



2021 TOP 100 GOOD PRACTICE STORY

Title of the Story: Reviving cultural traditions and fostering ecotourism development through Tara Bandu Marine Protected Areas

Destination Name: *(include any state, province or region)*

Ataúro Island

Country: Timor-Leste

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Position: President ATKOMA

Nomination Category: *(Please check the boxes that indicate the focus of your story)*

Please find detailed information for the categories below in the Top 100 training module 'Good Practice Story'.

- Localizing the destination supply chain
- Decarbonizing the destination supply chain
- Culture & Communities
- Environment & Climate
- Nature & Ecotourism
- Tourism Reset & Recovery
- Other

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DESCRIBE YOUR GOOD PRACTICE STORY

Address each aspect of your good practice story in the different sections being specific including relevant quantitative and qualitative information.

Issues faced

What was the problem/issue solved with the good practice? Click to add your text

Ataúro Island is a 25km stretch of volcanic rock and home to the most biodiverse reefs in the world. Natural resources include its coral reefs, endangered cetaceans migrating through the Ombai-Wetar strait, as well as rare terrestrial flora and fauna. With extreme ocean depths often reaching 3'000 meters as well as constant and strong nutrient rich water currents flushing the reefs, Ataúro has the highest average of reef fish species on the planet. Researchers have discovered 642 distinctive fish species including some previously unknown to science along with 11 whale and dolphin species, a sizable population of dugongs, 3 species of sea turtles and even the odd saltwater crocodile.

Tourism to Timor-Leste has seen a steady rise since 2011. International tourist arrivals have increased by 82% and tourism is now the main economic driver and employment generator. While the industry is expected to continue its expansion, the vision for further tourism and overall economic development in Timor-Leste and, particularly, Ataúro island is centered around nature protection and biodiversity conservation to foster low-impact ecotourism tourism that ensures economic support to the people of Ataúro and minimizes negative environmental as well as socio-cultural impacts.

In 2002, after centuries of colonization and exploitation, Timor-Leste once again became an independent nation. Tourism started developing in the country though local livelihoods were still largely dependent on natural resources, with tourism rising steadily since 2011. International tourist arrivals have since increased by 82% and tourism is now the main economic driver and employment generator. While the industry is expected to continue its expansion, the vision for further tourism and overall economic development in Timor-Leste and, particularly, Ataúro island is centered around nature protection and biodiversity conservation to foster low-impact ecotourism tourism that ensures economic support to the people of Ataúro and minimizes negative environmental as well as socio-cultural impacts.

However, in the island of Ataúro, with a limited number of police and forest guards it was difficult to control natural resources, especially forests and fisheries. Local communities needed to become more involved and unified to facilitate environmental conservation and secure human well-being. Today less than 10'000 people inhabit Ataúro, where tourism is still in its early stages of development and the livelihoods of local communities still greatly rely on fishing. Fishermen often remain in the easily accessible areas close to the shore and overfish. Blast fishing has caused several severe coral reef damages while large reef fish and sharks have become scarce. Meanwhile turtle shells and skins have broadly and commonly been used to make jewelry and other handicrafts for the visitors.

Uncontrolled nature exploitation can cause biodiversity degradation and threaten the health of Ataúro's reefs that can generate negative impacts not only on food security for local communities but



also on possibilities of well-managed marine ecotourism development. Reefs along with its inhabitants is the island's main tourism asset. Nature and adventure tourism offers great potential for adding economic value and offers economic diversification for Ataúro. Endangered areas above and below sea level around Ataúro need to be protected to limit development, conserve the environment, and protect local livelihoods while continuously driving sustainable tourist demand.

The ancient customary Timorese practice of *tara bandu* has been increasingly employed in recent years to ensure this endangered areas are better protected. In Tetum, the term *tara bandu* literally means prohibition (bandu) by hanging (tara). Local communities repurpose traditional conservation practices through *tara bandu* rules to create temporary fishing, hunting and harvesting closures in certain areas. *Tara bandu* is both a code of behavior and a community ritual, which uses local conservation knowledge and helps expand social networks and community cooperation. Recently, the practice of *tara bandu* has been used to establish 13 Marine Managed Areas across the island.

The practice and ritual of *tara bandu* has much more significance than just ecological protection, however. On December 8th, 1975, nine days following the Fretilin revolution that declared Timorese independence from the Portuguese, Indonesian armed forces occupied Timor-Leste and banned any traditional practices including *tara bandu*. These practices were replaced with regulations from the Indonesian national forestry system which failed to protect natural resources; [a 2004 study](#) in the journal Natural Resources Forum found that the last decade of Indonesian rule deforestation in the western part of Timor-Leste reached 18 percent, with fleets of ships employing destructive fishing techniques destroying marine habitats. *Tara bandu* is not just a way for Timorese to reclaim ownership of their natural resources; it is also a method for reclaiming their own independence by reviving ancient traditions.

Methods, steps and tools applied

In 2016, the community of Adara on the Western side of Ataúro were the first to use this traditional *tara bandu* approach to create a “no take” marine managed area (MMA). With support from WorldFish, a key changemaker born and raised in the village—known as Super Mario, an advocate of sustainable tourism development on the island and the President of ATKOMA—worked with the community to discuss plans for the protected area. The aim of the MMA was to protect the reef habitat, promote sustainable fisheries and food security through the replenishment of fish and marine product stocks, and promote marine ecotourism to the area by ensuring the preservation of the marine ecosystem. Following the success of this initiative, and with further support provided by Conservation International, a further twelve MMAs were established around the coastline of Ataúro through this *Tara Bandu* customary arrangement with the coastal communities in those areas (through 2017 and 2018).

According to the Sustainable Management Plan for Ataúro Island developed with the support of USAID, each of these sites includes a core area that is ‘no take’, surrounded by a buffer area. Activities permitted in these areas are governed through Suco (village) regulations that have been developed for each site (reviewable every two years). In the no take areas, all fishing and gleaning activities are forbidden, as is anchoring; and motorboats should not have access except in the cases of: (a) pre-approved access for non-destructive / extractive tourism activities, (b) community marine monitoring,



and (c) in situations related to emergencies at sea. In the buffer areas fishing is permitted using semi-traditional fishing techniques and for set times agreed with the Suco Council and community co-management committee of the site. It is possible to anchor and spearfish for larger fish, but the use of nets and large lures is forbidden. The Suco regulations are the same for each site (signed and agreed by the relevant Suco Council); and the document also includes greater detailed objectives of the MMA, information on the sanctions to be utilized for non-compliance, the management approach to be utilized for the area and associated rules. Overall, the 13 MMA's established under the Tara Bandu mechanism around Ataúro island cover a combined area of 1,308 ha, of which 37 percent (488 ha) are 'no take'.

One of the methods for gaining support for the tara bandu protected areas was to offset loss of fishing income with that from tourism. Every guest who swims, dives, or snorkeling within the MMA has to pay a \$2 fee to the village council. This has enabled villages like Beloi to earn over \$10,000 in 2018 according to recent research. However, tourist visitation is not distributed evenly across the island, so this has led to challenges in equitably distributing this income. Public events, communication campaigns, and using the tourism information center as a place to highlight the importance of marine and reef conservation are needed to help the residents of Ataúro understand the importance of reef and marine conservation and what can be done to support these efforts.

Key success factors

Three key elements have made the tara bandu MMAs successful: community support, government recognition, and ecotourism integration. As a form of customary law, Tara bandu is supported by formal law through Article 8, sub-sections 1,2 and 3 of the 'Environmental Base Law, No. 26/2012'. Once a community agrees on a Tara Bandu, all parties are bound by it. A person found guilty of violating a Tara Bandu restriction may be fined and / or have to hand over assets to the community, with many believing such a violation incurs a curse upon that individual. Tara Bandu is commonly used to safeguard trees, coconuts, bamboo and other agricultural products. On Ataúro Island, Tara Bandu has been used to protect mangrove areas, nut trees and traditional bee farms, and more recently has been used to establish marine managed areas. However, it is important to note that tara bandu is not a formal organization in its own right, and it relies on the support from community members to uphold the law and maintain its governance structure. Some research in the past has acknowledged the existence of so-called "kableha", a group of guardians in charge of the surveillance and monitoring of the ban. Without the complete support and buy-in from the local community, tara bandu will not work. So far, monitoring of MMAs has indicated positive biodiversity outcomes in no-take zones.

Lessons learned

While tara bandu is an ancient tradition, many new lessons have been learned trying to revive it in modern law. One of the main challenges has been ensuring that the newly created MMAs empower local fishers rather than exclude them. The creation of no-take zones has meant that many fishers



must travel further from the shore to find fishing grounds, and may have excluded them from traditional fishing areas. Reef gleaning, conducted mainly by women in the community, involved walking along the reef at low tide to gather edible material and pieces of coral, which is then used as lime powder in beloved betelnut chew. All of these important traditions cannot be ignored when implementing MMAs, and there had to be sufficient trade-off between a loss of potential livelihoods and new ones.

The \$2 user fee from tourism in the MMAs has been significant in helping this. However, the island is currently working towards a collective management system for all 13 MMAs, since the most popular areas near the port city of Beloi receive the greatest income, whereas others—in particular the largest MMA in the South of the island that rarely receives visitors—are gaining almost no income from tourism currently. Particularly in light of the COVID-19 crisis where tourism has been completely shut down across the island, MMA managers are working to consider more resilient and flexible systems for marine protection, whether through seasonal closures, bans on certain species, or else other sources of funding for villagers impacted by the protected area closures. Given the fluid nature of MMA evolution and continued changes in social structures for Timorese residents, it is important that the *tara bandu* system continues to evolve while respecting traditions in order to better respond to modern challenges of our time.

Results, achievements and recognitions

The marine environment surrounding Ataúro comprises a fringing reef, with wide expanses of coral gardens in the north and east of the island, accompanied by spectacular coral walls and deep plunging drop-offs, particularly on the west of the island (Silcock, 2020). The deep straits either side of the island (Ombai and Wetar) provide a throughflow of current (that can be critical for providing coral larvae recruits to an area), and likely promotes cooler upwellings from current swells. Both of these factors are recognized as essential elements for promoting “climate change resilience” for coral reefs; as the cool upwellings counter the increased sea surface temperature caused by global warming (that can otherwise cause bleaching and death of a reef); and the supply of larvae and recruits through current flows provide genetic diversity in reef stock that promotes robustness of the system (Grimsditch & Salm, 2006).

The underwater troughs of the Ombai-Wetar Strait are estimated to reach more the 3km deep, and are also recognized as a crucial area for marine mammal species, providing a major migration corridor for large whales, pelagic sharks, sea turtles and other marine megafauna in the western Indo-Pacific. The region is of such global significance that it has recently been declared as a ‘Mission Blue Hope Spot’. As Dr. Sylvia Earle, founder of Mission Blue and famed ocean explorer, noted in June 2020: “The Hope Spot [recognizes] the people of Timor-Leste’s extraordinary commitment to ocean conservation [and their] goals of establishing the country as a sustainable dive tourism and whale-watching destination, developing community-based conservation and marine ecotourism livelihoods, and supporting improved ocean protection.”

The importance of these waters surrounding Ataúro, combined with the resiliency of the marine environment, species diversity and ecosystem health of the island, have led to Ataúro Island being



recommended for formal protection status. To date, the island is already host to three categories of protected site. The Ombai Wetar Strait and the waters surrounding Ataúro Island are also a candidate Whale Heritage Site of the World Cetacean Alliance (<https://whaleheritagesites.org/ombai-wetar-strait-timor-leste/>).

Additional references

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