

# Caribbean Sea

## Large Marine Ecosystem

### SUSTAINABLE MANAGEMENT OF THE SHARED MARINE RESOURCES OF THE CARIBBEAN LARGE MARINE ECOSYSTEM AND ADJACENT REGIONS (THE CLME PROJECT)



The Caribbean Sea LME is a semi-enclosed tropical sea bounded by North America (South Florida), Central and South America and the Lesser Antilles chain of Islands. The Caribbean Sea and adjacent regions include a wide variety of tropical ecosystems, associated natural resources and biodiversity. The area encompasses a large proportion of the world's coral reef resources, including the second longest barrier reef, the Meso-American Barrier Reef System. The region includes 26 countries and 19 dependent territories of the USA, UK, France and the Netherlands. The countries range from the largest (e.g. Brazil and the USA) to the smallest (e.g. Barbados, St. Kitts and Nevis) in the world, and from the most developed to the least developed. Throughout the region, there is a high dependence on marine resources for livelihoods, particularly from fishing and tourism. Thus the sustainability of its living resources is of considerable importance to an appreciable proportion of the region's countries. Improved management of these resources through better participation of Caribbean countries in the management process will have benefits that reach far beyond the region.

An opportunity is provided by the CLME project for Caribbean states to fully address the World Summit on Sustainable Development (WSSD) goals regarding fisheries, particularly those pertaining to restoration of stocks to levels that can produce maximum sustainable yield by 2015 and introducing an ecosystem-based approach to the assessment and management of marine resources by 2010. The project thus enables the region to participate more fully in moving towards WSSD objectives.

The CLME project aims to strengthen regional cooperation to reverse degradation of shared living marine resources. The lessons learned regarding cooperation in management of transboundary resources by the numerous and diverse countries of the Caribbean will be of value to those addressing similar management issues in other parts of the world, particularly those where small island developing states (SIDS) are common.

## THE CARIBBEAN LARGE MARINE ECOSYSTEM (CLME) PROJECT IN A NUTSHELL

The CLME project builds on and complements existing projects and initiatives that emphasize technical and institutional aspects of sustainable living marine resource (LMR) use by focusing on governance, knowledge, and institutional issues in a transboundary marine context. The regional scope of the CLME project will serve as a platform for governments and other stakeholders to collectively pursue the goals of economic and environmental sustainability.

With the CLME project, there is the opportunity for implementation of management reforms that will permit sustainable development and management of the shared LMRs of the Caribbean Large Marine Ecosystem and adjacent regions. Since most LMRs are shared in some way, these reforms can be expected to lead to improved food security and enhanced livelihoods in coastal communities that rely on fisheries and tourism.

### KEY EXPECTATIONS

The increased knowledge of transboundary LMRs and increased institutional capacity to use that knowledge at national, regional and international levels will halt and should even reverse the declining trend of resource depletion and degradation in the Wider Caribbean. Management and decision-making mechanisms that have been established or enhanced through strengthening of the key institutions will be functioning to ensure that resources are assessed, management recommendations are provided, measures are put in place and that compliance to these is monitored. In concert with the above changes, heightened public awareness and improved coordination with linked programmes will ensure the sustainability of the GEF intervention. Successful implementation of the CLME Project will be dependent upon effective interaction of the national, regional and international agencies with responsibility for living marine resource governance in the Wider Caribbean.

#### OVERALL

#### GOAL

- ◆ Sustainable management of the shared living marine resources of the Caribbean LME and adjacent areas through an integrated management approach that will meet WSSD targets for sustainable fisheries

#### SPECIFIC

#### OBJECTIVES

- To identify, analyze and agree upon major issues, root causes and actions required to achieve sustainable management of the shared living marine resources in the Caribbean Sea LME;
- To improve the shared knowledge base for sustainable use and management of transboundary living marine resources
- To implement legal, policy and institutional reforms to achieve sustainable transboundary living marine resource management
- To develop an institutional and procedural approach to LME level monitoring, evaluation and reporting

### PROJECT COMPONENTS

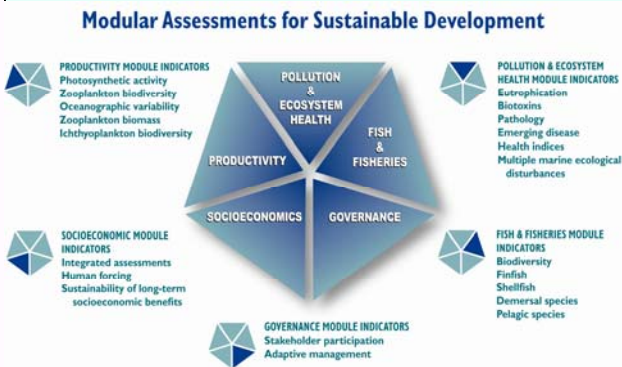
1. Analysis of transboundary LMR issues through a transboundary diagnostic analysis (TDA) and needed actions as identified in a regionally developed strategic action plan (SAP), following an ecosystemic and adaptive management approach;
2. Filling knowledge gaps needed for effective transboundary LMR ecosystem management;
3. Implementation of governance reforms (institutional, legal, and policy) for LMR ecosystem management.
4. Develop an institutional and procedural approach to LME level monitoring, evaluation and reporting.

### LMR MANAGEMENT ISSUES IN THE CLME

- Migratory resources (mainly large pelagics, but also some coastal pelagics)
- Resources with transboundary distribution as adults (various demersal fishes)
- Resources with transboundary larval dispersal (lobster, conch, reef organisms)
- Dispersal of pathogens, pollutants and invasive species
- Resources with transboundary trophic linkages

## FOCUSING ON GOVERNANCE

The CLME project responds to the need cited by key decision-makers for attention to the management of shared marine resources in the Caribbean LME and adjacent regions and the call to provide mechanisms facilitating informed decision-making. Typically, the LME approach includes five modules that focus on different aspects of the ecosystem: (1) productivity, (2) fish and fisheries, (3) pollution and ecosystem health, (4) socio-economics, and (5) governance. This framework has proven useful in the LME context as it provides particular groups of nations sharing an LME to tailor the effort expended on each module to reflect their needs, based on available information and capacity. The CLME project will seize on the flexibility of the approach by focusing on addressing the weaknesses inherent in the governance of LMRs within the region.



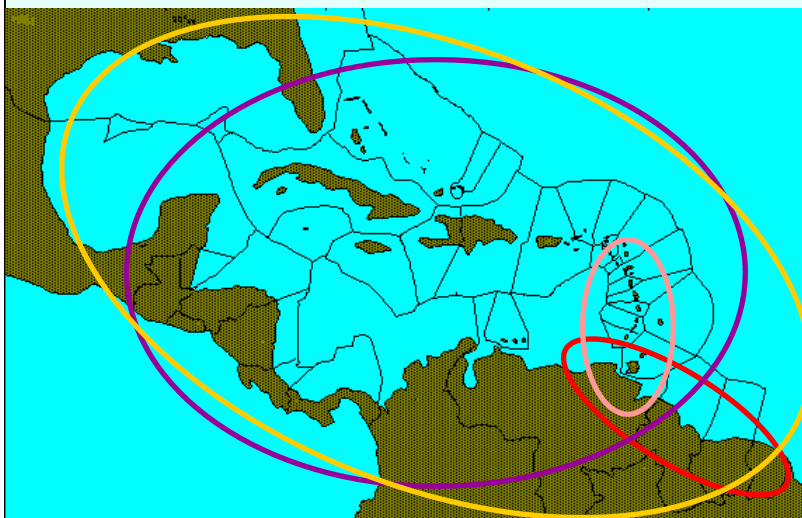
The most pressing rationale for a focus on governance at the regional scale lies in the many transboundary oceanographic and ecological linkages within the Wider Caribbean. With many marine resources being shared, it can be expected that



there will be emphasis on transboundary or shared living marine resources which require cooperation for governance. This must include both exploited and non-exploited resources and their critical habitats. Another reason is that a regional approach will facilitate the use of limited capacity within the region.

## THE CLME APPROACH

In the CLME project, governance is recognized to be much broader than management, and has many dimensions, including the interactions among all stakeholders that influence resource use outcomes as well as the principles that guide these interactions and the institutional arrangements within which they take place. These factors clearly influence how successfully the region can manage its various LMR issues. Using a range of key exploited and non-extractable transboundary resources, the project will customize the modular assessment framework illustrated above to advance knowledge on the suitability of differing governance mechanisms to sustainably manage each of these resources within the region. The differing approaches will likely range from those including a small number of sub-regional sectoral actors to a more inclusive region-wide network governance approach. Potential resource categories to test this adaptive, “learning-by-doing” approach could include: the large pelagics, shrimp, flyingfish, lobster, conch, coral reefs, sea birds and marine invasives. As illustrated in the diagram below, the geographic ranges of the pilots present the opportunity to explore both regional and sub-regional governance mechanisms, supported by sound science-based information obtained from the customized modular assessments.



### Legend

- Large Pelagics, Coral Reefs, Sea Birds, Marine Invasives
- Shrimp
- Lobster & Conch
- Flying fish

## PARTICIPATING COUNTRIES

- ◆ Antigua and Barbuda
- ◆ Bahamas
- ◆ Barbados
- ◆ Belize
- ◆ Brazil
- ◆ Colombia
- ◆ Costa Rica
- ◆ Cuba
- ◆ Dominica
- ◆ Dominican Republic
- ◆ Grenada
- ◆ Guatemala
- ◆ Guyana
- ◆ Haiti
- ◆ Honduras
- ◆ Jamaica
- ◆ Mexico
- ◆ Nicaragua
- ◆ Panama
- ◆ St. Kitts and Nevis
- ◆ St. Lucia
- ◆ St. Vincent and the Grenadines
- ◆ Suriname
- ◆ Trinidad and Tobago
- ◆ Venezuela



## CURRENT PARTNERS

**Global Environmental Facility**

**United Nations Development Programme**

**Intergovernmental Oceanographic Commission (UNESCO)/IOCARIBE**

**United Nations Environmental Programme**

**US Department of Commerce  
National Oceanic and Atmospheric  
Administration**

**Organización Latinoamericana de  
Desarrollo Pesquero**

**Organización del Sector Pesquero y  
Acuícola del Istmo Centroamericano**

**Caribbean Regional Fishing Mechanism**

**IOCARIBE/Global Ocean Observing System**

**WECAFC: Western Central Atlantic  
Fishery Commission**

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