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The background of the cover is a collage of marine-related images. On the right, a diver in full gear is visible. On the left, there are images of a colorful fish and a diver's hand holding a clear container. The entire background is overlaid with a teal geometric pattern of triangles.

# MARINE ECOSYSTEMS & FISHERIES

## The Way Ahead for Coastal and Ocean Ecosystems in the Wider Caribbean

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### INTRODUCTION

#### Why bother about coastal and ocean ecosystems?

There is an urgent need for all stakeholders in Caribbean coastal and ocean ecosystems to get on the same page to ensure that these critical transboundary resources are managed sustainably. Coastal and ocean ecosystems are critical for the well-being of Caribbean people. They provide food, employment, recreation and are part of our very ethos.<sup>[1]</sup> The threats to these ecosystems are many and severe. They include overexploitation of living resources, pollution from land-based and marine-based sources and direct physical degradation from inappropriate development and practices.<sup>[2]</sup> Add to this the increasingly evident but still largely uncertain impacts of climate change and there is a strong chance that we may lose many of the benefits that we take for granted from coastal and ocean ecosystems.

Less well understood is the extent to which these resources and their threats are transboundary and require a cooperative approach to addressing the problems that they face. This transboundary nature means we need to pay attention to the multiple geographical levels at which action is needed to address coastal and ocean ecosystem degradation. These levels are determined by the nature of resources which range in distribution from ocean-wide (e.g. in the case of large pelagic fishes), through sub-regional (e.g. in the case of flyingfish or lobster) to just a few adjacent countries (e.g. in the case of coral reefs ecosystems). Dealing with this multilevel nature requires that we be able to strategise, plan and act locally, nationally, sub-regionally and regionally

according to the problem being addressed. Further, for these strategies and plans to work, we need to connect these levels so that each can play its role and information can flow up and down between them. This has to happen across the entire Wider Caribbean region (Figure 1).

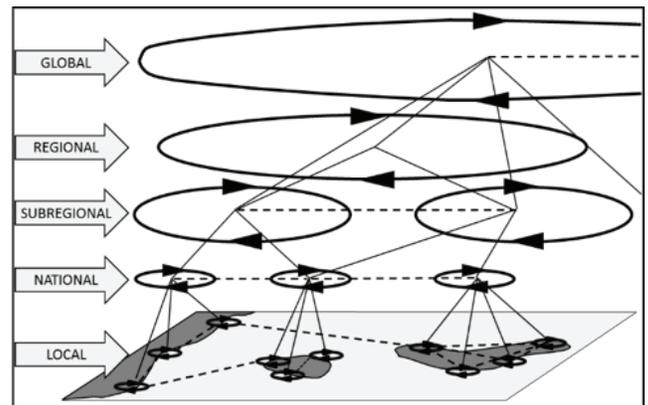


Figure 1. The multilevel, interlinked policy cycle based model underlying the CLME initiative.

#### What is the challenge?

Making this multilevel regional approach to coastal and ocean ecosystem sustainability a reality needs:

1. A mental model of how this can all come together to provide an integrated approach to ecosystem based management of these ecosystems, something we can all understand and buy into.



2. A programmatic approach to making that mental model a reality. The complexity of the problem is such that if stakeholders at all levels are to obtain the best possible outcomes from their efforts, they will need to tune in on this complex bigger picture, see where they fit into it and work towards making all of the components network and operate optimally.

Not only are the ecosystems and their threats multilevel and complex, so is the institutional mix that has emerged over the years to address the problems of overexploitation, pollution, habitat degradation and climate change. There are many local level NGOs and CBOs, numerous state agencies in every nation of the region, and more than 25 sub-regional state and non-state organisations in this mix.<sup>[3-6]\*</sup> To leave this all to sort itself out by chance would be irresponsible. Similarly, to be in this mix at any level and to think that you do not have to connect with other stakeholders at the same level and those above or below, is very short sighted<sup>[7]</sup>. This need for enhanced coordination and connectivity has been recognized for some time, but the enormity of the task, and the challenges of coming to grips with it have caused many potential change agents to throw up their arms in defeat and go back to doing their own thing in their own corner, persisting with business as usual.

## Are we meeting the challenge?

Is there a bigger picture for coastal and marine ecosystem management? Is someone trying to put it together? Can it be understood? Is it possible to come to grips with the complexity?

We think all the answers are yes. Since 2002, there has been an ongoing and intensifying Caribbean Large Marine Ecosystem initiative funded by the Global Environment Facility (GEF) to develop a multilevel institutional approach to tackling the problem of

coastal and ocean ecosystem sustainability in the Wider Caribbean. It started with the development of a multilevel conceptual model for the region<sup>[8]</sup> followed by an assessment of the transboundary problems that we face<sup>[2]</sup> and a strategic action programme to address them over the next 10-year period (2015-2025)<sup>[9]</sup>. This was intended to be the beginning of a long-term iterative process that engaged all countries and all regional and sub-regional organisations. It covers the entire Wider Caribbean Region from the mouth of the Amazon River through Central America, the Greater and Lesser Antilles to the Bahamas (*Figure 2*).



Figure 2. The Wider Caribbean Region

So far, two phases of this initiative have been completed and the third is underway (2015—2020)<sup>[10]</sup>. The major regional and sub-regional organisations with responsibility for the marine environment have signed on<sup>[1]</sup> as have more than 25 countries at the ministerial level. As much as this may seem, it is just a beginning. There is a very long way to go if all stakeholders are to become functionally engaged, contributing to progress and reaping the benefits of being part of an initiative, the whole of which has the potential to be much, much more than the sum of its parts.

\* Not hyperlinked, see reference section



## What needs to happen now?

The CLME+ initiative (also referred to as a partnership and alliance) must make itself much more widely known by (a) providing easy access to information on past, present and future activities that shows the benefits of an integrated approach and (b) building a suite of ambassadors that spread the word wherever they are out and about.

- All stakeholders – find out what the CLME initiative is about and what it is doing at a practical level that you can engage with in ways that will further your own goals.
- Government technocrats - ensure that your activities are aligned with and take advantage of synergies provided by the CLME+ initiative; brief your managers and ministers so that they are aware too; and connect your local and national NGOs so they can provide, as well as get, added value.
- Local NGOs – Connect with the CLME+ Strategic Action Programme (SAP) through your relevant government department or regional IGO (Intergovernmental Organization). Regional IGOs – align your strategic plans with the SAP in ways that enhance both your goals and objectives and those of the SAP.
- Global IGOs – recognise the potential of this regional initiative and support it by aligning your programmes with it.
- Donors and Global NGOs – encourage your recipients and collaborators in the region to connect their activities with the CLME+ initiative.

There is an opportunity before us that we can choose to engage with and build, or we can each continue doing our own 'thing' and let it go by to the detriment

of the long-term well-being of coastal and ocean ecosystems and the millions of people in the region who depend on them.

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*To access any closed-source references used in this article, please contact the author for an original manuscript.*

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