Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security

Monitoring and Evaluation System Operations Manual

CORAL TRIANGLE INITIATIVE
ON CORAL REEFS, FISHERIES AND FOOD SECURITY

A publication supporting the **Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF)**
www.coraltriangleinitiative.org

Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security

Monitoring and Evaluation System Operations Manual

This publication was produced by the CTI-CFF Monitoring and Evaluation Working Group and printed with support from the United States Agency for International Development through the United States Coral Triangle Initiative Support Program

USAID FROM THE AMERICAN PEOPLE

NOAA

Coral Triangle Support Partnership

WWF The Nature Conservancy CONSERVATION INTERNATIONAL

This is a publication of the Coral Triangle Initiative on Corals, Fisheries and Food Security (CTI-CFF). This publication was prepared to support the implementation of the CTI-CFF Regional and National Plans of Action.

Funding for the preparation of this document was provided by the USAID -funded U.S. Coral Triangle Initiative Support Program. The program is implemented by the Coral Triangle Support Partnership (CTSP), the US CTI Support Program Integrator (PI), and the US National Oceanic and Atmospheric Administration (NOAA). CTSP is a consortium led by the World Wildlife Fund, The Nature Conservancy and Conservation International and the PI project is implemented by Tetra Tech, Inc.

Citation: Coral Triangle Initiative on Corals, Fisheries and Food Security (CTI-CFF) 2013. Monitoring and Evaluation System Operations Manual. U.S. Coral Triangle Initiative Support Program and CTI-CFF Monitoring and Evaluation Working Group.

U.S. CTI Support Program Document Number 21-USCTI-13

For more information on the Coral Triangle Initiative, please contact:

Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security
Interim-Regional Secretariat
Ministry of Marine Affairs and Fisheries of the Republic of Indonesia
Mina Bahari Building II, 17th Floor
Jalan Medan Merdeka Timur No. 16
Jakarta Pusat 10110, Indonesia
www.coraltriangleinitiative.org

More information on the Coral Triangle Initiative and support by USAID can be found at:
www.uscti.org

Front cover photo: A local marine protected area staff conducts a reef transect in Nuakata, PNG
© USAID CTSP/James Morgan
Back cover photo: Marine life at the proposed Tun Mustapha Marine Park in Sabah, Malaysia
© WWF Malaysia/Eric Madeja

Table of Contents

Acronyms

CCA	Climate Change Adaptation
CSO	Council of Senior Officials
CT	Coral Triangle
CT Atlas	Coral Triangle Atlas
CT6	CT Countries (Indonesia, Malaysia, Philippines, Papua New Guinea, Solomon Islands, and Timor-Leste)
CTI-CFF	Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security
CTMPAS	Coral Triangle Marine Protected Area System
CTSP	Coral Triangle Support Partnership
DA-BFAR	Bureau of Fisheries and Aquatic Resources of the Department of Agriculture (Philippines)
DEC	Department of Environment and Conservation (Papua New Guinea)
EAFM	Ecosystem Approach to Fisheries Management
M&E	Monitoring and Evaluation
MEWG	Monitoring and Evaluation Working Group
MPA	Marine Protected Area
MoMAF	Ministry of Marine Affaires and Fisheries (Indonesia)
MoF	Ministry of Finances (Indonesia)
MoE	Ministry of Environment (Indonesia)
myNODC	Malaysia National Oceanography Data Centre
NCC	National Coordination Committee
NFA	National Fisheries Authority (Papua New Guinea)
NPOA	National Plan of Action
PNG	Papua New Guinea
RFMO	Regional Fisheries Management Office
RPOA	Regional Plan of Action (CTI-CFF)
RSCTR	Regional State of the Coral Triangle Report
SCTR	State of the Coral Triangle Report
SOM	Senior Officials Meeting
SPC	Secretariat of Pacific Community
SPREP	South Pacific Regional Environment Programme
TNC	The Nature Conservancy
TWG	Technical Working Group
USCTI	United States Coral Triangle Initiative Support Program

Acknowledgements

This Manual is the result of several regional workshops conducted by the CTI-CFF Monitoring and Evaluation Working Group (MEWG) to formulate the Monitoring and Evaluation System for the CTI-CFF. Representatives from each country have participated in the workshops and have assisted in reviewing this Manual. Participants of the Monitoring and Evaluation Working Group have worked hard to develop parts of this Manual, including the Interim CTI-CFF Interim Regional Secretariat, members of National Coordinating Committees and implementing partners. Segments of the introduction have been modified from the Coral Triangle Initiative website (http://www.coraltriangleinitiative.org/). Resource persons instrumental in compiling this document include: Alan White (TNC), Luz Baskinas (WWF Philippines), Catherine Courtney (Tetra Tech Inc.) and William Jatulan (USCTI). The document was written and compiled by Annick Cros (TNC).

Foreword

Marine resources and the ecosystem services they provide are critically important in the world's most biodiverse marine area known as the Coral Triangle, but these resources and ecosystems are under serious threat (Reefs at Risk: Coral Triangle, WRI 2012). To protect the area and its vital resources, the six countries of the Coral Triangle (Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands and Timor-Leste) established in 2007 the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), which is pursuing the implementation of a "*Regional Plan of Action*" which was formally endorsed in 2009 by the six countries.

From the outset of the CTI-CFF, it was decided that measureable targets for the 5 goals needed to be set and measured so that progress towards the goals and higher level outcomes (coral reefs, fisheries and food security) could be quantified. Thus, the Monitoring and Evaluation Working Group (MEWG) was formed and Chaired by the Philippines with the mandate to formulate a set of indicators for each of the 5 goals together with the Technical Working Groups for each goal and equally to formulate a process for tracking these indicators using the best information available across the region.

This "*Monitoring and Evaluation Operations Manual*" is the result of several MEWG regional workshops and summarizes the core elements of the CTI-CFF M&E System. The M&E System has been endorsed by the Senior Officials Meeting and Council of Ministers in 2012 and is now ready for full application. This Manual prescribes a process for facilitating regional collaboration among the countries to track progress towards the CTI-CFF goals and higher level outcomes. A key component of the M&E System is an information base which consistently tracks change at the national and regional scale. This information base is housed in the Coral Triangle Atlas which is an integral part of the M&E System.

We are extremely proud of this accomplishment. We hope that it will serve as a cornerstone for measuring progress towards the regional CTI-CFF goals and outcomes. We thank all those who contributed to this process and look forward to working together in the wide application of the M&E System Operations Manual.

Director Theresa Mundita S. Lim
Department of Environment and Natural Resources
PHILIPPINES
Chair, CTI-CFF M&E Working Group

Message from the Interim Regional Secretariat

Distinguished Colleagues,

As CT-6 members agree that all activities of CTI-CFF should have higher level outcome in form of coral reef ecosystem integrity and services stabilized or maintained and fish stocks improved and sustained, the formulation of manual to monitor and evaluate the works is extremely important. The finalization of the *Monitoring and Evaluation System Operations Manual (Manual)* is indeed a major step towards establishing management systems in CTI-CFF. We at the Interim Regional Secretariat are pleased to be part of this milestone.

We are particularly delighted that the Coral Triangle Member Countries and our Development Partners continued to extend support to push this product through. Your active participation and involvement in various workshops, meetings and other phases of the development of this *Manual* made this document truly representative of collective wisdom among key stakeholders in the Coral Triangle region. Without these supports, it is difficult to produce such detail, comprehensive and useful document.

To recall, CTI-CFF is triggered by our common desire and aspiration to manage the Coral Triangle, touted to be biologically diverse and abundant in coastal and marine resources. But these resources are threatened by various human-induced causes. Thus, guided by the CTI Regional Plan of Action (RPOA), we collaboratively plan and continuously implement regional actions to arrest or minimize these threats or adapt to changing situations.

Central to tracking and measuring success of our plan is the establishment of a robust monitoring and evaluation system. We can only honestly declare to the world that we are able to make a difference in protecting this unique resource if we have a monitoring and evaluation system in place and the results it generates. It is based on well-designed and effective implementation of monitoring and evaluation system that we will be able to show positive outcomes of our works to the environment, lives and livelihoods of the people in this region.

With the publication of this *Manual*, the hard task of making the CTI-CFF Monitoring and Evaluation System operational starts. Much works are awaiting to accomplish and a set of follow-up actions need to be done. We therefore enjoin the concerned Working Groups and the NCCs to apply the processes prescribed in this document and to set in motion the regular submission of necessary data and reports to make this system work.

We are earnestly hoping that with the guidance of this document, we will be able to measure the results of our initiatives through the standards we set in this *Manual*. Rest assured, we at the Interim Regional Secretariat remain committed to move this forward. Let's work together to make sure that we always work systematically by measures and it that sense, this *Manual* shall be very useful.

Prof. Dr. Ir. R. Sjarief Widjaja, Ph.D., FRINA
Chairman of CTI-CFF Interim Regional Secretariat/
Secretary General of Ministry of Marine Affairs and Fisheries,
Republic of Indonesia

Executive Summary

The Monitoring and Evaluation System (M&E System) Operation Manual has been developed as a guide for the Regional Secretariat, the Technical Working Groups (TWGs), the National Coordinating Committees (NCCs) and the implementing partners of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). It is structured to provide a framework for the M&E System; define indicators for each of the five Regional Plan of Action (RPOA) goals as well as the three higher level outcomes; provide a comprehensive workflow to collect, analyze and report indicators against progress; and help the six countries and the technical working groups to manage the M&E System for adaptive management.

The M&E System is embedded in the five goals of the RPOA and will measure against baselines on the status quo for each goal the outputs and outcomes using indicators developed and endorsed by the TWGs and the Monitoring and Evaluation Working Groups. For some of these indicators, additional benchmarks have been developed as guidelines to track results on a shorter time scale. The Climate Change Adaptation TWG and the Marine Protected Area TWG both developed roadmaps to further help countries put in place the system necessary to track the regional indicators at the national level.

In keeping with the reporting structure of the Coral Triangle Initiative, each entity of the CTI-CFF plays a role in this monitoring system. The M&E System has mapped a national and regional data pathway that allows tracking information transfer and analysis from the field to the top decision makers. It also defines the role and accountability of each entity. The NCCs are pivotal to transferring data measured at the national level to the TWGs to be compiled and analyzed at the regional level. The Regional Secretariat has a central role, hosting and compiling regional data and reporting the results of the M&E System every year to the Senior Officials Meeting as well as every other year through the Regional State of the Coral Triangle Report. The Secretariat is supported by the Monitoring and Evaluation Working Group in each of these steps as well as the Coral Triangle Atlas which leads the information system and data management.

While 10% of funding for many programs is set aside for monitoring and evaluation, each of the CT6 has a different capacity to put into place the M&E system. A preliminary analysis of the estimated cost to track these indicators shows that countries with lower capacity will have a higher financial burden because they will need to create a new system. On the other hand, countries that are already tracking the selected indicators will need less support to make the M&E system fully functional. Implementers will need to organize funds to help those with less established structures to monitor indicators to be able to build a true regional picture of progress in the CTI-CFF and its RPOA goals. A key component of assisting to make the M&E System functional will be to install an M&E Coordinator and System Manager to work directly with the CT6, NCCs and regional CTI Secretariat.

Introduction

Turtle-tagging in the Solomon Islands © USAID CTSP/James Morgan

A. The CTI-CFF

The Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security is a multilateral partnership of six countries working together to sustain extraordinary marine and coastal resources by addressing crucial issues such as food security, climate change and marine biodiversity.

There is broad scientific consensus that the Coral Triangle represents a global epicenter of marine life abundance and diversity. Spanning only 1.6% of the planet's oceans, the Coral Triangle region comprises 76% of all known coral species, hosts 37% of all known coral reef fish species, 30% of the world's coral reefs, the greatest extent of mangrove forests in the world, and spawning and juvenile growth areas for tuna and other globally significant commercial fish species. These unparalleled marine and coastal living resources provide significant benefits to the approximately 363 million people who reside in the Coral

Triangle, as well as billions more outside the region. They are a source of food, income and natural coastal protection and it is critical to ensure the ongoing health of these ecosystems[1].

Recognizing the need to safeguard the region's marine and coastal resources, Indonesian President Yudhoyono inspired other leaders in the region to launch the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security in 2007. The CTI-CFF is a multilateral partnership between the governments of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste (the "CT6").

At the Leader's Summit in 2009, these governments agreed to adopt a CTI Regional Plan of Action to safeguard the region's marine and coastal biological resources. It focuses on strategies that support people-centric biodiversity conservation, sustainable development, poverty reduction and equitable benefit sharing.

B. The Regional Plan of Action

The 10-year Regional Plan of Action is the backbone of the CTI-CFF. It captures the collective priorities and commitments of all six governments and reflects extensive inputs from many partners. It is intended to serve as a rallying point for collective and parallel actions at regional, national, and sub-national levels.

The RPOA presents five goals, each supported by a Technical Working Group (TWG)(CTI-CFF 2009):

Goal 1 – Priority seascapes designated and effectively managed – Seascapes TWG
Goal 2 – Ecosystem approach to management of fisheries (EAFM) and other marine resources fully applied – EAFM TWG
Goal 3 – Marine protected areas (MPAs) established and effectively managed – MPA TWG
Goal 4 – Climate change adaptation (CCA) measures achieved – CCA TWG
Goal 5 –Threatened species status improved – Threatened Species TWG

As the commitments in the plan of action are implemented, tangible and measurable results are anticipated for each of the five goals as well as improvements in the health of marine and coastal ecosystems, in the status of fisheries and in the food security and wellbeing of the communities which depend on them.

In order to keep track of these results and the progress against the Regional Plan of Action, a Monitoring and Evaluation (M&E) system was developed. Structured around the five goals of the RPOA the M&E System provides the CT6 a series of common indicators to track their progress against and which in turn can be rolled up into regional indicators to inform the success of the CTI. This provides the opportunity to readjust actions and strategies to meet the defined targets and goals. The M&E System also provides a clear information pathway from measuring data in the field to a high level indicator of success. This system was developed by the CT6 through the TWG with the support of several implementing partners.

C. The Monitoring and Evaluation Working Group

The Monitoring and Evaluation Working Group (MEWG) was endorsed by the CT6 during the CTI-CFF Senior Officials Meeting (SOM) 8 in November 2012. The primary function of the MEWG is to provide guidance to the CT6 to create a comprehensive M&E System. The MEWG gives technical inputs and recommendations to the Regional Secretariat and the National Coordinating Committees in achieving

[1] http://www.coraltriangleinitiative.org/

the over-arching goals that have been set out in the RPOA. It coordinates and assists the five technical working groups centered on the five goals of the RPOA, as well as bringing in partners and experts to help these five TWGs develop and track measures for their goals.

The first task given by the SOM to the MEWG in 2008 was to develop the set of indicators to measure achievement of RPOA goals and targets. In 2009 the MEWG presented the initial set of proposed RPOA indicators to the SOM, and continued to develop the indicators through regional exchanges and workshops, bringing together the CTI-CFF countries, the interim Regional Secretariat and technical resource persons.

The creation of the Technical Working Groups in 2012 provided a structure to revise the indicators. The MEWG agreed to formally endorse the set of indicators proposed by the TWG. The MEWG prepared the roadmap towards developing the other components of the M&E system. Key sets of indicators for the higher outcome goals of the RPOA were developed through a regional exchange and workshop, as well key elements of the system to collect, measure, store, and report on the indicators. Sources, collaboration with existing programs and projects and methods of collecting and managing data on indicators were also identified.

The collection of data to measure the indicators requires collaboration with various organizations and national government agencies. To manage the data, the RPOA M&E system builds on the Coral Triangle Atlas (CT Atlas) information system, which has been developed to support the CTI-CFF. The CT Atlas has been able to provide data, especially maps for both national and regional work in the CTI-CFF.

The MEWG is also responsible for coordinating with the CTI Regional Secretariat (also referred to as "Secretariat") to communicate progress through the preparation of the regional State of the Coral Triangle Report as well as other reports and material.

I. The M&E System

Community rangers patrol a marine protected area in Bohol, Philippines © US CTI

A. The M&E Framework

The M&E framework presents the short-term and long-term measurable targets and goals of the CTI-CFF. It describes direct causal relationships between the incremental results of key activities to the overall achievement of the RPOA goals.

It has four essential components:

- ☐ Activities – the activities carried out to achieve the targets of the 5 RPOA goals.
- ☐ Outputs – the immediate results achieved through the execution of the activities.
- ☐ Outcomes – the set of short-term or intermediate results achieved by through the execution of the activities.
- ☐ Impacts– the long-term effects, or end results achieved by the 5 RPOA goals.

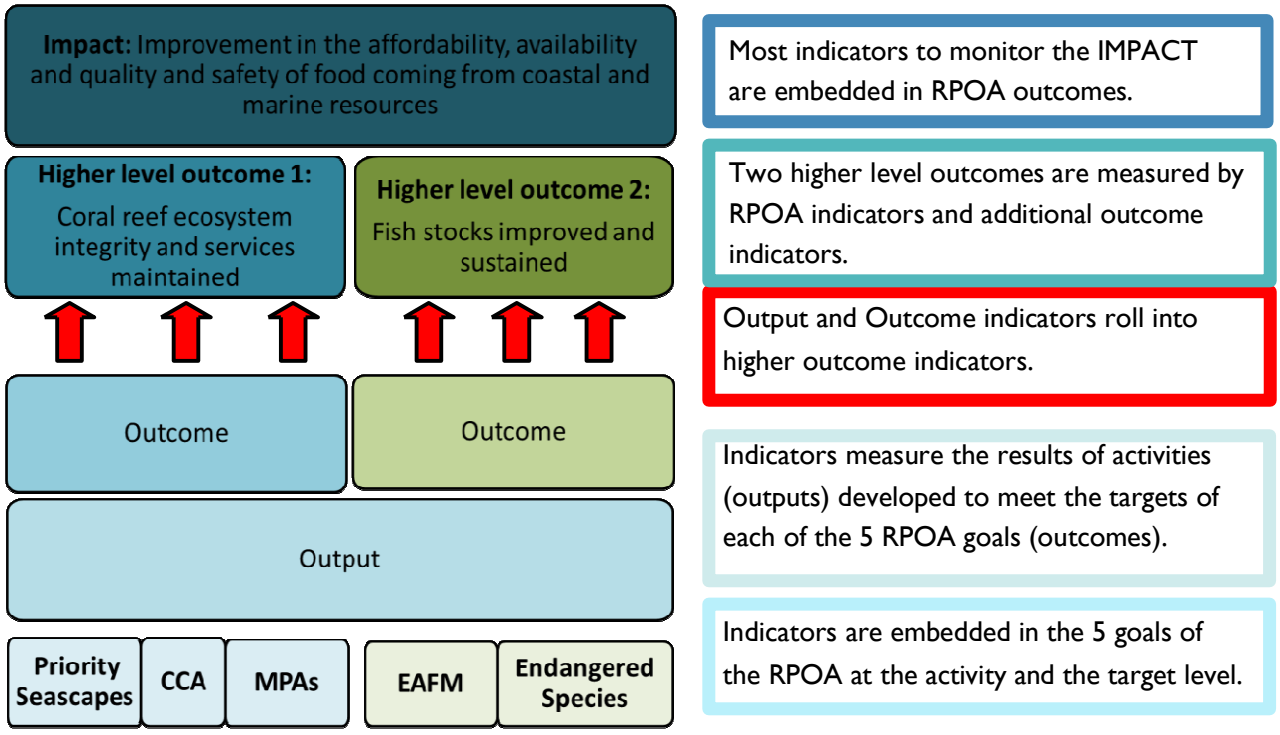

Figure 1. Monitoring and Evaluation process of the CTI-CFF.

Figure 1 describes the M&E framework. The RPOA is structured by goals which are divided into targets. Each target has a set of activities to achieve the desired outcome. The first level of indicators is embedded within activities of the targets. These measure the outputs of the activities and are compiled to provide a measure of the target's outcome. .

A selection of these indicators is also used to measure the three higher level regional outcomes, including the "Impact".

B. RPOA Goals, Targets and Indicators

An indicator is a variable that measures one aspect of a program or project that is directly related to the program's goals and targets. An indicator value should be easy to interpret and explain, timely, precise, valid and reliable.

It should be noted that not all the indicators for the RPOA goals have been finalized and endorsed at the time of writing this manual. This is the case for the three higher outcomes as well as the Seascape, the EAFM and the Threatened Species Goal. The indicators presented here are the ones developed as of July 1, 2013. More detailed descriptions of indicators with working comments can be found in Annex 1.

1) Higher level outcomes and impact

As the Regional Plan of Action is implemented, it is expected to see tangible and measurable improvements in the health of our marine and coastal ecosystems, in the status of our fisheries, and in the food security and well-being of the communities which depend on them (CTI-CFF, 2009). Several indicators have been developed by the MEWG to track these improvements as shown in Table 1. These

indicators, however, have not all been finalized or endorsed by the six countries as some of them are too challenging or expensive to track.

Table 1. Higher level outcomes and impacts indicators of the CTI-CFF.

Higher outcome 1: Coral reef ecosystem integrity and services stabilized / maintained	
Indicators	Condition of coral reef Area of mangroves and seagrass Fish biomass Extent of coral reef and associated habitats in full protected areas
Higher level outcome 2: Fish stocks improved and sustained	
	Change in conservation status (international) of commercially important fish species (demersal and pelagic) Change in catch per unit effort (CPUE) by gear Change in species composition relative to trophic level Change in size distribution by fish species
Higher level outcome 3 (Impact): Improvement in the affordability, availability, and quality and safety of food coming from coastal and marine resources	
	Availability: food sufficiency of fishing household; food consumption of coastal communities Quality and safety: contribution of fish to protein requirement, health of fishing communities Affordability: income of fishers, price of fish

2) RPOA goals, targets and indicators

The RPOA goals and targets indicator were developed as a common effort between the TWG and the MEWG (Table 2). They reflect key stepping stones in the CTI process. Several criteria were used to select these indicators: they had to be specific, measurable, attainable, relevant, and time bound (SMART). They should be comparable across geographies and cultures.

The indicators in Table 2 have not all been endorsed by the TWGs. The indicators for the Seascapes, EAFM and Threatened Species goals may still need revisions.

Table 2. RPOA goals, targets and indicators.

Goal 1: Priority seascapes designated and effectively managed
Target 1: "Priority seascapes" designated with investment plans completed and sequenced
1.1.1 Number of priority seascapes designated with investment plans
Target 2: Marine and coastal resources within all "Priority Seascapes" are being sustainably managed
1.2.1 Number of priority seascapes under continuous improved management
Goal 2: Ecosystem approach to management of fisheries (EAFM) and other marine resources fully applied
Target 2.1: Strong legislative, policy and regulatory frameworks in place for achieving an ecosystem approach to fisheries management (EAFM)
2.1.1 Number of policies and regulations promoting EAFM at regional and national levels with regulatory framework and budget allocated for their operationalization
2.1.2 Number of projects and programs implementing EAFM and components thereof
Target 2.2: Improved income, livelihoods and food security in increasingly significant numbers of

coastal communities across the region through a new sustainable coastal fisheries and poverty reduction initiative (COASTFISH)

2.2.1 Average income (fishing and non-fishing) of coastal households by profession compared to baseline

2.2.2 Percent contribution of fish to protein requirements

Target 2.3: Effective measures in place to help ensure exploitation of shared tuna stocks is sustainable, with tuna spawning areas and juvenile growth stages adequately protected

2.3.1 Number of policies and agreements by CT6 countries for management of tuna

2.3.2 Change in conservation status of tuna

2.3.3 Number of countries adhering to markets or certification standards of tuna fisheries agreed upon by CT6 countries

Target 2.4: A more effective management and more sustainable trade in live reef fish and reef-based ornamentals achieved

2.4.1 Number of policies and agreements on live reef fish trade among CT6 to decrease level of destructive fishing practices linked to the trade

2.4.2 Number and area (km^2) of locally managed areas for live reef fish trade

2.4.3 Number of countries adhering to markets/certification (live reef fish and ornamental fisheries) agreed by CT6

2.4.4 Change in conservation status of live reef fish species (to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI)

Goal 3: Marine protected areas (MPAs) established and effectively managed

Target 3.1. Region-wide Coral Triangle MPA System (CTMPAS) in place and fully functional

3.1.1 CTMPAS Framework developed and adopted by CT6

3.1.2 Percent or area of total marine habitat in CT region in marine protected or managed areas

3.1.3 Percent of each major marine and coastal habitat type in strictly protected "no-take replenishment zones"

3.1.4 Percent or area (km^2) of marine protected areas under "effective" management

3.1.5 Percent or area of marine protected/ managed areas included in CTMPAS

Goal 4: Climate change adaptation (CCA) measures achieved

Target 4.1: Region-wide Early Action Plan for Climate Change Adaptation for the near-shore marine and coastal environment and small island ecosystems developed and implemented

4.1.1 Number of regional agreements/frameworks/plans (e.g. REAP) developed

4.1.2 Number of national policies (including national CCA plans and frameworks) laws and regulations on climate change adaptation proposed and adopted.

4.1.3 Proportion of local governments that have integrated climate adaptation into local governance (plans and actions)

4.1.4 Area of Mangroves (hectares)

Target 4.2: Networked national centers of excellence on climate change adaptation for marine and coastal environments are established and in full operation

4.2.1 A national institution within CT6 designated and networked to address climate change adaptation coordinated with national government support

Goal 5: Threatened species status improved

Target 5.1: Improved status of sharks, sea turtles, seabirds, marine mammals, corals, seagrass, mangroves and other identified threatened species

5.1.1 Number of new policies or agreements adopted at the regional, national and local levels that are in compliance with the international agreements on threatened species

5.1.2 Area (km2) of protected marine habitat that contributes to conservation of threatened and endangered species protected

5.1.3 Number of threatened species with improved status (to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI)

3) Additional benchmarks

In addition to selecting the indicators, the MPA TWG and the CCA TWG have developed tools to measure them. The MPA TWG has developed an MPA management effectiveness system, the CTMPAs (CTI-CFF, 2013), to measure the indicator 3.1.4 "% or area (km^2) of marine protected areas under "effective" management". In collaboration with the Coral Triangle Atlas, they have designed attributes for MPAs which will inform progress towards "management effectiveness" and nominate them into different categories (table 3). This data will be monitored by each country's national body responsible for MPAs and transferred to the CT Atlas, which in turn will analyze the data and provide a score against the management effectiveness scale defined by the MPA TWG.

Table 3. Criteria for site nomination and inclusion of MPAs in the CTMPAS (CTI-CFF 2013).

****** Flagship Regional Sites** ***Sites that are of 1) exceptional regional importance in terms of ecology, socioeconomics and governance as determined by a regional review/evaluation; and, 2) meet the highest-level criteria for management effectiveness based on the rating system used by the nominating/endorsing country.***
Flagship sites will be nominated by the six NCCs; 1-5 sites will be nominated by each country in the first nomination round. Priority development sites may be recognized as flagship sites once they become effectively managed.
***** Priority Development Sites** ***Sites identified as having high regional importance in terms of ecology, socioeconomics and governance but still require further development and assistance to attain their full management potential. To be accepted under Category 3, a site must be formally recognized***
Priority development sites will be nominated by the country with the aim of fulfilling regional needs and to prioritize those sites that require more development. They may also fill gaps as identified in a regional or national gap analysis. Nominated sites might be existing category 2 sites, or new sites.
**** Effectively Managed Regional Sites**
Effectively Managed Regional Sites will be nominated by the six NCCs and accepted subject to their fulfilling the criteria below: ☐ Sites should form a network ☐ Sites should target an identified regional priority area, habitat or species ☐ Sites should achieve a threshold level of management effectiveness ☐ Formal or legal basis for establishment ☐ Management body established and functioning ☐ Management and / or zoning plan approved and implemented

- ☐ Resource and socioeconomic baseline assessment completed
- ☐ Biophysical and socioeconomic monitoring (designed to address objectives) conducted regularly, results analyzed
- ☐ Biophysical and socioeconomic monitoring (designed to address objectives) conducted regularly, results analyzed
- ☐ Information, Education, Communication, awareness programs
- ☐ Effective enforcement
- ☐ Community involvement and participation in management
- ☐ Multi-stakeholder involvement in management
- ☐ Increased livelihood opportunities
- ☐ Research and development
- ☐ Sites should adhere to at least two of the following ecological design criteria:
  - ♦ Representation
  - ♦ Replication
  - ♦ Resilience
  - ♦ Connectivity
  - ♦ Critical areas protected

*** Recognized CTMPAS Sites**

Sites that contribute towards CTMPAS objectives at local scales.

All MPAs and MPA networks listed in the CT Atlas are recognized as contributing to the CTMPAS. Sites must remain current in the CT Atlas for essential data parameters, but no additional nomination or reporting requirements for this level are required (http://ctatlas.reefbase.org/)

The CCA group has defined clear benchmarks (Table 4) to track their indicator 4.1.3 "Percentage of local governments that have integrated climate adaptation into local governance (plans and actions)." These benchmarks can be transformed into attributes to link to a spatial point to be managed and analyzed by the CT Atlas if required.

Table 4. Benchmarks for Climate Change Adaptation in the Coral Triangle (from REAP-CCA (CTI-CFF 2011)).

Level 1 – Getting Started	**Level 2 – Laying a Solid Foundation**	**Level 3 – Responding to Changing Conditions**
Objective: Awareness of climate hazards and vulnerability with early adaptation actions initiated.	*Objective: Climate adaptation measures integrated into plans and programs with regular funding allocated to sustain implementation of early adaptation actions with monitoring*	*Objective: Climate adaptation main-streamed into policies, plans, programs and decision making processes across all sectors with monitoring, measured results, and positive returns.*
☐ CCA team organized and trained to facilitate local early action planning ☐ Community outreach on climate change issues and early actions conducted ☐ Local climate vulnerability	☐ Local partnerships established to support adaptation ☐ Stakeholder outreach on local early adaptation plans and adaptation measures conducted	☐ National, regional, and international partnerships established to support long term adaptation ☐ CCA mainstreamed into policies, plans, and programs

Level 1 – Getting Started	Level 2 – Laying a Solid Foundation	Level 3 – Responding to Changing Conditions
assessment (qualitative) conducted ☐ Indicators (social and natural) of climate impacts and adaptation actions identified and baseline assessment conducted ☐ Timeline for implementation of early adaptation actions developed ☐ At least 2 early adaptation actions planned and initiated	☐ Local climate vulnerability assessment updated and refined (quantitative) ☐ Early actions and timeline for implementation reviewed and updated ☐ Local early action measures incorporated into plans and programs ☐ At least 4 early adaptation actions implemented with measured success ☐ Monitoring of climate impacts and adaptation strategies conducted	☐ At least 6 early adaptation actions implemented with measured success ☐ Monitoring of climate impacts and adaptation strategies conducted and to adapt and improve management

C. Roadmaps

Both the MPA and the CCA working groups have created a clear roadmap to help countries to track their indicators. These are plan of actions for each of the CT6 built around the indicators. Each country will have different actions to meet the targets and these are described in the roadmap, capturing the national variations of the M&E System. Additionally, the MPA roadmap (CTI-CFF 2013) provides plans on sustainable financing and other key elements to a work plan.

D. Baseline Measures

In order to track progress, there needs to be a baseline measure against which to compare yearly measurements of indicators. The suggested year for baseline measurements is 2009 but this may be variable as long as it is recorded along with the baseline measure (Annex 2).

E. National and Regional Process – Data Pathway

To understand the data pathway, the MEWG has worked with the TWG and the NCCs to describe the M&E system both at the national level and at the regional level (Fig 2) and are described in detail in Annexes 3 and 4 respectively. The data pathway is a key tool to map who will be responsible, and even more importantly, who will be accountable for each step of the indicator: collect, measure, compile, analyze, store and report. It can also serve as a means of information for the entities that have been identified in the pathway to ensure their collaboration.

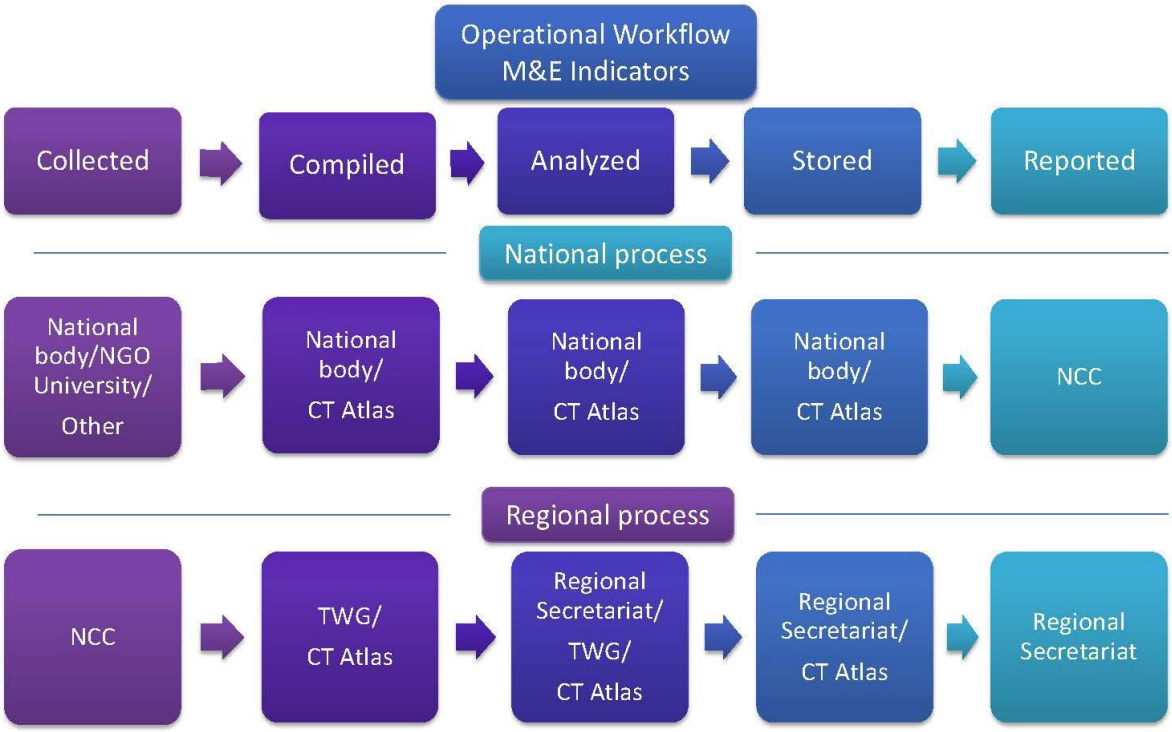

Figure 2. General M&E operational workflow, from field data to M&E reports to the higher management level.

The M&E system starts at the national level where the data for the indicator is collected and measured by a national body or a partner such as an NGO or a university. The data is then compiled, analyzed and stored by either a national body or the Coral Triangle Atlas, particularly if the data is spatial. Usually, at this point, the data can provide a measure for the RPOA indicator at the national level.

The national measure for the indicator is reported to the TWG by the NCC. This is compiled and analyzed at a regional scale by the TWG or the CT Atlas. The regional measure for indicators is stored by the CT Atlas and/or the Regional Secretariat.

The MEWG helps the Regional Secretariat to prepare and communicate the M&E report to the SOM, implementing partners and the CTI community.

1) Data Collection Methods

At the national level, each country has a specific agency or partner it will work with to collect data depending on the type of information required (Annex 3). Table 5 presents a compilation of these agencies. These are the most likely to change as governments and partners evolve into different roles and functions. However since it is the first step towards the M&E process, it is important to identify well in advance who will be responsible for data collection.

Table 5. Entities responsible for collecting data for the RPOA indicators at the national level.

Country	Goals	Entities
Indonesia	**EAFM**	Ministry of Marine Affaires and Fisheries (MoMAF)
	MPA	Local Government, Implementation Partners, MoMAF, Ministry of Forestry (MoF)
	CCA	Geospatial Information Agency, Ministry of Environment (MoE), MoMAF, NGO, National Agency for Climate Change
	Threatened Species	MoMAF, MoF, Indonesia Institute of Science (LIPI)
Malaysia	**EAFM**	Department of Fisheries, Malaysia National Oceanography Data Center (myNODC)
	MPA	Sabah Parks & Department of Marine Park Malaysia
	CCA	National Oceanography Directorate, National Hydraulic Research Institute of Malaysia, Ministry of Natural Resources and Environment
	Threatened Species	Department of Fisheries, Department of Wildlife
PNG	**EAFM**	National Fisheries Authority, National Statistical Office, Department of Health, Implementation Partners, Secretariat of Pacific Community (SPC), Forum Fisheries Agency, Western and Central Pacific Fisheries Commission
	MPA	Department of Environment and Conservation (DEC), Implementation Partners, CT Atlas
	CCA	Office of Climate Change and Development, Provincial Government
	Threatened Species	DEC, Implementation Partners, South Pacific Regional Environment Programme (SPREP)
Philippines	**EAFM**	Bureau of Fisheries and Aquatic Resources of the Department of Agriculture (DA-BFAR), National Statistic Office, Department of Health - Food and Nutrition Research Institute (DOH-FNRI), National Fisheries Research and Development Institute (NFRDI)
	MPA	DA-BFAR, Department of Environment and Natural Resources (DENR), MPA Support Network
	CCA	DA-BFAR, DENR, Climate Change Commission (CCC), Department of Interior and Local Government (DILG), National Disaster Risk Reduction and Management Council (NDRRMC), Private sector
	Threatened Species	DA-BFAR, DENR, NFRDI
Solomon Islands	**EAFM**	Ministry of Environment, Ministry of Fisheries, Ministry of Planning; National statistics office, Implementing partners, Ministry of Health, Secretariat of Pacific Community (SPC), Forum Fisheries Agency, Western and Central Pacific Fisheries Commission
	MPA	Implementing partners, MPA Site managers, SILMMA, Ministry of Fisheries, Ministry of Environment
	CCA	Ministry of Environment (Climate Change Division & Meteorology Services), CT Atlas, SPREP, SPC, Implementing Partners
	Threatened Species	Ministry of Environment, Ministry of Fisheries, Implementing partners, SPREP
Timor Leste	**EAFM**	National Directorate of Fisheries and Aquaculture
	MPA	National Directorate of Fisheries and Aquaculture
	CCA	Ministry of Environment, CT Atlas
	Threatened Species	Ministry of Environment, Ministry of Fisheries, Implementing partners

At the regional level (Annex 4), it is the NCC's role to collect and compile the measures for all the indicators from the different national agencies and other partners.

2) Data compilation

An indicator may be a combination of several types of information measured by different organizations which will need to be compiled and analyzed to provide the right information.

At the national level, the entities responsible for compiling and storing are, for the most part, the same as those in charge of data collection (Table 3 and Annex 3).

At the regional scale, this is the step where the NCCs hand over the national measure to their respective TWG, to the Coral Triangle Atlas or to the Regional Secretariat (or a combination of). The data is compiled to measure the indicators at the regional level.

3) Data Access

At the national level, the data is stored in the same agencies that compile the data and analyze it (Table 1). Currently, this data is only available upon request and at the discretion of each national body but may be shared with the CT Atlas to increase accessibility. Spatial data relevant to measuring the indicator is shared with the CT Atlas and can be accessed publicly with restrictions.

At the regional level, the data is stored within the Regional Secretariat and/or the CT Atlas and is accessible by CT6 and the public.

4) Data Analysis

At the national level, data analysis is performed by the national bodies who compile the data. Analysis is not always required.

At the regional level, analysis is performed by the TWG, the CT Atlas or the Regional Secretariat. The TWG and CT Atlas may carry out more technical analysis that requires specific expertise such as GIS and provide a more regional or higher level measure of indicators.

5) Data Reporting

The Regional Secretariat is responsible for regularly reporting (at least once a year) the progress of the M&E system to the SOM, implementing partners and funders. The Secretariat receives support from the MEWG to compile and draft the reports or provide supporting material for the SOM.

II. Organization and Management at National and Regional Levels

Community member monitors fisheries data in Palawan, Philippines © USAID CTSP/Tory Read

A. Structure of M&E System lines of authority and coordination

To understand the M&E system it is essential to first understand the structure of the CTI-CFF. At the national level, each country has developed a National Plan of Action (NPOA) which reflects the goals of the RPOA. The implementation of these NPOAs is overseen by National Coordination Committees lodged in focal government agencies in each of the CT6 countries. The NCCs also serve as a focal point for the implementation of the CTI-CFF Regional Plan of Action and bring together several government agencies as well as non-government partners and institutions.

Each NCC is responsible for reporting progress in meeting the goals of their NPOA, as well as the country's contribution to the goals of the RPOA. In order to do this, the NCCs report directly to the senior officials but also coordinate their work with the five technical groups, the MEWG and the Regional Secretariat.

At the regional level, each of the five goals of the RPOA is championed by a Technical Working Group comprised of the NCC focal point, a representative of the Regional Secretariat, and other government representatives, as well as partners that can provide expert knowledge and support to the team.

The five TWGs as well as the MEWG report to the senior officials either as a TWG or through the Secretariat.

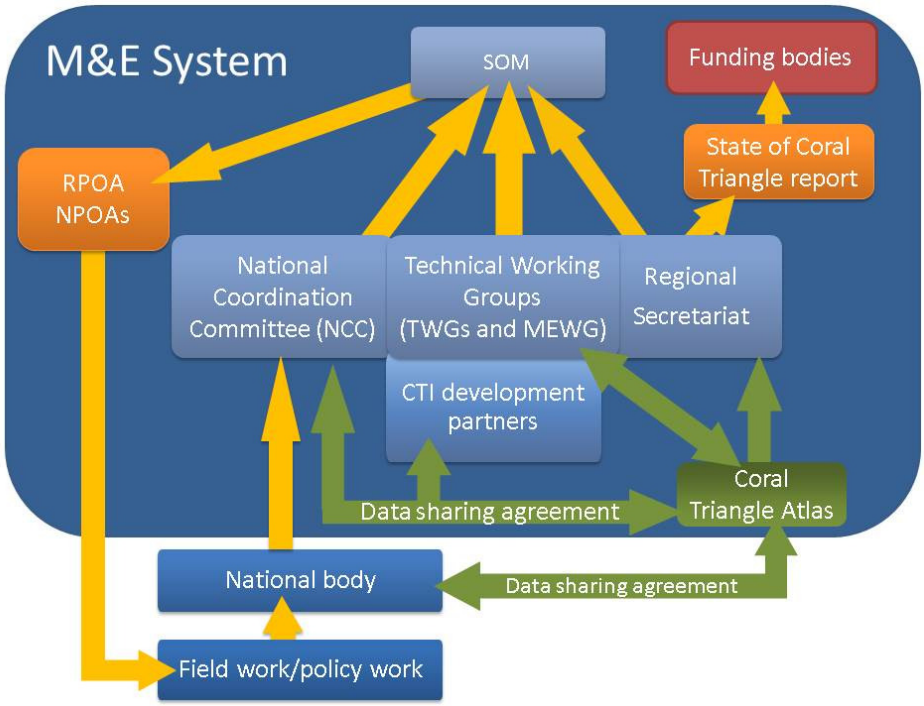

Figure 3. M&E System from data collection to reporting to the SOM.

Figure 3 illustrates the M&E System embedded in the CTI-CFF lines of authority and coordination.

The indicators are measured at the national level and then transferred to the TWG through the NCC. At the regional level, each TWG compiles the measure the indicators for their goal to obtain a regional figure which is then monitored. They can also be measured directly at the regional level, usually through a partner such as the CT Atlas.

A summary of the progress against the RPOA is communicated to the senior officials by either the MEWG or the Regional Secretariat. The MEWG, in partnership with the Regional Secretariat, is also responsible for producing the State of the Coral Triangle report to communicate progress to a wider public, including funding bodies.

The Monitoring and Evaluation System is part of an adaptive management strategy adopted by the CFF-CTI in which senior officials can make changes to the RPOA or NPOA to rectify actions to enhance strategy effectiveness during the Senior Official Meeting as recommended by the MEWG with representatives from the CT6.

B. The role of the Coral Triangle Regional Secretariat in the M&E System

The Regional Secretariat plays a pivotal role in the CTI-CFF. It is present at all the regional levels to ensure the coordination of activities and communication between the different actors of the CTI. In the M&E System it manages the data at the regional scale, providing the role of data storage, coordination and communication.

The Regional Secretariat has been tasked to develop and maintain a system that will:

- ☐ Store M&E data
- ☐ Allow TWGs, NCCs and other partners to update directly indicators and other information
- ☐ Generate activity and output tracking against the RPOA
- ☐ Facilitate reporting and analysis
- ☐ Provide linkages between the CT6 and the CT Atlas

To do this the Regional Secretariat works closely with the NCCs, TWGs, the CT Atlas and implementing partners. The Secretariat is either officially part of these groups or present to participate and ensure coordination.

C. The role of the NCC in the M&E System

The National Coordination Committees were formed to lead the in-country implementation of CTI-CFF Regional Plan of Action and National Plan of Action (NPOA). The NCCs are composed of representatives from multi-sectoral ministries, non-government organizations, development partners and academic experts.

One NCC representative is present in each TWG and during the M&E meeting. Their role is to inform of the strategies their countries are taking to reach the RPOA goals and make sure they align with the rest of the CT6 efforts. They are also accountable for providing the progress reports of the indicators to the TWG and MEWG and informing them of any issues, as well as communicating decisions made by the TWGs and MEWG back to their respective governments.

D. The role of the TWG in the M&E System

The Technical Working Groups were formed to provide expertise, innovation and cutting edge tools to the CT6 to successfully meet the goals of the RPOA. Structured as one TWG per goal, there is a real opportunity to focus on the question at hand and to centralize the appropriate people to find the right strategies. The TWG is composed of multiple partners including NCC focal person, Regional Secretariat representative, implementing partners and experts.

Through Workshops and Meetings, the TWG have developed the RPOA indicators as well as roadmaps and plans to achieve the desired outcomes, working with the MEWG to set up the M&E System. They work closely with the NCCs to coordinate national and regional plans as well as the Regional Secretariat to inform them of changes and progress.

E. The role of the Coral Triangle Atlas in the M&E System

Primarily focused on spatial data, the CT Atlas supports two critical functions of the CTI. The first is a need for regional planning to address the goals set by the six countries of the Coral Triangle. The second is to provide support to the Monitoring and Evaluation process, in response to a need for a regional vision of progress of the RPOA. The Coral Triangle Atlas team compiles, analyzes and supplements region-wide data for the CTI-CFF and the M&E System. It provides high quality data that can be used confidently, such as the MPA data which has been recognized as the most complete and up-to date MPA database for the Coral Triangle.

In November 2012, the CTI-CFF Council of Senior Officials (CSO) officially recognized the Atlas as integral to the implementation of the CTI-CFF M&E system. To successfully fill this role the CT Atlas has agreed to provide the following functions to the CTI-CFF:

- ☐ Store all spatial and non-spatial data relevant to tracking progress of the Regional Plan of Action and as stipulated by the CTI Monitoring and Evaluation Working Group operations manual.
- ☐ Report on and analyze data as required to report on the CTI indicators of progress.
- ☐ Provide maps and reports that satisfy the needs of the CTI-CFF and the CT countries.
- ☐ Provide input to the State of the Coral Triangle Report.

The CT Atlas provides an information service and an analytical tool to the CTI Technical Working Groups and to Regional Secretariat in a manner which meets the following criteria:

- ☐ All data housed in the CT Atlas is the property of the CT Countries and distributed according to sharing agreements;
- ☐ The CT Atlas operates in close coordination and response to the Regional Secretariat with support from Partners or other sources;
- ☐ The CT Atlas maintains a formal working agreement with the Regional Secretariat to perform the database functions deemed necessary by the TWGs and Regional Secretariat.

It should be noted that these functions are in addition to the role of the CT Atlas to serve as a central online GIS database for scientists, managers and decision makers to provide information on marine resources to improve management at a regional level.

The CT Atlas can be found at http://ctatlas.reefbase.org

III. Communicating the M&E

Local rangers in Nuakata, Papua New Guinea © USAID CTSP/James Morgan

A. M&E Working Group & CTI-CFF website

The M&E working group is the first and most immediate source of information for the M&E framework and updates. Made up of representatives of each NCCs, a representative of the Regional Secretariat, representatives of each TWG, and key members of the implementing partners, the MEWG is structured to disseminate information quickly and efficiently through the CTI-CFF.

Additionally, the MEWG uses the communications tools developed by the CTI-CFF Communication Strategy.

These include the CTI-CFF website (http://www.coraltriangleinitiative.org) which centralizes all the information on the CTI including the latest news, upcoming events, resources by theme and country and serves as a gateway to other sites such as:

- ☐ CTI-CFF Learning Resource Network - Promotes knowledge exchange within the Coral Triangle Initiative
- ☐ CT Atlas - GIS database of fisheries, biodiversity and socioeconomic information
- ☐ CT Communications Platform - Multimedia campaign platform for Coral Triangle conservation activities

B. Regional State of the Coral Triangle Report

The MEWG system recognizes that the preparation and release of the Regional State of the Coral Triangle Report (SCTR), which has been drawn from the national SCTRs, is an important venue for CTI-CFF to report on the RPOA's achievements. The first regional SCTR is now in its final stages of completion and will be published within the year. SOM has accepted the recommendation of the MEWG that the next SCTR will be prepared in 2016. Other venues to inform the CTI-CFF stakeholders on the progress of the SCTR include statements in CTI-CFF summits, CTI websites at regional and national levels and international conferences, among others.

The SCTR is a living document that covers the status of critical ecosystems, species, resources, threats, and progress towards the CTI goals and targets. It is intended to be an evolving report that will support monitoring and evaluation instead of a one-time initiative.

IV. Capacity Assessment and Needs

Community members measure a sea cucumber in Milne Bay, Papua New Guinea © USAID CTSP/James Morgan

The MEWG recommends that 10% of a project funding should be allocated to M&E. However, for the CT6, there are different levels of capacity and needs to be able to follow the M&E System. Table 6 reports the estimated cost associated with measuring each indicators for each RPOA goals per country. Estimated cost indicates the level of funding required: no additional funding (Low) some additional funding (Medium) much more additional funding (High).

Table 6. CT6 assessment of the cost to monitor each RPOA goal's indicators and the country's capacity.

Country	Goal	Estimated Cost	Capacity Score
Indonesia	EAFM	Low	High
	MPA	Medium	Medium
	CCA	Low to Medium	Medium to High
	Threatened Species	Medium	Medium
Malaysia	EAFM	Low to Medium	Medium to High
	MPA	Low	High
	CCA	Low to High	Low to High
	Threatened Species	Low	High
PNG	EAFM	Low to Medium	Medium to High
	MPA	Low to Medium	Low to Medium
	CCA	Low	Low to High
	Threatened Species	Medium	Low to Medium
Philippines	EAFM	Low to High	Low to High
	MPA	Medium	Medium
	CCA	Low to High	Low to High
	Threatened Species	Low to High	Low to High
Solomon Islands	EAFM	Low to High	Low to High
	MPA	Low to High	Low to Medium
	CCA	Low to High	Low to Medium
	Threatened Species	Low to High	Low to Medium
Timor Leste	EAFM	Low to Medium	Low to Medium
	MPA	Low	High
	CCA	Unrated	Unrated
	Threatened Species	Unrated	Unrated

The countries that are already routinely monitoring the indicators will have lower costs and higher capacity. This is the case for Indonesia and Malaysia which already keep track of some of the same metrics as the indicators for CTI-CFF. Other countries such Solomon Islands and Timor-Leste are still building capacity within their government and will need to increase their costs to be able to meet the requested monitoring.

EAFM and CCA are the two goals that have been evaluated as requiring the most resources. In the case of EAFM, the indicators require monitoring of socioeconomic and health measures which can be more costly. In the case of CCA, the most expensive indicator is mangrove area since this requires costly technology such as satellite imagery and expertise to analyze it. Furthermore it is an indicator that most countries have not been monitoring.

Table 6 provides a preliminary understanding of where resources should be invested to enable the M&E System to be functional at a regional level to be able to provide a clear picture of the CTI-CFF progress without gaps.

Summary and Next Steps

A newly-hatched sea turtle makes its way to the sea in Sabah, Malaysia © WWF-Malaysia

The Monitoring and Evaluation System has been successfully designed. However this is only the first step of the System as it now needs to be put in place by each of the six countries of the Coral Triangle and to be put in motion. To achieve this and ensure that the System is fully functional, we strongly recommend hiring an M&E coordinator that would be housed in the Regional Secretariat. The coordinator would work with the NCCs and national bodies to help them develop indicators for the NPOAs and ensure that they overlap with the RPOA indicators. They would also help them designate key individuals in each entities defined in the process flow that would be responsible for reporting the measures to the next level.

The best way to test a system is to use it. We suggest that the first complete M&E report should be due in 2014 to check where there may be gaps and provide guidance on where to focus funding and training.

In summary we recommend the immediate next steps:

- ☐ Seascapes and Threatened Species TWG need to review and endorse their indicators
- ☐ Baseline measures need to be provided for each indicator
- ☐ M&E Coordinator needs to be hired
- ☐ CT6 need to develop M&E Systems for their NPOA and embed the RPOA indicators
- ☐ CT6 need to put the M&E System in place by starting to track indicators and prepare for a first report in 2015-6.

References

Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). 2009. **Regional Plan of Action**. Available online at: http://www.coraltriangleinitiative.org/library/cti-regional-plan-action; accessed July 24, 2013.

Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF).(2011). **Region-wide early action plan for climate change adaptation for the nearshore marine and coastal environment and small island ecosystems (REAP-CCA)**.Adopted at the 7th CTI Senior Officials Meeting in Jakarta, Indonesia, October 2011. Prepared by the CTI-CFF CCA Technical Working Group with assistance from the U.S. CTI Support Program and the CTI Interim Regional Secretariat, Jakarta, Indonesia. Available online at: http://www.coraltriangleinitiative.org/library/region-wide-early-action-plan-climate-change-adaptation-nearshore-marine-and-coastal-environ; accessed August 14, 2013

Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). 2013**. Coral Triangle Marine Protected Area System Framework and Action Plan**. CTI-CFF, United States Agency for International Development Coral Triangle Support Partnership and US National Oceanic and Atmospheric Administration, Cebu City, Philippines.75 pp. Available online at: http://www.coraltriangleinitiative.org/library/action-plan-coral-triangle-marine-protected-area-system-ctmpas-framework-and-action-plan; accessed August 14, 2013

Annexes

1. CTI-CFF indicators and description (as revised April 2013)
2. Baseline Measures
3. National M&E Process Table (available in efile form only, not in printed booklet)
4. Regional M&E Process Table

A1. CTI Indicators and Descriptions (as revised during the M&E Manual Development Workshop on 10-12 April 2013; text in red indicates indicator discussion/decisions still in process or not yet finalized by the TWG)

HIGHER-LEVEL OUTCOME INDICATORS			
#	**Indicator**	**Description**	**Discussion/Notes**
A. Coral reef ecosystem integrity and services stabilized / maintained			
1	Condition of coral reef	• Change in percent live coral cover compared to baseline in CTMPAS sites • Threat reduction based on Reefs at Risk	
2	Extent of mangroves and Seagrass	• Area of mangroves (hectares) based on satellite • Area of seagrass (hectares)	National
3	Fish biomass	• Change in reef fish biomass per 500 sq. meters compared to baseline in CTMPAS sites (inside and outside no take zones)	All reef fish species
4	Extent of coral reef and associated habitats in full protected areas	• Already covered in MPA indicator 3.1.3	
B. Fish stocks improved and sustained (Give to concerned TWG, test indicators)			
1	Change in conservation status (international) of commercially important fish species (demersal and pelagic)	From 3 targets: 2 from EAFM (tuna and live reef fish species (not defined yet)) and 1 from Threatened species. IUCN + a body endorsed by the CTI (no specific example)	These questions need to be presented to the TWG Threatened species: related to species status EAFM: related to stock assessment (overfished, etc..) Ask EAFM to list the priority species to track for the change in priority status (both Tuna and Live Reef Fish trade). Ask Threatened species TWG to list

2	Change in catch per unit effort (CPUE) by gear	Species need to be defined so that it can be reported regionally. Difference between commercial and artisanal fisheries. Definition of type of fishing. Very difficult to monitor small scale fisheries. Needs to be highlighted. – needs to be clear in the definition. Double check what is already reported within the country – use the same indicators (for eg what is reported to FAO). Can it be used at the CT Scale? Per capita and protein – from State of the Coral Triangle Report.	Solomon doesn't monitor yet – working towards monitoring this. Done for FAD sites. Timor-Leste yes – every year Malaysia – not for all species –only certain species –by projects – ongoing Indonesia – yes: specific commission to monitor stock Philippines – yes. Action: check if this is an indicator from FAO.

HIGHER-LEVEL OUTCOME INDICATORS			
#	**Indicator**	**Description**	Discussion
3	Change in species composition relative to trophic level	Not clear. What fisheries are we talking about? Is it coral reef fisheries? Specific example, simple protocol. Difficult because more than one agency—third party to do this – not government. Very expensive indicator. First there needs to be a baseline – knowledge of the foodweb.	Not all of the countries have the capacity to monitor this. Very site specific and difficult to monitor. Find academic partners to monitor this? Partnership? Indonesia thinks it's important but doesn't have a monitoring system in place yet. Proposed actions: Delete? Due to difficulty of measuring across all countries. TWG should ask partners if this is data that could be done by partners. Contact Sea Around Us project to assist to develop
4	Change in size distribution by Fish species	Specify that this indicator is for Tuna or both for tuna and demersal reef fish For Tuna: this may be possible through the RFMO & Western Central Pacific Fisheries Commission– with some exceptions each time.	Not all species and not all time – not part of the regular monitoring. Action step for countries: what is measured and what can be used to look at changes of stock in time? Solomon: for artisanal fisheries: yes but by landing – not species. Action: check with TWG what "fish" species are targeted here. How relevant is this indicator to demonstrate fish stock status.
5	Change in exploitation status for pelagic and other species	Exploitation status: E=F/Z E: exploitation rate, F: Fishing mortality, Z: total mortality. Based on national stock assessment program of SOME countries Fish species need to be specified.	Indonesia: yes – for commercial species Monitoring to track this indicator not in place in all countries. Solomon: yes for Tuna PNG: to check – for which species. Action: TWG needs to find common species for all countries this can be carried out. Clarify time interval this requires.

HIGHER-LEVEL OUTCOME INDICATORS			
#	**Indicator**	**Description**	**Discussio**
C. Improvement in the affordability, availability and quality and safety of food coming from coastal and marine – Making use of national assessments			
1	Availability: food sufficiency of fishing household; food consumption of coastal communities	Availability: Fish consumption per capita Availability: Fish production – capture fisheries only	
2	Quality and safety: contribution of fish to protein requirement, health of fishing	Protein intake (g) from fish per capita per year	Suggestion: limit to one indicator
3	Affordability: income of fishers, price	Income of fishers Price Index of Fish	

THEMATIC INDICATORS			
#	**Indicator**	**Description**	**Discussion/Notes**
Goal 1: Priority Seascapes Designated and Effectively Managed			
Target 1.1 (Intermediate Result): "Priority Seascapes" designated, with investment plans complemented and sequenced by 2012			
1.1.1	Number of priority seascapes designated with investment plans	A seascape is a large marine management area defined by ecological considerations. Designation means that the seascape is recognized by national and/or transboundary/international agreements. The target for this goal is to designate a set of priority seascapes across the Coral Triangle to serve as the geographic focus of major investments and action during 2010 to 2020. Comprehensive *Seascape Investment Plans* for each priority seascape are completed, along with an overall scheme for the sequencing of investments across the 10-year timeframe of the *CTI Plan of Action*. [2012].	A clearer definition of Priority seascape are (CTI definition) and how they are different from a "seascape" No mention of plan of action – should be the basis for the investment plan. Clarify that investment plan: work and financial plan. Define "investment plan". It needs to be a more inclusive action plan: investment plan + financial plan. SSME: Priority seascape for CCI. Own management bodies, tri national committee: come up with comprehensive action plan: 3 working group MPA, Fisheries and Threatened species. STILL NO CLEAR DEFINITION OF PRIORITY SEASCAPE

THEMATIC INDICATORS			
#	**Indicator**	**Description**	**Discussion/Notes**
Target 1.2 (Intermediate Result): Marine and coastal resources within all "Priority Seascapes" are being sustainably managed			
1.2.1	Number of priority seascapes under continuous improved management	Improved management will be defined for each seascape by benchmarks for integrated coastal management that includes criteria for effectively managed -marine protected area management, fisheries management, climate change adaptation, protection of threatened species and enforcement. The existence of and support for management plans that cover all or part of the seascape is also a prerequisite to qualify for "improved management" of the seascape, which as referenced in the RPOA, will draw upon experience, best practices, and lessons learned to date on key elements of seascape programs, such as (but not limited to): (i) governance through appropriate institutions; (ii) marine protected area (MPA) networks; (iii) ecosystem-based management, including an ecosystem approach to fisheries management; (iv) integrated coastal management; (v) private sector engagement; (vi) enabling legal framework (conventions, laws, regulations, and policies); (vii) social and political support/commitment; (viii) sustainable financing; (ix) communications program; and (x) scientific research and monitoring.	Indicator will be dependent on indicator of other themes: will be a rolled up of indicator of other targets. Too broad to monitor since indicator is not precise and measureable to report on. ICM- like framework to implement. Adoption in integrated Coastal management. Across countries? Seascapes: offshore/deepwater. Discussion on areas between EEZ. Based this description on RPOA itself. Need to come up with a tool to measure this like CTMPAs, to roll up all the components.
1.2.3	Coordinating body for each "priority seascape" established to guide, monitor and track efforts in the seascape/s	A seascape is a large marine management area defined by ecological considerations. Designation means that the seascape is recognized by national and/or transboundary/international agreements. For each priority seascape, a corresponding body exists for the sole purpose of managing that seascape. These coordinating bodies may be comprised of representatives from government, private sector, academic, civil society and/or other organizations at local, national, and/or regional levels. (***Note:*** This indicator is related to RPOA criteria for improved management 'governance through appropriate institutions'. See description of Indicator 1.2.1.)	If there is a refinement of the previous indicator. The coordinating body should be included in the management plan (previous indicator). Management body should have been developed with the management plan of the seascape. In the second goal: what has been done in the management plan? What management is in place and what has been improved?

THEMATIC INDICATORS			
#	**Indicator**	**Description**	Discussion/Notes
Goal 2: Ecosystem approach to management of fisheries and other marine resources is fully applied			
Target 2.1 (Intermediate Result): Strong legislative, policy and regulatory frameworks in place for achieving an ecosystem approach to fisheries management			
2.1.1	Number of policies and regulations promoting EAFM at regional and national levels with regulatory framework and budget allocated for their operationalization	As a general agreement, EAFM is already assumed adopted by the CT6 countries as members of FAO. At the national and regional levels, a strong legislative, policy and regulatory framework must be in place for achieving EAFM as a key st1ep towards addressing common concerns. The policies and legislation need to address the EAFM principles describe in the FAO Code of Conduct for Responsible Fisheries (CCRF). The policies do not have to be on a one-to-one correspondence with EAFM principles. A policy can address multiple principles and several policies/legislations may need to address a principle. Regulatory framework will cover enforcement and compliance of policies and legislations on EAFM and budget has to be allocated for their effective implementation.	
2.1.3	Number of projects and programs implementing EAFM and components thereof	Projects and programs applying EAFM principles.	
Target 2.2 (Intermediate Result): Improved income, livelihoods and food security of people in coastal communities across the region through a new sustainable coastal fisheries and poverty reduction initiative ("COASTFISH")			
2.2.1	Percent change in average income (fishing and non-fishing) of coastal households compared to baseline	Improving the status of human communities through the application of EAF as a management paradigm is the ultimate objective of Goal 2 of the CTI Regional Plan of Action. There is a need to set-up standard for "worthy" livelihoods linked with improved income. Significant improvement in incomes livelihoods and food security of people living in coastal communities is anticipated. Quantitative goals for each country will be set according to the level of effort anticipated in each country at the coastal and community level for fisheries management implementation.	
2.2.4	Percent contribution of fish to protein requirements		

THEMATIC INDICATORS			
#	**Indicator**	**Description**	**Revisions**
Target 2.3 (Intermediate Result): Effective measures in place to help ensure exploitation of shared tuna stocks is sustainable, with tuna spawning areas and juvenile growth stages adequately protected			
2.3.1	Number of policies and agreements among the CT6 countries for the management of tuna	To move towards EAFM of tuna, national and regional measures will need to be in place to help ensure that exploitation of shared stocks for all species of tuna is sustainable. This includes creating a forum among the CT6 nations to serve as venue to agree on regional measures for the management of tuna. The policies shall include implementing rules and NPOAs adopted by the CT6 to implement regional tuna fisheries policies and agreements, ratification of membership in RFMO, ratification of international laws (UNIA '95), and national legislations on management of tuna species. (***Note:*** Include forum in draft CTI EAFM Regional Framework)	
2.3.2	Change in conservation status of tuna	Change in conservation status is an impact indicator which will reflect the overall status of tuna stocks of concern. The standards for the conservation status and the process for listing and delisting are to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI.	Indicators on process to be able to establish a baseline and then a measure of IUCN status (process indicators) What tuna species are on IUCN redlist? Change in conservation status should be decided by a proposed CTI body/forum, not necessarily based on the IUCN Red List
2.3.3	Number of countries adhering to markets/certification standards of tuna fisheries agreed upon by CT6 countries	To improve management and build a more sustainable trade in tuna, it will be necessary to decrease the level of destructive fishing practices linked to the tuna fisheries. An important action, external to the source countries, is that primary consumption countries agree to standards for the supply of fish. The main standard they need to adopt is the fish were caught using ecological sustainable methods and not destructive means. Such measures will help ensure long-term economic incentives to achieve this target.	Consider as additional indicators (1) membership in international or regional fisheries management bodies, and (2) adoption/ratification of international/regional tuna laws or agreements, e.g. Convention on Migratory Species
Target 2.4 (Intermediate Result): A more effective management and more sustainable trade in live-reef fish and reef-based ornaments achieved			
2.4.1	Number of policy/legislation adopted on live reef fish trade to decrease level of destructive fishing practices linked to the trade	To move towards a more effective management and more sustainable trade in live-reef fish and reef-based ornamentals, national and regional measures will need to be in place to help ensure that exploitation is sustainable. This includes creating a forum among the CT6 nations to serve as venue to agree on regional measures for the live reef fisheries management. It is first necessary to decrease the level of destructive fishing practices linked to the live reef fish trade (food and ornamentals). A key step in this process is to provide the legal basis for management through improved policies, laws, agreements and regulations primarily on certification. The policies shall include implementing rules and NPOAs adopted by the CT6 to implement live reef and reef-based ornamentals certification.	There seemed to be a general agreement that "number of policies" is <u>not</u> a good indicator that "effective management is in place". Spirit of the indicator refers to comprehensive geographic, policy and jurisdictional scope. Need to have the policies in place and then enforce them. Management effectiveness is not measured in number of regulations but enforcement How to deal with demand markets? An additional indicator may be needed to show that policies/legislations are being enforced effectively. The MEWG seeks inputs from the LRFT TWG on what is the best indicator to use.

THEMATIC INDICATORS			
#	**Indicator**	**Description**	**Discussion/Notes**
2.4.2	Number and area (sq km) of locally managed areas for live reef fish trade	To improve management and build a more sustainable trade in live reef fish and reef-based ornamentals, it will be necessary to decrease the level of destructive fishing practices linked to the live reef fish trade (food and ornamentals). The most essential part in the process to improve practices will be to implement field programs that engage fishing communities in the implementation of best practices in the local context. Such programs will help ensure that locally-destructive fishing practices are minimized.	The description may prescribe a standard unit of measure for this indicator.
2.4.3	Number of countries adhering to markets/certification (live reef fish and ornamental fisheries) agreed by CTI/CT6	To improve management and build a more sustainable trade in live reef fish and reef-based ornamentals, it will be necessary to decrease the level of destructive fishing practices linked to the live reef fish trade (food and ornamentals). An important action, external to the source countries, is that primary consumption countries agree to standards for the supply of fish, particularly, certification.	Replicate (adapt) this indicator in Target 2.3 (tuna)
2.4.4	Change in conservation status of live reef fish species (to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI)	Change in conservation status is an impact indicator which will reflect the overall status of live reef fish and reef-based ornamentals of concern. The standards for the conservation status and the process for listing and delisting are to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI.	What species are on IUCN redlist? Change in conservation status should be decided by a proposed CTI body/forum, not necessarily based on the IUCN Red List
Goal 3: Marine Protected Areas (MPAs) Established and Effectively Managed			
Target 3.1 (Intermediate Result): Region-Wide Coral Triangle MPA System (CTMPAS) in place and fully functional by 2020.			
3.1.1	CTMPAS Framework developed and adopted by CT6	A comprehensive, ecologically representative and well-managed region-wide *Coral Triangle MPA System (CTMPAS) Framework* is a prerequisite to implementation of the CTMPAS –composed of prioritized individual MPAs and networks of MPAs that are connected, resilient, and sustainably financed, and designed in ways that (i) generate significant income, livelihoods, and food security benefits for coastal communities; and (ii) conserve the region's rich biological diversity. Stages in the development and adoption of the CTMPAS Framework include drafting, refining and adopting the CTMPAS Framework by CT6.	This indicator achieved with adoption of the CTMPAS Framework and Action Plan in 2012
3.1.2	Percent/area of total marine habitat area in CT region in marine protected or managed areas	Marine habitats are designated as marine protected or management areas with legal or traditional protection status to ensure that the long-term integrity of the marine habitats is maintained. Marine protected/managed areas help to minimize threats of all kinds from degrading the areas under management and to maintain sustainable supplies of fisheries and other ecosystem services intact.	

THEMATIC INDICATORS			
#	**Indicator**	**Description**	Discussion/Notes
3.1.3	Percent/area of each major marine and coastal habitat type in strictly protected "no-take replenishment zones"	Marine and coastal habitat types include coral reefs, sea grass beds, mangroves and open-water. Strictly no take replenishment zones have legal designation within a marine protected area wherein no extractive activities of any kind are allowed to ensure that marine protected/ managed areas contribute substantially to fisheries production. An essential component of the CTMPAS—composed of prioritized individual MPAs and networks of MPAs that are connected and resilient—is where no extraction is allowed and will provide a "core" conservation and fisheries management tool within the CTMPAS.	
3.1.4	Percent/Area (in hectares) of marine protected areas under "effective" management	Effective management is measured by an accepted protocol for MPA management effectiveness as established/developed by each country and applicable at a regional scale (under development). The comprehensive, ecologically representative and well-managed region-wide *Coral Triangle MPA System (CTMPAS)*—composed of prioritized individual MPAs and networks of MPAs that are connected, resilient, and sustainably financed—will emphasize the contribute to socio-economic benefits of human communities residing in the areas of effective MPAs through improve fish production, enhanced opportunities for tourism and others direct and indirect benefits of healthy coral reef and associated system.	Focus on indicator for "effectively managed MPA". What will be the output of "effective managed MPA" directly linked to community's welfare criteria? Note value of indicator for contribution to socio economic benefits through "effectively managed MPAs" Under the CTMPAS, there is a need to categorize what is effective MPA management leading to qualifiers for inclusion. Criteria based on the submissions – otherwise the bar might be set too high/low. The description may prescribe a standard unit of measure for this indicator.
3.1.5	Percent/Area of marine protected/ managed areas included in CTMPAS	The CTMPAS Framework will stipulate the criteria for inclusion of MPAs into the CTMPAS and what constitutes a regional contribution. This indicator will measure the area and/or proportion of all MPAs in the CT that qualify to be included within the CTMPAS Framework as adopted by the CT6.	
Goal 4: Climate Change Adaptation Measures Achieved			
Target 4.1 (Intermediate Result): Region-wide early action plan for climate adaptation for the near-shore marine and coastal environment developed and implemented			
4.1.1	Number of regional agreements/frameworks/ plans (e.g. region-wide early action plan (REAP) developed	Climate change will dramatically affect coastal communities and ecosystems in the Coral Triangle. Understanding the extent of these changes and their impacts and identifying early adaptation actions is essential to protecting communities and marine and coastal resources. The CTI Region-wide Early Action Plan for Climate Change Adaptation (CTI REAP-CCA) sets forth urgent and immediate actions that need to be taken across the Coral Triangle to build coastal community and ecological resilience to climate change.	

THEMATIC INDICATORS			
#	**Indicator**	**Description**	**Discussion/Notes**
4.1.2	Number of national policies (including national CCA plans and frameworks), laws and regulations on climate change adaptation proposed and adopted	Climate change adaptation measures will need to be locally relevant. Generally, adaptation will be measured through the incorporation of locally appropriate actions as derived from policies, laws, agreements or regulations within local government development and resource management plans as well as technical and financial support from national institutions designated to support adaptation to climate change.	
4.1.3	Percentage of local governments that have integrated climate adaptation into local governance (plans and actions)	Climate change adaptation measures will need to be specified as relevant for locations. Generally, adaptation will be measured through the incorporation of locally appropriate actions within local government development and resource management plans and within MPA management. The plans should consider variation in resilience to climate change and be supported by required budget for implementation.	How can we track this?
4.1.4	Area of mangrove (REAP 1&2)	The changing conditions due to climate change impacts increase the vulnerability of ecological and social systems in the Coral Triangle. Coastal communities are dependent on healthy coastal and marine ecosystems. This co-dependency means that their vulnerabilities are also connected. Mangroves are experiencing changes in ecosystem structure, function, and services due to overexploitation from domestic use (firewood) and livelihoods (logging, boat building), exacerbated by increased temperature, sea level risk, and inundation events. The loss of mangroves corresponds to increased ecological vulnerabilities (e.g. losses in fish spawning and nursery grounds) and social vulnerabilities (e.g. food security and livelihoods, safety and infrastructure damage due to storm surge).	
Target 4.2 (Intermediate Result): Networked national centers of excellence on climate change adaptation for marine and coastal environments are established and in full operation			
4.2.1	A national institution within CT6 designated and networked to address climate change adaptation coordinated with national government support	Climate change adaptation measures will need to be specified as relevant for locations. Generally, adaptation will be measured through the incorporation of locally appropriate actions within local government development and resource management plans, and MPAs, as well as technical and financial support derived from national institutions designated to support adaptation to climate change.	

THEMATIC INDICATORS			
#	**Indicator**	**Description**	**Discussion/Notes**
Goal 5: Threatened Species Status Improving			
Target 5.1 (Intermediate Result): Improved status of sharks, sea turtles, marine mammals and other identified threatened species.			
5.1.1	Number of new policies or agreements adopted at the regional and national levels that are in compliance with the international agreements on threatened species	Policies, laws, and agreements need to be standardized in relation to the conservation status of the species within each country. Each country must conduct an assessment to determine the status. The agreements, policies, laws or regulations are three-tiered – regional, national and local. The CTI regional agreements and policies should conform to the international agreements on threatened where CT6 countries are signatory to. In addition, the CT6 nations will create a forum to serve as venue to agree on regional measures for the management of threatened species. Subsequently, the national policies, laws, and regulations of CT6 on threatened species should implement the abovementioned agreements and where necessary, local laws or regulations within CT6 need to be adopted to address certain gaps. All these agreements, policies, laws and regulations should also lay out the regulatory framework for enforcement at the regional, national and local levels.	There seemed to be general agreement among participants that "number of policies" is not a good indicator for effective management
5.1.2	Area (in hectares) of protected marine habitat that contributes to conservation of for threatened and endangered species protected	Area of protected marine habitat that contributes to conservation contains critical habitat, defined by each species as breeding, nesting, nursery, and foraging areas in each country and areas of transnational importance. Protected critical habitat is defined by local and national legislation and transboundary agreements between two or more countries and is enforced. These areas should factor into the establishment of marine protected area networks. (This is a subset of Goal 3 indicator 3.1.1) Note: MPAs where its objectives includes among other protection or conservation of threatened species should be covered by this indicator.	Focus on certain protected area especially managed to protect certain species Since some MPAs already cover protection of species , would this be 'double counting?' No - what needs to be communicated is whether an issue has been addressed or not. The description may prescribe a standard unit of measure for this indicator.
5.1.3	Number of threatened species with improved status (to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI)	The status of the species is improving from endangered to threatened or less. The standards for the conservation status and the process for listing and delisting are to be decided by CTI as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI for threatened species unique, peculiar or significant to the region.	Consider existence of specific programs aimed for specific species Will need a baseline data on the actual population/stocks for measuring progress of such regulation or projects. CTI should develop its own list of threatened species that need to be protected and that's unique, peculiar or significant to the region. Focus on sea turtles and marine mammals; priority species to increase over time Ask ICRI/Kent Carpenter to help identify species Need to address IUU fishing

A2: Baselines for Goal 3 and Goal 4

Indicators	Date for Baseline.	Baseline						
		Indonesia	Malaysia	Philippines	Solomon Islands	Papua New Guine	Timor-Leste	TOTAL
Goal 3 – Marine protected areas (MPAs) established and effectively managed								
Target 3.1. Region-wide Coral Triangle MPA System (CTMPAS) in place and fully functional								
3.1.1 CTMPAS Framework developed and adopted by CT6	2012	1	1	1	1	1	1	1
3.1.2 Percent or area of total marine habitat in CT region in marine protected or managed areas	2012	2.9% of EEZ 31.2% reefs	3.5% EEZ 38.9% reef	0.2% EEZ 4.9% reefs	1.1% EEZ 3.9% reefs	0.1% EEZ 4.0% reef	3.4% EE 29.5% reefs	1.6% 17.8%
3.1.3 Percent or area of each major marine and coastal habitat type in strictly protected "no-take replenishment zones"	2012	?*	?	?	?	?	?	2%
3.1.4 Percent or area (km^2) of marine protected areas under "effective" management	2012	?*	?	?	?	?	?	1%
3.1.5 Percent or area of marine protected/ managed areas included in CTMPAS	2012	0	0	0	0	0	0	0
Goal 4 – Climate change adaptation (CCA) measures achieved								
Target 4.1: Region-wide Early Action Plan for Climate Change Adaptation for the near-shore marine and coastal environment and small island								
4.1.1 Number of regional agreements / frameworks / plans (e.g. REAP) developed	2009	0	0	0	0	0	0	0
4.1.2 Number of national policies (including national CCA plans and frameworks) laws and regulations on climate change adaptation proposed	2009	0	0	1	0	0	0	0

and adopted.								
4.1.3 Proportion of local governments that have integrated climate adaptation into local governance (plans and actions)	2009	0	0	0	0	0	0	0
4.1.4 Area of Mangroves (hectares)**	2002	2,895,000	937,200	46,300	473,300	257,400	1,000	4,610,200
Target 4.2: Networked national centers of excellence on climate change adaptation for marine and coastal environments are established and								
4.2.1 A national institution within CT6 designated and networked to address climate change adaptation coordinated with national government support	2009	0	0	0	0	0	0	0

** "?" The baseline can't be calculated per country – some of the data is missing: zoning data for no -take and "effective management" assessment.

* Source: Giri, C., E. Ochieng, L. Tieszen, Z. Zhu, A. Singh, T. Loveland, J. Masek and N. Duke. 2011. Status and distribution of mangrove forests of the world using earth observation satellite data. Global Ecology and Biogeography 20(1): 154-159.

A3 National M&E Process Tables (available in efile form only)

A4 Regional M&E Process Tables

What is reported?	Who reports ?	Who compiles ?	Where is data stored?	Who has access to data?	What is reported?	Who reports	Added analyses? Time series?	Freq	Cost	Baseline	Notes	Capacity
2.1.1 Number of policies and regulations promoting EAFM at regional and national levels with regulatory framework and budget allocated for their operationalization												
# policies & regulation @ national	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementin	Summary of all the policies and regulations@ national and Regional and result of gap analysis for policies	Summarize National and count and information from TWG to report for the regional policies. Added gap analysis to inform where there still needs to be policies	Gap analysis done by the TWG	Yearly	$	SCTR 2013	Q: does this require a processing of the list to match with the Regional framework	
2.1.2 Number of projects and programs implementing EAFM and components thereof												
# projects & programs & list	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG +	# projects & programs & list + areas of complementatio n	Analysis of areas of complementation of projects at regional level.	TWG	Yearly	$	?		
2.2.1 Percent change in average income (fishing and non-fishing) of coastal households by profession compared to												
Not a consensus on what to report to regional	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementing partners IF the data is aligned to global - could contribute to global databases	*** Disaggregated table per country	Need to check how the data is aggregated from a national to regional indicator in existing publications/methodologies. Does it make sense to aggregate?	????????	Yearly	$$$?	No	Check by countries what is already being done and if there can be an existing common methodology or if there is a preferred methodology that can be applied over all countries	
2.2.3 Percent contribution of fish to protein requirements												
Fish consumptio n per capita	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementin	*** Disaggregated table per country	Need to check how the data is aggregated from a national to regional indicator in existing publications/methodlogies. Does it make sense to	????????	Yearly	$$$?	No	Talk to experts for food security!!!!!	

What is reported?	Who reports?	Who compiles?	Where is data stored?	Who has access to data?	What is reported?	Who reports?	Added analyses? Time series?	Freq	Cost	Baseline	Notes	Capacity
2.3.1 Number of policies and agreements among CT6 countries for management of tuna												
# policies & agreements and list @ national level	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementing partners	Addition of national and regional policy & list. Proposed: analysis of the policies against the WCPFC	Proposed: analysis of the policies against the WCPFC	??????? Independent body - 3rd party.	Yearly	SSS?	No		
2.3.2 Change in conservation status of tuna (INDICATOR NEEDS TO BE REVISED. WHAT IS NEEDED FROM NATIONAL TO ASSESS CHANGE OF STATUS AT REGIONAL. NEED A LIST OF BACKGROUND DATA)												
2.4.1 Number of policies and agreements on live reef fish trade among CT6 to decrease level of destructive fishing												
# of policies & agreements + list	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementing partners	If checklist of policy proposals for LRFT exists - comparison against checklist.	No checklist of policy proposals for LRFT to compare the list of reated policies. Part of the TWG responsibility	TWG would be responsible of analysis.	Yearly	$$	No		
2.4.2 Number and area (km2) of locally managed areas for live reef fish trade												
Only applicable for 3 countries. Area of MAPs for LRFT & delineation (zone)	NCC	Regional Secretariat + TWG + CT Atlas	CT Atlas + Regionl secreta riat	Regional Secretariat + NCC+TWG + implementing partners + public	Total area of MPA managed for LRFT	GIS	CT Atlas	Yearly	$$	No		
2.4.3 Number of countries adhering to markets/certification (live reef fish and ornamental fisheries) agreed by CT6												
Only applicable for 3 countries. (maybe Timor L'Este)	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementing partners	Number of countries	NO	N/A	Yearly	$	No		
2.4.4 Change in conservation status of live reef fish species (to be decided by CTI-CFF as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria determined by CTI-CFF. (INDICATOR NEEDS TO BE REVISED. WHAT IS NEEDED FROM NATIONAL TO ASSESS CHANGE OF STATUS AT REGIONAL)												

What is reported?	Who reports?	Who compiles?	Where is data stored?	Who has access to data?	What is reported?	Who reports?	Added analyses? Time series?	Freq	Cost	Baseline	Notes	Capacity
3.1.1. CTMPAS developed												
Adoption of framework bySOM	MPA TWG	MPA TWG	CTI-CFF Regional Secretariat, CT Atlas/ database	Public	Resolution and copy of document		none	once	a lot	0		high
3.1.2. Percent/Area of total marine habitat area in CT region in marine protected or managed areas												
MPA Attributes	NCC	MPA TWG, CTI-CFF MPA Coordinator, CT Atlas	CT Atlas	Public	Area in MPAs and MPAs as a percent of total marine habitat in EEZ		Yes, trends,	2 years	CTI-CFF MPA Coordinator and CT Atlas cost	Reference CTMPAS table in RSCTR, 2012		CT Atlas
3.1.3. Percent/area of each major marine and coastal habitat type in strictly protected "no-take replenishment zones"												
MPA attributes that include zoning information	NCC	MPA TWG, CTI-CFF MPA Coordinator, CT Atlas	CT Atlas	Public	Area in MPAs and MPAs as a percent of total marine habitat in EEZ		Yes, trends,	2 years	CTI-CFF MPA Coordinator and CT Atlas cost	Reference CTMPAS table in RSCTR, 2012		CT Atlas
3.1.4. Percent/Area (in hectare) of marine protected areas under "effective" management												
Precent/area at all levels	NCC	MPA TWG, CTI-CFF MPA Coordinator CT Atlas	CT Atlas	Public	Percent/area at Level 2		Trends in area, change in level	2 years	CTI-CFF MPA Coordinator and CT Atlas cost	No baseline using CTMPAS tool		CT Atlas, full time CTI-CFF CCA Coordinator
3.1.5. Percent/Area of marine protected/ managed areas included in CTMPAS												
MPA Attributes	NCC	MPA TWG, CTI-CFF MPA Coordinator, CT Atlas	CT Atlas	Public	Percent/Area in MPAs in CTMPAS		Yes, trends,	2 years	CTI-CFF MPA Coordinator and CT Atlas cost	0		CT Atlas, full time CTI- CFF CCA Coordinator
4.1.1 Number of regional agreements/frameworks/plans (e.g. region-wide early action plan (REAP) developed and adopted by two or more CT countries												
List and copies of regional agreements, frameworks developed and adopted	CCA Focal Points	CTI-CFF CCA Coordinator	CT Atlas	Public	Number of regional agreements		none	Annual	CTI-CFF CCA Coordinator, CT Atlas cost	0 - 2009		CT Atlas, full time CTI-CFF CCA Coordinator

What is reported?	Who reports?	Who compiles?	Where is data stored?	Who has access to data?	What is reported?	Who reports?	Added analyses? Time series?	Freq	Cost	Baseline	Notes	Capacity
4.1.2 Number of national policies (including national CCA plans and frameworks), laws and regulations on climate												
List of copies of national policies	NCC	CTI-CFF CCA Coordinator	CT Atlas	Public	List and copies		Trends, regional compilation of activities prioritized by each country	Annual	CTI-CFF CCA Coordinator, CT Atlas cost	0 at 2009		CT Atlas, full time CTI-CFF CCA Coordinator
4.1.3. Percentage of local governments that have integrated climate adaptation into local governance (plans and actions)												
CCA Benchmark Checklist	CCA Focal Points	CTI-CFF CCA Coordinator	CT Atlas	Public	Percent of local governments achieving benchmarks disaggrated by level		Trends	2 years	CTI-CFF CCA Coordinator, CT Atlas cost	0 at 2009		CT Atlas, full time CTI-CFF CCA Coordinator
4.1.4 Area of mangrove (REAP 1&2)												
Area of mangrove (hectares)	NCC	CTI-CFF CCA Coordinator	CT Atlas	Public	Area of mangroves		Trend	5 years	Remote sensing	Data in CT Atlas		CT Atlas, full time CTI-CFF CCA Coordinator, remote sensing in each country
4.2.1 Number of active members (institutions and organizations) in the CCA Registry												
List and mini-profile of institutions and organizations and city where organizations are located supporting CCA in the region	NCC	CTI-CFF CCA Coordinator	CT Atlas	Public	Number of active members		None	Annual	CTI-CFF CCA Coordinator, CT Atlas cost	0		CT Atlas, full time CTI-CFF CCA Coordinator

What is reported?	Who reports?	Who compiles?	Where is data stored?	Who has access to data?	What is reported?	Who reports	Added analyses? Time series?	Freq	Cost	Baseline	Notes	Capacity
5.1.1 Number of new policies or agreements adopted at the regional and national levels that are in compliance with the international agreements on threatened species												
# policies & agreement + list	NCC	Regional Secretariat + TWG	Regional Secretariat	Regional Secretariat + NCC+TWG + implementing partners	# and List of policies	List against species - the list species needs to be agreed on by TWG.	TWG	Yearly	$	Yes		
5.1.2 Area (in hectares) of protected marine habitat that contributes to conservation of threatened and endangered species protected												
# and name of MPA with threatened species. Needs additional definition.	NCC	Regional Secretariat & CT Atlas + TWG? WHAT is the role of TWG?	Regional Secretariat + CT Atlas	Regional Secretariat + NCC+TWG + implementing partners	Area + species	GIS	CT Atlas	Yearly	$$	No		
5.1.3 Number of threatened species with improved status (to be decided by CTI-CFF as a body or by a forum designated by the CT6 according to IUCN-red list criteria assessment or other criteria to be determined by CTI-CFF. (At which level (national, regional or global) are status of species being determined? What information/criteria do the Nations need to report against - for a regional indicator/ for the forum.)												

USAID
FROM THE AMERICAN PEOPLE

NOAA

Coral Triangle Support Partnership

WWF

The Nature Conservancy

CONSERVATION INTERNATIONAL