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STEWARDING BIODIVERSITY AND FOOD SECURITY IN THE CORAL TRIANGLE: ACHIEVEMENTS, CHALLENGES, AND LESSONS LEARNED



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Cover photo: Coastal people in the Solomon Islands rely on marine resources for their subsistence livelihoods. These fishermen sell their artisanal catch at the public market on Ghizo Island. © USAID CTSP/Tory Read

Stewarding Biodiversity and Food Security in the Coral Triangle: Achievements, Challenges, and Lessons Learned

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Acronyms and Abbreviations

BFAR	Bureau of Fisheries and Aquatic Resources (Philippines)
BMP	Best Management Practices
BOBLME	Bay of Bengal Large Marine Ecosystem (Philippines)
BYC	Banggi Youth Club (Malaysia)
CBO	Community-based Organization
CBRM	Community-based Resource Management
CCA	Climate Change Adaptation
CD	Capacity Development
CI	Conservation International
CLMA	Centre for Locally Managed Areas (Papua New Guinea)
CoP	Chief of Party
CRM	Coastal Resources Management
CT	Coral Triangle
CT6	The six nations in the Coral Triangle: Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands, and Timor-Leste
CTI-CFF	Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security
CTI Secretariat	Regional CTI Secretariat/Interim Secretariat hosted by Indonesia
CTMPAS	Coral Triangle MPA System
CTSP	USAID-funded Coral Triangle Support Partnership
DCoP	Deputy Chief of Party
EAFM	Ecosystem Approach to Fisheries Management
EBM	Ecosystem-Based Management
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
FCA	Full Cycle Aquaculture
GCP LWA	Global Conservation Program Leader with Associates, a USAID Cooperative Agreement Mechanism
GELCA	Gizo Environment and Livelihood Conservation Association (Solomon Islands)
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Technische Zusammenarbeit, a German development organization
Ha	Hectares
HEI	Higher Education Institutions
IEC	Information, Education, and Communication
LC	Local Communities (Philippines)
LEAP	Local Early Action Plans
LGU	Local Government Unit (Philippines)
LLG	Local Level Government (Papua New Guinea)
LMMA	Locally Managed Marine Area
LRFT	Live Reef Fish Trade
M&E	Monitoring and Evaluation
MECCN	Manus Environmental Conservation Communities Network (Papua New Guinea)
MMAF	Ministry of Marine Affairs and Fisheries (Indonesia)
MPA	Marine Protected Area
MPAG	Marine Protected Area Governance (a USAID/Indonesia funded project that is anticipated to take over CTSP activities in Indonesia as of CTSP Year 4)
NCC	National Coordinating Committee
NCCC	National CTI Coordinating Committee (Philippines)
NGO	Non-Government Organization
NKS	Nino Konis Santana National Park, Timor-Leste
NOAA	National Oceanic and Atmospheric Administration (US)
NPOA	National Plan of Action
NRM	Natural Resources Management
PCA	Priority Conservation Area
PI	Program Integrator – Tetra Tech/ARD
PMP	Performance Monitoring Plan
PMT	Program Management Team
PNG	Papua New Guinea
RDMA	USAID Regional Development Mission for Asia
REAP	Regional Early Action Plan

REECS	Resources, Environment and Economics Center for Studies, Inc., a Philippine-based think tank
RPO	CTSP's Regional Program Office (based in Jakarta)
RPOA	Regional Plan of Action
SEAFDEC	Southeast Asian Fisheries Development Center
SIG	Solomon Islands Government
SOM	Senior Officials' Meeting
SPAG	Spawning Aggregation Site
SSME	Sulu Sulawesi Marine Ecoregion
TMP	Tun Mustapha Park (Malaysia)
TNC	The Nature Conservancy
TWG	Thematic Working Group
USCTI	US Support to the Coral Triangle Initiative
USAID	United States Agency for International Development
USG	United States government
VIP	Verde Island Passage
WCS	Wildlife Conservation Society
WWF	World Wildlife Fund (for US organization)/Worldwide Fund for Nature (other national organizations)

Key Terms

CCA	Climate Change Adaptation (CCA) is the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
CTSP	CTSP is the Coral Triangle Support Partnership, a consortium of Conservation International, The Nature Conservancy, and World Wildlife Fund-United States that is one of the three implementing partners under USCTI, along with NOAA and the Program Integrator. CTSP also includes other international, national, and local NGOs in each CT6 country. CTSP is a Cooperative Agreement with USAID/RDMA and WWF-US as prime, supported with funds from USAID Indonesia, Philippines, Timor-Leste, and RDMA.
EAFM	Ecosystem Approach to Fisheries Management (EAFM) is an approach to fisheries management and development that strives to balance diverse societal objectives by taking into account the knowledge and uncertainties about biotic, abiotic, and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries. The purpose of the ecosystem approach to fisheries is to plan, develop, and manage fisheries in a manner that addresses the multiple needs and desires of societies without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystems. EAFM covers the broader marine environment including natural components such as coral reefs and mangroves and human activities such as fishers, fishing communities, coastal development, and tourism.
IUU	Illegal, unreported, and unregulated (IUU) fishing generally refers to fishing conducted in violation of national laws or internationally agreed conservation and management measures in effect in oceans around the world. IUU fishing can include fishing without a license or quota for certain species, unauthorized transshipments to cargo vessels, failing to report catches or making false reports, keeping undersized fish or fish that are otherwise protected by regulations, fishing in closed areas or during closed seasons, and using prohibited fishing gear.
LRFFT	The Live Reef Food Fish Trade (LRFFT) involves capturing reef fish, keeping them alive, and selling them for consumption mainly in Hong Kong and mainland China. Smaller markets exist in Malaysia and Singapore. The industry is worth nearly US\$1 billion annually
MPA	A Marine Protected Area (MPA) is a coastal or offshore marine area where human activities are managed and regulated by authorities to preserve its ecosystem and cultural resources. Well-managed MPAs can conserve biological diversity, protect fish spawning and nursery habitats, protect shorelines, serve as a platform for scientific research and eco-tourism, improve food security, and enhance the quality of life in surrounding communities.
USCTI	USCTI is United States Support to the Coral Triangle Initiative, the umbrella under which USAID support was delivered to the CTI-CFF. USCTI is composed of CTSP, NOAA, and the Program Integrator and is funded with support from USAID regional and bilateral missions and the Department of State.

Executive Summary

The management team of the US Agency for International Development (USAID)-supported Coral Triangle Support Partnership (CTSP) commissioned this report to take a qualitative look at the achievements, challenges, and lessons learned from investment in CTSP. CTSP is part of a broader USAID investment supporting the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF), a six-nation effort to sustain vital marine and coastal resources in the Coral Triangle located in Southeast Asia and the Western Pacific.

The Coral Triangle is the most biologically and economically valuable marine ecosystem on earth. It comprises almost 4 million hectares of ocean and coastal waters. According to the report *Reefs at Risk Revisited in the Coral Triangle*, the region contains the highest coral diversity in the world and the highest diversity of all known coral reef fishes. Five species of tuna spawn and grow there, making it the largest tuna fishery on the planet. These bountiful resources directly sustain more than 130 million people who live in coastal communities in the region and benefit millions more people worldwide. And yet, the marine and coastal resources of the Coral Triangle are under immediate and potentially fatal threat from a range of factors.

USAID has a strong history of engagement with marine and coastal issues in the Coral Triangle region, and it was keenly aware that many marine issues must be addressed at the regional level because marine ecosystems know no national boundaries. As a result, USAID decided to build on its history in the Coral Triangle by committing significant resources to supporting the CTI-CFF and its six Coral Triangle nations known as the CT6. With this support, USAID began working together with Coral Triangle governments at local, national, and regional scales for regional and global food security.

Recognizing the complexity of the program and the varied challenges that were expected in such a large regional program, USAID created a multi-part mechanism called the US Support to the Coral Triangle that included three implementing partners; a Program Integrator (PI); the National Oceanic and Atmospheric Administration (NOAA); and the Coral Triangle Support Partnership (CTSP). The PI provided access to technical expertise and assisted with information flow, coordination, and facilitation among the diverse stakeholders. NOAA led on government-to-government training and capacity building in scientific and technical knowledge.

The majority of USAID's USCTI investment was through CTSP, a consortium of three international non-governmental organizations (NGOs) that had regional reach in terms of technical expertise and already had marine conservation work under way in the CT6 except Timor-Leste. This consortium was responsible for supporting regional, national, and site-level implementation activities undertaken by the CT6 countries under their CTI-CFF commitments. CTSP's NGO consortium consisted of Conservation International (CI), The Nature Conservancy (TNC), and World Wildlife Fund-United States (WWF-US), which also administered the USAID cooperative agreement.

Beginning in late February 2013, the author spent nine weeks observing and conducting more than 200 interviews in the six Coral Triangle nations of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste. The author synthesized these qualitative data to produce this illustrated report. Reflecting the high degree of integration achieved by the USCTI implementing partners, interview respondents sometimes said it was most meaningful for them to discuss the achievements, challenges, and lessons learned of USCTI overall, rather than try to separate out those of CTSP. This report follows the respondents' lead when appropriate although CTSP remains the main focus of this report.

CTSP was tailored to the needs of each CT6 nation and provided targeted support in line with

the USCTI Results Framework, which emphasized work in three main Result Areas. These were Marine Protected Areas (MPAs), Ecosystem Approach to Fisheries Management (EAFM), and Climate Change Adaptation (CCA), three of the five CTI-CFF regional plan of action goals. CTSP also provided significant support under a fourth Result Area focused on governance and institutional strengthening.

The achievements of USCTI partners are substantial and include:

- More than 30,000 people across the region participated in Coral Triangle Day events in 2013.
- Over 1 million hectares of MPAs are under improved management, with an additional 10 million hectares of coastal areas under improved management.
- 100+ policies, laws, and agreements supporting improved management have been proposed or adopted plus 8 specific laws or policies addressing climate change.
- An online Climate Change Adaptation Marketplace has been launched that will link funders of CCA with ready-to-go projects on the ground.
- Over 10,000 individuals have been trained through community awareness or formal trainings.
- Nearly 1000 women and girls were trained in natural resources management in the last two years of CTSP
- 18 public-private partnerships were formed supporting sustainable use of coastal or marine resources.
- CTSP produced more than 265 individual titles including guidebooks, knowledge products, studies, and research documents.
- Tun Mustapha Park— at 1.2 million hectares, one of Southeast Asia’s largest MPAs— is poised for gazettelement in Malaysia.
- A mobile phone application has been deployed in Solomon Islands to capture and analyze real-time data for inshore fisheries managers.
- Local communities are incorporating CCA measures in their resource management plans across the CT6.
- National, provincial and district governments are aligning their annual budgets and workplans around CTI-CFF Regional and National Plans of Action.
- The Coral Triangle Atlas database (<http://ctatlas.reefbase.org/>) has been developed, populated, and launched and is now an online resource for regional scientists, government representatives, and donor agencies.
- Alternative livelihood projects have been established in the proposed Tun Mustapha Park in Malaysia; the Turtle Islands Heritage Protected Area in Tawi Tawi, Philippines; Ang Pulo MPA in Verde Islands Passage, Philippines; and Nino Konis Santana National Park in Timor-Leste.
- CT6 governments have an increased awareness of the need to work across boundaries and are reaching out to neighboring countries to share stories and discuss transnational joint management actions.
- CT6 governments have an increased awareness of the relationship between fisheries and food security and are taking steps to better manage fisheries resources, especially inshore fisheries on which coastal populations depend.
- CT6 governments are increasing the use of data in decision-making.
- Government-CTSP NGO relationships have measurably improved in CT6 countries.
- Collaboration among NGOs has improved across the Coral Triangle increasing

regional cooperation and within each CT6 nation increasing linkages between national, provincial, and district governments.

- A regional infrastructure and governance mechanism has been institutionalized through a soon to be ratified CTI-CFF Regional Secretariat and National Coordinating Committees through which the CT6 make decisions and share perspectives in serve to improving management of CT marine and coastal resources.
- A sustainable foundation has been laid for transnational ocean governance among the CT6.

Regional initiatives are by their nature challenging, and CTI-CFF was no exception. The CT6 countries have different cultures, forms of government, economies, human development indices, and marine and coastal resource management issues. These differences made it challenging to deliver a consistent program at the regional level, so CTSP (and USCTI in general) was designed to adapt support to these varying conditions in the early phases of the project in order to support movement toward a more shared and level playing field by the end of the five-year project.

Even so, political dynamics within the six countries presented ongoing challenges as elections occurred, leaders changed, and government points of contact regularly shifted to new positions. As CTI-CFF commitments by the CT6 are non-binding, ongoing implementation depends on maintaining political will and commitment to champion CTI-CFF among an ever-changing cast of high- and mid-level level leaders and government staff. CTI-CFF champions and participants, and CTSP-supported staff in each country must continually expend energy and political capital to bring new officials into the fold until the CTI-CFF programs are fully embedded in home institutions. In some cases the lack of reliable communications, including internet access and even basic phone communications, made it difficult for program participants to actively engage in learning and communications efforts. Especially in the early years of CTSP, this challenge slowed down implementation and integration, and required innovative approaches such as village radio programs, traveling movie nights in villages, and high commitment to face-to-face interaction at local/village levels.

In spite of these challenges, CTSP (and USCTI as a whole) supported notable progress toward increasing stewardship of biodiversity and improving food security in the Coral Triangle. The program yielded important core lessons for implementing regional and national programs. These lessons learned include:

- Regional-scale marine management is necessary because marine resources transcend national borders and regional-scale support is required to develop and operationalize this kind of work.
- Regional meetings and working groups are useful and without which establishing and maintaining a structure and mechanisms for regional work would be difficult and unlikely to be sustained.
- Regional meetings play a critical role in engaging busy leaders and maintaining the sense of importance of continued efforts and emphasizing the importance of the issues being addressed.
- Communications platforms and channels are critical for an initiative of this nature, and programs must staff for multi-directional communications programs from the beginning without which smooth transfer of information among local, national, and regional nodes is sub-optimal and potential for sustainability reduced.
- Face-to-face and online learning mechanisms are important for this kind of effort and should

be designed into the program from the beginning, along with staffing and feedback loops to enable continuous refinement and improvement.

- Donors and NGOs should consider supporting capacity building for everyone on the ground in participating countries, including NGO staff members and other local partners, because many are local people who will remain in the field inside their communities/countries for the duration of their lives.
- Regional programs serve as catalysts but national governments ultimately lead and own regional and national efforts and regional programs should include specific support at the national level to help national governments effectively allocate resources and staff support and thereby achieve sustainability.
- Governments and NGOs can work together to achieve conservation goals at community, sub-national, and national levels, especially by bringing context-appropriate science to bear in support of community and government resource-management decisions.
- Behavior is very hard to change, but explaining the science and having community members participate in research and planning can help bring it about.
- Appropriately-designed alternative livelihood projects can offer important incentives for behavior change, provided that these projects include realistic assessments of market potential and sustainability mechanisms.
- As with all partnering mechanisms for development, the structure and mechanics of staffing, budgeting, and decision-making for NGO consortiums can be challenging in the beginning but these challenges are less a concern later in program implementation and the benefits far outweigh the challenges because working in consortiums NGOs achieve broader reach and impact.

Introduction

The Coral Triangle Support Partnership (CTSP) commissioned this report to take a qualitative look at the achievements, challenges, and lessons learned from the United States Agency for International Development (USAID) investment in CTSP. CTSP is part of a broader USAID investment in the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF), a six-nation effort to sustain vital marine and coastal resources in the Coral Triangle, which is located in Southeast Asia and the Western Pacific.

Beginning in late February 2013, the author spent nine weeks observing and conducting more than 200 interviews in the six Coral Triangle nations of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste. The author synthesized these qualitative data to produce this illustrated report. CTSP was part of a larger, integrated program called United States Support to the Coral Triangle Initiative (USCTI), which was delivered by multiple partners. Reflecting the high degree of integration achieved by the USCTI implementing partners, interview respondents sometimes said it was most meaningful for them to discuss the achievements, challenges and lessons learned of USCTI overall, rather than try to separate out those of CTSP. This report follows their lead when appropriate although CTSP remains the main focus of this report.

The report begins with an overview of the importance of the Coral Triangle region and provides a summary of the overall story of the CTI-CFF and what USCTI looked like at the regional, national, and local levels. These sections are followed by discussions of accomplishments, challenges, lessons learned, and next steps. Success stories are presented as sidebars throughout to give a snapshot view of activities taking place at the local and national levels.

The Coral Triangle

The Coral Triangle is the most biologically and economically valuable marine ecosystem on earth. It is bounded by the nations of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste. The Coral Triangle includes almost 4 million hectares of ocean and coastal waters, is home to 390 million people, 130 million of which directly depend on these resources for their livelihoods and wellbeing. The resources of the Coral Triangle benefit millions more people worldwide. Five species of tuna spawn and grow there, making it the largest tuna fishery on the planet. And, according to the report *Reefs at Risk Revisited* in the Coral Triangle,

http://www.coraltriangleinitiative.org/sites/default/files/resources/reefs_at_risk_revisited_coral_triangle.pdf the region contains the highest coral diversity in the world and the highest diversity of all known coral reef fishes.

And yet, the marine and coastal resources of the Coral Triangle are under immediate and potentially fatal threat from a range of factors, including over-fishing, destructive fishing, climate change, and land-based pollution and coastal development according to *Reefs at Risk Revisited*. At risk are local livelihoods, food security, regional political stability, and essential inputs to the global food supply.

The Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF)

Recognizing the imperative of sustaining the productivity of the Coral Triangle, in 2007 Indonesia's President Susilo Bambang Yudhoyono proposed a new multilateral partnership to safeguard the region's extraordinary marine and coastal biological resources. On May 15, 2009, the leaders of the six Coral Triangle nations (CT6) gathered at a Coral Triangle Initiative (CTI) Summit held at the same time as the World Ocean Conference in Manado, Indonesia. At this Summit, they reached final agreement and signed the Joint Regional Declaration on the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, officially launching the CTI-CFF. At the same time, the six heads of state adopted a CTI-CFF Regional Plan of Action (RPOA) organized around five interrelated conservation themes:

- Seascapes
- Marine Protected Areas (MPAs)
- Ecosystem Approach to Fisheries Management (EAFM)
- Climate Change Adaptation (CCA)
- Threatened Species

The CT6 empowered Indonesia to establish and staff an Interim Regional Secretariat in Jakarta. Over the next few years, each nation drafted a National Plan of Action (NPOA) to guide its work under CTI-CFF, and each nation created an inter-ministerial National Coordinating Committee (NCC) to coordinate their national efforts and to link to the regional initiative. In 2010, the CT6 held the first regional priority-setting meeting for CTI-CFF.

USAID Support

USAID had a strong history of engagement with marine and coastal issues in the region, and it was keenly aware that many marine issues must be addressed at a regional level because marine ecosystems know no national boundaries. The United States also recognized the importance of

the Coral Triangle for regional and global food security, and it wanted to support the new relationships and commitments of the leaders of the CT6.

Building on past experience with regional programs such as the Indian Ocean Tsunami Early Warning Systems Program (IOTWS), USAID used a mechanism that addressed recognized needs for coordination and communication; implementation capacity and efficiency; and US government technical expertise. Through its US Support to the Coral Triangle Initiative (USCTI), USAID committed an initial five years of funding for the CTI-CFF with an investment totaling roughly US\$57 million. Under this umbrella program, USAID engaged a consulting firm called Tetra Tech to serve as a Program Integrator (PI) to assist with information flow and coordination among diverse stakeholders (US\$10 million). As the USCTI program evolved, the PI also began facilitating communication and coordination with other development partners such as Australia and the German development agency (known by the German acronym GIZ). The PI also provided a flexible mechanism to access technical experts as needed to meet specific and emerging needs of the overall USCTI program.

Under USCTI, USAID also funded the National Oceanic and Atmospheric Administration (NOAA) to provide government-to-government advisory services and capacity building in scientific and technical knowledge across all aspects of the program (US\$3.1 million). In particular, NOAA provided critical technical assistance in MPAs, EAFM, and CCA. NOAA played a central role as CTSP's partner in developing the CTI-CFF EAFM regional framework and building the EAFM training modules for practitioners, executives, and decision-makers that are now being used across the region. In addition, NOAA personnel played roles in developing training modules for communities, practitioners, and decision-makers in the design and management of MPAs. NOAA's technical staff also helped design and produce both the CCA Regional Early Plan of Action (REAP) and Local Early Action Plan (LEAP) guidebook for communities.

USAID used the majority of its investment (US\$32 million) to fund a consortium of three international non-governmental organizations (NGOs) that already had marine conservation work unfolding in all but one of the CT6 (Timor-Leste). Called the Coral Triangle Support Partnership (CTSP), the consortium could access global expertise to support regional, national, and site-level activities under the USCTI program. CTSP consisted of Conservation International (CI), The Nature Conservancy (TNC), and World Wildlife Fund-United States (WWF-US), which managed the cooperative agreement. These three NGOs pledged matching funds in the amount of US\$12.8 million for a total CTSP project value of US\$44.8 million. As the CTSP program evolved, other NGOs were funded through the CTSP Regional Program Office, including international NGOs such as Wildlife Conservation Society (WCS) and WorldFish, local NGOs in CT6 countries, and universities in CT6 countries and in the US and Australia.

USAID designed USCTI in 2008, after the CT6 had announced their intention to create CTI-CFF in late 2007. USAID moved quickly and set up contracts, cooperative agreements, budgets, and work plans before the CT6 heads of state signed the CTI-CFF declaration and RPOA in 2009. Putting all this in place before the signing of the official regional CTI-CFF provided key support to the six nations and was a key factor in the final endorsement of the CTI-CFF and its Regional Plan of Action. However, this meant that CTSP and other USCTI implementing partners had to build their CTI-CFF support program before having final direction from the countries. Again, starting work before there was a clear CTI structure, and regional and national plans of action, created challenges for CTSP and its implementing partners NOAA and the PI. But having this support enabled each country to more fully participate in the development of the Regional Plan of Action and provided important assistance to each country developing their own

National Plans of Action.

Structure of USCTI

It is helpful to understand the overall structure of USCTI before moving on to a description of what the work of CTSP and other partners looked like.

Overall, USCTI included four types of activity:

- Regional exchanges through which CT6 participants made decisions and discussed technical and scientific approaches to doing work in the thematic areas
- National planning, coordination, policy analysis and systems change efforts
- Sub-national (provincial, district, site) based work in priority geographies to demonstrate how to apply the scientific and technical ideas developed and disseminated at the regional meetings
- Expert technical support and capacity building

Regional gatherings included

- Council of Ministers (COM) Meetings in which CT6 ministers made guiding decisions
- Senior Officials Meetings to review recommendations from technical working groups and make programmatic level decisions including recommendations to COM for regional-scale actions and agreements
- Technical Working Group Meetings organized around the thematic areas and composed of representatives from the CT6 nations and technical experts provided through one of the USCTI implementing partners
- Regional Exchanges where government managers, partners, and thematic experts came together to discuss relevant regional ideas

CTSP provided support to regional, national, and site-based activities, and in the case of climate change support, that extended to global discussions on climate change. In order to execute this work, in the beginning the three consortium NGOs created a Consortium Strategy Committee (CSC), consisting of two representatives from each of the consortium NGOs plus the CTSP "Program Manager". The purpose of the CSC was to make consensus decisions about programs and budget allocations. Country-based NGO offices provided all program support. Legal issues related to establishing a regional program office (RPO) in Bangkok, Thailand as originally planned delayed establishment of a regional program office until 20 months after the start of CTSP. This also delayed staffing at the RPO level, given that no permanent office existed into which staff could be placed. Each NGO had an independent country point of contact, so all decisions and communications regularly traveled between 20 or more offices in the CT6 countries and the US-based CSC. At the end of CTSP Year 2, the NGO consortium decided this was inefficient, and they promoted the Program Manager to Chief of Party (COP) and gave him responsibility for making program and budget decisions. By this time, Indonesia was chosen as the base for the Regional Program office and the COP set up an office in Jakarta.

In each country, CTSP worked with CT6 governments to select priority geographies for CTSP support. With the exception of Timor-Leste, one or more of the NGOs were already engaged in each of the CT6 countries and through CTSP they built on their earlier work and presence across the region. Eventually, a permanent CI office was established in Timor-Leste to advance the goals of CTI-CFF in that country, at the time the third newest country in the world with a

history of conflict and little installed government capacity. As work progressed, CTSP concentrated resources in a smaller number of focused “integration sites,” where NGOs and communities carried out marine and coastal conservation activities that integrated the three focal areas of work under USCTI (MPAs, EAFM, and CCA) either alone or in concert with other donor or government support projects.¹

Spotlight: CTSP Activities

As noted above, the USAID investment in CTSP combined with the NGOs’ matching commitment made CTSP the largest component of USCTI. CTSP support was customized in every nation and at every level, and this section of the report provides a detailed description of what CTSP looked like on the ground and across the region.

Regional Work

CTSP made major contributions at the regional level working in coordination with the PI, NOAA, and other partners. Over the five-year CTSP period, teams of representatives from the CT6 nations working alongside technical experts from various partner organizations made significant progress in the areas of MPAs, EAFM, CCA, and Monitoring and Evaluation.

For MPAs, the CT6 formulated the Coral Triangle MPA System (CTMPAS) Framework and Action Plan to create an overarching system of ecologically connected local, national, and regional MPA networks. This effort included:

- A formal review of the status of all MPAs and MPA systems in each CT6 country
- Publication of a practitioner’s guide on the principals of MPA design
- Publication of a guide for integrating biophysical aspects of fisheries and climate change into MPA networks and systems
- Formulation of MPA management effectiveness criteria and guides that coordinates monitoring of the status of the MPA within their ecosystems to track regional trends in key fisheries and ecosystem conditions
- Endorsement of the CTMPAS and Action Plan that was formulated and published by the CTI-CFF with CTSP support that includes mutually agreed-upon regional standards for classifying MPAs according to their level of management effectiveness and importance to the regional system

For EAFM, CT6 representatives and CTI technical experts worked over a period of years to craft approaches that would strengthen EAFM in the region. Efforts and results included:

- Strengthening legal frameworks to combat illegal, unreported, and unregulated fishing (IUU) development
- Adoption by the CTI-CFF of a EAFM Regional Framework and Guidelines for a 10-Year Roadmap creation of an interim live reef food fish trade regional secretariat that links the CT6 countries around management of the LRRFT and direct communications between CTI-CFF and the Hong Kong government around LRRFT sustainability
- Analysis and strengthening key legal frameworks to combat illegal, unreported, and unregulated fishing (IUU)
- Incorporation of CCA measures in fisheries management including a ground-breaking study on the effects of ocean acidification on fisheries stocks
- Key contributions to and inclusion of payment for ecosystem services principles in EAFM efforts across the region

¹ The point here is that to be an integration site CTSP did not have to fund activities in all thematic areas, only to work with partners to ensure integration across thematic areas.

- Establishment of an operational regional EAFM technical working group that developed EAFM leadership and “Essential EAFM” training courses for marine resource managers in all CT6 nations.

For CCA, technical working group members and participants at regional exchanges worked together to develop four main products to help CT6 nations and integration sites assess vulnerability to climate change and catalyze adaptation measures by coastal communities. The products included:

- CTI-CFF adopted Regional Early Action Plan (REAP) for CCA
- CTI-CFF adopted Local Early Action Planning (LEAP) Guide for Community-based CCA
- CCA training for communities
- a Resilient LMA Guide, flipchart series, and practitioners booklet

The CTI-CFF adopted the REAP as a guiding framework for regional, national, and local action. LEAP training courses have been developed and taught in all CT6 nations.

To support an integrated approach to implementing the frameworks described above, USCTI partners worked with representatives from the CT6 countries to create the USCTI Integrated Toolkit. Activities undertaken to create this toolkit included: developing site profiles that described existing projects, challenges to integration, and opportunities for integration going forward; technical meetings to craft an overarching Ecosystem-Based Management (EBM) framework; developing and piloting the toolkit and an EBM policy brief; and revising and finalizing the Integration Toolkit products. The Integrated Toolkit includes 42 different tools that are cross-referenced to show linkages between actions that can be undertaken in separate thematic areas. For example, the implications of CCA actions are cross referenced to relative benefits that might be derived for fisheries.

In parallel work, the Monitoring and Evaluation Working Group (MEWG) and participants in regional exchanges started work in 2009 to develop a set of indicators to measure progress toward RPOA targets and goals, and to measure impacts of RPOA implementation efforts on coral reefs, fisheries, and food security. These efforts identified how to measure, collect, store, and report on all indicators through the Coral Triangle Atlas (CT Atlas) spatial information system and eventually feed into the bi-annual State of the Coral Triangle Report.

Developed under CTSP, the CT Atlas is an online GIS database that was developed for use by scientists, governments, researchers, and NGOs across the Coral Triangle. The CT Atlas provides spatial data on the distribution and status of marine habitats and resources, the extent of marine protected areas of all kinds, plus selected data on fisheries, biodiversity, climate change information, natural resources, and socio-economics. It enables users to create layered maps to inform resource management decision-making. The CT Atlas, now hosted in perpetuity by WorldFish in Malaysia, is a ready platform to house data gathered for the CTI-CFF Monitoring and Evaluation System.

The CTI-CFF Monitoring and Evaluation Working Group (MEWG) and other CTI-CFF development partners supported the preparation and release of the first State of the Coral Triangle Report (www.coraltriangleinitiative.org), which summarizes the state of marine resources and socio-economic conditions for each country and at the regional level. The State of the Coral Triangle Report (SCTR) is planned as a bi-annual report that will be essential for establishing baselines for evaluating progress toward RPOA and NPOA goals and targets.

Country Profiles

CTSP made significant contributions on the ground in each CT6 nation. Following is a summary of this work.

Indonesia

Indonesia is the largest archipelagic country in the world, consisting of nearly 17,000 islands. A full 16 percent of the planet's coral reefs are located in the country, and these reefs are the most biologically rich on earth, with more than 590 recorded species of coral. The nation is also the seat of global biodiversity for mangroves and sea grasses. Nearly 60 million people in Indonesia live within 20 miles of a coral reef. As the region's largest country, the nation has the highest total seafood consumption of any nation in Southeast Asia. Overfishing, destructive fishing, and watershed-based pollution resulting from coastal and watershed development are the greatest threats.

CTSP supported Indonesia for the three years following signing of the CTI-CFF regional declaration. A new national prioritization of marine geographies was completed in 2009 and adopted by the Indonesia Ministry of Marine Affairs and Fisheries (MMAF) in 2011. It was the first such update since 1984. This provided the basis for selection by CTSP and the MMAF of sites for priority actions and support by CTSP. With CTSP support, nearly 2 million additional hectares of marine management areas were declared; the design for a new competency-based MPA managers curriculum was completed and institutionalized in the Ministry of Marine Affairs and Fisheries; and additional local and international NGOs were included and funded, including Rare, the Coral Triangle Center based in Bali, and the Wildlife Conservation Society.

Based on the foundational work done by CTSP, in Year 3 of the program USAID Indonesia spun off its own marine program with personnel, goals, and targets from CTSP. It called the new NGO consortium in Indonesia the Marine Protected Areas Governance (MPAG) Program. Led by WWF-US, the MPAG consortium included WWF-Indonesia, CI, TNC, Wildlife Conservation Society (WCS), and the Coral Triangle Center (CTC). CTSP continued to provide technical and travel support for Indonesia representatives to participate in regional CTI-CFF activities and link to regional progress and lessons learned.

CTSP, and then MPAG, supported the drafting of a national capacity building strategy for marine managers and the creation of new MPA manager training modules, which were piloted in Bird's Head Seascape by CI and other USCTI partners. Indonesia's Ministry of Marine Affairs and Fisheries (MMAF) Division of Human Resources Development subsequently institutionalized the strategy and modules, and MMAF delivers the curriculum to provincial and district government staff plus a variety of NGO and private sector partners at MMAF regional training centers. The new training approach links a competency-based promotion system to training. So far, more than 800 MPA managers have been trained in effective MPA management using the new modules. "We've done pre- and post-tests, and participants' knowledge has increased at all levels," said Dr. Tiene Gunawan, Director of CI's Marine Program in Indonesia.

An important part of Indonesia's strategy is to improve MPA management at selected priority geographies. MMAF has successfully made progress at Bird's Head Seascape, Bali MPA Network, Anambas Tourism Aquatic Park, Savu Sea Marine National Park, Gili Matra Tourism Aquatic Park, Kei Kecil MPA, Nusa Penida MPA, and Wakatobi National Park. "We have observed improvements in mangrove growth rates and health as a result of better management and water quality in the MPA," said Gede Adniana, a local businessman on Lembongan Island near Nusa Penida MPA.

At the national level, the Indonesian government has embraced a sustainable fisheries “blue economy” management paradigm and put 15.3 million hectares of marine area into MPAs, which represents significant progress toward the NPOA goal of 20 million hectares by 2020. The “blue economy” concept calls for sustainable, ocean-based economic development to drive income, food, and business opportunities.

Indonesia has also made progress toward creating policy to support a national system of MPAs and toward establishing a national trust fund to provide sustainable financing for MPA work. “MMAF has done so much work — we are ready to establish a national MPA system, and it is much clearer now how to achieve MPA management effectiveness,” said Abdulla Habibi, Capture Fisheries Coordinator at WWF-Indonesia.

Malaysia

Malaysia is a diverse nation governed as a federation made up of 13 states, 11 of which are located on the peninsular mainland. Across the South China Sea on the island of Borneo are the two remaining states of Sabah and Sarawak. CTSP supported Malaysia's CTI-CFF implementation in Sabah's Tun Mustapha Park which was Malaysia's initial selection as a CTSP priority geography. At least 925 species of fish inhabit Malaysia's coral reefs, and more than 90 percent of these reefs are located off the coast of Sabah.

Approximately 5 million Malaysian people live within 20 miles of a coral reef, and 1.8 million of them are in Malaysian Borneo. Fisheries provide 60 percent of the nation's protein and are vital for food security, especially in poor coastal communities. Rapid coastal development and a fast-growing economy are taking a toll on the country's incredible marine resources, and trawling and coastal and watershed development and land-based pollution are continual threats to marine habitats.

In Malaysia, CTSP supported the work of WWF-Malaysia, provided staff support to the NCC, and seconded technical and support staff to the National Ministry of Science, Technology and Innovation (MOSTI) and the Sabah Department of Fisheries. MOSTI is the host of the Malaysia NCC which has led the country forward in adopting the themes, frameworks, and tools of CTI-CFF. In addition, CTSP and NOAA supported EAFM training in the country. Combined with WWF-Malaysia's national work to create an EAFM steering committee and EAFM framework, CTSP support helped Malaysia make significant progress toward mainstreaming EAFM. Malaysia was the first country of the CT6 to officially ratify the agreement to form the permanent CTI-CFF Regional Secretariat.

When Malaysia signed the regional CTI-CFF declaration, the government identified Sabah as the initial focus for its work under the initiative. In line with this government decision, CTSP focused its funding via WWF-Malaysia to Sabah and the proposed Tun Mustapha Park (TMP), which comprises more than 1 million hectares of ecologically important marine area at the northern tip of Borneo. WWF-Malaysia supported an interim cross-sector steering committee that created an integrated management plan for the proposed park. Under CTSP, WWF-Malaysia worked with TNC and the University of Queensland to create a marine spatial plan through a process that included the private sector, communities, and the multiple Sabah government agencies that share jurisdiction over various aspects of the TMP area. When the government gazettes the park in 2015, TMP will be one of the largest MPAs in Southeast Asia.

To complement and build on this work, the USCTI-supported regional MPA team worked with WWF-Malaysia and other stakeholders to understand and link TMP to the regional Coral Triangle MPA System (CTMPAS), working particularly with CTSP consortium partner TNC which provided primary technical support for the CTI-CFF MPA technical working group. TMP

was already nominated in the first round of CTMPAS membership recruitment in 2013 as a Priority Development MPA for the overall CTI-CFF program. “The linkage between CTSP’s regional MPA team and the work in TMP is an excellent example of vertical integration—from regional to national to site—that was a goal of CTSP from the beginning,” said CTSP Chief of Party Maurice Knight. “It is also a great example of organizational partnership under CTSP with WWF-MY leading on the ground, TNC providing technical support relative to the CTMPAS, and other partners such as Queensland University providing additional technical support for integrated spatial planning.”

With support from CTSP, communities in the proposed park have established two community-based MPAs that include “no-take” zones, launched successful alternative livelihood projects, and trained local residents to conduct reef monitoring. In addition, a youth-led community-based organization conducts awareness and education work for the 80,000 residents living in the proposed park. “This is not business as usual,” said Ludi Apin, Assistant Director and Head of Park Management and Operations for Sabah Parks. “This is a large marine park, and it requires many consultative activities with many stakeholders from the top management of Sabah state government to the bottom, the communities.”

CTSP and NOAA also supported a scientific expedition in 2012 to gather critical baseline data that park managers need to manage TMP. Combined with experiences at CTI-CFF regional meetings, the successful expedition influenced Malaysian leaders’ thinking about increasing the use of data in fisheries management decision-making. “I’m trained as an ocean-modeling physicist and coastal engineer,” said Nor Aieni Binti Haji Mochtar, Under Secretary at the Ministry of Science, Technology, and Innovation. “With CTI-CFF, suddenly I was learning about fish and MPAs and community livelihoods, and I realized that as scientists what we can do is make sure we link data to solutions.”

In addition, WWF-Malaysia used CTSP support to pilot full-cycle aquaculture for the Live Reef Food Fish Trade (LRFFT) and helped LRFFT traders create an association to spread more sustainable LRFFT practices, including aquaculture, traps, and hook and line. When the Sabah government stopped issuing permits for the export of humphead wrasse, many traders continued to keep wrasse in grow-out cages, so WWF-Malaysia initiated a buy-back and release program that released 850 fish back into the wild within TMP to breed in protected areas.

Papua New Guinea

Papua New Guinea (PNG) consists of the eastern half of the island of New Guinea and numerous smaller islands, mostly to the north and east. The landscape is mountainous and rugged, and due to their isolation the people of PNG speak more than 800 languages. Most of them live in coastal areas, and roughly 85 percent live in rural villages and support themselves with subsistence agriculture or fishing. Coastal and marine ecosystems include sea grass beds, mangrove forests, and more than 6 percent of the world’s total reefs. At least 514 species of hard corals have been recorded in northern PNG, and more than 1100 species of reef fish have been recorded in Milne Bay alone, on the eastern tip of the mainland.

Of all the Coral Triangle countries, PNG’s fisheries are among the least exploited. Nevertheless, according to the CTSP Papua New Guinea Fact Sheet, the areas close to large population centers are overfished, the nation’s population is set to double by 2035, and coastal resources are at increasing risk from runoff from coastal and watershed development that includes mining, oil palm, and other industries, as well as urban settlements and related infrastructure. With a diverse system of traditional laws and the majority of land under local “customary” ownership, national strategies can be difficult to incorporate at the local level.

In PNG, CTSP supported CI, WWF, and TNC, as well as local NGOs such as Mama Graun. As with other countries, CTSP funds enabled the drafting of the PNG NPOA, and CTSP and NOAA supported progress toward the development of EAFM policy through training and tools. CTSP also supported the creation of a national Learning and Training Network (LTN) to enable communities, government, and other experts to share tools and best practices in marine and coastal resource conservation. The LTN has established regional hubs, and stakeholders are working together to populate the network with tested conservation tools, including “how to” resources and workshops about such topics as community engagement, sustainable conservation practices, and policy and governance models. “We realized that there was a lot of expense involved in bringing in people from foreign countries to train us, when in fact we already have many people right here in the country who have knowledge and are able to do this,” said George Bukoya, Communications Officer for CI in Milne Bay. With help from the Coral Triangle Center, co-funded in PNG by CTSP and the Government of Australia, local knowledge is being captured and put to use in building capacity.

At the site level, CTSP support enabled communities in multiple priority geographies to establish and manage Locally Managed Marine Areas (LMMAs). In countries where customary local resource tenure is the rule, LMMAs are an important resource management strategy, because where LMMAs exist, communities take responsibility for managing their own marine and coastal resources. With CI support funded through CTSP, the Milne Bay Provincial government passed an important environmental law that recognizes LMMAs and the rights of communities to manage their natural resources. “Everyone wanted this law,” said Simon Alberic, Milne Bay Provincial Legal Advisor. “It is valuable because it involves local people in protecting the environment themselves instead of government and NGOs doing all the work. In other cases, locals are left to be bystanders in their own back yards. That won’t work here.”

As integration sites, CTSP supported CI, WWF, and TNC in Manus and Milne Bay communities and local governments which built from LEAP guidelines and implemented CCA measures. In Manus, a Women in Conservation group was established, and local networks of LMMAs were formed so communities could better manage their marine resources. CTSP support also made it possible to develop a replicable model for community-led reef monitoring and empowered community reef monitors to train other communities in these skills. In Manus Province, villagers in Pere community used CTSP support to raise awareness that ecosystem-based resource management is about more than fisheries, and they also used CTSP support to create the country’s first “ridges-to-reefs” resource management plan. “We learned that when you want to look after the fish to increase populations, you must also look after the ecosystem, the mangroves, and the reefs,” said Piwen Langarap, a resident of Pere. “The people in the mountains must look after what they do, because what they do in the river ends up in or marine area. You have to manage it all together.”

Most recently, CTSP worked closely with the PNG Department of Environment and Conservation, the Department of Provincial Affairs, the Office of Climate Change, and the National Fisheries authority to convene a national coastal governors meeting in Madang at which the National Plan of Action was introduced, provincial sustainable financing mechanisms discussed, and a national Coastal Women’s Leadership Organization was formed. The National Coastal Governors Meeting is now agreed to be at least an annual event.

The Philippines

The Philippines, which makes up the northern tip of the Coral Triangle, consists of more than 7000 islands. It is home to 9 percent of the world’s total reefs, and the country’s marine biodiversity is remarkable. In total, 464 species of hard corals, 1770 species of reef fish, and 42

species of mangroves have been recorded to date. More than 40 million people — 45 percent of the country's total population — live within 20 miles of a coral reef. Roughly 26 percent of Filipinos live in poverty, and this percentage is increasing. Along with Malaysia, the Philippines is a major supplier of fish to the LRFFT, a US\$1 billion industry in the Coral Triangle. Major threats include overfishing, climate change, damaging storms, and destructive fishing.

In the Philippines, CTSP supported CI's and WWF-Philippines' work with governments, communities, universities, and NGOs to implement the NPOA and help communities adapt to climate change. CI used CTSP funding to address the nation's shortage of marine scientists by piloting a university mentoring program that connects expert marine scientists at national universities to faculty in local universities to build their marine research capacity. The program also links these local faculty members to the research needs of coastal governments, so resource managers get the data they need to make good decisions. "Research data is very beneficial, very instrumental in planning for coastal resource management," said Hernan Fenix, Agricultural Technologist for Taytay municipality in Palawan, where fish stocks have improved as a result of WWF's efforts. "The local government has seen the impact of using reliable data and the positive results for resource management." CI and WWF-Philippines are working with the Philippine government to institutionalize this innovative program.

In priority geographies and integration sites in Palawan Province, Tawi Tawi Province, and Verde Island Passage, WWF-Philippines and CI worked with local communities and governments on a wide array of activities, including establishing and managing MPAs, training fish wardens, and changing unsustainable fishing and seaweed farming practices. In Palawan, WWF-Philippines has successfully worked with local governments and the province to create comprehensive land and water use plans; establish and enforce multiple MPAs; and encourage fishermen and traders in the LRFFT to adopt more sustainable practices.

In Verde Island Passage, CTSP supported CI to work with another USCTI partner, NOAA, to conduct a "Train the Trainers" CCA workshop for provincial government staff in which they learned to assess fisheries resilience, conduct vulnerability assessments, and make CCA plans. Participants in turn trained staff in each coastal government to use the tools to create comprehensive resource use plans that include CCA measures. "This new approach has helped us understand the data and get a sound assessment of what is happening in the communities," said Loreta Sollestre, Environment Specialist with Batangas Province Environment and Natural Resources Office. "It is easier and more efficient than previous tools."

Also in Verde Island Passage, CTSP support enabled CI to work with communities to create two community-driven mangrove rehabilitation sites that include alternative livelihood projects. Both sites used mangrove reforestation to address coastal vulnerability related to climate change. In Ang Pulo, village women replanted a 7-hectare area; built a bird-watching boardwalk and bamboo tour raft; and created a menu of services for tourists. So far, more than 5400 guests have paid fees for tours, meals, and homemade preserves at Ang Pulo. This has had a big impact on women's livelihoods. "Before, there was no work and no income for women, but now we are earning extra income for our families," said Helen Ricaza, Treasurer for the project. CTSP support also contributed to establishing a joint MPA and marine and coastal resource management plan between two municipalities, and this work holds promise for informing future cross-boundary conservation work.

Solomon Islands

The Solomon Islands comprises the eastern boundary of the Coral Triangle. The archipelago is made up of six main islands and more than 986 smaller ones. Marine biology and species richness are among the highest in the world. A 2004 survey by TNC revealed 494 coral species, 1019 species of reef fish, and at least 23 species of mangroves.

Approximately 540,000 people—97 percent of the nation’s total population—live on the coast within 20 miles of a coral reef. There are less than 21 miles of paved roads in the entire country, so boats are the dominant form of transport, and monsoon season makes travel difficult for up to six months a year. Complex clan structures and private local ownership of resources mean that community-based resource management approaches make good sense.

Close to 85 percent of people live in rural villages and are dependent on marine resources for livelihoods. On average, Solomon Islanders consume nearly 46 kilograms of fish per person annually. The population is rising at a rate of 2.8 percent a year, and by 2030, consumption of fish will exceed production. Major threats to the nation’s marine and coastal resources include watershed-based pollution from logging and mining, climate change, major weather events, overfishing, and destructive fishing.

In the Solomon Islands, at the national level CTSP initially provided funding for facilitation, development, and adoption of the NPOA. CTSP also provided full-time staff assistance to the NCC by establishing and funding the position of NCC liaison. In combination with two Australian volunteers posted at the NCC, this made supported the Solomon Islands NCC to eventually become one of the most effective and efficient NCCs among the CTI countries.

CTSP also provided funding for legal expertise to support drafting and passage of a landmark Protected Areas Act under which communities are able for the first time to establish their own legally recognized marine, coastal, and terrestrial protected areas. “Marine conservation is not a new thing to us, but it’s a new era, with a different culture,” said Tingo Leve, Marine Assistant with WWF on Ghizo Island. “The customs are no longer respected. If we want protection, we must have legal MPAs. Once these sites are formally protected under the law, and the boundaries of the areas that are closed for fishing are publicized, there will be no excuse for any poachers.”

Through WWF-Solomon Islands and WorldFish, CTSP supported communities in three geographic areas to create locally managed marine areas (LMMAs). In the Ghizo Island integration site, communities worked with WWF-Solomon Islands to identify and start demarcation of five MPAs and to develop management plans for these areas. They also created a legal community-based organization to register and manage these MPAs under the new national law.

Working with WorldFish, Ghizo communities spent a year field-testing the CCA Local Early Action Plan (LEAP) Toolkit, developed as part of CTSP’s capacity development work stream with cooperation from NOAA and the PI. This generated useful data for Ghizo communities to use in developing their CCA plans and provided valuable feedback to toolkit designers at the regional level, so they could fine-tune the Toolkit for use by all CT6 countries.

Most recently, CTSP worked with the Solomon Islands Ministry of Fisheries and Marine Resources to design and implement a mobile phone application that enables real-time logging and analysis of inshore fisheries resources and fisher practices. “For resource management programs and to support the fishing communities, we need accurate data on production, species,

origin, how, when, and by whom the fish are being caught,” said Ben Buga, Marketing Director and Chief Fisheries Officer at the Ministry.

Using mobile devices, surveyors go to fisheries markets, collect biophysical and socio-economic data in interviews, and enter the information into the phone application. Through a public-private partnership facilitated by CTSP, Solomon Islands Telekom provides dedicated wireless service through which data is automatically transferred and stored in a cloud server. An analytics software package provides standard analysis of the data to provide a picture of changes in inshore fisheries over time and enables ad hoc queries related to special management issues. Information that is useful to fisheries, such as selling price for specific species in various markets, is fed back to fishermen through text messaging to enable domestic market development. “The mobile app is user friendly,” said Patrick Ketete, a surveyor on the project. “It is very powerful, very reliable. It makes our work easier.”

Timor-Leste

Timor-Leste, also known as East Timor, is a small country located along the southern boundary of the Coral Triangle. It occupies the eastern half of the island of Timor. The country is a young democracy, having achieved independence from Indonesia in 2002. Roughly 80 percent of the nation’s 1.1 million people live in rural areas, and most of these people depend on subsistence livelihoods. The nation primarily relies on oil exports and foreign aid for income. Timor-Leste is one of the world’s poorest countries, and although the poverty rate decreased from 50 to 41 percent between 2007 and 2009, over half of the nation’s children are malnourished.

The mountainous nation has little marine shelf area, so the area of near-shore reefs is small. A recent biological survey confirmed high levels of marine biodiversity along the country’s north coast. The largely untouched waters off both coasts provide important migratory corridors for whales, dolphins, and six threatened turtle species. Timor-Leste’s fishing industry is relatively small. The government estimates that about 5000 fishers operate along the country’s coastline, mainly using small canoes. Major threats include overfishing by outsiders, destructive fishing, and watershed-based pollution from the country’s steep, deforested mountain slopes.

To increase the quantity and quality of marine data, scientists from NOAA’s Pacific Islands Fisheries Research Center and CI, which is CTSP’s lead NGO partner in Timor-Leste, collaborated with the Ministry of Agriculture and Fisheries to conduct a series of fish biomass surveys along the north coast of the country in 2013. The government is now using the data to manage the nation’s fisheries sector.

CTSP funding also supported the drafting of the Timor-Leste NPOA. Subsequently, the government used CTSP support to hire local consulting firm Rai Consultadoria to conduct numerous activities to support NPOA implementation, including working with three coastal communities in the country’s first and only national park, Nino Konis Santana (NKS), which was established in 2007. NKS includes 56,000 hectares of marine area and is located at the eastern end of the nation.

The CTSP-supported community-level work has had a profound impact on local fishermen. “When CTSP explained the importance of our marine resources, it made people proud and able to understand the reason for management and conservation, which is to continue to get future benefits,” said Mateus Sequeira, Town Chief of Lore community.

Notably, the community engagement process included government staff from fisheries and forestry and integrated scientific data with local knowledge. “I learned that fishermen have a lot to teach, a lot of knowledge about many things,” said Eligito Ximenes, District Fisheries Officer.

“They share this now with the Department of Fisheries to help guide marine protection.”

This community-based process resulted in communities establishing MPAs, identifying CCA measures, and passing local regulations to guide MPA management and enforcement. It also led to communities and government agreeing to jointly manage marine and coastal areas in NKS. The benefits of joint management are obvious to all parties. “Communities have developed a sense of ownership, and multi-sector participation means everyone brings in their knowledge, and we share responsibility,” said Fernando da Silva, Department Head of Fisheries Management and Aquatic Research.

Completing the model, a new ministerial document called a diploma officially recognizes communities’ right to make and implement resource management plans. This model of practice is replicable to other places, and the government intends to use it as such through the application of the approach to other communities throughout Timor-Leste. “We would like to replicate this approach in other priority geographies,” said Augusto Fernandes, National Director of Fisheries and Aquaculture. To support replication, CTSP funded CI’s drafting and production of a manual that describes the method. Most recently, CTSP and NOAA implemented EAFM trainings for government personnel and leaders, so they can begin to apply EAFM principals to joint management efforts.

USCTI Achievements

The achievements of USCTI partners are substantial and include:

- More than 30,000 people across the region participated in Coral Triangle Day events in 2013.
- 1,128,250 million hectares of MPAs are under improved management, with an additional 10,062,319 million hectares of coastal areas under improved management.
- 108 policies, laws, and agreements supporting improved management have been proposed or adopted plus 8 specific laws or policies addressing climate change.
- An online Climate Change Adaptation Marketplace has been launched that will link funders of CCA with ready-to-go projects on the ground.
- Over 10,650 individuals have been trained through community awareness or formal trainings.
- Nearly 1000 women and girls were trained in natural resources management in the last two years of CTSP.
- 18 public-private partnerships were formed supporting sustainable use of coastal or marine resources.
- CTSP produced more than 265 individual titles including guidebooks, knowledge products, studies and research documents.
- Tun Mustapha Park— at 1.2 million hectares, one of Southeast Asia’s largest MPAs— is poised for gazettement in Malaysia.
- A mobile phone application has been deployed in the Solomon Islands to capture and analyze real-time data for inshore fisheries managers.
- Local communities are incorporating CCA measures in their resource management plans across the CT6 and national, provincial and district governments are aligning their annual budgets and workplans around CTI-CFF regional and national plans of action.
- The Coral Triangle Atlas database (<http://ctatlas.reefbase.org/>) has been developed, populated, and launched and is now an online resource for regional scientists, government representatives, and donor agencies.
- Alternative livelihood projects have been established in the proposed Tun Mustapha Park in

Malaysia; the Turtle Islands Heritage Protected Area in Tawi Tawi, Philippines; Ang Pulo MPA in Verde Islands Passage, Philippines; and Nino Konis Santana National Park in Timor-Leste.

- CT6 governments have an increased awareness of the need to work across boundaries and are reaching out to neighboring countries to share stories and discuss transnational joint management actions.
- CT6 governments have an increased awareness of the relationship between fisheries and food security and are taking steps to better manage fisheries resources, especially inshore fisheries on which coastal populations depend.
- CT6 governments are increasing the use of data in decision-making.
- Government-CTSP NGO relationships have measurably improved in CT6 countries.
- Collaboration among NGOs has improved across the Coral Triangle increasing regional cooperation and within each CT6 nation increasing linkages between national, provincial and district governments.
- A regional infrastructure and governance mechanism has been institutionalized through a soon to be ratified CTI-CFF Regional Secretariat and National Coordinating Committees through which the CT6 make decisions and share perspectives in serve to improving management of CT marine and coastal resources.
- A sustainable foundation has been laid for transnational ocean governance among the CT6.

The research reports, frameworks, toolkits, and manuals were made possible by the creative and intellectual work of experts at CTSP NGOs, NOAA, and the PI. They include:

- USCTI Integrated Toolkit (including 42 separate manuals and guides)
- EBM Guide
- Regional CTMPAS Framework
- Resilient MPA Networks Practitioners Guide
- MPA Management Effectiveness Guide for Indonesia
- MPA Management Effectiveness Assessment Tool for Philippines
- MPA Management Curriculum Series for Indonesia
- EAFM Regional Framework
- EAFM Guidelines
- Essential EAFM and EAFM Leaders (LEAD) Training Courses
- Regional Early Action Plan (REAP) for CCA
- Local Early Action Planning (LEAP) Guide for Community-based CCA
- CCA Marketplace
- Resilient LMA Planning Guide
- CTI-CFF Monitoring and Evaluation System
- Reefs At Risk Revisited in the Coral Triangle

To access any of these products, please visit www.coraltriangleinitiative.org.

New “models of practice” have also been created with support from USCTI partners. Examples include:

- institutionalizing competency-based training modules in MMAF in Indonesia
- creating a model for joint management of a provincial-scale MPA network in Bali, Indonesia

- engaging the private sector, government, and communities in large-scale marine spatial planning in Sabah, Malaysia
- introducing and supporting adoption of EAFM as the organizing principal for fisheries management in Malaysia
- creating and operationalizing a Learning and Training Network in PNG
- introducing and supporting adoption of a “Training the Trainers” approach to community-based reef monitoring in Milne Bay, PNG
- developing an approach and method for creating cross-boundary MPAs in Verde Island Passage, Philippines
- institutionalizing the use of CCA tools in resource management planning at the provincial government level in Batangas, Philippines
- developing and institutionalizing a model for linking university faculty research to the data needs of local governments in the Philippines
- developing an approach to creating a high-functioning NCC in Solomon Islands
- institutionalizing a method of engaging communities and government as joint managers of marine and coastal resources in Timor-Leste

Qualitative Achievements

The interviews conducted for this report revealed that the USAID investment in USCTI contributed to achieving a range of additional benefits beyond the accomplishments enumerated above. A summary of these additional benefits follows.

Impact on the Region

Overall, participants believe that the investment in a regional program yielded results that could not have been achieved by a set of more conventional bilateral investments in the individual CT6 nations. For example, many respondents noted that the overall USCTI investment helped increase the global visibility of the Coral Triangle as a valuable region of high biodiversity, and in turn increased the recognition by CT leaders of the importance of managing these resources. “The awareness of the Coral Triangle as an identifiable geography, the importance of that geography, and the need to do joint management action here, is an achievement,” said Rebecca Guieb, Coastal and Marine Program Manager at USAID-Philippines.

Respondents also noted that participating in a regional program fostered an emerging sense of shared identity exemplified by the Coral Triangle nations presenting themselves as a group at global gatherings such as events by APEC (Asia-Pacific Economic Cooperation), Rio+20 (United Nations Conference on Sustainable Development), and UNFCCC (United Nations Framework Convention on Climate Change).

In addition, respondents see value in that fact that six very different nations are working together for a common objective. “Before CTI-CFF, we had no such sense of purpose, trying to collaborate to preserve the most diverse resource on earth,” said Rili Djohani, Executive Director of the Coral Triangle Center, a regional training and capacity development organization based in Bali, Indonesia.

Although there is still a lot of awareness raising to do, participating in the CTI-CFF increased awareness among CT6 citizens of their interconnection and shared problems. “Fishermen here were able to realize they are not alone,” said Antonio da Fonseca, Town Chief in Tutuala, Timor-Leste. “They know now that they are facing similar problems to other fishermen in the

region.”

This sense of connection clearly led to an awareness among the CT6 countries that they need to work across boundaries. “We’ve begun to think about transboundary cooperation more,” said Ludi Apin, Head of Park Management and Operations for Sabah Parks in Malaysia. “By protecting their side, it also helps protect my side, my MPA.”

Indeed, quite a bit of cross-boundary work is underway. NOAA is working with CT6 governments on plans to use ports throughout the region as a network of “choke points” for vessels carrying illegal, unreported, and unregulated (IUU) fish from national waters as a regional enforcement tool. In another example, with support from USCTI, Indonesia, Malaysia, and Philippines met and agreed to work through diplomatic (embassy) and technical (ministry) channels to discuss LRFFT issues with the Hong Kong government. With USCTI assistance, in August 2013 first contact was made with the Hong Kong government to further these decisions with the overall objective of establishing a multinational dialogue between Hong Kong, the People’s Republic of China, and the CTI on topics of mutual interest regarding the sustainability of the regional LRFFT trade. These discussions will include increasing source countries’ control over illegal harvesting, creating traceability systems, and establishing trading moratoria on specific endangered species.

In a third example, NOAA and CTSP are working with the Bay of Bengal Large Marine Ecosystem (BOBLME), the Southeast Asia Fisheries Development Center (SEAFDEC), and the United Nations Food and Agriculture Organization (FAO) to standardize basic modules and terminology for EAFM training of practitioners throughout the Indian Ocean, Southeast Asia, and the Western Pacific. And the Sulu-Sulawesi Marine Ecoregion (SSME) — a well-established regional marine conservation program of Malaysia, Indonesia, and Philippines — is finding a stronger nesting position within the larger CTI-CFF regional program as its main supporters (GIZ and Australia) align their efforts with the CTI-CFF structure.

Impact on the CT6

Participating in the regional program had a fundamental impact on the way diverse people in each nation think about marine and coastal conservation. For example, there is an increased level of awareness of the relationship between fisheries and food security at many levels of government. “This is about food security,” explained Ludi Apin of Sabah Parks. “This is not a small matter, it is a big matter, and for the world, not just the people of Sabah.”

For many participants, CTI-CFF has changed the fisheries management paradigm, away from one that focuses exclusively on maximum yield and toward one that focuses on shared benefits and sustainability. “In the past, fisheries meant fishermen, period,” said Rayner Datuk Stuel Galid, Director of the Department of Fisheries in Sabah, Malaysia. “Now, it’s everyone, and all our interests are considered. [The proposed Tun Mustapha Park] includes ‘no-take,’ community use, industrial use, alternative livelihoods, and non-destructive fishing practices. Everyone is compromising.”

In addition, USCTI partners working through CTI-CFF have introduced a common language for marine and coastal conservation, and for the first time the CT6 nations have a common understanding of key terms and concepts, including MPAs, EAFM, and CCA. “CTI-CFF and USCTI helped us understand how to do and implement things,” said Agnetha Vave-Karamui, Chief Conservation Officer at the Ministry of Environment in Solomon Islands. “They provided knowledge, technical assistance, staff and technical support, and know-how.”

For example, governments and communities are increasingly bringing data to bear in resource

management decisions. “We had a weakness, which was lack of data on the condition and status of resources in TMP,” said Ejria Salleh, Senior Lecturer at the University of Malaysia-Sabah. “CTSP helped correct that.”

The USCTI program also helped foster a growing recognition in each country that governments cannot do conservation without engaging communities. “For conservation to occur in MPAs, we need to work with communities,” said Augustine Binson, Park Officer at Sabah Parks and Staff for the TMP Interim Steering Committee.

Impact on Government-NGO Relationships

While the extent of change varied across the CTI-CFF countries and from NGO-to-NGO, USCTI had a profound impact on government-NGO relationships. This occurred in part because the NGOs supported governments in numerous ways, and CTSP encouraged this collaboration. “In the local level government, we don’t have the environmental expertise, the marine expertise,” said James Rubin, Deputy Governor of Milne Bay province in Papua New Guinea. “The [CTSP] NGO provided it. We cannot do it alone.”

“In the past, we thought of NGOs as always up against government, but here, government has worked closely with an NGO on the new environment law, and we’ve learned that we can work together on common goals,” said Simon Alberic, Provincial Legal Advisor in Milne Bay. “This is a big thing.”

“We don’t have the capability completely on our own, and the [CTSP-supported] NGOs really helped us,” said Loreta Sollestre, Environment Specialist with Batangas provincial government in the Philippines. “We’ve learned to train and to use a new tool. We couldn’t have done this without the NGOs.”

“NGOs can more easily get work done with multiple stakeholders [than governments],” explained Jessica Muñoz, Director of the Project Management Office at Bureau of Fisheries and Aquatic Resources (BFAR) in Philippines. “Especially in the first two years of USCTI, they really helped us get going, they served as our guides.”

Impact on NGOs

USCTI also had an impact on the NGOs themselves. For one, participating in CTI-CFF encouraged NGOs to increase the linkages between their site-based work and national plans and priorities. “In the past, the NGOs talked to the communities without talking to us,” said Vave-Karamui in Solomon Islands. “Now, there is collaboration, we talk about how to solve problems, how to simplify tools for communities.”

In addition, participating in USCTI supported an expansion in NGO thinking that has the potential to lead to greater impact over time. “CTI-CFF introduced us to a regional way of thinking,” said Lida Pet-Soede, head of WWF’s Coral Triangle Global Initiative. “We’re thinking more about scale.”

“It has helped us think bigger in order to maximize what we do with what we have, to use what we have more efficiently,” said Niquole Esters, Program Manager for CI’s Coral Triangle Initiative.

Of equal importance, USCTI enabled conservation NGOs to work together. “Before, NGOs were here, but they weren’t talking to each other, they weren’t working together,” said Lysa Wini, NCC Staff Liaison in Solomon Islands. “With USCTI, they started talking to each other and discussing issues. That really helped us.”

Overall, USCTI has contributed to the creation of a regional infrastructure and governance mechanism that the CT6 can use to move their work forward. CTSP provided a significant part of the technical and on-the-ground engagement required to make this happen. This sustained and cooperative contact is essential if the CT6 nations are to be successful in their quest to preserve biodiversity and ensure food security for the long term across the Coral Triangle.

Challenges and Opportunities

USCTI was designed by USAID as an experiment in how to design and approach regional programs. USCTI implementing partners from the beginning believed that exploring challenges and documenting learning in this effort would create an opportunity to analyze experience, improve performance, and share useful knowledge in terms of how to implement regional programs and more specifically in the individual communities of practice that related to CTI-CFF goals, objectives and targets. With that in mind, this section presents the core challenges that interview respondents highlighted. It is worth noting that in a program as wide-ranging and diverse as USCTI, different people have different perspectives, depending on where they sit in the broad network of activity. These differences are noted in the following discussion.

Regional Challenges

- CT6 countries have different cultures, forms of government, economies, human development indices, and marine and coastal resource management issues. The biological marine region of the Coral Triangle is a coherent whole but the social-political-economic realities in the CT6 countries are not. Cultures, decision-making processes, and degrees of readiness to undertake various actions vary widely. For example, the Philippines has been working on MPAs for years, whereas MPAs are a relatively new tool for Solomon Islands and Timor-Leste. In another example, the Southeast Asian nations of Indonesia, Malaysia, and Philippines have different economic issues than their less industrialized CT6 partner nations in the Western Pacific. In yet another example, CT6 countries have widely different decision-making practices. Some rely on talking issues out until consensus is reached, while others make decisions using a more top-down process, from the national to the community level. And differences in marine and coastal resources ownership — varying from customary local tenure to total government ownership to constitutionally assured open access — mean that governments have to approach resource management in different ways. These differences make it challenging to provide solutions that can be applied universally across the Coral Triangle. Developing and delivering a consistent program at the regional level, that takes into consideration all the specific contexts that can be encountered across the Coral Triangle presented real challenges and perhaps took considerable more time than earlier expected. CTSP was designed to deliver customized programs in each CT6 nation to mitigate these differences but simultaneously develop and deliver tools that would work in all countries and replicate these during its 5-year life of project.
- Political dynamics within the six countries are an ongoing challenge because of frequent elections and leadership changes. “Keeping high-level political support is not very easy,” said Eko Rudianto, First Vice Chair of the Interim Regional Secretariat and an official at MMAF in Indonesia. “Officers keep changing — presidents, ministers, senior officials.” Because the CTI-CFF agreements are non-binding, ongoing implementation depends on maintaining political will and commitment to champion CTI-CFF among an ever-changing cast of high-level leaders and mid-level bureaucrats and implementers. This means that CTI-CFF participants in each country must continually expend energy and political capital to bring new officials into the fold until the CTI-CFF interventions and programs are embedded into national and implementing institutions. This might be mitigated when the CT6 nations ratify

and fund the Permanent Regional Secretariat which is realistically expected to happen by April 2014. “Establishing the Permanent Regional Secretariat is important, because it will be a constant reminder to the CT6 that they have agreed on this vision,” said Darmawan, a consultant in Indonesia who previously staffed the Interim Regional Secretariat. However, at this point only Malaysia has ratified the permanent body, and a minimum of four countries must ratify in order to establish and fund the Permanent Regional Secretariat.

- All CT6 nations continue to struggle with enforcement. This is due in large part to the fact that CT6 countries lack capacity to effectively patrol their Exclusive Economic Zone (EEZ) waters and enforce their laws. “Communities can patrol a small area, close to shore, but government so far cannot patrol the EEZ properly,” said Antonio da Fonseca, Town Chief of Tutuala, in Timor-Leste. “Illegal fishers are getting in, and this is beyond what village fishermen can patrol.” Many CT6 nations have effectively engaged local fishermen to do patrols as fish wardens, but this is high-risk work, and relying exclusively on local fishermen to do patrols is unsustainable. The issue of enforcement has been obvious since the beginning of USCTI, and CTSP commissioned a rapid assessment of the problem in 2012 in Malaysia, PNG, Philippines, and Solomon Islands. The assessment revealed a relatively low level of compliance with existing marine resource rules and regulations across the four countries. The primary drivers of intentional noncompliance include poverty, meeting food security requirements, meeting household income needs, emergencies, greed, corruption, and disputed ownership claims over fishing grounds. The current level of fines and sanctions are not seen as sufficient deterrents to potential violators, especially to well-armed, illegal foreign commercial fishers. Compounding all of this, law enforcement resources are uniformly inadequate, particular within coastal waters, and crimes against persons and property get more attention and investment than crimes against the marine environment. For these reasons, enforcement was not prioritized for early actions in the first round of CTI-CFF regional priorities, especially as transboundary institutions and examples were few.

Programmatic Challenges

- Weak connectivity and telecommunications infrastructure posed significant challenges to program implementation. In some cases the lack of reliable internet access and phone communications made it difficult for some program participants to actively engage in learning and communications efforts. Especially in the early years this challenge slowed down implementation and integration.
- Respondents in every country, at a variety of levels, were confused about the structure of USCTI and the roles and responsibilities of the various USCTI partners. This problem traces back to the early days of the program, when USCTI partners assumed that existing communications infrastructure within each organization could handle branding and messaging functions for the new Coral Triangle program. However, the particular combination of partners had not undertaken a program of this complexity, breadth, and magnitude before, and they underestimated branding, messaging, and communication needs. As a result, participants located at different points across the initiative heard different things about structure, roles, and responsibilities, and the ensuing confusion slowed down implementation. In fact, the structure, roles and responsibilities evolved over the first two years which added to confusion. A more clear scope of work, terms of reference, and roles for all USCTI partners would have alleviated though not completely solved this problem.
- Some participants grew fatigued over time by the volume and frequency of USCTI activities and products. Some respondents said they grew overwhelmed by the many themes, working

groups, regional exchanges, frameworks, and toolkits. Some respondents said there were too many meetings. This varied in part based on country capacity, but respondents in every CT6 nation raised this issue. This may indicate the potential and need to begin to consolidate some aspects of the regional CTI-CFF program itself - for example, reducing the number of CTI-CFF working groups and consolidating responsibilities.

- Key guidance information and tools came out at different times over the course of the program, and in some cases this information reached the field too late to be of maximum use. "Some frameworks and toolkits came out toward the end of the five years, and we were past the point where these things could be practically useful in the work," said Joel Palma, Vice President of Conservation Programs for WWF-Philippines. "Ideally, they would have been preplanned and delivered as we were planning ground implementation." In counterpoint, CTSP staff noted that the regional program was designed from the outset to be participatory. "It would not have been participatory if we had just hired a bunch of experts to develop key guidance tools," said Maurice Knight, CTSP Chief of Party. Key tools were developed in collaboration with country representatives, in an effort to ensure ownership and level the playing field among countries. Tools were also refined based on in-field experiences which were tested once CTSP was underway.
- Some interview respondents spoke about a gap between the way scientists and policy experts talk and think on the one hand and the way that practitioners talk and think on the other. A government leader in Timor-Leste put it this way. "We don't see ourselves as scientists, we see ourselves as practitioners, and it's hard to interact with the scientists sometimes, because they pick apart our science and don't seem to understand the real challenges we face on a practical level," said Fidelino Marques, the CTI focal point for the National Directorate of Fisheries and Aquaculture. Although some of this may be attributed to variances in science capacity from country to country, a range of respondents from all CT6 nations mentioned this issue, and it reflects a phenomenon that characterizes many conservation and development efforts worldwide. USCTI anticipated variations in science capacity and proactively tried to address the issue through the adaptive CTSP support and implementation mechanism, but in retrospect it would have been helpful to have put additional thought into not only allowing flexibility but how staffing, budgeting, and communications might have helped integrate science and practice more smoothly to bridge this specific gap.
- The right people were not always at the table in regional and national meetings. Respondents noted that people who got picked by NCCs to attend regional meetings were not always connected to USCTI-supported activities, and this hampered efforts to establish teams of people in CT6 countries who had all been exposed to the relevant material and could consequently work together effectively to adapt and implement the resource management ideas that were coming out of the regional program. The opposite was felt at the regional level where local participation was not consistent so local to regional learning was not as strong as it might have been. There were numerous practical reasons why this occurred, but the point is for countries to do their best to send the right people to regional meetings because doing so improves integrated planning and implementation back home, and the reflection of local learning in regional scale initiatives.
- Participants in regional meetings often did not systematically or otherwise share information back in their home country. Government representatives who participated in the regional meetings were ostensibly responsible for carrying back messages and information to

relevant government and NGO partners back at home. This did not happen regularly in a structured way, and as a result government and NGO partners were sometimes left out of the loop on the rapidly evolving activities of the regional technical working groups. In general, CT6 governments and NCCs did not plan or budget for structured sharing, and this hampered smooth implementation.

- At the country level, NCCs did not always invite NGO staffers who were key partners in the site-based work to participate in in-country meetings, or invited them with only a few days' notice. This impeded communication within countries and created barriers to effective learning and sharing. Effective feedback between site-based and national activities - i.e., in-country learning - was not optimal. It is worth noting that the early NCC government-only teams are now expanding to including NGOs in many formative discussions, and this is having a beneficial impact on implementation activities and in-country learning and sharing.
- While USCTI supported the formation of learning networks, a lack of formal learning mechanisms meant knowledge capture and transfer was not optimized across the regional initiative. In part, this was because NGOs and governments sometimes did not succeed in building strong relationships; NCCs were not always directly connected to the site work and didn't take maximum advantage of the site work to learn lessons and develop replicable models. Some of the sites and cultures preferred face-to-face and more informal information transfer, and these approaches alone did not lead to wider transfer. In parallel, the regional program did not always examine site and national work to inform regional content, although as the program progressed in-country teams did begin to produce case studies to share at regional meetings. Many national-level products are now rolling out to bolster the knowledge archive.
- It took a long time to establish CTI-CFF-wide communication mechanisms and feedback loops. In any regional program of this magnitude, communications is challenging, especially at start up when no infrastructure is in place. Particularly in the early years, most respondents agree that USCTI could have done a better job at communications in general, and in publishing and disseminating updates and information about the program. This issue has been addressed with the expansion of e-mail lists for news updates and creation of the CTI-CFF website (www.coraltriangleinitiative.org) which serves as a news and events announcement platform and as an information clearing house for the initiative. It is worth noting that staff turnover in countries also made it difficult to keep track of a changing cast of participants. In addition, not all participants were pro-active information seekers and as a result the evolving USCTI communications and knowledge platforms were not always maximally used.
- Provincial and local level governments are crucial actors in the work, but they were not fully integrated into site, national, and regional programs. "The mayors are the front-liners, you have to include them," said Li-Ann de Leon, Executive Director of the League of Municipalities in the Philippines. And yet, "Engaging local and provincial governments depends on knowledge, political will, money, and other resources," said Leban Gisawa, Inshore Fisheries Manager at PNG's National Fisheries Authority. "The links are often broken. This is an ongoing challenge." This issue has been partially addressed at the regional level by the creation of the CTI-CFF Local Government Network that began in 2009. In the CTSP-supported national governors meeting in PNG in November 2013, the LGN was a prominent topic with the Governor of Milne Bay agreeing to host the next PNG coastal governors meeting and expressing interest in linking this to the CTI-CFF LGN. As the LGN

evolves through annual meetings and a more segmented and structure communications program, a fuller spectrum of local officials connected to integration field sites can be engaged. In addition, national governments are increasingly bringing provincial and district leaders into the work of planning and implementing programs around their respective NPOAs.

- A rushed start-up, delays in establishing the Regional Program Office, and complex budgeting and funding processes slowed down program implementation. As noted above, USCTI and its component implementing organizations also were formed before the CTI-CFF was declared, before there was a Regional Plan of Action and National Plans of Action, and before there were CTI-CFF National Coordinating Committees.

The U.S. Congress understandably requires results from its investments, and consequently USAID required that USCTI show results in the first year. However, given that USCTI was designed and launched before CTI-CFF was ratified and before basic structures such as a regional coordinating mechanism for the countries, regional technical working groups and National Coordinating Committees were in place, it is reasonable to expect that on-the-ground implementation would not fully begin until the CT6 had in place these critical components.

It is notable that the CTSP NGO consortium underestimated how much work would be involved in managing CTSP programs, each of which was customized based on each country's priorities, capacity needs, and starting points. It took 20 months to get the Regional Program Office established, adequately staffed, and functioning smoothly, and as a result program implementation was uneven in the early days. It also took some time for news of the international NGOs' headquarters commitments to participate in USCTI to reach the ground across the region, so some local NGO teams were not prepared to quickly implement program activities. Interview respondents noted, too, that as implementation progressed, securing work plans from project teams, budget approval from USAID and internal budget approval by each NGO took time and sometimes resulted in a delay of transfer of funds to the field. Funding levels varied considerably from year to year making planning and staffing difficult. Many interview respondents mentioned that USAID's goal posts shifted from year to year until the USCTI Endgame Strategy came out in CTSP Year 3, and this made it difficult to settle into a productive groove on the ground.

Lessons Learned

The experiences that participants had with USCTI are numerous and varied, and they are fertile ground for an exploration of lessons. What follows is a summary of lessons learned, from multiple perspectives and for a variety of target audiences.

General Lessons

- Regional-scale management is necessary when it comes to marine and coastal resources. Marine resources extend beyond national boundaries, and threats in any one nation's waters can have an impact on the waters, coastlines, and resources of neighboring countries.
- Agreements across borders are key components of enforcement solutions. Many people across the CT6 talked about the need to increase commitments to enforcement, and they noted that agreements across local, provincial, and national boundaries are key components of lasting solutions to enforcement issues. The mayor of Lubang in the Philippines said it best. "If you can't enforce the program, you can't win," said Mayor Juan Sanchez. Enforcement is not a popular issue for new programs to tackle because of the legal

complexities, but Mayor Sanchez's point is that without enforcement, you might as well stay home.

- Regional meetings and working groups are useful mechanisms for establishing and maintaining national momentum in countries and for establishing linkages between countries. They also keep busy leaders engaged and interested. "There are real benefits in the regional dialogues," said Scott Atkinson, Technical Advisor for CI on CTI-CFF. "People get exposure to tools and models, they get to share progress, and they get to experience a healthy sense of competition along with partnership."
- Communications platforms and channels are critical for a program of this nature, and work must occur on the front end of program implementation to put a communications program in place that ensures smooth transfer of information among regional, national, and site teams. This includes two-way channels so that field staff can communicate with national and regional teams regarding challenges, lessons, and successes. It may be helpful to provide participating governments with models and suggestions for effective communications design because they hold primary responsibility for program communications within their nations.
- Plan and execute crisp communications strategies from the outset so messaging and branding are consistent, clear, and simple. Doing so will save time and energy later on and will set the stage for more efficient implementation by reducing confusion about roles, responsibilities, and objectives.
- Learning mechanisms are essential, at many levels and scales, because learning processes can help program participants improve their practice and increase their results more quickly. They also support relationship building that will strengthen the sustainability of local, national, and regional conservation efforts.

Lessons for Donors

- Regional cooperation, transnational agreements, and regional-scale management strategies are required to steward biodiversity and ensure food security, and interview respondents suggested that specific regional-scale support is necessary in order for such cooperation, agreements, and management strategies to develop and become operational. This support should be targeted at local, national, and regional levels, and all work should be intentionally linked.
- Donors should consider conceptualizing an investment like this in phases to encourage governments and NGOs to put more time into planning program activities at the outset. Pressure to get results in the first year of USCTI led to NGOs rolling out some programs that were not ultimately in line with long-term CTI-CFF objectives. The drive for results and return on investment is reasonable, but a more nuanced, step-wise approach might yield even bigger results in the longer term. The CTSP Chief of Party suggested that one approach would be to stage the work in phases and link funding and appropriate results to each phase. Phases might include: year 1 - set mutual goals, plan programs; year 2 - begin implementation; years 3 and 4 - expand and accelerate; and year 5 - institutionalize programs and transition to local partners.
- Well-designed community engagement processes take time to implement but are worth the effort. Many CTSP community engagement processes took more than 18 months, which is a

long time in “donor time,” in which donors reasonably want early return on investment. However, these communities are now in solid position to implement their resource management plans for the long haul. For example, the community engagement processes in NKS in Timor-Leste and in Nusa Penida, Indonesia — to name a few — took more than 18 months, but the result is that communities and government staff are collaborating effectively to jointly manage resources. In any program that relies on community participation, donors should consider adjusting expectations for what can be achieved on the front end of the investment window.

- To get the best possible performance out of your grantees, have clear expectations and consistent requirements from the beginning. This is not always possible in a situation like CTI-CFF where the ship had to be built while sailing, but it helps to have firm results frameworks (or logframes, results chains, etc.), overall expected outcomes, and, to the extent possible, a list of expected deliverables and funding that remain consistent from year to year.
- Cultivate enabling environments for NGO staff and government staffers who want to implement new ideas and best practices. Capacity building is more complicated than it first appears. “Donors sometimes assume that government people aren’t capable, they need training, when in fact that isn’t always true,” said Darmawan of Indonesia. “A lot of government people have degrees, overseas experience. The problem is they aren’t operating in a system that makes it possible to implement what they know.” The key is to direct and intentionally contribute to enabling environments, particularly for government people who want to implement new ideas and best practices.
- The capacity of NGO staff matters as much as government staff capacity, because NGOs are crucial players in carrying out conservation work, and many NGO personnel are local people who will stay in the field inside their countries for the duration of their careers. Therefore, funding capacity building in local NGO ground staff is a valid investment and output. Both donors and NGOs should bear this in mind.
- Donors can effectively support NCCs and in-country communications by providing seed funding so governments can hire additional staff to get NCC work off the ground. According to interview respondents, funding for NCC staff support yielded positive results in every instance. In many cases, CT6 governments saw the tangible benefits, were able to maintain their domestic agency workload while investing in CTI-CFF activities, and have budgeted funding to sustain these positions going forward.

Lessons for Governments

- Governments have to lead and own the work. “In the end, conservation has to be led by government, it’s the only way for it to be sustainable,” said Agnetha Vave-Karamui of Solomon Islands. This means that CT6 governments must actively work toward increasing national budget allocations to CTI-CFF efforts that result in sufficient staffing and support for activities, rather than depending too heavily on donor funding for sustainability of programs.
- Communities are key actors in conservation efforts, and governments should factor community engagement in to marine and coastal resources management processes.

“Without support from the communities, we can’t ask them to carry out new scientific ideas for conservation,” said Augustine Binson, Park Officer at Sabah Parks and Staff for the Interim Steering Committee for the proposed TMP in Malaysia. “They have to understand the ideas and agree in order for effective management to happen.” Therefore, governments must develop processes and skills for engaging communities in conservation, and they must allocate funding to make these activities possible.

- All in-country program actors should be linked into a coherent conversation. NGOs should be included in NCCs, as should any entity that has responsibility for implementing activities under the NPOA. As is now happening in PNG, the NCC is reaching out to all coastal governors to engage them directly in implementing the NPOA. This approach to including local and provincial governments as extensions of the NCC would produce increased results. In addition, NCCs, site teams, and local and provincial governments would benefit from having regular conversations about what is happening in sites — including challenges, opportunities, and lessons learned. Interview respondents agreed that governments should take the lead in calling meetings and requesting reports and presentations from NGO and government field staff and community members. NGOs should share in the responsibility by being proactive and responding when engaged by government partners. Much of this can be improved as the NCCs, which are a new type of unit in most governments, take root and evolve.
- The representatives who attend regional meetings are lynchpin actors in a program of this nature, and careful thought must go into selecting who attends and ensuring that they report back to in-country partners on an ongoing basis. Government officials selected to participate in regional meetings and work groups should be directly connected to the work of planning and implementing the NPOA and have a clear understanding of their responsibility to carry back decisions and information to partners in their respective countries. As key implementation partners, in-country NGO staff should also be included in regional gatherings when resources and balancing a finite number of slots allow. In USCTI, in-country NGO staffers often served as extensions of government and in many cases were stable champions and catalysts of change at all levels, and yet they were consistently not included in regional events due to various restrictions. In the event that funding for this regional participation is not available, effective communication efforts should be designed to fill in the gaps.
- Governments should translate materials from regional meetings into national languages to ensure widespread uptake at home and to institutionalize the nation’s commitment to the ideas and approaches of the regional program. This again reflects the need for national governments to ensure sufficient national budget funding to maximize CTI-CFF efforts.

Lessons for Governments and NGOs

- Governments and NGOs can and must work together to achieve conservation goals.
- NCCs and NGOs should design national programs such that local and provincial governments are included, bought in, and ready to support the work in a sustained way. Local and provincial government development plans often determine budget allocations for community-level work, and marine and coastal resource management plans must be integrated into these government plans to get sustained funding. If provincial and local governments are not at the table, they are less likely to integrate conservation activities into their budgets. “The first step is to establish a link between the provincial government and

the NGOs,” said Francis Takatoha, Environment Officer for Western Province in Solomon Islands. “Without this, there is suspicion and lack of understanding.”

- Governments and NGOs should design an efficient community engagement process and avoid asking communities to repeat engagement activities they have already done. This has to be balanced with allowing for the fact that people involved come and go, and thus repeating some things is necessary to keep everyone up to speed and working at the same level. The key here is that community engagement is a skilled endeavor, and facilitators need to be able to be consultative and inclusive while also moving the engagement process forward efficiently. Regional or national scale tools will always need to be adapted to the local context and should be designed with this in mind.
- Consider including local resource managers, such as forestry and fisheries personnel, in community engagement and training activities from the beginning. Under USCTI, when government staff participated in the research and resource management planning process with communities, they built relationships with community members, and the resulting joint management arrangements were strong and more likely to sustain into the future.
- Community social capital is finite. NGOs and governments use it up when they ask communities to test complicated toolkits and do not provide a tangible benefit as part of the deal. If NGOs and government ask communities to test toolkits, they should consider allocating some resources so communities can implement some of the activities the toolkit process asks them to design.
- Behavior is very hard to change, but explaining the science and having community members participate in data gathering can help bring it about.
- Alternative livelihood projects are important incentives to community members to change behavior, and these projects must include a realistic assessment of the market, the development of basic business skills, and iterative skill training over time.

Lessons for NGO Consortiums

- NGOs must establish streamlined and reliable mechanisms for working and reporting in consortiums because donors may want to see more of them in the future. “NGOs need to learn to deal with these consortium set-ups, because donors are increasingly wanting to give bigger chunks of money to NGOs, and individually we don’t have the absorptive capacity,” said Candice Mohan, Country Director for CI and formerly with the Australian government.
- Hire and empower staff to manage and make decisions for the regional program from the beginning. Decide what the program is to achieve (through logframes or results chains), hire a project leader, and give this person the resources and authority to get the work done, including resources to hire specialists in finance, communications, and monitoring and evaluation. Set up a nimble and responsive advisory council so the project leader can benefit from “group think” but not be encumbered by it.
- Immediately communicate intentions and plans to NGO national and field staff, regardless of how complex your organizational structure is.
- Have intentional conversations about ways to work in partnership to achieve outcomes that are more than the sum of the parts. Build demonstrations and trials into program design

specifically to test efforts against expectations and allow and expect adjustments and iterative development of components.

Lessons for Regional Program Designers

- Be mindful that participants can get regional meeting fatigue and be judicious with regional meetings. CI's Scott Atkinson said it best. "Having people — experts and practitioners — getting together across countries, you can make progress so much faster," he said. "But it's a balancing act. They need to get together just enough to learn and share and get motivated." Don't forget they have full time jobs at home that include other programs and responsibilities.
- Shift the content and style of regional meetings over time as participants gain knowledge and capacity and as the needs of participating countries evolve. USCTI demonstrated that in regional meetings and interactions — which brought together people from different nations, cultures, and areas of expertise — regional facilitators made an appropriate decision to spend the first few years providing information, catalyzing discussions, and forging a common agenda around a variety of resource management strategies in MPAs, EAFM, and CCA. Interview respondents valued these efforts, and now they are ready to play a larger role in setting the agenda and leading dialogues about cases, approaches, challenges, and lessons. Respondents proposed that regional meetings going forward include more structured opportunities for countries to share information on such practitioners' topics as community engagement, co-management, EAFM approaches that work, methods for engaging provincial and local governments, capacity building and alternative livelihoods.
- It is helpful to lead with one idea and a related set of activities that will be easy for all countries to understand and work on when a program includes a complex set of interrelated resource management approaches. In USCTI, MPAs were a good fit for many countries because they were already creating them or something similar. Newer ideas such as EAFM and CCA were harder to get across, so it made sense to introduce these ideas after countries had made progress on the MPA work. This led to effective program evolution as capacity, relationships, and knowledge strengthened.
- Participants at regional meetings need reliable third-party interpreters and multi-lingual materials so they can fully participate. Relying on peer participants for language interpretation undermines participation capacity of everyone involved. USCTI provided third-party interpreters in most but not all instances. While this should be assessed on a case-by-case basis, anticipating this need will enhance regional program effectiveness.

The Way Forward

Interview respondents had a set of core recommendations for next steps.

- Ratify the Permanent Regional Secretariat.
Of paramount importance going forward is setting up a functioning CTI-CFF governance structure that can make decisions, receive and dispense funding, and oversee regional programs and activities. USAID has committed to providing bridge funding to support building capacity in the Permanent Regional Secretariat and is in the process of developing the next series of 5-year strategies for assistance. The Government of Australia is providing significant funding in the coming years, along with expected funds from the German

Development Agency (GIZ) which just completed an assessment of opportunities for new support to the CTI-CFF. However, the effectiveness of foreign assistance and the commitment of national budgets to further CTI-CFF actions is dependent on ratification of the Permanent Regional Secretariat, and this can only proceed if four of the CT6 nations ratify and fund the permanent legal body. So far, only Malaysia has ratified the CTI-CFF. “In 2009 there was the wedding reception,” said Hendra Yusran Siry, Secretary for Coordination and External Affairs for the Interim Regional Secretariat. “Now, it is about keeping the marriage together.” Ratification is critical to this objective.

- Continue to have regional meetings.
Most people interviewed agreed that they get tangible benefits from regional activities and that these gatherings are critical to maintaining CT6 momentum and sustaining cooperation. Respondents were clear that they would like regional gatherings going forward to increasingly focus on problem solving and sharing what countries are doing and learning now that the scientific foundations and guiding frameworks are in place.
- Continue to move toward an integrated ecosystem-based approach to marine and coastal resources management.
In terms of the science and the “how to” of marine and coastal resources management, interview respondents suggested that an important step is for CTI-CFF organizations to follow the lead of the USCTI Integrated Toolkit and, over time, move toward integrating technical working group themes and tasks for CTI-CFF. They suggested that this consolidation over time could lead to more effective integration of regional, national, provincial, and local programs.
- Expand communications platforms and learning mechanisms.
Most people interviewed agree that creating multiple and segmented communications linkages are crucial for the future of the CTI-CFF work, and they suggested that the CTI-CFF website, which is an excellent resource, could be augmented by additional channels within and between countries and sites. It would be helpful, too, to promote the use of CTI-CFF tools among all practitioners in the CT6 using innovative approaches such as mass online open courses in which people could enroll and progress at their own rate. Another useful suggestion is for CTI-CFF participants to do an asset map of talent across the initiative, including government, NGOs, and communities, and create a “guide to experts,” so participants know whom to contact for particular skills and expertise. This need has been recognized, and a guide to experts based on NGO, USCTI, and NCC inputs may be launched. Country teams can enrich it by adding experts and disseminating the guide.

Many participants also think it is time to systematically explore site activities to inform national and regional planning and action, and they would like to document effective models and sharing this information across the network. NCCs in particular should study site work for lessons, models, and best practices and use this knowledge to inform national replication and expansion of interventions to achieve their NPOA objectives. In addition, respondents suggested that CT6 governments and donors continue to support and explore new and existing learning mechanisms, include the CTI MPA Learning Network website for MPA managers (pending publication) and the PNG Learning and Training Network (LTN). They recommend monitoring use and impact of these tools and adapting them to other topics and contexts.

- Continue to implement NPOAs.
It is vital that NCCs continue their work to implement their NPOAs. This work includes supporting and collaborating with CTI-CFF champions, including community members and NGO partners, to scale up replicable models created under the USAID investment, and to ensure that national and sub-national planning and budgeting aligns with the needs of NPOAs. Particularly important is the need for NCCs to begin empowering and pushing down awareness of and responsibilities for implementing NPOAs to provincial and district governments.
- Continue to institutionalize and find sustainable financing for NPOA activities.
For sustainability, many NCCs intend to embed priority NPOA activities into the work plans and budgets of the relevant implementing agencies. They are also considering ways to encourage and incentivize provinces and local governments to incorporate NPOA activities into their development plans and budgets. NCCs are exploring a variety of sustainable financing schemes, as well, and are successfully leveraging their NPOAs to attract bilateral and multi-lateral donors. The CT6 countries will also continue to leverage the USAID investment as they pursue public-private partnerships to support their work. Donors can support this work by providing expertise in sustainable financing mechanisms, including conservation trusts.
- Continue to improve the quality and quantity of data, and use it to inform decision-making.
Going forward, the CT6 will continue to refine and expand national and regional efforts to gather, share, and use data to improve resource management decisions. Some CT6 nations such as the Philippines have begun to link university researchers with local governments so that research projects yield data that resource managers can use to make better decisions. Other nations such as Malaysia and Indonesia are designing interactive databases that resource managers can use to get the data they need. Still others are experimenting with innovative data gathering and analysis tools, such as the Solomon Islands' work on Hapi Fis, the mobile phone application and analytics platform for inshore fisheries management. These national efforts parallel and link to the Monitoring and Evaluation System and to the CT Atlas database. The *State of the Coral Triangle* Reports and the Monitoring and Evaluation System are helping to establish standards by which baselines can be set and against which progress can be measured.
- Establish national capacity building strategies and expand the use of capacity building modules.
CT6 governments also plan to consider crafting systematic capacity building strategies for marine and coastal biodiversity management. This includes integrating relevant capacity building modules in government training institutions and linking them to competency-based promotions, as MMAF has done with MPA training in Indonesia. Additional work should be done to measure impact and verify that ecosystems are actually healthier as a result of using new curricula, given the different conditions in which newly trained managers operate.
- Expand regional transboundary activities, particularly in the area of IUU.
Looking regionally, the CT6 nations are becoming more comfortable addressing transboundary issues and will continue to work together to define issues and activities that are more easily addressed by the nations together rather than by nations individually. For illegal, unreported, and unregulated fishing (IUU), NOAA will continue its work to engage the CT6 on coordinated state port measures. Regarding regional conservation priorities, Indonesia, Malaysia, and the Philippines will continue activities begun under the tri-national

Sulu Sulawesi Marine Ecoregion (SSME) to collaborate on a regional network of MPAs in sea turtle corridors. This work involves developing a participatory protocol for monitoring, control, and surveillance to stop IUU fishing. Another conservation priority is to move ahead with WWF-supported efforts to engage Hong Kong on the US\$1 billion per year LRFFT.

Conclusion

In conclusion, the USAID investment contributed to the achievement of important results in the Coral Triangle as well as valuable lessons and knowledge for the global conservation community. Among the most significant insights from the investment is that regional cooperation, transnational agreements, and regional-scale management strategies are required to steward marine biodiversity and ensure food security in the Coral Triangle and in the world. While progress has been relatively fast under CTI-CFF, it is important to recognize the complexity of establishing and strengthening a regional ocean governance regime like the CTI-CFF and the time that it will take to be effective. However, while still somewhat fragile, CTI-CFF demonstrates that regional ocean governance can be sustainably achieved and that external donors can play a catalytic role in supporting this work, especially at the outset.

The experiences of participants in USCTI-supported activities also suggest that — from the beginning and for the long haul — governments must lead and own the work. Any new resource management paradigms and associated frameworks and tools developed by countries working together at the regional level must be institutionalized in government agencies and partner organizations in each country, and the CT6 are taking steps in this direction. Each nation also has to lead on developing sustainable financing mechanisms to provide ongoing support for conservation efforts, and donors can support them by providing expertise in sustainable financing mechanisms.

The work carried out under USCTI demonstrates as well that governments and NGOs can and must collaborate to achieve regional and national conservation goals. Among other things, NGOs can provide crucial support to governments by providing scientific and technical expertise, and both community engagement and capacity building but also expertise in the development of national policy. Recognizing the potential of NGO contributions for communities is vital because communities are key actors in conservation efforts, and governments must factor community engagement in to resource management processes in order to achieve sustainable impact. As governments already know, many coastal communities are under tremendous pressure to meet the food and income needs of families, but the USCTI experience shows that even so, communities can and will change the way they use and manage their resources if they receive high-quality science information combined with viable alternative livelihood opportunities. However, recognizing the potential of NGOs to contribute to national policy is also just as vital and completes the learning process from community to national to regional action.

The tangible achievements of USCTI support are many and include more than 19.8 million hectares of marine and coastal resources under improved management; more than 100 new policies, laws, and agreements proposed or adopted; over 10,000 people trained; frameworks and tools for MPAs, EAFM, and CCA created and approved; the CTI-CFF Monitoring and Evaluation System finalized; and the CT Atlas database launched and populated. In addition, USCTI partners and other donors have collaborated to create important strategic research reports, frameworks, toolkits, and manuals to guide effective marine and coastal resource management across the Coral Triangle region. The USAID investment has also helped support the creation of replicable models to improve marine and coastal resource management in every

CT6 nation and has enabled the institutionalization of a regional ocean governance regime in the most valuable and productive ocean space in the world.

As discussed earlier in this report, USCTI has contributed to significant qualitative impacts as well. The USAID investment and CTI-CFF overall have increased global visibility of the Coral Triangle as an important marine eco-region, and the investment and the regional initiative in total have fostered a sense of pride, shared identity, and joint destiny among the CT6 countries. In addition, USCTI has contributed with others to changing the marine and coastal resources management paradigm across the region, for everyone from government leaders to local fishermen. “Many fishermen have changed the way they perceive their resources, from purely extractive to something to manage, like money in the bank, in which you harvest the interest,” said Antonio da Fonseca of Tutuala in Timor-Leste.

Across the Coral Triangle, the USCTI program contributed to governments increasing their use of data in resource management decision-making and to increasing all stakeholders’ understanding of “the why” and “the how” of including communities in conservation efforts. The program also helped build national and regional capacity, made a tangible impact in some coastal communities, and helped establish the building blocks for future success in achieving the CTI-CFF’s overall goal, which is ensuring food security for people in the Coral Triangle.

Importantly, USCTI has helped connect government personnel to their peers across the region; contributed to generating knowledge and tools to support a common, ecosystem-based resource management regime across the Coral Triangle; and helped establish an enduring regional and coordinating infrastructure. In sum, the USAID investment has contributed to laying the foundation for regional approaches to ocean governance in one of the most biologically important marine areas in the world.

USCTI was able to contribute to these far-reaching impacts despite the inevitable hiccups that occurred at the outset. “Three NGOs, five USAID Missions, NOAA, the Program Integrator, plus others, all working together — There were birthing pains, but it was acceptable, given the newness and the goals,” said Luz Baskinas, Vice President for Project Development at WWF-Philippines.

Perhaps most significantly, USCTI has helped support the development of numerous champions for CTI-CFF at the national, provincial, and local levels, and these champions have a clear vision for how to carry the work into the future. “We need to collaborate with all shareholders to work together to enlarge our vision of expanding marine protection not just in NKS National Park but in all districts,” said Rafael Gonçalves, Secretary of State Fisheries and Aquaculture in Timor-Leste.

For many CT6 leaders, the way forward is clear. A leader in the Philippines said it well. “We must push ahead to protect our fisheries and our future,” said Jake Meimban, Director of the Department of Environment and Natural Resources Coastal and Marine Management Office in Philippines. “Healthy coral reefs and coastal areas are essential. If we work together, we can achieve this.”

For more information about the Coral Triangle Initiative or to access any of the hundreds of research reports, frameworks, toolkits, and manuals produced by USCTI with USAID funding, please visit www.coraltriangleinitiative.org

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	<i>Ben Gonzales</i>	<i>Coastal & Marine Resources Specialist</i>
	<i>Jean Jontila</i>	<i>Instructor, Fisheries and Marine Biology</i>
<i>World Wildlife Fund–Philippines:</i>	<i>Rene Jay de la Calzada</i>	<i>Manager for Coral Triangle Support Partnership</i>
	<i>Maria Victoria Matillano</i>	<i>Program Coordinator for Live Reef Fish Trade</i>
	<i>Chrisma Salao</i>	<i>Project Manager</i>
Verde Island Passage		
<i>Ang Pulo Community:</i>	<i>Bernadette Balajadia</i>	<i>Guide</i>
	<i>Lucena Duman</i>	<i>Vice-Chairman, Palitakan</i>
	<i>Ruth Helen Ricasa</i>	<i>Treasurer, Palitakan</i>
<i>Balibago Community:</i>	<i>Virgilio Enriquez</i>	<i>President, Calatagan Mangrove Development Authority</i>
<i>Batangas Provincial Government:</i>	<i>Loreta Sollestre</i>	<i>Senior Environmental Management Specialist, Environment and Natural Resources Office</i>
<i>Batangas State University:</i>	<i>Romel Briones</i>	<i>Faculty</i>
	<i>Nora Lumbea-Magnaye</i>	<i>President</i>
	<i>Amor Magtibay</i>	<i>Faculty</i>
<i>Calatagan Municipality:</i>	<i>Mien Custodio</i>	<i>Municipal Agricultural Officer</i>
	<i>Sophia Palacio</i>	<i>Mayor</i>
<i>Conservation International:</i>	<i>Melon Dizon</i>	<i>Outreach Coordinator</i>
	<i>Rollan Geronimo</i>	<i>Coral Triangle Initiative Program Coordinator</i>
	<i>Vangie Miclat</i>	<i>Project Manager</i>
<i>Conserve and Protects Oceans Foundation:</i>	<i>Jessie de los Reyes</i>	<i>Project Coordinator</i>
<i>Lubang Island:</i>	<i>Joey Ambrosio</i>	<i>Bantai Dagat, Municipal Council Member, Looc</i>
	<i>Louella de Lara</i>	<i>Looc Municipal Planning and Development Coordinator</i>
	<i>Ray Morales</i>	<i>Lubang Municipal Planning and Development Coordinator</i>
	<i>Col. Juan Sanchez</i>	<i>Mayor, Lubang Municipality</i>
	<i>Nestor Tria</i>	<i>Mayor, Looc Municipality</i>
<i>Zobel Foundation:</i>	<i>Joselito Enriquez</i>	<i>Executive Director</i>
SOLOMON ISLANDS		
<i>Ministry of Environment:</i>	<i>Joseph Hurutharau</i>	<i>Conservation Officer</i>

	<i>Bianca Priest</i>	<i>Marine Program Officer</i>
	<i>Agnetha Vave-Karamui</i>	<i>Chief Conservation Officer</i>
	<i>Lysa Wini</i>	<i>Coral Triangle Initiative National Liaison Officer</i>
<i>Ministry of Fisheries and Marine Resources:</i>	<i>Ben Buga</i>	<i>Chief Fisheries Officer, Marketing</i>
	<i>Patrick Ketete</i>	<i>Surveyor</i>
	<i>Shawn Konaga</i>	<i>Surveyor</i>
	<i>Kevin Rhodes</i>	<i>University of Hawaii, Consultant</i>
<i>Western Province Government:</i>	<i>Francis Takatoha</i>	<i>Environment Officer</i>
<i>World Wildlife Fund-Solomon Islands:</i>	<i>Troy Apusae</i>	<i>Community Awareness Assistant</i>
	<i>Tingo Leve</i>	<i>Marine Assistant</i>
	<i>Shannon Seeto</i>	<i>Marine Programme Manager</i>
	<i>Salome Topo</i>	<i>Sustainable Livelihood Officer</i>
WorldFish	<i>Zelda Hilly</i>	<i>Research Analyst</i>
	<i>Anne-Maree Schwarz</i>	<i>Scientist, Natural Resources Management</i>
<i>Ghizo Island Communities:</i>	<i>Tastre Ataria</i>	<i>Chairman, Ghizo Environmental Livelihood Conservation Association (GELCA)</i>
	<i>Jeffery Kalamana</i>	<i>Member, GELCA</i>
	<i>Danny Kennedy</i>	<i>Owner, Dive Ghizo</i>
	<i>Nuatali Veniyy</i>	<i>Vice-Chairman, GELCA</i>
TIMOR-LESTE		
<i>Conservation International:</i>	<i>Candice Mohan</i>	<i>Country Director</i>
	<i>Rui Pinto</i>	<i>Coral Triangle Support Partnership Project Coordinator</i>
<i>National Directorate of Fisheries and Aquaculture:</i>	<i>Henry Barreto</i>	<i>Researcher</i>
	<i>Junior Carvalho</i>	<i>Researcher</i>
	<i>Augusto Fernandes</i>	<i>National Director for Fisheries</i>
	<i>Rafael Gonçalves</i>	<i>Secretary of State for Fisheries</i>
	<i>Lino Marins</i>	<i>Fisheries Database Management</i>
	<i>Fidelino Marques</i>	<i>National Coordinating Committee</i>
	<i>Fernando da Silva</i>	<i>Department Head, Fisheries Management & Aquatic Research</i>
	<i>Bendito Trindare</i>	<i>Database & Statistics</i>
	<i>Nelio Arnaldo Viegas</i>	<i>Coral Triangle Support Partnership Focal Point</i>
	<i>Caetano Ximimis</i>	<i>Statistics</i>
	<i>Iligito Ximenes</i>	<i>District Fisheries Officer</i>
<i>Nino Konis Santana National Park:</i>	<i>Pedro Pinto</i>	<i>Nino Konis Santana Park Manager</i>
	<i>Edmundo da Cruz</i>	<i>Port Officer for Fisheries, Com</i>
<i>Nino Konis Santana National Park Communities:</i>	<i>Tito da Costa</i>	<i>Fisherman, Tutuala</i>
	<i>Adriano da Costa</i>	<i>Fisherman, Tutuala</i>
	<i>Leonardo da Costa</i>	<i>Fisherman, Com</i>
	<i>Nicalau Dias</i>	<i>Fisherman, Lore</i>
	<i>Antonio da Fonseca</i>	<i>Town Chief, Tutuala</i>
	<i>Joao Martins</i>	<i>Fisherman, Lore</i>
	<i>Robella Mendes</i>	<i>Guesthouse Owner, Com</i>

	<i>Mateus Fernandes Sequeira</i>	<i>Town Chief, Lore</i>
<i>Ministry of Tourism:</i>	<i>Maria Isabel de Jesus Ximenes</i>	<i>Secretary of State for Art & Culture</i>

About the Author

Tory Read is a multimedia storyteller and narrative evaluator with 20 years’ experience documenting conservation and social change projects and helping people reflect on their social impact work. Her signature approach to storytelling and evaluation grew out of her Master’s thesis, in which she integrated social science research methods with documentary storytelling practice to bring social change knowledge to life for policymakers and practitioners. Her diverse projects include an evaluation of a pilot project to catalyze growth of Wikipedia in India; stories and lessons from a 10-year investment in community-based conservation in the Pacific Islands; and stories and lessons from a 9-year investment in education reform in the United States. Her clients include USAID, United Nations Development Programme, The David and Lucile Packard Foundation, The Annie E. Casey Foundation, Wikimedia Foundation, FSG Social Impact Advisors, and many others. Read earned her M.A. in Journalism from the University of Missouri-School of Journalism and her B.A. with honors in Comparative Literature from Stanford University. See more of her work at www.toryread.com.

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