

# WILL THE FISHERMEN'S CHILDREN HAVE NO FISH?

By Susan Altman

## Community Co-management of MPAs in the Philippines



The more-than seven thousand islands of the Philippines dotted through the equatorial waters of the Pacific may resemble Paradise, but appearances can be misleading. In the midst of tropical beauty, 1.3 million people eek out an existence from fishing alone—an existence that has become more precarious each year. In a country where four of every ten people live in poverty, coastal villagers who depend solely upon fishing are returning home with fewer and fewer fish in their baskets. Fish stocks have plummeted in recent decades for myriad reasons—among them overexploitation

of the fisheries; destructive fishing practices; rampant, unplanned and often illegal coastal development, and pollution. Although subsistence fishers outnumber commercial fishermen ten to one, they obtain only about 45 percent of the total catch.

If these trends continue, the oceans of the Philippines will eventually become emptied of their once-bountiful marine life, the unique and beautiful coral reefs will perish, and the people who depend upon coastal resources will become even more desperately poor.

When people are hungry, their need for food necessarily comes before their willingness to protect the environment—even if in the long run conservation will provide them with more food. So any attempts to protect the oceans and marine life in the Philippines must also provide clear and clearly understood benefits—including more fish—to coastal people.

### A Solution for Fisheries, Fishers, and the Ecosystem

In 1974 the Philippines' first, experimental marine protected area (MPA) was created on Sumilon Island. It quickly proved successful at protecting both fish and environment—leading to significantly more fish inside the reserve than outside, and thus potentially providing more fish for food. As more people saw the potential for gaining benefits from establishing MPAs (Box 1), more sites were created. The total now stands at approximately 600 in as many coastal communities. Of the country's 832 coastal municipalities and cities that stretch along its 18,000 kilometer shoreline, about half have at least one small marine protected area (Figure 1). Until recently, however, most of these small reserves lacked strong management, staff, or enforcement capability, and they were not well known or understood even in some of the communities they bordered.

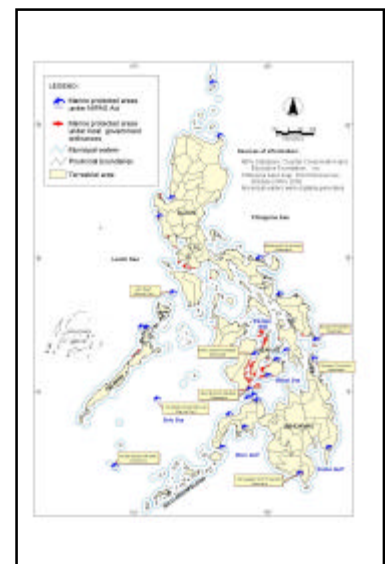


Figure 1: Locations of the MPAs in the Philippines

Several years ago Alan White, a marine management expert living the Philippines, decided to dedicate his considerable skills to improving the track record of his adopted country's MPAs. An American by birth, White received his doctorate in marine resource management from the University of Hawaii. He first went to the Philippines in 1978 as a Peace Corps Volunteer. He and his family later moved to Cebu City, which boasts of being the oldest city in the Philippines. He serves as chief of party for USAID's Coastal Resource Management Project and as president of the Coastal Conservation and Education Foundation (CCEF), based in Cebu City. In his work with USAID, he is employed by Tetra Tech EM Inc., an American company that began environment projects in the Philippines in the early 1990s. As an employee of Tetra Tech, White also assists with other projects of the company, including the newly awarded "Fisheries Increased for Sustainable Harvests" Project or FISH, also supported by USAID. This project builds on the lessons of the eight-year-long Coastal Resources Management Project and uses the MPA strategies and results of White's Pew Fellowship research.

White says that Philippine MPAs "have had a long tradition of poor governance, and they have lacked management guidance and evaluation, especially as the number of MPAs have proliferated in recent years. They had little access to criteria against which they could economically value the functions and resources of the MPAs, and have had only a few successful and sustainable models to follow." He also points out that "the value of recreation—such as scuba diving, snorkeling, beachcombing, sailing, wildlife viewing—is relatively high here as tourism increases and a growing Filipino middle class engages in such activities. Coral reef recreation is worth up to \$18,000 per hectare in selected sites. However, many people remain unaware of how valuable a resource the coastal areas are, and how endangered they are."

### Involved Communities Lead to Better MPAs

In 2001 Alan White applied for and won a Pew Marine Conservation Fellowship to support his plan to improve the management and public awareness of the Philippines' marine protected areas. He describes the award as "a wonderful opportunity to help inspire the countries' coastal communities and policy makers to actively take better care of their coastal resources."

White's ambitious Pew Fellowship project has five elements: biophysical research about reefs and coastal areas; a database to gather, analyze, and disseminate information about MPAs; monitoring and assessment of MPA sites, collaboration with stakeholders drawn from every sector and level of Philippine society, and public education about the findings of the project.

What is so unusual about White's project, in addition to its scope, is that local communities are actively and deeply involved in every aspect. For example, community participants are trained to collect data about the reefs and the fisheries through snorkel and scuba surveys and through "participatory coastal resource assessment." This technique engages community participants in the process of actively mapping their resource areas, evaluating the quality of coastal ecosystems, identifying issues for management, and setting priorities for improved stewardship of their areas in a plan. When possible, data are compiled on-site to show participants general trends. The complete data are then analyzed and presented to key stakeholders, including members of local communities and barangays (the smallest, most local level of Philippine government). White's MPA Management Rating System, which provides clear, measurable criteria for five levels of MPA development,



Alan White, Pew Marine Conservation Fellow ('01) with community participants in the MPA project.

#### BOX 1: HOW MPAS CAN BENEFIT THE PHILIPPINES

- Sustain and increase fishery yields.
- Protect and enhance marine biological diversity and marine habitats.
- Reduce resource use conflicts.
- Provide a simple and easy way to enforce conservation.
- Encourage community participation and empowerment in planning and management.
- Provide areas for ecotourism, environment-friendly enterprise, scientific research, public education, and cultural diversity.

**" [Participatory assessment] engages community participants in actively mapping their resource areas. "**

—Alan White

explicitly and implicitly encourages many community management activities. Findings are publicized in the affected communities through articles, posters, brochures, a website, videos, and seminars. (Because the Philippines has a 95-percent literacy rate, printed materials can be an effective means of large-scale education.)

Having worked so closely with many MPAs in setting up and working through the issues of co-management with communities, White and his team have learned important lessons about how to achieve success in this collaborative process (Box 2).

Since the early 1980s, White has worked with many fishing communities that have been frustrated with the decline of the coral reef and marine fisheries. He has found that most communities are eager to protect the coral reefs in their immediate area, and they are often willing to take action to manage their larger fishery resources if provided an effective means to do so. He points out that “in the Philippine context, small sanctuaries that mostly focus on coral reef areas have proven to be very effective, because coral reefs respond quickly to protection and fish stocks increase dramatically in just one or two years from a severely overfished condition. Fishers witness this change and are soon converted to supporters of small MPAs.”

### The Key Role of Leadership

But as is true for changes in human habits everywhere, communities that become MPA supporters are led by leaders who are truly committed individuals and willing to stand up for their beliefs. White says, “In all the MPAs that I have worked with or visited over the last 25 years, I can always remember individuals who made the difference in converting their group or constituency from resource destruction and depletion to a well-enforced MPA with some



Filipino women singing

associated regulations on fishing gear in the vicinity of the MPA. For example, the present Barangay Captain of Apo Island, who is now a dive master, was a kid I helped teach to snorkel in 1984. He now is a key person in managing the island reserve. And a man named Toti, who lives on Gilutongan Island [Cebu], has truly transformed the

management of the MPA from a reef-dynamiting area 15 years ago to one of the best-enforced and most highly visited coral reefs in the Central Visayas.”

White’s role in these areas has always been rather low key and supportive of the potential leaders in the community, in the hope that they will take the reins and run the show to protect their reefs and bring back life to their coastal existence. Although Filipinos love to participate, and many do, White points out that “people need strong leaders, and this has often been the thrust of our work—to build leaders at the community and local government level.”

#### BOX 2: LESSONS LEARNED IN COMMUNITY CO-MANAGEMENT OF PHILIPPINE MPAS

- Local government and local community organizations play a key role in implementation.
- Assistance from national government agencies, academia, and NGOs is often crucial.
- A strong leader with resolve to enforce the law can make the difference between success and failure.
- A realistic and evolving management work plan is necessary to guide the implementing body in achieving their goals for sustainable management and habitat protection.
- A multi-sectoral consultative group is very helpful to ensuring a successful MPA implementation.
- Budget allocations from local government, grants from private sector organizations and NGOs, and user fees can be put toward covering costs of MPA implementation.
- Ultimately, local management groups and local governments must set up and maintain sustainable financing mechanisms to ensure sustainability of their MPA projects.

### BOX 3: INDICATORS OF SUCCESS: COMMUNITY-BASED CO-MANAGEMENT OF PHILIPPINE MPAS

- By mid-2004, more than 300 MPAs had been declared by municipal or city ordinances and have been recorded in the MPA Database.
- Almost half (44 percent) of the MPAs are managed by a community organization.
- Another 11 percent are managed by a local government unit.
- Increasing numbers of marine tourists now visit MPAs, paying user fees and spending money that helps local communities. One MPA near Cebu City, the Gilutongan Marine Sanctuary, collected more than P2 million (US\$36,000) in 2003, and others are following suit.
- Sixteen MPAs have been directly assisted by the MPA project since it began in 2001. Assistance has included ongoing community-level technical assistance, community organizing, and training in skills needs to improve management of the site. More than 50 training sessions for up to 2000 participants have been conducted, on topics such as MPA planning, coral reef monitoring, setting up user fee systems, and running ecotourism ventures to support livelihood.
- Information on the importance of MPAs and how to improve their management has been disseminated through posters, several publications, and the MPA guide and rating system. Information has reached over 200 coastal communities that are implementing MPAs. In addition, the national agency responsible for MPAs has adopted the MPA guide and rating system for its 27 protected areas, which include coastal and marine areas and cover about 1.5 million hectares of marine waters.
- Communities are responding with increased interest and vigor in implementing their MPAs. Many are now showing improvements in effectiveness as the MPA rating system is applied and used to provide feedback to the MPA action plan.

With the help of people like Alan White, the Philippines has taken a lead in creating many successful small MPAs (see Box 3), using community co-management as a core technique. White says, "By collaborating with representatives from local communities, barangays, non-profit organizations, academics, businesses, and national government, our force will be more than the sum of individuals. Today, coastal problems are so complex that synergy is really the only way we can solve them."



Participants in the Philippine MPA Project



## Resources

Coastal Conservation and Education Foundation, Inc: <http://www.coast.ph/>

MPA Management Rating System online:<http://www.gov.ph>

Huttche CM, White AT, and Flores MMM. 2002. Sustainable Coastal Tourism Handbook for the Philippines. Coastal Resource Management Project of the Department of Environment and Natural Resources and the Department of Tourism. Cebu City, Philippines, 144 pages.

White AT, Courtney CA, Salamanca A. 2002. Experience with marine protected area planning and management in the Philippines. Coastal Management, Volume 30, Number 1, pages 1-26.

White A, Ledesma M, and Ovenden M. 2003. Chapter 35: Tubbataha Reefs National Marine Park, Palawan, pages 144-150. In Philippine Coral Reefs Through Time: Workshop Proceedings. Second of the Atlas of Philippine Coral Reefs Series Coral Reef Information Network of the Philippines. University of the Philippines Marine Science Institute, Quezon City, Philippines, and the Marine Parks Center of Japan, 197 pages.

White A, and Meneses A. 2003. Chapter 7: Mabini and Tingloy, Batangas, pages 29-34, and Chapter 17: Bohol Strait, pages 71-74. In Philippine Coral Reefs Through Time: Workshop Proceedings. Second of the Atlas of Philippine Coral Reefs Series Coral Reef Information Network of the Philippines. University of the Philippines Marine Science Institute, Quezon City, Philippines, and the Marine Parks Center of Japan, 197 pages.

White, AT, Meneses AT, and Ovenden ME. 2004. Management rating system for marine protected areas: An important tool to improve management. Department of Agriculture, Bureau of Fisheries and Aquatic Resources. In Turbulent Seas: The Status of Philippine Marine Fisheries Coastal Resource Management Project, Cebu City, Philippines, pages 226-231.

White AT, and Thia-Eng C. 2003. Coastal Management in the Philippines: Lessons of 20 Years. Presented at East Asian Seas Congress, December 8-12, Kuala Lumpur, Malaysia.