



CORAL TRIANGLE INITIATIVE

ON CORAL REEFS, FISHERIES AND FOOD SECURITY

FACT SHEET:
THE CTI INTEGRATED TOOLKIT



OVERLOOK OF BOAT IN OCEAN FROM THE ISLAND OF CORON IN PALAWAN, PHILIPPINES
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The CTI Integrated Toolkit

The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI) Integrated Toolkit is a collection of 39 tools developed to help natural resource managers and stakeholders to integrate the five goals of the CTI at their site. As a result of using these tools for thematic integration, practitioners are able to improve management efficiency and reduce user conflict while working within an ecosystem-based management framework. For example, the Toolkit can help a site manager plan to include climate change adaptation into his or her integrated management plan for fisheries and marine protected areas.

BACKGROUND

The Coral Triangle is among the most biologically and economically valuable marine ecosystems on the planet. To ensure the long-term sustainability of coastal and ocean resources within the Coral Triangle, careful and coordinated management is needed to address multiple issues and impacts. Overlapping authority and mandates,

“The use of the CTI Integrated Toolkit should help us advance within the region towards comprehensive, ecosystem-based management. We look forward to its use and adaptation to improve management systems, sustain healthy fisheries, and ensure sustainable livelihoods.”

Dr. Sudirman Saad
Chairman of the CTI-CFF Interim
Regional Secretariat

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.

Toolkit Development

To support this coordinated approach, an integrated toolkit has been developed for use across the Coral Triangle. The regional (i.e, intended for use in multiple countries) tools in this toolkit have been through an alignment process. That is, the lead developers came together to discuss the terminology and recommendations in each of the tools. They agreed upon a common set of terms and definitions to be used and ensured that the recommendations made by each guide or tool did not conflict with recommendations made by other guides or tools.

The CTI Integration Guide, “Toward Ecosystem-based Coastal Area and Fisheries Management in the Coral Triangle: Integrated Strategies and Guidance,” describes how to develop an integrated management framework that adheres to the guiding principles of ecosystem-based

management (EBM). This framework has three key components: integrated strategies for management, collaborative governance arrangements, and a process for adaptive management. The integration guide is available online at: <http://www.coraltriangleinitiative.org/library/guidelines-toward-ecosystem-based-coastal-area-and-fisheries-management-coral-triangle>.

The Integration Guide also contains the aligned glossary of common terms and a description of each of the tools in the Integrated Toolkit.



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

A vision for ecosystem-based management in the Coral Triangle

“Integrating the CTI themes toward effective EBM will support healthy ecosystems, critical biological diversity, productive fisheries, and sustainable benefits for local communities. Healthy coastal and marine ecosystems will host abundant, diverse, and stable populations of marine life while increasing resilience to climate change. People will benefit through access to and maintenance of livelihoods, improved food security, and diverse sources of stable income from sustainable fisheries and non-extractive economic activities. Traditional practices and diverse local perspectives will come together with modern management techniques involving local participation. Integrated governance structures and improved public knowledge and understanding will support sustainable use and maintain critical ecosystem benefits and services. Integrated management is therefore envisioned to achieve significant positive ecological, social, cultural, and economic outcomes in coastal communities across the Coral Triangle.”

Written by participants at the Third Coral Triangle Support Partnership (CTSP) Thematic Integration Workshop, “Guiding the Integration of Climate Change Adaptation, Ecosystem Approaches to Fisheries Management, and Marine Protected Area Tools and Strategies for the Coral Triangle” Held 13 - 15 February, 2013

Summary List of Tools that Comprise the Integrated Toolkit, Sorted by Strategy they Support

Most of the tools in this list have been developed by CTI-CFF Technical Working Groups together with the U.S. CTI Support Program specifically to support implementation of the CTI-CFF Regional Plan of Action (RPOA). Some U.S. CTI Support Program tools were developed as generalized tools for use at the CTI-regional level, and others were developed for use in specific countries. Those that were not developed by the U.S. CTI Support Program are nevertheless in use at CTI Priority Geographies and are recommended for use in implementing the CTI-CFF RPOA and associated National Plans of Action. Each tool is summarized here and described in detail below, with links to the tool or to its authors for more information or direct support on its use. The tools are listed by their title in alphabetical order. Tools marked with an asterisk (*) were *not* developed specifically for use in the Coral Triangle, however, they are recommended because of their usefulness and relevance to the RPOA and Coral Triangle context. Descriptions of each strategy and tool can be found within the CTI Integration Guide.

A. Governance of management areas: Manage coastal and marine areas based on ecological boundaries, resource use patterns, and governance jurisdictions.

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
<p>Coral Reefs, Fisheries, and Food Security: Integrated Approaches to Addressing Multiple Challenges in the Coral Triangle (EBM Policy Brief) U.S. Coral Triangle Initiative Support Partnership. (2013). Coral reefs, fisheries, and food security: Integrated approaches to addressing multiple challenges in the Coral Triangle. Jakarta, Indonesia: CTSP. Available online at http://www.coraltriangleinitiative.org/sites/default/files/resources/3_CTIEBM%20Policy%20Brief.pdf</p>	✓						
<p>Coral Triangle Atlas Available online at http://ctatlas.reefbase.org/</p>	✓	✓	✓	✓	✓		✓
<p>Mending Nets: A Handbook on the Prosecution of Fishery and Coastal Law Violations, Second Edition Environmental Legal Assistance Center. 2008. Mending nets: A handbook on the prosecution of fishery and coastal law violations, Second ed. The Environmental Legal Assistance Center, Cebu City, Philippines. Available online at http://oneocean.org/download/db_files/mending_nets2nd_ed.pdf</p>	✓	✓	✓				
<p>The Seascapes Guidebook: How to Select, Develop and Implement Seascapes Atkinson, S., Esters, N., Farmer, G., Lawrence, K., & McGilvray, F. (2011). The seascapes guidebook: How to select, develop and implement seascapes. Arlington, VA: Conservation International. Available online at http://www.coraltriangleinitiative.org/library/guidebook-seascapes-guidebook-how-select-develop-and-implement-seascapes-october-2011</p>	✓	✓	✓	✓	✓	✓	

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).

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
<p>Coral Triangle Regional Ecosystem Approach to Fisheries Management (EAFM) Guidelines Pomeroy, R., Brainard, R., Heenan, A., Moews, M., Shackeroff, J., & Armada, N. (2013). Coral triangle regional ecosystem approach to fisheries management (EAFM) guidelines. Honolulu, HI: USAID Coral Triangle Support Partnership. Available online at http://www.coraltriangleinitiative.org/library/guidelines-coral-triangle-regional-ecosystem-approach-fisheries-management-eafm-guidelines</p>	✓	✓			✓		
<p>EAFM Indicators (for Indonesia) Indonesia Ministry of Marine Affairs and Fisheries, WWF-Indonesia, & Bogor Agricultural University. (2011). Ecosystem approach to fisheries management in Indonesia: Establishing indicators and preliminary assessment of EAFM performance. Jakarta, Indonesia: CTSP.</p>		✓					
<p>EAFnet (Online tools and decision support by FAO)* Available online at http://www.fao.org/fishery/eaf-net/en</p>		✓					
<p>Ecosystem Approach to Fisheries and Aquaculture: Implementing the FAO Code of Conduct for Responsible Fisheries* Staples, D., & Funge-Smith, S. (2009). Ecosystem approach to fisheries and aquaculture: Implementing the FAO Code of Conduct for Responsible Fisheries. FAO Regional Office for Asia and the Pacific, Bangkok, Thailand: RAP Publication 2009/11. Available online at: ftp://ftp.fao.org/docrep/fao/012/i0964e/i0964e00.pdf</p>		✓					
<p>Ecosystem Approach to Fisheries Management Leaders, Executives and Decision-makers (EAFM LEAD) training program Brainard, R., Heenan, A., Maurin, P., Moews, M., & Pomeroy, R. (2013). Ecosystem approach to fisheries management leaders, executives and decision-makers (EAFM LEAD) training program. Honolulu, Hawaii: Pacific Islands Fisheries Science Center, National Oceanic and Atmospheric Administration.</p>	✓	✓					
<p>ESSENTIAL EAFM - Ecosystem Approach to Fisheries Management Training Course Curriculum Staples, D., Brainard, R., Capezzuoli, S., Funge-Smith, S., Grose, C., Heenan, A., Hermes, R., Maurin, P., Moews, M., O'Brien, C., & Pomeroy, R. 2013. Essential EAFM. Ecosystem Approach to Fisheries Management Training Course. Bay of Bengal Large Marine Ecosystem (BOBLME) Project, Food and Agriculture Organization of the United Nations and US-Coral Triangle Initiative, National Oceanic and Atmospheric Administration.</p>	✓	✓					
<p>Guide and Information Sheets on Fisheries Management for Communities* Available online at http://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Anon_11_ISFC_00_Guide.pdf</p>		✓					
<p>Guidelines for Incorporating Climate and Ocean Change into an Ecosystem Approach to Fisheries Management (EAFM) Plan Heenan, A., Pomeroy, R., Brainard, R., Amri, A., Alino, P., Armada, N., Bell, J., Cheung, W., David, L., Guieb, R., Green, S., Jompa, J., Leonardo, T., Logan, C., Mamauag, S., Munday, P., Parker, B., Shackeroff, J., & Yasin, Z. (2013). Incorporating climate change and ocean acidification into an ecosystem approach to fisheries management (EAFM) plan. Honolulu, HI: USAID Coral Triangle</p>	✓	✓					✓

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Support Partnership. Available online at http://www.coraltriangleinitiative.org/library/guidelines-incorporating-climate-and-ocean-change-ecosystem-approach-fisheries-management							
Tool for Understanding Resilience of Fisheries (TURF) (for Philippines) Mamauag, S.S., Alino, P.M., Martinez, R.J.S., Muallil, R.N., Doctor, M.V.A., Dizon, E.C., Geronimo, R.C., Cabral, R.B. 2013. Chapter 6: Tool for Understanding Resilience of Fisheries. In: MERF. 2013. Vulnerability Assessment Tools for Coastal Ecosystems: A Guidebook. Marine Environment and Resources Foundation, Inc.: Quezon City, Philippines. Available online at: http://www.coraltriangleinitiative.org/library/guide-vulnerability-assessment-tools-coastal-ecosystems		✓					✓

C. Protected habitats and their connectivity: Protect representative and critical habitats (and their connectivity) through MPA networks and other means.

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Coral Triangle Marine Protected Area System (CTMPAS) Framework and Action Plan Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF). 2013. Coral triangle marine protected area system framework and action plan. Cebu City, Philippines: CTI-CFF, USAID CTSP, and NOAA. Available online at: http://www.coraltriangleinitiative.org/library/action-plan-coral-triangle-marine-protected-area-system-ctmpas-framework-and-action-plan	✓		✓				
Designing MPA Networks to Achieve Fisheries, Biodiversity, and Climate Change Objectives in Tropical Ecosystems: A Practitioners Guide Green, A., White, A., & S. Kilarski (eds). (2013). Designing marine protected area networks to achieve fisheries, biodiversity, and climate change objectives in tropical ecosystems: A practitioner guide. Cebu City, Philippines: The Nature Conservancy and the USAID CTSP. Available online at: http://www.coraltriangleinitiative.org/library/guide-designing-marine-protected-area-networks-achieve-fisheries-biodiversity-and-climate		✓	✓				✓
MPA 101 Curriculum (for Indonesia) Ministry of Marine Affairs and Fisheries. (2013). Marine protected area 101. Jakarta, Indonesia: Badan Pengembangan Sumber Daya Manusia (BPSDM), MMAF, Government of Indonesia.	✓		✓				
MPA Management Effectiveness Assessment Tool (MEAT) (for the Philippines) Available online at http://www.coraltriangleinitiative.org/library/toolkit-marine-protected-area-management-effectiveness-assessment-tool-february-2011			✓				
MPA Management Planning Curriculum (for Indonesia) National Oceanic and Atmospheric Administration (NOAA). (2013). Sustainable fisheries in MPAs. Jakarta, Indonesia: International MPA Capacity Building Program of National Marine Sanctuaries.	✓		✓				
MPA Marine Spatial Planning Curriculum (for Indonesia) Ministry of Marine Affairs and Fisheries. (2013). MPA management planning. Jakarta, Indonesia: BadanPengembanganSumberDayaManusia (BPSDM), MMAF, Government of Indonesia.	✓		✓				

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Reef Resilience Toolkit* Available online at http://www.reefresilience.org/		✓	✓				✓
Stakeholder Engagement and Co-management in MPAs Curriculum (for Indonesia) National Oceanic and Atmospheric Administration (NOAA). (2013). Stakeholder engagement and co-management in MPAs. Jakarta, Indonesia: International MPA Capacity Building Program of National Marine Sanctuaries.	✓		✓				
Sustainable Fisheries in MPAs Curriculum (for Indonesia) National Oceanic and Atmospheric Administration (NOAA). (2013). Sustainable fisheries in MPAs. Jakarta, Indonesia: International MPA Capacity Building Program of National Marine Sanctuaries.		✓	✓				
Sustainable Tourism in MPAs Curriculum (for Indonesia) National Oceanic and Atmospheric Administration (NOAA). (2013). Sustainable tourism in MPAs. Jakarta, Indonesia: International MPA Capacity Building Program of National Marine Sanctuaries.			✓		✓		
Technical Guidelines for Evaluating the Management Effectiveness of Aquatic, Coasts and Small Islands Conservation Areas (for Indonesia) Directorate for Conservation of Area and Fish Species (2012). Technical guidelines for evaluating the management effectiveness of aquatic, coasts and small islands conservation areas (E-KKP3K). Jakarta: Directorate for Conservation of Area and Fish Species, Directorate General of Marine, Coasts and Small Islands, Ministry of Marine Affairs and Fisheries. Available online at http://www.wdpa.org/ME/PDF/MPAME%20Guide_March2011.pdf			✓				

D. Threatened species, critical species, and functional groups: Protect and restore species and functional groups that maintain ecosystem integrity.

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
International Plan of Action for the Conservation and Management of Sharks* Food and Agriculture Organization of the United Nations. 1999. International plan of action for reducing incidental catch of seabirds in longline fisheries; International Plan of Action for the Conservation and Management of Sharks; International Plan of Action for the Management of Fishing Capacity. Rome: FAO. Available online at ftp://ftp.fao.org/docrep/fao/006/x3170e/X3170E00.pdf				✓			

E. **Community and economic development:** Diversify and sustain coastal communities' livelihoods.

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Building on What We Have for a Better Life: Asking the Right Questions to Improve Livelihoods* Govan, H. (2011). Building on what we have for a better life: Asking the right questions to improve livelihoods (FSPI Reports). Suva, Fiji. Available online at http://www.fspi.org.fj/index.php/sustainable-livelihoods-resources/a-community-tool-a-user-guide					✓		

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Enterprise Strategies for Coastal and Marine Conservation: Review of Best Practices and Lessons Learned* Torell, E., & Tobey, J. (2012). Enterprise strategies for coastal and marine conservation: A review of best practices and lessons learned. Coastal Resources Center, University of Rhode Island. Available online at http://www.crc.uri.edu/download/SUCCESS_2013_Enterprise_Strategies.pdf		✓	✓		✓		
Livelihoods and an Ecosystem Approach to Fisheries Management (COASTFISH) Pomeroy, R. (2013). Livelihoods and an ecosystem approach to fisheries management. Jakarta, Indonesia: USAID Coral Triangle Support Partnership.		✓			✓		
Sustainable Livelihoods Enhancement and Diversification (SLED): A Manual for Practitioners* IMM Ltd. (2008). Sustainable livelihood enhancement and diversification (SLED): A manual for practitioners. International Union for the Conservation of Nature (IUCN). Available online at http://www.icran.org/pdf/SLED%20Manual%20Final%20-%20Low%20Res.pdf					✓		

F. Watershed management: Effectively manage watersheds and freshwater resources.

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Coastal Zone Management Handbook* Clark, J. R. (1996). Coastal zone management handbook. Florida: CRC Press.						✓	
Managing Impacts of Development in the Coastal Zone (Philippine Coastal Management Guidebook No. 7)*	✓					✓	
Ridges to Reefs Conservation Plan for Choiseul Province, Solomon Islands* Lipsett-Moore, G., Hamilton, R., Peterson, N., Game, E., Atu, W., Kereseke, J., Pita, J., Ramohia, P., & Siota, C. (2010). Ridges to reefs conservation plan for Choiseul Province, Solomon Islands. TNC Pacific Islands Countries Report No. 2/10.						✓	

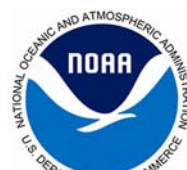
G. Hazard Risk Reduction: Reduce risk to communities from climate change and coastal hazards.

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Adapting to Coastal Climate Change: A Guidebook for Development Planners* United States Agency for International Development (USAID). (2009). Adapting to coastal climate change: A guidebook for development planners. Washington, DC: University of Rhode Island Coastal Resources Center and International Resources Group (IRG) for USAID. Available online at http://www.crc.uri.edu/download/CoastalAdaptationGuide.pdf							✓
Climate Change Adaptation for Coral Triangle Communities: A Guide for Vulnerability Assessment and Local Early Action Planning (LEAP Guide) U.S. Coral Triangle Initiative Support Program. (2013). Climate change adaptation for coral triangle communities: Guide for vulnerability assessment and local early action planning (LEAP Guide). Prepared with support from the United States Agency for International Development. Available online at http://www.coraltriangleinitiative.org/library/guidebook-climate-change-adaptation-coral-triangle-communities-guide-vulnerability							✓

Tools that support this strategy	Strategies this tool supports						
	A	B	C	D	E	F	G
Climate Change Coastal Adaptation Course Curriculum Report available online at http://www.coraltriangleinitiative.org/library/report-cti-cff-climate-change-adaptation-coastal-communities-course-port-moresby-papua-new Course description available online at http://www.coraltriangleinitiative.org/library/course-description-climate-change-adaptation-coastal-communities-and-training-trainers							✓
Coastal Integrity Vulnerability Assessment (CIVA) Tool (for Philippines) Siringan, F.P., Sta. Maria, M.Y.Y., Samson, M.I., Licuanan, W.R.Y., Rollon, R. 2013. Chapter 5: Coastal Integrity Vulnerability Assessment Tool. In: MERF. 2013. Vulnerability Assessment Tools for Coastal Ecosystems: A Guidebook. Marine Environment and Resources Foundation, Inc.: Quezon City, Philippines. Available online at: http://www.coraltriangleinitiative.org/library/guide-vulnerability-assessment-tools-coastal-ecosystems							✓
Coral Triangle Adaptation Marketplace: Linking Climate Adaptation Projects & Funds Available online at http://www.adaptationmarketplace.org/	✓						✓
Designing Resilient Locally Managed Areas in Tropical Marine Environments: A Guide for Community-based Managers Gombos, M., Atkinson, S., Green, A., & Flower, K. (Eds.). (2013). Designing resilient locally managed areas in tropical marine environments: A guide for community-based managers. Jakarta, Indonesia: USAID Coral Triangle Support Partnership.		✓	✓				✓
Integrated Coastal Sensitivity, Exposure, Adaptive Capacity to Climate Change Vulnerability Assessment Tool (ICSEA-C-Change) (for Philippines) Licuanan, W.R.Y., Siringan, F.P., Mamauag, S.S., Samson, M.S., Alino, P.M., Rollon, R.N., Sta. Maria, M.Y.Y., Quibilan, M.C.C., Martinez, R.J.S., Espana, N.B., Geronimo, R.C., Villanoy, C.L., Cabrera, O.C., Salamante, E.E., Miclat, E.F.B., David, L.T. 2013. Chapter 4: Integrated Coastal Sensitivity, Exposure, and Adaptive Capacity to Climate Change. In: MERF. 2013. Vulnerability Assessment Tools for Coastal Ecosystems: A Guidebook. Marine Environment and Resources Foundation, Inc.: Quezon City, Philippines. Available online at: http://www.coraltriangleinitiative.org/library/guide-vulnerability-assessment-tools-coastal-ecosystems		✓	✓		✓		✓



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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

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