

AN ECONOMIST'S VIEW ON THE INSHORE FISHING POLICY

Text of an address at the ECO Conference, 4 August, 1984 by Dr Ron A. Sandrey, Lecturer, Department of Agricultural Economics & Marketing, Lincoln College, University College of Agriculture.

The theme I have been invited to address is: Fishing, does it have a future? Current policy for the inshore industry is focused on possible overfishing in a few species. The reason for this can be simply explained in economic terms. Individual fishers have no incentive to protect the resource for the future, as they have no guarantee that they will benefit from an increased catch in the future. This is known as the common property problem - the resource belongs to everyone and to no particular individual. It is the same as having money in the bank - we can live off the interest or we can start and live off the capital invested as well, thus living for today and not tomorrow.

Moving to a system of individual transferrable quotas (ITQ's) is a theoretically appealing solution to this common property problem. Individuals no longer feel compelled to harvest before the fish is taken by someone else, and they no longer have to spend large amounts of excessive money to build bigger and faster boats. Economists view ITQ's as an economically efficient solution - efficient meaning that fishers can move to harvesting at the least cost method and natural market forces can operate.

Coupled with the problem of overfishing is the question of over-capitalisation in the industry. Too many boats and fishers are chasing too few fish.

Solutions to this problem involve removing excess capacity, both people and vessels, from the industry. A start to this has already occurred as part-timers have been excluded. The industry is currently seeking financial support to provide compensation to full-timers who wish to withdraw. An alternative solution, that of transferring effort to alternative and previously less preferred species needs to be considered. The final solution is to allow market forces to drive the less efficient operators from the industry - the cold harsh realities of bankruptcies, a reality not felt in many other primary industries in New Zealand.

One major aspect which has not been fully considered is the question of policing ITQ's - enforcement costs to an economist. These costs may be substantial, and negate many of the benefits to be gained by ITQ's.

Economics is not only concerned with efficient (benefit maximising or least cost) solutions, but also with equitable solutions. Is the proposed change fair? Some major questions can be asked about ITQ's on this issue. The first concerns part-time operators who have been excluded from the industry. Indeed, as Anthony Scott, a well known fisheries economist, said in 1979 "arbitrary expulsion of part-timers and sports fishermen with low catches should take a prize for high-handed, inefficient discrimination". The other issue is, why should long suffering taxpayers contribute to a retirement fund for some to leave the industry, while those that remain can prosper? Much of the thrust of the proposed policy appears to be in the direction of administrative ease at the expense of an equitable solution to the problem, if a problem does indeed exist.

When considering the resource in general we must look at alternative species, as current consumer preferences and market substitutability between species may change over the years. Orange roughy is a good example of this, as it is only over the last 8 or 9 years that we have known of this particular fish. Although snapper and one or two other species may be currently under some pressure, we have considerable potential for transferring effort to alternative species. These include barracouta, jack mackerel, southern bluefin tuna and squid. Introduction of ITQ's to the traditional species should enable fishers to harvest these species, as a major cost of capture has been removed. This is the opportunity cost to an individual of harvesting the traditional species. Additionally, analysis of the cost structure of the inshore boats suggests that the larger boats should be removed from the industry. It is these larger vessels, 18 metres and over, which are better able to harvest alternative species. I suggest that New Zealand fishing does have a future but that future is unlikely to be in the same species as we are currently harvesting.

The economically optimal harvest may differ from the biologically optimal harvest (maximum sustainable yield, MSY). The first difference is caused by discounting future returns. While many may argue about the appropriate rate to use, society by its very actions clearly demonstrates that it favours use of resources today rather than later. I appreciate that most of the audience will disagree with me and I share your concerns, but we live in a world of positive discount rates and an economist must advise accordingly. I have addressed the question of changes in taste. By looking at an MSY for each and every species we are assuming that no change in market tastes will occur. Fads may change and consumers may be indifferent between today's traditional and less preferred species in the future. A change in market preferences would be an excellent way to preserve a fish resource - for example, the large barracouta and mackerel stocks we have off our shores now.

Non-user values are important to the general area of resource economics. We are well aware that benefits cannot be measured only by the monetary values associated with them. Option and existence values associated with endangered species are excellent examples of these non-user values. It may be that people care enough about snapper to have some non-user values associated with this fish, thus providing affirmation to the need to preserve stocks. Many economists consider that emphasis must be accorded to irreversibility - don't make a decision now that we cannot change. This is allied with the concept of risk and that of a safe minimum standard, below which we will not drive a particular stock.

Real world fisheries is a complex interaction of prey/predator food chains and harvest to effort ratios. Yields may drop alarmingly, and then increase again because of biological reasons. Our fish stocks have vastly different biological characteristics - squids 1-2 year life cycle to snappers' 50-60 years. Consumer preferences change and relative prices change. Legislation is very difficult in these situations. However, the ITQ's offer an attractive solution provided the initial distribution is equitable and enforcement costs are not prohibitive. Alternative species become more attractive if we introduce ITQ's, as the cost structure would change because of the opportunity cost factor.

Finally, if over-capitalisation has occurred because of the provision of incentives in the last few years, be aware of this and the resultant overfishing that inappropriate price signaling can cause.