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Regulation and Planning in the Sea Basins – The Caribbean Basin

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13.1 Introduction and Geography

Located in the American continent, the Caribbean Sea is an arm of the Atlantic Ocean (Figure 13.1). Its geographical boundaries are: (i) the islands of the West Indies to the N and E; (ii) South America to the S; and (iii) the Central American Isthmus to the W. Extending between 9–22°N and 61–88°W, it is considered one of the largest seas in the world. It connects to the Gulf of Mexico through the Yucatan channel, to the Pacific through the Panama canal and to the Atlantic by multiple straits. It is divided into two main sub-regions: (i) the continental Caribbean, formed by the countries from North, Central and South America bordering its waters; and (ii) the insular Caribbean, formed by the Greater Antilles (Cuba, Hispaniola – containing Haiti and Dominican Republic-, Jamaica and Puerto Rico) and the Lesser Antilles (Islands between the southeast of Puerto Rico and the north coast of Venezuela). The economy of many of these countries is based principally in the exploitation of their natural resources, the tourism and fisheries sectors are critical activities for the economic development of the area.

The complex political structure (including sovereign countries, outermost regions and overseas countries territories) is reflected in the maritime governance of the region. Although the sea is one of the main resources for the economic, social and cultural development of most of these countries, the many initiatives and regional governance commissions (some examples are given in Table 13.1), are highly uncoordinated and fragmented, resulting often in duplication and ineffectiveness. However, three integrative ocean

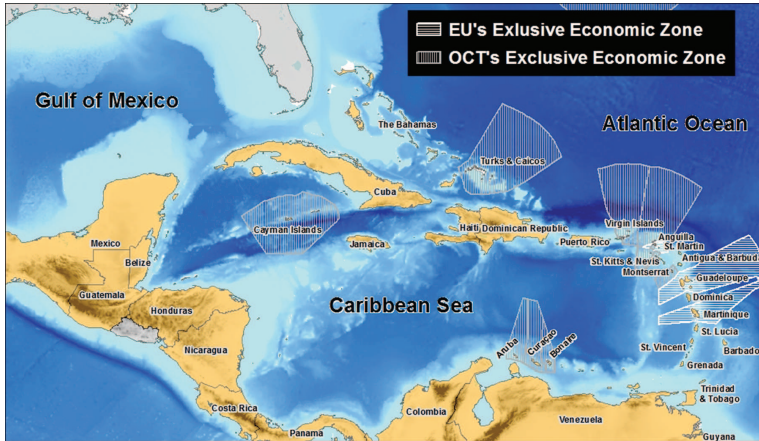


Figure 13.1 Caribbean Sea Basin. [OCT = EU Overseas Countries and Territories] [OR = Outermost Region].

Table 13.1 List of countries and organisations

Country	STATUS	ECLAC	ACS-CSC	CARIFORUM	CARICOM	OECS
Anguilla	OCT (UK)	*		‡		*
Antigua & Barbuda	Sovereign					
Aruba	OCT (NL)	*	*	‡		
Barbados	Sovereign					
Bonaire	OCT (NL)		*	‡		
British Virgin Islands	OCT (UK)	*		‡		*
Cayman Islands	OCT (UK)	*		‡		*
Curaçao	OCT (NL)	*	*	‡		
Dominica	Sovereign					
Grenada	Sovereign					
Guadeloupe	OR (FR)	*	*	‡		
Martinique	OR (FR)	*	*	‡		
Montserrat	OCT (UK)	*		‡		
Saba	OCT (NL)		*	‡		
St. Barthelemy	OCT (FR)		*			
St. Kitts & Nevis	Sovereign					
St. Lucia	Sovereign					
St. Martin	OR (FR)		*			
St. Vincent and the Grenadines	Sovereign					
St. Eustatius	OCT (NL)		*	‡		
St. Maarten	OCT (NL)	*	*	‡		
Trinidad & Tobago	Sovereign					
Turks and Caicos Islands	OCT (UK)	*		‡		*

* Associate country; ‡ Observer country.

management policy frameworks can be considered of relevance under the scope of this chapter.

1. **Caribbean Sea Initiative** – establishes the basis for a regional maritime governance framework through the following fields for action: marine pollution; coastal and marine resources management; climate change and disaster risk reduction; social and economic development; sustainable ocean governance; and human capacity development. Established by the Association of Caribbean States (ACS), the Caribbean Sea Commission (CSC) has been recognised as the body that can potentially provide policy harmonisation and coordination for the achievement of the objectives established by the Initiative (UN, 2014).
2. **Eastern Caribbean Regional Ocean Policy (ECROP)** – adopted by the Organisation of Eastern Caribbean States (OECS), the ECROP has the following policy goals (OECS, 2013): secure access to marine resources; maintain and improve ecosystem integrity; promote social and economic development; adopt multi-use ocean planning and integrated management; promote public awareness, participation and accountability; support research and capacity building; and, building resilience and managing for uncertainty. Although it is not a legally binding document, its guiding principles are based on international law.
3. **Integrated Maritime Policy** – Although ORs (Guadeloupe, Martinique and Saint Martin) are full members of the EU, given their exceptional situation (geographical, economic, etc.) the application of the European marine legislation within their EEZs differs in comparison with the remainder of European Sea basins (i.e., Atlantic, Baltic, Mediterranean). However, ORs not only have a great potential for maritime activities, but due to their geographical location they provide a global dimension to the maritime space of the EU. Being aware of this, the IMP seeks to promote and facilitate the maritime development of these regions, as well as to increase cooperation at the regional level (EC, 2007). Among the challenges for the region the following must be noted: adaptation of the IMP and its action plans to the specific characteristics of the ORs (including Blue Growth, Marine Data and Knowledge, Maritime Spatial Planning, Integrated Maritime Surveillance, and Sea Basin Strategies); increase the knowledge of the maritime affairs and marine environment; creation of maritime research networks; promotion of regional maritime governance policies; and, enforce maritime relations with neighbouring countries (EC, 2008a).

As ORs of France, Guadeloupe, Martinique and Saint Martin are full members of the EU and as such, their waters are under the EU's jurisdiction. Further, given its colonial past, the EU maintains close ties and strategies in terms of cooperation and development with the region, which are of particular relevance in the case of the Lesser Antilles. In fact, many of them are classified as Overseas Countries Territories (OCT), which gives them a special relationship status with some of the EU's Member States (Table 13.1). Considering that, this chapter will focus in the countries with which the EU has some relevant policy relationship (i.e., Lesser Antilles). Recognising their economic and geographical inequalities (remoteness, insularity, small surface, economic dependence...) the Strategy for the ORs, sets as main objectives for these regions the reduction of their accessibility deficit, the increase of their competitiveness and the strengthening of their regional integration. Given their close dependence with their coastal resources, many of the proposed measures closely link to the management of the marine resources of the region (EC, 2012a). In the case of OCTs and remaining islands, the development and the sustainable use of marine resources is generally one of the central pillars of the signed agreements. Among these, the Joint EU-Caribbean Strategy can be highlighted. Adapting the bases of the Cotonou agreement to the specific characteristics of the signatory Caribbean countries (CARIFORUM), this strategy aims to promote the economic, social and cultural development of the region (EC, 2012b). Again, the achievement of these objectives is closely linked to the management of marine resources (e.g., development of renewable energy, food security, promotion of the blue economy, protection of marine habitats, etc.).

13.2 Current and Planned Environmental Policies

Adopted in 1983 the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention) is the main framework for the protection of the marine environment in the Caribbean (UNEP, 2012a). The Convention with its three protocols (Annex I), provides the legal basis for the implementation of the Action Plan of the Caribbean Environment Programme (CEP), which aims to promote regional cooperation in different aspects related to the protection and development of the marine environment. This includes: land-based pollution; fisheries management; critical habitats; urbanization and coastal development; agriculture and forestry; sustainable tourism; oil spills; and, capacity-building (Parris, 2013). To carry out their actions the CEP consists of 3 sub-programmes

(Table 13.2). At the OECS level, the St. George's declaration adopts the requirements of the Cartagena convention and establishes the benchmark for environmental management (OECS, 2006). Composed of 21 principles, the declaration gives to environmental management a central role in the socio-economic development of OECS countries (Table 13.2). The declaration

Table 13.2 Summary of environmental conventions in the Caribbean and OECS Caribbean Environment Programme (Regional)

Caribbean Environment Programme (Regional)	
Sub-Programme	Actions
Assessment and Management of Environmental Pollution (AMEP)	Control, prevent and reduce marine pollution: Coordination of LBS and Oil Spill protocols (Annex I)
Specially Protected Areas and Wildlife (SPAW)	Achievement of SPAW Protocol goals and: (i) increase and support the development of protected areas; (ii) support the conservation of endangered species and promote the sustainable use of natural resources; and (iii), coordinate and develop synergies with other initiatives related to the conservation of biodiversity (e.g., Convention on Biological Biodiversity, Ramsar Convention, International Coral Reef Initiative, etc...)
Communication, Education Training and Awareness (CETA)	Increase public awareness, involvement and skill in order to provide timely and efficient responses to problems
St. George Declaration (OECS)	
Goal	Principles
Build the capacity of Member States and Regional Institutions to guide and support processes of sustainable development	P.1: Integrate social, economic and environmental considerations into national development policies, plans and programmes. P.3: Improve on legal and institutional frameworks. P.8: Address the causes and impacts of climate change. P.15: Promote cooperation in science and technology.
Incorporate the objectives, perspectives, resources and talents of all of society in environmental management	P.4: Ensure meaningful participation by civil society in decision making. P.5: Ensure meaningful participation by the private sector. P.7: Foster broad-based environmental education, training and awareness. P.15: Promote cooperation in science and technology.

(Continued)

Table 13.2 Continued
St. George Declaration (OECS)

Goal	Principles
Achieve the long-term protection and sustained productivity of the region's natural resource base and the ecosystem services it provides	<p>P.10: Prevent and control pollution and manage waste.</p> <p>P.11: Ensure the sustainable use of natural resources.</p> <p>P.12: Protect cultural and natural heritage.</p> <p>P.13: Protect and conserve biological diversity.</p> <p>P.16: Manage and conserve energy.</p>
Ensure that natural resources contribute optimally and equitably to economic, social and cultural development	<p>P.6: Use economic instruments for sustainable environmental management.</p> <p>P.8: Address the causes and impacts of climate change.</p> <p>P.9: Prevent and manage the causes and impact of disasters.</p> <p>P.14: Recognise relationships between trade and environment.</p>

is implemented by signing countries through their National Environmental Management Strategies (NEMS).

Despite this framework for the protection of the environment, the Caribbean has been subjected to a continued deterioration of its natural resources (overexploitation of resources, loss of biodiversity, increased pollution, climate change...). Pushed by civil society and being more aware of the great socio-economic potential of their natural resources, the Governments of the area have begun to adopt cross-sectoral approaches, giving a higher importance to the protection of the environment and its resources. However, this change of focus has not resulted in effective environmental protection. The main reason for this failure is the structure of the economic development model itself, which prioritises sectoral economic policies over sustainable development in the region (and possibly increasing social inequalities) (UNEP, 2012b).

13.3 Regulatory Requirements

Annex I addresses the main global regulations of relevance for the maritime sectors addressed in this book. In addition, Table 13.3 shows specific policy frameworks in relation to the sector combinations considered for the Caribbean.

Table 13.3 Caribbean sector specific policies

Sector	Policy/Agreement	Implementing body
Fisheries & Aquaculture	Caribbean Community Common Fisheries Policy (evolving)	Caribbean Regional Fisheries Mechanism (CRFM)
	Common Tourism Policy	OECS
Tourism	Caribbean Regional Sustainable Tourism Development Programme	Caribbean Tourism Organisation (CTO)
	Revised Treaty of Chaguaramas (CARICOM Single Market and Economy)	CARICOM
Transportation & Trade	EU-Caribbean Economic Partnership Agreement	EU-CARIFORUM
	Regional Energy Policy	CARICOM
Renewable energy	Eastern Caribbean Energy Regulatory Authority (ECERA; evolving)	OECS

13.4 Spatial Requirements, Conflicts and Planning/Policy

As a result of the strong dependence on maritime activities, competition and conflicts for space and marine resources are a common issue in the Caribbean (especially on small islands). This is enhanced by the proximity between countries, as the transboundary nature of the uses and resources is added to the interaction between the different uses of the sea (fishing, tourism, energy, etc.) and different factors such as natural disasters or climate change. Driven by increasing maritime activities, two main types of conflicts predominate, which weaken the goods and service provision capacity of coastal zones: (i) conflicts between human uses (user–user); and (ii) conflicts between human uses and the marine environment (user–environment) (Pomeroy et al., 2014). This has led to movement towards integrated management approaches of the marine environment (e.g., ecosystem based management, integrated coastal zone management), including marine spatial planning (MSP). Table 13.4 shows some of the major initiatives in the insular region of the Caribbean, which generally focus on the management and reduction of conflicts with fisheries. Despite these initiatives, the comprehensive implementation of MSP in the region presents a series of challenges. These, relate closely to the complex geopolitical structure and lack of political will (Pomeroy et al., 2014).

- Limitations of governance mechanisms: the different governance frameworks in the region (e.g., CSC, ECROP, IMP) advocate the use of MSP approaches. For example, one of the major policy goals of ECROP is the

Table 13.4 Examples of MSP actions developed in the Caribbean

Country	MSP in Place	Activities Covered	Comments	Links
St. Kitts and Nevis	Pilot project	Fishing; Conservation; Tourism; Transportation; Recreation; Development & Planning	Initiative/partnership: USAID and The Nature Conservancy	http://www.marineplanning.org/pdf/StKitts_Nevis_Full_Report.pdf
Grenadine Islands	Conceptual framework	Fishing; Tourism/Recreation; Transportation/Industrial; Conservation; Mariculture	Initiative/partnership: Sustainable Grenadines Inc., NOAA, CERMES, The Nature Conservancy	http://www.grenadinesmarsis.com/uploads/Baldwin_MZP_FinalReport.pdf
Barbuda	Pilot project	Fishing; Conservation; Recreation; Offshore energy; Aquaculture; Transportation	Initiative/partnership: Blue Halo initiative (Wait Institute and Seasketch)	http://barbuda.waitinstitute.org/
Curaçao	Pilot project	Fishing; Conservation; Recreation; Offshore energy; Aquaculture; Transportation	Initiative/partnership: Blue Halo initiative (Wait Institute and Seasketch)	http://curacao.waitinstitute.org/
Montserrat	Pilot project	Fishing; Conservation; Recreation; Offshore energy; Aquaculture; Transportation	Initiative/partnership: Blue Halo initiative (Wait Institute and Seasketch)	http://montserrat.waitinstitute.org/
Wider Caribbean Region	Study to support the CBD convention (Marine mammals)	Conservation (habitats & species distribution); Fishing; Shipping; Land-based non-point organic pollution	Initiative/partnership: UNEP-Spain LifeWeb Project (Broad-scale Marine Spatial Planning of Mammal Corridors and Protected Areas in Wider Caribbean and Southeast & Northeast Pacific)	file:///C:/LocalStore/116/Downloads/Report%20on%20the%20LifeWeb-Spain%20UNEP-CEP%20Meeting...%20UNEP(DEPT)-CAR%20WG.36-INF:8-en%20(1).pdf

adoption of multiple-use ocean planning as a tool for the management of maritime areas. However, these governance mechanisms lack, at least so far, sufficient strength and capacity for implementation.

- Limitations on basic geographic data: collection and dynamic integration of reliable spatial data on the activities, objectives and possible changes (e.g., growth, climate change) at different spatio-temporal scales is crucial for the effective implementation of the MSP.
- Involvement of authorities and stakeholders: the joint collaboration of marine stakeholders and authorities is required in order to obtain a complete picture of the issues and conflicts that may arise between uses of the marine environment.
- Financial resources: most of the MSP initiatives are being carried out with funds from foreign projects. Although these foreign initiatives may be valuable as a way for introducing MSP practices, the long-term sustainability of the approach requires national/local interest, support and funding.

13.5 Support Schemes

13.5.1 Support Programmes

The joint European-Caribbean strategy establishes an Economic Partnership Agreement (EPA) between the EU and the countries of CARIFORUM (EC, 2008b). The European Development Fund (EDF) is the main financing mechanism in the context of this partnership, which aims to fund projects for the economic, social and human development of the region. Similarly, Regulation No. 233/2014 establishes a financing instrument for development cooperation for the period 2014–2020 (EC, 2014). It provides a priority role to issues such as the promotion of renewable energies, strategies for employment creation, the preservation of the environment or food security. Two additional funding and support mechanisms which of interest for different maritime sectors are shown below.

1. **Caribbean Investment Facility** – based on the objectives of the EU-CARIFORUM agreement the facility mobilises resources for strategic economic projects and the support of the private sector. The investment priorities are: (i) improvement of transport and energy infrastructures (interconnectivity, security, efficiency, etc.); (ii) improvement of access to ICT infrastructure; (iii) establish better infrastructures for water and

sanitation; (iv) promote infrastructure for the prevention of natural disasters; and, (v) improvement of social infrastructure. The support is provided in the form of investment grants, technical assistance, risk capitals and other risk sharing instruments.

2. **European Investment Bank** – financing from the EIB areas include: (i) strengthening of local financial sector; (ii) credit lines and financial contributions for SMEs; (iii) projects of sustainable infrastructure in the sectors of energy, transport, water and telecommunications; (iv) industrial activities (e.g., manufacturing, mining); (v) expansion of the service sector, including tourism; (vi) food security; and (vii), climate change mitigation and adaptation measures. The main investment instruments are: subordinated loans; quasi-equity funding; equity funding; guarantees; senior loans; intermediate loans; technical assistance; and, interest rate subsidies.

13.5.2 Subsidies

Agreed by CARICOM's Member States, the Caribbean Single Market Economy establishes a strategy for cooperation, integration and economic competitiveness of the signing parties. In addition to the rules for trade between Member States, it sets the conditions for subsidies (mainly oriented to import/export activities). The Agreement prohibits direct government subsidies which may involve a disadvantage for the industries from other signing countries. However and always in a justified manner, it also establishes a series of general exceptions under which government aid would be permitted. Among the exceptions potentially linked to Blue Growth, would be those related to the prevention and relief of food shortages and the conservation of natural resources and the environment. In the same way, the Regional Energy Policy (CARICOM, 2013) advocates the phasing out and rationalisation of fossil-fuel subsidies in order to enhance the competitiveness of renewables.

13.6 Key Considerations

The policy framework in the Caribbean is extremely complex. The region is characterised by a large number of small neighbouring countries, which have different sovereignty levels (ORs, OCTs, and sovereign countries) and important socio-economic inequalities. Despite the large amount of institutions focused on the cooperation between countries and their development, they have limited implementation capacity. This is due largely to the colonial

past of the region, which favoured the development of an economic model based on the massive exploitation of the rich natural resources and the strong dependency on the colonial powers. As a result, the economies of the countries studied in this report are characterised by the lack of industrial fabric and dependence on natural resources, being especially important those provided by the sea (e.g., fishing, tourism).

The EU maintains close ties with the region in terms of cooperation and development, for which the sustainable management and exploitation of marine resources plays an essential role. Objectives of these agreements such as food and energy security, improvement of water and sanitation infrastructures, sustainable tourism or the eradication of poverty through employment generation, relate directly with many of the sectors studied in this book (e.g., fisheries/aquaculture, marine renewable energies, tourism, desalination systems, etc.). In addition, the probability for spatial conflicts (user-user and user-environment) is increased by the small size of the countries and the great amount of activities carried out in their maritime space. In this context, combining technologies in the same marine space decreases conflict between users, and simultaneously facilitates better management of this important resource.

The EU-CARIFORUM Economic Partnership Agreement (EPA), provides a series of investment opportunities. The partnership aims to promote trade and investment, facilitating the access to markets of both signing partners. Although the Agreement considers some specific national reserves, it addresses directly sectors such as fisheries, mining, oil & gas, renewables and services (including transportation and tourism). Thus, it provides a good starting point for both the development of BG sectors and the socio-economic development of the region. In the same vein, the Eastern Caribbean Regional Ocean Policy (OECS, 2013), highlights specifically the need for the adoption of multiple-use ocean planning approaches. Again, given the special relationship between OECS countries and the EU (either through the EPA or because of their Overseas Country Territory (OCTs) status), Caribbean Small Developing Islands appear as a suitable location for the development of Multi-use-of space combinations and Multi-use platforms.

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