



Fish Wardens Protect Marine Resources

Deputized Fish Wardens help protect vulnerable marine resources from illegal fishing

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Fish Wardens, locally known as *Bantay Dagat*, apprehend two illegal fishers off Sitangkai Municipal Waters in one of their patrolling operations.

Photo: WWF-Phil / Annabelle D. Jamaluddin

"Due to our regular patrolling operations, illegal fishing activities are now decreasing."

 Annao J. Imbran, Fish Warden, Tongmageng, Sitangkai, Tawi-Tawi, Philippines Tawi-Tawi Province is at the southernmost tip of the Philippines, closer to Sabah, Malaysia, than Manila, the capital of the Philippines. Endowed with rich marine biodiversity, its people are coastal dwellers who depend on coastal and marine resources for food and livelihoods. However, illegal fishing activities, such as dynamite

fishing, are threatening local livelihoods, rapidly depleting fishing stocks, and damaging the coral reefs.

As a result of a training held in June 2012, twenty-eight new fish wardens were deputized and provided with fishery law enforcers' identification cards after learning how to protect marine resources in the municipalities of Sitangkai and Languyan,in Tawi-Tawi Province.. The Bureau of Fisheries and Aquatic Resources in the Autonomous Region in Muslim Mindanao (BFAR-ARMM) conducted the training with support from USAID's Coral Triangle Support Partnership (CTSP).

Since being deputized, the fish wardens of Sitangkai have been conducting regular patrolling activities on their municipal waters, particularly in areas around their established Marine Protected Area (MPA). Mr. Annao Imbran, a fish warden, relates that in the beginning of

their patrol activities, many illegal fishers encroaching on their waters were given warnings. The wardens also conducted intensive information dissemination on the importance of protecting the marine environment that supports the people in the municipality. He added that due to the regular patrolling activities the fish wardens are conducting four times in a month, dynamite fishers and other illegal fishing activities are now decreasing.

A recent fish visual census and fisheries assessment conducted by the Tawi-Tawi Marine Research and Development Foundation, Inc. (TMRDFI) in Sitangkai's MPA indicate an increase in species composition of fish in the area with healthy coral reef habitat. This is a good sign that the fish wardens are succeeding in protecting their coastal and marine resources, ensuring food security and livelihood of their coastal communities.

Inspired by these results, the municipal government of Sitangkai provided three patrol boat engines that can be used by the fish wardens in their patrolling activities. Likewise, five other local governments (Tongmageng, Tongusong, North Larap, South Larap and Datu Putih) have allocated budget support to provide fuel for the patrol boats. "We will work together to find ways to sustain this initiative for the benefit of the people in Sitangkai," says Richard Lahaman, Municipal Planning and Development Coordinator (MPDC). WWF Philippines is an implementing partner of CTSP and the US CTI Support Program.







Applied Research Supports Palawan MPAs

University scientists work with Taytay government on marine management in Philippines



Jean Beth Juntila, Lota Creencia and Ben Gonzales, marine scientists from Western Philippines University, are experimenting with abalone aquaculture as an alternative livelihood for fishermen.

Photo: Tory Read / USAID CTSP

"The local government has approved the plan, so it's now an institutionalized rather than an individual effort. In many cases in the Philippines, we establish MPAs, but that's it, they are parks on paper only. That's no longer true in Taytay."

 Jean Beth Juntila, instructor, Western Philippines University Universities throughout the Philippines are being encouraged through USAID's Coral Triangle Support Project (CTSP) to respond to the needs of local government by focusing on research that municipal and provincial officials can use to make informed marine conservation decisions. At Western Philippines University's College of Fisheries and Maritime Technology in Puerto Princesa, Palawan, Dean Lota Creencia leads a

group of motivated scientists to focus their efforts on community-level needs. Lota traveled to the United States for a Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) course on leadership and the ecosystem approach to fisheries management. She returned with a solid understanding of the importance of partnerships at all levels, of making conservation relevant to locals and of gaining community support for enforcement and protection of reefs and spawning aggregation sites. Her team's work includes assessing the status of marine and coastal resources, training fishermen on the full-cycle approach to fish culture, conducting ongoing community-based monitoring and advising municipal governments.

Jean Beth Jontila, an instructor in fisheries and marine biodiversity at the university, is working with CTSP partner

WWF on an integrated management plan for the MPAs around Taytay municipality, which is the center of the live reef fish business in the Philippines. After she attended a CTSP-funded climate change adaptation training in 2012, Jean and her students conducted vulnerability assessments and collected baseline marine data for several coastal communities, with support from the provincial government's Palawan Council on Sustainable Development. "The impact of CTSP is that we now have integrated management of coastal resources and can streamline our efforts to support this," said Jean.

Ben Gonzales, coastal and marine resources specialist at the university, has been doing research with WWF support for several years. His work focuses on "catch per unit effort" (time spent to catch a given quantity of fish) in Taytay and neighboring Araceli and Dumaran; assessment of coral cover and fish species and biomass; checking species size and numbers, and monitoring and evaluation of the actual and proposed MPAs in the three municipalities. His work is helping scientifically establish the basis for a network of MPAs here and throughout Palawan. "Before CTSP, integrated research is what I wanted to do, but I did not have the means," said Ben. "Now we can take a holistic approach, correlating results about crab and fish with governance and livelihood projects like abalone aquaculture because it's all in one package." University involvement with municipalities to enhance marine preservation in Palawan is becoming the norm. The people and the environment are the beneficiaries. WWF is a partner in CTSP and the US CTI Support Program in the Philippines.





We're In This Together

Lubang and Looc municipalities in Philippines cooperate for conservation

Looc Mayor Nestor Tria and Lubang Mayor Ret. Col. Juan Sanchez have worked together to overcome differences between their municipalities and create joint MPAs and managed fishery areas.

Photo: USAID CTSP / Tory Read

"CI assistance helped to defuse issues that were becoming personal and confrontational," said Sanchez. "When income and livelihood are discussed, you cannot avoid people becoming emotional."

 Col. Juan Sanchez, mayor of Lubang municipality Lubang Island, located in Occidental Mindoro province, Philippines, is bisected by the boundary between the municipalities of Lubang and Looc. These communities share the same ecosystem, on land and in the sea. Under the guiding hands of their proactive mayors—and with support from USAID's Coral Triangle Support Partnership (CTSP) partner Conservation International (CI), they have created something unusual, a

joint system of protected areas that includes an extensive "no take" zone and a dozen multiple-use areas managed for fisheries conservation. "This is not a response to depleted fish stocks but an effort to sustain fisheries and eliminate damaging fishing techniques to support future generations," said Ray Morales, municipal planning and development coordinator for Lubang.

The mayors of both municipalities share strong feelings about protecting their marine ecosystem, and they understood the benefits of jointly managing their marine and coastal areas. They also knew they needed outside assistance to gather scientific data, design a comprehensive plan and mediate a legally binding joint agreement. CI and others provided the support the two municipalities needed. The results were quick and impressive, including the creation

of a 1,000+ hectare marine protected area (MPA) with a shared "no-take" area and 12 fisheries management areas (FMAs) where fishing gear is limited to hook-and-line.

Two municipalities rarely find common ground for legal agreements. The reality that Looc is a 13,000-person fishing community with well-developed commercial fisheries while Lubang's 28,000 people are farmers complicated the talks. "For two municipalities to agree, that is a miracle," said Lubang Mayor Col. Juan Sanchez. "Our advantage is that 80% of the people in Lubang and Looc are related." Relationships may be the glue that held them together, but the common goal of marine conservation and the financial and practical support of CI and CTSP made the agreements possible.

One of the reasons the joint MPA system works is effective enforcement. "We are very aggressive in protecting our marine areas," said Nestor Tria, who succeeded his brother Ben as Looc's mayor part way through the negotiations. The well-enforced protected areas are bringing good benefits, including increased fish catch, virtual elimination of dynamite and cyanide fishing, reduction of encroachment by unauthorized vessels, longer fishing seasons, increases in turtle and dolphin populations and healthier corals. The greatest gain may be the new spirit of cooperation and interdependence between Lubang and Looc, a local part of the international Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). Conservation International is a lead partner of CTSP and the US CTI Support Program in the Philippines.





Mangroves, Conservation and Livelihoods

Two communities in Philippines demonstrate climate change adaptation

Community members in Ang Pulo celebrate a birthday on one of the community's rafts built to take tourists into the mangrove conservation area.

Photo: USAID CTSP / Tory Read

"Before there was no work and no income for women, but now we can earn extra income for our families."

Helen Ricaza, treasurer, Palitakan community organization

Batangas Province is not far south of Manila, but it is worlds away from that teeming metropolis. Many of its communities are on the coast and depend on the sea and the shoreline for food and income. With support provided by USAID's Coral Triangle Support Partnership (CTSP) through Conservation International (CI), the province is

helping communities develop climate change adaptation and marine resource protection plans to secure their futures. The Provincial Government Environmental and Natural Resources Office (PGENRO) holds training sessions with each of 14 municipalities and a city in Batangas using vulnerability assessment tools developed as part of the international Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). "These decision support tools are providing a platform for analyzing and addressing climate change vulnerabilities of the coastal," said Senior Environmental Management Specialist Loreta Sollestre. Province officials are working to create a first-of-its-kind climate resilient coastal resource management plan for the entire province.

Two beneficiaries of these programs are the communities of Ang Pulo and Balibago. Both places are focusing on mangrove

reforestation as an adaptation to coastal vulnerability. Mangroves are habitat for fish and crustaceans, provide protection from storms and sea rise erosion and are a place for recreation. In Ang Pulo, village women concerned about food security and rising sea levels spearhead the work. With support from CTSP, they created Palitakan, a legal community organization, to protect and replant a 7.2-hectare near-shore island with 11 species of mangroves. The community built a boardwalk into the mangroves, a tower for bird watching, a camping and picnic spot and two bamboo rafts for tourists. Fees collected from the 5,400 guests who have visited the protected area so far pay for maintenance, supplies, wages for boatmen and tour guides and a contribution to the community's general fund. Treasurer Helen Ricaza explains that they are enhancing their marine resources while creating jobs. The community assumed full management responsibility for the mangrove project in 2011.

Up the coast, 12 families in Balibago have worked to replant three hectares of mangroves and establish a mangrove nursery in a 20-hectare mangrove protected area. The nursery is a commercial venture and the source of plants for an additional five hectares they plan to reforest. The men of Balibago now sell 5,000 mangroves starts a year, and they get additional income selling trash they collect while patrolling or harvesting clams and crabs. The key to their success? "This works because we don't just plant them, we patrol them and take care of them, and it's 12 families together," said Virgilio Enriquez, president of the CALMADA, Balibago community organization. Conservation International is a lead partner for CTSP and the US CTI Support Program in the Philippines.





University Scientists Support Conservation

Mentoring program in Philippines expands capacity and contributes to government planning



PSU's Michael Pido, vice president for research and extension, and mentee Aynon Gonzales work at PSU's Center for Strategic Policy and Governance.

Photo: USAID CTSP / Tory Read

"I really appreciate CTSP opening my eyes to what to do for the environment, and I want my colleagues to experience what I have and be aware of the importance of coastal conservation."

 Amor Magtibay, microbiologist, Batangas State University One of the goals of the international Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) is to integrate sound marine science into government decision-making. To bring this about in the Philippines, Conservation International (CI), a member of USAID's Coral Triangle Support Partnership (CTSP) has joined with 11 universities, creating the University Mentoring Program to support implementation of

the country's National Plan of Action under CTI-CFF. In the program, mentors from five universities with "centers of excellence" in biology, marine science or chemistry train and supervise faculty as mentees from six province-based universities to complete research relevant to nearby areas.

Mentees take a 12-day intensive course in coastal resource management (CRM) science, leading to CTSP-funded grants for research projects that are relevant for local governments making resource management plans. Among the mentee institutions are Western Philippines University (WPU), Palawan State University (PSU) and Batangas State University (BSU).

At WPU, faculty members Joel Becira and Ria Sariego both attended the first CRM course and won research grants to investigate the status of marine plant communities of Honda

Bay, Palawan, a municipal marine protected area established in 2001. They recorded dramatic increases in species composition and cover since the 2001 baseline study, and they will present their findings to the local government. The experience has had a major impact on both professors. "The training reinforced what I knew and broadened my perspective beyond seaweed science," said Sariego. "Now I am studying other species like sea turtles, working on seaweed mariculture and relating my work to community needs." She, Becira and a team from WPU are currently responding to a local government request for a bio-diversity assessment of a potential new MPA.

Participant Aynon Gonzales from PSU echoed Sariego's sentiments. "The training gave me a new perspective," she said. "I'm a civil engineer by training, and now I've expanded to include environmental management. I am able to share with my civil engineering students, you can do research in coastal resource management." BSU Microbiologist Amor Magtibay said her beach and mangrove assessment in San Juan municipality led her to greater involvement in mangrove rehabilitation. Recently, she answered a call from Batangas Province to evaluate MPA management effectiveness. Prof. Romel Briones, a forester, is now entranced with the underwater world and eager to work on "ridges to reefs" management principles. His coral reef assessment project led to reef monitoring at the request of the local government. With CTSP support, valuable capacity is passing from mentors to mentees, to students while providing scientific data for good marine resource management. *Conservation International is a lead partner in CTSP and the US CTI Support Program in Philippines*.





Towards a Provincial MPA Network

Batangas is on its way to establishing an important MPA network in the Philippines



Loreta Sollestre, environmental specialist with the Batangas Environment and Natural Resources Office, is a lead instructor for vulnerability assessment and climate change adaptation trainings.

Photo: USAID CTSP / Tory Read

"This new approach has helped us understand the data and get a sound assessment of what is happening in the communities. It is easier and more efficient than previous tools, though we sometimes need to go to the sites to validate the information."

Loreta Sollestre, PGENRO

Throughout the six country area of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), communities are creating marine protected areas (MPAs) to enhance their fisheries and ecosystem services. The Philippines, a member of the CTI-CFF, stepped forward at the national level by requiring that every

municipality have a plan to address vulnerabilities to climate change and create at least one MPA. Although adherence to the law is inconsistent, Batangas is onboard. The Provincial Government Environment and Natural Resources Office (PGENRO), in cooperation with USAID's Coral Triangle Support Partnership (CTSP) and Conservation International (CI), has stepped up to educate and train municipalities and aid in the establishment of viable MPAs.

Loreta Sollestre, PGENRO senior environmental management specialist, attended a CI-supported "training the trainers" workshop with other officials from the Philippines and Malaysia. Topics covered included climate change vulnerability and adaptation, habitat and fisheries management, community awareness education and MPAs. The eventual result of

her training is a locally-adapted tool for vulnerability assessment and fisheries resilience that she and others are using to teach municipal leaders.

PGENRO has held 10 trainings, with five more to go to cover all the municipalities in Batangas province. With assistance from the CTSP-supported University Mentoring Program and CI, each municipality's work on sustainable Comprehensive Land and Water Use Plans (CLWUP) is progressing, and they have legally established 38 MPAs. To help publicize this work, the provincial government hosts an annual contest to recognize the most effectively managed MPAs. Momentum is building towards provincial and perhaps regional management networks of MPAs, and these networks promise to multiply the effect of the community efforts.

With the completion of climate change adaptation and vulnerability assessment trainings, PGENRO is shifting focus to the completion of a CLWUP for each municipality, building on existing CI-assisted community education efforts with government and fishing communities. These plans will roll up into a provincial framework, linking the MPAs into a mutually beneficial network, promoting cooperation among the municipalities and creating a larger, healthier ecosystem for marine life. Loreta's dream? That the five provinces located on the Verde Island Passage, the center of marine biodiversity in the Philippines, will link their MPAs and marine management policies into a single system, raising the conservation bar for the rest of the Coral Triangle and setting an example for the world. *Conservation International is a partner in CTSP and in the US CTI Support Program in the Philippines*.





A Step in the Right Direction in Philippines

A nascent MPA system in Palawan may be the start of a provincial network

WWF-Philippines (WWF), a partner in USAID's Coral Triangle Support Partnership (CTSP), has worked with communities and the local government in Taytay to establish successful marine protected areas (MPAs) and to draft model fisheries regulations. The improved fishing in Taytay has attracted the attention of other communities and neighboring municipalities around Palawan and of the

provincial government.



There are many players participating in efforts to expand sustainable marine practices in Palawan: Students and faculty of Western Phillipines University, representatives of the Palawan Council on Sustainable Development (PCSD), lawyers from the Environmental Legal Assistance Center (ELAC), fisheries experts from provincial and municipal agricultural offices, local government officials, fishermen and other community members. The strategy is to expand WWFs successes and lessons from Taytay to nearby Araceli and Dumaran municipalities, then to all of the 23 municipalities in Palawan, so that each has a coastal resource management plan and well-enforced protected areas based on good science under government leadership.

The guardhouse at the Tekas MPA is staffed 24/7 to enforce the "no take" zone around a spawning aggregation site and a reef recovering from coral bleaching.

Photo: USAID CTSP / Tory Read

"The economy of Palawan is dependent on aquaculture and fisheries, so it is important that we have good plans for local management within a provincial framework."

Romeo Abungcal, assistant provincial agriculturist, Palawan The work in Araceli and Dumaran includes scientific research to support MPAs, consideration of revised fisheries codes and community awareness. Zha Zha Maguad, legal officer with ELAC, worked with both municipalities to draft new fisheries regulations that include controversial restrictions on the Live Reef Fish Trade. In the proposed codes, she included information acquired from a province-wide review of fishing regulations and from consultations and workshops with officials and 50+ fishermen from each municipality. The municipal councils are currently debating the revised codes. When approved by the councils and both mayors, the revised fisheries codes will constitute a critical step towards sustainability. "In Palawan, we rely on fisheries for income," Zha Zha said. "If there are no regulations, we can't sustain fishing, and a lot of people will lose their livelihood."

Romeo Cabungcal, assistant provincial agriculturist, is working with more than half of Palawan's municipalities on coastal resource management plans. His vision is that within five years every municipality will have established and implemented a plan. "The economy of Palawan is dependent on aquaculture and fisheries, so it is important that we have good plans for local management within a provincial framework," he said. Romeo is keeping a close eye on developments in Araceli and Dumaran. Success there constitutes another big step towards establishing a West Philippine Sea MPA Network as set forth in the Philippines National Plan of Action under CTI-CFF. WWF is a lead partner for CTSP and the US CTI Support Program in the Philippines.





Experiments in the Live Reef Fish Trade

Taytay municipality in the Philippines embraces sustainable practices to protect fish stocks



Isauro, Elfren and Eliseo Dandal are community officials and fishermen on Biton Island who welcome the Live Reef Fish sustainability work that is keeping their livelihood viable.

Photo: USAID CTSP / Tory Read

"If agencies continue to work together, there will be fish for our trade into the future."

 Elfren Dandal, village council chairman, Biton Island Taytay dominates the Live Reef Fish Trade (LRFT) in Palawan, Philippines. Fully 94% of the players in the LRFT in the province are from Taytay, according to Maria Victoria Matillano, program coordinator for live reef fish for World Wildlife Fund-Philippines (WWF), a partner in USAID's Coral Triangle Support Partnership (CTSP). In this municipality of almost 80,000 people, everyone depends on the trade in some way.

When the provincial government introduced laws to ban the trade, life-reef fishermen were up in arms at the pending financial catastrophe. WWF stepped in with a message of hope: With sustainable marine resource management, the LRFT might be saved while building a healthier environment.

This effort was gathering steam when CTSP funded WWF's Taytay work as part of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). WWF had a long-standing relationship with stakeholders in Taytay, and through CTSP quickly commissioned scientific studies to inform fisheries decisions on marine protected areas (MPAs), supported climate change adaptation and vulnerability assessment workshops with locals; helped efforts of the municipality in expanding its fish warden, fish examiner and reef check training; and worked with the government to conduct a community education campaign to explain all this

activity to everyone. The government used the scientific data and input from fishermen to identify MPAs, including "no take" zones around spawning aggregation sites for groupers and other pelagic fish, so fishermen would catch the spillover from these sites and grow out the smaller fish in sea cages.

People at both the provincial and village levels agree that fishermen and the environment are benefiting from this approach. "So much has improved here is Taytay," said Municipal Administrator Robinson Morales. "Many sites are being declared as MPAs, and we can see the improvement in the reefs and the fish." He says the next steps are to create a comprehensive land and water use plan and to update the fisheries code to include marine conservation, thereby moving sustainable management out of the purview of politicians, who come and go every 3 years.

On Biton Island in Taytay Bay, village officials are all fishermen or fish cagers. The government included them in planning for the MPAs and fisheries regulations. Since this work began, they have seen a reduction in dynamite and cyanide use, and they are adamant about the value of the protected areas in maintaining their catch. For the time being, incomes are stable, and villagers can save enough to improve their living conditions and even send their children to high school and college. They support expansion of "no take" zones and seasonal closures. Taytay stakeholders are working together to ensure their goal of fish for their trade in the future. WWF is a lead partner of CTSP and the US CTI Support Program in the Philippines.





Palawan's Community Conservation Team

In Taytay municipality in the Philippines, locals are enforcers and data collectors

Anna-lee Dandal, fisheries data collector on Biton Island, Taytay, gathers fishing information that helps decision-makers evaluate regulations and seasonal fishing closures.

Photo: USAID CTSP / Tory Read

"Research data is very beneficial, very instrumental in planning for coastal resource management. Our next step is to create an integrated management plan for a network of MPAs in Taytay."

 Hernan Fenix, Agricultural Technologist It's a long way from good intentions to implementation and management of sound fisheries practices. The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) and the conservation organizations that make up the Coral Triangle Support Partnership (CTSP) emphasize that sustainable fisheries and marine protected areas (MPAs) can only be successful with the full awareness and participation of local

governments and communities. In Taytay municipality in Palawan Province, Philippines, individuals and government work to gather data and enforce environmentally sound fisheries laws.

Anna-Lee Dandal is from Biton, an island in Taytay Bay. Early every morning she gets up and makes the rounds of all the fishing boats unloading their night's catch. She records the weight of each catch, how and where it was caught and how long the fishermen were out. If the catch is especially large or the species caught is unusual, she'll try to learn a bit more. In the evenings, she repeats the circuit to speak with the daytime fishermen. These data are analyzed and graphed by CTSP partner WWF and used by scientists and local governments to find trends in the "catch per unit effort" or the health of certain species and the overall

fish population. To do her work, Anna-Lee received training from WWF in conducting interviews and fish identification. "I'm learning that the 'catch per unit effort' is down, and I hope that the MPA helps with the supply of fish," Anna-Lee said. Data gathered by Anna-Lee contributes to better-informed decisions on seasonal fisheries closures and MPA management.

Hernan Fenix, an agriculture technologist, has been a municipal champion of MPAs and sustainable fisheries since his appointment as head of the fisheries section of Taytay. One reason he got the job was his position as a Fish Warden in the *bantay dagat* (sea patrol) program of the national Bureau of Fisheries and Aquatic Resources. Local WWF personnel provided Fenix with training in resource management, vulnerability assessment, fish biology and identification, diving and reef monitoring. Now, he is the "go-to" guy for fisheries management and MPAs in Taytay. His heart had always told him that conservation is the right thing to do, and the training confirmed it. His efforts continue to surpass the requirements of his job, as he volunteers to train other Fish Wardens and to assist with reef monitoring. He advocates for formalization of sustainable fisheries regulations in the municipal laws and codes. "The local government has already seen the impact of using reliable data." With people like Hernan and Anna-Lee, the possibility is growing that marine conservation efforts can survive political change. *WWF*, *Conservation International and The Nature Conservancy are partners in CTSP and the US CTI Support Program*.





From Policy to Action in Marine Conservation

National environment agency to implement EAFM at a large scale in the Philippines

Pange TEAM

Environmental education workshops for communities like this marine conservation youth camp in Calatangan, Batangas Province, will be an important part of moving from national policy to local level action.

Photo: USAID CTSP / Tory Read

"NCCC needs to look down to the local level. They have been looking up for a long time. Now we need concrete actions in terms of fishing and climate change, programs that will really reach the communities."

 Jake Meimban, director, Coastal and Marine Management Office The Philippines committed to participate in the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) when its President signed Executive Order No. 797 in 2009. The Department of Environment and Natural Resources (DENR) and the Department of Agriculture are the primary national government agencies tasked to coordinate the implementation of the Philippines CTI National Plan of Action. Other

national government agencies, academic and research organizations and non-government organizations are helping to fulfill the obligations of the agreement by working together as members of the National CTI Coordinating Committee (NCCC), a policy-making body that guides work on the plan to tackle sustainable marine resource management. The Committee, Led by DENR, includes governmental bodies, the League of Municipalities, the University of the Philippines Marine Research Institute (MSI) and USAID's Coral Triangle Support Partnership (CTSP) partners Conservation International and World Wildlife Fund.

Jake Meimban is the Executive Director of DENR's Coastal and Marine Management Office, the unit responsible for overseeing the management of 33 national marine protected areas (MPAs) After five years of planning and policy-making,

the "NCCC needs to look down to the local level," he said. "...Now we need concrete actions in terms of fishing and climate change, programs that will really reach the communities." To meet this huge challenge, he helped develop the Sustainable Coral Reef Ecoregion Management Program (SCREMP) and secured commitments from the Philippine government to fund \$1.25 million for its first year and triple that for the second. The goal of SCREMP is to have effective, locally endorsed plans that enhance management effectiveness for all 1.7 million hectares in the national MPAs by 2020.

It's an ambitious goal. The Philippines faces a shortage of trained marine scientists. Hundreds of municipalities and provinces must be brought on board. The political will to spend on coral reef rehabilitation and protection must be maintained. Community awareness, education and sustainable livelihood programs must be implemented on a large scale. Success will require close cooperation with the Bureau of Fisheries and Aquatic Resources (BFAR), with conservation NGOs experienced in MPA work and with all levels of government. To get things started, DENR field offices are now prioritizing MPA support, and MSI and the NGOs are training DENR personnel in basic marine sciences. A regional CTI Roadshow is introducing CTI-CFF concepts to provincial players.

Mr. Meimban is undaunted. He believes that with continued government funding and additional bi-lateral and NGO support, the nation can clear the hurdles. "We must push ahead to protect our fisheries and our future," he said. "Healthy coral reefs and coastal areas are essential. If we work together, we can achieve this." WWF and Conservation International are lead partners in CTSP and the US CTI Support Program in the Philippines.