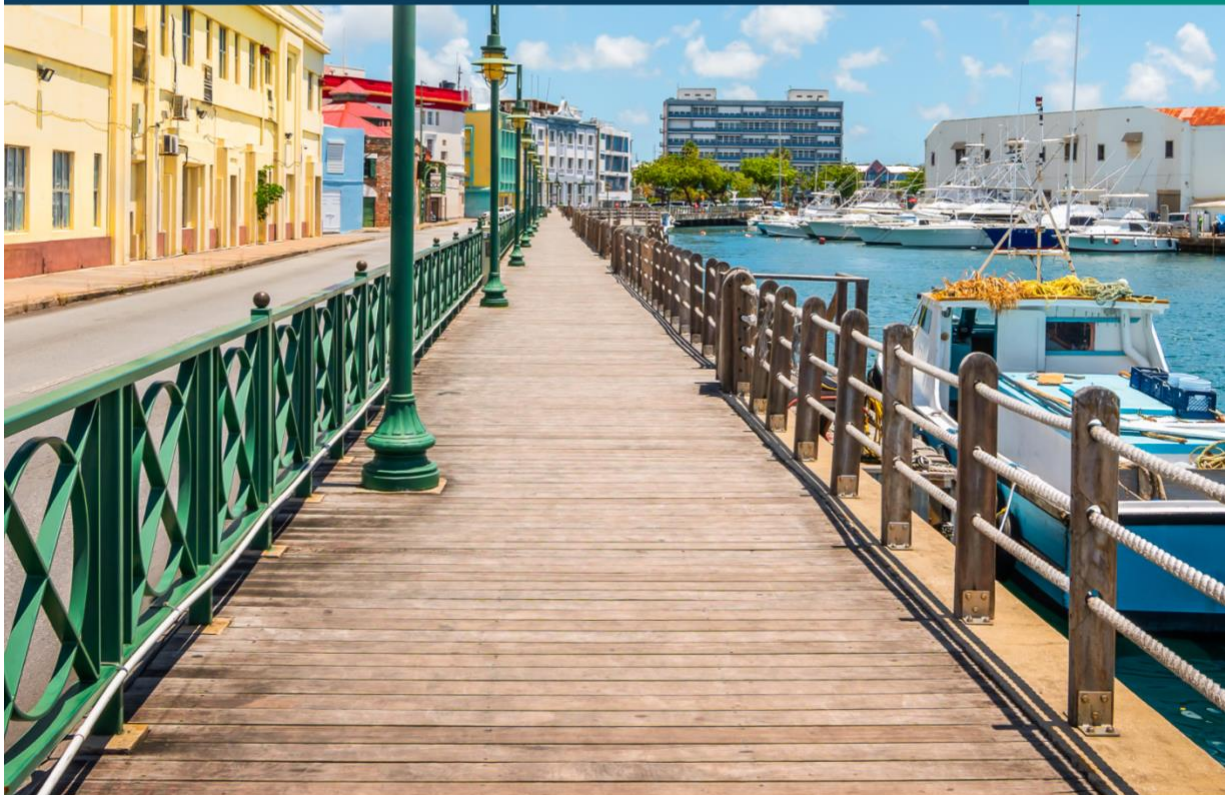


BARBADOS MARINE SPATIAL PLANNING Design Guide

March 2023



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DEFINITIONS

Presented below are the definitions of the key words and phrases that are used in this document and will guide discussions among stakeholders during the Barbados Marine Spatial Planning (MSP) process. These will be defined in more detail as the MSP process unfolds over time.

MARINE AREA

According to the United Nations Convention on the Law of the Sea (UNCLOS), the “marine area” of a given island nation can be broken down into several sub-areas (Territorial Sea, Exclusive Economic Zone, Continental Shelf, and High Seas) as described below. Figure 1 presents a diagrammatic representation of the location of each area relative to each other.

- **Territorial Sea** – Synonymous to Territorial Waters, under the Territorial Waters Act (CAP 386), the Territorial Waters of Barbados comprise areas of the sea that extend from shore, out to a distance of 12 nautical miles. These marine areas form part of the territory of Barbados and are under national jurisdiction and full sovereign control.
- **Exclusive Economic Zone (EEZ)** – Under the Marine Boundaries and Jurisdiction Act (CAP 387) the Exclusive Economic Zone is contiguous to the Territorial Waters and extends from the seaward limit of the territorial waters out to a maximum of 200 nautical miles from the baseline coastal boundary. Here Barbados has jurisdiction over exploration and exploitation of marine resources.
- **Continental Shelf** - the maritime area associated with the natural prolongation of a nation’s land territory in the form of the seabed and subsoil of submarine areas, with an area whose outer limit shall not exceed 350 nautical miles from the baseline coastal boundary or shall not exceed 100 nautical miles from the 2,500 meters isobath. The coastal state has exclusive rights for exploring and exploiting its natural resources in this area as well as exclusive rights to authorize and regulate drilling on the shelf for all purposes.
- **Marine Areas Beyond National Jurisdiction (ABNJ)** - the maritime area beyond the outer limits of the EEZ. High seas are open to all states for freedom of navigation, freedom of over flight, freedom to construct artificial islands installation, freedom of fishing, and freedom of scientific research.

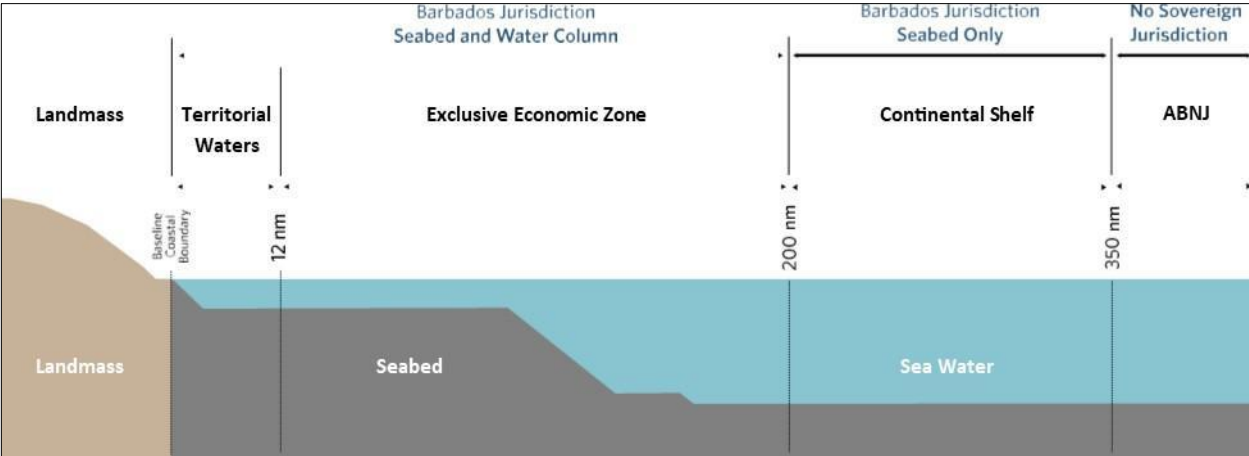


Figure 1. MARINE BOUNDARIES DEFINED BY UN CONVENTION ON THE LAW OF THE SEA

OCEAN

For the purposes of the Marine Spatial Plan, the spatial extent of Barbados' ocean is defined as the combined total extent of the territorial sea and EEZ and covers an area of approximately 186,898 km² (UNDP 2020). This overall boundary is further broken down into two sub-areas for analytical purposes:

- **The Nearshore Coastal Area** – refers to the Coastal Zone Management Area (CZMA) established under Section 3(a) of the Coastal Zone Management Act (CAP 394). Within the recently updated Integrated Coastal Zone Management Plan (ICZMP), the CZMA extends around the entire coastline of Barbados with inland and offshore limits determined by a multi-criteria methodology that integrates coastal resources and disaster risk management and climate change adaptation related approaches (Government of Barbados 2021).
- **The Offshore Marine Area** - refers to the maritime area between the outer extent of the CZMA and the inner extent of the EEZ.



Figure 2. MAP OF BARBADOS' MARINE AREA

MARINE SPATIAL PLANNING (MSP)

A public process of analyzing and allocating the spatial and temporal distribution of human activities in coastal and marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process (IOC-UNESCO 2009). It brings together multiple users of the ocean - including energy, industry, government, conservation, fisheries and recreation etc. – to make informed and coordinated decisions about how to most efficiently share the ocean and inherent resources, such that conflicts are reduced, marine ecosystems are not degraded, and sustainable development goals are achieved.

MSP is a future oriented process that relies on the best available science, data and information for making decisions, and engages stakeholders at all possible levels to determine the most coherent allocation of ocean across sectors.

MSP is integral to implementing a strategic integrated approach to developing a sustainable blue economy. Firstly, by creating more transparent rules for allocation of ocean space across sectors, it lays the foundation for a more predictable blue economy investment climate. Secondly, it directs the allocation of ocean for demonstration sites to test and de-risk innovative blue economy technological solutions.

BLUE ECONOMY

An evolving development approach centered on creating greater economic value through sustainable utilization of ocean resources. Within the Action Plan/Roadmap- Implementation of an Integrated Blue Economy Policy Framework and Strategic Action Plan for Barbados (IADB 2021), Blue Economy is defined as “comprising the range of economic sectors and related policies that together determine whether the use of oceanic resources is sustainable”.

It is envisioned that Barbados’ Blue Economy will promote economic growth, social inclusion, and improve livelihoods at the same time as ensuring environmental sustainability of oceans and seas. The key blue economy sectors that have been identified for Barbados are marine and coastal tourism; maritime transportation, Fisheries, Blue Energy, Maritime Services, Marine Biotechnology and Non-living Marine Resources (IADB 2021).

ACRONYMS

BARNUFO	Barbados National Union of Fisherfolk Organizations
BCCI	Barbados Chamber of Commerce and Industry
BFIT	Barbados Federation of Island Triathletes
BHTA	Barbados Hotel and Tourism Association
BREA	Barbados Renewable Energy Association
BSA	Barbados Sailing Association
BTMI	Barbados Tourism Marketing Inc.
CERMES	Centre for Resource Management and Environmental Studies
CORALL	Coral Reef Restoration Alliance
CZMA	Coastal Zone Management Act
CZMU	Coastal Zone Management Unit
EEZ	Exclusive Economic Zone
GIS	Government Information Service
IADB	Inter-American Development Bank
ICZMP	Integrated Coastal Zone Management Plan
IOC	Intergovernmental Oceanographic Commission
MEA	Multi-Lateral Environmental Agreement
M&E	Monitoring and evaluation
MPA	Marine Protected Area
MENB	Ministry of Environment and National Beautification
MSP	Marine Spatial Planning
NBSAP	National Biodiversity Strategy and Action Plan
NCC	National Conservation Commission
NDC	National Determined Contribution
NGO	Non-Governmental Organization
PDP	Physical Development Plan
PDD	Planning and Development Department
SDG	Sustainable Development Goals
SIDS	Small Island Developing States
SMART	Specific, Measurable, Achievable, Realistic, and Timely
TNC	The Nature Conservancy
UNDP	United Nations Development Programme
UNCLOS	United Nations Convention for the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
UWI	University of the West Indies

SECTION A – INTRODUCTION

COUNTRY PROFILE

Barbados, with a relatively small land mass (432 km²), is a Small Island Developing State (SIDS) that can be considered a “Large Ocean State” since, like many SIDS, its marine areas (186,898 km²) are many times larger than its terrestrial space (over 430 times larger). Therefore, the ocean plays an integral part of the Barbadian way of life. Barbados’ main economic driver is coastal tourism, which provides 12.9% of GDP and 62.1% of the country’s exports (UNDP 2020). The fisheries sector, despite its small contribution to Barbados’ GDP, nonetheless contributes to food security and livelihoods. This includes the value of the support services to the fishing industry, the value of fish and fish products in attracting visitors to the island, the value of fish as food in maintaining the health of citizens, and the value of fisheries to the culture and identity of Barbadians. Furthermore, Barbados relies heavily on imports, and therefore on international shipping, with more than 90% of all imports and exports being transported by sea (UNDP 2020). It is therefore clear that Barbados’ economy already depends heavily on the ocean, and the ocean is therefore pivotal for sustainable development, poverty reduction, food security, and achieving national development priorities.

Barbados faces a number of challenges regarding its coastal and marine resources. **There is intense pressure on coastal and marine resources through activities such as unsustainable fishing practices, habitat degradation from poor recreation and coastal development activities, and pollution.** These local stressors are compounded by external threats, many related to global climate change, including increased sea surface temperature, rising sea levels and exacerbated coastal erosion, which increase risk to marine and coastal ecosystems, as well as coastal settlements and infrastructure.

These challenges are not unique to Barbados; similar challenges are present across the Caribbean. However, while Barbados shares much in common with other Caribbean SIDS, there are a number of factors which set it apart, in many cases exacerbating typical SIDS vulnerabilities. The following factors are especially relevant to the countries’ management of its marine space and the resources it contains:

- Barbados is located the Eastern edge of the Caribbean with no sheltering from the open ocean; it has a high energy wave climate and few sheltered areas along the coastline. This positioning also places the island on the front line to some ocean-based hazards such as sargassum influxes.
- Barbados’ hydrogeology is distinctive, with Karst topography over 85% of the land surface. As a result, terrestrial freshwater discharge to the marine environment is predominantly via submarine groundwater discharge, with surface water discharge being the smaller contributor. Land-based sources of pollution are therefore more diffuse, or non-point, rather than point sources, which complicates management.
- Barbados underwent relatively early socio-economic development compared to other SIDS in the region, which has led to a highly modified natural environment, unsustainable development practices in the past, loss of ecosystem services, lack of green spaces, ageing infrastructure, and housing stock, among other issues. Physical development is concentrated in a dense, mixed use urban corridor that extends along the south and west coast, containing an integral mix of national infrastructure, public services, commercial operations, and housing stock. There are no discrete or isolated coastal communities, and tourism assets and operations are not separated from other land use and activities.
- While scarcity of resources is a common issue for SIDS, it is particular extreme for Barbados

because it is among the most densely populated in the world (ranked 15th globally), which, along with tourism loading, increases demand for already scarce resources. Furthermore, the natural environment and landscape have been highly modified, and there are few, if any, greenfield development sites. The scarcity of land exacerbates competition for space, especially along the coastline. Barbados is also among the most water scarce countries in the world. Issues of scarcity increase the pressure to expand into and exploit the resources of the marine space. Historic unsustainable development practice in the terrestrial space should serve to emphasize the need for sustainable development of the ocean space.

- Beaches and beach use are an integral part of Barbadian culture and well-being. However, along the west and south-west coastlines especially, public access to the beach is limited to discrete access points.

Barbados has a national Physical Development Plan (PDP), which includes a spatial plan for the island's entire terrestrial space. Barbados is also a regional leader in integrated coastal zone management (ICZM), and the integrated coastal zone management plan (ICZMP) is incorporated into the overarching PDP. To date, Barbados has established one small marine reserve (Folkestone Marine Reserve), which covers considerably less than 1% of its ocean. Recognizing the importance of marine resources, Barbados has committed to developing a sustainable Blue Economy as articulated in the Blue Economy Roadmap (IADB 2021).

A MARINE SPATIAL PLAN FOR BARBADOS

Integral to sustainable Blue Economy development is the completion of a comprehensive, science-based, participatory, multi-objective marine spatial plan (MSP). The MSP will bring all marine stakeholders together to agree upon a coordinated, holistic plan for sustainable and equitable use of the ocean. It will consider competing development needs including, but not limited to, biodiversity protection, recreation, shipping, marine fisheries, aquaculture, tourism, renewable energy and resource extraction. The MSP will take approximately five (5) years to complete.

Biodiversity conservation is an important aspect of sustainable development, and will be integral part of the MSP. With funding for the MSP development coming in part through a debt for nature swap (DNS), certain Conservation Commitments have been agreed to by the Government of Barbados and legislated under the Debt Conversion (Counter-Guarantee) Act.

These Conservation Commitments (*see Table 1*) address both the development and implementation of a Marine Spatial and speaks to the evidence-based, participatory zoning Barbados' marine space as well as the requisite administrative and legal arrangements to achieve long-term sustainable ocean management.

	Milestone	Date	Description
1	Initiation of MSP process	No later than 3 months after the date of signing of the Conservation and Sustainability Commitments Agreement	<ul style="list-style-type: none"> a) Designation of a Government of Barbados ministry or agency to lead and manage the MSP process; and b) Establishment of a MSP project-steering committee (“MSP Steering Committee”) comprised of both <ul style="list-style-type: none"> a. Senior level officers or employees of governmental agencies; and b. Qualified representatives from Non-governmental organizations
2	Completion of First Draft of Zoning Design	No later than thirty-six (36) months after the date of signing of the Conservation and Sustainability Commitments Agreement	Complete first draft of marine zoning design for the complete area of affected Ocean showing at least three (3) spatial scenarios that could achieve up to an aspirational goal of 30% biodiversity protection (including at least one option evaluating the potential for 15% in High Protection Biodiversity Zones* and 15% in Medium Protection Biodiversity Zones**) that would allow for long-term, sustainable, effective management of Barbados’ Ocean resources
3	Government Approval of: i) Legislation and Regulations to Declare Marine Biodiversity Protection Zones/MPAs and; ii)MSP Institutional Frameworks	No later than four (4) years and six (6) months after the date of signing of the Conservation and Sustainability Commitments Agreement	<ul style="list-style-type: none"> a) Approve the legislation and regulations that allows for the legal declaration, gazetting and management of feasible marine Biodiversity Protection Zones/MPAs (identified as part of the MSP process), including bestowing the authority to an appropriate government agency/agencies for monitoring and enforcement; b) Approve and effect the institutional framework required for MSP implementation; and c) Legally declare and Gazette 10% of Ocean under biodiversity protection, if deemed feasible within the scientific analysis provided by the MSP.
4	Completion of the MSP, Gazetting of Biodiversity Protection Zones/MPAs and MSP implementation	No later than five (5) years and six (6) months after the date of signing of the Conservation and Sustainability Commitments Agreement	<ul style="list-style-type: none"> a) Have completed the MSP; b) Legally declared and gazette as MPAs whichever is the lower of either: <ul style="list-style-type: none"> i. An aspirational goal of 30% of Ocean, with at least 15% in High Protection Biodiversity Zones; or ii. The percentage of Ocean declared as MPAs, with percentages of High Protection Biodiversity Zones and Medium Protection Biodiversity Zones deemed achievable in the MSP; and c) Implement the MSP

5	Government Approval and Adoption of Management Plan	No later than seven (7) years and six (6) months after the date of signing of the Conservation and Sustainability Commitments Agreement	<ul style="list-style-type: none"> a) Approved Management Plans for each Gazetted Biodiversity Protection Zone MPA; and b) The agency(s) with authority over such plans shall have adopted a Management plan support of Barbados' goals for longterm sustainable, effective management of the Ocean using for example, strategies for protected area management, aligned with recognized standards
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*High biodiversity protection zones conserve and protect the top priority areas for marine and coastal biodiversity. These zones are designated for habitats and species that may be rare, endangered, unique or with narrow distribution ranges. This zone includes breeding or spawning areas, key foraging habitat, fragile or sensitive species and habitats, and internationally significant areas. This zone category is not suitable for extraction or sea-bed alteration.

** Medium biodiversity protection and sustainable use zones are proposed to conserve areas that are suitable for medium levels of biodiversity protection and are also compatible with some sustainable uses. These zones include habitats and species that have some tolerance to disturbance and human activities. These zones also include regionally and nationally significant areas. This zone category is suitable for some level of extraction and sea-bed alteration, with appropriate management and direction, depending on the objective of each designated area.

Table 1. **Conservation Commitments under Debt-for-Nature Swap**

MSP DESIGN GUIDE

This document is intended to guide the process of developing the MSP, providing information on elements related to strategic direction, project management processes, and communications for use by the MSP planning team. It is not intended for wider dissemination.

The information contained herein reflects the current status of the various discussed elements, along with recommendations arising from a stakeholder engagement process. This Design Guide is a living document that will be adapted or adjusted as the project evolves. Information presented is therefore not final and is subject to change. The ordering and timing of the steps will be guided by how the process unfolds in-country, based on the unique planning conditions present.

SECTION B – STRATEGIC FRAMEWORK

In order to ensure Barbados' Marine Spatial Plan produced is able to realize the conservation commitments, redress existing and emerging challenges, and chart a sustainable path forward, it is important that the process be guided by a clear vision and objectives.

While articulation of the vision and objectives will be the task of those involved in the project – particularly the Project Steering Committee, the stakeholder engagement process has yielded parameters for the development of what will be guiding document for management of Barbados' marine space.

1. Policy statement

A clear, comprehensive policy that is aligned to national development priorities and regional and international commitments should be developed to direct the work of the MSP.

The policy statement should:

- (i) Address the need for comprehensive, synergized, and holistic marine planning for the ocean.
- (ii) Ensure alignment with, and support for national growth and development imperatives e.g., the development of the blue economy.
- (iii) Consider, and incorporate as necessary, all commitments Barbados has made to relevant regional and multi-lateral environmental agreements (MEAs).
- (iv) Support achievement of national biodiversity and climate related targets articulated in the Nationally Determined Contribution (NDC), National Biodiversity Strategic Action Plan (NBSAP) etc.
- (v) Consider all relevant United Nations Sustainable Development Goals (SDG), in particular Goal 3 (good health and well-being), 7 (affordable and clean energy), 9 (industry innovation and infrastructure), 12 (responsible consumption and production), 13 (climate action) and 14 (life below water), 16 (justice, peace and strong institutions).
- (vi) Incorporate modern developments, technologies and innovations in key marine sectors.
- (vii) Facilitate inter-ministerial and inter-agency governance over the ocean.
- (viii) Guide site suitability assessments for the growth and development of new and existing marine sectors/activities.

The MSP policy will outline the key socio-economic, environmental, governance and institutional benefits of MSP to Barbados as summarized in Table 2. The benefits that are identified as highest priority for Barbados are marked by an asterisk and should be mentioned in the policy. These benefits will support the growth and sustainability of Barbados' Blue Economy and facilitate the ease of integration and the implementation of the recommended transformational strategies defined in the "Integrated Blue Economy Policy Framework and Strategic Action Plan" (IADB 2021).

KEY BENEFITS	
ECOLOGICAL/ ENVIRONMENTAL BENEFITS	<ul style="list-style-type: none"> ▪ Identification of biologically and ecologically important areas* ▪ Incorporation of biodiversity objectives into planned decision-making* ▪ Identification and reduction of conflicts between human use and nature* ▪ Allocation of space for biodiversity and nature conservation* ▪ Determination of the context for planning a network of marine protected areas ▪ Identification and reduction of the cumulative effects of human activities on marine ecosystems
ECONOMIC BENEFITS	<ul style="list-style-type: none"> ▪ Identification of compatible uses within the same area of development* ▪ Reduction of conflicts between incompatible uses* ▪ Improvement in planning capacity for new and changing human activities, including emerging technologies and their associated effects* ▪ Promotion of the efficient use of resources and space* ▪ Establishment of greater certainty of access to desirable areas for new private sector investments, frequently amortized over the medium to long-term ▪ Improvement in enforcement of ocean related rules and regulations ▪ Improvement in coordination and collaboration among users of the ocean e.g., regulators, investors, researchers, explorers, harvesters etc.
SOCIAL BENEFITS	<ul style="list-style-type: none"> ▪ Improvement in opportunities for community and citizen participation* ▪ Identification of impacts of decisions on the allocation of ocean space (e.g., closure areas for certain uses, protected areas) for communities and economies onshore (e.g., employment)* ▪ Identification and preservation of social and spiritual values related to ocean use* ▪ Identification and improved protection of cultural heritage ▪ Improvement in safety during operation of human activities ▪ Increased support and advocacy for marine management and conservation
GOVERNANCE AND INSTITUTIONAL	<ul style="list-style-type: none"> ▪ Streamlining and transparency in permit and licensing procedures* ▪ Improvement in enforcement of ocean related rules and regulations* ▪ Improvement in coordination and collaboration among users of the ocean e.g., regulators, investors, researchers, explorers, harvesters etc.

*Benefits identified as “Highest Priority” for Barbados

Table 2. **BENEFITS OF MSP TO BARBADOS**

2. VISION

The vision statement should be concise, realistic, credible and attractive such that it inspires commitment and energizes people, while creating meaning to stakeholders. While a final vision for the MSP will be developed by the Project Steering Committee (*see Section C1*), a draft vision statement was developed by consolidating four (4) recommended vision statements crafted by the expert group. The draft statement is depicted in Figure below.

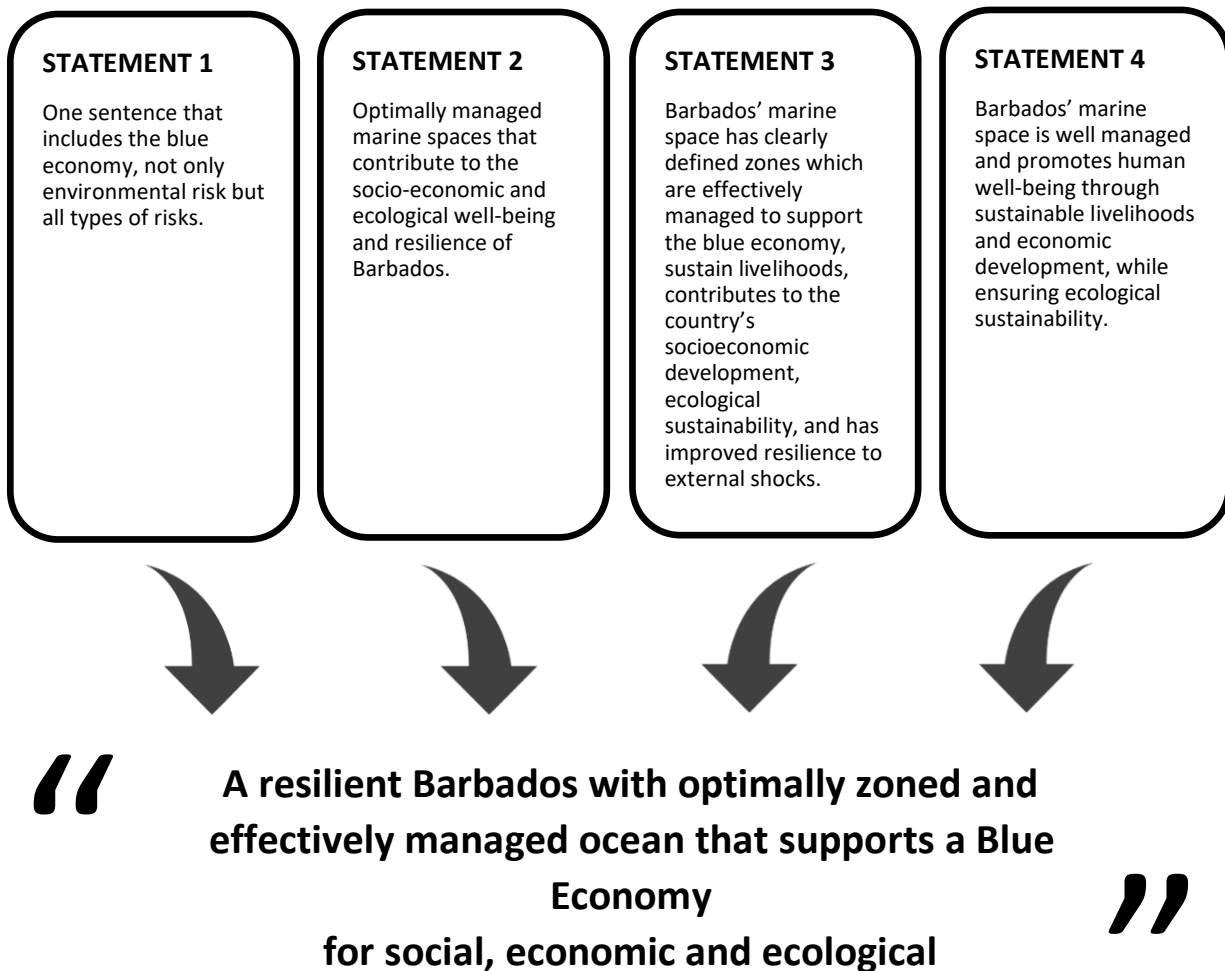


Figure 3. **PROPOSED MSP VISION STATEMENTS**

3. GUIDING PRINCIPLES

From the stakeholder engagement process, a number of principles emerged as important for the development of the Marine Spatial Plan for Barbados. These principles are outlined below:

(I) Approach and Process Guiding Principles

- **Adaptive and responsive** – MSP is a continuous, iterative process where learning and adaptation happens over time, so plans meet the changing needs of ocean use. As data and information become available, plans should be revised to capture and integrate this new information. Thus, it is expected that the length of the planning cycle will get progressively shorter over time as the decisions made are tested, more effective, efficient and comprehensive data collection methods are developed/utilized and there is less new information that needs to be considered and incorporated.
- **Public and political buy-in** – a successful MSP must have the support of all stakeholders. Buy-in will ensure the stakeholders are advocates for the process and increase the likelihood of successful implementation.
- **Integrated management** – for MSP success there is a need to move away from traditional sectoral and species-based management approaches to a more all-encompassing approach that addresses the interrelationships among issues and sectors, and between nature and development.
- **Duty of care** – stakeholders should act with due care to avoid negative impacts on the marine environment as a byproduct of decisions made. Decision-makers should be held accountable for all decisions made.
- **Inclusive** – full stakeholder participation is critical so that credible, accepted rules are identified that assign responsibilities appropriately. This helps ensure stakeholder buy-in and acceptance of the rules and regulations.
- **Simplicity** – MSP plans should be as simple as possible so that they are easily understood by users resulting in high levels of compliance.
- **Non-discriminatory** – all communities, persons, and interests affected by marine resource or activity management should have an opportunity to participate in the formulation of ocean management decisions. Marine resources are part of the public domain, not owned exclusively or benefited by any one group; decisions should be made in the interest of the whole community and not any one group or private interest.
- **Human rights and dignity** – all stakeholders and their contributions will be valued and treated with the highest respect throughout the entire process.

(II) Decision-making and Project Management Guiding Principles:

- **Equitable** – This should be demonstrated in the transparency and fairness in decision-making user access to ocean.
- **Country Driven** – the MSP should be responsive to the interests of Barbados, driven by local policies and needs. Stakeholder engagement will be key to achieving this.
- **Holistic** – the MSP should cover all the potential uses of ocean space including ecological, economic, cultural, aesthetic, social etc.
- **Transparent** – the decisions made under the MSP must be done in such a way that stakeholders

understand how the decision was made, how resources are allocated, and how it will affect their livelihoods. This is critical to ensure buy-in from all stakeholders for the process and encourage adherence to the eventual rules and regulations.

- **Sustainable** – can be defined as the need to consider environmental, economic, social, and cultural values in meeting needs of the present without compromising the ability of future generations to meet their needs. Thus, during MSP, the quality and health of the environment should not be destroyed for economic returns - environment and economy must go together in MSP decision making.
- **Knowledge Driven** – the MSP should use the best-available science and information as the foundation for decision-making. As new information becomes available about the natural, social and economic processes that affect the marine environment, the plan should be modified to reflect these changes. MSP decision-making should use quality, comprehensive data and information, at the appropriate scales.
- **Precautionary Principle** – this principle states that “in the face of uncertainty about potentially irreversible environmental impacts, marine management efforts must err on the side of caution”.

4. AUTHORITY

Given the mandate and technical expertise of the Coastal Zone Management Unit (CZMU), the stakeholder engagement process recommended that the CZMU as the ideal agency to provide the guidance and oversight required for the development of the MSP. This view was endorsed by the Cabinet of Barbados and is reflected in the Governance Framework (*see Section C1*).

With respect to implementation of the completed MSP, given the synergies with Barbados’ wider economic drive – including the Blue Economy - and development agenda, an assessment should be conducted as part of the MSP development process to determine which national agency is best positioned to take on this role. The agency identified should have the ability to ensure the optimization of the economic, social, environmental and governance benefits that a well designed and implemented MSP can provide.

5. GOALS AND OBJECTIVES

The MSP project seeks to produce a Marine Spatial Plan which will address the threats and conflicts that impact the ocean and should address maximizing economic returns without compromising environmental integrity. While the Project Steering Committee will revise the specific goals and objectives as necessary, preliminary goals for the MSP are identified below:

- Applies sustainability principles to reduce the threats to marine natural capital and ecosystem services
- Supports sustainable national socio-economic development
- Promotes cooperation and reduces conflicts between users and competing uses that may/could undermine the value of the natural resources stock

To achieve these identified goals, specific objectives can be developed to organize work packages and facilitate monitoring and evaluation. The objectives for the Marine Spatial Plan may consider the following:

- The collection and use of best available information to determine the current and potential future status of various resources and the sectors which utilize them
- The utilization of stakeholder contribution over the life of the MSP development process to reduce both user-user and user-environment conflicts
- The development of appropriate legal, policy and institutional environment and technical capacity to foster widespread involvement in the effective implementation of the MSP

To achieve much of the above, the MSP will have to examine the various uses for Barbados' ocean space, not only geographical distribution of existing and future uses, but also the sectoral policies and administrative structures that support their development. While there has not yet been consensus on which uses will be prioritized by the government, presented below are the future uses identified by the stakeholders and after review of the IADB and UNDP Blue Economy reports (UNDP 2020; IADB 2020).

The current and potential future sectors that Barbados may explore are:

- Fishing (Small scale, large scale and recreational)
- Mariculture
- Conservation and biodiversity protection
- Renewable energy (e.g., wind, solar)
- Non-renewable energy (Oil and Gas)
- Tourism (recreation and leisure, yachting, cruise ships, marine charters)
- Mining (sand, aggregates, ores, and poly-metallic nodules)
- Shipping and Transportation
- Maritime security
- Financial Services
- Blue Industries (pharmaceutical, biotech and business services)
- Utilities
- Construction
- Cultural Heritage (e.g., preservation of cultural norms, values, and livelihood)

It should be noted that inclusion of any listed use does not commit Barbados to advancing these uses. The planning process must be allowed to be adaptive so that as new sectors and marine innovations are identified, they will be incorporated into the process as appropriate.

SECTION C PROJECT MANAGEMENT

Various project management aspects are discussed within in this section, such as the project structure, workplan and project risks. As the project progresses these aspects may need to be reviewed but below details the current state of each discussed aspect.

1. GOVERNANCE FRAMEWORK

The Barbados MSP Governance Framework (*see Figure 4*) has a hierarchy consisting of a number of decision-making levels. The Framework was developed in 2022 and is to be updated and adapted as the need arises to ensure that there is continued effective decision-making and adequate stakeholder representation on all committees.

At the executive level, decisions are taken by the Cabinet of Barbados followed by the Permanent Secretary Ministry of Environment and National Beautification (Blue Economy). Project oversight and execution will be undertaken by various other components of the governance framework as outlined below:

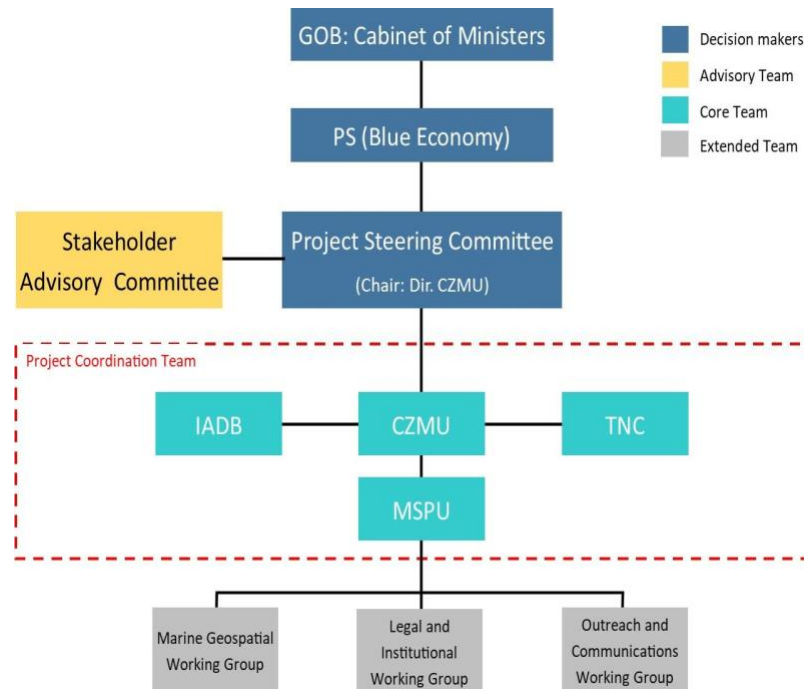


Figure 4. MSP PROJECT MANAGEMENT STRUCTURE

Project Steering Committee

In line with recommendations arising from the stakeholder engagement process, a Cabinet-appointed MSP Project Steering Committee (PSC) was constituted. This PSC is responsible for providing oversight and leadership for the development of the Barbados MSP. The committee is chaired by the Director of the Coastal Zone Management Unit and reports directly to the Permanent Secretary Ministry of Environment and National Beautification (Blue Economy).

The PSC is comprised of senior management representatives from key agencies. The list of selected agencies is as follows:

- Ministry of Environment and National Beautification
 - Coastal Zone Management Unit (chair)
 - Blue Economy Division
 - Fisheries Division
 - Policy Research Planning and Information Unit
- Planning and Development Department
- Ministry of Energy and Business
- Ministry of Tourism and International Transport
 - Tourism
 - Shipping Registry
- Barbados Coast Guard
- University of the West Indies (UWI) – Centre for Resource Management and Environmental Studies (CERMES)
- Barbados Chamber of Commerce and Industry (BCCI)
- The Nature Conservancy (TNC)

The MSP Steering Committee is supported by a Stakeholder Advisory Committee whose function will be integral to ensuring wide-ranging stakeholder engagement and contribution in all stages of the MSP project processes.

Stakeholder Advisory Committee

The Stakeholder Advisory Committee will facilitate stakeholder participation in the MSP process, working along with the Steering Committee to provide input as well as to review and provide guidance on outputs of the MSP process. In this way, stakeholders will be afforded an opportunity to directly influence the outcomes of the MSP process. Additionally, the SAC will assist with communication by disseminating information among their respective networks, as appropriate. Similarly, the SAC will communicate concerns and questions to the Steering Committee, including those submitted through the Grievance Redress Mechanism (see Section C3).

Arising from the stakeholder process, it is recommended that the composition of the SAC include representatives from the groups listed in the table below:

GROUPINGS	ENTITY
Tourism	Associations - Barbados Dive Operators Association (BDOA), Barbados Game Fishing Association, Barbados Federation of Island Triathletes (BFIT), Barbados Sailing Association (BSA), Barbados Hotel and Tourism Association (BHTA) and Barbados Tourism Marketing Inc. (BTMI) Other Marine Operators - coastal cruising, water sports, sport fishing, yachting, surfing, open water swimmers
Renewable energy	Barbados Renewable Energy Association (BREA)
Mariculture	TBD
Fisheries	Barbados National Union of Fisherfolk Organizations (BARNUFO)
Conservation	Sea Turtle Project/ Coral Reef Restoration Alliance (CORALL)
Cultural heritage	Barbados National Trust/ Barbados Museum and Historical Society
Telecommunications	Telecommunications Unit
Research/ academia	TBD

Table 3. STAKEHOLDER GROUPINGS AND REPRESENTATIVE ENTITIES PROPOSED FOR PSC

Project Coordination Team

The Coastal Zone Management Unit has been designated as the lead agency responsible for the execution the MSP and be supported by the Inter-American Development Bank (IADB) and The Nature Conservancy (TNC).

A Marine Spatial Plan Project Unit, a project unit within the CZMU will undertake the work tasks for designing the MSP with the support of specialists and consultants where required. Additionally, Technical Working Groups will be convened to undertake work in the required thematic areas.

Technical Working Groups

Technical Working Groups will be established by the PSC and to undertake work in thematic areas. These groups will consist of representation from government, scientists, environmental organizations and private sector representatives according to the needs of the working group. While information for three (3) working groups are presented below, this number may be expanded by the PSC as the need arises.

The Marine Geospatial Working Group (GAWG)

The mandate of the Geospatial Working Group (GWG) is to provide guidance on accessing, interpreting and understanding the full range of relevant scientific data and information to support the MSP process. This will include the acquisition of new data and assessing the quality and relevance of existing data. Well-tested and documented methodologies will guide data collection activities and data comparisons and sharing across agencies will be encouraged to ensure the best available information is used to guide decision-making. Data collection must be guided by both current and future uses of the ocean and include local and traditional knowledge.

The potential GAWG composition is presented here:

- Barbados Statistical Service
- Ministry of Information Science and Technology
- Ministry of Environment and Natural Beautification
- Lands and Surveys Department
- Ministry of Energy and Water Resources
- National Conservation Commission
- Coastal Zone Management Unit
- Planning and Development Department
- Barbados Port Inc.
- Fisheries Division

The Legal and Institutional Working Group (LIWG)

The mandate of the LIAC is to provide guidance on the review of existing legal and policy framework to determine how the MSP will be implemented. This will require an identification of legislation needs whether creation or modification of legislation as well as an identification of institutional reforms required for implementation of the MSP. A preliminary list of relevant legislation and policy documents is provided in Appendix 1. This will ensure the resulting spatial management plans are legally binding and implementation is enforceable.

The potential LIAC composition is presented here:

- The Chief Parliamentary Counsel
- The legal counsels within the Ministries of Housing and Foreign Affairs and Finance
- Personnel with legislative responsibilities from any other government or non-governmental agencies with a mandate that relates to ocean and marine management.

Outreach and Communications Working Group (OCWG)

The mandate of the Outreach and Communications Working Group is to provide guidance on effective communication with stakeholders. This is important given the value of stakeholder input to the various stages of development and implementation of the MSP. A Stakeholder and Engagement Plan and Communications Plan will be developed to ensure all stakeholders can be fully involved in the process.

The potential OCWG composition is presented here:

- Government Information Service (GIS)
- Ministry of Environment and National Beautification
- Coastal Zone Management Unit
- Fisheries Division
- Barbados Port Inc.
- BARNUFO
- University of the West Indies (UWI)

2. STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS

The MSP process is intended to be participatory given its far reaching implications for those involved in marine sectors. The value of stakeholder engagement and communication cannot be overstated. At project initiation, a stakeholder analysis will be completed to inform the development of a Stakeholder Engagement Plan and a Communications Plan. These plans will work together to ensure all stakeholders are fully informed and can actively contribute to the process

The recommended engagement goals and outcomes are as follows:

GOALS:

- To maximize stakeholder contributions over the life of the MSP development process facilitating informed participation and decision-making.
- To ensure timely communication with stakeholders using audience-appropriate tools and two-way channels (project to stakeholders and vice versa).
- To reduce conflicts and increased likelihood of compromise.
- To foster buy-in and ownership, building trust and respect as part of a transparent MSP development process.

Additionally, a recommendation from stakeholder engagement processes is the utilization of a Grievance Redress Mechanism (GRM) to ensure that stakeholders who may be adversely affected by the project decisions can communicate their valid issues and receive appropriate redress. The PSC under the guidance of the SAC will make the final decision in a transparent manner such that stakeholders will be assured that their concerns were addressed and considered in decision making.

3. KEY PROJECT RISKS

Project risks should be considered as part of project planning exercises and contingencies must be built into the process to allow for flexibility to adjust project work, budget, and timelines as required.

Moreover, risk assessment exercises will be conducted throughout the life of the project. An assessment of the severity of each risk should be completed to help determine the necessity and urgency of implementing mitigation actions. Project risks that are outside of the control of the project management team will be elevated to the PSC and/or the Minister of MENB for support with resolution.

Potential response(s) and mitigation action(s) for some key project risks are highlighted in Table 5.

RISKS	RECOMMENDED RESPONSE
LEGAL	
Limited human and technical capacity in legal drafting	<ul style="list-style-type: none"> ● Prioritize capacity development in legal drafting due to: (i) its importance to the success of the MSP; (ii) it is a time-consuming activity; and (iii) it often “drags out” a process significantly beyond the timeline.
DATA	<ul style="list-style-type: none"> ▪
Gaps, inadequate and poor- quality, limited access (closed or restricted); insufficient knowledge about Barbados’ natural resource endowment	<ul style="list-style-type: none"> ● Implement an efficient process to determine data gaps and the necessary actions to fill the most critical needs, such as: (i) examine what exists; (ii) determine what critical data is needed, (ii) identify data gaps, (iii) pursue arrangements to collect existing data from holding organizations, and (iv) prioritize research/collection exercises to fill data gaps. ● Implement a systematic way of identifying, collecting, storing and retrieving traditional knowledge. ● Explore simple relatable ways to translate science and technical information to stakeholders and wider citizenry so that there is support and ownership of the MSP.
STAKEHOLDER ENGAGEMENT	
Diverse and disorganized stakeholder groups; stakeholder disinterest; consultation fatigue; competing priorities; conflicting and competing stakeholder goals; uneven dissemination of information	<ul style="list-style-type: none"> ● Conduct an in-depth stakeholder analysis – Rank stakeholders based on level of influence, their roles/impacts on the project. ● Create and implement an appropriate and innovative communications plan with effective messages and products tailored for specific audiences, inclusive of an engaging social media strategy. ● Generate conflict resolution options for each stakeholder group and promote understanding of issues across groups.
VISIBILITY	
Lack of awareness at all levels (uninformed politicians/ stakeholders/ participants)	<ul style="list-style-type: none"> ● Promote citizen-science to assist with advocacy and analysis (also allows for greater ownership and involvement in decision-making) ● Publicized successes so that persons see the benefits at a personal level. ● Identify champions from different stakeholder groups to disseminate messaging and influence public for widespread buy in. ● Communicate what the implementation arrangements are and how persons could benefit. ● Communicate how the MSP will be adaptive (persons will know how they will be able to influence change during the MSP development process before it is finalized) keeping in mind that all decisions will be made in alignment with the best available science and information.
CHANGING NATIONAL/POLITICAL CONTEXT	

<p>Change of priorities influenced by the state of the economy; change of administration</p>	<ul style="list-style-type: none"> ● Ramp up government engagement/ keep it on the agenda as a priority – solid communications plan is necessary. ● Sustain communications throughout the process. ● Encourage public private partnerships to keep investing in engagement – ensure that despite change in government, the private sectors will keep MSP on their radar. ● Invest in public engagement so citizenry understand and agree that MSP is a priority. ● Establish learning networks specifically for MSP. ● Advocate for passing and begin process of drafting a law to support and implement spatial planning. ● Take advantage of the current political climate and momentum.
DELAYS	
<p>Delays in project management decision-making</p>	<ul style="list-style-type: none"> ● Streamline the management framework with a clear reporting structure; too many layers can cause confusion and disruption in decision-making. ● Ensure the project manager is well-suited e.g. politically savvy (ensures that the ministers and stakeholders are fully briefed and aware of issues); familiar with how Barbados works and its culture etc.; decisive and willing to confront and help resolve contention. ● Provide an efficient administrative support structure (often lacking in similar initiatives). ● Ensure timely reporting to Cabinet and shepherding of decision process by the Minister.
EMERGENCIES	
<p>Intervening Disasters and Emergencies (e.g., Covid-19)</p>	<ul style="list-style-type: none"> ● Implement a flexible and adaptive management process with contingencies. ● Utilize technology to maintain communication, interest, and participation during times of disruption. ● Include force majeure clause in legal agreement(s).

Table 5. KEY PROJECT RISKS AND POTENTIAL MITIGATION/RESPONSE ACTIONS

4. MONITORING AND EVALUATION

As the goals and objectives become finalized, a Monitoring and Evaluation (M&E) Plan should be developed that will allow for the tracking of the performance and progress of the overall MSP development process over the 5-year life span of the project. The M&E plan will be reviewed and updated annually to include additional indicators, as appropriate.

References

- Government of Barbados (2021). Integrated Coastal Zone Management: The Barbados CZM Plan (2020 to 2030).
- IADB (2021). Implementation of an Integrated Blue Economy Policy Framework and Strategic Action Plan for Barbados.
- IOC-UNESCO (2009). Marine Spatial Planning: A Step-By-Step Approach Toward Ecosystem-Based Management.
- UNDP (2020). Barbados Blue Economy Scoping Study: Initial Action Plan; Stocktake and Diagnostic Analysis.

Appendix 1

Preliminary List of Legislation and Policies relevant to Marine Spatial Planning Process for review by LIWG:

- Planning and Development Act (2019)
- Preservation of Antiquities and Relics Bill (2011)
- Shipping (Watersports) Regulations (2004)
- Barbados Port Inc. Act (2003)
- Tourism Development Act (2001)
- Shipping (Oil Pollution) Act (2000)
- Coastal Zone Management Act (1998)
- Fisheries Act (1993)
- Fisheries (Management) Regulations (1998)
- Marine Pollution Control Act (1998)
- Ombudsman Act (1995)
- Marine Areas (Preservation and Enhancement) Act (1976)⁷
- Shipping Act (1994)
- Wild Birds Protection Act (1985)
- National Conservation Commission Act (1982)
- Defense Act (1979)
- Marine Boundaries and Jurisdiction Act (1978)
- Barbados Territorial Waters Act (1977)
- Harbour Regulations (1966)
- National Trust Act (1961)
- Barbados Museum & Historical Society (1933)
- Offshore Petroleum Act and regulations (in draft)
- Maritime heritage legislation (in draft)
- Fishing Vessel Safety Regulations (in draft)