

Local Thai Communities Rescue the Sea and Themselves by Protecting Mangroves

In Thailand, grassroots conservation of mangroves has demonstrated success despite modest budgets and great need. Local communities assisted by a regional non-governmental organization are improving coastal ecosystems and their livelihoods at the same time.

by Alfredo Quarto

Mangroves once covered 36 million hectares in coastal regions of the tropics and sub-tropics. This extensive area has been reduced to around half of its original extent (18 million hectares) worldwide. Too often, local population growth and associated increasing resource demands are singled out as main contributors to mangrove forest loss. Although such practices as clearing of forests for small-scale agriculture and harvesting for local fuelwood are important factors to consider in any analysis, they are by no means the only factors contributing to mangrove loss. The insatiable demand for forest products by the timber and charcoal industries, as well as increasing tourism and agribusiness demands for more raw land, all combine to waste and endanger these valuable natural resources.

Another major factor affecting mangrove forest resources is the rapidly expanding shrimp aquaculture industry, which has in the past two decades become a major destructive force with regard to unsustainable coastal resource development. This multi-billion-dollar worldwide industry is expanding throughout Asia, Latin America, and, more recently, Africa. Vast tracts of habitat-rich mangrove forests have been cleared to make room for short-lived shrimp ponds, whose owners practice a form of “slash-and-burn” aquaculture. Consequently, the tropical coasts have seen the loss of hundreds of thousands of hectares of mangrove forests. Other factors, such as urban expansion, oil exploitation, and coastal pollution, all contribute to the destruction of mangrove forests as well. Such unsustainable development interests have damaged the once supportive local resource base to such an extent that the local communities, unable to sustain themselves via traditional livelihoods, often turn to the

nearby forests to meet their growing economic needs.

To stem the tide of mangrove wetland loss, urgent remedial steps need to be taken, including wide-scale restoration and conservation measures and halting of further expansion of shrimp aquaculture and other unsustainable developments in mangrove areas, while simultaneously curbing the consumer demand for shrimp and empowering local communities to conserve and sustainably manage their coastal resources. Because the destruction of mangroves intimately involves local populations, the future solutions to these problems must directly involve these dependent communities, through integrated coastal resource management.

Thailand’s Community Forest Project: Rescuing the Sea

In Thailand, more than half of the mangrove forests have been lost to development, especially shrimp farming. In the south-western Thai province of Trang, a small non-governmental organization called Yad Fon (Rain Drop) Association has taken up the cause for the mangroves and the coastal communities that depend on healthy mangrove ecosystems for their lives and livelihoods. For more than a decade, Yad Fon’s co-founder and current president Pisit Charnsnoh has led his organization in pioneering grassroots methods of enhancing local community involvement in management of coastal resources. He and the association’s staff have developed a methodology of village-level organizing that has been demonstrating success for mangrove conservation. The association’s work centers around the concept of the “community managed forest” and other local community involvement programs that ensure the sustainable management of coastal natural resources. Yad Fon Association’s organizing concepts involve local fishers and farmers taking on more responsibilities for managing their own local natural resources. By learning techniques that allow them to sustainably manage their surrounding resources, small village communities can ensure their livelihoods and traditional

Alfredo Quarto is co-director of the Mangrove Action Project, a nonprofit conservation organization based in Port Angeles, Washington.

cultures. Thus, communities that were once self-sufficient again are in a position to retain, or at least reclaim, their autonomy.

At one time, approximately one-half million people sustained themselves through small-scale fishing along the coasts of Thailand. This way of life has been more than decimated with the destruction of the mangrove forests, seagrass beds, and coral reefs that have been widely degraded in the country as a result of destructive fishing gear, large-scale commercial harvests, and the rapid development of intensive aquaculture. As a direct result of the deterioration of the coastal ecosystem, many fishing villages have faced severe hardship, resulting in some cases in the collapse

fish that naturally abound within the sheltering prop roots of the mangrove forest—but the community is restricted from cutting the trees beyond a certain minimal limit. Committees are selected to help manage the community forest, and these members provide leadership and direction in how the community forest should function. Strict guidelines are set to which all members of the community must adhere. The community forest also acts as sort of a village insurance, or welfare system, whereby the most needy villagers may obtain permission to extract a limited quantity of the forest resource to supplement their livelihoods. Often, widows or families with problems such

as illnesses are allowed access to community forest resources. But even this type of limited resource extraction is closely monitored.

In a pilot project set up in one of Yad Fon's early target villages, the village initiated a 94-hectare community forest, supported by the local community, the provincial government, and the Thai Forest Service. Through a series of community meetings and direct actions, villagers worked together to find solutions to their common problems based on a combination of local wisdom and modern knowledge. The community forest was both a focus and a conduit for this cooperation. The village began managing the stretch of mangrove forest and succeeded in replanting a degraded area at the same time. Within two months, the villagers began noticing an increase in their near-shore fish catch, and species of fish that were rare or had disappeared altogether began to reappear. From 1991 to 1994, villagers saw a

40 percent increase in their total catch, while also enjoying a substantial decrease in risk, time spent on the water, and fishing expenses, because the fishers were no longer forced to travel long distances or venture into the open sea. By the end of 1994, fishers spent an average of 3.5 fewer hours per day in their boats and saved about 30–40 Thai baht (US\$1.20–\$1.60) per day.

Over the more than 500 families in the target area, the community forest projects have increased the community's income by more than 200 percent. The villagers also gained a greater understanding of the importance of a healthy, restored ecosystem, and it more firmly committed them to further protecting their surrounding coastal resources and environment.

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Mangrove forests in southern Thailand's Trang Province ring the Andaman Sea and are the conservation focus of Yad Fon Association. Photo courtesy of Mangrove Action Project.

of the entire community. Yad Fon Association has assisted some of the poorest communities in coastal Thailand by helping them restore the ecosystems on which the villages depend—and through conservation, helping them restore the village structure as well.

One of the cornerstones of Yad Fon's project work involves the creation and local management of village-managed community forests. In these projects, the local village takes on the responsibility of managing and sustaining a small area of mangrove forest, while directly benefitting themselves from use of the forest resources. Within the community forest, villagers can harvest the forest's "by-products"—which include limited fuel-wood gathered from fallen or dead branches, forest fruits or leafy plants, medicinal herbs, and the crabs, shellfish, and

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Strength in Cooperation

Yad Fon is also working in 30 target villages to develop local savings plans. Under the savings plan, fishers from each community join together to form a fishing cooperative. They pool their monthly dues to build up a joint savings account, managed by an elected treasurer. The money saved is used to make small, low-interest or no-interest loans to group members who need to purchase or repair fishing gear or have other basic needs. The funds are also used to help members set up a cooperative center to purchase and sell fishing supplies at lower costs than those found at regular business outlets, which saves significant money for all shareholders. The fishing cooperatives also allow members to set a fair market price for their fish. Previously in these villages, it was common for fishers to trade their fish to pay off debts owed to creditors, at prices set by the creditor, who often doubled as the supplier of fishing supplies. Prices were invariably lower than fair market value, and fishers therefore lost twice—they were subject to high interest on loans and were forced to sell fish at below market costs. This formula increased the wealth of the creditors, and it brought crippling and spiraling poverty for the fishers. By organizing themselves as a cooperative, the villagers assert greater bargaining power and control to some extent the costs of materials and supplies, such as diesel, netting, lines, and tackle.

The Yad Fon Association itself offers small, interest-free loans of around 2,500 baht (\$100 US) to assist indebted fishers who are too poor to become shareholders in the village savings plan. This boosts the economy of the extremely poor coastal families, and it helps end the spiral toward bankruptcy. Almost 80 percent of the loans are repaid.

Through work with Yad Fon and their own cooperatives, the villages are increasing their awareness of the importance of protecting and restoring the coastal environment. The community learns that by conserving and restoring coastal resources, they can see a marked catch increase as a result of the healthier coastal ecology. In turn, the improved catch offers them an incentive to contribute their extra profits for dues and common cooperative funds. As they begin to see the increased yield from the sea and can fish more easily closer to shore, their costs go down, and the amount of time required for earning a living also decreases.

Why is Yad Fon Association successful? Partly because of the strong ties it develops with the local communities in which it works. The association begins its work in a particular village by sending representatives to live there as observers for an extended period of time. Organizers do not attempt to influence the villagers, nor do they offer advice to help improve organization within the village. They merely observe and take part in ongoing village activities. Perhaps a year or more later, when these Yad Fon organizers are accepted by the villagers, they begin to work with the villages to pinpoint the problems particular to each village and directing villagers' attention to


resolving them. Usually, the villagers themselves can come up with the solutions. Yad Fon then helps them initiate specific low-intensity projects that benefit the village in some way. A small-scale project would be the first organizational step for the Yad Fon organizers, and usually this leads to further involvement and trust between Yad Fon and the villagers. Eventually, Yad Fon steps back as the villagers continue their progress unaided. Yad Fon may still be called upon for advice, and will continue visiting the villages to follow their progress.

While villagers contribute local wisdom and knowledge, they don't always have the opportunity to share their knowledge. Yad Fon helps them sit down together and understand the shared problems that affect their village. Through a mix of modern knowledge—such as an understanding of the process of photosynthesis, siltation, and the loss of seagrass beds—and traditional wisdom, the villagers and Yad Fon often come up with better solutions.

When it first started, Yad Fon targeted four villages for its project work. Five years later, these successful target villages



Rhizophora mangroves such as these play a critical role for fish habitat and they contribute to preservation of other coastal systems including seagrass beds and coral reefs. Photo courtesy of Mangrove Action Project.



became working models that expanded Yad Fon's operations into five other nearby villages. The success of the projects spread by word of mouth, as a relative or friend from one village told a relation or friend in a neighboring village. Word also spread through the religious links via Muslim gatherings for services in the community mosques, where many villagers would exchange the latest news. Soon, Yad Fon was working in 17 villages. Yad Fon's slow but effective development process creates the friendships that are important for the association's continued work.

Yad Fon strives to expand its effectiveness and its work by linking coastal villages by their common goals and establishing a working network. These communities can respond more strongly to detrimental situations that might affect one or more communities. Acting in concert, this village network will have much greater influence. Already, Yad Fon's hopes are being realized and its 30 target villages are making those vital links possible. And as Yad Fon's reputation is spreading, new villages are approaching the organization for advice and intervention. Beginning with the work in Trang Province, similar approaches also have been extended to 10 other provinces in Southern Thailand.

The work of Yad Fon and the associated villages has produced visible results, and impressive battles have already been won. Coastal Thailand now benefits from recognizable achievements in sustainable mangrove forest and coastal resource management. The proof that such management is not only possible, but quite practical, is laid out for anyone to see. Mangrove forests and their associated coastal resources are being managed sustainably at the village level by the "poor fishers who rescued the sea."

Local wisdom had persevered after all. Where government and unregulated industry failed to sustain the resources, small fishing communities succeeded. Even the central government of Thailand has noticed the great success of Yad Fon's village communities: Three years ago, the Prime Minister of Thailand presented an award to Yad Fon for its accomplishments with the coastal villages. One of the target villages won a prestigious award for being a model for the rest of the country in managing its coastal resources in a sustainable way. Even the Royal Princess of Thailand visited the village and gave an award to its members for their valuable accomplishment. These village communities also have become shining examples for the Thai Forest Service, which is now trying to model its future coastal forest management plans on some of Yad Fon's principles. The Forest Service has even approached the association for advice, and now there is a more open and friendly discussion between government, NGOs, and villagers.

Yet success is never totally measured by past accomplishment. Personal resolve and empowerment are qualities that must themselves be nurtured and sustained. Despite future government programs or NGO involvement, it is really up to the villagers to carry themselves into the future. A motto of the association rings true: "The forest sustains the people who sustain the forest." ■