

In Honduras, Interior works to save an ancient homeland and Central America's greatest natural treasure.

Eric A. Greenquist

Last December the United Nations' World Heritage Committee added the Río Plátano Biosphere Reserve—Central America's most pristine natural area—to its "red list" of World Heritage in Danger.

The largest protected area in Honduras and part of the largest rain forest in Central America, the reserve joined 21 other listed world sites where the legacy of the earth and its peoples is most in danger of being lost. At Río Plátano, squatters and developers had cut and burned almost one-tenth of the 1,297,000-acre reserve. The land grab had erupted into violence, driving indigenous villagers from their ancient homelands.

The UN action did not surprise the Interior team that, for more than a year, has worked to help protect the reserve. Latin America, with more than one-half of the world's remaining tropical forests, has the highest rate of deforestation in the developing world. Working under the Partnership for Biodiversity, a three-year program funded by the Agency for International Development, Interior is helping to fight this rampant deforestation—the most environmentally destructive force in the Western Hemisphere.

Hunger drives much of the invasion. "The food situation in Honduras is critical," says **Osmín Padilla** of the Honduran Ministry of Health. At least 1.2 million Hondurans suffer from life-threatening malnutrition. Sixty percent of Hondurans—5.7 million persons—eat what they can find to subsist.

In spite of the destruction, the reserve remains an important cache of biodiversity. Nine-tenths of the reserve are intact, not yet having experienced the deforestation and human population growth that have damaged the region. Conservation International calls the reserve part of the most critical two percent of the earth's land surface.

In keeping with its designations as a Biosphere Reserve and World Heritage Site, the area includes the homelands of four ethnic groups: the Miskito, Garifuna, Tawahka-Sumu, and Pech. These peoples number fewer than 16,000 persons in the reserve and subsist on small gardens, hunting, and fishing.

No one knows how many villagers the outsiders have displaced. But as intruders push villagers

from the land, and as villagers turn to outsiders for employment, traditional activities in the reserve give way to economically transient—and more destructive—land uses. In addition to commercial logging, squatters and developers use the land for intensive farming and livestock grazing, while miners contaminate the Patuca and Plátano rivers, sickening villagers. Indigenous residents cut mahogany for foreign furniture-makers, and work for miners and foreign fishing companies.

In September 1995 the Forestry Administration of Honduras, which is responsible for protecting the reserve, joined Interior, the Agency for International Development, and Peace Corps in the Partnership for Biodiversity. Because biodiversity conservation is closely tied to the fates of indigenous peoples, the Partnership chose as its leader MOPAWI—a nonprofit organization that helps villages in the region. All Interior specialists work for the Partnership intermittently, in addition to their normal workloads.

Environmentally Friendly Businesses

"The Río Plátano is a special place," says **Edgardo Bodden**, a Miskito villager in Raistá. "But people need work to live.... Jobs like lobster fishing and wood cutting are destructive and unstable.... We need local businesses that are not so destructive."

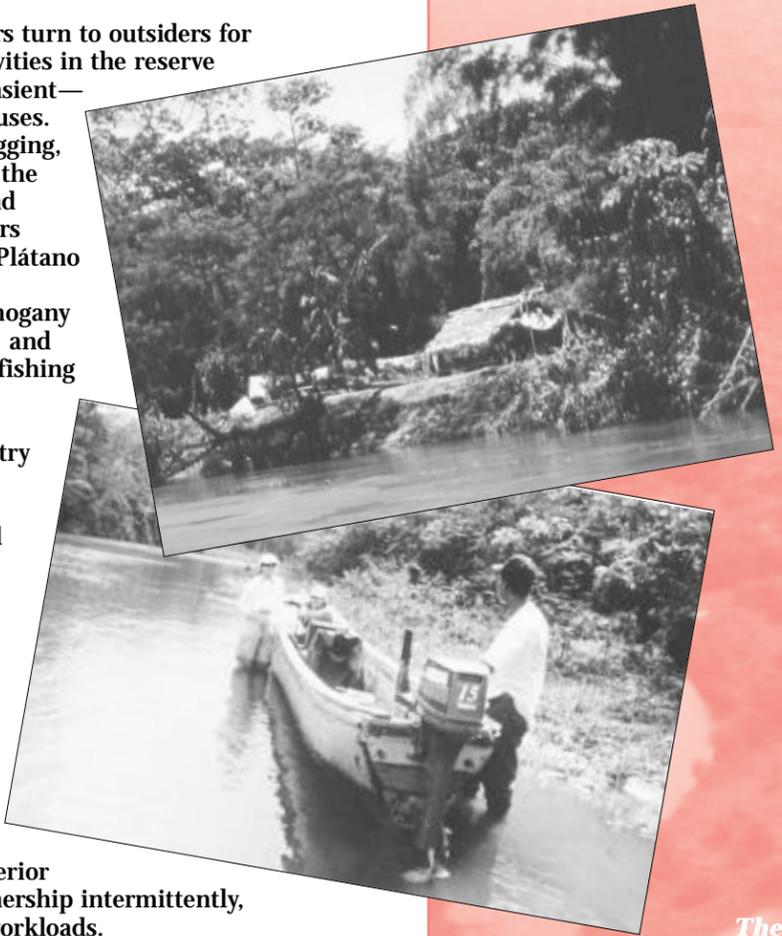
In 1995 MOPAWI and Peace Corps volunteer **Robert Gallardo** began a butterfly farm in Raistá on the north coast of the reserve. Villagers worked 4,700 hours to cultivate plants that wild butterflies seek for egg-laying. Several zoos in North America and Europe exhibit live butterflies; one zoo had promised to buy all the pupae the farm could produce. In the village of fewer than ninety persons, most of whom subsisted on small gardens and periodic jobs, this arrangement had seemed ideal.

surrounding rain forest. Those butterflies had been worth more than \$600: cash needed by the village. And the farm's second crop would be ready in only fifteen days.

Faced with disheartened villagers, MOPAWI alerted Interior. Within hours **Geneva Chong**, a botanist with the U.S. Geological Survey, and **Loren Cabe**, an economist with the Bureau of Land Management, found a new buyer and worked out terms for sale. Since then Geneva and Loren have found more buyers, made the farm more conservation-

Threatened

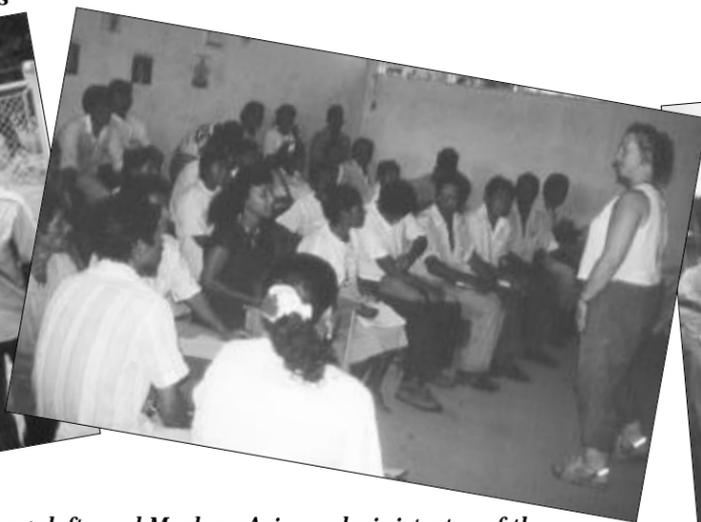
The Río Plátano Biosphere Reserve



The Río Plátano Biosphere Reserve and is a typical Miskito family home. In the heavy rains, all travel is by boat. Photo by Arden Anderson. (right and at left, or)



Last year, however, on the eve of the farm's first shipment, the zoo canceled its order. Suddenly without a buyer, villagers watched hundreds of butterflies emerge from their cocoons and flutter away into the



At top left, Geneva Chong, left, and Marlene Arias, administrator of the Raistá butterfly farm, prepare to capture live butterflies in a remote part of the reserve as part of a biological evaluation of the farm's potential. Photo by Eric Greenquist. Above, Arden Anderson, in the center of the group, leads Miskito and Pech villagers in Las Marías in one of the activities he used to help explain concepts of biodiversity conservation. Photo by Lisa Myers. At right, Lisa Myers leads a lesson in biodiversity values and conservation for Pech and Miskito villagers in Las Marías. Photo by Arden Anderson. At far right, from left, Arden Anderson, Loren Cabe, Lisa Myers, Tony Pardinás, and Eric Greenquist arrive in Palacios to begin work. Photo by Geneva Chong

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osphere Reserve



oriented and helped solve a variety of biological and financial problems. To date the farm has sold pupae worth \$5,480 and its operation is far more stable.

Arden Anderson of the Bureau of Land Management and **Lisa Myers** of the National Park Service help the 380 villagers of Las Mariás, a Pech and Miskito community

in the heart of the reserve. As many as 280 tourists visit Las Mariás annually. Villagers see opportunities for service businesses. According to **Martín Aerrera**, president of the local ecotourism committee, as many as eighty villagers eventually could benefit from tourism.

Last September Arden and Lisa began a series of workshops to teach villagers about the needs of tourists for lodging, transportation, trails and guides. Working with village carpenters, Fish and Wildlife Service architect **Tony Pardinás** designed a village meeting house and structures to improve drinking water. The village asked for these designs, in part to develop ecotourism, and provided the materials and labor to build them. Interior provided tools and additional materials that villagers could not get locally. Villagers completed the meeting house and water pumps last month.

A key to developing local businesses is the ability of locals to operate them independently of outsiders. Loren Cabe helps Peace Corps volunteer **Paul Dickey** develop training programs for villagers, many of whom only recently learned about money.

Community-Based Conservation

Because the Forestry Administration of Honduras has no staff in the reserve, conservation efforts must rely on villagers. The indigenous peoples see the need for local controls. In a region where villagers hunt all wild animals for food, **Mariano Pagooda** of Las Mariás says, "I see scarlet macaws along the trails. I know tourists want to see scarlet macaws but if I don't shoot them someone else will."

According to **Dr. Gustavo Cruz** of the University of Honduras, indigenous peoples have caused local declines in populations of iguana, turtles, tapir, and other wildlife. **Oswaldo Munguía** of MOPAWI reports shortages near some villages of mahogany, cedar, ceiba (used for canoes) and tunu (used for clothing and handicrafts).



Above left, a Pech woman weaves a bag out of the bark of a majao tree.

The Partnership helps ensure that traditional handicrafts are done in a sustainable manner and provide needed income to villagers. Photo by Eric Greenquist. Above, Edgardo Bodden, a Miskito villager, arranges pupae ready for shipment to zoos and collectors. At right, Richard Enriquez, right, and Benjamin Morales, president of the indigenous organization RAYAKA, discuss local needs for organizational strengthening as they wait for a boat at Sacapesca. Richard used many such informal meetings to gain a more diverse sense of local ideas and concerns. Photo by Eric Greenquist



"Education will help villagers understand the long term effects of their actions," says **Lisa Myers**, who leads Interior efforts in environmental education. Lisa works with Peace Corps volunteers and teachers to develop course outlines for children and adults.

With education providing the motivation, **Richard Enriquez** of the Fish and Wildlife Service focuses on organizational and planning skills. "Many local grass-roots organizations need help conducting meetings, defining goals, developing strategies, and motivating village members," says Richard who has helped North American tribes develop conservation plans. Lisa and Richard teach the basic skills villagers need to manage local resources.

An example of community-based management is in Plaplaya, on the coast of the reserve, where villagers are restoring marine turtle populations. Until recently, the national fisheries administration of Honduras did all such work and only on Honduras' southern coast. In 1995, however, MOPAWI and the Joy Foundation paid Garifuna villagers in Plaplaya small stipends to protect the nests of loggerhead and leatherback turtles. That year, villagers saved 43 nests from poachers and released 1,007 baby turtles to the sea.

MOPAWI and fisheries administration biologists, helped by Peace Corps volunteer **Jocelyn Peskin**, continued this project in 1996 under a food-for-work program. "Villagers are motivated as much by a desire to protect turtles as by the food they receive," says **David Bowman**, a Fish and Wildlife Service biologist who helps train local villagers and works to expand this project to other communities. "People remember when nesting turtles were common," explains **Adalberto Padilla** of MOPAWI. "Now they search many nights just to find one." School children enthusiastically support the project, helping to release the baby turtles and scolding their parents for taking turtle eggs.

This project, however, is not sustainable. Neither MOPAWI nor the national fisheries administration of Honduras has the funds to maintain it. Interior, therefore, proposed a unique solution: If Honduras' fisheries administration agrees to establish a program of marine turtle conservation along the north coast within ten years, Interior will find donors to help fund it during the first decade. The fisheries administration is working to develop a strategic plan and budget to begin the program this year. Meanwhile, the Partnership continues the food-for-work program in Plaplaya.

Controlling Illegal Activities

The Honduras government needs a permanent presence in the reserve to monitor and control illegal activities. Under the Partnership, the Forestry Administration of Honduras agreed to staff two offices this year. The German Government will fund these offices and Interior will help the Forestry Administration begin conservation actions with village organizations.

Another need is to legalize the boundaries of the reserve. A 1992 Presidential Agreement expanded the reserve to 2,013,000 acres, but Honduras' National Congress never approved the new boundaries. With Partnership assistance, Forestry Administration officials drafted the needed legislation, which they expect their Congress to enact this year.

Perhaps the Partnership's biggest potential coup however, is a proposal by **Rigoberto Sandoval Corea**, the general manager of the Forestry Administration, to organize land uses within the reserve. As part of this process, Sandoval offered to grant 40-year use rights to indigenous villages. The Partnership helped to design this unprecedented offer. If completed, this would give villagers their first legal means to evict outsiders from their traditional lands.

Under the Partnership for Biodiversity, Interior is helping to lay the foundations of future efforts by villagers, government agencies, and organizations. While Interior will touch few communities, it will help to leave a legacy of improved cooperation and trained persons. During its first year, Interior has helped in many ways.

Donaldo Allen of the indigenous organization RAYAKA compares Interior's work with the past promises of help from other groups. "You are the last to arrive," he says, "but the first to begin."

Eric Greenquist is the district wildlife biologist for the Bureau of Land Management in Eugene, Oregon, and the Honduras project manager for Interior's Office of International Affairs. He can be reached at (541) 683-6114; Fax: (541) 683-6981; Email: egreenqu@or.blm.gov