

An underwater photograph of a vibrant coral reef. The scene is dominated by a large, branching coral structure in shades of orange and red on the left. In the center, a diver is visible, and to the right, a school of small, silvery fish swims. The water is a deep, clear blue. The overall atmosphere is serene and highlights the beauty of marine life.

Development of National Statistics Related to the Ocean Economy in Grenada and CARICOM SIDS

CARICOM Regional Workshop

Environment Statistics and Climate Change Statistics

Grenada 2019



Outline

- Country Background
- Issues and Risks For SIDS as it Relates to the Blue Economy
- Policy Response to Issues
- National Statistics to support Policy and Initiatives Geared towards Blue Growth and Development of Blue Economy
- Indicators that are currently included in CARICOM Core list of Environment Indicators that may be relevant
- SDG Indicators
- Marine Sectors in Grenada

Country Background- Grenada

- Grenada is 19 km long with a coastline of 121 km with an area of 344 km²
- Exclusive economic zone (EEZ) in the sea of 26,000 km² (75 times larger than land space)
- The island nation of Grenada lies north of Venezuela and Trinidad and Tobago, and south of the Grenadines, where the Caribbean meets the Atlantic.



Background Continue

- Its territory encompasses the main island of Grenada, home to most of the country's 111,959 people, and several other isles, the largest and inhabited ones being Carriacou and Petite Martinique.
- Long one of the world's leading producers of spices, Grenada ranks second worldwide in the nutmeg market, accounting for 20% of the global supply, Also exports mace, cinnamon and cloves.
- Over the last quarter century it has developed a tourism-based service economy, and it now brands itself as "Pure Grenada: The Spice of the Caribbean"



Importance of Blue Economy to CARICOM SIDS

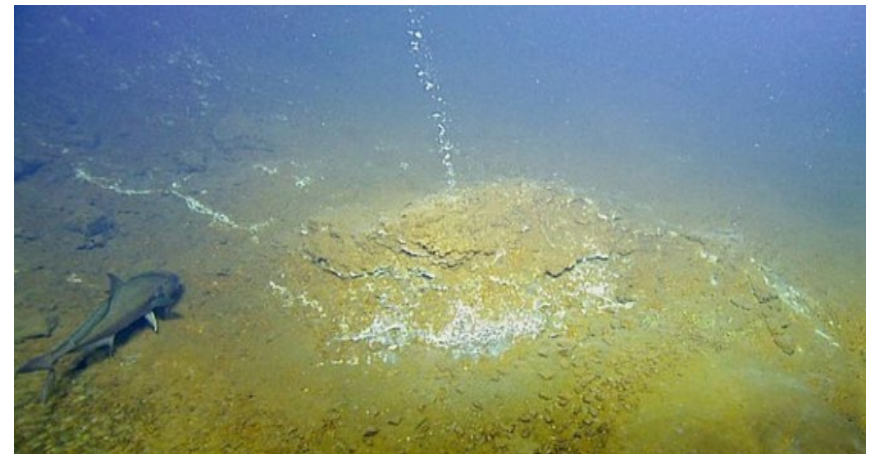
A satellite-style map of the Caribbean region, showing the Caribbean Sea, Central America, and the Caribbean Sea Islands. The text is overlaid on the map.

- The ocean economy highly relevant to the Caribbean Sea, where many states and territories are defined by the ocean.
- Although Caribbean Sea covers less than 1 percent of the world's ocean area (2.75 million square kilometers), it is estimated that the Caribbean ocean economy contributes 27% to the global oceans economy and 18 percent to the region's GDP.

Issues and Risks for SIDS as it Relates to the Blue Economy

- The small island countries of Caribbean States like Grenada face serious development challenges, coupled with low growth, natural disasters, high debt, relatively high rates of unemployment and poverty and unsustainable approaches to resource management, and limited fiscal space.
- Despite recent improvements in the region's unemployment rate, joblessness remains higher among youth, exceeding 30 percent in most countries.
- The central elements for closing the poverty and unemployment gap are undermined by unsustainable anthropogenic practices, including poorly planned coastal development and overexploitation of marine resources.

- Must deal with the current and possible future impacts of global climate change that threaten sustainable economic development and social cohesion. Observed sea level rise over the past years has been significantly higher than the projections from the Fourth Assessment Report (2007) by the United Nations.
 - According to the Climate Risk Atlas for Grenada, the country has already experienced significant losses to infrastructure and coastal resources due to sea level rise, elevated sea surface temperatures and increasing intensity of storms and hurricanes as evidenced by the widespread destruction and loss of life caused by Hurricanes Ivan and Emily in 2004 and 2005.
 - Tsunamis are relevant to Grenada due to the seismically active Caribbean area, as well as the undersea volcano “Kick em Jenny” north of the mainland.
 - As these impacts worsen, there is an ever-increasing risk of Grenada losing its remaining natural resources



- Ocean acidification is also increasing, leading to decreased oceanic food production as well as stressed and damaged coral reefs affecting biodiversity, tourism and sustainable fisheries. Islands are disproportionately affected by these impacts.
- Coastal Zone Management Issues
 - Pollution, inappropriate disposal of solid waste and coastal erosion due to sand mining result in degradation of coastal mangrove, coral reefs and marine ecosystem
 - Inappropriate and/or unplanned installation of coastal protection structures or beach enhancement programme and Removal of coastal vegetation that prevents beach erosion;
 - Invasive species that have devastating effects on coastal ecosystems and fisheries
 - Back-filling, dredging and land reclamation especially in mangrove areas to make way for commercial and residential development and destabilisation of coastal cliffs by inappropriate infrastructure.



Policy response to issues: Global-The SAMOA Pathway

- To promote and support national, sub-regional and regional efforts to assess, conserve, protect, manage and sustainably use the oceans, seas and their resources by supporting research and the implementation of strategies on coastal zone management and ecosystem-based management.
- To engage in national and regional efforts to sustainably develop the ocean resources of small island developing States and generate increasing returns for their peoples;
- To address marine pollution by developing effective partnerships, including through the development and implementation of relevant arrangements, for the Protection of the Marine Environment from Land-based Activities
- To undertake urgent action to protect coral reefs and other vulnerable marine ecosystems.
- To enhance and implement the monitoring, control and surveillance of fishing vessels so as to effectively prevent, deter and eliminate illegal, unreported and unregulated fishing.
- There were commitments under the following broad areas which can be positively impacted by the Blue Economy:
 - Sustained and sustainable, inclusive and equitable economic growth with decent work for all
 - Sustainable tourism, sustainable development and poverty eradication
 - Climate change, Disaster Risk reduction and sustainable energy
 - Food Security and nutrition and water and sanitation

Policy Response to Issues- Local/Regional

- **Grenada's plans for integrated ocean governance and shared prosperity (2016)** through World Bank Technical support: Grenada became the first OECS member country to develop a vision for protecting its “blue space” and to map its road toward blue growth. **Grenada's Blue Growth Coastal Master Plan** was designed to generate new jobs, foster alternative livelihoods, and expand the economy, all while preserving the natural environment. The pioneering work in Grenada has become a model for other OECS member countries to replicate and enhance.
- For the first time in history, visionary leaders of Caribbean governments and business leaders collaborate to take action to protect and sustainably manage their marine and coastal environment through the development of the Caribbean Challenge Initiative:
 - Conserve at least 20% of their nearshore environments by 2020 (the 20-by-20 goal)—effectively tripling marine protected area coverage in the region. Grenada has decided to aim towards 25% by 2020.
 - Ensure that these conserved areas are effectively managed into the future through a reliable, long-term finance structure
 - A growing number of partners—such as funders and non-governmental organizations—are rallying around this effort, providing financial, technical, and other support.

Policy Response to Issues local/ regional

- Grenada is part of Commonwealth Marine Economies (CME) Programme Enabling Safe and Sustainable Marine Economies across Commonwealth Small Island Developing States.
 - The programme offers measures to help small island countries alleviate poverty by preserving their marine environments and harnessing maritime resources that will support the sustainable growth of Commonwealth Small Island Developing States (SIDS) within the Caribbean, Pacific and Indian Ocean regions. The Programme is being delivered on behalf of UK Government by a partnership of world-leading UK government marine expertise.

National Priorities for Grenada in Harnessing Blue Economy

- Grenada's Blue Vision
 - to optimise the coastal, marine, and ocean resources to become a world leader and international prototype for Blue Growth and Sustainability
- An Integrated Coastal Zone Management Policy
 - Provides a vision for the future use, development and protection of the nation's coastal zone by setting out policies to guide relationships among resource users, community facilities and activities, and physical development and infrastructure.
 - A comprehensive approach to the management of the coastal zone that takes account of all of the sectoral activities that affect the coastal zone and its resources, dealing with economic and social issues as well as environmental and ecological concerns



National Statistics to support Policy and Initiatives Geared Towards Blue Growth and Development of Blue Economy

- A Huge Challenge
 - Current data available to understand the impact of the oceans on Grenada's economy, to enable integration and comparison of that data for policy and decision making is inadequate.
 - A consistent definition of the blue economy has not been developed for official statistics. No international standard definition for measurement purposes.
 - No consistent definition or application of a concept of blue economy in any statistical classification, either international, regional or national.
 - However, there are numerous international definitions and terminologies

National Statistics to support Policy and Initiatives Geared towards Blue Growth and Development of Blue Economy

- Ultimately a satellite account for ocean industries and economic sectors is needed to make estimates of the contribution to GDP easy to measure.
- However, there are capacity challenges and serious data gaps which needs to be urgently addressed even before considering moving to Oceans Satellite Accounts:
 - Absence of Supply and Use tables making the task of estimating oceans contribution to GDP difficult.
 - Non existence of Tourism Satellite Accounts
 - Ensuring continuous production of environment statistics
 - Capacity to undertake SEEA Accounting especially when national accounts is still underdeveloped. SEEA methodology to be expanded to include the Ocean
 - Resolving human resource challenge in Fisheries in collection and dissemination of timely statistics on Fish production

Indicators that are currently included in CARICOM Core list of Environment Indicators that may be relevant*

MR1: Total and Protected Marine Area

MR2: Fish Landings by Type

MR3: Number of families and Population of coastal area

MR4: Percentage of coral reefs destroyed by human activity and by natural disasters; (CSMDG)

Indicators that are currently included in CARICOM Core list of Environment Indicators that may be relevant*

BIO1: Protected Area as a Percentage of Total Territorial Area

MDG 7.4: Proportion of fish stocks within safe biological limits

MDG 7.6 Proportion of terrestrial and marine areas protected

MDG 7.7 Proportion of species threatened with extinction

Indicators that are currently included in CARICOM Core list of Environment Indicators that may be relevant*

TO1(a): Tourists, Cruise Ship Arrivals and Tourist nights spent by year

TO1(b): Tourist Intensity Ratio and Tourist Penetration Ratio

TO2: Number of Hotels Classified by Size, Beds and Rooms by Year

TO3: Visitor Expenditure and Number Employed in Tourism

TO4: Tourist Arrivals by Country of Origin

TO5: Tourist Arrivals by Type of Accommodation

Indicators that are currently included in CARICOM Core list of Environment Indicators that may be relevant*

- Waste – the blue economy must consider the angle of waste and waste disposal- particularly with the operations of large cruise liners:
- The following are current indicators in the CARICOM List that are collected by the UNSD
- Generation of Waste
- Management and Composition of Waste;
- Treatment and disposal facilities
- Generation and Recycling of Waste

Indicators that are currently included in CARICOM Core list of Environment Indicators that may be relevant*

Water

- **water supply**
- **water abstraction**
- **water use**
- **waste water treatment**

SDG14 : Conserve and sustainably use the oceans, seas and marine resources for sustainable development- Data requirements

<p>14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution</p>	<p>14.1.1 Index of coastal eutrophication and floating plastic debris density</p>	<p>Tier III</p>
<p>14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans</p>	<p>14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches</p>	<p>Tier III</p>
<p>14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels</p>	<p>14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations</p>	<p>Tier III</p>
<p>14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics</p>	<p>14.4.1 Proportion of fish stocks within biologically sustainable levels</p>	<p>Tier I</p>
<p>14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information</p>	<p>14.5.1 Coverage of protected areas in relation to marine areas</p>	<p>Tier I</p>

<p>14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation^[b]</p>	<p>14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing</p>	<p>Tier II</p>
<p>14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism</p>	<p>14.7.1 Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries and all countries</p>	<p>Tier III</p>
<p>14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries</p>	<p>14.a.1 Proportion of total research budget allocated to research in the field of marine technology</p>	<p>Tier II</p>
<p>14.b Provide access for small-scale artisanal fishers to marine resources and markets</p>	<p>14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries</p>	<p>Tier II</p>
<p>14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The future we want”</p>	<p>14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nations Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources</p>	<p>Tier III</p>

Gaps with SDG Oceans Indicators

- 50% of Oceans indicators are tier III and 20% tier I. The rest tier II.

Measuring Indirect impact of the Blue Economy on other SDG goals



- Goal 1. End poverty in all its forms everywhere and Goal 2. End Hunger
 - Grenada is boosting its Tourism sector through the Pure Grenada brand which aims to benefit the tourism, yachting, construction and services sectors and lead to increases in employment. Agriculture and fisheries are also important, especially for the rural communities and interventions are also ongoing in these areas. Region exploring climate insurance and financing and assistance available after natural disasters to increase the speed of recovery.
 - Grenada has been trying to promote locally produced and locally bought food including fresh fruit, vegetables and local fish. Aquaculture and mariculture are becoming important livelihoods especially for rural areas.

The Central Statistical Office has conducted a Survey of Living conditions which is grounded also in the MPI. Continuous Labour survey captures MPI information on an annual basis

Measuring Indirect impact of the Blue Economy on other SDG goals

- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
 - Grenada is currently looking into renewable and clean energies such as Geothermal with the assistance of a regional GCF project. There are also efforts to liberalise the energy sector to allow for more freedom for renewables such as solar PV. A new NAMA is currently being developed specifically for solar PV. Renewable energy from the waves, wind, and sun can be harnessed. Waste to energy projects.
- Mechanism already exist in regular surveys to find out from households main source of fuel for cooking and lighting. The renewable sources should be presented as Options.



Measuring Indirect impact of the Blue Economy on other SDG goals

- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
 - The above is also a key objective of investments into the blue economy
- Indicators of Economic Growth and Employment collected through Annual Surveys (LFS and National Accounts)



Measuring Indirect impact of the Blue Economy on other SDG goals

- Goal 13. Take urgent action to combat climate change and its impacts
 - Grenada has developed its National Adaptation Plan which lists multiple adaptation interventions in important areas including in the Coastal and Marine sector. Grenada has also recently revised its Climate Change Policy and a National Climate Change Committee meets regularly on Climate Change Issues and project. Grenada is currently implementing a number of climate change projects with partners including the UK, Germany, Japan, World Bank, GEF, FAO, UNDP, UNEP, and TNC on climate change adaptation and mitigation and nature based solutions.



Establishing the Marine Sectors

- Tourism
- Leisure
- Services
- Shipping
- Marine Businesses
- Fisheries
- Marine Research
- Marine Energy and Environment
- Marine Housing
- Marine Exploration
- Waste
- Water

- The sectors have been identified for Grenada by policy makers and its including in the Blue Growth Coastal Master Plan.
- The National Statistical System is now challenged with finding effective and creative ways and means of measuring these sectors.

Thank You

