

The Wrong Fish on the Menu:

The Unintended Side Effects of the Palau National Marine Sanctuary

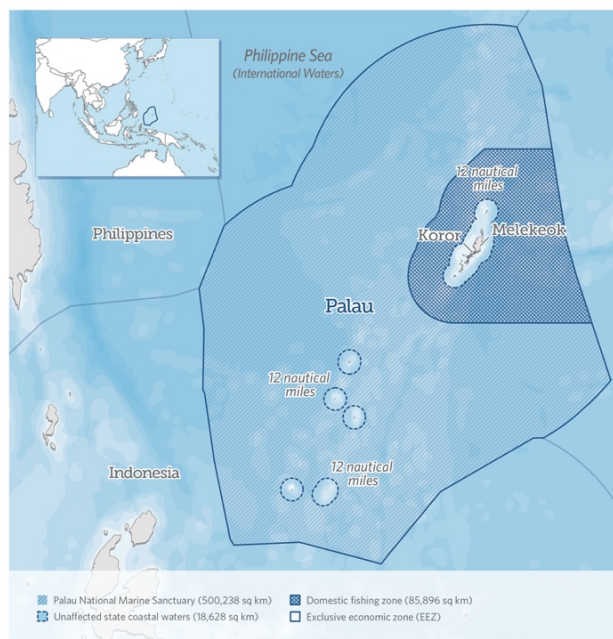


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Background

In a milestone event, last year on January 1, 2020 the Palau National Marine Sanctuary (PNMS) took effect, closing off 500,000 km² of ocean as a no-take marine protected area (MPA). Spanning nearly 80% of Palau's economic exclusive zone (EEZ), it stands as the sixth largest MPA in the world. PNMS aimed at conserving vulnerable fish stocks such as the tuna, reef fish, and sharks, boosting domestic fishing. The remaining 20% of the EEZ is only open to domestic fishermen. Seen by the environmental community as a crucial win for the ocean and global biodiversity, the establishment of the PNMS appeared to be taking momentous steps towards establishing large MPAs as a global norm. However, recently, the MPA is seeing unintended side effects.

Palau National Marine Sanctuary



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Palau National Marine Reserve Stats

- 500,000 km² in size
- 80% of economic exclusive zone
- 6th largest MPA in the world

The Problem

Despite the environmental gains from PNMS, the large MPA designed to promote fish availability for locals, it has spurred the exact opposite: a tuna shortage. The new fish on the menu? Vulnerable reef fish. This shortage is not directly tied to the overall functioning of the MPA, but to the restrictions on international fleets. To keep up with domestic fish demands, local fishermen have begun catching larger amounts of reef fish, the very fish that PNMR was originally intended to protect. In addition, most locals do not own fishing vessels and with the cost of fishing on rise due to the limited space in the remaining 20%, commercial fishermen have left to search for fish elsewhere.



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Decrease in tuna availability



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Increase in reef fish catches



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Lack of ownership of fishing vessels



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Increase in the price of fishing

The Effect

With little capacity for local fisherman to catch tuna due to elevated costs of fishing, the fish markets are seeing a shift towards reef fish. Tkel Etpiston, the owner of the seafood restaurant Drop Off known for its tuna poke, noted that his restaurant is no longer able to sell tuna and is forced to instead sell reef fish: **“we were selling tuna, filleted tuna, and then now that there is no tuna, they are buying reef fish, so we’re putting more pressure on resources we are trying to protect,”** though he acknowledges the importance of having an MPA. Large domestic fleets such as Palau International Traders Corporation have left Palauan waters to fish elsewhere, stating that fishing there is no longer economically viable. Now though the issue of fishing cost has become greater as the Covid-19 pandemic shutdown international travel into Palau and no revenue is being generated from eco-tourism.



Photograph by Carl Safina

Recommendations

The first problem to be tackled is to lower the price of fishing for local fishermen. Though government subsidies oftentimes do more harm than good, targeted subsidies to local artisanal fishermen would allow for fishermen to purchase the necessary gear, vessels, and licenses to begin fishing for tuna and overall benefit more than harm. Second, it is vital that the local fishermen are properly trained in catching tuna. There exists a proposed strategy of training local Palauan in the art of tuna fishing from experts in Japan, so creating a more widespread program such as this will help to jump start local tuna fishing. In conjunction, improvements in fishing technology, such as satellite tracking and tagging of tuna fish schools, could increase the catch per unit effort of tuna fishing for locals. It is important to note that, throughout the process, the practice of protecting and conserving fish stocks continues. Without properly protected stocks, a local tuna market is not possible. The creation of PNMS is a monumental achievement for Palau and the unintended side effects observed should not undermine the current protection offered to their waters.

Subsidies to local artisanal fishermen to purchase vessels and gear

Enhanced program to train local fishermen how to fish for tuna

Improvements in fishing technology

Continuing protecting vulnerable fish stocks

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