

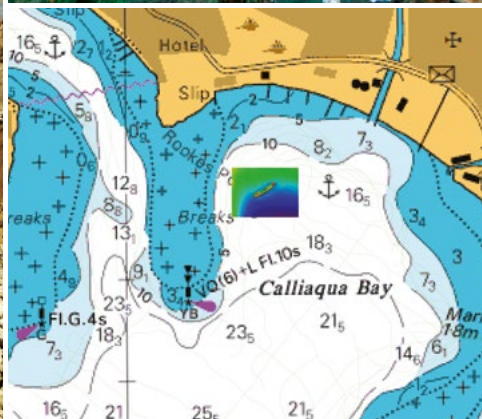
Commonwealth Marine Economies Programme



Funded by
UK Government

Enabling Safe and Sustainable Marine Economies
across Commonwealth Small Island Developing States

St. Vincent & the Grenadines case study



“To optimise the economic contribution made by ocean resources”

– A key St. Vincent & the Grenadines development objective



Centre for Environment
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Science



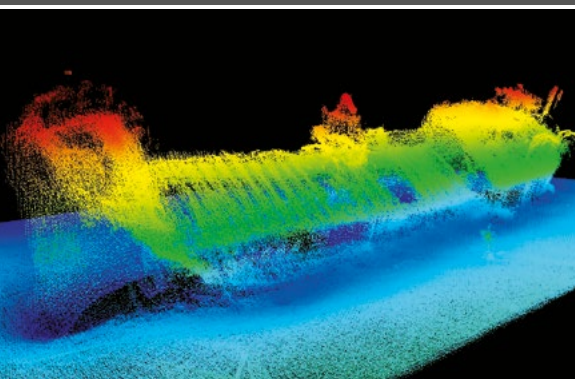
United Kingdom
Hydrographic Office



National
Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

Priority projects

- To facilitate trade and infrastructure development in a sustainable manner by significantly improving hydrographic data and maritime navigation charts
- Inform sustainable development and marine conservation by collecting environmental baseline data



“Hydrography is a fundamental building block for any management, development or exploitation in the marine environment.”

– David Robin, Director for Maritime Administration, Saint Vincent and the Grenadines, May 2016

The opportunity

The marine area under the jurisdiction of St. Vincent & the Grenadines is over 90 times its land area, offering huge potential for creating long term employment, generating incomes and contributing to overall social and economic development when exploited in a sustainable manner. However, the social and economic potential of this resource remains underutilised.

Key areas to benefit from the CME Programme

Tourism – is the most important economic activity, accounting for approximately 65% of St. Vincent & the Grenadines' GDP, and is heavily reliant on cruise ship tourism, coastal hotels and beaches, scuba diving and other water-based leisure activities. The CME Programme provides information and tools to maintain a healthy marine environment whilst enabling sustainable development.

Navigation – risk exists with small to medium size cargo and cruise ships navigating without adequate data in St. Vincent & the Grenadines. Evidence in other developing states shows how up to date navigation charts created from modern surveys support safe navigation, and have encouraged more visits and larger ships.

Conservation – work undertaken supports the commitments made by local Governments to protect the unique and rich environments found around the islands. Baseline data collected informs the selection and designation of marine protected areas, and facilitates spatial management of stakeholder activities within existing marine protected areas. This supports and improves healthy fisheries, maintains sustainable levels of biodiversity, improves tourist experiences, and creates recreational opportunities.

Transportation – more than 90% of goods imported to the country arrive by sea, so shipping and supporting infrastructure such as ports and harbours are vital to the economic growth.

Climate change – surveys will help countries adapt and mitigate effects of climate change, which include sea level rise, extreme weather events, coastal erosion and other processes.

Fisheries – coastal habitats like coral reefs and seagrass meadows are important spawning and nursery grounds, and knowledge of their location and quality will allow enhanced management of these areas. Healthy reefs and seagrass meadows support healthy fish stocks and the coastal communities harvesting this resource. In addition, data can support the development of new fisheries.

Mooring management – better managed moorings encourages more visitors, provides access for safe navigation, and reduces the impact on the environment, such as anchor damage to coral.

Future opportunities – may exist to further develop existing sectors, and also develop new activities such as aquaculture, bioprospecting (pharmaceutical products), offshore oil and gas production and offshore renewable energy.

Hydrographic surveying

The UKHO has conducted bathymetric survey work in St. Vincent & the Grenadines island chain, where the information collected will initially be used to improve hydrographic charting of the area, and support safer navigation.

Acoustic multibeam (sonar) surveys were conducted by the UKHO from August to October 2016, with a chartered survey boat targeting specific locations such as busy shipping routes and areas identified as needing environmental protection.

This was followed by the completion of bathymetric lidar (light detection and ranging) surveys by third-party contractors in December 2016 and January 2017 using a Twin Otter aircraft. The surveys were carried out across the entire shallow water areas, up to a depth of 40 metres, capturing some of the highest resolution bathymetric lidar data ever commissioned by the UKHO.

Data was then validated at the UKHO and shared to inform future projects and economic planning. The information will help facilitate trade and infrastructure development in a sustainable manner, greatly benefiting the local economy. It also provides the foundation layer of information for many other marine geospatial datasets.

As well as updating chart coverage, the information was also used to aid coastal resilience to climate change, and forms the basis for the seabed habitat maps by Cefas and the NOC – allowing areas of seabed to be sustainably managed and protected.

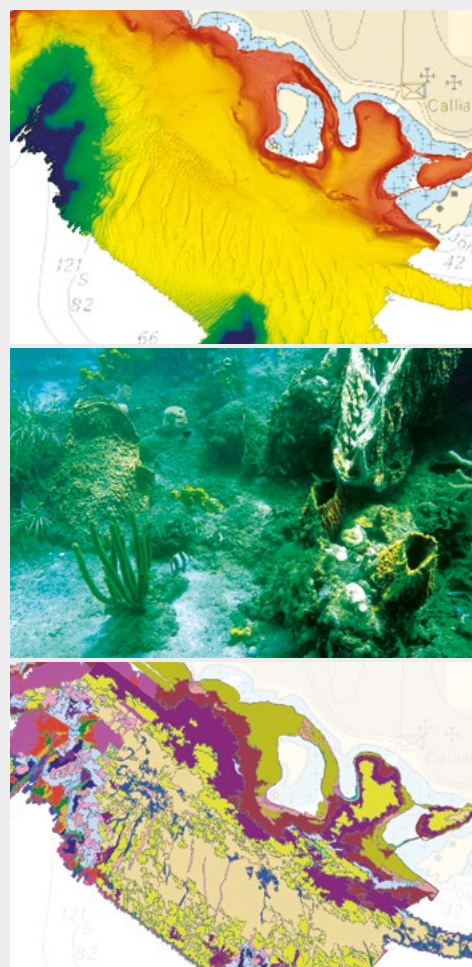
Seabed habitat maps

Cefas and the NOC have mapped the diverse range of habitats found on the seabed around St. Vincent. This information will be used to inform marine conservation and support sustainable development of the marine economy.

Over 30 hours of high definition underwater video data were collected to facilitate the development of habitat maps. These visual seabed surveys, conducted in September 2016, collected data in previously unsurveyed and unstudied waters beyond the reach of shallow water divers. The underwater imagery was analysed by Cefas biologists to describe the rich and diverse communities encountered, and to assess the health of the coastal habitats such as coral reefs and seagrass beds.

To meet the requirements identified by local stakeholders, hydrographic data and the latest image analysis methods were used to produce customised maps. These maps, produced by Cefas and the NOC, contribute to baseline evidence of the marine nearshore environment, describe seabed habitats and biological communities present in the area, and inform potential new marine protected areas.

Modern and high quality baseline data also enables national decision-makers and local stakeholders to plan how to use and manage the natural resources for sustainable marine economic development, whilst protecting the marine environment.



Commonwealth Marine Economies Programme

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



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About the CME Programme

The UK Government is supporting the development of Commonwealth Small Island Developing States' (SIDS) marine economies through the Commonwealth Marine Economies (CME) Programme.

Through the provision of world-class multi-disciplinary marine expertise, the programme aims to support the creation of prosperous, secure and resilient states to unlock the huge marine resource potential within their exclusive economic zones (EEZs).

The CME Programme aims to help SIDS in-scope to:

- Expand trade capacity and security by accurately charting ports and shipping lanes
- Identify and assess critical ecosystem health so they can be maintained for economic benefit
- Provide information to model disasters and climate change impacts to improve resilience
- Train SIDS to acquire and optimise information to ensure programme legacy

This will enable countries to realise their potential in a sustainable manner that conserves their oceans and marine resources in accordance with United Nations Sustainable Development Goals.

Planned strategic outcomes include:

- **Prosperity** – Diversifying economies by opening up new ocean economy opportunities
- **Sustainability** – Making existing and new ocean economy activities sustainable
- **Security** – Making infrastructure and human capital resilient to natural disaster / climate change
- **Legacy** – Building capacity of national authorities to plan and optimise their marine spaces

For more information on the Commonwealth Marine Economies Programme, please contact us via:

www.gov.uk/guidance/commonwealth-marine-economies-programme

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