Viewpoint

Fisherfolk

Don't be hunters, start harvesting

Unless the present orientation shifts from hunting to harvesting, the world's fisheries may well have created a new endangered species

Where on earth are our precious fish resources going? This is no idle thought. Just look at recent happenings:

- dramatic conflicts on the high seas between Spanish, French and British fishermen
- news of 'fish wars' erupting all over the world
- doom-and-gloom reports about the state of the world's fisheries

Can one help but wonder whether fishing is going the way of other hunting cultures? Will fishermen be condemned to the role of native Americans, that is, North American Indians, when their plains lost their buffaloes?

It would seem that fisherfolk, like the native Americans, managed to sustain themselves on fisheries quite well enough—until the arrival of modern technology.

In the same way that hunters with rifles and machine-guns decimated the herds of buffalo roaming the prairies, the application of super-efficient modem technology is simply hoovering up all marine life and hunting the fish down to the last shoal.

For millions of people around the world, fishing and fishing traditions have been a way of life that has sustained them over centuries. But, like the fish stocks which support them, fishing communities are rapidly becoming an endangered species.

What can we learn from past experience of how to manage out fisheries in ways which do not lead to their destruction? How can we match the production of fish to the demands of a growing world population and still ensure livelihoods for fisherfolk?

There are many examples the world over of fisherfolk employing 'nurture fisheries' management strategies. These are based on the view of fishing as a harvesting activity, recognizing the time needed for stocks to replenish themselves and the need to conserve species diversity.

Traditional nurture fisheries strategies applied by fisherfolk involve using a range of selective, low-energy and passive techniques to take a seasonally diverse catch. Such practices are aimed at the sustainable use of fish resources.

They ensure an optimum use to produce current benefits, without jeopardizing the potential for similar benefits in the future. They are geared towards safeguarding traditional livelihoods and local food security. The fishery is managed as a coastal commons through community institutions.

Examples of traditional technologies for nurture fisheries include hook-and-line and simple nets. Efficiency in nurture fisheries means ecological efficiency. Technology is used to optimally exploit the environment. The economic cost-benefit analysis includes the environmental costs of overexploitation and resource degradation.

Capture fisheries

On the other hand, 'capture fisheries' strategies view fishing as a hunting activity, where the range is open-access and the fish stocks are common property. Such a view leads to a free-for-all situation where responsibility for managing the resource is ill-defined. This leads to the classic 'tragedy of the commons' situation

where what is left by one user is taken by another. The transfer of technology and capital from outside brings with it interests that do not understand or care about the fishery ecosystem.

Capture fisheries, therefore, tend to be capital- and energy-intensive as well as non-selective. 'While leading to short-term economic gains, they rapidly deplete the fishery. Examples of 'catch-all' techniques include trawling and 'walls of death' drift-nets.

In capture fisheries, efficiency means technical efficiency, that is, in terms of the amount of fish that can be caught per haul or per unit of effort. Economic efficiency means maximizing returns to capital in the short term. This encourages intensive capital investment. It also externalizes the environmental and social costs.

If the full environmental and social costs of fishing had to be paid by the fishing companies, most modem fishing practices would be uneconomic.

From a purely economical perspective, it makes much more sense to 'clear cut' the fishery, fully extract the resource now, invest the profits elsewhere and move on.

'Nurturing' the resource only makes sense if your livelihood depends on it and you want to pass something on to your children.

The well-meaning scientists and politicians back on land are clearly doing the best job they can. Yet their simplified 'scientific' management systems and fisheries models, based on single stocks and allocated quota systems—although incredibly complex—just do not work.

Why? Simply because they can not take into account the complex interplay of biological, climatic, meteorological and other physical factors that make up a fishery. Reduced to the absurd in the proposition to privatize or sell off stretches of the sea, the simplified assumptions of classic fisheries management have been unable to predict the complex behaviour of fish.

For one thing, the ocean is not one long fishy continuum of predictable variability.

Fisheries management needs to be put back into the hands of people who understand fisheries, and whose livelihoods depend on them—the fisher people themselves.

In times past, Basque fishermen owned their boats in common. The captains would meet whenever the weather was uncertain to decide whether it was safe for the town to fish. That way, no individual could risk the lives of the crew or anyone who followed them out to sea. It was a community decision whether to fish or not.

In the UK, many of the inshore fisheries are managed through Sea Fisheries Commissions (SFCs).

Their jurisdiction currently extends to six miles. This is likely to be extended and the powers of the SFCs increased through the European Union's (EU) Habitat Directive.

Regulations will designate special areas of conservation, designed to protect important habitats on land and in coastal areas, both tidal areas as well as those out to sea.

Local knowledge

The SFCs' role will ensure a balance between local marine environmental policy and the needs of inshore fishermen. As UK Fisheries Minister Michael Jack points out, "Their local knowledge will be invaluable to drawing up management plans."

In many countries of the world, local knowledge and traditional livelihoods are beginning to receive the respect they deserve. Indeed, the Oceans Chapter of Agenda 21 of the 1992 UNCED Conference in Rio makes 'a commitment to take into account traditional knowledge and the interests of local small-scale fisheries and indigenous people'.

An analysis by the Food and Agriculture Organization (FAO) of the UN concluded that in 1989 it cost the world US$92 million to earn US$70 million from fishing on the high seas, thereby generating a US$22 million operating loss. The real costs of fishing on the high seas are either subsidized or externalized on the crew and the environment.

What then are the alternatives to the gloomy prospects currently confronting us? Clearly, there is no simple prescriptive solution. But one avenue must be to try and build on the extensive knowledge and self-interest of fishing communities to manage coastal fisheries on the basis of community management, enshrined in the constitution and backed by the full force of the law.

Increasingly, the concept and practice of 'co-management' is receiving international attention. Unrestricted privatization is clearly not the answer. Selling off chunks of the sea to commercial interests is a bit like selling off timber concessions to logging companies.

The results are predictable. You only need to look at the example of Canada and the collapse of the Newfoundland cod fishery to realise what a catastrophe this sort of privatization would be. The Canadian offshore fleet, controlled by two large corporations, was allocated half the groundfish resource when the fishery was operating.

Ownership of fisheries by big business has led to one of the world's worst fishing disasters and has laid waste one of the most productive fisheries the world has ever known. The collapse of the cod stocks of the Western Atlantic has put at least 40,000 people out of work. It has destroyed a fishery resource that has sustained local communities since time immemorial and European communities for over 400 years. Due to the collapse of stocks a moratorium on fishing for Northern cod was announced in 1992. This was meant as a temporary measure, but may remain in place until the year 2000.

Clearly, therefore, if fisheries are to survive, it must be back to the future. There is no reason why this need mean becoming Luddites or restricting ourselves to using primitive technology and methods. It is merely a question of establishing priorities and developing strategies.

By selectively making an optimum catch today, we can ensure the flow of similar fishery benefits in the future. The challenges are to develop technologies which are efficient from the environmental as well as economic and technical perspective, to develop economic tools which can analyze social and environmental costs and to develop management systems which allocate property rights to specific community producer groups.

The choices are simple and stark. We can 'clear cut' our fisheries, using the latest and technically most sophisticated, cost-efficient weapons in our armoury, leaving nothing for the future. Or we can turn from hunters into harvesters by developing ecologically efficient technologies.

Tomorrow's buffaloes?

Remember, the buffalo only became an endangered species once traditional institutions broke down and distant market forces determined the fate of the resource. The same can be said for today's fisheries.

Isn't it time we turned from being hunters to harvesters?

This piece is written by Brian O'Riordan, Fisheries Adviser, ITDG, Rugby, UK