

Study highlights benefits of combining marine reserves with rights-based fisheries management

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A new study published in the June 15th *Oceanography* journal finds that effective fisheries reform strategies are more than a pipe dream: they exist and they work. In fact, rights-based fisheries management can change the lives of small-scale fishermen and coastal communities around the world.

"Solutions for recovering and sustaining the bounty of the ocean: combining fishery reforms, rights-based management and [marine reserves](#)," just published online in *Oceanography* shows that combining marine reserves with spatial rights-based fisheries management can provide synergistic benefits.

"Instead of racing to catch as much as they can, local fishermen receive exclusive access to a designated fishery area in the form of "territorial use rights in fisheries, or TURFs, a type of rights-based fishery management," said Brett Jenks, CEO of Rare and an author of the study. "The territorial rights concept is actually one of the oldest methods of dividing catch."

"This new study provides a strong and comprehensive rationale for pairing secure fishing rights with marine reserves," said co-author Amanda Leland, senior vice president, Environmental Defense Fund. "Each science-based success story is impressive on its own; but taken together they illustrate in a compelling way how they can be replicated and scaled on the global stage through partnerships like Fish Forever."

"Finding solutions that can work in thousands of the world's small scale fisheries is key to creating a better future for coastal reefs and the millions of people who depend on them," said Steve Gaines, Dean, Bren School of Environmental Science and

Management at the University of California Santa Barbara. "TURFs and marine reserves have benefits when used alone, but together they provide a far more effective and scalable solution that can meet this challenge."

Granting exclusive access can then spur a sense of local ownership of the area, and local fishers and community members have a clear reason to take up conservation measures protecting their TURF. Ideally, TURFs are paired with marine reserves or "no-take zones" that prohibit fishing and other extractive activities inside an area within or adjacent to a given TURF. In these spots, fish populations have room to recover and eventually spill over into the TURFs. Along the way, fishers become better stewards of the ocean.

The *Oceanography* paper highlights seven categories of potential benefits from pairing TURFs and marine reserves: 1) Promote natural emergence of community-initiated marine reserves, 2) Establish private marine reserves by eco-tourism or conservation outfitters, 3) Deploy reserves as buffers between TURFs, 4) Generate profit-sharing mechanisms between fishers and tourism operators in revenue-generating marine reserves to reduce opposition to reserve implementation, 5) Protect bycatch species, 6) Increase fishery profits and fish abundance, and 7) Decrease illegal, unreported and unregulated (IUU) fishing.

Given the potential of these paired systems, this paper emphasizes a call to action to engage both top-down (centralized government and institutions) and bottom-up (community) approaches to inform the design, implementation and management of these systems. With designs informed by science and supported by both local communities and national governance, TURF-Reserves are paving the way to maximize economic, social, and

environmental wins globally.

- Rights based fishery management methods like TURFS have been implemented in countries around the world, accounting for 20-25% of global landings by biomass.
- Success for marine reserves: Studies have shown that well-managed no take areas boost fish stocks by an average of 446 percent inside a protected area and 207 percent outside of it.

More information: Barner, A.K., J. Lubchenco, C. Costello, S.D. Gaines, A. Leland, B. Jenks, S. Murawski, E. Schwaab, and M. Spring. 2015. Solutions for recovering and sustaining the bounty of the ocean: Combining fishery reforms, rights-based fisheries management, and marine reserves. *Oceanography* 28(2):252–263, [dx.doi.org/10.5670/oceanog.2015.51](https://doi.org/10.5670/oceanog.2015.51)

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