Costa Rica: High Hopes for Radar Crash Against Reality of Illegal Fishing in Costa Rica

The installation of a radar tower on Costa Rica’s Cocos Island heralded a new era for curbing illegal fishing in one of the world’s most biodiverse ocean regions.

Rich in reef fish, sharks, tuna and other lucrative species, poachers had been raiding the island’s waters for years.

The “radar was a way to say that up to here is the control and protection of the country,” said Haydee Rodríguez, an environmental lawyer and Costa Rica’s former vice-minister for Waters and Oceans.

The radar tower was meant to be the first of 11, forming a surveillance dragnet unlike anything seen in Latin America. Today it stands alone, a beacon to the difficulties small countries have in employing new technologies to monitor their vast waters.

The Rise and Fall of Costa Rica’s Radar System

The radar system was first proposed in a 2012 report on control strategies for protecting Costa Rica’s ocean territory, 11 times larger than the country itself. Cocos Island, about 550 kilometers off the country’s Pacific coast, provided the ideal spot to showcase the first radar project, costing about $3.4 million.

A UNESCO world heritage site, Cocos Island National Park hosts tropical rainforest, coral reefs, waterfalls and green mountains. Its waters -- with an abundance of fish, rays, turtles and sharks, including whitetips and giant hammerheads -- have been compared to an underwater Jurassic Park.

Construction of the tower began in 2015. A promotional video shows the rigors of building the 100-foot tower atop the island. Supplies and workers are ferried there. Pullies and winches haul materials through the forest.

A hydroelectric system and control room – replete with solar panels and satellite telecommunication – are built to keep the radar running and provide round-the-clock monitoring capabilities.

“It was the Ferrari of radars at that time,” Mónica Gamboa, of the conservation organization Forever Costa Rica (Costa Rica por Siempre), told InSight Crime.

Soon after the radar’s deployment in 2017, Oswaldo Rosero, a specialist in maritime control and vigilance, saw a drastic reduction in illegal fishing.

“It was like magic. Immediately boats began to respect the boundaries of the zone because they knew we were going to see them,” Rosero told InSight Crime.

But when oceanographer Sylvia Earle visited the ranger station on Cocos Island in May 2017, she heard the first concerns.

“We are seeing a lot of illegal fishing boats,” a ranger told her, according to a travelogue her organization Mission Blue published of her trip. But without patrol boats and gasoline, “we just see them and can’t do anything,” he said.

The radar was also difficult to maintain and repair. The institutions involved in keeping it functioning didn’t have the logistical capabilities to monitor the high-tech system, said Gamboa.

Once a debt crisis struck the country in 2017, the other planned towers were left in limbo.

“It was a very useful tool,” Gamboa said. “But at the end of the day, it was a tool without everything else that was required, and it was not going to give the results it could potentially give.”

**Challenges facing Costa Rica**

Illegal fishing remains a significant and growing threat to marine life on Cocos Island. A report published by Friends of Cocos Island (Amigos Isla del Coco - Faico), a non-governmental organization, found that seizures of illegal catch, interception of boats and prosecutions are minimal.

Damián Martínez, conservation director at the Costa Rican Fishing Federation (Federación Costarricense de Pesca – Fecop), said judicial institutions lack the capacity and knowledge to investigate and prosecute rogue boats.

“There is a lot of impunity,” he told InSight Crime.

Late last year, a Global Marine Commodities report described the government’s inaction in protecting sharks, tuna, swordfish and other deep-sea fish, despite presenting a plan to do so.

Shark finning still occurs in Costa Rica, thanks to laws not being enforced, according to the report. In 2021, the Central American nation accounted for four percent of the world’s shark fin exports, according to Abrams.

**Radars Get Second Chance**

Whether the radar still functions is unclear, and the marine sanctuary around the island has grown to 61,500 square miles of ocean, about three times the size of mainland Costa Rica.

After hard-earned lessons, radar is again being examined to monitor the country’s marine reserves, said Gamboa. But it needs to be part of a comprehensive, cost-effective strategy.

Gamboa said that Costa Rica has been considered a world leader in conservation efforts. That needs to hold true for the oceans too, she said.

Western Hemisphere Regional Illegal, Unreported, and Unregulated Fishing Assessment