

Big study of fishing communities finds good neighbors are hard to come by

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Participants from communities along the coast of East Africa discuss fishing regulations at a recent fisher forum. CREDIT: Credit: E. Darling/WCS.

A study of 89 fishing communities in East Africa has found that good neighbors who agree with common proposals to improve shared fisheries management are uncommon, illustrating that the "tragedy of the

commons" dilemma is alive for many fisheries facing sustainable use challenges.

Fortunately, the authors of the newly published paper also discovered that neighborliness appears to depend on predictable factors such as activities being proposed, the perceptions of the costs and benefits, and the national historical context of development and conflicts. And, the researchers say, some proposals for improving fishing can probably be handled by friendly get-togethers while others will require larger scales of governance and less-friendly enforcement. The implication is that achieving global fisheries sustainability will need some combination of informal agreements and consequential enforcement for those failing to comply.

The study titled "Demographic variability and scales of agreement and disagreement over resource management restrictions" appears online in the journal *Ecology and Society*. Authors Dr. Tim McClanahan and C.A. Abunge from the Wildlife Conservation Society based the study on interviews with nearly 2000 marine fishers in Kenya, Tanzania, Mozambique, and Madagascar.

This study is a first-of-its kind to look at the perceptions of fisheries restrictions between neighboring communities in four African countries that share fishing grounds. The study was stimulated by the ever-increasing responsibilities put on communities to manage their fisheries resources in the context of historical failures by national governments.

From [previous work](#), researchers knew the perceptions of restriction benefits within fishing communities could be strong for some types of low-cost restrictions such as minimum sizes at capture and allowable fishing gears. The question being addressed in this study was whether these same perceptions would match when looking at a community's nearest neighbors and for larger-scale management recommendations

such as restrictions of species capture and protected areas.

The researchers found that members from different communities shared more positive outlooks on lax restrictions but still less agreement than among their own community members. Among stricter and large-scale restrictions, agreements between neighbors were uncommon. The levels of agreement on restrictions between different communities depended on numbers of people, economic development, communication capacities and past histories of resource management conflicts—all of which led to less agreement among neighbors. This finding suggests there are limits on how much communities can manage fisheries through agreed-on behaviors—a critical element in the smooth functioning of societies.

The researchers suggest that more agreements can be reached by first finding common ground between communities and their preferences. To do this, polling people and finding their preferences can avoid unworkable plans or outcomes that only benefit a few.

"Our investigations of these [communities](#) tells us that perceptions of fairness and justice were at the core of disagreements," said McClanahan, Senior Conservation Scientist for WCS and a co-author of the study. "Transparent justice procedures should be promoted to improve compliance with proposed fisheries restrictions."

The [authors](#) also noted that the scales of human [agreement](#) and governance are smaller than the scales at which resources for many marine animals depend. A mismatch between scales of human responsibility and the resource needs of animals creates a great challenge for promoting fisheries sustainability in coral reefs and global fisheries.

More information: Tim R. McClanahan et al, Demographic variability and scales of agreement and disagreement over resource

management restrictions, *Ecology and Society* (2018). [DOI: 10.5751/ES-10544-230433](https://doi.org/10.5751/ES-10544-230433)

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