



## against the odds

### *three states in palau collaborate to conserve a precious bay*

On a Friday night in the village of Ngaremlengui on the coast just north of Ngaremeduu Bay, men linger at the fishing co-op as fish feed in the mangroves across the channel. Illuminated by bare bulb lights, the men sit on wooden benches and at long picnic tables, shirts off, having a smoke or a betel nut chew and chatting about the week's events. The phone is always ringing at the co-op, a longtime village institution and the hub of the men's social life. "It's where the boys hang out," said Oinge Rengiil, one of four local men who staff the co-op.

These men are almost as proud to be from one of three villages protecting the bay as they are of the shark that one of them just brought in. They know that in a small but complex country like theirs, with tribal chiefs, legislatures in each of 16 different states, a federal government, and a council of chiefs, three communities working together is nothing short of a miracle.

Independent from the United States since 1994, the Republic of Palau is the western-most island group of Micronesia. For its 18,000 people, a quarter of whom are contract laborers from overseas, the government is the largest single employer.

Babeldaob, the Republic of Palau's largest island, is home to 4,600 people. The high volcanic island is 396 square kilometers in size and divided into 10 states. On Babeldaob's western coast, Ngaremeduu Bay stretches across the boundaries of three states: Aimeliik, Ngaremlengui, and Ngatpang.

Getting around the island is difficult. It takes more than an hour and a half in a four-wheel-drive to get from Palau's bustling cosmopolitan capital of Koror to the village of Ngaremlengui, just north of Ngaremeduu Conservation Area and only 30 minutes away from the capital by motor boat.

#### **a natural nursery**

Ngaremeduu Bay is the largest estuary in all of Micronesia and one of Palau's primary marine nursery grounds. Approximately 12,960 hectares in size, including the marine area between the mouth of the bay and the reef, Ngaremeduu Conservation Area is one of the most biologically diverse marine areas in the world. Three major rivers run into the bay from the uplands, including Micronesia's largest river, the Ngermeskang. The conservation area includes these rivers and their banks, some uplands, an extensive mangrove forest, the bay itself, the lagoon, and Ngaremeduu's coral reef, which hosts 300 species of reef fish, 200 species of stony corals, and 166 species of macro-invertebrates.

Hawksbill sea turtles, saltwater crocodiles, and dugong, an endangered species of sea cow, all make their way to Ngaremeduu Bay. "The bay is a natural nursery," said Theo Isamu, Director of the Bureau of Marine Resources in Koror, which oversees the conservation area project.

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**Opposite: Ngaremeduu Bay is the centerpiece of 12,960-hectare Ngaremeduu Conservation Area, on the west coast of Babeldaob Island in Palau.**

**Above: Josephine Felix and Edwin Montecalvo clean fresh-caught sea cucumbers at the old dock in Ngatpang village. Josephine's father, Chief Rebelkuul Felix Osilek, sells sea cucumbers to vendors in Koror through the fish co-op in neighboring Ngaremlengui.**

“It’s a good birthing place for crab, crocodile, shrimp, and many kinds of small fish,” said elementary school teacher Janice Yukiwo of Ngatpang. “The lagoon is a good feeding ground for dugong, which eat the sea grass.”

The conservation area also includes over 700 hectares of healthy mangroves, comprising approximately 13 mangrove species. “Mangroves act like a filter and keep junk out of the bay,” said conservation area committee chair Erchar Franz, a fisherman from Ngaremlengui and a regular at the co-op. “They also protect the bay’s wildlife; young fish and crabs grow up among the mangrove roots.” Birds are everywhere and include six out of eight of Palau’s endemic bird species.

### three diverse communities

Each of the three villages that depend on Ngaremeduu Bay for their inhabitants’ livelihood has a distinct personality. Two are in the state of Ngatpang and one is in the state of Ngaremlengui. Villages in Aimeliik state are far from the bay and do not rely on resources in the conservation area. One thing all three villages have in common is a plenitude of four-wheel drive vehicles, essential for anyone wanting to leave the villages by any means other than motorboat.

Ibobang, on the east shore of the bay in Ngatpang state, is the only village located within the conservation area boundaries. Ibobang is the hub of an old Palau religion called Modekngai, which translates as togetherness. Alcohol and cigarettes are banned in the village, which hosts an annual gathering for Modekngai believers. “It’s mostly older people and kids,” said Joey Mad, a young Ngaremlengui man who lived in Ibobang for four years. “The adults are working in Koror to make money to take care of their parents back in the village.”

The village of Ngatpang, on the coast just south of the mouth of the bay, is the seat of Ngatpang’s state government. Internal village politics are close to the surface, as the state’s executive officer does not always agree with the legislature’s decisions. “Our legislature is composed of ten traditional chiefs,” said Gilbert Demei, Ngatpang State Executive Officer.

**Boys in Ibobang play basketball on a hot afternoon. Elders and children live in the village, while working adults are off earning a wage for the family in Koror, Palau’s capital.**



**Conservation area committee member Wilson Ongos of Ngaremlengui reviews Ibobang village's proposal for a new landfill. The bag he carries includes all of the ingredients for a good betel nut chew.**



“They did away with closed seasons for mangrove crabbing a few years ago. Two of the chiefs are mangrove crabbers, and they convinced the others to do away with the ban. I have a background in environmental work, and I know we need to have closed seasons to prevent over-harvesting.”

Ngaremlengui, one of the oldest villages in Palau, is full of business-savvy people who still follow custom and revere their traditional chiefs. Their state still has harvesting bans, and people respect them. “We have problems with people from other villages setting traps during the banning time in our section of the bay, and also with people poaching crabs from the traps,” said Ngaremlengui Chief Ngiraklang Blau Skebong.

#### **managing the conservation area**

Relations among the villages aren't always smooth, but they are still able to work together to manage the conservation area through the conservation area committee, formed in 1998. Four representatives from each of the three states sit on the committee, which makes decisions on behalf of the conservation area. They rotate meeting location from state to state, so everyone gets a turn at solving the endless transportation hassles that are part of life on Babeldaob Island.

At the outset, committee members already understood the traditional practice of “bul,” a temporary ban on harvesting certain species, but they had never worked on a conservation project before. “This is my first time working on conservation,” said committee chair Erchar Franz of Ngaremlengui. “In the beginning, all of us on the committee spent a lot of time learning what modern conservation is.”

“When people in the village hear ‘conservation,’ they think this means no access and no future development, because before this project, that's what it meant,” said Theo Isamu, Director of the Bureau of Marine Resources.

The committee has come a long way since it first met in 1998, progressing from learning the basics of modern conservation, including the idea of scientific monitoring, to blowing the whistle recently on a national landfill project within the conservation area's boundaries. “A woman on the conservation area committee, Yolsau Ais, came and told us about it,” said Fritz Koshiba, Minister of Resources and Development for the national government and Theo's boss. “We went out there with

the GPS and discovered the landfill project was inside the conservation area. They were doing the landfill in the wrong place. Even though it was a national government project, they had to stop work and move. All the silt and waste would have drained straight into the waters of Ngaremeduu Bay.”

“When I joined in 1999, I hated being on the committee,” said Yolsau Ais of Aimeliik state, committee vice-chair. “I thought, what can I contribute? I was bad in science when I was in school, and I didn't know anything about conservation. I was intimidated to be on the committee. Now, three years later, I can even talk about conservation, and I don't get nervous anymore when technical topics come up.”

The conservation area committee works closely with conservation area support officer Alma Ridep-Morris. “My job is to make the linkages between the communities and the state governments, between the state governments and the national government, and between the national government and the communities,” said Alma.

“Alma is a good communicator,” said committee member Wilson Ongos of Ngaremlengui. “When she has an idea, she puts it on the table, and she gets everyone's input. It's nice to see the plan change based on what we say.”

#### **a national development project creates a roadblock**

In a country with jurisdictions as complicated as Palau's, it's no surprise that communication problems and competing interests have slowed down implementation of a collaborative, community-based project like the conservation area. Misunderstandings over one national development project in particular, the compact road project, created confusion in villagers' minds about the difference between conservation and preservation, and held up the conservation area project for more than two years.

Part of a 50-year aid agreement between the United States and Palau, the compact road is an 85-kilometer ring road under construction around Babeldaob Island. “We've had to meet certain U.S. requirements to get the road built,” said Minister Fritz Koshiba. “One requirement is that we compensate for the environmental impact of the road, especially on the wetlands, by setting aside two mitigation sites on Babeldaob Island. Initially, the U.S. wanted both of the mitigation sites to meet

U.S. environmental protection and preservation standards, which means they would be off-limits to any kind of resource use.”

The national government couldn’t start building the compact road until they had identified and set aside these protected areas, and the compact road project had already faced many delays. From the national government’s perspective, Ngaremeduu Conservation Area seemed like a natural and easy choice for a mitigation site.

The conservation area project was well under way when the government began looking for mitigation sites in 1998. A conservation area support officer had been in place since 1995. Extensive consultations had already taken place at the federal, state, and community levels. By 1997, the three states of Aimeliik, Ngatpang, and Ngaremlengui had agreed to create the conservation area, and they had established the inland boundary to include the upland watershed that leads to the Bay. “Communities agreed to the boundaries, which included upland areas, because we agreed to allow sustainable use,” said Alma, the conservation area support officer.

“We had already begun the effort to create the conservation area, and the national compact road committee wanted to take advantage of that,” said Chief Rebelkuul Felix Osilek, who represents Ngatpang on the conservation area committee.

Without fully consulting with the conservation area committee and the support officer, the national compact road committee held its own meetings with the communities and states of Ngaremeduu Conservation Area. At these meetings, national government representatives explained that, as a mitigation site, the conservation area would have to follow the United States’ strict preservation and protection rules.

Ngaremeduu communities and states were confused, because the conservation area committee and the support officer had told them that sustainable use would be allowed. Now, the compact road committee was saying something different.

Local people also began to have second thoughts, because the compact road would make the uplands areas viable for new development. “When the communities and the states first agreed to the conservation area, there was no compact road and no infrastructure in place,” said Minister Fritz Koshiha. “They couldn’t really imagine much development use for the land. Once something like the compact road begins to become a real-

ity, anyone in their right mind would want the chance to make good money from the opportunity.”

“Some people in Ngaremlengui were primarily interested in protecting their right to make businesses along the compact road, but they didn’t represent all of us,” said Erchar Franz. “I wanted the conservation area to go all the way to the road.”

The compact road debate temporarily shipwrecked the delicately balanced agreement created at the end of the initial two-year conservation area project consultation process. “We saw all the hard work, all the trust and support from communities we had gained slowly over a period of years, practically thrown out the window,” said Alma.

“We had to work really hard to find a solution,” said Minister Fritz Koshiha. “We had many meetings, here in Koror, in Babeldaob, in Hawaii, in Guam — at the community level, the state level, the national level, and also with the U.S. government. Everybody had to compromise.”

In the end, Ngaremeduu communities secured their right to use resources in a sustainable way within the conservation area, as previously agreed. They also insisted that the original upland boundary of the conservation area change to exclude their private property. With the exception of the three major rivers, flanked by 25-foot buffer zones, and a small portion of state-owned upland forest in Aimeliik, the upland watershed was removed from the conservation area. “We lost almost all the uplands, but we saved the mangroves,” said Fritz Koshiha.

#### **the conservation area committee moves ahead**

Against the odds, Ngaremeduu Conservation Area survived, and the three states of Aimeliik, Ngatpang, and Ngaremlengui each passed legislation recognizing Ngaremeduu Conservation Area and its new boundaries in May 1999. This formal conservation status will be difficult to revoke. “Now that we are recognized by state law, we know that our bay will be protected,” said Chief Ngiraklang Blau Skebong of Ngaremlengui.

The states have formalized their agreement to work together, and the conservation area committee is moving forward. Their plans are clearly spelled out in a conservation area management plan they created in collaboration with Alma in 2000. “It must have gone through at least 18 drafts, because I



**Daewoo company of Korea has the contract to build the 8.5-kilometer compact road, a ring road under construction on Babeldaob Island. This national development project created a temporary roadblock for the conservation area.**



**On Saturday morning at the Ngaremlengui fish co-op, Sigilkikii Oly chops leaves that act as a preservative for sea cucumbers. Co-op staff make two or three trips a week to the markets in Koror, Palau's capital.**



presented every draft to the committee and went through the details," said Alma. "We had to agree on what was realistic."

After so many years of negotiating, communities are growing impatient to see benefits, so the committee has placed a high priority on developing alternative sources of income. "We've put a lot of time into serving on the committee, but we haven't seen economic benefits yet," said conservation area committee member Chief Rubeang Hiromi Nabeyama of Ngatpang.

"Our top priorities are to develop an ecotourism operation and to hire a patrol officer to enforce harvesting bans and catch poachers," said Wilson Ongos, committee member from Ngaremlengui. Ecotourism is a good choice for Ngaremeduu, given that Palau's famous Rock Islands already draw many tourists each year. Ngaremlengui will serve as home base for the kayak and tourism operation, because it already has strong local capacity for running businesses, including a lodge, a general store, and the fish co-op, which predates the conservation area.

"An ecotourism workshop I attended in Samoa got me thinking about making a trail to the waterfall and integrating a kayak trip down from there, through the big river and mangroves to the bay," said Erchar. "I also started thinking about a lodge. Once we earn some money from basic kayaking tours in the bay, we can move on to developing these other ecotourism activities."

In addition to ecotourism and patrolling, the committee has identified biodiversity monitoring as an important activity. Monitoring systems are in place to measure changes in water quality, crab population, mangrove habitat, and the reef and its diverse marine life.

While many people now understand the concept of sustainable use, few see the connection between the health of the upland areas and the life of Ngaremeduu Bay. Road construction is

**Bigeye scad, called terekrik in Palauan, travel in large schools through Ngaremeduu lagoon. Terekrik is a good bait fish.**

already resulting in erosion and increased sedimentation in the rivers and the bay. Because villagers who own land by the compact road will soon make decisions about how to develop it, the management plan for the conservation area calls for sustainable development, as well as new education and awareness activities. These include a quarterly newsletter, an educational coloring book, and an illustrated mangrove guide for villagers.

#### **government and donor support ensure the future**

The national government in Koror supports Ngaremeduu Conservation Area. The Bureau of Marine Resources has included staff support for the project in its next budget, and the Ministry of Resources and Development is firmly behind it. "State leaders change every four years," said Minister Fritz Koshiha. "If we want to see Ngaremeduu protected, the national government is going to have to play a role for a fairly long time."

Complementing national government support, a diverse base of foreign donors is rallying to the cause, including USDA, MAREPAC, SPREP Telegrant Scheme, and UNESCO, which recently awarded the project a major grant. Funds from these organizations will support the committee's plans for ecotourism, patrols, and biodiversity monitoring.

"In 10 years, you'll see that the conservation area has made a difference," said Oinge Rengiil of Ngaremlengui. "When the road's finished, things are going to change here. Development is going to come in. We'll regret it if we don't conserve our bay. There's no big bay like this anywhere else in Palau." Or, for that matter, in the world.