**Property Rights as an Organizational Framework in Fisheries: The Cases of Six Fishing Nations**

by Ragnar Arnason

Chapter Summary

A survey of the diversity of property rights schemes within different fisheries, even when they fall under one country's jurisdiction, is the springboard for Ragnar Arnason's piece on the international experience with rights-based fishing. The highest quality property rights (in the sense of rights enjoying the fullest possible measure of the qualities of security, exclusivity, duration, divisibility and transferability) to be found in fisheries around the world are Exclusive Use Rights (EURs) and Territorial Use Rights (TURFS). These are little used, however, for the former confers a monopoly which has proven socially unattractive, while the latter is largely limited to sedentary species close to shore. This leaves two chief forms of (lower quality) property rights which predominate in international fishery experience. The first is the access licence (which grants access to the fishery solely to licence holders and is the Canadian norm) or its cousin, the capacity licence (which grants its holder the right to try to harvest a particular quantity of fish). The second dominant form of property right is the ITQ.

Both of these rights are less than ideal because

> they do not confer property rights in specific fish and the immediate ocean environment that sustains them... As a consequence, none is adequate as an institutional basis for fully efficient fisheries. It is important to realise, however, that... these property rights differ substantially. In particular, well designed harvesting rights such as ITQs are much closer to ideal property rights in the fishery than, say, access or capacity licences.

The countries that Arnason studies in this chapter have all moved some way towards private property rights in their fisheries in the last 20 years, but each has done so in a different way and to a different extent. Iceland and New Zealand have moved furthest in the direction of full ITQs in most of their fisheries. Australia, Greenland and the Netherlands are not far behind, although they continue to use access licences in some fisheries. Norway has moved the least down the property rights continuum, although they have installed limited Individual Quotas (non-transferable IQs) and use licensing to restrict access to others.

The author draws four main lessons from this review of international experience of rights-based fishing:

1. Despite their imperfections, ITQs can "substantially improve the economic efficiency of fisheries" where appropriate conditions exist. For example, even given the difficulties in obtaining strictly comparable data across national fisheries, Arnason shows convincingly that those countries that have moved furthest towards fully developed ITQs have achieved the highest degrees of efficiency, whether measured in terms of catch value per fleet or per fisherman;

2. Because of their much greater imperfections, alternative forms of property right, such as IQs and access or capacity licences, "do not seem capable of creating much [in the way of] economic benefits";

3. On the international scene there is not yet a 'standard' ITQ, nor is there very likely to be one any time soon. While further refinements can be expected in the future, it is likely that, "to be fully efficient, each ITQ, or for that matter, any other property rights based fisheries management system, must be tailored to local conditions";

4. Individual variations notwithstanding, there are certain features shared by all the ITQ schemes studied. These include:

- an initial allocation on the basis of catch history and/or vessel capacity;
- once the decision has been made to introduce ITQs or IQs, there is a "marked tendency for the associated rights to become enhanced over time." Thus IQs develop into ITQs. ITQs tend to become more permanent, restrictions on transfers tend to be lowered and quota enforcement improved;
- the importance of comprehensive coverage for the ITQs. "All exceptions from the ITQ constraint tend to be economically expensive and to undermine the ITQ system itself."

Arnason concludes by asking why, when even imperfect property rights such as ITQs seem to offer such manifest advantages in terms of economic efficiency, more comprehensive rights over individual fish and particular ocean environments have not been put in place. He argues that the fundamental reason is a lack of affordable appropriate technology. At the current state of development, it is either impractical or prohibitively expensive to define, acquire and enforce ownership over individual fish in the saltwater wild fishery. Arnason is confident, however, that this will change, and that technological advances will make it ever more possible to perfect property rights in the fishery.

> ...it may be taken for granted that, to the extent that more complete property rights systems are economically beneficial and the corresponding demand can be expressed, there will be an effort to supply the appropriate technology. Therefore, future advances in property rights technology and, consequently, a more complete property rights regime in [the fishery] may be confidently predicted.