

THE RIGHTS TO FISH – A NEOLOGICAL CRITIQUE OF INDIVIDUAL TRANSFERABLE QUOTAS

Individual Transferable Quotas (ITQs) are exclusive and transferable rights to harvest a given portion of the total allowable catch of fish. They are one form of 'rights-based management' used to manage the allocation of resources and interactions between users of marine ecosystems. Fishery managers establish total allowable catch levels (TACs), and divide this among individual fishers or fishing companies in the form of individual harvest quotas, usually a percentage of the TAC. ITQs are transferable by being sold or purchased on the open market. In theory, ITQs create *de facto* property rights.

If effective, ITQs are designed to remove the drive to 'race for the fish', and create an incentive among fishers to regard the fishery resources as assets that can deliver economic benefits over the long run if responsibly managed. Hence, the tendency on the part of fishers to over-exploit the resource should be reduced. Well-functioning ITQ schemes may also encourage fishers to collect and disseminate relevant biological and harvest quota data (Walters & Pearse 1996). This would tend to improve the quality of stock assessments, which could lead to more certain and perhaps increased TACs.

What can ITQs accomplish?

The practical use of ITQs in fishery management often is questioned. The strongest point against ITQs from a conservation perspective is that ITQs are based on harvest quotas, which rely on estimates of the abundance of the resource stock. The uncertainty of these estimates, if not properly addressed, can lead to stock collapse irrespective of the quality of the ITQ scheme in place. Some argue that a badly designed ITQ scheme may be worse than no rights-allocation scheme at all.

For the data-poor artisanal fisheries typical of species-rich tropical waters, there are serious doubts about the usefulness of ITQ schemes, partly because of the problems of bycatch. Fisheries anthropologists are probably the strongest critics of ITQ management, arguing that whatever the potential benefits of ITQs, they are contrary to principles of equity and social justice in fishing communities, and are therefore not appropriate for certain fisheries.

What have ITQs accomplished?

Many studies of ITQ systems in operation around the world demonstrate that economic efficiency does improve with the implementation of ITQ schemes. There is evidence from Australia, Canada, Iceland and New Zealand that ITQs have improved economic efficiency and increased returns to fishers (Grafton 1996). Hannesson (1996) considers that ITQs are primarily an instrument for promoting economic efficiency rather than conservation, or equity. If economic efficiency was the main issue with ITQs, it could be concluded that ITQs have achieved their objective. However, a review of the literature on ITQs shows that fisheries scientists are preoccupied with conservation and social concerns, and the associated trade-offs against economic gains.

Problem areas for ITQs

Stock Assessments: As predicted by Walters and Pearse (1996) and others, uncertainties in determining TACs could undermine even some of the most well-documented ITQ schemes. A case in point is the collapse of the Icelandic cod stocks in 2001.

Discards: High grading and discarding, where less valuable species (or sizes) of fish caught are thrown back into the sea, dead or alive, are key issues associated with ineffective ITQ management of fisheries. The goal of fishers is to ensure their quotas are filled with the most valuable fish available. The incentive to discard or high-grade can be substantial under ITQ schemes; for example high grading is an issue in the Greenland shrimp fishery because of inadequate monitoring and enforcement. The extra cost of monitoring and enforcement to prevent high grading and discarding may undermine the efficiency benefits that ITQs are supposed to create.

Inequity: The concentration of fishing power has been noticed in many fisheries in which ITQ schemes have been introduced. This should not be a problem and proponents of ITQs expect concentration to take place, often with fleet reduction being one of the channels through which economic efficiency is achieved following the introduction of ITQs. In theory, more efficient fishers buy out their less efficient counterparts, and in so doing increase the overall returns to the fishery. However, quotas for particular stocks may concentrate in the hands of a few larger more business-oriented fishing companies (as has happened in New Zealand) and the problems associated with this have attracted a lot of discussion and debate. Some of the main concerns include, (1) fear of monopoly power developing in a fishery, (2) the potential for increased social inequity, (3) the potential for more effective lobbying by the larger operators swaying management decisions and (4) pressure to delay or defer the introduction of environmentally responsible fishing requirements or practices.