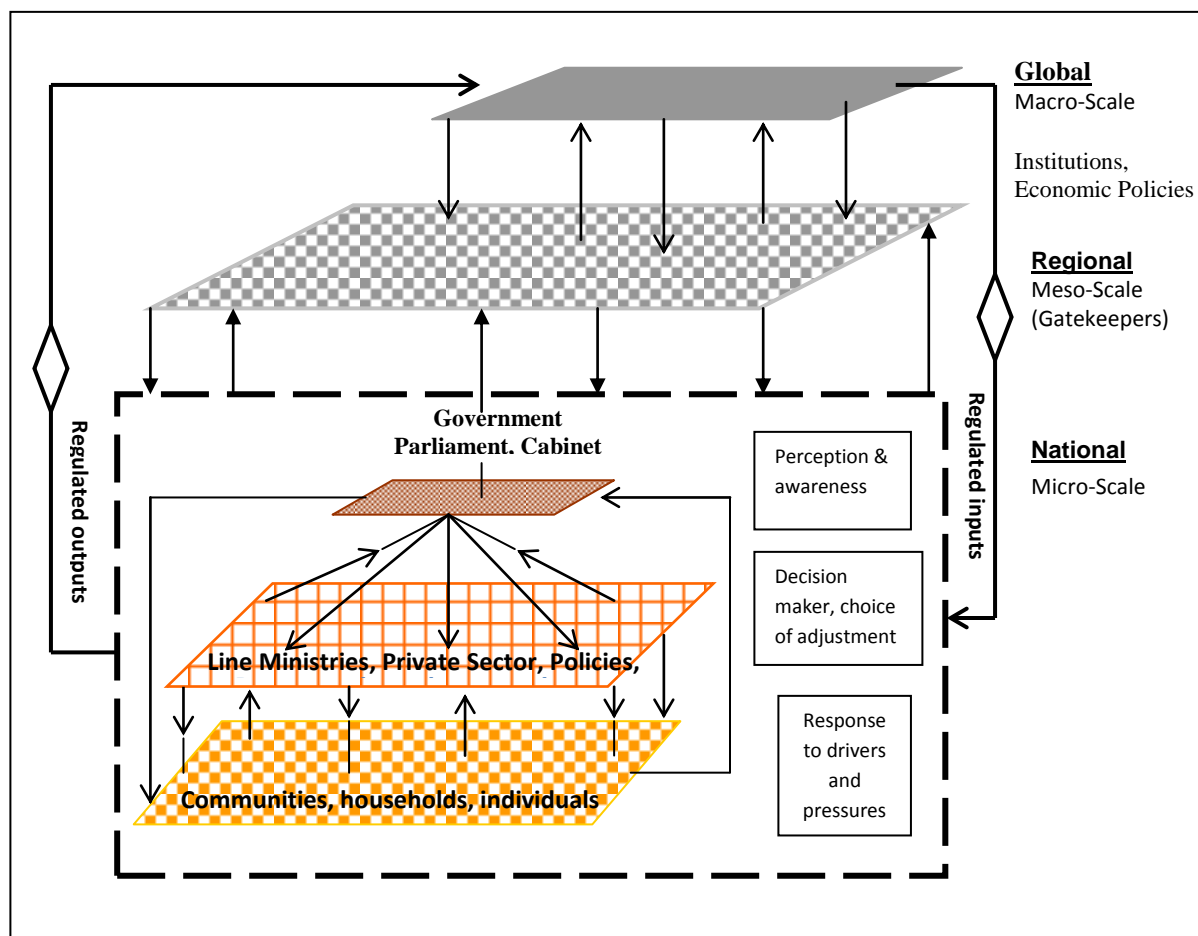


Figure 2.2 Levels of Analysis and Interactions (Jessamy, 2003)

2.3 Interaction of Formal and Informal policies

There is a historical vector to the social context as exemplified by present circumstances, which were set by repetitive patterns over time. As such customary norms and traditional practices often dominate individual options and decision making in the absence of rules, codes of practice and guidelines for land and marine resource management. The role that social, institutional and political factors play in determining resource use and adoption of best management practices is paramount.

Emphasis is also placed at the community level to further understand the role of societal forces in shaping response, and vice versa, the degree of influence that individual perceptions may have in directing outcomes at the macro-level. The position presented

by Jessamy (2003, 2005, 2006) states that the interaction of formal and informal institutions and organizations often leads to conflict situations and poor governance (Figure 2.3).

Institutions Organizations	FORMAL	INFORMAL
	FORMAL	INFORMAL
FORMAL	Traditional space for development planning and undertaking reform	Propensity for conflicts and poor governance
INFORMAL	Propensity for conflicts and poor governance	Self-regulating "traditional" systems

Figure 2.3 Interaction of Formal and Informal Policy Spaces (Jessamy, 2003)

Informal institutions and organizations predominate at the micro-level, the policy space referred to as social capital. Current approaches to development planning postulate that social capital must be integrated into strategies to ensure sustainability (OECD, 2001). Yet there are no precedents and mechanisms for bringing about this paradigm shift, which may only seek to make the informal become formal.

How can this lead to the policy space for development planning and undertaking reform? A typical example of poor land management due to interaction of formal and informal institutions can be found in a review of the way housing development occurs in Grenada. While it is a requirement to obtain a development permit to construct a private residence, there are no guidelines for land preparation, clearing of vegetation, storm and wastewater management. As such lands are cleared of all vegetation and there are no conservation requirements to save or protect endangered species or special habitat/food for wildlife on private lands. Likewise there are no requirements for soil stockpiling and conservation, reduction of storm-water runoff and control of grey wastewater discharge. The development permit process is narrowly concerned with the design and structural integrity of the building for hurricanes and natural hazards.

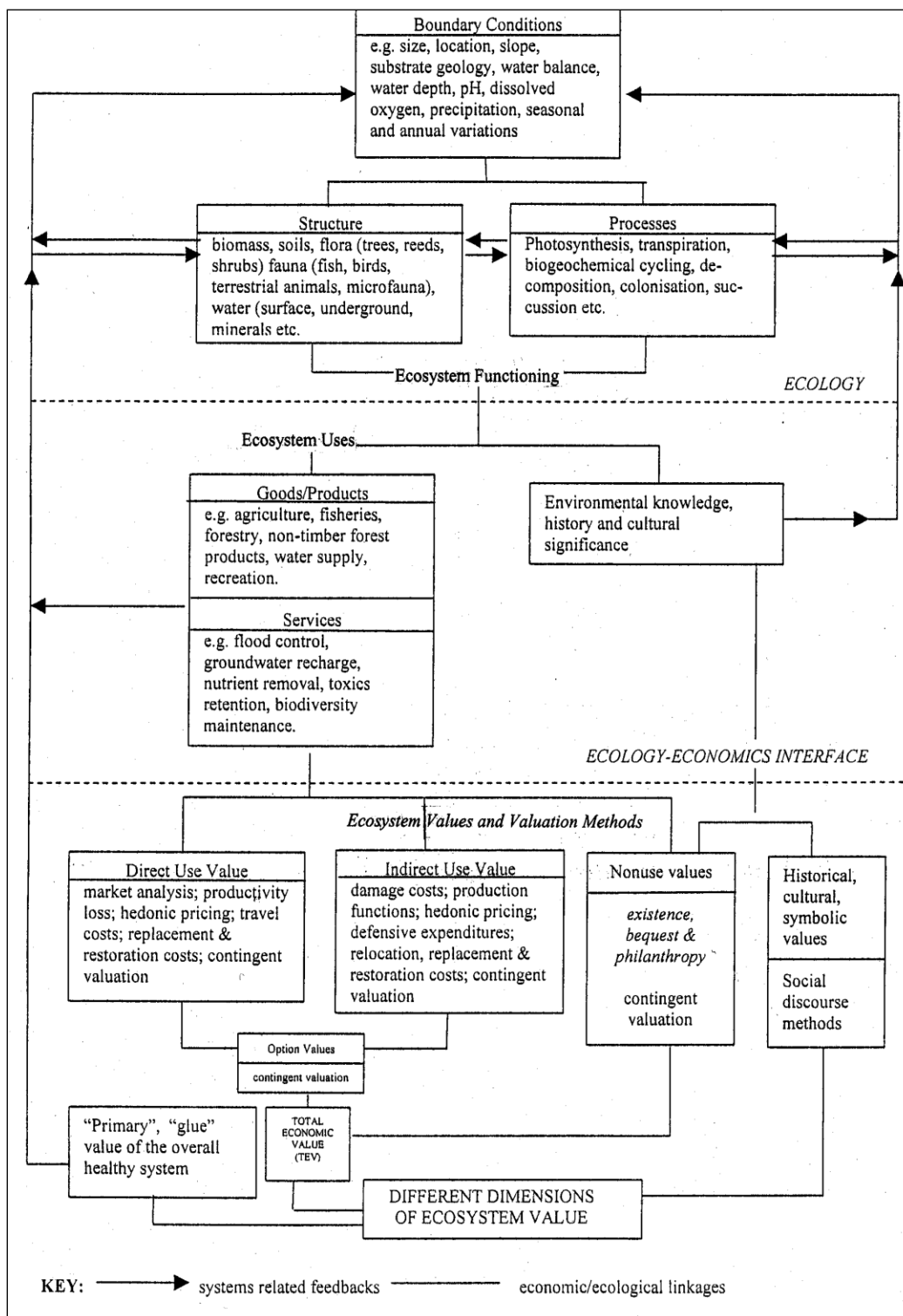
2.4 Natural Resource Economics

Information on the natural resource base, (quantity, quality, availability, sensitivity) is critical for the design of sustainable management strategies. For Grenada there is generally good data and maps for land and marine resources. However there is limited economic valuation data to link resource utilization with management options. Further the quality and sensitivity of ecosystems is required to determine best management practices. Under varying degradation profiles and management regimes, the flow of goods and services from ecosystems will differ. Thus intact ecosystems have higher system value and provide a wider range of goods and services. The goal of any management regime is to maintain high ecosystem value so that the natural regenerative functions are retained

The functioning of systems are governed by basic laws, an understanding which is essential for designing management plans and best practices for achieving environmental sustainability. Human-ecological systems are open systems, linked together by a series of process-response subsystems. The outputs from one subsystem become the input of another so that the throughput of mass and energy results in equilibrium. Exchanges of material and energy between systems also influence the nature, timing, and severity of hazardous events. For example construction of a road, or deforestation of upstream areas will have a major influence on the flood hazard of that watershed.

The production of ecosystem goods and services are determined by the system structure and processes, so that its functioning will change if one of the system variables is altered. As shown in the Figure 2.4, the output of ecosystems feeds into the human-use system so that human welfare is affected. For ecosystems, a limiting factor may be soil moisture, which can be reduced through drainage or improved by irrigation, whereas buffering capacity may be characteristics such as species diversity, storage capacity and cycling rates of nutrients.

Figure 2.4 Ecosystem Functioning, Uses and Values (Adapted from Turner et al , 2003)



Thresholds can be altered (increased or reduced) due to human intervention, for example removal of mangrove forests, damming of rivers, destruction of coral reefs, deforestation of watersheds, change in slope hydrology and stability, or through structural engineered mitigation measures as sea defence walls, and flood control levees.

The distributional gradient of thresholds across landscapes result in differential hazard vulnerability/resistance and ranges in the severity of impacts on human and ecological systems from the same event. Consequently, response and recovery is not equitable across geographic regions, and further compounded by differences in social, economic and political factors. As such management strategies cannot be general but rather specific to suit the particular features of a region. A watershed management approach must therefore be employed and regional plans developed for hot spots and highly vulnerable areas. A systems approach therefore shifts the burden of cause from purely natural processes or human forces to the co-evolutionary and dynamic relationship between human and bio/geophysical systems, and the concurrent presence of human activities and natural events (Turner, 2000)

2.5 Integrated Watershed Coastal Zone Management

The catchment-coast continuum requires that integrated approaches are adopted to manage the dynamic and co-evolutionary processes of human interaction and natural systems. Increasingly land resources are under pressure from multiple uses the outputs of which lead to pressures on water resources and the coastal zone. For small islands such as Grenada, the principles of integrated watershed and coastal zone management require that management strategies are applied across the entire continuum from "ridge to reef". Sometimes referred to as Island Systems Management, the underlying principle is based on the reality that the ecotonal boundaries and gradients between terrestrial and marine systems is relatively short and impacts on the land manifest themselves in the coastal zone within short timeframes. This concept reinforces the approach adopted in this strategy formulation process and ensures that an integrated land and marine management strategy is developed for Grenada.

3.0 RESULTS OF SITUATIONAL ANALYSIS

Several recent reports provide a concise account of the current situation with regard the organizational arrangements for land and marine management, legislation and their gaps, capacity constraints and recommendations to address limitations.

To avoid duplication, this situational analysis builds on previous work and highlights only the salient factors that answers the mandate of this project to develop a coherent framework for integrated land, freshwater, coastal and marine management.

Box 3-1

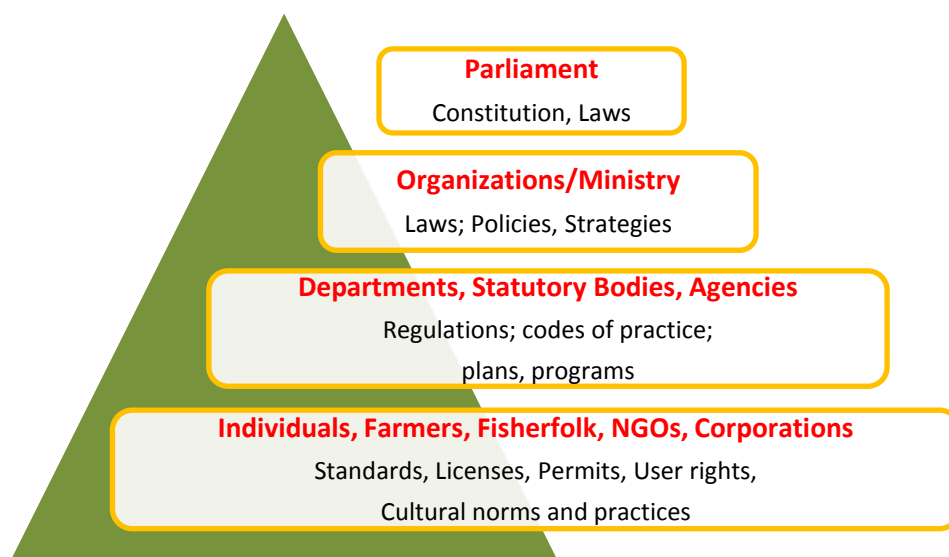
Key Documents, Reviews and Assessment Reports for Land and Marine Management in Grenada (partial list)

- Sector Report - Coastal and Marine Resources , National Biodiversity Strategy and Action Plan (Finlay, 2000)
- Sector Report - Land Use and Environmental Planning, National biodiversity Strategy and Action Plan (Jessamy, 2000)
- National Capacity Self Assessment for Land Degradation in Grenada (Jessamy, 2006)
- Final Document - Grenada Capacity Development and Mainstreaming Sustainable Land Management Proposal Submitted to Ministry of Finance (Jessamy, 2006)
- Fisheries Management Plan for Grenada (Finlay, 2005)
- Grenada Protected Area System Plan: Identification and Designation of Protected Areas (Turner, 2009)
- Review and Interpretation of Environmental and Sustainable Development Legislation for the Grenadines Islands (Mattai and Mahon, 2006)
- Socio-economic profile of fisheries in the Grenadines (Gill et al 2007)
- Review of Policy, Legislative and Institutional Framework for SLM in Grenada (ESL, 2010)
- Marine Protected Area (MPA) Planning for Carriacou and Petit Martinique (CCA, 2003)

3.1 Political, Socio Economic Drivers and Environmental Pressures

The legal definition for land, according to the Laws of Grenada "means incorporeal as well as corporeal hereditaments of every tenure or description, and any interest therein, and also an undivided share in land, and includes land covered with water and land underlying the sea surrounding the coast within the limits of the territorial waters of Grenada" This means that several of the laws that deal with land management issues also speak to the marine space except where it is clearly specified otherwise.

From the analysis of relevant laws, regulations, policies, plans and programs, it is apparent that the institutional framework for Land and Marine Management in Grenada is well developed and what is needed are the tools and resources for implementation (regulations, standards, codes of practice, permits etc, technical/financial/human capital). Here institutions must not be interchangeable used to mean organizations. Consistent with public administration and policy theory, institutions include organizations, individuals, corporations and the laws, regulations, cultural norms and practices that govern their behavior. The main elements of an institutional framework for Grenada are simplified in Figure 3-2 below:



Past studies have focused mainly on the limitations of the existing institutional framework and while there are real constraints that must be resolved, very little attention is given to what works or is already in place and needs to be implemented.

The key organization involved in Land and Marine Management is the Ministry of Agriculture and consequently this ministry is the contracting authority for the administration of this project. The Ministry of Agriculture functions as a network administrator organization (NAO), with several departments responsible for management of natural resources. Other organizations in the network that must coordinate their legal functions and management responsibilities with the Ministry of Agriculture as it relates to Land and Marine Management are the Ministry of Communication and Works (Physical Planning Unit; Gravel and Concrete Corporation), Ministry of Environment, Ministry of Finance (Grenada Ports Authority; Grenada Industrial Development Corporation; Valuations/Cadastral Unit), Ministry of Housing/Community Development (Lands and Survey Department) Ministry of Legal Affairs, Ministry of Education (TAMCC/Mirabeau Farm School)

Historically, the Physical Planning Unit (PPU) was a department of the Ministry of Agriculture and was relocated to the Ministry of Finance as part of reorganization of duties of Ministers of Government. In 2008 the PPU was relocated to the Ministry of

Communications and Works for the same reason. Likewise, the Lands and Survey department was relocated to the Ministry of Housing and Community Development as part of the reorganization of the duties of the Minister.

At the local level, management of Grenada's land and marine resources is largely influenced by the interplay

Objects of the Physical Planning and Land Development Control Act 25 of 2002

- a) ensure that appropriate and sustainable use is made of all publicly-owned and privately-owned land in Grenada in the public interest
- b) maintain and improve the quality of the physical environment in Grenada, including its amenity;
- c) provide for the orderly subdivision of land and the provision of infrastructure and services in relation thereto;
- d) maintain and improve the standard of building construction so as to secure human health and safety;
- e) protect and conserve the natural and cultural heritage of Grenada.

between formal and informal policy spaces determined by land ownership, de facto and de jure user rights to common property resources and traditional/cultural norms of resource utilization.

With the exception of forest reserves, a few agricultural estates that were part of the model farm system and state owned compounds, the majority of land in Grenada is privately owned. Traditionally, state lands are perceived to be de facto common property resources and as such subject to squatting for both residential and agricultural purposes. State land has been leased in several cases for commercial farming and other industrial activities. Freshwater resources, with the exception of rivers and springs developed by the National Water and Sewerage Authority (NAWASA), are also considered common property resources. A similar situation applies for coastal and marine resources and only commercial fishermen have permits for resource use. Marinas have water rights or leases for specific demarcated spaces to conduct their operation.

Grenada's existing institutional, law and policy framework for Marine resource conservation and management could be seen as response to a number of drivers or imperatives, some international or external and others local. The main external drivers appear to be a series of Intergovernmental/International Conventions and Protocols that have been responded to with a multiplicity of legal, economic and socio-cultural spaces regimes and jurisdictions accommodated at the local level. These International Conventions² and Protocols express themselves in local legislation (Acts, regulations and

² The most significant among the International Conventions that impacted and is expected to continue to impact sustainable Marine development in Grenada is UNCLOS III (1982); it is largely a consolidation of provisions within numerous previous sea-related Conventions/Protocols, but where the 3-dimensional space issue is highlighted. Other conventions shown to directly share Marine manage provisions in Grenada law include: Convention on the Prevention of Marine Pollution by Dumping of wastes and other matter (1972); The "Basel" Convention on Control of Trans-boundary Movements of Hazardous wastes and their disposal (1989); the International Convention for the Prevention of Pollution from Ships, MARPOL (1973), Grenada did not sign /ratify MARPOL but has lately acceded to it, it was a concern held that obligations for stowage of ship-based wastes at the local port could be onerous. Another Regional/International Convention of note was: Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (1986), also called the Cartagena Convention; the Convention on Biodiversity (1992); United Nations Framework Convention on Climate Change (); Convention on Persistent Organic Pollutants (); Convention to Combat Desertification. These last four are now of special focus in the UN Global Environmental facility Program, the purpose being

other legal instruments) and supported by enabling institutions, some of them robust, others less effective. The local drivers on the other hand were those imperatives of necessity associated with self-determination as political and community-based independence and expressing themselves in traditional practices (extra-legal), community-based “rules-in-use” highlighted mostly in the way that local people utilized resources for livelihood purpose. Some of the local imperatives associate with less informal local investments and developments. In current times developers and investors, supported in most cases joint ventures having foreign direct investment financing, use more formal systems for meeting development needs. The Public policy response must therefore be for planning enhanced marine resource conservation and management with the goal of sustainable development (Brutland Perspective). Other Conventions and Protocols, as drivers and shown to demonstrate local impact/response relate to oil, chemical and other polluting wastes as these include: The Dumping Convention (1927) and the three protocols of the Cartagena Convention; Co-operation in combating oil spills in the wider Caribbean (1983); the SPAW (protected areas and wildlife (1990) and MARPOL for combating land-based sources of marine pollution .

Uniquely the most significant Maritime Management Authority at this time is the Grenada Ports Authority, authorized by Act and regulations in the Grenada Ports Authority Act, Cap 247, 1990. The Ports (sea ports) Authority has considerable institutional responsibilities and rule-making powers, but at designated sea ports. The pattern of responses to International Conventions, whether currently in force or not yet in force has been to load on to agencies especially the Ports Authority, the responsibility for administering local Acts and regulations; the Shipping Act #47(1994), again administered by the Grenada Ports Authority is a case in point. Other responses are

to give developing countries the capacity to implement through enabling resources for Management compliance control strategies and measures.

shown with respect to oil damage contingency. Local Acts such as: Petroleum and Natural gas Deposits Act, Cap 240(1990) administered by Ministry of Finance, Civil Liability for Oil Pollution Damage (International. Conv.) Act #7, 1998; Civil Procedure Act Cap 55, 1990; Oil in Navigable Waters Act, Cap 218, 1990; Oil Pollution Compensation Damage (Int'l Conv.) Act #6, 1998.

Even prior to the coming into force of the UNCLOS III Treaty, Grenada enacted Acts #17 and #20 as UNCLOS-based responses. With respect to land as being terrestrial and Marine land, current law and administration in Grenada maintains public property as Crown Lands; this includes certain conditions-based custodial property rights at Territorial Sea and Exclusive Economic Zone (EEZ); Government also having considerable powers over land acquisition/ relinquishment through longstanding laws such as the Land Acquisition Act #25, 1996 (Partial abandonment); the principal Land Acquisition Ordinance / Act Cap 159, 1990; and the Crown Lands Ordinance, Cap 73, 1990 and with the Lands Settlements Act Cap 161, 1990. Other legal instruments such as Civil Procedures are also able to provide capacity to manage land. The recent Physical Planning Development Control Act #25, 2002 is consolidation of less recent Acts such as Town and Country and Land Development Control Acts.

The above-mentioned Acts give Government powers to privatize (mostly by lease) public lands especially in the case of Marine-Terrestrial lands (such as lands leased by beach Hotels at Grand Anse) and Berthings at Marinas; powers also to make public, private land for public purpose. The illustration of such cases will be made with case studies that are part of this report.

The response of a number of Marine vested interests driven by the need to capture investment opportunity within the Marine Sector is indicated in documented plans and proposals ³that they hope will form part of public policy.

3.2 Resource Use Trends for Land and Marine Management

In the context of sustainable utilization of environmental assets for generating environmental goods and services, Government within the last few years have adopted a strategy that responds to a number of economic challenges, by identifying five sectors as transformational responses to challenges that now exist. This response recognizes the diminishing value of “land-based” resources especially Agriculture versus an increasing interest in the value of Marine based resources as current and potential sources of Gross Domestic Product (GDP) and economic activity; Government explicitly considers the inherited pillars of the economy as Agricultural and Tourism to be transformed into a five-pillar economy that includes: (1) Health Education and Wellness Services; (II) Tourism and Hospitality Services; (III) Agri-business; (IV) Energy Development and; (V) Information Communication Technology (ICT) [Budget speeches 2010/2012]. For supporting this transformation a number of measures have been adopted and include: Grenada Transformation Fund and the ongoing Private Investment Facilitation Strategy of the IDC, see www.grenadaidc.com at E-services and at www.gov.gd.

Tourism as mostly Marine-based and a Sea Coast located industry would be identified with the second transformational sector. The so-called “rural to urban drift” is mostly a movement of people from land based livelihoods to those that are coastal and marine. ⁴

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- ³ Grand Anse Beach and Sea Use Management Plan (2001)
 - Grenada Community-Based Natural Heritage Tourism Project: a strategy for Carriacou/Petite Martinique and Gouyave.
 - Grenada Marine and Yachting strategy and Action Plan (2010-2012); a private sector proposal.
 - Marine Protected Areas Program (Partly implemented) as part of a Protected Areas Program.

The profile on approved incentives-based investments over the last 4-5 years is accessible at Grenada Industrial Development Co-operation's website: www.grenadaidc.com. For the year 2009 at least, it is shown that there might be 13 of 56 (23%) of the awards having been for Marine Tourism projects. In recent times there have been increased emphasis on the promotion of Yachting as a key Tourism activity and with a number of Marinas being built or expanded. The Yachting Act #25, 2000 is deliberately geared to promote Yachting. And in seeking to assure that interest of Marine and Yachting interests, for Marinas as providers, Dive Services Providers and Yacht Charters among others, the Marine and Yachting Association of Grenada have formulated a strategy from the perspective of private interests: Grenada Marine and Yachting strategy and action plan (2010-2012)_is the outcome.

Marine resource use in many cases privatize mangrove zones as on-land holding facilities for Marinas, use popular dive sites as eco-resource base for dive-services providers, lease coastal sea-land for berthings associated with Marinas and/or grant permits to Marinas for moorings, also associated with Marinas.

Yet another resource use trend is in demarcating of number of Marine Protected areas (MPA^s) in order to conserve the Biodiversity and habitat integrity of popular dive sites or zones; a few dive sites have been already legally declared as MPA^s with Management measures in place or already negotiated; one MPA has been the subject of agreement between a local area community group and the Competent Government authority. The plan in train is to declare a number of sites as MPA^s within the more popular Tourism coastal zone to the South of Grenada; user-group conflicts are expected.

⁴ By definition Marine Resources would refer to geographical spaces and jurisdictions on the coastal lands and offshore sea and directly related to sea-related activity both man-made and those due to natural processing – the sea and salt-spray zone.

3.3 Current Development and Management Issues

These issues relate to both external drivers and responses and to internal/local imperatives.

3.3.1 External Drivers and Responses

Small states responses to the implementation by onerous compliance-control requirements of multi-lateral conventions; small states are short on economies of scale in terms of enabling resources to implement several requirements.

- The challenges of transitioning from traditional sea-use practices to practices under formal state-based sovereignty. An example being traditional and informal fish trading and fishing among the Grenada and St. Vincent Grenadines, now impacted by formal legal provisions of respective Governments and seen as foreign fishing and trading and subject to Customs/Immigration control compliance-control.
- Expectations by citizens of Grenada regarding follow-up on the potential outcomes from the recently negotiated and signed Treaty for delimitation of a Maritime boundary between Trinidad/Tobago and Grenada; especially with regard to potential for Oil and Natural gas exploration and management.

3.3.2 Internal Drivers and Responses

Expectation regarding potential gas and oil exploration inside the Grenada Maritime zone between Grenada and TNT is also an internal issue. Other hot-button issues include:

- Transplantation of International conventions into national law in small states, as rapid response to International soft-law, could be risky should actual implementation become onerous in the future.
- Procedures for the lease of near-shore sea-land (water rights) for Marine Berthings and moorage that are challenges, and SOP/P need to be developed so

as to advise Public Policy; also, the need for appropriate rules and practices for access-ways at congested bays that are used by several water rights users.

- Capacity of the Customs authority to implement provisions in the Bill: Customs Control and Management, extending jurisdiction to the EEZ.
- Public awareness concerning Government's rights and authority concerning matters such as "outing" or "extinguishing" dimensions of lands such as access/agress; in the public interest (or in the interest of development for economic purposes but limiting traditional rights enjoyed by the public).
- The more efficient use of "agency duties" among Government entities avoiding usurpation or over-lapping of powers. The more efficient use of the Marine Police; the Police to be equipped with enabling resources to act as effective agents for enforcement within the Marine zone.
- Formalizing aspects of the Territorial use Rights in Fisheries, TURF and self-management system or Convention of beach seine fishers; these rights as use-rights to harvest, not to own territory for holding fish.
- The loss of traditional access to coastal areas by citizens, due to the compelling necessity of port enhancements that cordon-off bays etc, for example.
- Demarcation of reef areas at MPA⁵; these closures restrict once-accessible areas from traditional subsistence fishers.
- Traditional rights of subsistence fishers to Marine Turtles for example, as food, now being restricted.

- The agreed-upon practices of small-scale local long-line fishers to drift their lines along the coast or offshore; a type of TURf among local fishers but a problem at times for the ocean-going shippers.
- The application of the access to beaches by the local population; the definition of beach.
- The impact of Yachting on traditional Beach Seine and Set-net fishers at bays on the coasts; the Yachters impact on set-net fishers who traditionally set nets across what have now become Yacht channels; the Yachting Act of 2000 deliberately promotes yachting.
- The consumption (partial or total) of sea-land at wetland areas, as choice locations for Marina (on-land holding) facilities.
- A serious threat to the stocks and habitat of shallow water reefs impacted by overfishing on the one hand and on the other by land-based sources of pollution, ocean-based diseases and not least with unmanaged use by several dive services providers and Yacht persons.
- The potential threat of Oil and Gas exploration with insufficient considerations for stock and habitat conservation.

1. CURRENT AND LIKELY FUTURE DRIVERS, DEMANDS, PRESSURES, IMPACTS

3.4 Current and Likely Future Drivers, Demands, Pressures, Impacts

The diminishing value of the traditional Terrestrial resources such as agriculture, as a contributor to GDP is not expected to decrease and with a trend toward increase in environmental goods and services being expected from the Marine sector as mostly Tourism related; the need for sustainable development of the sector is urgent. Tourism as a percentage of GDP versus Agriculture is shown to be in the 7:10 ratio in 2010. Likely future drivers(negative/positive) of economic activity might include:

- Rural-to-urban drift of persons seeking livelihoods.
- Diminishing agricultural output in terrestrial areas.
- Increasing demand for non-tradition jobs not available in terrestrial areas.
- Increasing use of formal and restrictive measures with regard to use of stock, habitat and sea space within and outside the EEZ.
- Economic recovery following the current world recession when foreign capital inflows become plentiful.
- Lack or availability of Foreign Direct Investment in the immediate future.

The emerging trend, especially since UNCLOS III, is the perspective of Marine Resources Management as not only the management and conservation of Marine stocks and habitat but also the recognition of the space issue from the 3-D resource perspective. Hence Marine Resource Management may be seen as sustainable development of all stocks, habitat and sea space use.

4.0 NATURE AND VALUE OF RESOURCES

The Marine resources are seen as both natural and man-made.

4.1 The Natural Marine Resources

Without any systematic valuation possible; contingency evaluation far from being mainstreamed for assessing the natural Marine resource base, a qualitative valuation should suffice while for some, Marine assets of course, the value may be given in quantity of production and pricing as is the case for fish catch. The coastal sea space is a special asset for yachting, for water sports, access ways and recreation; the reefs and ocean as dive sites and fishing grounds for both tourists and locals; with the most valued use of the sea-scape as fishing grounds on the shelf and in the deep sea with respect to the commercial fisheries. The Hotel sector is mostly marine and therefore use beaches as their main asset. For the offshore areas of the EEZ there is potential for Oil and Natural gas, knowing the location of such deposits on the shelves of both Trinidad/Tobago and Venezuela.

Most known about is the tourism and the multi-species stock of food fish that inhabit our EEZ and Territorial waters; hotel rooms and fish catches and value are given in summary in the following:

BEACH HOTELS WITH BEACH FRONT

CATEGORY	NO.	NO. OF ROOMS
Beach Hotel	23	1062
Guest Houses	26	235
Cottages/Apts	29	287
Total 2006		1584

DIVE SERVICES PROVIDERS	NUMBER
Carriacou	1
Grenada	6

Source: Grenada Board of Tourism. Total Rooms(2009): 2133

FISH PRODUCTION 2002-2010

<u>PRODUCTION:</u>	<u>YEARS:</u> 2002-2010
Quantity (lbs)	5.4 – 6.1 million
Value (EC\$)	25.7 – 31.2 million
Av. Price (EC\$)	4.5 – 5.9 million
<u>EXPORTS:</u>	
Quantity (lbs)	0.98 – 1.5 million
Value (EC\$)	8.2 – 11.7 million
Av. Price (EC\$)	7.9 – 9.5 million

Source: Central Statistics Office, Grenada

Four classes of fish stocks are recognized in Grenada. The most important in terms of quantity of catch and value for export purposes, is the harvest of highly migratory species such as tunas and Billfish species accounting for about 50% of annual catch. The second is the demersal fin-fish species stock accounting for about 20% of annual catch. The third is the small sized coastal pelagics, about 25% of annual catch; the shellfish species accounting for about 5% of annual catch. Subsistence catch, not included here, might account for about 10% of overall total harvests.

It is mostly the shellfish and shelf demersal stocks that are threatened with over-fishing and recognizable impacts from mortalities associated with ocean mild diseases or oceanic pollution or land-based sources.

It is a multispecies stock that is harvested. It is also a mutli-interest group that targets the stock and habitat. The dive-services providers are keenly interested in the quality of the popular demersal coralline dive sites as source of their livelihood. Dive services providers see dive sites as prospects for closure to food fish fishers; as providing greater economic value as tourist attraction. Thus is not an unreasonable preposition since dive sites are not key food fish producing sites but are ideal locations for underwater sightseers accessing the locations from beach hotels relatively close by. Yachting charters and yacht cruisers value the coves and small islets among the islands as refuges and base for recreation dives and some fishing. The main conflicts in uses stem from yacht anchorage at fishing sites traditionally and occasionally used by net fishers of various kinds.

The most significant conflict in sea and Beach use was highlighted at Grand Anse beach; the premiere beach in Grenada, in 2001. This beach is shared by several Beach Hotels fronting to the beach; the base for dive-services providers, the base for water sports, the most popularly used beach visited by local people, the focus of cruise ship passengers drop-offs and pick-ups by water taxis visiting from the city and cruise-ship berth 2 miles away. The intensity of competition during the tourism high-season (stay-over and cruise) forced stakeholders to address the problem and create a management plan with zoning of water access/egress zones, among other things. See case study: Grand Anse Beach and Sea Use Management Plan (2001). Even as zones were demarcated by buoys and with a beach guard service that is administered by the Grenada Board of Tourism, the system is weakened by lack of full implementation and reduced competition and conflict that comes with the so-called "Tourism off-season".

An important issue for public policy regarding development and management of Marinas, Marine Berthing and Moorings is the use of wetland mangrove locations for Marina developments. These developments are at bays enjoying low wave impacts, good for Berthings and moorage and convenient for preparation of on-land stowage of yachts being refitted or repaired. The two main issues to be resolved are: the amount of consumption of the mangrove wetlands and the mitigation that will be required; the second issue is that of deciding how to allocate moorage space among marine service facilities sharing a bay in question. These issues are highlighted in harbours such as St. George's, Prickly Bay, Woburn Bay (not yet a designated harbour), Tyrell Bay and St. David bay. Uniquely a consensus on sharing of space for medium-sized fishing vessels, on dead-anchorage, and accommodating beach seiners hauling their nets at a popular fishing site (Gouyave, Minet Bay) was achieved in the 1990's by Community-based negotiations; the arrangement is still effective.

Issues of constraints relating to optimal, equitable and sustainable management of marine or coastal land might be well demonstrated in the EIA report with regard to developments such as Mt. Hartman Estate project in the South of Grenada. Issues of complementary sea-leases that might comply/ not comply with earlier planned multi-type land-side developments could be challenging.

5.0 ANALYSIS OF EXISTING MANAGEMENT REGIMES

Driven by the realization that opportunities exist for multiple coastal development initiatives that could generate economic, social and cultural benefits for citizens, Government have been aggressive in promoting the use of the coastal and marine resources as sources of alternative income generating activities in response to the demise in the Agriculture Sector and the loss of earning from that sector in recent decades. However, development and management must take place in the context of those newly created regimes brought on by accommodating several International Conventions on the one hand and for accommodating informal practices by local persons maintaining livelihood opportunity, on the other.

The five brief case studies as part of this report should complement this discussion and will be illustrative of how existing management practices are exercised, what the constraints are and where the gaps exist. These five case studies would also demonstrate lessons being learned within the emerging responses of various vested interests, whether Competent authorities applying public policy instruments or private Sector commercial operations conducting single/sea-land lease arrangements or a caucus of stakeholders generating consensus on management measures that might be applied for a multi-use marine zone or a traditional extra legal Convention applying community-based rules-in-use. Conventions used by fisher in allocated fishing opportunity in the context of space management, such as a TURF system or Port Development and expansion would be examples that are illustrative of informal versus formal management. These five case studies could be consolidation of issues that could be addressed within the Grenada Marine spaces and jurisdiction.

5.1 Competent Authority Negotiating Management

(either as co-management or otherwise) examples:

- i. Government of Grenada negotiating a maritime (Single Line) Boundary Treaty with the neighbouring state of Trinidad & Tobago.

- ii. Grand Anse Beach and sea use management plan for the zoning of access /egress at sea. while accommodating the facilities associated with beach hotels and other users and through a process of multi-stakeholder negotiations.
- iii. The ongoing marine protected areas program involving negotiations with user interests (Local area and commercial) and for reaching consensus on co-management between a local area group and the Competent authority.
- iv. Negotiation of a system for fishers drifting long-lines in the ocean zone.

5.2 Port Control/Negotiation Compliance Control and Water Rights

The Grenada Port Authority under its principal Act and the Shipping Act exercises monitor, control and surveillance with respect to:

- i. Inspection and licencing of power craft used for water sports, dive-services and water taxis, ferry services-providers etc.;
- ii. Allocation of space at ports for moorage buoys and authorizing navigation aids for access/egress at sea pathways.
- iii. Development and expansion of the St. George's port infrastructure closing off considerable space from the public for purpose of necessity.

5.3 Competent Authority Administration of Water Rights

At locations where there is no designated port, marine facilities are managed by either using traditional practices or by co-management of local area persons coupling with e.g. Fishers authorities.

- i. The zoning management of Gouyave-Minet Bay in 1990s for facilitating use by two categories of fishing operators.

- ii. Management of fish landings and boat berthings at jetties controlled by the Fishers Division.

1. SECURING AND USING LAND-SEA LEASES OR WATER RIGHTS FOR BERTHING (AND complimentary MOORAGE)

5.4 Securing and Using Land-Sea Leases or Water Rights

Under the Crown Lands Ordinance/Act, Government is able to lease coastal sea-land to developers of marinas with land-based landed stowage facilities for yachts etc, with land-based refitting and repair facilities, with chandlery, with jetties as berthing and with mooring facilities controlled by permit administered by Grenada Ports Authority. Leases for fixed marine facilities are ideally administered through the Land development/Lands and Surveys facilitating the procedures set out by the Crown Lands Ordinance. Berthings and beach hotels having lease of crown lands exercise ownership as private property.

- 2. MULTI TYPE DEVELOPMENT FACILITY** The case of a coastal zone, mostly land-side facility planned with an impact assessment; envisioning a multi-set of marine operations; later to be set on hold, reportedly changing ownership that disallows the current local representatives to indicate with sufficient certainty what facilities might constitute the full development in the future. This refers to the Mt. Hartman Estate/ Four Seasons Project.

6.0 CURRENT AND PLANNED POLICY RESPONSES

6.1 The Political, Socio Economic Policy Environment

The Government of Grenada in its current policy responses to inherited circumstances and strong evidence of systemic factors generating destabilization in the local economy, aside from the impact of world recession, seek to address challenges using several measures. In the budget address of 2011 the Finance minister, quote: “....we expressed the view that the situation that we face in Grenada was not created by the crises and will not automatically go away at the end of the crisis..... We pointed out that, there are several structural defects standing in the way of our development ... a picture of the Grenadian reality ... showed why we cannot continue to live in the same old way ...our situation analysis has been validated by the funding of recent surveys on poverty and social safety netswe need to transform the Grenadian economywe mean moving from a two pillar economy consisting of tourism and agriculture to a five pillar economy that is more diversified and resilient to external shocks.”

The ministry acknowledges that certain realities had to be faced among them: (i) an inextricable link with the OECS economies (and assumedly the economic space); (ii) all OECS states are impacted by the world economic recession; (iii) Grenada had to sign on to ECCU eight point stabilization and growth program. (Structural reforms) (iv) The suggestion that Grenada adopts both a stabilization and adjustment program at the same time; (v) with respect to the transformational sectors earlier identified, Grenada has established a Transformation Fund for facilitating the five sectors, adoption of a growth and policy reduction strategy.

The Ministry also noted a strategy of adopting collaboration with prospective developers and investors to facilitate implementation of several major tourism related projects.

There is a strong indication within both the 2010 and 2011 budget speeches that the public policy responses such as economic stabilization and structural adjustments were

accentuated because of the world economic situation resulting in the less of jobs and livelihoods on a significant scale and especially in the Marine/Tourism sector. At the same time the budget promises to address the problem of development using the route of promoting foreign direct investments. The threat is that in a period of weak world economic performance raising investment financing is challenging even with Government's eagerness to attract investors; there is also the threat that Government might be forced to relax certain environmental guarantees that they would not normally relax under a normal investment climate. .

6.2 Assessment of Opportunities and Threats

In the review of documentation etc. the findings show that there is considerable law and sometimes sufficient ,sometimes weak administration/institution that could facilitate marine resources utilization and management on a sustainable basis. Considering that, the task-order for this marine management strategy and the fact that it must fit as integral part of a land and marine management strategy.

Considering also that the task is to develop a strategy for economic, social, cultural development that was sustainable and thus indicating an orientation that was going to promote utilization of resources rather than reserve/preserve them, finding show that:

- The marine environment is small and fragile.
- The “ridge to reef” and island systems management approach was needed.
- There was increasing pressure to utilize the resources for current benefits; this was strong both from the point of view of investors and from that of the policy makers; investment opportunities could be both threat and strength.
- There is need for the surgical application of management measures rather than the traditional broad-brush as used in the past in most cases.
- Competition for alternative and shared use is pervasive bearing in mind the smallness of the coastal space.

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Agency	Responsibility	Key Legislation	Policies, Conventions & Multilateral Environmental Agreements
Ministry of Agriculture: Lands and Survey Department	Responsible for development control, lease, sale, management and use of all state-owned lands, including state-owned lands.	<ul style="list-style-type: none"> ▪ Crown Lands Ordinance CAP. 78 (1896) ▪ Crown Land Rules SRO No. 36 (1934) ▪ Crown Lands Rules (Amendments) SRO Nos. 3, 19, 39 (1965) ▪ Beach Protection Act CAP. 29 (1979) 	<ul style="list-style-type: none"> ▪ Agricultural Policy and Programs of the Ministry of Agriculture (1997-2010)
Ministry of Agriculture: Land Use Division	Key role in agricultural land use, planning and zoning; lacks legislative authority, performs primarily an advisory role with reference to soil and water conservation on private or non-forested state owned lands.	<ul style="list-style-type: none"> ▪ Assist in implementation of mandate of other departments and agencies 	<ul style="list-style-type: none"> ▪ No land use policy exists for Grenada. Efforts are underway to develop such policy
Ministry of Agriculture: Forestry Division, National Parks and Protected Areas,	Responsible for forest reserves on state-owned lands and any development or exploitation schemes taking place within them; manage national parks, protected areas and eco-tourism sites	<ul style="list-style-type: none"> ▪ Protected Forest Rules SRO No. 87 (1952) ▪ Forest, Soil and Water Conservation Act. CAP. 116 (1949) ▪ Forest, Soil and Water Conservation (Amendment) Ordinance No. 34 (1984) ▪ Crown Lands Forest Produce Rules (1956) ▪ Botanical Gardens Act CAP. 35 (1968) ▪ Grenada Botanical Gardens and Zoological Gardens Rules SRO. 55 (1968) ▪ National Parks and Protected Areas Act CAP. 206 (1990) 	<ul style="list-style-type: none"> ▪ Port of Spain Accord on Management and Conservation of the Caribbean Environment (CARICOM, 1989) ▪ National Forest Policy (1999) and Strategy (2000) ▪ Convention to Combat Desertification and Land Degradation (1992) ▪ Tropical Forestry Action Plan (1985) ▪ Convention on Wetlands of International Importance (RAMSAR, 1971) ▪ Convention on the Protection of Migratory Species of Wild Animals (1972)
Grenada Board of Tourism	Works with the Ministry of Tourism on matters related to product development and standards of operation. Destination marketing and promotion Public awareness Training and research	<ul style="list-style-type: none"> ▪ Tourism Board Act CAP 321 Revised Laws of Grenada 	<ul style="list-style-type: none"> ▪ Tourism Master Plan

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Agency	Responsibility	Key Legislation	Policies, Conventions & Multilateral Environmental Agreements
Ministry of Health; Grenada Solid Waste Management Authority	Has regulatory control for all projects relating to solid/hazardous waste management and wastewater treatment facilities, and for the general management and protection of the environmental health of the population, as well as urban and regional planning related to health issues. The recently formed environmental affairs department has wider responsibility for natural resource management.	<ul style="list-style-type: none"> Public Health Act CAP. 263 (1925) Public Health Regulations Sec.15 (1958) Public Health Ordinance CAP. 237 (1925) and Amendments SRO No. 218 (1957) Abatement of Litter Act CAP. 1 (1974) Environmental Levy Act CAP. 5 (1997) Environmental Levy (Amendment) Act CAP. 2 (2000) Solid Waste Management Act CAP. 11 (1995) Environmental Management Act (draft) 	<ul style="list-style-type: none"> OECS/ESDU St. George's Declaration: Principles on Environmental Sustainability OECS/ESDU Environmental Management Strategy International Convention for the Prevention of Marine Pollution from land based sources MARPOL (ANNEX IV) National Environmental Policy and Management Strategy (2005)
National Disaster Management Agency	Coordination of all activities related to preparation and response to natural hazard events. The agency's role is being expanded to include natural hazard mitigation and all phases of the disaster cycle.	<ul style="list-style-type: none"> Disaster Management Legislation (model Caribbean legislation to be adopted) 	<ul style="list-style-type: none"> National Disaster Management Plan National Hazard Mitigation Policy Shelter Management Policy Agreement Establishing CDERA ACS Natural Disasters Agreement National Hazard Mitigation Plan
Physical Planning Unit, Land Development Control Authority (LDCA),	Responsible for implementation of the planning Act and physical development plan;	<ul style="list-style-type: none"> LDCA Act (1968) and Amendments (1983) Land Development Control Regulations SRO No. 13 (1988) Physical Planning and Development Control Act 25 (2002) Grenada Building Codes and Standards (2000) Town and Country Planning Act CAP. 293 (1958) and Amendments Act 3 (1963), CAP. 339 (1990) 	<ul style="list-style-type: none"> National Physical Development Plan Integrated Physical Development and Environmental Management Plan for Carriacou and Petit Martinique UNFCC (1992, 1997); CCBD (1992) Grenada Biodiversity Strategy and Action Plan (2000) National Initial Communications on Planning for Adaptation to Climate Change
Ministry of Tourism	Formulation of tourism policy Suggestion for and implementation of legislation Monitoring the development of the industry with particular emphasis on product development and the accommodation sector	<ul style="list-style-type: none"> Tourism Act 	<ul style="list-style-type: none"> Tourism Board Act CAP 321 Revised Laws of Grenada Tourism Master Plan and Policy

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Grenada Hotel & Tourism Association	<p>Forum for discussing common problems of the tourism industry</p> <p>Work with Government and tourism authorities to ensure a legislative and regulatory environment necessary for the planned, healthy growth of tourism and a financially profitable hotel industry</p> <p>Assist members in marketing their business more effectively and to promote the industry by way of public relations</p>	<ul style="list-style-type: none"> Registered under the laws of Grenada 1994; By-Laws and organizational character 	<ul style="list-style-type: none"> Tourism Master Plan National Physical Development Plan
Grenada Ports Authority	<p>To provide in accordance with the provisions of this Act and the regulations, a coordinated and integrated system of ports, lighthouses and port services.</p> <p>To operate and administer ports in the manner which appears to it best calculated to serve the public interest</p>	<ul style="list-style-type: none"> Ports Authority Act 247 Oil in Navigable Water - Act 64 of 1979 Petroleum Act – Cap 239 	<ul style="list-style-type: none"> United Nations Convention on the Law of the Sea International Convention for the Prevention of Marine Pollution MARPOL Cartegena Convention (1983) and its Protocols concerning SPAW
Grenada Yachting and Marina Association	<p>Private Sector: Special interest lobby group for support, growth and development of the sector, with endorsement and backing of the Government (particularly the Grenada Board of Tourism)</p>	<ul style="list-style-type: none"> Yacht Act 2000 	<p>Marine and Yachting Association of Grenada (Documents)</p> <p>Nautical Tourism, Grenada (Carriacou /PM and Gouyave)</p>