



THE OCEAN FOUNDATION

Using rights to promote stewardship has a prerequisite: Credible governance.

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A popular theory regarding wild fish based on an over-simplified understanding of both economics and marine science, asserts that ownership of the productive assets necessarily follows when there is a market for the goods from those assets, and further, that such ownership inspires stewardship in a way that collective management cannot. While there certainly is a market for fish, the claim of private property inspired stewardship based on “ownership” of commercial fish species in the ocean is both unsupported and contrary to the more successful examples of (a) small-scale sustainable fisheries self-governed cooperatively by communities;¹ and (b) our very few well managed large, national scale fisheries.

If there is something of value in the water that is also of value out of the water, someone will come to take it out of the water and sell it. This can be animals such as corals or sponges, fish, or even sea cucumbers. If people want something enough, they are also usually willing to pay for it. Thus, we have markets all over the world selling shellfish, frozen fish, live fish from tanks, and pieces of animals such as crab claws or shark fins – all because someone is willing to buy them.

Modern economic theory holds that where there is a market for a natural product, there may also be a market for the preservation/management of the source of that product. There are those such as the Property and Environment Research Center and the Charles Koch Foundation, which take it one step further and argue that conferring ownership of the source leads automatically to its stewardship. Thus, in theory, it is possible that if someone is willing to buy the ocean’s animals, someone else will not only be willing to purchase the natural assets that nurture those animals, but will also have incentives to manage the extraction and sale of those animals responsibly.

Unfortunately, there are few realistic legal or economic precedents for either conferring ownership of ocean resources or expecting that stewardship will flow naturally from that ownership. Fish move from place to place, habitat to habitat, both seasonally and as part of their life cycle. Management for long term health and viability of populations requires cooperation across political and geographic boundaries— to address threats ranging from upstream pollution to unfettered coastal development to the fishing itself. Stewardship for ocean animals cannot be a unilateral, isolated “ownership” decision, even when the owner of a piece of the space is a nation state.

¹ Such cooperative self-governance has sometimes been labeled as Territorial Use Rights Fisheries, or TURFs; a label that we will intentionally not use in this white paper to avoid a misleading use (from a legal perspective) of the word “rights” as will become more clear below. As noted by Francis Christy in 1992 (“Territorial use rights in marine fisheries: definitions and conditions” UNFAO Fisheries Technical Paper 227), there is “no clear cut distinction between common property and TURFs” because any use is a quasi-right subject to “relative rather than absolute control” (Christy, page 3).

There have been a few attempts to establish sovereignty over ocean spaces for the purpose of preserving the productivity of the ocean for current or future generations. For example, governments claim marine territory through the EEZs² and regulate both territory and fish within the limits of policy and resources. Similarly, in a few traditional communities, locals and their tribal leaders may regulate **access** to fishing. Thus, our few examples of stewardship of ocean resources come from community cooperative management and marine protected areas, which limit and control fishing – usually spatially. But community cooperative management (self governance) of a fishing area (say a lagoon or a coral reef) is not the same as individual ownership of wild fish, nor can piecemeal efforts of this sort cover a sufficient percentage of fish and other ocean assets to allow them to thrive.

Because it is unrealistic to expect economic markets to create meaningful or authentic ownership of fish in the sea when property rights cannot be assigned to individual owners, the nearest we can come is artificially creating “ownership” of some access to fish in a territory (through spatial management of a defined territory), and perhaps ownership of a license to kill a certain quantity of fish in a time period (a quota to be caught in a fishing season). There is an unfortunate tendency to conflate the permission to fish conferred through cooperative community access management with an individual quota to kill a certain number of fish. Access to a fishery, or privileges in the form of such a quota are quasi-rights, or *de facto* rather than *de jure* ownership rights.³

To illustrate our concern, we look at a key natural resource analogy. For example, there is a tendency to draw parallels between this artificial ownership of fish in the sea (and the markets for those products), and the ownership of the trees and the land (and the markets for timber products). There are few parallels and it is a mistake to claim that the right to kill fish is the same as the selective harvest of the trees by a land owner who has, for the most part, control over how stewardship is defined for his land and how it is implemented.

In the case of the forested land, the steward knows that the trees are not moving. The steward knows that there is a choice as to which trees, or which area of trees, will be harvested in any given year, and even whether to replenish the supply through replanting. The steward also can choose which varieties of trees to replant, choose how those varieties should be nurtured, and control to a great extent how they reproduce. Each of those decisions can be made based on what elements of ownership the steward values most— whether she values the trees to be sold in the next generation, or for merely protecting the condition of the land, or even her potential for future divisibility of the land. In most places, the owner can even decide whether accompanying species of commercial value (e.g. game birds or deer) should factor into the management decisions. In the case of disease, collapsing demand, or other external stresses, the steward may decide that cutting all the trees and selling them, followed by selling the land for another more profitable use (e.g. commercial or residential development), is the most suitable solution for her bank account. Only external regulation designed for the common good or the prevention of harm to other owners affects/limits her rights to do as she pleases.

Legal theory looks at a particular bundle of individual rights to establish full, exclusive ownership, as an approach to both confer, and defend them in the legal context. A "bundle of sticks" -- in which each stick represents an individual right - is the common analogy that any of us who went to law school were asked to imagine. So, if we think of development rights, mineral rights etc. and that each is a stick in a bundle of sticks. Then, we must have all the sticks to establish full ownership. A summary of this bundle of individual rights generally includes the following items:

- The specific, and fully exclusive right to use (or not use) the good
- The specific right to earn income from the good
- The specific right to permanence, and unrestrained transfer of the good to others

² Exclusive Economic Zone = generally extends 200 miles seaward from mean high tide and is regulated by countries for a variety of purposes—but primarily for the protection of fisheries and other marine resources of economic value.

³ *De facto* is a practice, not ordained by law, and certainly does not refer to an officially established right. *De jure* is when a right is a matter of enforceable law.

- The specific right to complete security, or certainly the ability to enforce property rights against the actions of others

For the economist, this bundle of rights creates certain property rights incentives driven by self-interest to act in a manner to maximize profit, or certainly income, by acting in a way that preserves the productivity of owned assets.

If we think about this in forestry, an owner of a piece of forested land can easily be said to "own" all four items (or sticks) in this bundle of individual rights. External regulation aside, by owning the land, the owner has the right to harvest from that land, trees included, and to sell the harvest. Further, the owner may work to prevent others from entering the property or harvesting anything from that property—whether it's trees or wild animals—creating a property right in the land, the trees and the timber as well. And finally, the owner has the right to strip that land of all natural value—especially if the market determines that for him (if not for the common good) the greater value is derived from eliminating the natural commodities and moving to human development.

If we substitute wild fish for land and timber in this example, these four rights do not apply so easily, even in the case of Marine Protected Areas, or traditional cooperative community-based management.

In fact, these four components can almost never be established with regard to fish:

- Even if we transfer state or community "ownership" spatially (conferring ownership to a small lagoon, or the right to fish in that lagoon) to an individual or group of individuals it does not, and probably cannot, create a property right enforceable against others, or transferable to others **over the wild animals in the space**. It may only earn the "owner" two of the bundle of rights; they can use the lagoon, and they can earn income from the lagoon by fishing there. The only exception to this may be sedentary, non-migratory species such as shellfish, corals or sea cucumbers.
- With trees, a landowner can selectively harvest her trees, picking one or another tree based on location or usefulness. In the case of fisheries, we are all aware of the problems of by-catch and destructive fishing gear that are evidence of an inability to be selective for the good of the population as a whole. Perhaps the only way to be really selective in killing fish is to enter the water and use a spear gun to choose which fish to harvest.⁴
- For wild animals that move spatially such as fish, enforcement is limited to will and ability, especially once fish move outside of the boundaries of "ownership." Even on land, we transfer "hunting rights," not the animals per se, which move. In other words, because you don't own them and further cannot guarantee they will be there from one day to the next, you cannot transfer wild animals as a good to another person. A good that everybody owns, such as wild fish, is a good that no one person owns. Thus, we cannot transform such natural capital into human-made capital until a wild fish is captured and landed . . .⁵
- Another element of unrestrained transferability to mention is divisibility, which is part of the right to use and contemplates transfer of a sub-part of the owner's holdings to someone else. Again, while this may be possible spatially, and perhaps possible if the owner wants to transfer a part of his quota to kill fish, he cannot keep certain fish and sell others (the good, or property, is not dividable in that manner).

In contrast, in the case of protected areas or community cooperative management, we can see how people have opted to establish self-governing rules to benefit the community as a whole so they can use common property resources sustainably and work together to repel outsiders. The community's individuals have access as part of a collective, not as an individual property right. Further, it is more likely that the community will value both the present common good and the future common good of collective stewardship. This is an important distinction when trying to compare the individual ownership

⁴ Unfortunately, in the few instances when we can be selective, we often fish for the biggest fish (the predators on which the ecosystem depends), including the big fat female fish, which are more fecund.

⁵ And, in the USA, if you hunt and kill deer you are still unable to make the transformation because you cannot legally sell the meat you have obtained (unless it has been inspected and processed in an inspected facility).

rights on forested land with the creation of a version of ownership of an amount of dead fish before the fish are dead, and with no guarantee that the fish will even be there.

When true property rights cannot really be established—as in the case of wild fish—then we cannot expect fishers and seafood merchants to behave like owners. We believe it makes far more sense to replicate proven community self-governance practices at a much larger scale. Otherwise we have a complete failure to count the biodiversity value, or existence value of leaving the fish in the water.⁶ We need to abandon the idea that wild fish can be treated as private goods subject to ownership control; instead, fish are much closer to what economists call common goods, or common pool resources. They need to be managed appropriately; not only as a food source that should not be eliminated, but also to preserve their recreational and tourist-related uses, not to mention their role in the long-term viability of the ocean habitat. In short, we should not fiddle with market mechanisms if the market is not there for what we value (future fish, biodiversity etc.). We need to rely on the *triumph* of the commons, rather than Hardin's "simple and highly effective metaphor" myth of a tragedy.⁷

It is time to reassert the public trust. In fact, asserting the public trust aspect of marine resources may be the only way for anyone to be willing to pay to preserve these productive assets. Simply stated, the public trust doctrine obliges governments to manage certain natural resources in the best interests of their citizens, without sacrificing the needs of future generations. The doctrine already is well established in the United States at the state level, where natural resource agencies are legally bound to seek legal action against private parties who are infringing on the public trust, and the U.S. Commission on Ocean Policy report was written from the assumption that the public trust doctrine already extends to US federal waters and our EEZ (Exclusive Economic Zone). At the international level the public trust doctrine is recognized in the World Heritage Convention, and in the UN Convention on the Law of the Sea.

In our view, governments cannot cede or abandon this trust obligation. Thus, the proposed transfer of quasi property rights via catch shares is limited by the governments' inability to abdicate its governance responsibilities. Instead of over-reliance on property rights and market mechanisms, let us begin with the assumption that the fish in the sea are available for human consumption, and we may even confer a general right to use the good—as a common property with agreed upon management through collective structures such as government. In some cases, as noted above, individual communities have operated under such collective management strategies for access to the fish and other ocean animals.⁸ This allows us to avoid a shareholder type demand for short-term returns (i.e. maximization of economic rent), and to remember we must keep in mind social sustainability and our need to preserve the biological role of fish in our keystone ocean ecosystems.⁹

Unfortunately, the legal and governance approach, including enforcement, is understaffed, underfunded and is the approach most needed to meet this 'trustee-esque' management obligation. Economic incentives can complement the role of the government, but they are not a substitute. This is because

⁶ A market failures occurs when individuals' pursuit of pure self-interest leads to results that are not optimal from the societal point-of-view. Examples include pollution and other externalities, as well as goods (like fish) that should be managed in the public interest.

⁷ Hawkshaw, Robert Stephen, Sarah Hawkshaw and U. Rashid Sumaila "The Tragedy of the "Tragedy of the Commons": Why Coining Too Good a Phrase Can Be Dangerous" *Sustainability* 2012, 4, 3141-3150; doi:10.3390/su4113141; and Angus, Ian "The Myth of the Tragedy of the Commons <http://mrzine.monthlyreview.org/2008/angus250808.html>

As Dr. Hawkshaw et. al. note: "In fisheries policy literature there is a trend surrounding the use of Hardin's "tragedy of the commons", which is invoked, followed by a reference to the "race to fish" and then privatization of a fishery is suggested as a solution. This leaves the readers with the thought that Individual Transferable Quotas (ITQ), or catch shares are required to address an ongoing tragedy for the commons, but in reality they are addressing a different issue—the maximization of economic rent and economic efficiency. . . . We believe that Hardin would view fisheries as one of these situations where the tragedy of the commons is best solved by the institution of coercive laws or taxes rather than, or in addition to, private property. In fact, much of the literature on ITQs recognizes that ITQs will require increased enforcement and monitoring. Without this monitoring and enforcement the temptation to quota bust, high grade and discard by-catch will actually result in over fishing, rent dissipation or even exploitation to the point of extinction."

⁸ Again, such communal, collective management of the taking of fish, however, is not the same as conferring individual property rights.

⁹ Noting that seeking a profit is not in and of itself evil. It is only bad if all other values are ignored and omitted.

legal incentives are critically important to make the system credible and the playing field level, and to ensure that free riders pay. For example, if property rights or access rights are part of the MPA, they must be legally enforceable to be credible. In other words, without strong legal incentives to reinforce the MPA governance framework, it will not be resilient. And, we need effective governance to make any financing meaningful and not be absorbed by corruption.

We need to bring more intellectual rigor to our use of economic, legal, and self-governance incentives (as well as the vocabulary pertaining thereto) as a way to manage human activities such as killing wild fish for consumption or sport. We need to focus on governance, monitoring, (community and law) enforcement etc. for small-scale fisheries: including the lessons learned from *tabu* areas and other traditional practices, as well as any new emerging trends in marine protected area management.