

# Pacific Gulf of Nicoya 'Dying a Slow Death'

Third in a five-part series on the challenges facing Costa Rica's fisheries.

By Dave Sherwood

Tico Times Staff

COSTA DE PAJAROS, Puntarenas – Oscar Luis García has a shiny, tight potbelly that belies the bare cupboards inside his home.

The shelves are dusty, his two-room house musty and dark.

He lies, legs dangling, in a fishnet hammock, strung low between rafters on his porch, facing the sparkling Gulf of Nicoya, on the central Pacific coast.

Countless children of all ages sit slouched, backs to the wall, in shady spots around his tin-roofed porch. Isla de Pájaros bulges like a pregnant belly from the gelatinous sea, a hump in the otherwise glassy expanse of water.

Brightly colored boats tied to palm trees line the narrow black ribbon of high-tide beach, and pelicans, strung like pearls on the horizon, dive and settle in the near-shore waters.

The scene is idyllic, but the situation dire.

The Gulf itself, off-limits to fishing for three months during an annual period of *veda*, or closure, May to July this year, is slowly dying before the eyes of this desperate fishing family.

García throws up his hands when asked what he's had to do to make ends meet as fisheries flounder and closed seasons, meant to lessen pressure on the greatly overfished bay, encroach on his livelihood.

"There is nothing," he says.

The government subsidizes fishermen's families during closed seasons. But the amount, ₡45,000 (\$90) a month, is laughable, say most fishermen here. It is barely enough to feed large families birthed in better times.

No one in this ramshackle fishing village, with rutted, mud-puddle roads and stilt homes tucked into mangrove forests, seems to agree on the solution, but everyone can say for certain the system is broken.

García says there are "people two towns inland who never get their feet wet yet still receive the subsidies," and others, like himself, who don't, despite his lifetime as a fisherman on the Gulf.

He says he's in *tramité* on his license – which has kept him out of the system – but insists officials know he's a fisherman, and his family is desperate.

He is trapped, he says. *Veda* or no *veda*, the fishery is fading. His family is poor. The system, he claims, is corrupt.

According to a recent report by the U.N. Food and Agriculture Organization, the number of overfished stocks in the world's oceans tripled in the past 30 years.

Costa Rica's principal fisheries, from tuna to shark to corvina and snapper, are all on the list.

Not long ago, explained Randall Arauz, outspoken fisheries advocate from the Marine Turtle Restoration Program (PRE-TOMA), the country's fisheries were ruled by small boats, many of them powered by sail or paddle.

Today, outboard motors, radar, fish finders and modern fishing methods such as trawling and long-lining have increased fishermen's range and effectiveness.

Shrimp trawlers, hulking beasts and a sight synonymous with the Puntarenas waterfront, drag nets either on the bottom or through the middle water column, depending on where shrimp are found. They are ruthlessly effective tools, and wasteful.

By-catch from trawling is high, and unintended captures – including sea turtles – are common, Arauz explained.

"It's not just shrimp they're catching. They're wiping out an entire ecosystem," he said.

Likewise for long-liners, who string thousands of hooks on a single line and let them float at sea – indiscriminately catching everything from undersize fish to sea turtles.

Some survive, others don't, Arauz said.

The "net" effect, he said, is an ocean fishery threatened by fishermen that are too effective for their own good.

For National University (UNA) biologist José Palacias, who participated in a recent Japanese International Cooperation Agency (JICA) study that looked at fisheries in the Gulf of Nicoya – a major spawning ground and nursery for the area's fisheries – the proof is in the numbers.

In the 1970s, when García began fishing in the Gulf, 65% of the country's fish and seafood products came from the Gulf of Nicoya, Palacias said.

Today, that number has plummeted to less than 30%, with pressure now threatening other species and depleting more distant fisheries.

Palacias, who works within eyeshot of the Gulf and spends almost every day on its murky-green water, said the answer is simple, but will be a bitter pill to swallow: a 50% reduction in fishing pressure, now.

Otherwise, he added, the results could be disastrous.

"The Gulf is dying a slow death, but because it's not something we see, like a forest being cut down, we haven't done anything about it," Palacias said.

## Desperation

García fishes from a rickety *panga* that looks like it was carved from the trunk of a



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**Way of Life at Risk:** Fisherman Oscar Luis García and his niece María Naranjo, 3, enjoy the late afternoon calm along Costa de Pájaros on the northeastern Gulf of Nicoya. The tranquil scene belies an uncomfortable truth: fisheries here are slowly dying, according to biologists, and with it, the region's fishing culture.

tree – long, narrow and on this day, dragged ashore and out of service.

His faded outboard motor sits leaning against the wall of his house, waiting, like García, for the re-opening of the season.

Like most of the fishermen along the Pacific coast, he fishes for whatever he can catch, which lately means whatever is left: small corvina, *pargo* (snapper), *robalo* (snook) and when he can find them, *camarones* (shrimp).

García, like almost two-thirds of the country's fishermen, uses a variety of low-impact methods – from hook and line to nets that are either dragged on bottom, behind a boat or used to encircle his catch in the Gulf's shallow-water bays.

But as competition has increased from larger shrimp boats and resources have become scarce, the temptations to cheat, he said, have become greater.

"We haven't seen a patrol boat here in months," he added, pointing out to sea.

Despite the *veda*, he said, many fishermen fish just the same.

"We understand about closed seasons, and need to protect our fish, but we also must feed our families," García said.

Many, he said, now use nets with smaller-than-regulation mesh sizes, which means they're catching smaller and smaller fish.

According to Palacias, the effect has been devastating. Baby fish are prevented from growing larger, making recuperation impossible.

Overfishing, disregard for regulations, and the flawed policies of the institution that regulates the country's fisheries have left Costa Rica's oceans in dire straits, Palacias said.

"Everyone knows it's happening. Politicians, scientists, fishermen. It's just no one is willing to make the decision to fix things." ■

**Next:** The Costa Rican Fisheries Institute (INCOPECA) struggles to manage the country's fishing industry.

## Former Fisherman Seeks Solutions

Five years ago, Emilio Moreno traded the hum of an outboard motor for the gentle whir of an air-conditioner.

Deeply tanned, with the firm handshake of a man who's spent his life at sea, his silhouette is a striking contrast to the sterile white office building near the docks in the Pacific port of Puntarenas.

It is a Saturday. Outside the tinted windows of his office, men work, folding nets and preparing for the next day's fishing. Inside, there is a computer and a desk with some orderly white documents placed beside a manila folder.

Moreno comes from one of the oldest fishing families in Puntarenas and has fished the once-fertile waters of the Gulf of Nicoya since he was a young boy, at his father's side.

As stocks declined, he was forced farther and farther from his Puntarenas home – to Guanacaste, in the north, and Golfo Dulce to the south.

Then stocks began to dwindle there, too. Expenses mounted.

He sold his boats years ago after being forced out of the business by rising costs, a flood of new fishermen armed with larger, more efficient boats and a drastic decline in shrimp and fish populations along the country's coastlines.

He tried to set up a small hotel, but the government had no program to help fishermen who'd been forced out of the business by plummeting catches and increasing costs.

Now he works as an operations manager for a

European-owned company with two shrimp boats and spends most of his time ashore.

He said he's surviving, but just barely.

"If we keep like we are now, the fishermen of the Pacific are going to disappear," he said, shaking his head. "The fishing gets worse and worse each year."

Moreno isn't waiting for the government to come up with a plan for sustainable fisheries.

"I sold my boats because I never felt that the government was looking for a viable solution to help fishermen, or the resource," Moreno said. "So now we're looking for our own solutions."

He lifts a plastic sheet from a pile of traps near the docks where the company keeps its enormous, 100-foot-long shrimp boats with drag nets, and reveals a pile of harmless looking, shoebox-size traps.

They're shrimp traps, similar to those used by lobster or crab fishermen in the United States, but with smaller mesh to keep the catch inside.

The concept is brutally simple. Once the shrimp swim through a narrow funnel, they can't find a way out and become trapped.

The traps are strung hundreds to a line, and tending them requires less gas than drag nets. It also does less damage to the environment than dragging the large nets across the ocean floor.

Moreno said he doesn't know if they'll work, but as the fisheries decline, he feels he has no other choice.

"We have to do something," he said.

–Dave Sherwood

## Does the Closed Season Work?

At one point, it seemed like the answer everyone was looking for: Close down the fishing industry in the depleted Pacific-coast Gulf of Nicoya for three months every year, when snapper and corvina are reproducing, and the fish will eventually recover.

So far, it hasn't worked.

"The fishermen don't respect the closure. If we keep going like this, without giving the fish a break, soon we won't be fishing at all," said José Palacias, a National University (UNA) marine biologist who has studied the Gulf for decades.

Palacias also believes more research is needed to ensure that the closure, or *veda*, is accomplishing its mission of protecting fish during spawning seasons.

"A closure that doesn't correspond with the spawning season does not help us," he said.

Fishermen interviewed by The Tico Times said

they understood the need for the closure, but added the meager government subsidy – just \$270 during a three-month period – forces them to continue fishing illegally to feed their families.

Randall Arauz, of the Marine Turtle Restoration Program (PRE-TOMA), believes the subsidies are a crutch and another unnecessary expense that the government could better spend elsewhere – such as in conservation, further research or improving enforcement of its own laws, he said.

"Look around the globe. All fisheries have seasons, and not every country offers subsidies. When you're a fisherman, and you're doing well, you save money. That's one of the first rules of fishing. Subsidies aren't helping the problem of overfishing, they're perpetuating it," he said.

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