



TRANSFORMATIONS FOR TOMORROW:

The Coral Triangle Support Partnership (CTSP) project in the Philippines

THE CORAL TRIANGLE: Bringing the lessons home

It covers six million square kilometers of some of the richest oceans on the planet, an economic powerhouse of Southeast Asia and the western Pacific that feeds the whole world, and an ecological marvel that is a critical part of the earth's marine ecosystems.

Here, 363 million of the people of Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands, and Timor Leste depend directly on the bounty of the sea to stay alive, while the world's most abundant coral species provide shelter and sustenance for the most enigmatic creatures in the sea, including more than 3,000 species of fish.



Indeed, the Coral Triangle is a place of boundless beauty as well as immeasurable riches—resources which, if threatened, could jeopardize the very life on earth. Overfishing, unsustainable fishing, pollution, climate change, and the annihilation of critical and charismatic species are pushing the ecoregion to the brink of collapse, endangering food security and work as well as the balance of nature itself.

In recognition of the urgent need for action, in August 2007, President Susilo Bambang Yudhoyono of Indonesia proposed the creation of the Coral Triangle Initiative (CTI), a multilateral partnership to safeguard the Coral Triangle's treasures. With the support of 21 world leaders, the CTI was officially launched in December 2007.

In order to assist the six governments in pursuing the goals of the CTI, the United States government committed \$41 million to build capacity in addressing critical issues in the Coral Triangle. As part of this assistance, the United States Agency for International Development (USAID) approved the five-year Coral Triangle Support Partnership (CTSP) project being implemented by a consortium of environmental organizations—the World Wildlife Fund, The Nature Conservancy, and Conservation International. This support zooms in on transforming marine and coastal resources management, as concretized through the CTI Regional Plan of Action.

Bringing such transformation to the smallest villages in the Coral Triangle is the mandate of the National Plan of Action (NPOA) for the CTI, the local parallel of the Regional Plan of Action that is adapted to each country's priorities. In the Philippines, the NPOA was adopted through Executive Order 797,



The Coral Triangle Initiative was launched in 2009 by the heads of state of the 6 member countries of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor Leste. © CTI Regional Secretariat



The Regional and National Plans of Action detail the CTI goals on seascapes and fisheries management, marine protected areas, climate change adaptation and species conservation.

The goal of the CTSP project is to improve the management of biologically and economically important coastal and marine resources and associated ecosystems that support the livelihoods of peoples and economies in the Coral Triangle. © Jürgen Freund

signed on May 6, 2009, the result of collaboration and consultation among various stakeholders of coastal and marine resources as well as marine experts and government leaders. The Philippines has since participated actively in the work of the CTI through the National CTI Coordinating Committee (NCCC).

The Coral Triangle Support Partnership (CTSP) has been working on the ground to make the NPOA bear fruit. Fisheries management for the live reef food fish trade is the focus in three project sites in Palawan. In Tawi-Tawi, the CTSP is promoting sustainable seaweed farming, while identifying marine protected areas and increasing awareness on climate change. Fisheries management through mangrove reforestation and integrating marine protection and climate adaptation are the focus in the Verde Island Passage between Batangas and Mindoro.

The unique Philippine experience has provided valuable lessons on the benefits of mentoring and the power of integration. In 2009, CTSP workshops resulted in an innovative University Mentoring Program, where community leaders sought the expertise of academic experts, and scientists found ideal venues for field research and application with assistance from local government units. Both policy-makers and academicians benefit from an exchange of opportunities as well as information. The program is set to be expanded and institutionalized beyond the CTSP's project sites.

The three goals of the CTI—an ecosystems approach to fisheries management, developing marine protected areas (MPAs), and climate change adaptation—are slowly being realized in the Philippine CTSP project sites. Established practices are given a new orientation through the study of spawning aggregation sites, for example, or the establishment of protected areas to ensure the health of a habitat and the consequent protection of an income source. Livelihoods are now examined in the context of a bigger picture that includes adaptation to climate change, conservation for sustainability, and even long-term cooperation and accountability among a wider network of stakeholders. Only then can people give up destructive, unsustainable practices, build on past successes, and dream of a better future.



CTSP Philippines government partners: National CTI Coordinating Committee(NCCC); Palawan Council for Sustainable Development (PCSD); Provincial governments of Batangas, Occidental Mindoro, Palawan, Tawi-Tawi. Municipal governments of: Araceli; Calatagan; Dumaran; Languyan; Looc; Lubang; San Juan; Sibutu; Sitangkai; Taytay

The abundance and diversity of marine resources is a major source of protein for millions of people in the Coral Triangle. © JM Basa

US Ambassador to the Philippines Harry K. Thomas planting mangroves in Calatagan. © CI Philippines



The coastal and marine biodiversity of the Coral Triangle is unparalleled and offers the best diving experiences in the world. © CI Philippines



Dulong is a local delicacy traditionally made from small fishes. During off season, however, juveniles of other species, such as sardines, get caught. © CI Philippines



A 2-week course on applied coastal resource management was held by 14 mentors for 12 mentees in May 2011. The mentoring program will be expanded geographically and thematically in 2012. © CI Philippines



The mentoring program aims to improve resource management by increasing local capacity for research and providing scientific information to local government as basis for policy development. © CI Philippines

PALAWAN: Managing a prized resource

Palawan, known as the Philippines' "last frontier" for its ecological uniqueness, is considered one of the country's richest provinces in terms of terrestrial and marine resources. It is also a main hub of the live reef fish trade (LRFT), which brings this delicacy to the plates of those who can afford it—mostly in Hong Kong and China—for a whopping US\$1 billion annual revenue.



The trade, which went global in the 1970s, involves catching certain prized species of fish and keeping them alive until right before cooking, in a vast network that involves fishermen, fishing operators, and middlemen. Increasing demand and astronomical prices, however, have sent fishermen in constant search of new fishing grounds. Fish are caught before they reach reproductive age, and sodium cyanide is used to make catching easier, decimating coral reefs and affecting other species. Even the "trash fish" used to feed live reef fish while they are being grown in captivity to more marketable size is being taken away from the plates of hungry fishermen, who experience windfalls from selling expensive fish, only to find themselves again impoverished when fishing grounds are exhausted.

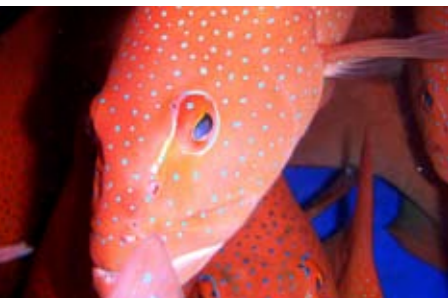
In 2006, the Philippines became the world's biggest exporter to Hong Kong of coral trout (*Plectropomus leopardus*), the most heavily traded and one of the most expensive live reef fish. The fish is locally called "suno" and mainly comes from Taytay, northern Palawan, where some 90% of the province's live reef fish cages are found. Of more than 1,500 live reef fishermen surveyed in 2009 from 10 municipalities in Palawan, LRFT contributed 51% to their household income.

CTSP established project sites and, together with the local government, project partners, and stakeholders, developed fisheries management plans for the municipalities of Taytay, Araceli, and Dumaran. Surveys on corals, fisheries, policies, and income profiling provided information for management planning, and led to the declaration of new MPAs in Taytay and Araceli. Locals underwent training in LRF management and environmental law enforcement, and 22 new fish examiners were licensed in 2011. A climate change adaptation plan was also developed for Taytay.

Palawan has provided a model for the CTSP for the integration of CTI goals, and for effective public-private partnerships between local government and stakeholders to establish a system that works best for their specific communities. In progress are the development of fish catch traceability systems in Taytay and Araceli, and the envisioned management of the area's MPAs as a single network.

Coral trout are kept in holding tanks to ensure they are alive and in good condition to be packed and flown to Manila and onward to Hong Kong or China.
© Videlle Briones-Meily & Ulysses Makiling

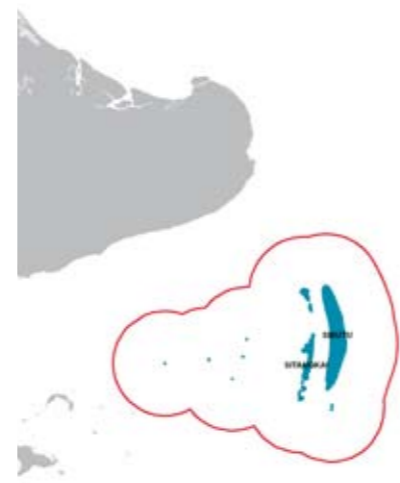
Coral trout (*Plectropomus leopardus*) is the most sought after species in the live reef fish trade in Palawan. The redder the color, the higher the price.
© WWF Philippines / Mavic Matillano



Corals caught on film as they were bleaching in Taytay Bay in July 2010. CTSP monitors coral bleaching and recovery as part of climate change adaptation, because coral reefs are the habitat of live reef fish.
© Joie Matillano



TAWI-TAWI: Stability in sustainability



Tawi-Tawi may be the Philippines' poorest province, but it has an abundance of coastal and marine resources, and is second only to Palawan as the country's biggest producer of the seaweeds used in the manufacture of a wide range of consumer products. In 2010, Tawi-Tawi produced US\$67 million worth of seaweeds.

CTSP established project sites in the municipalities of Languyan, Sitangkai, and Sibutu, and has focused on helping the people and municipal governments of Tawi-Tawi safeguard the production of this critical resource. In Sitangkai, fisheries management is being encouraged through sustainable seaweed farming practices, and capacity building for the local Sitangkai Seaweeds Industry Development Council is being carried out with the long-term goals of resource management and poverty alleviation. Because entire communities in Sitangkai live in houses on stilts above the sea, climate change adaptation is also a major concern, not just for choosing areas for seaweed farming, but for deciding where and how to build their homes.

The MPA management boards in Languyan and Sitangkai are receiving capacity building and training, while more potential MPAs are being identified. Training in law enforcement, fisheries and coral assessment and the updating of MPA management plans have improved systems, while technical assistance to the local government for mariculture management has helped local officials and farmers better understand their primary produce. More possible MPAs are being identified, where spawning aggregations of hump head wrasse have been seen. Climate change adaptation plans for Sibutu and Sitangkai have been developed, and are ready for implementation.

Most significantly, participation in environmental management has made the people of Tawi-Tawi more aware of the value of good governance, and their shared responsibility for stewardship of their environment and resources.



Extensive shallow areas, bounded by the deep seas of Sulu and Sulawesi that create strong current systems, make Tawi-Tawi conducive to seaweed farming.
© WWF Canon / Jürgen Freund



Seaweed farming is still the main source of livelihood, but the more affluent farmers have ventured into live reef fish trade.
© WWF-Philippines / Lory Tan

People in Sitangkai live in stilt houses to better oversee their seaweed farms. Half of the stilt communities are 10 kilometers away from the nearest island. People are also dependent on rainwater, making them particularly vulnerable to climate change.
© WWF Philippines / Lory Tan



Seaweed farming gave rise to the town of Sitangkai in Tawi-Tawi. The main canal is the center of commerce in the town proper.
© JM Basa

VERDE ISLAND PASSAGE: Different approaches to a common goal

The Verde Island Passage (VIP) that runs between the provinces of Batangas and Mindoro is believed by scientists to be the "center of the center" of marine shore fish biodiversity in the world. It is also home to coral reefs and teeming underwater landscapes that make it the nearest diving destination to Manila, and one of the most popular. Good roads and a wealth of facilities have helped make tourism a major industry in this part of the country.

The CTSP project sites in the VIP are in Calatagan and San Juan, Batangas and Lubang and Looc, Occidental Mindoro. Calatagan is one of VIP's largest coastal municipalities, with its waters accounting for 25% of Batangas province's fisheries production. The abundance has been credited to Calatagan's extensive mangrove networks that serve as fish nurseries. Human pressure due to settlement and infrastructure development is endangering the mangroves, however, and has already led to large losses.

Mangrove reforestation in Calatagan by CTSP has been carried out over some 34 hectares, including a mangrove nursery, with help from local women's groups, youth, local government units, and the Batangas State University. In 2010, USAID and the CTSP led 200 volunteers in planting 10,000 mangrove seedlings on the Calatagan coastline. Aside from serving as

fish nurseries, the mangroves also help prevent soil erosion and function as climate change indicators to aid in the formulation of adaptation measures for the area.

San Juan, Batangas has been the site of a CTSP project for fishery management for "dulong," a fish that is a popular local delicacy. Policies on fishery practices, concerning such issues as net size and fishing seasons, are being formulated to mitigate effects on the environment.



In April 2010, the climate smart MPA was launched jointly by the municipalities of Lubang and Looc.
© CI Philippines / Cheryl Ventura

Mangrove planting in Calatagan has become a multi-sectoral program, involving the local government, community members especially women and youth groups, academic institutions, the Coast Guard, and NGOs.
© CI Philippines



In April 2010, Lubang, Occidental Mindoro became the site of the country's first "climate smart" MPA, specifically identified using climate change parameters, such as size and varying depths, to make the MPA more resilient and less vulnerable to climate disturbances. Training on climate change and coastal resource management consultations on policies are being developed for the future. The MPA was also a joint ordinance between the local governments of Looc and Lubang, which are working together to monitor and enforce their MPAs. Good governance, swift action, effective participation from the local government units, and cooperation between the public and private sector have made this harmonious undertaking a reality. Joint seascapes and larger, transboundary areas are now being considered in MPA planning.