

**The Blue Economy and Climate change in the Context of Sustainable Development:  
Reflections from the perspective of Belize, CARICOM and SIDS**

**1. What opportunities does the blue economy offer to climate change adaptation and mitigation?**

- It is undeniable that Small Island low-lying Developing States (SIDS) have a high dependence on the wealth of resources within the coastal areas and oceans to support our national growth as well as the global economy. The estimated value of the global ocean market is US\$ 1,345 billion annually (Roberts, 2015). The blue economy can offer huge potential to the Caribbean countries, including Belize. New sustainable oceans industries, such as sustainable fisheries and aquaculture, marine renewable energy present opportunities to generate new sources of jobs and growth, diversify the economy, build climate resilience, reduce the region's dependency on energy imports, and address the achievement of food security (Roberts, 2015). Tourism remains a steadfast and important aspect of the Caribbean economy.
- In the area of Climate change mitigation, the blue economy has an increasingly important role to play, even as we continue to lose forests on land. The – shallow coastal water ecosystems, such as mangroves, tidal marshes and sea grass beds are now seen as a critical part of our approach to managing essential natural carbon sinks. These key coastal habitats have been found to fix carbon at a much higher rate per unit area than land based systems and be more effective at the long term sequestration of carbon than terrestrial forest systems. These different ecosystems are ecologically integrated; their cumulative contribution is provides greater resilience than each of them combined.
- In Climate change adaptation-our coastal habitats such as coral reefs, mangroves and coastal marshes provide significant protection from episodic events such as cyclones and hurricanes. In Belize's case, we have the world's second largest barrier reef. For millions of years, the reef has been buffering Belize's coastline from hurricanes. It is important to note that Mangroves have b It is important to note that Mangroves have been reduced by 30 to 50% of historical cover globally and 30% of sea grass beds are estimated to have been lost over the last 150 years. Through appropriate management, the presence of such ecosystems mitigates against coastal erosion, and flooding from storms and increasing sea levels and wave actions.
- Thus, the blue economy in SIDS has an important role to play in Disaster Risk Reduction. Furthermore, we must continue to build the DRR capacity and readiness of coastal populations to adapt the adverse impacts of climate change.

## **2. What are the main obstacles in achieving the identified opportunities?**

- For many Caribbean countries, the challenges to exploiting ocean resources and services for sustainable development lie in the inherent structure of their economies. The small size of many countries limits their capability to fully exploit the economies of scale and price bargaining power that larger countries may have.
- Sovereignty necessitates certain fixed costs of providing public services, including data collection, policy formulation, regulatory activities and security. The provision of these public goods comes at a high cost per person, limiting the institutions and skills available for policy response. These challenges are inherent and any effective practical approaches to the development of the blue economy must take these factors full on board and be relevant to the Caribbean context.
- Based on empirical work conducted in the region the Commonwealth for example has identified the following six key barriers to fully realizing the blue economy ([https://www.central-bank.org.tt/sites/default/files/Caribbean\\_Blue\\_Economy.pdf](https://www.central-bank.org.tt/sites/default/files/Caribbean_Blue_Economy.pdf))

These include:

- Climate Change
  - Ocean Governance
  - Sustainable marine resource management
  - Regulation and enforcement
  - Education and capacity building
  - Marine research and information
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- At a global level, the overexploitation and poor management of the oceans has resulted in lost opportunities, heightened food insecurity and diminished economic opportunities for some of the world's poorest people.
  - Other major threats to the marine ecology of the Caribbean Sea include increases in exotic invasive species; poorly planned and regulated coastal development; unsustainable extraction of natural resources such as sand harvesting for construction; and the increasing intensity of hurricanes and other storm events.

- Climate change has added to these pressures and may also lead to an increase in the cumulative impacts of these factors. The consequences of these impacts include loss of livelihoods and economic opportunities to fishers, hoteliers and related business, loss of natural protection of the coastline.
- The absence of a regional body to provide an overarching coordination function is increasingly being recognized as a significant gap by Caribbean countries and development partners

### **3. What are the national, regional and international policy and regulatory options?**

- In considering this question, there has to be acknowledgement that ocean related economic activity is not a “new frontier” for this region. Caribbean countries have been, using the ocean for an essential part of their economies for a very long time. Similarly, the idea of having healthy oceans to support economic activity is not new.
- Caribbean countries have been struggling at local, national and regional levels with maintaining or restoring marine ecosystem health for sustainable use of ocean resources.
- The one area that we have not exploited as thoroughly as a region, is ocean-based energy. However, large potential exist. We need to put in place the policy and regulatory framework to guide the deployment of this potential.

As it relates to the blue Economy, these are some of the prominent regional and international policy imperatives and programs.

1. Some CARICOM Member States have indicated that it is essential that the blue economy build on the region’s green economy narrative given the Rio+20 outcome and the contents of the Samoa Pathway,.
2. The pursuit of “sustainable ocean based economies” is the language referenced in the SAMOA Pathway and that the region already has significant institutional and policy frameworks in place that are consistent with the blue economy concept. These include work being undertaken by the UNEP Caribbean Environment Programme (CEP) and the Caribbean Regional Fisheries Mechanism (CRFM) as Secretariat for the Common Fisheries Policy. To advance this work in the context of a blue economy, we need greater capacity support and sustainable revenue models to assist with the sustainable exploitation and management of our ocean resources. Such capacities include but are not limited to:
  - Marine Natural Capital Valuation
  - Boundary Delimitation
  - Marine Spatial Planning
  - Ocean Governance and Policy
  - Ocean Security

- Region wide coordination and enforcement
3. Member States and regional organisations have been working together for nearly two decades on the Caribbean Large Marine Ecosystem Project and have produced a 20-year Strategic Action Programme (SAP) that 24 countries from Latin America and the Caribbean have signed on to at Ministerial level.
  4. The FAO is specifically promoting the “Blue Growth “ concept in support of food security, poverty alleviation and sustainable management of living aquatic resources. The initiative has four components:
    - a. Marine and inland capture fisheries (addressing fisheries management and good governance)
    - b. Aquaculture (addressing improving food security)
    - c. Livelihoods and foods systems ( addressing trade and capacity building issues)
    - d. Economic growth from ecosystem services (ecosystem restoration and rehabilitation)

This concept has been gaining traction within the CARICOM region since it is in line with the CARICOM stated goal of ensuring food security having developed a regional Food and Nutrition Security Policy. The Fisheries Sector in Caribbean countries is key to achieving food security as many inhabitants consume fish as their main source of protein (fish consumption is on average some 20 kg per capita in some Caribbean Countries). The fisheries sector also supports direct employment for 1.3 million people in the wider Caribbean region and supports the livelihood of approximately 4.5 million people

- **Blue Economy and 2030 agenda for development: what are the environmental and ecosystem implications? What are the risks and uncertainties surrounding future developments? How do we address the environmental concerns?**

The sustainable development of a blue economy will require governance and policies that integrate environmental and economic considerations. The mix of marine resource development will be determined by existing governance structures and will likely require new legislation, rules, strengthening institutions and potentially the establishment of entirely new institutions. More importantly, translating new opportunities into productive sectors will require investment in research and development, building technical capacity and creating the right environment to attract and retain outside investment. These have to be fundamental principles of the blue economy.

- **How would you like to see the Blue Economy accounted for in climate change negotiations?**

Necessity of sustainable financing mechanisms that will provide accessible and long-term funding to create the enabling conditions that will support the successful development of the Blue Economy and Increasing Climate Resiliency.

These include, but are not limited to:

**Education & capacity building;**

**Application of appropriate technology;**

**Improved information and data management systems;**

**Prioritisation and investment in “Climate-Smart” Growth and Development;**

**Direct Access to Financial Support;**

**Policy formation and enforcement & surveillance for improved ocean governance at the national, regional and global levels;**

**Investments in restoring and protecting climate-resilient and productive ecosystems.**

- **What is your key message to negotiators on the Blue Economy?**

Blue economy is important to survival of SIDS whose unique situation make them particularly vulnerable to the impacts of global climate change: (food security; secure livelihoods; poverty reduction; sustainable economic growth and development;). It also offers opportunities for disaster risk reduction, and climate change mitigation and adaptation.

As some SIDS have graduated to middle income status in the recent years, this has meant that access and availability of concessional financing is no longer available. Thus, the Blue Economy is “low-hanging fruit” for many SIDS, such as Belize, to not only diversify its opportunities for sustained economic growth but also for appropriate management interventions to secure the long-term viability of ecosystems thereby securing the resource base for economic prosperity.

- **What are you doing in your country/region to ensure that the Blue Economy supports efforts on climate change adaptation and /or mitigation?**

In consideration of current threats to the Blue Economy and in anticipation of the exacerbation of these threats in light of global climate change impacts, Belize has already begin to take steps towards safeguarding the Blue Economy as a means of climate adaptation. Some key national initiatives include the following:

### ***(i) Integrated Coastal Zone Management using Ecosystem Services Valuation and Marine Spatial Planning Approaches***

Belize has developed its first national integrated coastal zone management plan, which serves as the overall framework to guide decisions and lead actions on the sustainable use and development of resources within the coastal zone in the short and long term. It has been identified as a model for the Central America and Caribbean regions. The actions and decisions in Belize's ICZM plan are framed within the context of global climate change. The plan is very cross-sectoral in nature, and applies both Ecosystem Services Valuation and Marine Spatial Planning approaches to map, zone and allocate permissible human uses that promote a balanced mix of conservation and utilisation. These approaches help to identify and minimise the cumulative impacts of multiple human uses within a given space.

The plan also examines the tradeoffs of three future management scenarios: "Conservation"; "Development" and "Informed Management" and the consequent impacts to key habitats and the delivery of ecosystem benefits. The net result is that the Informed Management strategy for Belize's coastal zone can support and bolster economic development but allows for the long-term viability of ecosystem function and the delivery of ecosystem services.

### ***(ii) National Climate Change Policy, Strategy and Action Plan***

The National Climate Change Policy, Strategy and Action Plan guides the short, medium and long-term processes of adaptation and mitigation to Climate Change. It ensures an integrated and well-coordinated approach to Climate Change adaptation and mitigation by fostering the development of appropriate administrative and legislative mechanisms in alignment with national sectoral policies and adaptation plans. The NCCSAP will allow the country to strategically transition to low carbon development while strengthening its resilience to the effects of Climate Change.

**What policy measures are needed to ensure further development of the Blue Economy Sector or the building of Ocean States in SIDS and coastal countries in Africa, Caribbean and the Pacific?**

- **Policies that increase the resiliency of the ocean environment: green hotels; sewage treatment facilities, sustainable aquaculture to reduce wild catch; restoration of mangroves to prevent coastal erosion rather than built barriers e.g., sea walls**
- **Greater collaboration to integrate cross-border policies to safeguard the underlying ecosystems they share, including coordinated actions by government agencies (e.g., close season for lobster in Belize, Mexico and Honduras very effective in minimizing trade of illegal catch).**
- **Operationalization of SDG 14 for ocean conservation and sustainable use. Reliance of best practices and south-south collaboration between SIDS countries**
- **Research and quantification of non-market contribution of blue economy to regional economies and global environment**

- **Region wide spatial planning, mapping and development tools to guide decision-making and allow use categories**