

International Fisheries Governance that Works: The Case for a Global Fisheries Organization

by J. Samuel Barkin and Elizabeth R. DeSombre

“There are three major functions that a global fisheries organization can usefully perform to generate effective global governance of international fisheries. In order of increasing ambition, these are: 1) the coordination and oversight of the existing network of RFMO management, 2) the generation of international cooperation on limiting and, ultimately, eliminating subsidization of the fishing industry, and 3) the creation of a system of international individual transferable quotas (ITQs).”

International fisheries are being overexploited, and the current institutional structure in place to manage them is not working effectively. Presently, two sets of intergovernmental institutions oversee global fishing. The first comprises roughly three dozen regional fisheries management organizations (RFMOs), approximately 19 of which are charged with regulating fishing in the areas they oversee. The second set consists of global organizations that touch on but do not directly regulate fisheries issues, such as the United Nations Food and Agriculture Organization (FAO), the World Trade Organization (WTO), the World Bank, and the International Maritime Organization (IMO). This management patchwork is inadequate to the task, and needs to be supplemented by a new global fisheries organization. Such an organization would most usefully serve three core functions:

- *Coordinating the various existing institutional participants in international fisheries governance;*
- *Addressing the crisis of overcapitalization and overcapacity in the fishing industry driven by widespread government subsidies;*
- *Overseeing a system of international individual transferable quotas (ITQs).*

This policy brief outlines the nature of the problem and discusses these three functions in greater depth.¹

International Fisheries

By some measures, more than three-quarters of commercial fish stocks are either fully exploited or overexploited.² Total global catch reached a plateau of between 80 and 90 million tonnes per year in the mid-1980s and has remained there ever since.³ Meanwhile, the effort to catch the same amount of fish is increasing. While some (but far from all) well-managed fisheries in developed countries show signs of recovery from unsustainable fishing practices, the same is not true of international fisheries.⁴

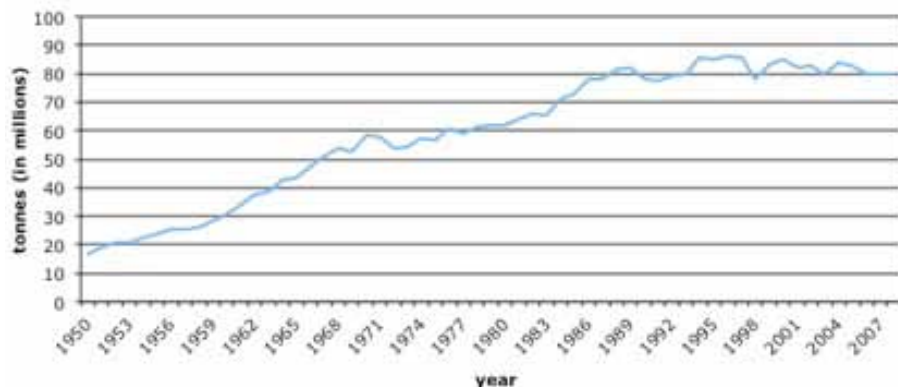


Figure 1: World Marine Fish Catches

Statistics from Food and Agriculture Organization, Fisheries and Aquaculture Department, “Fishery Statistics,” Global Capture Production, 1950–2008, www.fao.org/fishery/statistics/en (date visited: August 6, 2011).

International fisheries are those that reside entirely in international waters, outside of national exclusive economic zones (EEZs); that straddle EEZ borders; or that involve highly migratory species, which move across international waters and different EEZs. Individual countries cannot effectively regulate and manage such fisheries. These fisheries are often referred to as common pool resources, meaning that while everyone collectively might recognize a common interest in sustainable management of the resource, countries have an individual incentive to overfish because the benefits of restraint are likely to be undermined by overfishing by others.⁵ Effective management of international fisheries therefore requires effective coordination and meaningful enforcement mechanisms.

The current structure of global fisheries management, however, fails to provide either central coordination or meaningful enforcement mechanisms. The global institutions involved in the process do not generate authoritative fishing regulation. The IMO oversees safety of fishing vessels but has no role in determining what they can catch or how. The other global institutions either gather information and provide management advice, as in the case of the FAO and the World Bank, or attempt but are unable to create hard law mechanisms, as in the case of the WTO. They create no rules to enforce, and their efforts overlap and lack centralized coordination. Responsibility for effective regulation is thus left entirely to the regional organizations, RFMOs.

Regional Fisheries Management Organizations

While some of the RFMOs are able to limit overexploitation of some specific stocks, they are unable to effectively manage international fisheries as a whole. There are two reasons why RFMOs are so limited. The first is that they are, by design, regional, whereas the problem is global. The second is that they only regulate fishing effort; they are not designed to address the key problem in the political economy of contemporary international fisheries management: the fact that the industry is simply too big.

Individual RFMOs regulate either specific geographical regions, as is the case with the Northwest Atlantic Fisheries Organization (NAFO) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), or specific fish species within broader regions, such as the Indian Ocean Tuna Commission (IOTC). The territories of these different kinds of RFMOs sometimes overlap, although their jurisdiction over specific species does not. This division of responsibilities for the most part makes sense from a traditional fisheries management perspective, because it generally mirrors the location of specific fish stocks (see Figure 1).



Figure 2 Map of Regional Fisheries Management Organizations



Regulation is thus based on where the fish are, rather than where the fishers are. Those who have the technology to catch fish in international fisheries, however, generally have the ability to fish across RFMO boundaries, and many have the ability to move globally in search of fish stocks. This creates a geographic mismatch between the regulatory mechanism, RFMOs, and the ultimate object of regulation, fishers. Regulating specific species in specific locations can relieve the pressure of overexploitation on a given stock, but the fishers involved can simply fish elsewhere, putting additional pressure on other stocks.

The second problem with RFMO regulation, therefore, is that even when it generates quotas on specific catches, it does not address total fishing capacity. There are simply more vessels and people in the industry than the global stock of fish can support. When an individual RFMO tightens regulation of a specific fishery, that fishery can then support fewer fishers. But fishers have investments in equipment and skills, and can often draw on subsidies if they continue fishing. If they are forced out of a specific fishery by increased regulation, they are likely to try to find somewhere else to fish, rather than to stop fishing altogether. In other words, tighter regulation of a specific fishery is likely to lead to fishers looking for new fisheries, and therefore to increased pressure on other stocks. This phenomenon can be thought of as a balloon problem—squeeze fishing capacity in one place and it bulges out elsewhere, where regulation is weakest. Even in the unlikely event that all RFMOs manage to tighten regulation at the same pace, the excess capacity displaced by increased regulation will likely find regulatory gaps in the system—fish species not yet regulated or areas without regulatory RFMOs—and exploit those gaps.

RFMOs are institutionally poorly equipped to address the balloon problem. They are designed to address the practices of an existing fishing industry, not to address the size of that industry. In current governance practice, the size of national fleets is a matter of national concern, and international regulation affects only those portions of national fleets that governments allow to exploit international fisheries. Beyond the fact that the global problem of overcapacity in the fishing industry is not addressed, this two-level model of governance is further undermined by the fact that individual vessel owners can choose to register their ships in countries that do not participate in RFMO governance. These countries, called flags of convenience, are major obstacles to effective governance of international fisheries.⁶ Ultimately, governance of international fisheries is a global problem that needs a global solution. Attempts to improve cooperation among RFMOs or to scale them up do not change the fact that they are inherently regional mechanisms.

Rationale for a Global Fisheries Organization

One way to generate a global solution is to address the management of international fisheries through an intergovernmental

institution that is both global in nature and designed specifically to address the problem of overcapacity in the industry. This institution, a global fisheries organization (GFO), would ideally be a new, rather than a repurposed version of an existing, organization. The creation of this new organization would not require universal participation, or even initial participation by all members of existing RFMOs, as long as those states that are the major markets for imported fish are involved. Once the participation of those countries is assured, members can require participation in the new global process from countries from which they import fish products. This kind of market power has already proved effective at increasing membership and participation (even from flag-of-convenience states) in regulatory processes within individual RFMOs.⁷ Organized in a systematic way by a GFO, it could prove even more so.

There are three major functions that a GFO can usefully perform to generate effective global governance of international fisheries. In order of increasing ambition, these are: 1) the coordination and oversight of the existing network of RFMO management, 2) the generation of international cooperation on limiting and, ultimately, eliminating subsidization of the fishing industry, and 3) the creation of a system of international individual transferable quotas (ITQs).

Coordination and Oversight

Managing the complete set of RFMOs as a single system lies at the core of a Global Fisheries Organization's responsibilities. Coordination involves tracking the overlap and gaps of RFMO coverage to minimize the space for regulatory arbitrage by the industry. When the balloon effect puts new pressure on a previously underexploited species, there will be an institution in place to address the problem and work toward a cooperative response. Oversight involves making sure that all RFMOs are working effectively and have compatible approaches and standards. While there is currently some cooperation and communication of best practices among RFMOs, it does not happen systematically, and the RFMOs are not properly resourced for it. A GFO will make sure that the benefits of cooperation and oversight accrue to all RFMOs and result in fewer gaps in the system.

Coordination and oversight by a single GFO should make the system of RFMOs work both more efficiently and more effectively. But it will not address the central problem of the system, that of excess capacity in the industry. The other two functions that a GFO can perform—reducing subsidies and creating international ITQs—will address the excess capacity issue directly.

Subsidies Reduction and Elimination

The global fishing industry is heavily subsidized. By some estimates, as much as one-quarter of total industry revenue comes

from subsidies.⁸ Subsidization makes the global fishing fleet significantly larger than it would otherwise be: larger than both existing fish stocks and the global market for fish can support. Governments, in other words, put money into creating more fishing capacity while working (through RFMOs and other regulatory processes) to reduce the amount of fish that can be caught. These two activities work at cross-purposes: governments are both wasting money and undermining their own fisheries management efforts. Cooperative efforts to reduce subsidies can save governments money and improve international fisheries governance without generating the sort of competitive disadvantages that unilateral reduction in subsidies might create.

There have been a number of efforts by global intergovernmental institutions to generate negotiated reductions in fisheries subsidies, including the WTO, the Organization for Economic Cooperation and Development (OECD), and the Conference of the Parties to the Convention on Biological Diversity (CBD).⁹ But none has succeeded. A GFO, where fisheries management efforts would not be subordinate to other institutional goals, would be a more effective vehicle for hosting negotiations to reduce, and ultimately eliminate, subsidies.

International Individual Transferable Quotas (ITQs)

Reducing subsidies would allow market signals about overcapacity to reach the industry, which would help to address the problem. But market signals by themselves are insufficient as long as fisheries are a common pool resource. Effective management requires controlling the open-access aspect of fisheries. One of the management techniques that has proved most effective at the domestic level is the use of ITQs. Each ITQ is a specific proportion of the total allowable catch for a particular species or fishery. A comprehensive ITQ system, by requiring all fishers to hold quota in order to catch fish, will limit the overall amount of fishing capacity that can access global stocks. ITQs are generally owned by specific fishers or fishing companies, giving them a long-term interest in the health of that specific fishery and thus an interest in sound management over time. ITQs can also be sold to other fishers. The trade of ITQs increases the interest in the long-term condition of the fishery—an ITQ in a healthy fishery will be worth more than in an ailing one. Studies suggest that ITQ systems, while not perfect, are on average far more effective at maintaining healthy fisheries than other management systems.¹⁰

ITQs have never been tried at the international level. Implementing them at this level would require both an institution to centrally manage the global trade in ITQs, and an intergovernmental agreement to enforce an ITQ system by preventing the importation of fish caught in international fisheries outside the system. A GFO would be well placed both to manage the mechanics of a global ITQ system for international fisheries, and

to host the negotiations necessary to put the system together and make it work. Furthermore, the creation of such a system is unlikely without a GFO, both global in scope and focused on fisheries management, to shepherd the process through negotiations to implementation. And if implemented effectively, a global ITQ system has the potential to solve the problem of overcapacity, and therefore the balloon problem, in international fisheries in a way that is simply not possible under the current RFMO-based system.

Getting to a GFO

The current network of RFMOs would nonetheless remain a necessary component of a system of global governance of fisheries with a GFO at its center. RFMOs have enormous expertise, both scientific and managerial, about specific fisheries. Replicating that expertise in one organization is unnecessary, and expecting it to maintain a simultaneous focus on all international fisheries is unrealistic. An international ITQ system would be built on individual species and fishing quotas, and these quotas would continue to come from the existing RFMO network, building on the experience and technical expertise that these organizations have at their disposal. The RFMO network is not particularly relevant to the subsidies-reduction function of a GFO, although a meaningful agreement to reduce subsidies would make the job of RFMOs easier and their management more effective. The coordination and oversight function assumes the continued existence of the network. And the ITQ function would work best if it is built on, rather than replacing, an RFMO network that has been made more effective by the coordination and oversight function.¹¹

The plan sketched here for a GFO is an ambitious one, and this proposal does not operate under the illusion that implementing the plan in all of its parts will be easy. In response to the observation that the proposed plan of action is a difficult one, we make two arguments. The first is that each of the three functions listed here can stand on its own. A GFO effective at all three functions will revolutionize global fisheries governance. Even if a GFO is effective at only two of the three, it will still have a major impact on fisheries governance. And with progress on any one of the functions, global fisheries governance will be more effective than is currently the case, and the new organization will be a success. The second is that if no one makes the case for a GFO, it has no chance of becoming a reality.

There are certainly many political obstacles to the creation of a GFO. The difficulty of its creation should not, however, dissuade policymakers from putting the issue on the international governance agenda. The point of this policy brief is to do just that—to start a conversation about a GFO, and to begin to identify a political coalition that can effectively promote it as the best solution to the structural weakness of the current system of global fisheries governance.



Acknowledgement

The authors would like to thank Jennifer Lee, Isabella Gambill, Ana Thayer, Shilpa Idnani, Marsin Alshamary, and Yuliya Rashchupkina for research assistance, two anonymous reviewers for comments on earlier drafts of this research brief, and Maria Ivanova and Michael Denney for their guidance and help in putting it together.

Endnotes

- ¹ For a more thorough presentation of the ideas in this policy brief, see J. Samuel Barkin and Elizabeth E. DeSombre, *Saving Global Fisheries: Reducing Fishing Capacity to Promote Sustainability* (Cambridge, MA: MIT Press, 2013).
- ² FAO, *The State of World Fisheries and Aquaculture* (Rome: FAO, 2009).
- ³ FAO, Fisheries and Aquaculture Department, “Fishery Statistics,” Global Capture Production, 1950-2008, www.fao.org/fishery/statistics/en.
- ⁴ R.A. Myers and B. Worm, Rapid worldwide depletion of predatory fish communities. *Nature* 423, 280-283 (2003).
- ⁵ On common pool resources and international environmental cooperation, see J. Samuel Barkin and George E. Shambaugh, *Anarchy and the Environment: The International Relations of Common Pool Resources* (Albany: SUNY Press, 1999).
- ⁶ Elizabeth R. DeSombre, *Flagging Standards: Globalization and Environmental, Safety, and Labor Standards at Sea*. (Cambridge: MIT Press, 2006).
- ⁷ Elizabeth R. DeSombre, “Fishing Under Flags of Convenience: Using Market Power to Increase Participation in International Regulation,” *Global Environmental Politics* 5(4)(November 2005), pp. 73-94.
- ⁸ Matteo Milazzo, *Subsidies in World Fisheries: A Reexamination*, World Bank Technical Paper No. 406 (Washington, D.C.: The World Bank, 1998). See also FAO. Marine Fisheries and the Law of the Sea: A Decade of Change. Special Chapter (Revised) of the State of Food and Agriculture 1992. (Rome: Food and Agriculture Organization, 1993).
- ⁹ In the case of the WTO, these efforts are part of the Doha round of global trade negotiations, in the case of the OECD, they are part of negotiations toward a shipbuilding agreement, and in the case of the CBD as part of talks on the sustainable use of marine and coastal biological diversity pursuant to the treaty. In the first two cases talks failed for reasons not directly related to fisheries subsidies, while in the third the issue of subsidies was ultimately dropped from the agenda. See Barkin and DeSombre, *Saving Global Fisheries*, pp. 167-174.
- ¹⁰ C. Costello, S.D. Gaines, and J. Lynham, Can catch shares prevent fisheries collapse? *Science* 321, 1678-1681 (2008).
- ¹¹ For more details on this proposal, see J. Samuel Barkin and Elizabeth E. DeSombre, *Saving Global Fisheries: Reducing Fishing Capacity to Promote Sustainability* (Cambridge, MA: MIT Press, 2013).

Citation information

Please use the following citation for this brief:

Barkin, J. Samuel and DeSombre, Elizabeth R. (2013). "International Fisheries Governance that Works: The Case for a Global Fisheries Organization" *Governance and Sustainability Issue Brief Series: Brief 8*. Center for Governance and Sustainability. University of Massachusetts Boston.

Center for Governance and Sustainability

The Center for Governance and Sustainability seeks to bring academic rigor to real-world policy challenges in environment, development, and sustainability governance. It serves as information hub, brutal analyst, and honest broker among scholars, students and practitioners.

Views expressed in the Governance and Sustainability Issue Brief Series are solely those of the authors and do not necessarily represent the views of the Center for Governance and Sustainability or the University of Massachusetts Boston.

About the authors



J. Samuel Barkin is Associate Professor of Global Governance and Director of the Graduate Program in International Relations in the McCormack Graduate School of Policy and Global Studies at the University of Massachusetts Boston. His research focuses on theories of international relations and international organization, and on international environmental governance.



Elizabeth R. DeSombre is the Camilla Chandler Frost Professor of Environmental Studies and Director of the Environmental Studies Program at Wellesley College. Her work focuses on cooperation to address issues of the international commons. She has authored six books, most recently *Saving Global Fisheries: Reducing Fishing Capacity to Promote Sustainability*, co-authored with J. Samuel Barkin (MIT Press, 2013).

Center for Governance and Sustainability

Maria Ivanova and Craig Murphy, co-directors

John W. McCormack Graduate School of Policy
and Global Studies
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125
cgs@umb.edu
www.umb.edu/cgs
www.environmentalgovernance.org

Governance and Sustainability Issue Brief Series

Series Editor: Prof. Maria Ivanova
maria.ivanova@umb.edu

Managing Editor: Michael Denney
michael@environmentalgovernance.org

Editorial Intern: Christian Hoover
christian.hoover001@umb.edu



A copy of this publication is available in alternative format upon request.
Please go to www.ada.umb.edu.