Towards a thriving, sustainable BLUE ECONOMY in the Wider Caribbean

Patrick Debels
CLME+ Regional Coordinator
PatrickD@unops.org
**THE CLME+ VISION:**

A HEALTHY MARINE ENVIRONMENT THAT SUPPORTS THE WELL-BEING AND LIVELIHOODS OF THE PEOPLES OF THE REGION

Supporting a blue economy

- The goods and services provided by the region's marine ecosystems underpin a blue economy, supporting livelihoods, human well-being, and sustained socioeconomic development.
- Nearly 1 million persons are directly employed in marine capture fisheries, with another 3 million jobs in ancillary activities.
- Indicative annual gross revenue from fisheries and aquaculture in the Caribbean estimated at about US$5 billion in 2012.
- Caribbean coral reefs generate about US$4 billion in income to the region each year (shoreline protection, fish nurseries and habitat, tourism activities).
- Gross revenue from tourism and recreation was estimated at US$47 billion in 2012.
- The region is also important for shipping and is a major producer of oil and gas.

*Catalyzing implementation of the 10-year Strategic Action Programme for the Caribbean and North Brazil Shelf LME’s*
The Wider Caribbean / CLME+ region:

COUNTRY MEMBERSHIP IN IGOs

- **CARICOM**
  - Bermuda\(^1\) (UK)
  - Turks & Caicos\(^1\) (UK)

- **CRFM**
  - Bahamas
  - Barbados
  - Guyana
  - Haiti
  - Jamaica
  - Suriname
  - Trinidad and Tobago

- **DSPESCA & CCAD**
  - El Salvador

- **IOCARIBE**
  - Costa Rica
  - Dominican Republic
  - Guatemala
  - Honduras
  - Nicaragua
  - Panama

- **UN ENVIRONMENT CEP**
  - Belize

- **ACS CSC**
  - French Guiana, Guadeloupe, St. Barthelemy, St. Martin (FR)\(^3\)
  - Colombia
  - Cuba
  - Mexico
  - Venezuela

- **Brazil**
  - Bonaire
  - Sint Eustatius
  - Saba, Curaçao
  - Sint Maarten
  - Aruba (NL)\(^3\)
  - France
  - Netherlands
  - United Kingdom
  - United States of America\(^4\)

- **British Virgin Islands (UK)\(^1,2\)**

- **OECS**
  - Antigua & Barbuda
  - Dominica
  - Grenada
  - St. Kitts & Nevis
  - St. Vincent & Grenadines

- **St. Lucia, Anguilla\(^1,2\)**
  - Montserrat (UK)

- **Cayman Islands\(^3\)**

1. CARICOM associate members
2. OECs associate members
3. ACS CSC associate members
4. Includes Puerto Rico and US Virgin Islands
Non-CLME- members in grey
10-year CLME+ Strategic Action Programme (2015-25)

signed (to date) by 35 Ministers, representing 25 countries and 6 Overseas Territories

MAJOR THREATS TO THE CLME+ REGION

UNSUSTAINABLE FISHING
Total fishery catch by CLME countries in FAO Area 31 has reduced from about 1.79m tonnes (1990s) to 1.25m tonnes (2010). In the NBSLME, around 30% of the fish stocks are overexploited or have collapsed as a result of overfishing.

ECOSYSTEM DEGRADATION
Live coral cover has already declined by as much as 80% in many areas of Caribbean reefs over the last two decades. Mangrove areas in the region have declined by 1% per year since 1980.

MARINE POLLUTION
Up to 80% of sewage reaches the Caribbean Sea untreated or only partially treated. Ships in the Caribbean are estimated to produce more than 70,000 tonnes of waste water per year.

CLIMATE CHANGE
Increasing sea temperature, sea level rise and more frequent extreme weather events are already felt across the region, with severe consequences on environmental health and human well-being.

The SAP structures 76 priority actions to safeguard the marine environment under 3 region-wide Strategies (S1-S2-S3), 3 Strategies at the Sub-Ecosystem level (S4-S5-S6), and 4 additional Sub-Strategies dealing with fisheries deemed of strategic importance to the region.
The CLME+ SAP = an umbrella programme

Comprehensive road-map towards sustainable living marine resources management

REQUIRES CO-OPERATION & COORDINATION → GLOBAL CLME+ PARTNERSHIP/ALLIANCE

- Existing Projects, Initiatives
- New Projects, Initiatives
Consolidating the multi-level Regional Framework for Ocean Governance (incl. Sustainable Financing)

Institutionalizing SOMEE

- Assign responsibilities
- Formalize mandates
- Develop Sustainable Financing Mechanisms
- Consolidate online platforms

CLME+ PROJECT CONSULTANCY

CLME+ REGIONAL GOVERNANCE FRAMEWORK

- UNCLOS
- CDB
- SDG's
- UNFCCC

Permanent Policy Coordination Mechanism

GLOBAL

UN Enviro CEP (Cartagena Convention)

REGIONAL

FAO WECAF

IOCARIBE

SUB-REGIONAL

SICA

CARICOM

OECs

NATIONAL

CCAD

OSPESCA

CRFM

COUNTRIES

PAÍSES

COUNTRIES

PAÍSES
CLME+ SAP INTERIM COORDINATION MECHANISM (ICM)

✓ Enhance regional coordination and collaboration, support oversight and integration of actions for sustainable fisheries and the protection and sustainable use of the marine environment

✓ Promote up-scaling of actions towards the CLME+ SAP by establishing and overseeing a global “CLME+ Partnership”
INTERACTIVE GOVERNANCE:

The whole of interactions among governments, civil society and private sector to:

- resolve societal problems
- make use of societal opportunities

e.g. C-SAP, and Small Grants Coordination Mechanism (CANARI)
The Global Partnership for the Protection, Sustainable Management and Use of the Caribbean and North Brazil Shelf LME’s

An incipient coalition bringing together Governments, Inter-Governmental Organizations, non-Governmental Organizations, Private Sector, Multi-lateral Banks and Development Organizations, ...

FIRST CLME+ PARTNERSHIP FORUM: JULY 2019
PEMSEA INVITED!
2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (SDG’s)

SAMOA & SENDAI PATHWAYS

2011

CBD STRATEGIC PLAN for Biodiversity

2015

SOI ACTION PLAN

2016

2020

2025

2030

Aichi Target 6 (EAF, fish & invertebrate stocks)

Aichi Target 8 (pollution, nutrients)

Aichi Target 11 (10% of coastal & marine areas)

14.2 – Protect Marine Ecosystems

14.4 – End Overfishing, IUU, Implement Management Plans

14.1 – Reduce LBS Marine Pollution

2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (SDG’s)

Catalyzing implementation of the 10-year Strategic Action Programme for the Caribbean and North Brazil Shelf LME’s

Ensure that, by 2020, ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and contributing to human well-being and poverty eradication.
An Information Booklet

State of the Marine Environment and associated Economies

CLME+ SOMEE in the Wider Caribbean

... a collaborative, integrated long-term reporting mechanism

The CLME+ SOMEE is being collaboratively developed by inter-Governmental Organizations with a mandate on the marine environment in the Wider Caribbean, with the support of the UNDP/GEF CLME+ Project (2015-2020): “Catalyzing the implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems”
Surprisingly, the region’s ocean economy is not well measured or understood, even as the next frontier for growth. This report includes a review of existing literature and secondary data, to generate a first-order estimate of the size and composition of the Caribbean ocean economy as a discrete and unique segment of the region’s overall economy. However, these estimates are meant to be indicative of the magnitude of the ocean economy, capturing only measurable gross revenues for the most recent year available (2012), and not actually value added. In many accounting frameworks, a satellite account for ocean industries and economic sectors is not maintained, making estimates of the contribution to GDP difficult to measure.
### Table 1.4. The Caribbean Ocean Economy in Perspective

<table>
<thead>
<tr>
<th></th>
<th>EST. GROSS REVENUES IN 2012 (US$ M)</th>
<th>AS A % OF TOTAL GDP IN 2012</th>
<th>AS A % OF VALUE ADDED FROM GLOBAL OCEAN ECONOMY IN 2010***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean Ocean Economy</td>
<td>407,000</td>
<td>17.7*</td>
<td>27</td>
</tr>
<tr>
<td>Caribbean Island States and Territories Ocean Economy</td>
<td>53,000</td>
<td>18.4**</td>
<td>4</td>
</tr>
</tbody>
</table>

*Caribbean GDP of US$2.3 trillion, does not include territories (source: World Bank, 2016)
**Caribbean Island States GDP of $287.8 billion, does not include territories (source: World Bank, 2016)
***Value added from global ocean economy in 2010 of $1.3 trillion (Source: OECD, 2016)

**Catalyzing implementation of the 10-year Strategic Action Programme for the Caribbean and North Brazil Shelf LME’s**

<table>
<thead>
<tr>
<th>ESTABLISHED INDUSTRIES</th>
<th></th>
<th>EMERGING INDUSTRIES</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Capture fisheries</td>
<td></td>
<td>Marine aquaculture</td>
<td></td>
</tr>
<tr>
<td>Shipping/Ports</td>
<td></td>
<td>Offshore wind energy</td>
<td></td>
</tr>
<tr>
<td>Shipbuilding</td>
<td></td>
<td>Ocean renewable energy</td>
<td></td>
</tr>
<tr>
<td>Offshore oil/gas</td>
<td></td>
<td>Marine seabed mining</td>
<td></td>
</tr>
<tr>
<td>Marine construction</td>
<td></td>
<td>Safety &amp; surveillance</td>
<td></td>
</tr>
<tr>
<td>Marine and coastal tourism</td>
<td></td>
<td>Marine biotechnology</td>
<td></td>
</tr>
<tr>
<td>Marine Transport</td>
<td></td>
<td>High-tech marine services</td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 1: ESTABLISHED AND EMERGING BLUE ECONOMY INDUSTRIES**

- Establishing and implementing the 10-year Strategic Action Programme for the Caribbean and North Brazil Shelf LME’s.
<table>
<thead>
<tr>
<th>TYPE OF ACTIVITY</th>
<th>OCEAN SERVICE</th>
<th>ECONOMIC SECTOR/INDUSTRY</th>
<th>INDICATIVE ANNUAL GROSS REVENUES (US$, BILLIONS IN 2012 U.S. DOLLARS)</th>
<th>NOTES/METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvesting of living resources</td>
<td>Seafood</td>
<td>Fisheries</td>
<td>0.37</td>
<td>4.62</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aquaculture</td>
<td>0.04</td>
<td>1.86</td>
</tr>
<tr>
<td>Marine biotechnology</td>
<td>Pharma- ceuticals, chemicals, and so on</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Minerals, sand, and gravel</td>
<td>Seabed mining</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Energy</td>
<td>Oil and gas</td>
<td>5.64</td>
<td>34.25</td>
<td>39.80</td>
</tr>
<tr>
<td>Extraction of nonliving resources, generation of new resources</td>
<td>Renewables (marine)</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
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Note: *Average of estimates value over the time period from 2000 to 2010 has not been adjusted to 2012 U.S. dollars.*
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<tr>
<td>Extraction of nonliving resources,</td>
<td>Freshwater</td>
<td>Desalination</td>
<td>n.a</td>
<td>0.23</td>
</tr>
<tr>
<td>generation of new resources</td>
<td></td>
<td></td>
<td>ISLAND STATES AND TERRITORIES</td>
<td>MAINLAND COUNTRIES</td>
</tr>
<tr>
<td>Transport and trade</td>
<td></td>
<td></td>
<td>ISLAND STATES AND TERRITIES</td>
<td>MAINLAND COUNTRIES</td>
</tr>
<tr>
<td>Commerce, tourism, and trade</td>
<td></td>
<td></td>
<td>ISLAND STATES AND TERRITIES</td>
<td>MAINLAND COUNTRIES</td>
</tr>
<tr>
<td>Tourism</td>
<td></td>
<td></td>
<td>ISLAND STATES AND TERRITORIES</td>
<td>MAINLAND COUNTRIES</td>
</tr>
<tr>
<td>Coastal development</td>
<td></td>
<td></td>
<td>ISLAND STATES AND TERRITORIES</td>
<td>MAINLAND COUNTRIES</td>
</tr>
</tbody>
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Note: *Average of estimated value over the time period from 2005 to 2010 has not been adjusted in 2012 US dollar.*
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<td></td>
<td>ISLAND STATES AND TERRITORIES</td>
<td>MAINLAND COUNTRIES</td>
</tr>
<tr>
<td>Indirect contribution to economic activities and environments</td>
<td>Carbon sequestration</td>
<td>Blue carbon (that is, coastal vegetated habitats)</td>
<td>0.02</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Coastal protection</td>
<td>Habitat protection, restoration</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td></td>
<td>Waste disposal for land-based industry</td>
<td>Assimilation of nutrients, solid waste</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td></td>
<td>Existence of biodiversity</td>
<td>Protection of species, habitats</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>53.17</td>
<td>406.99</td>
</tr>
</tbody>
</table>

Note: * Average of estimated value over the time period from 2000 to 2050 has not been adjusted to 2012 U.S. dollar.
Catalyzing implementation of the 10-year Strategic Action Programme for the Caribbean and North Brazil Shelf LME’s

**GOVERNANCE ASSESSMENT FRAMEWORK**

- Arrangements/architecture in place?
- Governance processes operational?
- Stakeholders appropriately engaged?
- Ecosystem stressors reduced?
- Socially just outcomes achieved?
- Ecosystems improved/protected?
- Human well-being improved/assured?

The Governance Effectiveness Assessment Framework (Fanning and Mahon) clearly highlights as our “ultimate” goal: improved human well-being. It recognizes however that to achieve such, enhancing the arrangements and processes for marine resources governance will be required.

**CHAPTER 1**

Introduction
1.1 Global importance of the oceans
1.2 Regional approaches to ocean governance
1.3 The CLME+ region
1.4 Towards a blue economy for the CLME+ region
1.5 Regional Governance Framework
1.6 The 10-year CLME+ SAP
1.7 CLME+ SOME: purpose, mandate and approach

**CHAPTER 2**

General state of the marine environment & associated economies
2.1 State of the LMEs and their associated living resources
2.2 Associated socioeconomics
2.3 Drivers and pressures
2.4 Responses
   2.4.1 Region-wide governance arrangements and processes for the protection of the marine environment
   2.4.2 Region-wide governance arrangements and processes for Sustainable Fisheries
   2.4.3 Region-wide arrangements and processes for Integrated Ocean Governance
THE SOMEES “STORY”: A QUESTIONS-BASED ASSESSMENT APPROACH

SOMEES will use a “STORY TELLING APPROACH”, building on the “DPSIR” Driver (D) - Pressure (P) - Status (S) - Impact (I) - Response (R) Analytical Framework to explore current, past and possible future conditions of marine habitats, biodiversity and fish stocks, what this means for human well-being and our economies, why current (or future) conditions may be different from what we desire and from the targets we set for ourselves as societies. SOMEES will then continue to explore the reasons for these differences, as well as what has, is, and can be done to progressively close the gap between current conditions and our societal aspirations. The structure of the SOMEES chapters will be based on the DPSIR Framework and the SAP Strategies (see next page).
THANK YOU

Patrick Debels
CLME+ Regional Coordinator
PatrickD@unops.org

www.clmeplus.org