



# SUCCESS STORY

## Connecting the Dots for Conservation

### Linkages between communities and government support marine resource management in Timor-Leste



Government and community people sign in for a joint meeting on co-management held at the Department of Fisheries and Aquaculture in Dili.

Photo: USAID CTSP / Tory Read

*“Communities develop a sense of ownership from co-management, and multi-sector engagement allows outside expertise to be brought into the process, strengthening DNPA and local knowledge.”*

– Fernando da Silva, division head, Fish Management and Aquatic Research

Establishing and managing Marine Protected Areas (MPAs) is fraught with challenges. One such challenge in each of the six countries of the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF) is defining lines of communication and authority between communities, districts and national government. Conservation International (CI), a partner in USAID’s Coral Triangle Support Partnership (CTSP), supports targeted efforts to address this issue in Timor-Leste. Government officials, district officers, community leaders and fishermen are now working out a viable approach to work together soon to be recognized at the national level.

Recognition will come in the form of a Ministerial Diploma on Co-Management, which the Ministry of Agriculture and Fisheries will issue with the endorsement of the Ministries of State and Justice. The Diploma defines co-management and explains the roles, responsibilities and powers of the co-management committee as a whole and of the different agencies involved. On the committee sit representatives of the national, district and *suku* (local government unit) governments, of the community where the MPA is located, and of affected fisheries businesses. The diploma articulates the relationship of communities to government, with a specific emphasis on natural resource management, and is explicitly drafted as a national template that can be easily applied to new sites. The Diploma will give legal clarity and divest some national authority for co-management of MPAs and other protected areas with other stakeholders.

The idea of co-management—government partnership with community to manage natural resources—is not new in Timor-Leste, but this is the first time the idea has been applied and formally endorsed. In each of the three new MPAs developed with CTSP support, the national Fisheries and Aquaculture Department (DNPA) authorized its district office to engage with *suku* leaders to start discussions about marine conservation, and engaged Rai Consultadoria, a national consulting firm, to facilitate these conversations. Community members and district government officials from forestry and fisheries did joint activities to map marine resources and threats and to design management solutions. Rai worked with international scientists to conduct baseline research to determine the best locations for MPAs, and the community and government leaders combined local knowledge with the scientific information to create *suku* council regulations that include MPA maps, rules, penalties, biological monitoring protocols and enforcement procedures. District and national DNPA officers check the regulations for consistency with existing law to make sure they are enforceable.

The benefits of co-management are obvious to participants. “Communities develop a sense of ownership from co-management,” said Fernando da Silva, head of the Fish Management and Aquatic Research division of DNPA. “Multi-sector engagement allows outside expertise to be brought into the process, strengthening DNPA and local knowledge.” His opinions on co-management are echoed in Timor-Leste at all levels of the governance structure. *Conservation International is a lead partner of CTSP and the USCTI Support Program in Timor-Leste.*



# SUCCESS STORY

## Tackling the Problem of Enforcement

### Communities in Timor-Leste take different approaches to enforcing MPA regulations



Secretary of State Rafael Goncalves (left) and Director of Fisheries and Aquaculture Augusto Fernandes lead a discussion on enforcement of MPA regulations.

Photo: USAID CTSP / Tory Read

*“A minimum of two and usually more fishermen stay by the core zones at all times, with members of the fishermen’s organization rotating on and off duty.”*

– Antonio da Fonseca, *chefe de suku*, Tutuala

In every country participating in the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF)—Indonesia, Malaysia, Papua New Guinea, Philippine Islands, Solomon Islands and Timor-Leste—enforcement of Marine Protected Area (MPA) regulations is subject for debate. The areas under protection can be vast, and patrolling for effective enforcement can be costly and risky when confrontations with illegal fishermen are involved. MPAs located far from communities and outside commonly used fishing areas present particular challenges, as community-based patrolling is the norm in every country.

The three communities that created MPAs in Timor-Leste with the support of USAID’s Coral Triangle Support Partnership (CTSP) face different challenges and yet see similar needs for enforcement. The town of Com, on the northeastern coast of the island, benefits from the small size and convenient location of its MPA. The core and buffer zones, totaling just over 100 hectares, are within site of the town, and the fishermen of Com pass by it whenever they head out to fish, so separate patrolling is unnecessary. There were hiccups on the way to acceptance of the MPA, however. Edmundo da Cruz, port officer for Com, told this story: “One fisherman tested the system by herding fish out of the ‘no take’ zone with the intention of catching them once

outside of it. He was apprehended, tried and sanctioned by the *suku* (town government).” The local sanction required him to provide food for a community gathering where he was held to account for his actions, and the district officials also confiscated his boat and motor, a very serious consequence. “Now the MPA gets the full respect of the fishermen.”

In Lore, across the island on the southeast coast, the MPA about 270 hectares that protect spawning sites, juvenile habitat and feeding grounds, but these are far from the nearest village. For now, fishing regulations are enforced only by villagers going to the vicinity of the MPA for their normal work, but regular patrols of 2-3 fishermen are under discussion. In the long run, local officials say that government help with enforcement is crucial.

The *chefe de suku* in Tutuala, at the eastern tip of Timor, described his community’s approach to patrolling its 1600 hectares MPA: “A minimum of two and usually more fishermen stay by the core zones at all times, with members of the fishermen’s organization rotating on and off duty,” said Tutuala’s Antonio da Fonseca. He sees the problem not as one of local enforcement but of the nation’s inability to prevent foreign trawlers from fishing offshore waters and scooping up the fish spilling out of the MPAs. The three communities agree that they can manage local problems themselves, but poaching by armed commercial fishermen requires marine police and national government action. MPA communities and government representatives are currently discussing this issue as part of their work adopting co-management guidelines for natural resource management. *Conservation International is the lead partner for CTSP and the USCTI Support Program in Timor-Leste.*



# SUCCESS STORY

## Looking at Other Options in Timor-Leste

### Communities explore income diversification opportunities to supplement fishing



Robella Mendes, a leader in the town of Com, is working to start a community garden at this site to improve food security for the families of these and other women.

Photo: USAID CTSP / Tory Read

*“Managing money for the family is usually done by women, but now we see that there is more we can do.”*

– Robella Mendes, community organizer

An important tactic for sustaining Marine Protected Areas (MPAs) is reducing pressures placed on the resources through over fishing. If alternatives to fisheries-based income can pay for living expenses, fishermen are more likely to support and respect the zoning restrictions vital to marine resource management. Livelihood diversification is also an important step for climate change adaptation - ensuring income security even when some livelihood options become unviable because of

changes in the ecosystem or sea level rise. This isn't news to communities. Both on their own and with support from USAID's Coral Triangle Support Partnership (CTSP), individuals in Nino Konis Santana National Park (NKS) in Timor-Leste are checking out their options and earning money in a variety of ways.

The women of Com, a town of 3000 souls, traditionally glean inter-tidal reefs for clams, small fish, urchins, sea cucumbers and octopus. In the course of Com's work to establish an MPA, the women learned they could contribute simply by avoiding reef damage when gleaning. Discussions with representatives from CTSP made them realize they could do much more. A workshop on traditional weaving became the basis for an informal group in which the women discuss household issues like school fees, food security and money management.

“Managing money for the family is usually done by women,” said Robella Mendes, “but now we see that there is more we can do.” In addition to running small lodges and restaurants for tourists and selling them weavings, the women of Com hope to get involved in marketing the fish their men catch, freezing fish in freezers powered by the town's newly installed electricity and sending them to more distant markets.

The women also requested seeds of marketable vegetables to turn household gardens into sources of income. After some experimentation with seeds provided by Rui Pinto of CTSP, the women sell vegetables to boats going out from the port and to visitors and local restaurants. “Our favorite is lettuce, but tomatoes, bell peppers, eggplant and greens are good sellers, too,” said Robella. These efforts allow them to contribute a significant amount to school fees, clothes and other family expenses.

In the NKS town of Tutuala, Cousins Adriano and Tito da Costa were among nine fishermen who attended a training course on tourism as part of their MPA work. The fishermen split into two groups to join a fact-finding trip to Indonesia. They visited projects that featured seaweed, sea cucumber and trochus (a sea snail) mariculture; learned about the use of Fish Aggregation Devices to reduce reef impacts; saw diving and dolphin-watching tourism, and learned about textile weaving cooperatives. Expanding Tutuala's small tourism business is of interest, but their favorite option is raising sea cucumbers, which have a high market value and are easy to manage. Livelihood diversification options recommended by the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) are now benefiting communities associated with MPAs in Timor-Leste. *Conservation International is a lead partner of CTSP and the US CTI Support Program in Timor-Leste.*





# SUCCESS STORY

## With Understanding Comes Action

**Lore citizens change their behavior to protect reefs when they learn the science**



Joao Martins (left) and *chefe de suku* Mateus Fernandes Sequeira of Lore abandoned destructive fishing methods and backed MPA restrictions after engaging with CTSP personnel.

Photo: USAID CTSP / Tory Read

*“At a certain point, the nation’s oil resources will be finished, but the other resources we are trying to protect can be here for future generations in Lore and around Timor-Leste.”*

– Mateus Fernandes Sequeira, *chefe de suku*, Lore

It is a long, dusty, bumpy drive from the capitol city of Dili to Nino Konis Santana National Park at the eastern end of Timor Island. As you approach the park, the road winds up and down ridges and around curves with potholes and rough surfaces everywhere. At the end of the road, you arrive at the *suku* (town) of Lore. Before USAID’s Coral Triangle Support Partnership (CTSP) partner Conservation International came to town, community members were aware that Lore was within the boundaries of the park, but they really didn’t know what that meant. “When CTSP explained the importance of our marine resources, it made people proud and able to understand the reason for management and conservation—to continue to get future benefits,” said Mateus Fernandes Sequeira, *chefe de suku* of Lore.

The meetings and trainings that CTSP held in Lore with participation from officials from the park and the Department of Fisheries and Aquaculture (DNPA) aren’t what convinced the community. What did was video footage that local fishermen shot when they went out to snorkel around the nearby reefs as part of the training. “People are suspicious of pictures from other places, but with CTSP we went diving and made movies of our coral and fish,” explained Mateus. “The community realized these things are not from far away but are in their own backyard.” Although they knew that the National Park decree allowed them to make their own regulations, they had never done it. After the training, Lore community members were motivated to use their local authority to create a local Marine Protected Area (MPA) and establish regulations to run it. With a little help from their friends, that’s just what they’ve done.

Mateus and his friend Joao Martins, the head of a coastal village in Lore, are both fishermen who had used destructive fishing methods. They were suspicious when outsiders came to Lore to talk, choosing to attend the first meetings armed with machetes. Over time, as trust was built and when they listened to explanations about the long-term benefits of marine conservation, learned that coral plays an important role in the life cycle of many fish and discovered that it is not a rock but a living thing that takes years to recover if damaged, they were converted. Now, they respect the coral and appreciate the need for “no take” zones in areas where fish spawn or feed while growing up, and for restrictions on fishing methods. As community leaders and former offenders, they played key roles in developing *suku* regulations for the 270-hectare MPA in Lore. Now, they are applying their newfound knowledge to terrestrial issues, as well.

They know that there’s more to do, but they’re proud to be doing their part. As Mateus put it, “At a certain point, the nation’s oil resources will be finished, but the other resources we are trying to protect can be here for future generations in Lore and around Timor-Leste.” *Conservation International is the lead partner of CTSP and the USCTI Support Program in Timor-Leste.*



# SUCCESS STORY

## Smoothing the Way for More MPAs

### Co-management guidelines for protected areas make it easier to add MPAs in Timor-Leste



Lore community member Joao Martins participates in a lively discussion with government about the co-management manual.

Photo: USAID CTSP / Tory Read

*“What government and CTSP have achieved is far from perfect, but it works. It is something the Department of Fisheries has helped come up with, it is our model. We would like to replicate this approach in other priority geographies.”*

– Augusto Fernandes, director of Fisheries and Aquaculture

With support from USAID’s Coral Triangle Support Partnership (CTSP), Conservation International and Rai Consultadoria, a private consulting group in Timor Leste, have created a new how-to manual on community and government cooperation in establishing co-managed Marine Protected Areas (MPAs) in Timor-Leste. Called “Guidelines to Co-Management,” the manual describes a clear procedure for applying the lessons learned in the development of three MPAs in Nino Konis Santana National Park (NKS). The manual includes step-by-step principles for working with the community, strengthening the community-government relationships, establishing community-based management systems that are aligned with customary practices (*tara bandu*), and integrating resource management systems into laws. While drawing on the marine and coastal experiences of the CTSP project it is intended as a resource for use by Timorese government and community, as well as international audiences in the countries involved in the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security.

The government is eager to build off the success of MPAs in NKS, and the communities involved are proud to be at the forefront of conservation and resource management in their country. “What government and CTSP have achieved is far from perfect, but it works,” said Augusto Fernandes, the national director of Fisheries and Aquaculture. “It is something the Department of Fisheries has helped come up with, it is our model. We would like to replicate this approach in other priority geographies.” His boss, Secretary of State Rafael Gonçalves, echoed this sentiment: “We need to collaborate with all shareholders to work together to enlarge our vision of expanding marine protection not just in the park but in all districts.”

DNPA officials, the NKS park manager, community leaders and local fishermen in MPA areas unanimously agree that the key to the success of this model is community engagement right from the start of the planning process, all the way through to involvement in MPA operations. A gradual process of education, trust-building, discussions and careful steps in three communities in the park led to the demarcation of MPAs and incorporation of zoning and management plans into local government regulations. The national government checked these plans for conformity to national law to ensure they are enforceable. Issues of enforcement, monitoring, funding and maintenance are now being addressed in ongoing talks between the interested parties.

The end result is MPAs that are well planned, well managed and well enforced. Although the kinks are still being worked out in the Timor-Leste MPA pilot, the excitement and common purpose of all the players is palpable. CTSP’s support for the creation of three new MPAs has inspired other communities and government to work for more protected areas around the country. The new manual will make it easier for this to happen. *Conservation International is the lead partner of CTSP and the USCTI Support Program in Timor-Leste.*



# SUCCESS STORY

## MPA Work Supports Park in Timor-Leste

### Co-management process transforms park officials in Nino Konis Santana National Park



Pedro Pinto, manager of the national park, has been part of the development of the park since 2004.

Photo: USAID CTSP / Tory Read

*“My dream is that this experience becomes a model to apply to the rest of NKS and other protected areas in Timor-Leste.”*

— Pedro Pinto, manager, Nino Konis Santana National Park

The eastern end of the island of Timor has received special protection since the Portuguese era. In 2007, the most ecologically important parts of it were declared a national park by the government of Timor-Leste. Under USAID’s Coral Triangle Support Partnership (CTSP), Conservation International and their local consultant Rai Consultadoria were requested by the government to support management efforts in the Nino Konis Santana (NKS) National Park in three areas as possible Marine Protected Area (MPA) sites. Officials from the Department of Fisheries and Aquaculture (DNPA), the manager of NKS and the park rangers joined CTSP team members for meetings and trainings on marine resource conservation in the communities of Com, Lore and Tutuala. The fishermen, *suku* (town) and *aldeia* (village) leaders and other interested parties attended these events that became the basis for co-management of the MPAs. This approach also serves as a model for future terrestrial conservation planning in the park.

NKS Manager Pedro Pinto has been involved with the park since 2004. The CTSP MPA process has profoundly affected him personally, shifting his focus from exploiting natural resources in the park to conserving them. He also learned the value of using local knowledge in program design. He now values co-management for reducing conflict, raising national consciousness of local problems and creating a whole that is greater than the sum of its parts. “My dream is that this experience becomes a model to apply to the rest of NKS and other protected areas in Timor-Leste,” he said.

The role of community has been critical in the successful conservation work in NKS. “Fishermen have a lot to teach, a lot of knowledge about many, many things,” said District Fisheries Officer Eligito Ximenes. “They used to apply this just to harvesting, now they share it with Fisheries to help guide marine protection.” He credits the partnership with CTSP for this positive development and for helping government deliver the information and support that communities in NKS deserve. Working with park rangers from the Department of Forestry has also contributed to an inter-agency partnership with Fisheries that puts them in position to tackle park issues together and to better understand the management challenges facing each of them.

Residents of Com, Lore and Tutuala are now eager to work together and with other *sukus* within the park, as they wait for the formal recognition of their co-management committees through national regulatory frameworks. They are also hoping for enforcement assistance from the government to police illegal fishing in the Timor-Leste territorial waters around their MPAs. To take full advantage of the co-management committees, the next step is for government take the lead in completing the management plan for NKS and to apply the lessons learned in marine resource management in Com, Lore and Tutuala to the terrestrial side of the park. *Conservation International is the lead partner of CTSP and the USCTI Support Program in Timor-Leste.*





# SUCCESS STORY

## Expanding Traditional Fisheries Protection

### Community in Timor-Leste uses scientific surveys to manage its marine resources



Tutuala *chefe de suku* Antonio da Fonseca sits just a few minutes' walk from his office above this striking vista of the community's MPA that he helped to establish.

Photo: USAID CTSP / Tory Read

*"The biggest difference is the change in the way we perceive our resources, from something to use up, to a bank account we can manage, taking out our interest when needed."*

– Antonio da Fonseca, *chefe de Suku*, Tutuala

Conservation International, a member of USAID's Coral Triangle Support Partnership (CTSP) found fertile ground for the marine resource management ideas developed by the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF) when it visited Tutuala *suku* (town) on the eastern tip of Timor-Leste. The *suku* council was already managing two small fisheries areas for food security, with a formal patrolling system in place to enforce fishing restrictions. Council members and fishermen were pleasantly surprised to learn that their nation wanted to work with them to enhance these efforts.

*Chefe de suku* Antonio da Fonseca embraced the co-management ideas of the Department of Fisheries and Aquaculture (DNPA) and CTSP and quickly familiarized himself with the regional aspirations of CTI-CFF as well. He learned after the 2009 Manado meeting, where the leaders of the Coral Triangle countries (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon islands and Timor-Leste) endorsed the CTI-CFF Regional Plan of Action, "that other countries were doing a lot. Timor-Leste has been catching up slowly and steadily ever since." On the community level, he continued, "One of the biggest changes is that

fishermen here have realized that they are not alone, that the problems they are facing are faced by fishermen throughout the region."

The biggest difference in Tutuala is "the change in the way we perceive our resources, from something to use up, to a bank account we can manage, taking out our interest when needed." CTSP was the catalyst for this process, holding community trainings on marine resources, supporting biological surveys of the waters and involving district representatives from DNPA in a planning process that resulted in the expansion of Tutuala's protected areas to a 1680 hectare core and buffer zone with close to 20,000 hectares of biologically significant area under improved management. The fishermen's association expanded its existing patrolling from the two traditional areas and assigns fishermen in rotation to patrol the MPA.

Tutuala already had a community-based tourism business. Community members listened to explanations of the benefits that marine conservation could bring to the fishing industry and to their lodge and tours, and they are excited by the likely increase in income from these two livelihoods. When the management plan for the MPA was complete, the *suku* council quickly voted for it and sent it to DNPA for approval. Natural resource management fits Tutuala's cultural traditions, and the information the community got through CTSP made it easy for them to appreciate the value of an expanded MPA. They have done their part, and are hoping that the national government will be able to provide enforcement assistance in patrolling against illegal commercial fishing boats in their managed areas. *Conservation International is the lead partner of CTSP and of the USCTI Support Program in Timor-Leste.*