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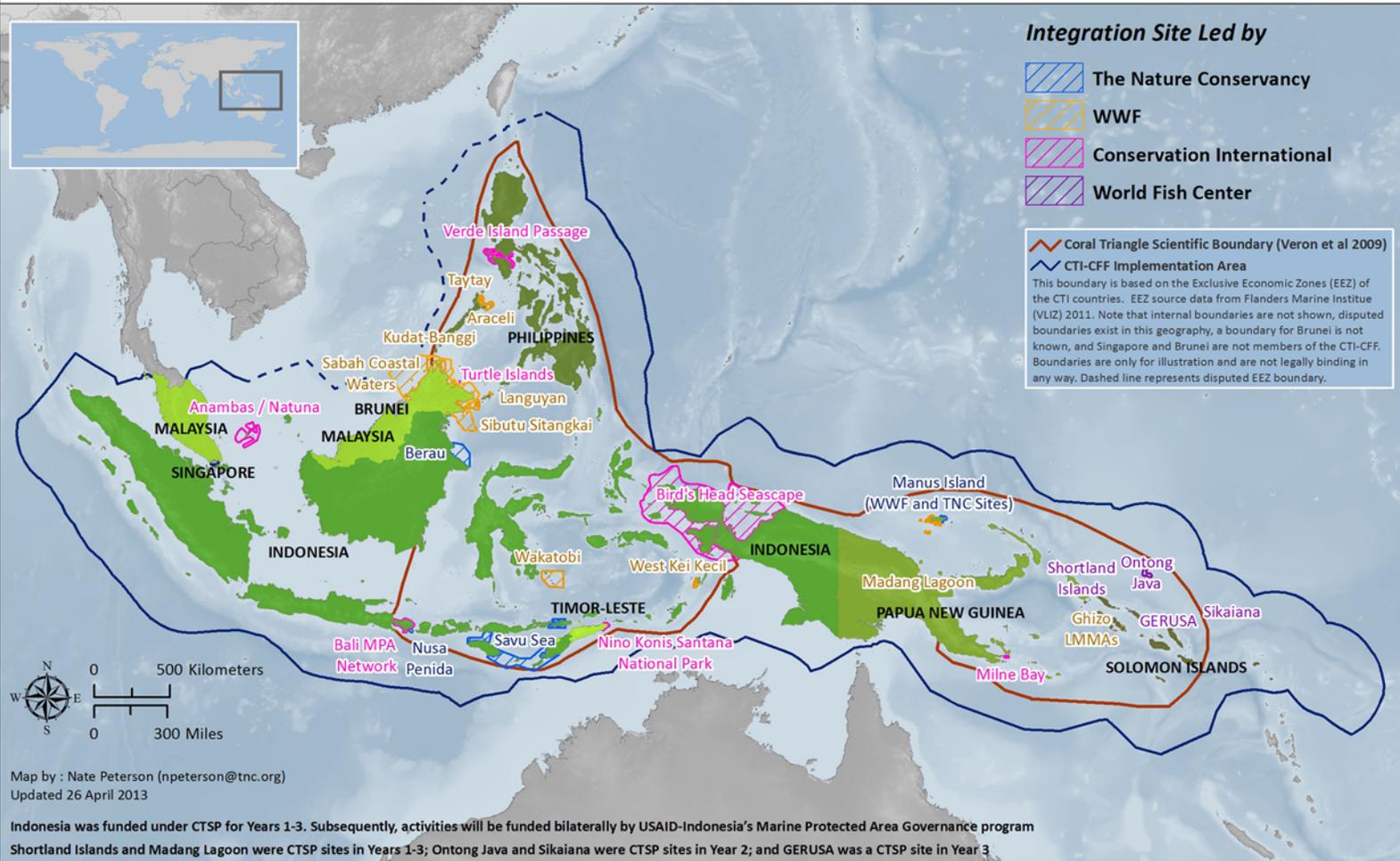
## Toward Ecosystem-based Coastal Area and Fisheries Management in the Coral Triangle: *Integrated Strategies and Guidance*

The CTI Integration Guide, entitled “Moving Toward Ecosystem-based Coastal Area and Fisheries Management in the Coral Triangle: Integrated Strategies and Guidance” is intended to help marine and coastal managers, conservation practitioners, and their network of partners including government officials, communities, funders, economic investors, and other stakeholders work toward ecosystem-based management (EBM) by identifying integrated strategies that can be implemented through

collaborative arrangements in defined coastal and marine areas of the Coral Triangle.

### BACKGROUND

The Coral Triangle is among the most biologically and economically valuable marine ecosystems on the planet (Figure 1). To ensure the long-term sustainability of coastal and ocean resources within the Coral Triangle, careful and coordinated management is needed to



Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security Implementation Area, including Priority Geographies and Integration Sites for the USAID-funded Coral Triangle Support Partnership project. This map was created and provided by the Coral Triangle Atlas project (ctatlas.reefbase.org).

address multiple issues and impacts. Overlapping authority and mandates, fragmented jurisdictions, insufficient coordination, and institutional conflict hamper ecosystem governance within the region. Most of the time, government agencies (such as those tasked with coastal planning, fisheries, conservation, local governance, and economic development) act independently. The result is sectoral strategies and actions that are undertaken in relative isolation from one another. An integrated and coordinated approach to management is needed to address the multiple impacts to fisheries and coastal areas and to ensure their long-term sustainability for the benefit of people in the Coral Triangle that depend on them.

## EBM AND THE CTI-CFF REGIONAL PLAN OF ACTION

The six Coral Triangle countries (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and

Timor-Leste) came together in 2007 to form the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF)—a multilateral partnership that aims to safeguard the marine and coastal resources of the Coral Triangle region. The CTI-CFF Regional Plan of Action (RPOA) and each country's National Plan of Action (NPOA) set forth regional and national priorities to achieve five long-term goals:

### The Five Goals of the CTI Regional Plan of Action

- Goal 1:** Priority seascapes are designated and effectively managed.
- Goal 2:** An ecosystem approach to fisheries management (EAFM) and other marine resources is fully applied.
- Goal 3:** Marine protected areas (MPAs) are established and effectively managed.
- Goal 4:** Climate change adaptation (CCA) measures are achieved.
- Goal 5:** The status of threatened species is improving.

With their adoption of the RPOA in 2009, Coral Triangle countries committed to managing marine and coastal ecosystems and resources by achieving these five goals. The CTI-CFF RPOA also calls for the integrated application of activities through an ecosystem approach. However, until now, there has been a lack of consensus about how to best move toward achieving this. A guide presents a set of activities and methods that can help CTI-CFF priority geographies follow the key principle of EBM.

Integrating the work being done is an excellent step toward achieving successful EBM in the Coral Triangle. EBM will lead to outcomes beyond the five CTI goals, such as food security, biodiversity conservation, and community resilience.

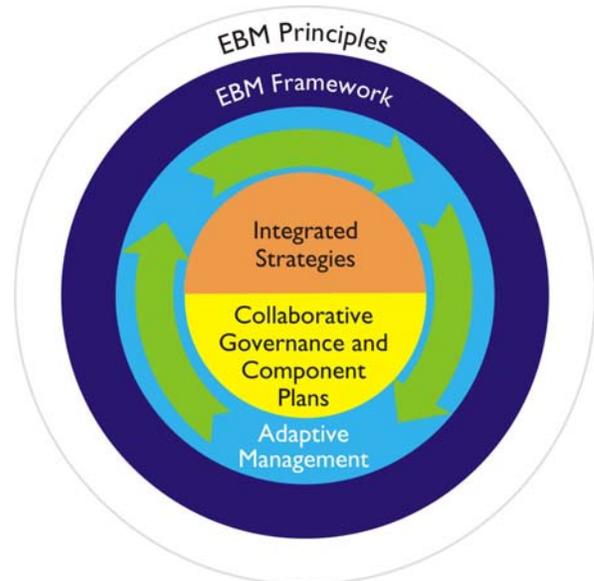


Alignment of the five CTI-CFF goals and ecosystem-based management outcomes through an EBM Framework.

## ELEMENTS OF THE GUIDE

This guide contains information and strategies that describe essential elements of successful integrated management and case studies of areas in the Coral Triangle that are successfully working toward EBM. Sections 1 through 4 describe the components of integrated management toward EBM.

Section 1 of the guide describes the EBM Framework for integrated management. An EBM Framework is a formal, living document that links the principles of EBM together with the strategies; the government sectors, non-government stakeholders, and governance arrangements, including the inclusion of the component plans; and the adaptive and adaptable process for implementing the



The components of integrated management toward EBM in management areas.

strategies and component plans. This section also provides some information to guide the development of an EBM Work Plan, if one is required.

Section 2 details the seven integrated strategies for moving toward EBM. The seven integrated strategies (see box for details) and their related management activities have been synthesized from a comprehensive review of

### Seven Integrated Strategies for Moving Toward EBM

- A. Governance of management areas** Manage coastal and marine areas based on ecological boundaries, resource use patterns, and governance jurisdictions.
- B. Fisheries managed for sustainability** Manage multiple fisheries and their associated ecosystems for sustainable use and human benefit under an ecosystem approach to fisheries management (EAFM).
- C. Protected habitats and their connectivity** Protect representative and critical habitats (and their connectivity) through MPA networks and other means.
- D. Threatened species, critical species, and functional groups** Protect and restore species and functional groups that maintain ecosystem integrity.
- E. Community and economic development** Diversify and sustain coastal communities' livelihoods.
- F. Watershed management** Effectively manage watersheds and freshwater resources.
- G. Hazard risk reduction** Reduce risk to communities from climate change and coastal hazards.

scientific studies and field-based experiences of management interventions most likely to be effective when applied as an integrated ecosystem-based approach in the Coral Triangle. The strategies were developed by a team of scientific and natural resource management experts in consultation with the governments and priority geographies of the CTI-CFF. Section 2 also includes a diagnostic tool for assessing your management area's progress toward EBM through the achievement of these integrated strategies.

Integrated, comprehensive coastal management requires working in cooperation with multiple government agencies, community leaders, NGOs, and economic interests. To do this successfully, the integration process should exist within a larger framework of enabling policy, voluntary cooperation and alignment, and, in the best

cases, joint planning and budgeting. Therefore, Section 3 presents a pathway for provincial or local-level government and non-government management authorities to plan together and coordinate the implementation of their management strategies and their existing management plans.

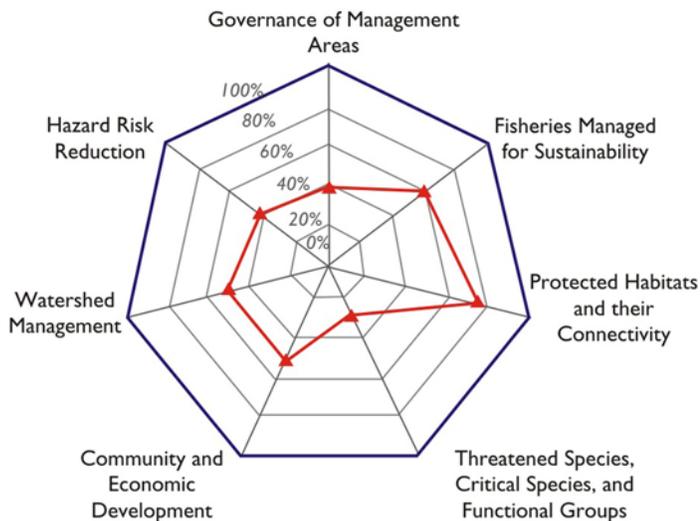
The adaptive management cycle for the creation, implementation, and management of the EBM Framework is presented in Section 4. There are four key steps for this process: (1) Assemble the four elements for EBM, including the EBM Framework; (2) Get ready to implement the Framework and component plans; (3) Implement the Framework and component plans; and (4) Adapt as needed to improve EBM.

Section 5 provides case studies to act as examples of EBM in the Coral Triangle. Case studies are drawn from Indonesia, Malaysia, Papua New Guinea, Philippines, and Timor-Leste.

Through the process of developing this guide, the thematic leads from the US CTI Support Program, representing each of the five goals of the CTI-CFF RPOA, drew together an agreed-upon glossary of terms to be used in each of the tools developed. This full glossary is provided in Appendix 2.

Appendix 3 is an annotated list of recommended tools that were developed or recommended specifically for use in the Coral Triangle for implementation of activities within the RPOA. In many cases, these tools are integrative, combining the implementation of at least two, if not more, of the goals of the RPOA.

**Example: Management Area**



Example of the use of the EBM Diagnostic Tool, presented in Section 2 of the Integration Guide.



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**For more information**

Flower, K.R., Atkinson, S.R., Brainard, R., Courtney, C., Parker, B.A., Parks, J., Pomeroy, R., & White, A. (2013). Toward ecosystem-based coastal area and fisheries management in the Coral Triangle: Integrated strategies and guidance. Jakarta, Indonesia: Coral Triangle Initiative Support Program for the U.S. Agency for International Development. [http://www.coraltriangleinitiative.org/resource\\_by\\_subject/138](http://www.coraltriangleinitiative.org/resource_by_subject/138)

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