

Fisheries Management : Breaking the Deadlock

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Summary

The fundamental problem of fisheries management is not the deficiencies of the Common Fisheries Policy, nor the uncertainty of the science. It is that the only way to conserve fish is to kill fewer of them. All effective conservation measures therefore require fewer fish to be caught, at least until the stocks have recovered. This requires fishermen to accept short-term losses of income, in return for promises of higher profitability and greater stability in the future.

This bargain - short-term losses in return for long-term gains - is difficult for fishermen to accept, and effective conservation measures are invariably opposed. Fishermen need transitional economic assistance to help them get from here to there. The interaction between biology and economics means that deliberate manipulation of the free market is required. A successful programme for management of over-exploited fisheries probably requires both effort control and economic intervention, through:

- rigorous enforcement of effective controls on fishing effort, including satellite surveillance (where possible).
- establishment of a market in fishing effort rights (e.g. as vessel capacity x days at sea).
- transitional aid in the form of an initial government buy-back of fishing effort rights.
- significant future "resource rental" charges for fishing effort rights, to prevent pressure for re-expansion once stocks have recovered.

1) Introduction

The problems of sustainable and rational management of fisheries are long-standing and intractable. They are not due to the imperfections of the Common Fisheries Policy. This may not be an overwhelming success, but the continuing arguments about “quota-hoppers” are about who is allowed to catch what. It makes no difference to the fish whether they end up as paella, or on a plate with chips: in both cases they are dead.

Nor are the problems due to the uncertainties of the scientific advice. The present system of management by TAC's and quotas imposes immense demands on the assessment process, which are certainly undesirable and probably intolerable. However, successive reviews during the past twenty years all agree that most stocks are over-exploited, and that in many cases cuts of fishing effort by 40% or more are needed. This overall signal is clear, even though the precise catch limits required to achieve it may be in doubt. The problem is, that all efforts to achieve such reductions of fishing pressure, whether through quotas or direct limitation of fishing effort, have invariably been bitterly opposed, by both legal and illegal means, both in the UK and almost all other countries. The reasons for this are economic in origin, and easy to understand. I suggest that these economic processes need to be allowed for, and indeed harnessed by deliberate manipulation of the market forces which affect fisheries.

2) The Economics of Conservation

Fishing kills fish, and thus reduces stock sizes. The size (and age) of the fish caught also matters, and may be adjusted by so-called “technical conservation measures”. At present, however, there is no way to directly enhance stocks, and the only way to conserve fish is to kill fewer of them (especially the small ones). Whether this is achieved by catch limits, effort control, closed areas or limits on mesh size is of secondary importance. These conservation measures can only be effective if they lead fishermen to catch and kill fewer fish.

Unfortunately, smaller catches means reduced earnings, at least in the short-term until the stocks have recovered. It is for this simple and entirely understandable reason that fishermen find it so difficult to accept almost all proposals for effective conservation. In the long-term, of course, maintaining larger stocks is in their own interest, as it should lead to higher catch-rates, greater profitability, more stability, less risk of stock collapse, and (in some cases) even higher total catches.

Accepting a short-term cut in one's income of 40%, 30%, 20% or even 10%, in return for a promise of better times a few years hence, is however not easy. It is this fundamental conflict between short-term losses and long-term gains which makes fisheries management so difficult, all over the world.

3) Manipulating the Market

Most attempts to manage fisheries so far have attempted to control either catches or fishing effort, without attempting to allow for the economic stresses this creates. This has led to opposition, sometimes violent opposition, and the criminalisation of many fishermen. Everyone agrees that this is undesirable. How can it be avoided? Why have economic measures, such as some form of transitional assistance, to help fishermen get from here to there, not been deployed?

There is, unfortunately, a good reason. This is that subsidising fishing is likely to make matters worse, because it makes it profitable to fish the stocks down even harder, even closer to collapse. In the long-term, improved conservation therefore requires manipulation of the free market forces through a negative subsidy (i.e. some form of tax or levy on the more profitable fishery, once it has been rebuilt) to reduce the economic forces which lead to over-exploitation in the first place. We must, however, face the transitional problem, and carefully planned transitional assistance need not be ruled out - indeed, it is probably essential.

There are doubtless many ways in which the market could be manipulated, but the following package would be worth considering. It is based on management of fishing

effort (rather than catches) because this reduces the problems of black fish, discards in mixed fisheries, and reduces the intolerable pressures on the scientific assessment process.

- a) Establish effective controls on fishing effort (probably days at sea), using log-books, spot checking, high fines for offenders, and satellite surveillance wherever possible.
- b) Grant tradable rights in fishing effort, probably measured by vessel capacity x days-at-sea, and broken down by major sea areas and gear types, based on track records.
- c) Reduce fishing effort, and provide transitional aid, by an initial buy-back scheme, calculated to compensate for the loss of fishing opportunities over two or three years (and possibly payable in instalments).
- d) Phase in, over the same period, significant “rental” charges for fishing rights retained. The aim of this is to reduce pressure for future increases of fishing effort when the stocks (and therefore catches) have recovered, and fishing has become more profitable - it is not usually recognised that the reductions of fishing effort needed are (regrettably) for ever, because if effort is allowed to increase again, the stocks will just be fished back down to their previous low level.

The proceeds of such a tax on fishing effort may of course be used to repay the initial investment in transitional aid, and/or to finance retirement schemes for fishermen, or modernisation grants (provided these do not lead to increases of fishing capacity), or decommissioning grants if reductions of fleet capacity are found to be necessary.

4) The International Dimension

All of the above analysis implicitly assumes that all fishermen who exploit the stocks in question are treated equally - otherwise the benefits of conservation will not be reaped by those whose activities have been curbed. Since almost all major stocks are exploited by fishermen from several countries, this can **only** be achieved through international action and co-operation. This means, in practice, through some revised form of the Common

Fisheries Policy. It should be clear that attempting to manage the stocks in the Northeast Atlantic by unilateral, national action has no chance of success, even if it were politically feasible. The European Union provides the necessary framework for action. Indeed, if a Common Fisheries Policy did not exist, we should have to invent it. Its attempt to manage through national allocations and catch limits has however not been very successful. Modifications which not only take account of economic forces, but deliberately exploit them, along the lines outlined above, are what is required for the new millennium.