

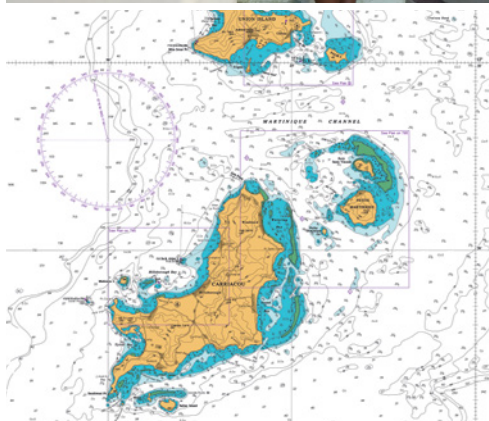
# Commonwealth Marine Economies Programme



Funded by  
UK Government

Enabling safe and sustainable marine economies  
across Commonwealth Small Island Developing States

## Grenada Country review



Centre for Environment  
Fisheries & Aquaculture  
Science



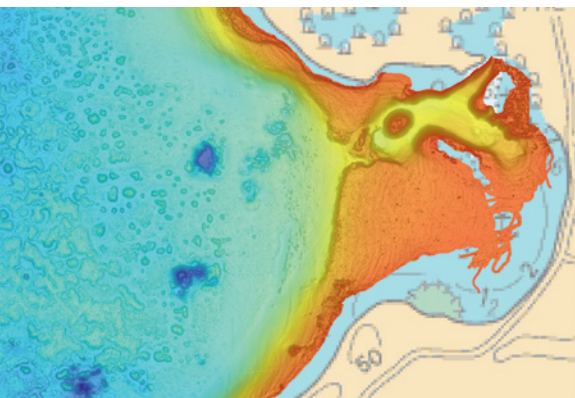
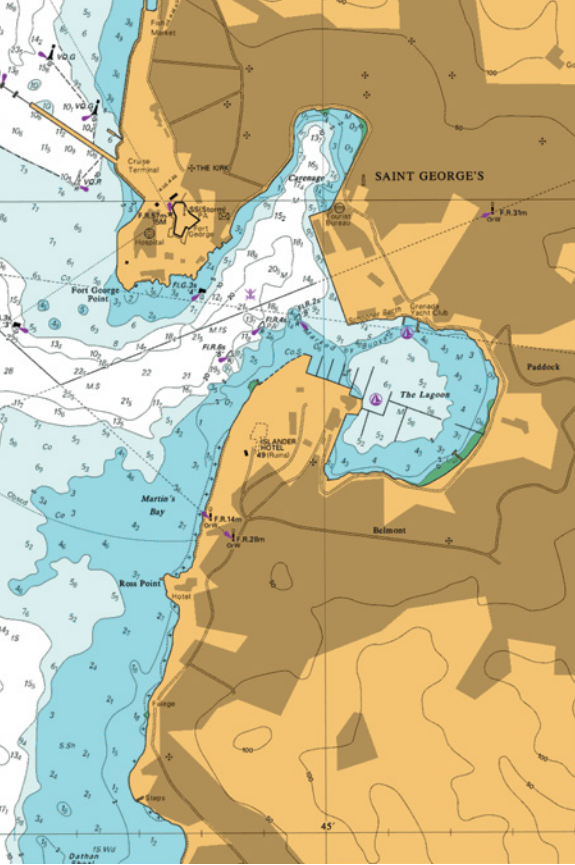
UK Hydrographic  
Office



National  
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NATURAL ENVIRONMENT RESEARCH COUNCIL



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Office



The CME Programme is designed to support sustainable, growing marine economies that create jobs, drive national economic growth, reduce poverty, ensure food security and build resilience against forces of nature. Funded by the UK Government and delivered by a partnership of world-leading marine organisations from the UK, the programme aims to ensure marine resources in Commonwealth SIDS are better understood and managed.

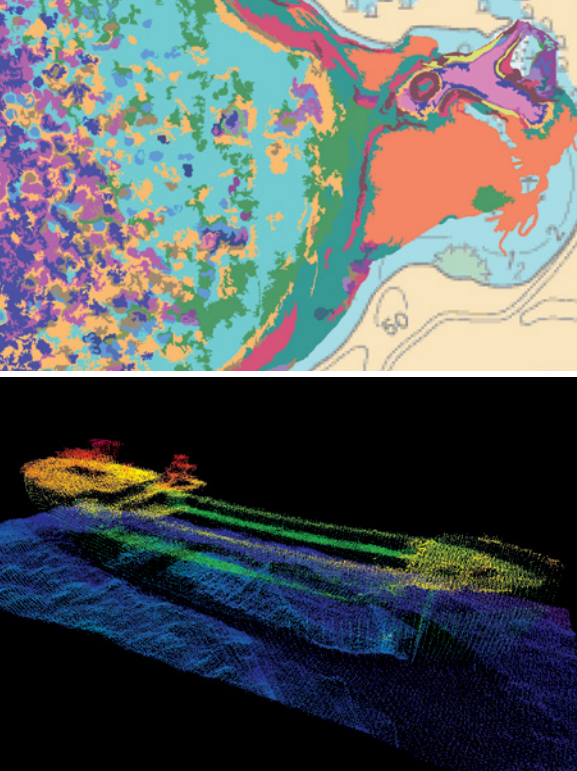
This review highlights opportunities where the UK can apply and leverage its world-leading expertise to make significant, cost-effective and lasting positive impacts on each country.

## Relevant strategic plans

**International** – Grenada is subject to international laws and obligations such as listed under the UN Convention on the Law of the Sea; Safety of Life at Sea; Conservation of Biological Diversity (Aichi Targets); SIDS Accelerated Modalities of Action (SAMOA) Pathway; 2030 Agenda for Sustainable Development (including Sustainable Development Goals 2 – Zero hunger, 9 – Industry, innovation and infrastructure, 13 – Climate action and 14 – Life below water); Ramsar Convention on Wetlands of International Importance; International Coral Reef Initiative; the World Heritage Convention.

**Regional** – Relevant mechanisms and bodies within the Caribbean include the Caribbean Regional Fisheries Mechanism; Caribbean Community Common Fisheries Policy; Caribbean Large Marine Ecosystem Programme; Caribbean Regional Oceanscape Project, and the Eastern Caribbean Regional Ocean Policy and the Regional Seas Convention.

**National** – Grenada is in the process of forming a National Oceans Governance Committee to better align all departments working in the marine sectors and improve stewardship, planning and sustainable usage. Existing strategies for enabling the safe and sustainable development of Grenada’s marine environment include; the National Land and Marine Management Strategy (2011); National Biodiversity Strategy and Action Plan (2016-2020); and the Blue Growth Coastal Master Plan, including the Integrated Coastal Zone Management Policy.



## Challenges faced

### **Management of coastal and marine environments –**

Grenada has committed to protecting 25% of its near-shore environment, and has already benefited from considerable activity conducted through the CME Programme. Extensive seabed and habitat mapping has been undertaken, resulting in a range of products including new navigational charts and habitat maps. All of the data collected has been passed on to the Government of Grenada, and while some training on effective use of these datasets has been provided, challenges remain for managing, sharing and utilising these datasets. If this data cannot be fully understood, accessed and exploited by local stakeholders, its full value will not be realised.

**Hydrographic governance and coordination** – Grenada needs to ensure the appropriate maintenance of their high quality hydrographic data holdings by improving their maritime safety information systems and hydrographic governance. The CME Programme can provide guidance in building self-sufficient governance systems, helping to ensure compliance with international obligations.

**Sustainable use of marine resources** – The over exploitation of fish stocks can have negative consequences on many ecosystems and communities. Training in data management, fisheries extension and fisheries data management/stock assessment are all required to support the fishing industry within Grenada. In addition, there is currently a lack of data on the introduction routes and management of non-native species.

**Protection and preservation of the marine environment** – Maintaining the health and biodiversity of marine ecosystems within Grenada is fundamental for environmentally sustainable development. In particular, the protection and preservation of coral reefs is of critical importance from both an environmental perspective and for their role in the tourism sector. Characterisation of the impacts of marine pollution on the health of the marine ecosystems and water quality is needed to help improve wastewater management practices, and to identify regions most at risk.

**Climate change impact assessment** – Marine and coastal environments are particularly vulnerable to the impacts of climate change, most notably through factors such as ocean acidification, sea-level rise and invasive species. There is a requirement to increase capacity for mitigating the impacts of coastal erosion and reduce the vulnerability of coastal communities through adaptation strategies. Understanding, quantifying and monitoring those factors and their effects on local marine ecosystems is essential for developing appropriate risk mitigation and coastal planning strategies.

**Natural and environmental disasters** – In 2004, Hurricane Ivan destroyed 90% of Grenada's mangroves and resulted in USD \$1.1 billion worth of damage; equivalent to 200% of the country's GDP. Coastal infrastructure and marine environments need to be better adapted to the impact of natural hazards, with improved resilience built into systems to mitigate associated risks.

**Training and capacity building** – Improved awareness, skills and knowledge are required to enable Grenada to implement integrated ocean governance. Increasing both national and regional cooperation through the sharing of equipment and knowledge is also needed to help reduce costs and improve decision makers' understanding.

## Grenada – Activities and benefits

By providing data, training, advice and support, the CME Programme is designed to help address economic and environmental needs, leaving a lasting legacy of self-sufficiency in marine management.

Programme activities are split across six core themes, though potential action is not identified in every category in all Small Island Developing States.

Priority projects identified for Grenada include:

### Marine data collection for environmental resilience (core output 1)

**Activity** – Develop risk assessment of non-native species introduction and management plan.

**Benefits** – Understand potential routes of introduction and provide management plan for local policy makers.

**Activity** – Habitat mapping to characterise marine biodiversity resources.

**Benefits** – Inform decision making to implement Marine Protected Areas as part of the Caribbean Challenge Initiative commitment using high quality data and evidence.

### Monitoring and risk assessment to increase climate change resilience (core output 2)

**Activity** – Coastal vulnerability modelled and mapped and understood by local stakeholders. Mitigation activities advised to local policy makers.

**Benefits** – Provides local stakeholders with a better understanding of the impacts of waves and surges, and generates a better understanding of the sensitivities of marine environmental and ecosystem services to climate change. The findings will then enable local planners and stakeholders to make informed decisions on the sustainable management of their marine resources, and will guide future coastal management and planning.

**Activity** – Regional Climate Change Report Card.

**Benefits** – Provides climate change information to support effective climate change adaptation.

### Sustainable fisheries development (core output 4)

**Activity** – Support the development of an extreme weather event insurance product for the Grenadian fisheries sector.

**Benefits** – To enable prompt access to financial support for reconstruction. As part of the process in the development of climate change resilient fisheries practices then a more sustainable fisheries sector is also achieved.

### Science infrastructure development, training and knowledge exchange (core output 6)

**Activity** – Work with key maritime personnel to develop local hydrographic governance.

**Benefits** – Key elements of governance in place in line with IHO Phase 1 compliance, reducing potential barriers to international trade.

**Activity** – Work with key maritime personnel to develop local marine spatial data infrastructure.

**Benefits** – Allow the full value of existing bathymetric and habitat data to be realised by enabling access, understanding and exploitation.

## Programme outputs

If all of the identified activities were to be delivered, the CME Programme, working with key departments in Grenada, would result in the following development of marine capacity by the end of the scheduled Programme.

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Limited, or no, characterisation of physical parameters in marine and maritime sectors.	The physical parameters of the key marine and maritime environments and sectors are mapped and quantified.	The physical parameters are analysed in terms of the biological, sociological and economic context, resulting in a more in depth appreciation of their vulnerabilities and opportunities/limitations for sustainable use.	Defensible policy is produced for the marine and maritime sectors that details consideration for the sustainable development of the ocean economy.	Full competency in undertaking the previous phases is developed and sustained across multiple sectors, leading to the safe and sustainable development of marine and maritime economies.

**Output 1** – Marine data collection for environmental resilience and safe and efficient trade.

**Output 2** – Monitoring and risk assessment to increase climate change resilience.

**Output 3** – Decreasing pollution and improving human health.

**Output 4** – Sustainable fisheries development.

**Output 5** – Natural capital assessment.

**Output 6** – Infrastructure development, training and knowledge exchange.

## Expected impact

Through delivering these activities, outputs and benefits the CME Programme would help to facilitate:

**Output 1** – Adherence to the UN convention on the Law of the Sea and Safety of Life at Sea; reduction in the cost of imports and increase in the profitability of exports; reduction in the risk of maritime accidents and damage to the environment; generation of new evidence to support decision-making, leading to an increase in Marine Protected Areas; and evidence to sustainably manage and protect natural resources.

**Output 2** – Identification of communities and environments vulnerable to the impacts of climate change; Integration with regional and global hazard monitoring networks; Informed coastal management and planning decisions.

**Output 4** – Exploring new fisheries opportunities due to the introduction of new species.

**Output 5** – Enhanced awareness of the social and economic value of marine ecosystems; Quantification of the cost/benefit ratio of existing policy options, supporting decision making.

**Output 6** – Confidence and ability to make sound independent decisions regarding the development of marine environments; Access to state-of-the-art marine equipment, models and techniques; Development of national and international networks.

## Strategic outcomes

By better understanding and managing the marine resource potential within Grenada the CME Programme will help create jobs, drive national economic growth and reduce poverty through:

**Prosperity** – Diversifying revenue potential by opening up new economic opportunities.

**Sustainability** – Ensuring all marine and maritime activities are environmentally safe and sustainable.

**Security** – Making infrastructure and human capital resilient to natural disasters and climate change.


**Legacy** – Building the capacity of national authorities to plan and optimise their marine spaces.

## Commonwealth Marine Economies Programme

The CME Programme is being delivered on behalf of the UK Government by a partnership of world-leading marine expertise.



Funded by  
UK Government

  
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