

## Ownership key to saving fisheries

By Richard Black  
Environment correspondent, BBC News website

### **Giving fishermen long-term rights to catch fish is key to keeping stocks healthy, scientists conclude.**

A global survey found that fisheries managed using individual transferable quotas (ITQs) were half as likely to collapse as others.

Long-term quotas give fishermen a stake in conserving fish stocks.

The study was published in the journal *Science* just a day after the European Commission announced a major review of EU fisheries policy.

"Under open access, you have a free-for-all race to fish, which ultimately leads to collapse," said research leader Christopher Costello from the University of California at Santa Barbara (UCSB).

**I have come across situations where fishermen lobby managers to decrease the catch**  
Professor Christopher Costello

"But when you allocate shares of the catch, then there is an incentive to protect it."

The principle of ITQs is straightforward. A safe level of catch is set for a given species or group of species in a prescribed area, and that catch is shared out between individual boats or fleets.

The total allowable catch can rise or fall from year to year according to what scientists judge to be sustainable.

But the shares are guaranteed for a set number of years. They can be traded or transferred, but no new shares are allowed.

### **Back from the brink**

Professor Costello's team analysed a global database of 11,135 fisheries, and identified 121 that were managed using ITQs or a close variant.

Their main conclusion is that using ITQs halves the probability that the fishery will collapse.

This figure probably under-estimates the true impact, they argue, because some of the fisheries in their dataset had already collapsed by the time ITQs were brought in.

He said there was also evidence that some stocks had recovered from a severely depleted state after adopting an ITQ-based management.

"In places without catch shares, fishermen will often lobby managers to increase the quotas," he told BBC News.

"But in fisheries with catch shares I have come across situations where they lobby managers to decrease the catch, because they know that if they back off this season, the stock will grow to a level where they can increase the harvest next time around."

### **'No magic bullet'**

Among academics studying fisheries, ITQs have gained a somewhat stellar reputation in recent years.

But Daniel Pauly from the University of British Columbia, a leading expert in the economics of fishing, warned they were not a magic bullet.

"They are rightly seen as an elegant solution to a big problem, the problem of over-capacity," he said.

"But there is unfairness in allocating the shares initially, because you are giving something to the biggest fishers and the others are not getting access and will not get access for ever.

**We will put on the table the possible introduction of ITQs**

Alberto Spagnolli, European Commission

"So I think it's one of the tools that can be introduced in specific fisheries, but you shouldn't look at it with the degree of absolutism and even fanaticism that has characterised the discussion in some countries."

Added to which, he said, ITQ fisheries could still collapse if overall catch quotas were set too high.

Another criticism levelled at the idea is that it is not appropriate for developing countries where fishing is usually carried with many more people using much smaller boats, and often a degree of community ownership.

But, said Christopher Costello, there are ways of getting around this issue.

"Many developing countries use territorial user rights (TURFs), where you allocate communities shares of the coastline, which again provides incentives to manage stock in a sustainable way.

"That's done in Chile and in parts of Africa. Or you grant communities the right to harvest over a period, say, of 20 years, as is practised in Mexico."

### Stock shot

There is little doubt that many fisheries urgently need a change of management.

UN figures show that nearly one third are exploited to the point where yields are less than 10% of their original levels.

So far, the world leaders in adopting ITQs as a method of halting the slide have been Iceland, New Zealand and Australia, although the US is quickly catching up.

One spectacular success, according to Steve Gaines of UCSB, is the Alaskan halibut fishery. By 1995, he said, it was so depleted that the fishing season was just three days long.

Now, after adopting transferable quotas, it lasts for eight months. Fewer fish are caught; but fishermen strive to land only big, mature ones and bring them in in top condition so they fetch more at market.

"Halibut fishermen were barely squeaking by - but now the fishery is insanely profitable," said Dr Gaines.

With the management of European fisheries now up for review, will it too adopt the ITQ approach to recovery?

As things stand, the decision is in the gift of member states which decide how to allocate their national quotas.

The Netherlands and Denmark are two countries already using ITQs; most do not.

"Many member states are discussing the issue," said Alberto Spagnolli, head of the economic analysis unit within the European Commission's Maritime Affairs and Fisheries Directorate.

"What we did [with our discussion paper] in 2007 was to set the ball rolling for a debate with Europe that is broader than just ITQs, including access rights in general, days at sea, collective quotas that could be more or less transferable.

"But we will put on the table the possible introduction of ITQs."

A spokeswoman for the UK Department of the Environment, Food and Rural Affairs (Defra) declined to comment directly on ITQs, but - perhaps in a hint that they are being considered - said the UK was pushing for a more sustainable European fisheries framework with "an increased emphasis on long-term

management planning".

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