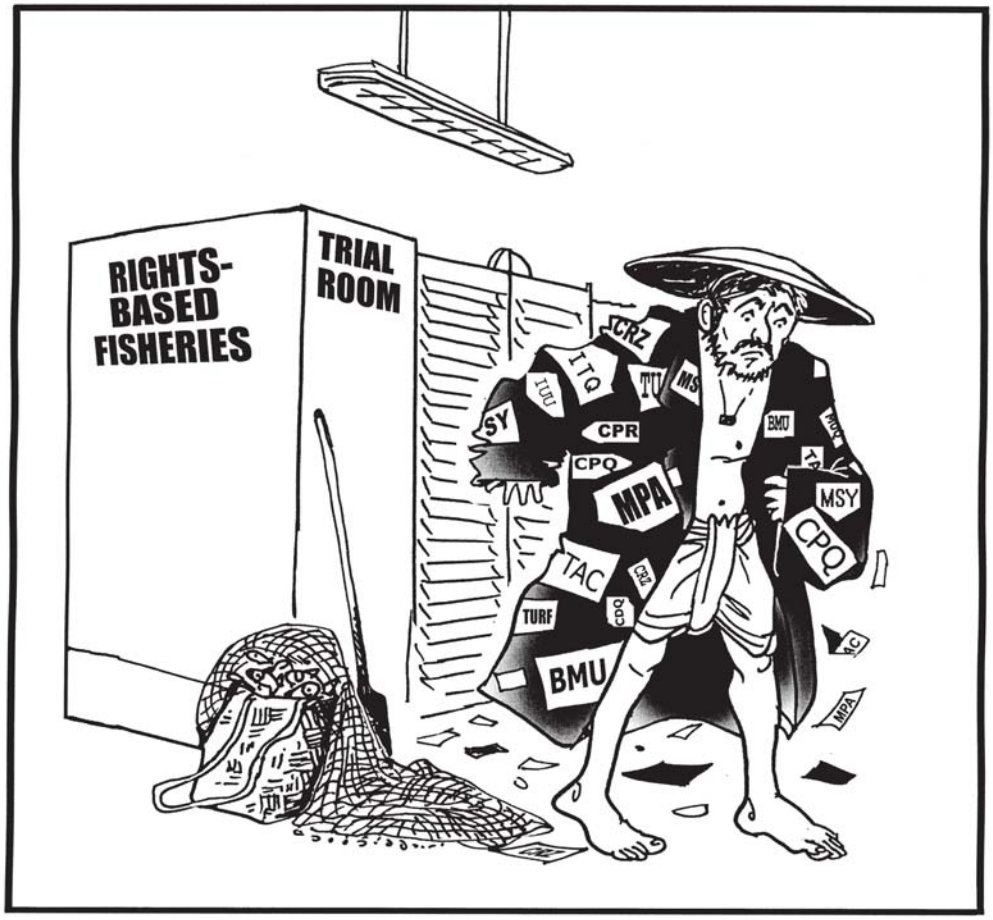
SAMUDRA Dossier

Sizing Up

Property Rights and Fisheries Management:
a collection of articles from ***SAMUDRA*** *Report*



International Collective in Support of Fishworkers
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Preface

Are fishing rights good, bad, necessary? Ichiro Nomura, Assistant Director General of the Food and Agriculture Organization of the United Nations (FAO) asserts in *SAMUDRA Report* No 44, the triannual publication of the International Collective in Support of Fishworkers (ICSF) (see pg. 82): "The FAO Secretariat has moved, beyond a doubt, on the matter of whether fishing rights are good or not. They are absolutely necessary and fundamental to the sustainability of the world's fisheries resources". This begs questions such as: Are fishery resources better conserved under a rights-based regime? What are the pros and cons of fishing rights in different parts of the world? What are the elements to look for in a fishing-rights regime, particularly in the context of developing countries? Do small-scale fishing communities benefit from different forms of fishing rights?

This dossier, a compilation of articles from various issues of *SAMUDRA Report* since 1996, seeks answers to these questions. It examines some of the approaches and types of fishing rights in the geographic contexts of Africa, Asia, North America (Canada), Europe and Latin America. Ranging from topics like artisanal fishing zones in India and Peru to individual transferable quota (ITQ) regimes in Iceland, New Zealand and Canada, most of these articles are written primarily from the perspective of small-scale fisheries, and coastal and inland fishing communities.

Some of the articles reflect the genuine apprehensions of small-scale fishing communities about 'distributional inequities', about exclusion and marginalization from the introduction of property rights that valorize capital over labour and community interests. Acquisitions of ITQs by corporations, argues Parzival Copes in his article (see pg. 5), would "destroy the viability of many smaller communities that do not have the financial resources to compete for the purchase of quotas and licenses."

Einar Eythorssson, in an article on Iceland (see pg. 1), while not denying that there are economic benefits from ITQs, raises the question of "who is enjoying these benefits, at what cost to whom?" Considering incidents of 'high grading', 'quota busting', 'price dumping' and 'data fouling' in countries that have adopted an ITQ-based fisheries management system, some of the articles in this dossier question whether or not a rights-based regime is the best bet for better conservation of fisheries resources.

There are also articles that show how some disadvantaged coastal communities have, in fact, benefited from the introduction of property rights in fishing. Matthew Hooper, in an article on ITQs in New Zealand (see pg. 18), for example, claims, drawing upon the experience of the Maori peoples, "how a system based on well-defined property rights allows the rights of indigenous communities to be recognized and provided for…"

There is broad agreement, on the one hand, about a rights-based approach to fishing, including the introduction of artisanal and trawl-free zones in coastal fishing, aquarian reforms in inland fishing, fishing rights in reservoir fishing, transferable quotas in large-scale fishing, reallocation of rights in commercial fishing, or assertion of traditional rights in marine fishing. There is some support to adopting fishing-rights regimes in consultation with fishing communities and in implementing these regimes in a participatory manner. In this context, the role of fishers' movements has been highlighted.

On the other hand, from a perspective of labour, gender and human rights, there are fears about some forms of fishing-rights regimes being inequitable, and about the socially insensitive manner in which some of these regimes are defined, adopted and

practised. The underlying narrow economic worldview of these regimes has been critically examined.

What emerges very clear from the debate is that the last word is yet to be spoken on fishing-rights regimes and their scope, especially in the small-scale fisheries of the world.

At the end of the day, questions still remain, and more unresolved questions are only round the corner. How can fishing-rights regimes be an improvement over conventional fisheries management? How practical would it be to integrate the principle of irreversible 'exclusion', at tremendous social costs, into decisions regarding who can fish? In small-scale fisheries, are property rights necessarily the best way to determine how access amongst small-scale fishers will be allocated? How could they protect the autonomy of small-scale fishing communities and prevent alienation of access to fisheries resources to large corporations? How could they not end up marginalizing fishworkers? How could they protect and improve upon traditional rights? It appears that greater adaptive space and flexibility of fishing-rights regimes would perhaps significantly help fishery stakeholders, particularly in the developing world, adopt such regimes.

Or should we, as Menakhem Ben-Yami argues in his characteristically blunt style (see pg. 34), treat all ponderings over fishing rights as hyperbole and continue with conventional input-control measures in conjunction with small-scale fisheries that employ "less capital-intensive and technologically and operationally sophisticated fishing methods"?

These are questions that will especially trouble policymakers and fishworker organizations from developing countries—and it is for them that this dossier is primarily meant. Although most of the articles in it are drawn from the experience of marine fisheries in industrialized countries, they are relevant to developing countries and will help them make "an informed judgement about the social costs and benefits", as well as the "moral and legal foundation" of the debate. After all, the pressure on developing countries to adopt fishing-rights regimes is based on the experience of rich countries.

We hope this dossier helps readers understand the vicissitudes of some of the fishing-rights regimes in the world. It draws attention to the importance of designing such regimes—if deemed necessary—to deliver conservation and management benefits to small-scale fisheries by demonstrating sufficient sensitivity toward the economic and social needs of coastal and inland fishing communities.

Sebastian Mathew
Programme Adviser, ICSF

Feudalism at sea

Einar Eythorsson

Iceland's experience with individual transferable quotas is an eye-opener to the problems and prospects of fisheries management by quotas

During the past decade, fish resource management by a system of individual transferable quotas or ITQs has been strongly promoted as a solution to the problems of ineffective management and economic inefficiency in the fisheries. The ITQ model is attractive to resource managers for a number of reasons. First, it leaves the difficult problem of distributing fishing quotas fairly and equitably among fishermen and fishing communities to the market mechanism, making life easier for the managers. Second, it leaves the problem of getting rid of excess fleet capacity to the market and thus removes the strain of buy-back programmes and compensations from government budgets. Third, it promises a more efficient fisheries industry in the future, which, in turn, will create a flow of tax revenues and even resource rentals into the governments' coffers.

To fishermen, or owners of fishing vessels, to be more specific, the system may also look quite attractive. Unsuccessful fishermen can sell their quotas to their more expansionist colleagues, thus receiving a fair compensation for leaving the industry. Those who want to expand, or need additional quota to fully utilize the capacity of their vessels, can buy it at a market price.

The aggregate result should be an economically sound fisheries industry, with improved job security and solid foundations for community development. This is, in short, the story told by the promoters of the ITQ system. The Republic of Iceland was one of the first States to introduce ITQs as an overall management system in its marine fisheries. Those who are considering ITQs as a management option should, for that reason, be interested in studying the Icelandic case. Are there lessons to be learnt from the Icelandic experience?

From 1984 to 1990, fishing quotas for cod and other demersal species were allocated to fishing vessels according to catch records for 1980-83. Quotas could not be divided or removed permanently from vessels, except if a vessel was wrecked or sold abroad. Quota transfers that meant a reduction of total quota holdings within a municipality had to be authorized by municipal councils and local trade unions. Market transfers of quota shares were relatively rare during this period. Quota leasing, which means that a part of an annual quota held by one boat is caught by another, was allowed from the start, and developed slowly and without much controversy until 1993.

By January 1991, the system was liberalized. Quota shares were allocated permanently, without any time limits. Quotas became divisible. They could be separated from vessels and transferred freely, as independent commodities, but only to other vessel owners.

While the 1990 fisheries law, in practice, allowed for a semi-privatization of the fishing rights in Icelandic waters, it also defined fish resources as public property. According to the law, the fishing rights defined and distributed under the law are not private property rights.

Confusing status

This somewhat confusing legal status of the quota shares evoked complicated debates over the issues of taxation, depreciation and

This article is by Einar Eythorsson, an Icelandic social scientist, then with Finnmark College, Abo, Norway. This article first appeared in *SAMUDRA Report* No. 22, April 1999

the use of quota shares as collateral. How is it possible for a private person to buy or sell something which is public property? Would such a thing be liable to taxation? Should banks accept public property as collateral for private loans?

Initially, investment in quota shares was considered as expenditure, and quota holdings were not treated as capital, which meant that they could not be used as bank collateral. In 1993, the Icelandic Supreme Court, however, found that quota holdings should be treated as private capital, and that they could be depreciated by the same rate as for copyrights—20 per cent annually. At first, the collateral problem was solved by mutual agreements between banks and indebted boat owners to ensure that quota shares and vessels could not be separated without consulting the bank. In the long run, this situation became very unpractical (fishing vessels representing minor market value without quota shares) and quota shares were eventually allowed as collateral.

The generous depreciation rate for quota shares is also being removed, as it has led to a reduction in tax payments from the fishing industry. The official status of quota shares as public property, while they are treated as private property for all practical purposes, can not be upheld in the long run. This was illustrated by a Supreme Court decision in December 1998, which is detailed later on in this article.

As the ITQ system, in theory at least, should strengthen the foundations of the fishing industry, it should mean more secure and even better paid jobs at sea. On the basis of such future prospects, the Icelandic Union of Deckhands (SS) was basically positive to the introduction of ITQs. The Union of Skippers and Mates (FFS) was more sceptical, and soon became explicitly negative. Since the liberalization of the ITQ system in 1991, there has been a series of bitter conflicts between vessel owners and crewmen, resulting in repeated strikes and lockouts in the industry. The reason is found mainly in the changing dynamics in the fisheries industry under ITQs, especially the implications of a growing leasing market for annual quotas.

The term 'quota leasing' covers different types of transactions to transfer rights to catch a certain amount of a certain fish species in the current year from one vessel to another. One form of transaction is an equal exchange of species—the rights to catch one species are paid for by the rights to catch another, based on an exchange rate between different species. A second form is leasing quota directly, which means that the right to catch a certain amount of fish is paid for in money, at a market price derived from supply and demand.

A third variety, which became increasingly common during 1992-93, is contract fishing, or what is often referred to among fishermen as 'fishing for others'. Fishing contracts are, in many cases, signed between vessel owners with small quota holdings and vertically integrated fishing/processing companies with large quota holdings. The vessels are then obliged to deliver their catches to the company. They receive a fixed price for the catch.

In 1993, this price was about half the market price in the case of cod fishing, the remaining 50 per cent being indirect payment for the leasing of quota from the company. The income of crew members is a fixed percentage of the price received for the catch, as defined by the share system. The practice of contract fishing outlined above means that the income of a crew on a vessel fishing under such a contract is bound to be substantially lower than the income of a similar crew on a similar vessel with sufficient quota holdings belonging to the vessel.

As contract fishing became more widespread, more crewmen experienced a drop in their income. According to their unions, there were several incidents of leasing contracts being arranged for the sole purpose of reducing the labour costs in the fisheries,

a practice often referred to as 'quota-profiteering' (*kvotabrask*).

Feudal system

The system of contract fishing is often referred to as a feudal system of 'sea lords' and 'tenants'. Under the ITQ system, quota holdings are being concentrated in fewer and bigger companies, while there is a substantial fleet of fishing vessels with insufficient quota holdings for a year-round operation. In some cases, vessels have been stripped of their quota, and sold cheaply to fishermen who intend to make a living by leased quotas. These boats, the so-called 'eunuchs', contribute to the high demand for leased quota and a high leasing price. In this situation, vertically integrated processor companies can, in fact, ask for bids from idle vessels, in order to have 'their fish' brought home at the lowest possible cost.

This, in short, was the background of the fishermen's strike in January 1994 and repeated strikes in the following years. The unions wanted to abolish the system of quota leasing, or even remove the entire ITQ system. The result has been a partial return to a system of negotiated minimum prices, and a special committee to resolve conflicts regarding prices and shares. There is a growing opinion that the share system should be reformed or even abolished to avoid the effects of ITQs upon the income of crewmen. The fact that the holders of quota shares also hold the strongest negotiating power in the industry has now been realized by the unions—despite the strikes, they have not achieved any fundamental change of the ITQ system.

After eight years of experience with the ITQ system, the controversies within the industry and in Icelandic politics are as strong as ever. Repeated polls among the Icelandic population show that most of the public is opposed to the system. It is, however, uncertain how, or if, the implementation of ITQs can be reversed without a massive economic loss. Quota shares are considered as private property for all practical purposes, and they represent a major capital value, relative to the national economy of Iceland. Companies with big quota holdings have strengthened their position, and quite a few of them have made investments in fisheries enterprises abroad. It is thus hard to imagine how the quota-capital could be returned to the public. In any case, the present owners of quota shares would claim full economic compensation from the government if their quota assets were to be confiscated.

However, it seems that we have not yet seen the end of the ITQ story in Iceland. In December 1998 the Icelandic Supreme Court reached a verdict in a case raised by a fisherman who had been denied a fishing licence and a catch quota. The denial was based on the fact that the fisherman in question had not been an owner of an active fishing vessel in the early 1980s, the period in which 'fishing experience' was converted into fishing rights.

Equal rights

Considering the Icelandic constitution, which claims equal employment rights for every citizen and the Fisheries Law of 1990, which defines the fish resources as public property, the Supreme Court found the denial unlawful and unconstitutional. In short, the Court found that by implementing the ITQ system, the government had given away exclusive rights to the publicly owned Icelandic fish resources to a group of people who happened to be the owners of active fishing vessels at a certain point of time. Such an act could not be justified by the need to preserve the resources or by the best public interest.

So far, the Icelandic government has responded by making a minor change in the fisheries legislation. Any owner of a fishing vessel is now free to apply for a licence, which provides the opportunity to catch some quite rare fish species that are not managed under the ITQ system. However, catch quota for any of the major commercial species must still be bought or leased from the present owners. Provided that there are limited employment alternatives for fishermen, this

...by implementing the ITQ system, the government had given away exclusive rights to the publicly owned Icelandic fish resources to a group of people who happened to be the owners of active fishing vessels at a certain point of time

change will probably only increase the demand for annual quota on leasing contracts, as more vessels with little or no quota can enter the market. This, in turn, may cause a further increase in leasing prices and, consequently, a downwards pressure upon the income of crewmen. Meanwhile, the capital value of quota shares will climb further upwards.

Judging from the Icelandic experience, there seems to be little doubt that ITQ systems have major implications for the distribution of income, wealth and power

I have chosen to dwell upon some of the problematic issues involved in fisheries management by ITQs. I will not argue that there are no economic benefits from ITQs. I will rather ask who is enjoying these benefits, and at what cost to whom. Judging from the Icelandic experience, there seems to be little doubt that ITQ systems have major implications for the distribution of income, wealth and power. By learning from the experience of Iceland and other States that have implemented ITQs, it should be possible to make an informed judgement about the social costs and benefits of the system, as well as its moral and legal foundation. ■

Coastal resources for whom?

Parzival Copes

As powerful forces seek to industrialize and privatize the world's fish resources, it is time to counter the moves to dispossess coastal fisherfolk

Since the beginning of civilization, fisherfolk of coastal communities have laid claim to adjacent coastal resources. Their perceived rights to local fish stocks derive from the sustained use they have made of them. The importance of these rights has been intensified by the evolved economic dependence of coastal people on their fishery resources. However, it is becoming increasingly clear that coastal communities will be able to maintain their prerogatives of priority access to adjacent fish resources only by a vigorous collective defence of these resources as their common property.

Typically, most inshore fish resources have lent themselves well to harvesting by locally based small-scale fishermen. Their traditional rights to adjacent fish stocks are now threatened by two significant developments. One is the growth in power and ambition of industrial corporations in the fisheries sector. Such corporations have naturally dominated offshore and distant-water fishing operations, because of their ready ability to access the large-scale technology and financing needed for such operations. Now, in their drive for greater market share and enhanced security of raw material supplies, they are also seeking to increase their direct access to resource-rich coastal fisheries.

The second threatening development is the current drive for formalization of access rights to fish resources in a manner compatible with contemporary Western notions of corporate and individual private property. This is increasingly taking the form of attempts to 'privatize' the fisheries by commercializing ownership rights through transferable shares in the fish harvest. Such rights are referred to as 'individual transferable quotas' (ITQs). An underlying objective of most promoters of ITQs is to ensure the dominance of market forces in arranging access to the fisheries, by allowing unfettered transferability and accumulation of quotas at unrestrained market prices. This has the effect of monetizing access rights at high capital values, thereby favouring corporations and wealthy investors. Using their financial power, they are able to bid up the price of quotas and buy up access rights to large shares of the harvest, either by outright quota ownership or by control through tied loans to individual operators.

The complexity and high cost of managing ITQ systems have made their application in the coastal fisheries of most developing countries impractical at this time. Here the corporate fisheries sector is more likely to impact the small-boat inshore fisheries through the incursions of larger company vessels into inshore waters or through their depletion of stocks that migrate between the inshore and the offshore.

The usual procedure in introducing an ITQ regime is to give a free allocation of perpetual quotas to the owners of currently operating fishing vessels, with the proviso that they (and future owners) have the right to sell these at any price obtainable in the market. The value of a set of quota holdings, even of a small-boat operator, in many fisheries may now run to tens of thousands of US dollars and, in some fisheries, may amount to well in excess of a million dollars.

This article is a summary of an extended paper by Parzival Copes, which formed the keynote address at the founding meeting of the World Forum of Fish Harvesters and Fishworkers in New Delhi, on 18 November 1997. This article first appeared in *SAMUDRA Report* No. 23, September 1999

Such prices constitute a strong incentive for established fishermen to sell out if they are in an ITQ fishery, particularly if they are close to retirement. If they are in a fishery without transferable rights, they may be persuaded to have their fishery converted to an ITQ system, so that they may also make a windfall gain when they retire.

ITQ systems are very difficult to dismantle, both for fiscal and political reasons. Once the rights have been traded, the new owners would claim full compensation for the rights they had bought if the government decided that the ITQ or transferable licence regime was not working well and should be abandoned. The fiscal burden might be insupportably high and the political embarrassment would be great. Transferable rights programmes are, therefore, almost irreversible.

With ITQ systems, it is difficult for crew members on small boats to become, in time, vessel owner-operators, as has been part of the life-cycle pattern in so many fishing communities. The inequitable give-away of transferable rights to particular individuals who happen to be boatowners at the right time will tend to confine access to the fishery to a more select group and their heirs, and thereby create or sharpen class divisions in fishing communities. A further important social and economic concern is that of the geographical concentration of fishery access privileges. This may be achieved through the acquisition or control of ITQs by corporations, which then locate the fishing vessels they own or control at their base of operations in particular larger centres. This is liable, in time, to destroy the viability of many smaller communities that do not have the financial resources to compete for the purchase of quotas and licences, but that would have remained economically viable if they had continued to have access to their accustomed resource base. This represents a loss of social capital invested in infrastructure and of private capital invested by the inhabitants, who may also find their lives disrupted and their circumstances much reduced.

It is important to recognize clearly the intrinsic nature of a government's move to install an ITQ regime, starting with a free gift of marketable access rights to selected individuals. It is basically the expropriation without compensation of a community's resource base. This may end up with alienation of the resource from the community, and its actual or prospective transfer into the hands of outside corporate or entrepreneurial interests, which may decide to exploit the resource from a distant base. The direct financial value of this confiscation may be measured by the capitalized value of the quota holdings representing the alienated resource.

Privatization of rights

In summary, what does the move to 'privatization' of fishing rights in the form of ITQs and transferable licences really mean for coastal communities that have been historically dependent on their local fishery base?

It may mean the 'enclosure' of their fishery commons by the authority of a distant government; the confiscation of a fishery resource to which they have had a long-established traditional right; the rupture of a community's social fabric and the sharpening of class and wealth distinctions, with the assignment of windfall gains to some and the loss of access to a master-fisherman's career for others; the prospect of alienation of a vital community resource base to wealthier outside interests; and, finally, the possible decline and eventual abandonment of the community itself.

ITQs are frequently promoted as a device to 'privatize' the fishery. It is asserted that they would abolish the common-property nature of fish stocks, and bring about private ownership of the fishery, with the efficiency advantages that attach to such ownership. This vision is wrong. The notion that ITQs will remove the common-property nature of fish stocks and make the fishery 'just like' other industries is utterly unrealistic. It needs to be realized that fish in the ocean are

fugitive and can not be segregated, identified and assigned to different owners. The ecology that nurtures them is the seamless multi-use ocean environment that is common for fishing, recreation, transportation and many other purposes. Fish stocks and the ocean environment that produces them, by their very nature, are common-use and common-property resources. They can not be divided into self-contained and separately managed units to which comprehensively specified private property rights may be attached.

For privatization of the fishery to be substantially complete and to meet the test of economic efficiency, it would be required to give every fishing enterprise exclusive property rights to, and exclusive control over, a particular identified set of fish, along with a particular ecology that produces those fish, in the same way that a farmer owns and controls specific animals and all the productive facilities of the farm necessary to raise and bring those animals to market. It is patently impossible to operate in such a fashion in the marine fisheries, because of the physically determined common-use nature of the resource.

ITQs do not give property rights to the fish stocks, but only privileged access rights to a pool of fish that quota holders continue to exploit in common. It has been demonstrated that ITQs will often help to rationalize fishing capacity. On the other hand, as shown above, they will also frequently result in distributional inequities. Of further concern is the fact that, in many cases, they are demonstrated to be damaging to fisheries conservation.

In ITQ fisheries, the total allowable catch (TAC) needs to be set firmly at the beginning of a season or fishing period, as participants need to know in advance what their quota (share of the TAC) is. The credibility of the system depends on honouring the set quotas, but sound management requires constant monitoring of stocks, with in-season changes in TACs and fishery closures, according to observed stock conditions. The inflexible TACs of ITQ systems lead to harmful overfishing if they are set too high, or wasteful underfishing if they are set too low.

ITQ systems are notorious for cheating ('quota busting'), with participants taking, but failing to report, catches in excess of quota. Enforcement of quotas is difficult, expensive and, in many fisheries, impossible to achieve. Where enforcement of quotas is reasonably successful, a different problem arises, that of `high-grading'. In order to maximize income from their (quantitative) quotas, fishers are induced to throw away fish that have a lower value per pound, which often means a significant part of their otherwise saleable catch will be discarded and go to waste. Even worse is the practice of 'price-dumping' in some ITQ fisheries, where the entire catch of a trip is discarded if, on the way back to port, it is found that the day's market price is low.

ITQs do not give property rights to the fish stocks, but only privileged access rights to a pool of fish that quota holders continue to exploit in common

Forbidden practices

All three of the foregoing practices are usually forbidden in ITQ fisheries, and so perpetrators do not report their transgressions. This leads to 'data fouling', with catch mortality being under-reported and managers not knowing the full impact of fishing on stocks. The result is inferior stock estimation and greater hazards in setting unreliable quotas at the beginning of the fishing season.

Adding to the problems are mixed-stock fisheries, where it is impossible for vessel operators to catch different species in the same proportions as the quotas given for those species. This also may result in discarding to match catches with quotas, or to quota busting to hide overages.

There is ample evidence to indicate that ITQ systems often can not be reconciled with sound fisheries management and are basically incompatible with the precautionary approach that is now the international standard for responsible fisheries management. While small-scale fishing communities may feel particularly threatened by the damaging social impacts of ITQs, they may find that some of

their most effective arguments refer to the adverse conservation impacts of ITQs. This also provides a strong basis for alliance with socially sensitive environmental groups.

In the industrialized countries, small-scale, owner-operated vessels fishing in coastal waters have some important natural advantages over the corporate fisheries sector. Smaller vessels are generally effective in targeting inshore stocks, and economical in operation close to their local base. With short times at sea and a good holding facility, they can deliver a high-quality, fresh product. The owner-operator of a small boat is greatly motivated to run his vessel efficiently and maintain it carefully.

Provided the small-scale fishery is rationalized to yield attractive revenues per boat and to operate subsidy-free, it is in a position to impress sensitive governments with the social advantages of its relatively high labour intensity, its favourable lifestyle, and its economic and social underpinning of smaller coastal communities.

The populations of many fishing communities have grown, while advancing technology has reduced employment opportunities in the fishery, even if partially offset by the greater range of fisheries now pursued. To remain economically healthy, the small-boat sector must accept the need to keep fishing capacity in balance with available harvests. This will probably require occasional reductions in fleet size by buy-back, in order to offset likely advances in fleet productivity.

Developing countries

The plight of small-scale fishing communities in developing countries is often a daunting one. Where population densities are high, open access to the fishery has frequently attracted large numbers of impoverished, landless workers.

Fishing communities have often become the abode of 'the poorest of the poor'. Intense population pressure, in combination with a lack of government capacity to manage the fisheries and a lack of effective local authority to impose a conservationist discipline, easily leads to overfishing.

In several countries, the desperate need for immediate daily income has caused fishers to engage in 'Malthusian overfishing', employing destructive techniques using dynamite, poison and ultra-small-mesh nets.

In developing countries, the immediate threat to small-scale fisheries often comes from the encroachment on inshore fish stocks by industrial fishing operations. These have often been encouraged by governments anxious to promote industrialization and to develop export industries for high-value species, such as shrimp.

In addition, industrial fisheries and aquaculture operations have been allowed to encroach upon the grounds of small-scale fishers. Lack of fishery management restrictions on these operations often leads to depletion of wild stocks and disease outbreaks in aquaculture.

On the other hand, in some countries, governments have recognized the needs of vulnerable coastal communities, and have moved to protect coastal fisheries by prohibiting larger vessels from fishing near to shore, though enforcement has frequently been ineffective.

The immediate priority of threatened small-scale coastal fishing populations in developing countries has to be the vigorous assertion and defence of traditional rights to adjacent resources, culminating in legal recognition of those rights. No less important, however, is the long-term need to achieve a reform of coastal fisheries that will help to banish damaging fishing practices and produce larger sustainable yields. Experience suggests that community-based co-management approaches may have the best prospects for success. A full solution to the coastal fisheries problem in developing countries will require

the provision of job opportunities outside the fishery to draw off surplus labour from the fishery.

Political fashion

Small-scale fishing communities in developed countries have become the victims of the current political fashion for 'privatization'. It is being applied to the fishing industry incorrectly, in the mistaken belief that the common-use and common-property characteristics of marine resources can be suppressed.

The device of the ITQ is being used to this end, on the erroneous assumption that fugitive marine resources can be divided, packaged and assigned to private owners in effectively the same fashion as immobile and captive terrestrial resources.

In some places, much damage has already been done in alienating fishery resources from small-scale fish harvesters and in diverting fish catches from smaller, fishery-dependent communities to larger, industrial centres. Meanwhile, in developing countries, small-scale fish harvesters in many places are losing resources to encroaching industrial fishing and aquaculture operations. The already precarious livelihood of large numbers of fishery-dependent workers and their families is at stake.

Behind the current campaign for 'privatization' of fisheries lies the reality of an assault on the traditional common-property resource rights of vulnerable fishery-dependent populations. Given the clearly adverse impacts of privatization devices such as ITQs, both on social equity and on resource conservation, a strong basis exists for joint action in defence of common-property marine fish resources by groups representing small-scale fish harvesters and environmentalists, both in developing and in industrialized countries. Considering the extensive and near-irreversible damage that is being inflicted by so-called fisheries privatization, there is no time to lose in mounting the defence. ■

The immediate priority of threatened small-scale coastal fishing populations in developing countries has to be the vigorous assertion and defence of traditional rights to adjacent resources, culminating in legal recognition of those rights

Flipped on its head?

Michael Belliveau

A Canadian Supreme Court ruling on the traditional fishing rights of the M'ikmaq threatens relations with commercial fishermen

The native peoples of Canada represent approximately five per cent of the country's population. They live along the three ocean coasts of the country as well as inland, and have been on the continent for thousands of years. During the 17th and 18th centuries, the then British colonial power entered into various treaties with them, sometimes for purposes of peace and friendship, and sometimes to guarantee territory and trade.

One such treaty was agreed to in 1760 between the British Governor Lawrence and the M'ikmaq peoples who fished and hunted in the regions of eastern Canada bordering the Atlantic. The treaty itself generally fell into disuse but was used in defence of a M'ikmaq fisherman, Donald Marshall Jr., who was charged with fishing in a closed area, using unregulated gear.

The case found its way through Canada's judicial system right up to the Supreme Court. On 17 September 1999, Supreme Court acquitted Marshall on the basis that the treaty gave him a right to fish and trade such fish in order to earn a moderate livelihood for himself and his family. The court decision made it explicit that the treaty right could be regulated and subject to catch limits that provided for a moderate livelihood. However, some M'ikmaq people believed they now had a recognized right to fish when and where they so chose, and began placing lobster traps into areas where the lobster season was closed.

As the M'ikmaq built up their fishing presence in closed lobster areas, commercial fishermen who rely on the same lobster area for their livelihood grew increasingly angry as the Government Department of Fisheries made no attempts to restrain the out-of-season fishing.

The situation exploded on 3 October when fishermen in the Miramichi Bay off the coast of New Brunswick sent out 100 boats that proceeded to haul up native lobster traps, removed the meshing, returned the lobsters to the water and sank the disabled traps.

Native persons responded by taking over the government wharf at Burnt Church on the Miramichi, burning two fishermen's trucks and bringing in what they refer to as their 'warrior society'. Native and non-native people were driven into direct and violent conflict with one another, and similar situations threatened to break out in other coastal areas.

The Marshall Case was now preoccupying the media and the political leaders of the country. The decision of the Supreme Court judges was questioned widely, and two of the seven judges also dissented. The Premier of Newfoundland, Brian Tobin, blasted the judges for not understanding the nature of the fishery and for not providing a period of time for the implications of the decision to be properly managed and implemented. The entire commercial fishing sector in Eastern Canada was protesting, calling for a moratorium and political intervention. They felt the fishery as they knew it was being undermined.

Restrictive regime

The reader not familiar with Canada must remember that there are 50,000 fishermen in Atlantic Canada fishing under a very

This article is by the late Michael Belliveau, an erstwhile Member of ICSF and formerly Executive Secretary, MFU. This article first appeared in *SAMUDRA Report* No. 24, December 1999

restrictive fisheries management regime. The lobster fishery is particularly sensitive because the species is widely dispersed in inshore waters along a very large coastline. It is a fishery broken down by zones (lobster is a sedentary species seldom moving beyond 25 km of its habitat), and each of 44 zones has a specified season that is rigidly enforced.

Licences are limited, and their total number frozen. This limited entry has led, over time, to licences acquiring a value and being considered as quasi-property. If you had invested $100,000 in a lobster licence, you might get a little anxious if you saw a few native fishermen fishing out of season, apparently authorized by the Supreme Court to do so, and catching with each trap ten times as many lobsters as the commercial fishermen catch in season.

The M'ikmaq people, for their part, have historically been marginalized into a reserve system (although they also have full rights as Canadian citizens), where rates of unemployment are astronomical, levels of education low, and standards of living below the poverty line. They believe their fishing rights have been denied them under the modern fisheries management regime.

In total numbers, the M'ikmaq pose no serious threat to commercial fishermen, except in localized areas where there are significant numbers of natives adjacent to the lobster grounds that are fully subscribed to.

However, if their treaty right is a 'blank cheque' to fish whenever, wherever and however, then the commercial fishery, as we know it, has been flipped on its head. But the Supreme Court has made it clear that it is not a 'blank cheque', but a limited right to a moderate livelihood and, indeed, it is a 'communal' right and not an individual right as such.

The obligation is on the M'ikmaq as a people to exercise the right in accordance with regulations. The Government of Canada has appointed a Chief Negotiator who has until 15 April 2000 to arrive at interim fishing plans that accommodate the new treaty rights. Until such fishing plans are tied down, inshore fishermen remain extremely anxious, and the social climate in fishing areas where natives and non-natives live in the same broader communities remains tense.

The Maritime Fishermen's Union (MFU) has been at the centre of the controversy since our inshore fishermen are based in all of the areas where there are significant numbers of coastal M'ikmaq.

The MFU recognizes the Supreme Court decision has been a breakthrough for the M'ikmaq. We believe their new rights can be accommodated within the present fisheries management system. The accommodation can be done by means of a voluntary licence retirement programme.

We believe strongly that the accommodation should not be on the backs of fishermen but should be shouldered by the society as a whole through their government.

As we write, it seems the Federal Cabinet will recognize this principle and allocate the appropriate monies to make the adjustments. In the meantime, we want to find ways of making the peace between commercial fishermen and First-Nation peoples. ■

Licences are limited, and their total number frozen. This limited entry has led, over time, to licences acquiring a value and being considered as quasi-property

Up against trawling

Tries Zamansyah

The traditional fishermen of North Sumatra have united to battle the threats posed by trawling

After the New Order government of Suharto came into power in 1966, a new phase in Indonesia's development was initiated. This was articulated in the *Trilogy Pembangunan* (the Three Basic Principles of Development) that aimed to achieve a certain level of development. At the same time, the New Order also took some steps to maintain national stability, based on the assumption that development targets could only be achieved if national stability was guaranteed.

One of the strategies adopted for this was to maintain the community's focus on development efforts. Another was to keep the community away from political activities, including the activities of political parties. At the same time, political parties were not allowed to make contact with communities, especially in rural areas.

The New Order also established people's organizations, such as *Himpunan Kerukunan Tani Indonesia* (HKTI)/ Indonesian Farmer Brotherhood Organization) and *Himpunan Nelayan Seluruh Indonesia* (HNSI)/Indonesia Fishermen's Organization). These were actually linked to the ruling political party. Fishworkers were allowed to join only HNSI and farmers, only HKTI. Members of these organizations were obliged to vote for the ruling party.

Any attempt to establish a new independent organization would be branded as a communist initiative by the government. In practice, this system blocked the aspirations of local people and made it difficult for them to engage in any political activity, except during the public elections, once every five years.

To accelerate the country's development, the government emphasized the modernization of every sector. In fisheries, the emphasis was on substituting traditional fishing equipment with modern craft and gear, in order to improve the income of fishers.

As part of this drive, traditional fishers were encouraged to replace traditional gear with trawls, known in Indonesia as *pukat harimau*. Credit incentives were provided for this. Trawls were seen as having several advantages, particularly greater efficiency, which made possible higher levels of fish production with minimal human resources. Due to these various benefits, the trawl soon became the gear of choice in the modernization drive.

However, this policy did not take into account the fact that traditional fishermen lacked the knowledge and training needed to operate trawls. Moreover, they could not afford to purchase the highly priced trawls, despite credit incentives. As a result, the policy actually benefited the professionals within the sector, and did little to improve the situation of traditional fishermen. More often than not, trawls were owned by investors, who used skilled labour to operate the gear.

For the traditional sector, several negative impacts resulted. With the use of trawls, large catches became possible. But their use also destroyed the coastal environment and important spawning and breeding grounds. Most of the trawlers operated in the same coastal waters used by traditional fishermen,

This piece is by Tries Zamansyah, Secretary General of the Sarekat Nelayan Sumatera Utara (SNSU), North Sumatra, Indonesia.
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their 'customary sea', and competed directly with them.

Public property

This affected both the catches and the income of the traditional fishermen. Significantly, the concept of the 'customary sea' vanished when the Government of Indonesia declared the sea as 'public property', as stated in Ministry of Agriculture Decree No.607/KPTS/UM/9/1976.

Forced to respond to the protests of traditional fishers, the Government implemented a trawl ban in 1980, through Presidential Decree No.39/1980. The use of trawls was banned in all Indonesian territory, except in Irian Jaya and Maluku, by Presidential Decree No.12/1982).

This ban was also supported by a Decree of the Indonesian Supreme Court (No. 8/1988). Despite this, in practice, the ban has not been operational. Vessels using trawls continue to operate in Indonesian territory, especially in the North Sumatra region. This situation has forced the traditional fishers of North Sumatra to undertake various actions.

It is also significant that, until now, the HNSI has failed to solve the problems resulting from continued trawling activities and has not been able to work towards the implementation of the ban. On the contrary, there is a tendency for the HNSI to favour the trawler owners and to even protect and provide cover to their operations.

There are several reasons that make it difficult to implement the trawl ban. The ban on trawling, under the Presidential Decree No. 39/1980, was not supported by effective monitoring and enforcement at the regional level.

Other government policies have supported the continuation of trawling activities. For instance, a fisheries regulation of 4 July 1996 supports the purchase of foreign boats by investors. This, in effect, means the procurement of trawlers. This has occurred in Belawan, where there are at present 144 modern fishing boats using trawl-like gear, named otherwise to get past the law.

There is no policy that specifically protects traditional fishers, their gear and their customary area of operation, from the operation of modern fishing gear such as trawls. Although there is a Fishery Law that acknowledges the rights of these traditional fishers to their customary sea, this regulation is not operational.

The Regional Government Offices that issue permits to fish often do not take into account their impacts on the traditional sector or, for that matter, on the coastal environment. In fact, they tend to favour the interests of the investors.

The institutions that are meant to implement the trawl ban, such as the marine force, the police and the fisheries department, often have overlapping responsibilities. Collusion tends to occur between trawl owners and government officials. For example, trawls that have been confiscated by traditional fishers and handed over to the authorities, are released the very next day.

This situation has angered traditional fishermen. And, not surprisingly, they have taken several actions, such as burning of trawlers. They feel that they cannot depend on the official system to take care of their interests.

The resentment of traditional fishermen towards trawler owners is further aggravated by the fact that they have established a three-tier marketing network of intermediary middlemen that controls fish prices. The price at which the consumer finally purchases the fish is very high. Since traditional fishermen can only sell their fish to the first middleman, they get a very low price.

They have no other option but to go along with this system; if not, they run the risk of not being able to sell their catch at all. Any effort to establish an alternative marketing structure is soon destroyed by the marketing network controlled by owners and investors.

There is no policy that specifically protects traditional fishers, their gear and their customary area of operation, from the operation of modern fishing gear such as trawls

The Fish Auction House that was supposed to have functioned as the place for fishermen to auction their catches has become part of the owner-controlled marketing system. The situation is similar in fishermen's co-operatives.

Several meetings were held by fishworkers between 1993 and 1998 to discuss this situation. Fishermen and a number of public figures in North Sumatra participated in these meetings. It became evident that to deal with these problems, traditional fishermen in North Sumatra must establish an independent organization managed by the fishers themselves.

The SNSU aims to create unity among fishers in North Sumatra and to support them in their struggle for social, cultural, economic and legal justice, as citizens of Indonesia

Independent organization

Finally, on 14 July 1998, in Medan, an independent fishermen's organization was formed, called the *Sarekat Nelayan Sumatera Utara* (SNSU) or North Sumatran Fishers' Union.

About 900 traditional fishermen from three regions in North Sumatra (Langkat, Asahan and Deli Serdang) participated in this event. SNSU aims primarily to draw the attention of the government to the long-neglected problems of traditional fishermen—for instance, the problems caused by trawling and other similar operations, and their impacts on traditional fishermen and on the coastal environment.

The SNSU declaration was presented to the Governor of North Sumatra and to the Head of the Provincial Fishery Department in North Sumatra. This led to a dialogue between fishermen and the Governor. The Governor promised that the problem of trawling would be resolved within a year.

But this promise was never fulfilled. In fact, the number of trawlers operating in the area has increased, even as conflicts between the trawlers and traditional boats have risen.

Along the Sialang Buah coast, in the district of Mengkudu in the Deli Serdang region alone, 51 fishermen were injured between 1993 and 1998. Of these, 31 fishermen lost their lives as a result of injuries from clashes between the traditional boats and trawlers at sea. There have been several other such incidents in regions such as Langkat, Asahan and Belawan. However, there are no official records of these incidents.

As an organization founded by fishermen, SNSU actively promotes the interests of traditional fishermen by putting pressure on the Provincial Governor of North Sumatra, the President of Indonesia, and agencies such as the Office of the Attorney General, the District Military Office of Bukit Barisan, Lantamal I Belawan, Provincial Fishery Department in North Sumatra, and District Officers (*Muspika*) in coastal areas, etc.

A number of activities have been undertaken to draw attention to the problems of traditional fishermen, such as delegations, demonstrations, presentations, and even the direct arrests of trawlers.

The SNSU aims to create unity among fishers in North Sumatra and to support them in their struggle for social, cultural, economic and legal justice, as citizens of Indonesia. More specifically, it aims to:

- develop economic activities for all members through the formation of fishermen's co-operatives;
- improve the social welfare of all members;
- train members through educational activities;
- defend the interests of members through advocacy; and
- establish fishermen's groups in every district along the coast of North Sumatra.

In order to achieve these objectives, SNSU has developed various programmes. These can be broadly classified as Advocacy, Community Economic Development, Human Resource Development, and Networking.

The present era of reform in Indonesia, where freedom to organize and express one's views is part of the democratization process, has provided a good opportunity for traditional fishermen to articulate their concerns. It is hoped that the establishment of the Ocean Exploration and Fishery Department will promote the welfare of traditional fishermen in Indonesia and particularly in North Sumatra. Hopefully, the mistakes of the past, when the traditional fishery sector was ignored, will not be repeated. ■

Redistributing wealth

Francis Christy

The use of individual transferable quotas as a resource management measure must not be summarily dismissed

Parzival Copes' arguments against the use of individual transferable quotas (ITQs) for the management of fisheries ("Coastal resources for whom?", SAMUDRA Report No. 23, September 1999) are not particularly helpful to those responsible for making decisions on the formulation of management measures. Although ITQs will not work in many situations, they, nevertheless, provide an important tool which should not be rejected for the wrong reasons.

It is abundantly evident that overfishing is becoming more severe and more pervasive throughout the world and that it affects small-scale fisheries as much as it does large-scale fisheries. The basic problem is that the supply of fish stocks is limited and yet the demand for fish products is growing. This leads to rising prices and, in the absence of effective controls, increased fishing effort. The result is the depletion of stocks as well as the excessive use of capital and labour.

Better management of fisheries is essential. Management measures can deal either solely with the biological aspects or with both biological and economic aspects. In the past, many of the measures dealt only with the biological yield, ignoring the economic consequences. These kinds of measures included total catch limits, closed seasons, closed areas, mesh size controls and others designed to restore stocks to their maximum sustainable yields (MSY). These were frequently adopted because they presumably affected all fishermen equally and did not change the distribution of wealth (a presumption that was often wrong).

Although such measures may be desirable in conjunction with other measures, they do not always achieve their objective of restoring the stocks. Moreover, they do nothing to prevent excessive fishing effort or conflict among competing users. The difficulty is that measures that prevent excessive fishing effort or that deal with conflict, require decisions on the distribution of wealth.

This can not be avoided. As Copes has pointed out, an ITQ system provides individual quotas to some fishermen but not to others. What he did not point out, however, is that a system limiting fishing effort directly, by granting licences to some of the fishermen, also distributes wealth.

He states that "to remain economically healthy, the small-boat sector must accept the need to keep fishing capacity in balance with available harvests. This will probably require occasional reductions in fleet size by buy-back, in order to offset likely advances in fleet productivity."

Copes has failed to note that the provision of territorial rights to a community of fishermen (which he advocates and which I agree may generally be desirable) provides wealth to that community and excludes fishermen who are not members of the community. Copes states that "typically, most inshore fish resources have lent themselves well to harvesting by locally based small-scale fishermen." While this may currently be true in certain situations, it is becoming less and less valid, and is unlikely to continue into the future.

This response has been sent in by Francis Christy, Senior Research Officer, IMARIBA, Washington DC, US.
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It is clear that eventually, as population grows and demand increases, decisions on the distribution of wealth will have to be made. Even the exclusion of large-scale fishing vessels from the waters used by small-scale fishermen will not preclude the eventual necessity for determining how access within the group of small-scale users will be allocated. Since this is at present necessary in many situations and will be increasingly necessary in the future, it is desirable to examine all the various techniques for controlling access, including the use of ITQs.■

Management measures can deal either solely with the biological aspects or with both biological and economic aspects

Maori power

Matthew Hooper

The Maori fisheries settlement is a world leader in terms of resource transfer to indigenous people

The management of fisheries through the use of property rights is often perceived as being anathema to the recognition of indigenous fishing rights. Experience in New Zealand suggests that the opposite may, in fact, be the case. Not only are indigenous fishing rights compatible with a property rights approach to fisheries management, such an approach can be used to settle claims involving indigenous fishing rights, to preserve those rights for future generations, and to integrate such rights within a wider fisheries management framework.

Throughout the world, State management of fisheries using regulatory instruments has left indigenous communities subject to the values and aspirations of the dominant culture as represented by the government of the day. No matter how liberal, democratic and egalitarian the State may be, the final result is likely to further erode the ability of indigenous communities to manage, harvest, and use natural resources in ways that are consistent with their cultural needs. A property rights-based system can provide a robust mechanism for ensuring the sustainable utilization of fisheries, while providing for indigenous rights holders to realize their often divergent social and economic aspirations.

Indigenous communities traditionally have their own internal regulatory mechanisms for management of their fishing activity. Such regulatory mechanisms are integral to the nature of their fishing rights.

Recognizing and providing for indigenous and coastal community fishing rights requires empowering the communities concerned to use those mechanisms, and integrating them within the wider fisheries management framework. In fully exploited, multiple-user fisheries, a system based on well-defined property rights allows the rights of indigenous communities to be recognized and provided for, relative to the rights of other groups.

In New Zealand, the introduction of a property rights system for fisheries not only gave rise to the largest indigenous rights claim in the country's history, it also provided the means for that claim to be settled and for indigenous rights to be recognized and provided for within the wider legislative framework. Maori fishing rights have been recognized by a combination of property rights instruments, vested in tribal or sub-tribal communities rather than individuals. It is up to those communities to decide how they manage those rights.

As the indigenous people of New Zealand, Maori held customary fishing rights under British common law. These rights were guaranteed by the Treaty of Waitangi, signed between the British monarchy and Maori chiefs in 1840. Customary fishing was exempted from the rules and regulations in fisheries legislation made after the signing of the Treaty. However, the exact nature of these rights was never defined.

Slow negation

As a result, Maori fishing rights were slowly negated by the egalitarian principles of the dominant European settler society—one law for all. The statutory provisions protecting Maori customary fishing rights were worthless, unable to define the nature of

This article by Matthew Hooper, a Senior Policy Analyst at the Ministry of Fisheries in New Zealand, is based on a paper co-authored with Terry Lynch, presented at the FishRights99 Conference in Perth, Australia. This article first appeared in *SAMUDRA Report* No. 26, August 2000

those rights, and then protect them from encroachment by the activities of other fishers. The Treaty of Waitangi was regarded as a legal nullity by the courts until the 1980s.

In the mid-1980s, the government in New Zealand moved to introduce a quota management system based on individual transferable quota (ITQ) for major commercial fish stocks. It was this move to create an artificial property right to take fish, and then allocate that right to existing commercial fishers, that drove Maori to seek an injunction against the government, saying that their customary fishing rights had not been taken into account.

The task of defining the nature of Maori customary fishing rights then fell to the courts. In an important test case in 1986, a Maori individual was found not guilty of taking undersized shellfish on the grounds that he was exercising a customary fishing right. He had fished in accordance with customary practices by obtaining permission from the *kaitiaki*, or guardian, of the *tangata whenua* from the area where the fishing occurred, and acted in accordance with the instructions of the *kaitiaki*.

The concept of *tangata whenua*, or 'people of the land', is crucial to the definition of Maori customary fishing rights. *Tangata whenua* are the *iwi* (tribe) or *hapu* (sub-tribe) that hold customary authority over a particular area. Rather than being general Maori rights, customary rights belong to *tangata whenua* and can only be exercised within their area. The full nature and extent of customary fishing rights was elucidated by the Waitangi Tribunal as a result of extensive research into tribal claims to fisheries.

The Waitangi Tribunal is a permanent commission of inquiry, set up in 1975 to investigate claims regarding breaches of the Treaty of Waitangi. Maori customary fishing rights were found to have both a commercial and a non-commercial component (based on evidence that Maori were trading seafood widely, prior to the signing of the Treaty of Waitangi). The fisheries they exploited were extensive, and the methods to catch fish were highly advanced, compared to those of their European counterparts.

The Tribunal also ascribed a developmental component to the customary right, giving Maori a right to a share of the deep-sea fisheries off the coast of New Zealand, even if they were not being fished at the time the Treaty was signed.

Customary rights

Most importantly, Maori customary fishing rights pertained not only to the use of fisheries, but also to the management of the resource. While fishing practices differed among the different tribes, customary fisheries had always been actively managed by *kaitiaki*. Traditionally, fishing outside the rules set by the *kaitiaki* could subject the fisher to severe penalties. In 1986, the High Court placed an injunction on the Crown, preventing it from proceeding with the introduction of the quota management system.

The Court advised the Ministry of Fisheries that the aims of the Crown in introducing the quota system were commendable. At the time, the Waitangi Tribunal observed that the ITQ right had much in common with the rights guaranteed to Maori under the Treaty of Waitangi—it guaranteed access, it was perpetual, and it provided opportunities for autonomous management. The problem was that indigenous rights had not been recognized or provided for in the allocation of commercial fishing quota.

An interim settlement of Maori fisheries claims was negotiated in 1989, and full and final settlement signed and legislated for in 1992. The principal effect of the settlement on the customary fishing rights of Maori was to split the commercial and non-commercial components of those rights.

This distinction was necessary to accommodate the settlement within the broader fisheries management framework, which was by then based on the use of ITQ for commercial fisheries, while non-

It was this move to create an artificial property right to take fish, and then allocate that right to existing commercial fishers, that drove Maori to seek an injunction against the government, saying that their customary fishing rights had not been taken into account

commercial fishing continued to be managed by regulation.

The commercial rights of Maori were recognized through the provision of assets comprising quota, shares and cash. The 1989 interim settlement provided for 10 per cent of all existing ITQ to be bought back from fishers and provided to Maori. The 1992 Settlement centred on the Crown's provision to Maori of NZ$150 mn to purchase a half-share of Sealord Products Ltd. Sealord is the largest commercial fishing company in New Zealand, owning over 20 per cent of all commercial fish quota. In addition, the Crown has an ongoing obligation to allocate 20 per cent of quota for fish species newly introduced to the quota management system to Maori.

The Settlement legislation established the Treaty of Waitangi Fisheries Commission, previously the Maori Fisheries Commission, to manage the commercial settlement assets on behalf of Maori. The quota held by the Commission is no different from other ITQ generated under the quota management system. The Commission currently leases quota to tribes on an annual basis. In time, the quota will be allocated to the beneficiaries of the settlement, giving them all the benefits and obligations associated with quota ownership.

The settlement is a world leader in terms of resource transfer to indigenous people. While other settlements have addressed claims to individual fisheries, no other country has transferred close to 30 per cent of its total commercial fishing industry to its indigenous people. Maori are the single largest player in the rock lobster and *paua* fishery, and one of the top two players in the snapper fishery. In conjunction with managing these assets, the Commission has become one of the best informed and articulate participants in the New Zealand fishing industry, providing valuable advice both to government and to industry bodies.

The Commission also invests in the future of the Maori fishing industry, spending around NZ$1 mn annually on its scholarship programme, training up to 300 young Maori a year. The programme focuses on three areas: business management, studies directly related to fisheries, and a highly successful seafood processing course. The Commission offers up to nine NZ$15,000-per-year scholarships to study at the Australian Maritime College and the University of Tasmania.

The non-commercial component of the customary right was provided for through regulations that devolve the management of non-commercial customary fishing to *kaitiaki* appointed by the *tangata whenua*. The regulatory framework provides an effective way of recognizing and providing for the traditional fisheries management practices of Maori. The framework is highly flexible about the way *tangata whenua* manage their fishing activity, but prescriptive in terms of mandate issues, recording of catch, and accountability mechanisms.

Mandated representatives

Tangata whenua must establish mandated representatives for their area before they can actively manage their non-commercial fishing activity. The regulations provide for *tangata whenua* to appoint *kaitiaki* who are responsible for managing customary fishing in their area. Disputes over who should be *kaitiaki* or over tribal boundaries must be resolved by *tangata whenua*.

Kaitiaki manage customary fishing through an authorization system which requires them to specify the exact nature of the fishing activity that is being authorized, including species, quantities, areas, size limits, methods, purpose for which the fish will be used, and instructions for the disposal of any bycatch. Each of these factors is at the discretion of the *kaitiaki*, who must act within the bounds of sustainability and with due regard for the environment.

Regulations also provide for the establishment of areas known as *mataitai* reserves over traditional fishing grounds. *Mataitai* reserves are a form of territorial use right.

There is no commercial fishing permitted within these reserves and all non-commercial fishers, including recreational fishers, must act in accordance with bylaws made by the *kaitiaki* when fishing within the reserve area.

Fishers must report back their actual catches to the *kaitiaki*, who record the information for fisheries management and compliance purposes. *Kaitiaki* must report quarterly to the Ministry of Fisheries on how many of each species were taken out of each management area within their traditional boundaries. The information generated by the regulations is then used to set sustainability measures, and provides a powerful tool for *tangata whenua* to participate in wider fisheries management processes.

After setting the total allowable catch (TAC) for a fishery, the Ministry of Fisheries must share the TAC amongst the three extractive fishing sectors—customary non-commercial, recreational, and commercial. The customary non-commercial needs of Maori have a *de facto* priority in this process—the needs of Maori are provided for first, to the extent that they are not commercial. In the small toheroa shellfish fishery, this has resulted in the entire TAC being set aside for customary non-commercial needs.

Individual customary fishers are accountable to the *kaitiaki* who authorize their activity. *Kaitiaki* are primarily accountable to the *tangata whenua* who appoint them, and to the Ministry of Fisheries, for the sustainable management of fisheries and for the maintenance of effective records for both management and compliance purposes. The State is still ultimately responsible for the overall sustainability of fisheries and for the provision of assistance to *kaitiaki* to enable the effective operation of the customary fishing regulations.

As a result of the 1992 Treaty settlement, Maori now own around 40 per cent of New Zealand's commercial fish quota. Taking joint ventures into account, Maori have a controlling interest in more than 60 per cent of New Zealand's commercial fishing industry. However, the commercial assets of Maori continue to be managed by the Treaty of Waitangi Fisheries Commission on behalf of all Maori, and have yet to be allocated to tribes and/or any other beneficiaries identified under the terms of the settlement.

While many tribes are benefiting from the annual leasing of quota by the Commission at discounted rates, they will not have autonomous control over the management of their commercial fishing activity until allocation has occurred. The commercial interests and objectives of Maori may differ from tribe to tribe. They may also be different from the interests of other commercial fishers in their area. ITQ allocation will allow the different priorities and interests of tribal groups to be realized within the same framework, while minimizing the opportunity or need for the State to interfere with those interests.

Distribution inequities

Property-rights instruments such as ITQ are often given a number of negative associations. These include the privatization of what are seen to be collective rights, inequities in the distribution of rights, alienation of traditional fishers from their livelihoods, and even the demise of coastal communities. However, as far as the indigenous fishing rights in New Zealand are concerned, all of these occurred to some degree before the introduction of ITQ. Ironically, it has been the introduction of ITQ and other property-rights instruments that have provided a means of addressing these issues.

The introduction of the quota management system meant that the Crown was able to buy back rights from existing commercial fishers and re-allocate them to Maori. This was meant to compensate them for the attenuation of their rights over the previous

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140 years. (Obviously, if the initial allocation of ITQ had taken Maori rights into account, no buy-back would have been necessary.) The Settlement legislation ensures that the ITQ provided to Maori remains under collective ownership until such time as allocation occurs.

The Treaty of Waitangi Fisheries Commission has been working on criteria for tribes to be eligible to receive settlement assets. One such criteria is that tribal bodies must have constitutional arrangements in place to ensure that the collective commercial fishing rights of a tribe, as represented by its share of quota and cash, are not alienated from the tribe without the necessary level of accountability being present. Once allocation has occurred, then the tribes can manage their commercial fishing activity the way that suits them, incorporating whatever combination of economic and social objectives they desire.

The aim of all tribal groups must be to regain control over the management of all their fishing activity, both commercial and non-commercial

Tangata whenua are now regaining control of their customary non-commercial fishing activity. Customary fishing regulations are now in place and are being implemented by tribes and sub-tribes around the country. The primary hurdle facing tribes seeking to utilize the new management framework is the determination of mandate over areas, and the resolution of disputes with neighbouring groups over boundaries and *kaitiaki* appointments.

Customary non-commercial fishing rights, while not represented by ITQ, are still considered property rights within New Zealand's fisheries management framework. Fishers must fish within the rules and limits specified by the *kaitiaki* for the area, and must report back on what they actually caught. The Ministry of Fisheries must then make an allowance for the extent of customary needs when allocating the total allowable catch (TAC) for any fishery. The proportion of the TAC set aside for customary non-commercial take is effectively the property right associated with customary non-commercial fishing.

Management control

The aim of all tribal groups must be to regain control over the management of all their fishing activity, both commercial and non-commercial. Once quota has been allocated, and *kaitiaki* have been appointed, *tangata whenua* will be in a position to manage their fisheries in a more holistic manner. Importantly, the well-defined rights of *tangata whenua* will ensure that there is always fish available for everything from commercial purposes on *marae* (meeting ground) to personal consumption.

The current direction of fisheries management in New Zealand foresees the devolution of management responsibilities to stakeholder groups, and stakeholder participation in the development of management plans for key fisheries and/or areas. As a result of the indigenous fisheries settlement, Maori are well placed to take advantage of the opportunities offered by such an environment. With well-defined rights firmly secured, Maori are destined to be at the centre of co-operative management initiatives in the future. ■

The twilight zone

Maarten Bavinck

The experiences of zoning for small-scale fishermen in Tamil Nadu, India, reveal both potential and hazards

One of the suggestions made to protect the livelihoods of small-scale fishermen throughout the world is the installation of special artisanal fishing zones. Such zones would make inshore fishing areas off-limit to industrial fishermen and, correspondingly, reserve them for small-scale operators. The experiences of zoning, in the Indian state of Tamil Nadu from the 1970s onward point out potential hazards as well as conditions necessary for the success of such arrangements.

At the onset of the so-called 'Blue Revolution' in the early 1960s, Tamil Nadu had thousands of marine fishermen, operating from small hamlets along its 1000-km long coastline. These fishermen generally confined their operations to an innermost sea area, which roughly coincided with the contours of the continental shelf. Seasonal migration took them up and down the coast, but rarely farther than 10 km from shore.

The government's promotion of trawling technology drastically changed the seaside panorama. By the late 1960s, harbour centres berthing small trawlers had developed all along the coast, and conflicts between trawler and artisanal fishermen were rampant. The main problem was that trawlers ventured inshore to catch high-value shrimp. Not only did they intrude on grounds that artisanal fishermen considered theirs, but the trawlers also caused extensive damage to artisanal fishing gear.

These confrontations resulted in major unrest. The State government, anxious to keep the peace, constituted committees to investigate and settle whatever incidents came to its attention. At the same time, it started to explore available policy choices. One of its core options was the physical separation of the antagonists through the installation of distinct fishing zones.

As the government of Tamil Nadu exerted strong control over access to trawling technology in the first phase of modernization—most trawler fishermen depended on the government loans and construction schemes for their vessels—it first tried out this lever. Around 1968, the Fisheries Department included a clause in its contract, stating that recipients of trawling gear could only fish outside a limit of three nautical miles. This clause is important as it constituted the first, albeit indirect, mention of an official artisanal fishing zone in Tamil Nadu. However noble its intent, the measure failed to stem the flow of the 'pink gold rush'. As trawlers did not bear registration marks, violators of the clause could not easily be identified. Moreover, the clause's foundations were shaky, such as in the case of a transfer of ownership. Could the new trawler owner be held to the original terms of agreement? The Fisheries Department had its doubts and rarely seems to have pursued the matter.

In 1978, after serious riots between artisanal and trawler fishermen rocked Tamil Nadu's capital, Madras (now Chennai), the State government decided to formulate legislation based on the distinction of fishing zones.

Long-drawn process

Realizing, however, that law-making is a long-drawn process and that immediate action was being expected, the government immediately issued an executive Government Order (GO

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881 of 1978). Alongside other measures such as time zoning, GO 881 prohibited trawling activities within a 3-mile inshore zone. For the first time, the government also made attempts to *mark* this zone by means of a series of 'country buoys'. As the name suggests, however, these markers were so elementary that the first storm washed them away.

Trawler fishermen straightaway challenged GO 881 in court. It was not the 3-mile rule which incurred most of their wrath, however; it was time-zoning. According to the order, time-zoning implied that trawler fishermen remain in port during the night, only to be released at 6 a.m. Not only would this deny them the best fishing moments (night-fishing purportedly being more productive than fishing in daytime), it also closed off fishing grounds that could not be reached in a day's voyage. Most seriously, time-zoning stood a great chance of being *enforced*, as it involved no more than installing a chain across the harbour mouth.

In response to the appeals, the High Court of Chennai imposed a stay order suspending GO 881's main clauses for several years. The order was finally superseded by the Tamil Nadu Marine Fishing Regulation Act of 1983. This Act continued along earlier lines, decreeing the introduction of geographical fishing zones as well as time-zoning arrangements for trawler fishermen. It too was greeted by a flurry of court cases from disquieted trawler owners.

Interestingly, one of the plaintants argued that if trawler fishermen were to be relegated outside the 3-mile zone, artisanal fishermen should be obliged to stay within. Although this was contrary to the import of the Act, which did not make any mention of a mandatory zone for artisanal fishermen, the district court judge who was handling the case felt otherwise. According to his decree, artisanal fishermen not only enjoyed a preferential *right* to a separate inshore zone, it was also their *duty* to confine their operations to this area. This, of course, artisanal fishermen protested against.

As in the case of GO 881, courts pronounced stay orders on the Act of 1983, and it was only toward the end of the decade that the various legal objections were definitely refuted by the Supreme Court of India. During all this time, the State government was unable to enact any of its fishing regulations.

By 1995, the situation had fundamentally changed. Although time-zoning was still in cold storage, the Fisheries Department was now free to implement other sections of the 1983 Act. The 3-mile rule was its showpiece regulation. Any beachside visitor, however, could tell that it was poorly observed. In fact, trawler fishermen regularly encroached on inshore waters, and conflicts with artisanal fishermen persisted. It is instructive to consider why the 3-mile rule was, and is, so badly implemented by the State government.

One of the basic factors is a lack of political will. This is related to the fact that trawler fishermen wield considerable clout in Tamil Nadu, whereas the movement of artisanal fishermen has lost force since the 1970s. Fisheries Department officers charged with enforcement thus receive insufficient backing to undertake sensitive missions, such as the apprehension of trawlers. Another reason is found in the Act's motivation, which is primarily of a social nature. Like similar legislation in other parts of the world, its main goal was the resolution of social conflict, not the management of depleting marine resources. Once overt conflicts died down, government attention was once again diverted.

The character of coastal fisheries and the set-up of fisheries management also posed formidable barriers to the enforcement of an artisanal fishing zone. Where does one find the resources to install an infrastructure capable of guarding a 1000-km long coastline? And how does one establish

encroachments, if the artisanal fishing zone is unmarked and participants lack advanced positioning technology?

In 1995, the Fisheries Department in northern Tamil Nadu owned only one small speedboat and a small crew to patrol 400 km of shore. This boat was slow and frequently out of order. In addition, officers generally lack sea legs and are reluctant to set out to sea, fearing molestation and other unpleasantness. The prevailing reality, therefore, is that patrolling seldom occurs, and fishermen are left to settle any problems that arise amongst themselves.

This directs attention to the management set-up. In spite of the fact that fishermen along the Coromandel Coast of India have a long and rich tradition of resource management, their institutions do not enjoy any official recognition. As it is, the State government is the sole authority for fisheries regulation and enforcement with regard to inshore waters. There is, however, a mismatch between governmental capacities and the sweep of fisheries legislation. Under present circumstances, the 3-mile rule in Tamil Nadu mainly has a token value.

The idea of artisanal fishing zones derives its charm from its comprehensiveness as well as its simplicity. It ventures a simple and apparently effective solution to the problems of artisanal fisherfolk. Developments in Tamil Nadu, however, indicate potential obstacles and potholes.

Unenforceable rule

An important question is whether it is worth striving for an artisanal fishing zone if the rule can not be enforced. Many inshore fishing zones are heavily contested, and industrial fishing interests do not give up their stakes without a fight. Political support is imperative to achieve any success.

It also helps if a proposal stands a real chance of being implemented. Declaring an artisanal zone many kilometres in length and badly marked does not contribute to its realization, particularly if staffing and resources are meagre. Co-management arrangements of government, together with fishermen, might form a solution, provided fishermen are also given official enforcement authority. To my knowledge, however, this has not been tried out seriously at a more than local level in Africa, Asia or Latin America. Many governments are wary of decentralization and the loss of power it implies, and will not readily concede far-reaching co-management arrangements.

This does not deny the potential value of artisanal fishing zones as an instrument of fisheries management. It does suggest, however, that the scheme should be well designed and tested.

The Tamil Nadu experience finally makes clear that the successful enactment of any measure to defend the interests of artisanal fishermen requires concerted and enduring effort. The proclamation of GO 881 and the Tamil Nadu Marine Fishing Regulation Act of 1983 was directly related to the activities of the artisanal fishermen's movement in India. This movement, starting in Tamil Nadu and in Goa, soon developed into a potent nationwide force. The decline of the same movement in Tamil Nadu after the 1970s, likewise, constitutes one of the main reasons for the non-implementation of available legislation. To achieve success, political momentum must clearly be maintained over a long time period. For many fishermen's movements, this is a huge challenge. ■

An important question is whether it is worth striving for an artisanal fishing zone if the rule can not be enforced

Naturally ours

Yogesh Diwan and Yemuna Sunny

The displaced indigenous people of the Tawa dam area in India are fighting to retain their rights over water, forest and land

In the Kesla block of Hoshangabad District in Madhya Pradesh, India, the *adivasi*s (indigenous forest and tribal people) have constantly faced displacement and consequent deprivation of their resource base. The last 15-20 years have seen tribal struggles seeking resettlement and resolution of other issues relating to land, water and forest rights. Around five years ago, they got their first taste of success in the form of fishing and marketing rights in the reservoir dam at Tawa, which is a tributary of the Narmada river. An ordnance testing range had displaced people earlier, and the Tawa dam also contributes to continuing displacements of the same people. Hence, the permission for fishing and marketing rights for the displaced persons of Tawa in 1996 was indeed a welcome step by the government of Madhya Pradesh.

Earlier, in 1994, the oustees of Bargi dam (another dam on the Narmada) in Jabalpur succeeded in the entrepreneurial venture entrusted to them by the government. In 1996, the government had accepted in principle the rights of the *adivasi*s to natural resources. Encouraged by this, the government granted fishing and marketing rights to the Tawa Vistapit Adivasi Matsya Utpadan Evam Vipnan Sahkari Sangh (briefly known as Tawa Matsya Sangh) for a period of five years.

The *adivasi*s were initially apprehensive about the prospects of fishing in such a large reservoir and of marketing their catch. But, with the strong support of Kisan Adivasi Sangathan, the last five years have been quite a fruitful experience of collective action.

Today, 36 fish co-operative societies are active in various villages. Three affiliated societies and about 12,000 to 13,000 fisherfolk have joined hands to form a federation that runs the whole show. Uninitiated in the ways of business co-operatives and official correspondence, these people did have a hard time in the beginning. But the success of their forerunner, the Bargi fish co-operative, encouraged the Tawa fisherfolk to persist with their efforts. Today, they are adept at handling all affairs concerned with their business, be it techniques of fish culture, fish catching, identifying fish species, business accounting or negotiating with traders in cities like Calcutta or Nagpur. The revenue collected by the government in the form of royalty through the Sangh has shown a steady increase.

Prior to the Sangh's involvement, the government had laid down a target of 45 tonnes of fish production for three months in 1996-97. But the Sangh more than doubled the target to reach 93. 33 tonnes. Production has been increasing and 327.18 tonnes of fish were produced in 2000-2001. Earlier, the Fish Development Corporation (FDC) had produced only 131, 146, 89 and 84 tonnes of fish, respectively, for the four years 1990-94. During this period, each year the FDC and the contractors had hired 140 fisherfolk, most of whom were outsiders. On the other hand, the Matsya Sangh engages as many as 477 fisherfolk and all are local, tribal, displaced people.

Regular income

One great achievement is that the people have been able to acquire a regular job and

This article, written by Yogesh Diwan and Yemuna Sunny, first appeared in *SAMUDRA Report* No. 30, April 2001

reasonable income. Today, each person earns around Rs. 90-100 (around US$2) daily. Besides, 20 per cent of the catch goes to the fisherfolk who can either consume or sell them at their own prices. They are also entitled to bonus and other facilities. Apart from a fulltime employment for 10 months a year, the fisherfolk also get dole of Rs1 per kg during the closed season (15 June to 15 August).

This arrangement ensures a token salary during the period of joblessness and also safeguards against clandestine fishing. The Sangh paid nearly Rs2,450,000 during 1997-98 towards dole alone, apart from Rs3,044,000 as a whole year's remuneration. Earlier, the FDC and the contractors jointly used to disburse an average of Rs6,820,000 towards remuneration. The maximum amount paid by them towards wages was Rs1,120,000 during 1994-95, whereas the Sangh made a record payment of Rs1,109,000 in just the first three months, reaching Rs 4,746,000 in 2000-2001.

Similarly, the fisherfolk worked for 267 days in a year, as against 221 for the contractors hired by FDC. Apart from fishing, other assignments like transport, packing, sales, collection of fish seeds, boatbuilding and maintenance of office accounts are also managed by the local people, including plenty of women as well.

It is evident that the fish produced on such a large scale can not be consumed by the local market alone. So the Sangh began marketing in the bigger cities like Calcutta, Nagpur, Lucknow and Bhopal, where it had mixed experiences. It faced ups and downs on sale prices. Also, at times, the consignments got spoilt before they could be sold and occasionally, the Sangh had to pay higher cartage too. Although the Sangh tried to transport the consignments in insulated vans, its main thrust continued to be the local and nearby markets.

The Sangh also tried to help the fisherfolk to buy boats and fishing nets by arranging for loans on easy terms. Many societies benefited from this arrangement. The preference for locally built boats and wholesale purchase of fishing nets from Mumbai proved to be cost-effective.

But the inaction of the government machinery is proving to be a hindrance for the Sangh. Constant vigilance had resulted in the apprehension of many poachers. But due to the laxity of the police and the administration, the criminals got away unpunished. Subsequently, the Sangh announced prizes for nabbing fish poachers. This brought down the incidents of poaching and nowadays theft is greatly under control.

Seedlings collected

Despite a lack of experience, the Sangh took upon itself the task of collecting fish seedlings, as the government and FDC had abdicated their responsibility in this regard. During 1997-98, nearly 2,613,000 seedlings were collected and released in the Tawa reservoir, which increased to 3,219,000 in 2000-2001.

This was, however, lower than the target of 3,600,000. The seedlings had to be collected from various places. The Sangh was also handicapped by a paucity of funds and absence of hatchery and nursery facilities. Hence, it had decided to earmark about Rs50,000-Rs100,000 from fish sale every month towards the purchase of costly seedlings. It also promoted fish culture and encouraged local people to breed fish seedlings in small natural ponds. This ensures a substantial reduction in both expenditure on transportation and the death rate of fish

The Sangh made a net profit of Rs29,400,000 in 2000-2001. In contrast, under the contractors and the FDC, there were recurrent losses year after year. Between 1991 and 1994, the losses were to the tune of Rs25,500,000, Rs47,100,000 and Rs34,200,000 a year, respectively. Thus, the Tawa experiment had not only benefited the displaced people but also made a substantial contribution of Rs1,570,000 to the public exchequer in 2000-2001 by way of royalty at

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the rate of Rs6 per kg. of fish. Within a period of five years, Rs6,737,000 of royalty had been paid (see Table 1).

Table 1: Royalty Paid
by Tawa Matsya Sangh

Year	Royalty (Rs mn)
1996-97	0.45
1997-98	1.18
1998-99	1.65
1999-00	1.89
2000-01	1.57
Total	6.74

Source: Annual Report, 2000-2001,
Tawa Matsya Sangh

But ironically, despite having contributed so much in royalty, the government has not seen it fit to provide the area with facilities like roads, water, lighting, education, etc. The Sangh also questions the wisdom of having to pay royalty, especially as the contributors are displaced people for whom the government had denied even survival necessities in the name of development (read the dam). Even otherwise, the attitude of the administration has not been one of goodwill or support. On the issue of the need to construct an ice factory, the government withheld the funds that were sanctioned by the Central government for the purpose. Further, the Sangh is not being allowed to use the government reservoir at Powarkheda (a nearby village), which is currently lying idle, for the breeding of fish seedlings.

23 December 2001 marks the completion of the five-year period of Tawa Matsya Sangh's right to fishing and marketing granted by the government. As yet, the Madhya Pradesh government has not taken any decision on its renewal. The irony of this hesitation is particularly striking, since the State is in the thick of a campaign on decentralization, tribal self-rule and people's participation. The Tawa experiment is a very sincere demonstration of all these three parameters. Yet, there seems to be a nexus amongst the bureaucracy, Matsya Maha Sangh (which takes the place of the earlier Nigam or Corporation, now a State-level co-operative of the government) and local politicians and contractors to override the collective efforts of the people. Their attempt is to take away marketing rights from the hands of the Tawa Matsya Sangh.

Hence, the primary societies may get confined to fishing rights only. The marketing rights are being sought by the Matsya Maha Sangh of the Madhya Pradesh government. An official committee set up to look into the functioning of the Tawa Sangh and to recommend to the government a future course of action has not done its job. It has not consulted the federation officially; on the contrary, it has been giving it the cold shoulder.

Comparative performance

On 19 November 2001, in response to a question raised on this issue in the Madhya Pradesh State Assembly, a comparative picture of the performance of the Tawa Matsya Sangh and the earlier one of the Nigam (through contractors) was presented (see Table 2). The Matsya Sangh is way ahead in all indices of performance. This very clearly establishes the efficiency and sustainability of the Tawa experiment.

It is worthwhile here to recall the experiences of the Bargi co-operative (the forerunners of Tawa Matsya Sangh) at a similar juncture of functioning. The Chief Minister had assured the co-operative of renewal of its contract. But the instruction finally issued mentioned only fishing rights for primary societies. The marketing rights remained with the government (Matsya Maha Sangh). This implies that the status of the fisherfolk in Bargi would henceforth be that of wage earners only.

When the Chief Minister was again approached, he expressed surprise over such an outcome and the order was changed. But the Maha Sangh had already started functioning with the earlier order and had signed an agreement with a contractor. The

Table 2: Comparative Performance of FDC and Tawa Matsya Sangh

Year	FDC Management				
	1991-92	1992-93	1993-94	1994-95	1995-96
Fish Production (tonnes)	146.00	87.89	84.42	176.01	93.53
Employment (Full days)	20,520.00	67,935.00	32,037.00	30,719.00	10,640.00
Release of fish seedlings (100,000s)	24.08	17.65	27.48	17.96	34.21
Total income to fisherfolk (Rs100,000s)	7.53	4.55	4.92	13.69	7.97
Income per day per person (Rs)	36.69	32.11	15.02	44.59	74.91
Year	Tawa Matsya Sangh Management				
	1996-97	1997-98	1998-99	1999-00	2000-01
Fish Production (tonnes)	93.22	245.81	344.37	393.16	327.17
Employment (Full days)	17,255.00	44,589.00	50,826.00	56,854.00	59,500.00
Release of fish seedlings (100,000s)	31.59	26.13	27.90	29.47	32.19
Total income to fisherfolk (Rs100,000s)	10.62	27.72	44.25	45.27	41.34
Income per day per person (Rs)	61.55	62.17	87.00	79.63	61.00

matter was taken to court and a stay order obtained. Ironically, the government has not made any clear stand on the issue.

Tawa Matsya Sangh and Kisan Adivasi Sangathan envisage a distinct possibility of a repetition of the Bargi-type treatment in Tawa too. Hence, they are engaged in trying to pressure the government to take a sensible decision. Efforts are on to push the matter through a campaign by people's organizations (of the region and outside), the media, intellectuals and experts. The Sangh and the Sangathan firmly stand by the view that their hard-earned rights over the natural resources, along with the creative and collective efforts of the past few years, can not be simply taken away. With the slogan of "people's rights over water, forest and land", they have geared up to continue their struggle. ■

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Jammed in Jambudwip

Sebastian Mathew

The traditional stake-net fishers of the ecologically sensitive Jambudwip island in West Bengal, India, face a likely ban of their seasonal fisheries

In the South 24-Parganas District of the State of West Bengal in India is the 20-sq km island of Jambudwip. Located about 10 km offshore in the southwest corner of the Sundarbans at the mouth of river Hooghly in the Bay of Bengal, the island can be reached in 45 minutes from the Frasergunj fishing harbour by *bhut bhuti*, a small powered country craft.

Jambudwip has been used as a site for fisheries camps at least since 1955, according to Bikash Raychoudhury's *Moon and Net* (published by the Anthropological Survey of India in 1980). *Behundi jal* or stake-net fishery is a traditional activity in different parts of the Sundarbans delta, on both the Indian and Bangladesh sides.

The largest stake-net fishing operation in the Sundarbans is based in Jambudwip. It is the *Jalia Kaibartha* community from the Chittagong hills that mainly practices *behundi jal* fishery in the marine waters of the Sundarbans. After India attained independence in 1947, the members of this highly enterprising fishing community settled down in places like Kakdwip, Namkhana, Sagar and Pathar Pratima in West Bengal, and Champaran in Bihar.

However, this traditional source of livelihood and sustenance is now under serious threat. The Central Empowered Committee (CEC), has said that the seasonal "occupation" of the Jambudwip island by fishermen and the fish-drying activity was a non-forest activity that cannot be permitted under the Forest (Conservation) Act, 1980, without prior approval of the central government. (The CEC was constituted by the Supreme Court of India by a Notification on 20 June 2002 to provide relief against any action taken by the Central/State Governments or any other authority regarding, *inter alia*, deforestation and encroachments, and the implementation of legal instruments for forest conservation.) It has directed the West Bengal government to remove all traces of encroachment on Jambudwip island by 31 March 2003.

While the Fisheries Department of West Bengal under Minister Kiranmoy Nanda strongly defends the fishermen's claim to the seasonal use of the island, the Forest Department is bitterly opposed. The fishermen are now living in the shadow of uncertainty. Will their two-generations old fishery be treated as an activity eligible for regularization or will they be summarily evicted?

It was on 29 May 1943 that, under a Notification of the Government of West Bengal, Jambudwip became reserved forest as part of the protected forests in the Namkhana Division. As a result, no activity was allowed on the island, except those permitted by the Forest Department. From at least 1968 onwards, fishermen have been issued permits to use the island to collect firewood and to launch boats into the main creek.

Since 1989, Jambudwip has been part of the Buffer Zone of the Sundarbans Biosphere Reserve, where ecologically sound practices, including fisheries, are permitted (unlike the Core Area of a Biosphere Reserve, which is securely protected for conserving biological diversity). Jambudwip is, however, located outside the Sundarbans Tiger Reserve.

This article is by Sebastian Mathew, Programme Adviser of ICSF. This article first appeared in *SAMUDRA Report* No. 34, March 2003

The CEC visited Jambudwip on December 2002, in response to an application from the Executive Director, Wildlife Protection Society of India, seeking suitable relief against alleged encroachment and destruction of mangroves by fishermen.

The CEC's report of 24 December 2002 directed the West Bengal government to remove all traces of encroachment on Jambudwip by 31 March 2003. However, the CEC observed that the proposal for fish drying on the island could still be considered, but only after obtaining clearance from the Ministry of Home Affairs and the Ministry of External Affairs for the fishermen involved, since some Bangladeshis were alleged to be involved illegally in the island's fisheries.

The CEC denouement followed a series of events consequent to the Supreme Court order of 12 December 1996 on the issue of forest encroachment. Further to its Order of 23 November 2001 restraining the Central Government from regularizing all encroachments, the Ministry of Environment and Forests (MoEF) wrote to all States and Union Territories on 3 May 2002 to regularize *only* eligible encroachments before 1980 and to evict all other encroachments by 30 September 2002. The Forest Department, soon after receiving this letter from the MoEF, ordered the Jambudwip fishermen not to use the island and to remove their fishing implements from their makeshift sheds.

Subsequently, the Department set fire to the sheds and fishing implements in July-August 2002. The torching of bamboo-and-reed sheds and fishing implements is particularly intriguing since there was a Ministerial meeting held between the Fisheries and the Forest Departments on 9 August 2002. At this meeting, a decision was made, as reported in the press, to regularize the seasonal use of a demarcated area of Jambudwip for fish drying by fishermen holding identity cards issued by the Fisheries Department.

A subsequent letter dated 30 October 2002 from the MoEF even made provision for setting up district-level committees or commissions to settle disputed claims of eligible encroachments. But no such initiative was taken in the case of Jambudwip. The letter also revealed a softening of the MoEF's position; the earlier rigid stand on "summary eviction" by 30 September gave way to "showing progress on the eviction of ineligible encroachments".

Entry blocked

The West Bengal forest authorities, however, hardened their stand on Jambudwip. They erected concrete pillars at the mouth of the creek—the lifeblood of the fishermen and their fisheries— allegedly to block the entry of fishing vessels into the creek. On 12 November 2002, for the first time in the history of Jambudwip, ten fishermen drowned at sea during a cyclone, as they were unable to seek shelter in the creek.

Soon after the drowning incident, the National Fishworkers' Forum (NFF), India, launched an agitation on 18 November 2002 against preventing seasonal fisheries camps and blocking entry of fishing vessels into the creek in Jambudwip. Subsequently, the Principal Secretary of Fisheries, West Bengal, informed the CEC that the West Bengal State Government had decided to permit fishing activity in Jambudwip on the ground that it has been continuing for almost 50 years.

The fishermen resumed fishing but they were still prevented from landing their catch in Jambudwip. On 25 November 2002, after removing a few of the concrete pillars erected by the West Bengal Forest Department, the fishermen entered the creek and sat in their fishing vessels in peaceful protest against being denied access to the island.

On 26 November 2002, the Chief Secretary of West Bengal wrote to the CEC requesting it to agree to the State Government proposal to allow the fishermen to resume fish-drying activities up to February 2003 as an interim

The West Bengal forest authorities, however, hardened their stand on Jambudwip. They erected concrete pillars at the mouth of the creek—the lifeblood of the fishermen and their fisheries— allegedly to block the entry of fishing vessels into the creek

measure and to await a formal proposal on the issue from the State Government. The letter also contained viable proposals for long-term solutions to the vexing issue, such as allowing the seasonal fishery in a fenced area along the seaboard of Jambudwip, with full protection to mangroves beyond the fenced area.

Although it indirectly makes provisions for resuming fish-drying activities for the 2002-03 season, the report of the CEC hangs like a Damocles sword on the future of the Jambudwip fishery. As we go to press, there is still uncertainty if the fishermen could resume their fishery from the year 2003-04. About 3,000 fishworkers live on the island during the season, staying in makeshift sheds of bamboo and reed, repairing fishing nets, sorting, drying and storing fish, while about 3,500 fishermen engage in *behundi jal* fishing in the adjacent sea. What makes *behundi jal* fisheries possible is the unique delta ecosystem and the community's in-depth understanding of the inter-relationships between the lunar cycle, oceanic currents and the migratory behaviour of fish, in conjunction with the dynamics of bottom topography of the sea, including the pattern of sedimentation and soil quality. The fishery is marked by simultaneous capture, transport and processing activities, with different sets of people involved round-the-clock as one unit under one *bahardar*, or fleet operator.

In actual practice, it is like setting up two camps: one on land and the other at sea, since the fishermen who fish do not return to the island until the end of the season, unless there is a cyclone or some accident. The fishing ground is connected to the fish-drying yards by fish transport vessels that operate daily, sometimes twice a day.

The island—especially the creek during high tide—is not only useful for unloading fish and loading victuals for the fishermen staying on the fishing ground, it is also beneficial as a refuge from cyclones. Drinking water and firewood are also available on the island. Easy access to sufficient quantities of firewood was a long-term requirement not only for cooking, but, more importantly, for boiling hemp fishing nets in natural dyes to make them invisible to fish in the thick mud These days though, firewood is used only for cooking since everyone has switched to nylon nets, which do not require any dyeing.

In the *behundi jal* fishery, a series of bag nets are fixed in the black, sticky mud in the seabed undulations called *khari* at a distance of about 25 nautical miles from Jambudwip. The *khari* has a combination of disintegrated mangrove wood and mud, and is an important source of food for bottom-feeder fish. Aggregation of benthic fish attracts other fish that predate on them. Both prey and predator fish become quarry for the fishermen.

Bag net design

Each fishing unit has about 20 bag nets. The bag net has an average length of 75 ft and has a 60-ft mouth. Ropes, corresponding to the water column depth, bind wings of bag net on either side of its mouth to metal stakes driven into the mud. The knots are ingeniously tied so that the mouth of the net always faces the water current, in both high and low tide.

The net is designed in such a manner that a strong current would take it to the bottom of the channel, while a weaker current would keep it at the midwater level. In the absence of a current, the net would float on the surface. Two hardy bamboo poles are tied vertically to the mouth of the net, 20 ft apart, to keep it open. The nets are fixed at depths of 12 to 15 fathoms. The high opening of the bag net, in synchrony with the currents, allows both demersal and midwater species to be caught.

In each of the *khari*, five nets are fixed in a row, as a cluster. Often, different *khari* are chosen to deploy the nets. Unlike the trawl net, which furrows the seabed, the stationary bag nets do not cause any damage to the seabed. The fish are emptied every six hours, at the time of the equilibrium between the high and low tides, when there are no currents, and when the mouth of the net floats

on the surface of the sea. Fish are emptied from the cod-end of the net; *doa*—the Bengali word for emptying the cod-end—can be translated as 'milking' the net. Each unit catches about 400 tonnes of fish in a single season. Two-thirds of the catch comprise species like Bombay duck, ribbonfish, anchovies, silver belly and wolf herring that are dried for human consumption and poultry feed. The remainder one-third comprises high-value species like shrimp, jewfish, catfish, Indian salmon, eels and rays, which are sold fresh. It is estimated that each unit catches fish worth Rs4 mn (approx. US$80,000) in a good season. Putting all the units together, Jambudwip produces about 16,000 tonnes of fish worth Rs168 mn (approx. US$3.4 mn) in a five-month-long fishing season.

According to Dr L K Banerjee, Retired Joint Director, Botanical Survey of India, who has worked on the mangroves of Sundarbans for the past 30 years, Jambudwip has successive stages of vegetation, comprising mainly *Avicennia* species of mangroves, and species of grass like *Porteraesia coarctata* and *Phoenix paludosa*. The species diversity on the island is not that significant. However, the satellite imageries of Jambudwip for the period 1981 to 2001 from the National Remote Sensing Agency (NRSA) furnished to the CEC by the Forest Department as "irrefutable proof" of mangrove destruction show dense mangrove vegetation coverage except in areas that are allegedly cleared by the fishermen. Moreover, since higher-resolution satellite images clearly showing deforestation to the detail that the NRSA images are claiming to portray have been produced in India only from 1998, the authenticity of the images as irrefutable proof for the period prior to 1998 needs to be independently verified scientifically.

Even if there is felling of mangroves on the Jambudwip island for firewood by the fishworkers, it is not an impossible situation to salvage since the *Avicennia* species of mangroves found on the island can be successfully regenerated. There are several examples from India as well as other parts of the world. Moreover, the fishworkers are ready to move from firewood to liquefied petroleum gas for cooking purposes.

There are about 10,000 people dependent on the stake-net fishery today, as against a couple of hundreds 35 years ago. Instead of extinguishing the fishery, what is required is to recognize its salient aspects and mitigate negative impacts through better coastal area management, treating the island and the fishing ground within one framework. The Fisheries and Forest Departments have to develop mechanisms to collaborate with the fishermen to achieve this goal.

"I gave commands; Then all smiles stopped together", the poet Robert Browning made the Count say in *My Last Duchess*. In the case of Jambudwip, it is high time to retract the command and bring back the smiles of the fishermen of the island. ■

What makes behundi jal *fisheries possible is the unique delta ecosystem and the community's in-depth understanding of the inter-relationships between the lunar cycle, oceanic currents and the migratory behaviour of fish, in conjunction with the dynamics of bottom topography of the sea, including the pattern of sedimentation and soil quality*

Hijacked by neoliberal economics

Menakhem Ben-Yami

A fashionable neoclassical political-economic ideology has taken over the management of many fisheries

In the beginning, fish were aplenty and there were no rules upon the face of the deep, and the spirit of free access moved upon the waters. And the fishermen saw that it was good and fished as many fishes as they needed to feed their families and their neighbours. But people were multiplying and replenishing the earth, and more and more fishermen had to catch more and more fish to meet the demand of the ever-growing humanity. And governments said: let there be management, so that there would always be enough fish left in the seas to procreate. And they limited the gear, the vessels, the seasons, and the fishing areas, and they called it 'input regulation'. But, the fishermen kept fishing and their fleets kept growing, and the governments saw that it was bad. So they made licences, and their scientist thought up the maximum sustainable yield (MSY) and the total allowable catches (TACs). But the fishermen kept competing, and over-capitalizing, and the fish became scarce. And the economists said unto the governments: let there be property rights. And they spawned individual transferable quotas (ITQs). And they believed that it is good and said unto the fishermen: Behold, rights' privatization is your salvation. And the governments sent the ITQs upon waters to replenish the seas and subdue all fisheries.

And it was good! This is more or less the gospel, which prevails throughout fisheries administrations in many countries. It makes some people richer and they become its devoted believers and supporters, while the many made poorer—or afraid to become so—its adamant opponents. And the consequences in almost every single case are more or less gradual concentration of fishing rights in fewer and fewer hands, often enough in the hands of major corporate interests, at the expense of small-scale, family- and skipper-owned fishing enterprises that operate one or two small or even medium-sized fishing vessels, each.

Fisheries management is supposed to look after the health of the fish resources exploited by fishermen. This requires knowledge of fishery biology and ecology, population dynamics, and historical data of the fishery and of environmental and associated stock fluctuations in its area. As fisheries management can only manage people, it entails negotiations, legislation, technology and enforcement. There is a whole catalogue of management systems and technical and administrative methods that managers can use to try to achieve their targets. The political attitude of the powers in charge determines the choice of the system and the manner in which it is applied through licensing, quotas allocation, or limits set on effort. The system chosen influences, through allocating benefits to the different stakeholders, the distribution of the benefits derived from the resource. For example, allocating fishing rights to a large number of small-scale fishermen would call for different management methods than allocating them to a large company.

Traditional knowledge

Old-type management by tribal and community leaders and local fisherfolk's organizations based on traditional knowledge of the resource and traditional justice, is now almost totally extinct. It has been replaced throughout most of the world by bureaucratic and technocratic mechanisms heavily influenced by political and economic

This article is by Menakhem Ben-Yami, Fisheries Management and Development Adviser, Israel, This article first appeared in *SAMUDRA Report* No. 35, July 2003

considerations that, while interested in fish as marketable merchandise and a source of profits to the operators, have only little to do with safeguarding the resource as a source of income to fishing people. Fisheries management has thus become a power play over benefits from the resource. Stakeholders are many, starting with fishing people and local interests in fishing communities, through recreational fishermen, environmental lobbies and coastal development interests, and ending with powerful corporations and market forces, whether local, national or multinational.

Neoclassical economics invaded the management of various commons and national resources as an extension of a paradigm dominant—though very much at issue—in the industrialized world. Its gospel is being spread over the world and its political, financial and academic institutions by troops of disciplined economists, rewarded for devotion, and punished for dissent. So, what is this neoliberal or neoclassical teaching in economics that has also impinged on fisheries? And on what basis are its devoted adherents preaching that theirs is the only way society can take to utilize its fish resources in a feasible and efficient manner?

The old 'classical' economic teaching introduced the belief in the 'invisible hand' driven by self-interest guiding rational individual decisions eventually into an optimum economy, in which free-market forces take care of all aspects of peoples' lives. An implied outcome of such 'free play' is that any financial profit derived from a common, fully, partly or quasi-privatized resource would somehow trickle down and redistribute itself all over the society.

But this is a myth and a fallacious contention, if not an outright lie. It is common knowledge that, in most of the world's countries, a big share of such benefits indeed trickles down, but to various investments abroad, and to imported luxury products and services. The 'trickle-down' theory can approach the real situation only in a few rich countries, where profits feel secure and investments promise further accumulation of capital.

Recently, more and more economists and other social scientists have started casting doubts on the neoclassical gospel, nicknamed by some as 'autistic economics'. Awarding the 2002 Nobel Price in economics to two professors, one of them a psychologist, who refuted the theory that, as a rule, individuals make rational economic decisions, reflected this growing criticism. Economic determinism inherent in the neoliberal theory does not work; the markets' reaction to prices, the prices' reaction to the dynamics of supply and demand, and peoples' reactions and economic activities do not fit that theory's assumptions. Hence, its weakness in economic analysis and forecasting.

Some economists and other social scientists argue that, contrary to its pretense to a scientific, objective approach, neoclassical economics is, in fact, a social-political narrative and a methodology used by global economic and political interests to concentrate power in the hands of corporate national and multinational institutions. Thus, individual businessmen and small and medium-scale private enterprises, not to speak of wage earners, are losing their influence on socioeconomic decision making to powerful commercial-industrial centres and their collaborators in governments. This transfer of power is promoted, legislated, and executed through democratic processes occurring within the existing legal framework with the help of well-financed journalistic and media campaigns and more or less biased scientific publications, with the neoclassical economic narrative serving as a tool for achieving the explicit goals and hidden agendas of its promoters. Thus, the 'invisible hand' has been transformed from the sum of the multitude of individual decisions into the sum of the political and economic decisions of powerful interests.

Profit maximization

Neoclassical economics is supposed to aim at and produce maximization of social and

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national benefits, which, in fact, are dollar-equivalent measures of how economists value goods and services (including non-market goods and services). It preaches maximization of profits or rents often attained at the expense of heavy social costs. The big question is how these costs and benefits are defined and calculated; since social costs are very difficult to estimate, any portrayal of economics as an absolute, scientific methodology is simply fallacious, and honest economists admit that they cannot adequately calculate all social benefits and all social costs.

It is obvious that losses incurred through forfeiture of alternative actions, and due to various social and other external costs, many of which cannot be evaluated in terms of dollars and cents, are a part and parcel of any economy. As long as we do not take into account all the costs and benefits from production and market fluctuations, various management steps, social, economic and cultural dislocations of people and their ramifications affecting coastal communities, as well as other 'externalities' difficult to express in monetary terms, we are unable to calculate the true net social costs and benefits.

Also, many people associate the term 'social benefits' with how national resources are distributed across society. They ask, for example, how many people make a living from a certain resource. A 'less efficient' small-scale fishery that employs many more people than an 'efficient' big-owner fleet, may feed less monies to the 'national purse', but, as a rule, is directly and effectively more beneficial to people and their communities. Only an in depth analysis can establish which option would produce truer benefits and values. Thus, it is quite consequential who defines national and social benefits, and how.

For example, calculation of net national benefits for an industrial shrimp fishery in a non-industrial country must include a deduction of the costs of all imports, such as expatriate manpower, fuel and lubricants, vessels, deck and propulsion machinery, processing and refrigeration equipment, and fishing gear, as well as insurance and maintenance costs incurred in foreign-currency. In some cases, the only net benefits from an industrial shrimp fishery in such countries are the revenues from licence fees and the employment of nationals, while the major share of the revenues as well as the product itself goes abroad.

Policy costs

Therefore, responsible economic theory must take into account also values that are non-financial/commercial, and the diverse peripheral socioeconomic, political and cultural costs, as well as the taxpayer's money spent on dealing with human problems resulting from management decisions. Only then would the society and its governments be informed of the *true costs* of any policy proposition, before their natural resources get transferred into the hands of a few. Nowadays, however, such transfer is facilitated by governments' obsession with privatization as a panacea for all maladies of the economy.

The neoliberal gospel preaches that practically nothing can work efficiently, if it is not somebody's private or corporate property. The massive ideological privatization practised in some countries has embraced also such natural resources as water, forests and various energy sources as well as public transport. Even economically viable, and efficiently run national resources often fall victim to the privatization Moloch. How wrong this ideology can be has been recently well illustrated by a whole series of flops of some mammoth privatized and corporate companies, due to both, mismanagement and corruption, as well as by the rather disappointing results of the privatization of the British railway system. Swissair, PanAm, Enron and other recent bankrupt giants were not run by governments.

One consequence of the domination of neoclassical economics is the rather obscure struggle between *free enterprise* and

corporate interests. In the past, the conception of capitalism and free markets used to emphasize private initiative. Nowadays, however, it isn't necessarily so. Neoclassical economics is leading to a regime in which major businesses and corporations are gradually displacing smaller-scale enterprises and businessmen, while being indifferent towards the social conditions of working people, whose role it reduces to selling their work power on the market. It is 'happy' when supply of labour exceeds demand, because unemployment depresses wages and improves profits.

Some time ago, after the demise of the Soviet system, one would think that free enterprise had won. One is not so sure nowadays. Like the Soviet monopolistic concerns, some of the giant companies of the 'capitalist' world are run by financial bureaucracies supported by ideological economists, who seem to consider small and family-owned enterprises a noise and a nuisance in their concept of 'economically efficient' world.

The invasion of fisheries by neoclassical economics has been a logical consequence to its domination of the global, and many national, economies. Like many historical invasions, it was partly invited from inside the fisheries by large-scale interests and their proxies in the management mechanisms, who gave it a friendly reception. Once in, it seems to be here to stay, especially in all those countries where, for various reasons, it is not met with strong opposition.

What brought this ideology into the fisheries is its claim that privatization is the most efficient, if not the only, mode of exploiting a resource. This, even if the resource belongs to the whole nation, as is the case with water, forests and, for that matter, fish in the sea.

When, following the Second World War, the spiralling growth of fisheries brought about the need for management, it was initially based on so-called 'input control'. This implies regulation of fishing effort through such means as limited access, fishing time and areas, as well as other regulations that try to follow the biological characteristics of the species involved. In some countries this management system still works well enough; in others it has been deemed, rightly or wrongly, inadequate. Fish population dynamics models have been used to estimate the biomass of fish populations and, consequently, the fixing of TACs. In some fisheries this led to highly competitive 'gold rush' fishing operations and investment in excessively strong and fast vessels. The next step was dividing the TAC into quotas that were allocated to vessels, usually, according to their fishing history. And this was the moment when the neoliberal economists stepped in with a new pattern: marketable fishing quotas (ITQs).

Property rights

They introduced the rather axiomatic theory that property rights are a must in fisheries for maximum benefit and efficiency, spelled out in financial terms and rational exploitation of the resource. Since property rights are characterized by (i) security, or quality of title; (ii) exclusivity; (iii) permanence; and (iv) transferability, their application in fisheries boils down to ITQs. Thus, mere 'fishing rights' have become 'private property rights'. Trade in fishing rights eventually must hit the weaker stakeholder by allocating individual quotas too small to pay a vessel owner's way out of the red, on the one hand, and by pricing licences and quota entitlements above the value of his/her fishing boat and gear, on the other.

A licence gone from a fishing community is gone forever, together with all the associated jobs, services and income. If it were not for social opposition, a worldwide adoption of ITQs would have proceeded faster.

Since marketable quota systems favour the financially stronger, they invariably lead to a gradual displacement of small-scale individual or family-owned fishing enterprises, and, sooner or later, to the concentration of fishing rights in the hands of a few, either specialized fishing companies, or large holding corporations for whom fishing may be only

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one branch of a multifarious business. Such concentration would eventually occur even where there are legislative attempts at stipulating acquisition of quota by some maximum values. Hence, there is a growing concern of 'privatization by stealth'.

It is incredible that managers introducing this system into small-scale or mixed fisheries would be unaware that its social, economic and political ramifications favour large-scale business at the expense of local fisheries and processing industries, and small-scale operators, and threaten the survival of the small-scale fishing sector. ITQs tend to depress artisanal fishers and effectively exclude part-time participants in local fisheries, and favour the owners, while disregarding crew members. Hence, the selection of ITQ for such fisheries must reflect the political and social attitudes of the respective governments.

Green non-governmental organizations (NGOs) have willy-nilly contributed to the privatization trend. Although some of them, for example, Greenpeace, have joined protests against ITQs, there have been NGOs with often exaggerated and sometimes even fallacious alarmist publications on the state of fishery resources, painting the fishermen as the main culprits, which fueled the neoclassical economists' fires. ITQ advocates have claimed that privatization based on marketable fishing quotas would maintain fish stocks at sustainable levels.

Gold rush

Their main argument was: "If fishing interests are allowed to invest in a permanent share of the TAC, so that they'd be sure of their relative share in the landings of the respective species from a given area, they wouldn't need to apply the 'gold-rush' mode of operation, and would be interested in maintaining the resource in an everlastingly sustainable condition." On the other hand, ITQs are a rather peculiar sort of property rights: one pays, sometimes quite heavily, for the right to catch a certain amount of fish; one never knows whether one will be able to get it and at what operational cost, and one doesn't really control the resource and doesn't know whether by observing the rules and sticking to the quota, one is not made a sucker by others.

Hence, the potential well-intended stewardship over the resources by quota-owners is, in fact, more than often frustrated by high grading, fish dumping and quota busting. While ITQs indeed mitigated the 'gold-rush' fishing, and their contribution to stock conservation might have happened in a few fisheries, it has been proved so only in a couple of them. At the same time, failures have been reported and documented.

The ITQ system would be socially and nationally justifiable where the resource is technically not accessible to small- and medium-scale operators based in coastal fishing communities, and where exploitation of the resource requires large-scale industrial fishing vessels and fleet logistics.

But where large numbers of small-scale operators traditionally exploit inshore and coastal resources, most of them consider marketable quotas socially and also economically wrong. Harvesting methods that are most efficient in financial terms are often the ones with the worst collateral (including environmental) impact, while less capital-intensive and technologically and operationally sophisticated fishing methods normally allow wider and much more equitable access to benefits from the fishery, with less negative environmental and social impacts.

In Third World countries, for example, coastal fisheries operate under many stresses, the main one being invasion of larger-scale fisheries into waters and stocks accessible to, and fishable by, small-scale fishermen, often with official government support or high-circles' well-paid 'closing of the eye'.

But, in such areas, large-scale operations are less *efficient* than small-scale fishing. They consume several times more fuel per tonne

of marketable fish than the small-boat fishery; capital investment in gear and vessels is higher; and they produce fewer *true national benefits*.

The same fish stock that can be fully and profitably exploited by 10 trawlers manned by 100 people, if allocated exclusively to coastal fisherfolk using nets, pots and hooks-and-lines, may provide a living to many hundreds, or maybe thousands of them, never mind how low their calculated profits are going to be.

In many areas, both recreational and small-scale commercial fisheries form the backbone of coastal communities whose economies revolve around fishing. It causes money to flow to equipment and bait, food and fuel suppliers, boatyards, and a variety of commercial and technical services in docks, harbours and marinas, as well as those sectors of the tourist industry that are centred on fishing communities.

Hidden agendas

No doubt, management decisions depend first of all on the prevailing policy objectives. Different governments and the powers that influence them may have different, above-board and hidden agendas. Hence, worldwide, there is no consensus on the objectives of fisheries management. Some governments may believe that safeguarding the well-being of communities where fishery is an important contributor to the local and, thus, national economy is an important goal. 'Safeguarding the well-being' means creating and maintaining conditions that would enable the fishing industry to get an adequate return on investment, and fishing people, sufficient take-home incomes.

It also may mean that in certain special circumstances, the State may have to intervene to help a community over a temporary hardship, as it would do for farmers hit by a drought year, or an industrial community hit by an earthquake. Isn't that what governments are for: collecting taxes, providing services, and helping in trouble?

But some governments, as well as most global, transnational and intergovernmental financial institutions are driven by the neoclassical ideology, especially when it comes to economic relations with developing nations. Undeniably, some of the conditions of economic co-operation and assistance imposed by those institutions stem from their wish to protect their investments from misconduct, corruption and mismanagement. But, only too often, under the hypocritical pretext of securing free markets and economic liberalization, their conditions are simply a tool of protectionism. And here we come to fisheries subsidies. The United States, the European Union (EU) and some other developed countries, in view of the heavy overcapitalization of their fishing fleets, came to the quite appropriate decision to stop subsidizing the construction of fishing vessels. They want, however, to have their new policies 'globalized' to cover also the developing world.

A number of developing countries too have had, for many years, large national fleets, and they should not subsidize overcapacity as well. Any international agreement involving fishery subsidies should take into account small-scale fishermen, who have to compete for the local fish resources with large-scale fishing fleets allowed to fish or poach on their native, traditional fishing grounds. Such fleets are subsidized, almost as a rule, whether directly or in a roundabout manner, as are the EU payments for access to fishing grounds of Third World nations. Small-scale fisherfolk operating under such conditions deserve support both on the part of their own respective governments, as well as the international community. Would it be too much to ask the EU, and individual governments of countries whose fleets are out to exploit coastal fish stocks of their own or other countries, as well as the governments who allow such fleets into their coastal waters, to give them a fighting chance?

Fisherfolk in the small-and medium-scale sectors both, owners and hired hands, who do not want to be dislocated from their

Any international agreement involving fishery subsidies should take into account small-scale fishermen, who have to compete for the local fish resources with large-scale fishing fleets allowed to fish or poach on their native, traditional fishing grounds

traditional fisheries by management systems based on marketable fishing rights, should recognize that their main adversaries are the standard bearers of neoclassical economics in national and transnational financial institutions and corporations, and their proxies in fisheries management. It is very difficult to resist such powerful interests in democratic societies without joining forces. For this purpose, provincial, national and regional fishermen's associations should organize under common umbrellas. Also, international associations of fishing people should create a joint worldwide umbrella that would not affect their individual structure and character, but would enable them to board the globalization train in weight and force. ■

Towards artisanal fishing zones

Recognizing the artisanal zone is an important first step towards recognizing and supporting the artisanal and small-scale sector

The struggle by artisanal fishers in Peru has been in the news of late. They are demanding that the integrity of the five-mile artisanal fishing zone be maintained, in the face of recent moves to open up 'windows of penetration' to allow large-scale industrial fishing in the southern part of the country (see *The Holy Grail*, pg. 42).

Starting in the 1970s, several countries around the world have established artisanal fishing zones. In many cases, the declaration of such zones was a response by States to the growing conflicts between the large-scale and the artisanal sectors, as in India and Indonesia. Faced with increasing and unequal competition from the technologically efficient large-scale sector, artisanal fishworkers in many countries expressly demanded the establishment of these zones.

That such zones can play an important role from a social perspective is undeniable. Millions of people in the developing world depend on fisheries for a livelihood, and a majority of them fish in coastal and nearshore waters. Their livelihoods, as well as the fisheries resource base, are known to be directly and indirectly jeopardized by the activities of industrial and large-scale fleets using destructive gear, such as bottom trawls, in coastal waters.

From a fisheries management perspective too, the logic for the establishment of artisanal zones, where only selective fishing gear and techniques are permitted, is incontestable. Coastal and inter-tidal areas are known to be highly fragile, productive and important as spawning and breeding grounds. As such, a regulation that allows only selective and responsible fishing in such zones, in combination with other management measures, could be very effective.

These issues are to be discussed at a workshop that the International Collective in Support of Fishworkers (ICSF) is organizing early next year, titled *Sustaining Fisheries and Livelihoods in Latin America: The Imperative of Secure Access Rights for Artisanal Fishworkers*.

In deciding on measures that could support the small-scale and artisanal sector, the changing context and the dynamism within this sector must also be kept in mind. It would be inappropriate to see the artisanal zone as a 'box' within which the small-scale sector is confined. The small-scale sector, in many parts of the world, as in the Philippines, Senegal, India, Sri Lanka, Peru and Chile, has convincingly demonstrated its ability to harvest highly migratory resources, such as tuna and shark, in a sustainable manner, in deeper waters within the exclusive economic zones (EEZs). To the extent that small-scale fisheries for such species is technologically and environmentally efficient, and leads to socially desirable outcomes such as greater employment and equitable distribution of income, it must be supported through specific policy measures.

Recognizing the artisanal zone is an important first step towards recognizing and supporting the artisanal and small-scale sector. The struggles of artisanal and small-scale fishworkers for maintaining the integrity of the artisanal zone, as in Peru, can not but be backed. By demonstrating enough political will, States can design and implement fisheries management measures that meet the goals of both equity and sustainability. ■

Millions of people in the developing world depend on fisheries for a livelihood, and a majority of them fish in coastal and nearshore waters.

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The Holy Grail

Brian O'Riordan

This article examines the background to the changes now being proposed for the status of the artisanal fishing zone in Peru

In several Latin American countries, the complementary objectives of securing artisanal fishing rights and conserving marine resources are enshrined in law. Thus 'artisanal fishing zones' have come to be recognized as special kinds of marine reserves, where small-scale fishing is allowed to take place without interference from larger-scale activities. Intensive, non-selective and destructive fishing activities (often referred to as 'industrial fishing', and geared to the production of fishmeal) are banned from these close-to-shore zones. The recognition of reserved artisanal fishing zones has, in many cases, come after long and hard-won (and ongoing) struggles, particularly in the two neighbouring Southern Cone countries of Chile and Peru. Here 'exclusive artisanal zones' have been established within a boundary of five nautical miles from the shoreline.

Despite these advances, artisanal fishing zones are subject to continuing incursions, both legal and illegal, by industrial and large-scale fishing operations. Clashes are also increasingly prevalent between artisanal fishing communities and aquaculture enterprises. Again, aquaculture enterprises may operate both legally (through being granted concessions) or illegally. In some Latin American countries, aquaculture enterprises have been set up illegally following violent (often armed) seizure of land and the intimidation of local communities through killings and torture.

In addition, it is an unfortunate fact of life that some government functionaries are not impartial actors in the decision- and law-making processes. In many countries, the investment sector (for intensive aquaculture and industrial fisheries) often carries more political clout than small-scale fisheries. Worse still, high-ranking government officials may also be the captains of those very industries seeking to gain access to conservation areas reserved for artisanal fishing.

In Chile, *Ecoceanos News* of 15 October 2004 reports that allegations of 'illegal enrichment' have resulted in a Special Parliamentary Commission being set up to investigate the 'black market' in aquaculture concessions. Aquaculture concessions are allocated free of charge, and with no time limit set. The only requirement is the payment of a nominal annual charge of between 60,000 and 120,000 pesos (approximately US$100-200). The owner is then free to lease or sell these freely acquired concessions. *Ecoceanos* reports that in some regions such concessions may sell for as much as US$1 mn.

In August 2001, the Chilean Fisheries Subsecretary, Daniel Albaran, resigned amid allegations of corruption and professional misconduct. Albarran was, at the same time, the chairman of several aquaculture enterprises and Fisheries Subsecretary. In his public function, he was responsible for approving large numbers of aquaculture concessions. In business, he had an interest in how concessions were allocated. He may well come under the scrutiny of the Parliamentary Commission.

Aquaculture concessions

Likewise, in Peru, the handing out of aquaculture concessions in traditional fishing

This article has been compiled by Brian O'Riordan, based on correspondence with various organizations, and news items and official documents available on the Internet. This article first appeared in *SAMUDRA Report* No. 39, November 2004

areas, in both the coastal areas and inland waters, has been strongly criticized. There have been fierce conflicts between artisanal fishermen and aquaculture enterprises over issues of access rights in several fishing communities along the coast—Chimbote, Samanco, Casma, Callao, Pisco and Ilo.

Given a situation of increasing insecurity, and faced with growing threats to their livelihood rights from competing interests, artisanal fishworkers from Chile and Peru have recently committed themselves to establishing an International Commission in Defence of the Five-Mile Zone. The commission was established earlier this year during the Second Bi-national Peru-Chile Artisanal Fishermen's Meeting that took place in the northern Chilean city of Arica, from 1-2 July 2004. Then, in September 2004, in the Port of Ilo, Peru, the commission organized an International Forum on Artisanal Fishing to widen the network and to articulate more clearly the demands of artisanal fishworkers. In parallel, non-governmental organizations in the Southern Cone region, from Chile, Argentina and Uruguay, met in July 2004 to set up a Southern Cone Coalition to promote sustainable fisheries and social equity in the region.

In 1992, an area was legally reserved for artisanal fishing in the nearshore waters of Peru through Supreme Decree D.S. 017-92. This established the zone adjacent to the coast: "comprising the area between zero and five nautical miles, as a conservation zone for the flora and fauna that exist there". "Carrying out fishing activities for direct or indirect human consumption with purse-seines, and with other methods, gear and fishing devices that modify the biological conditions of the marine environment" is banned. The decree was passed due to "the serious interference of industrial fishing fleets and fleets fishing for direct human consumption in zones declared as the exclusive reserve for the operation of artisanal fishing vessels." It recognizes the importance of this zone for "upwelling and the breeding of the principal fishery resources that sustain the fishery for direct human consumption", and the need to "establish measures conducive for its protection".

In 1995, another Supreme Decree modified some of these conditions, and clarified that the ban on purse-seining refers only to industrial fishing, and not to artisanal fishing. It also clarified that the 0-5 nautical mile zone is reserved for artisanal fishing and, as such, that artisanal purse-seines may be used in the zone, so long as they comply with the criteria set by the Ministry of Fisheries.

Fierce conflicts

But the permission granted to artisanal purse-seining activities in the five-mile zone has led to fierce conflicts in the northern region of Tumbes. Thus, in August 2004, the Peruvian Ministry of Production was forced to call in the navy to establish control measures on the activities of the so-called *vikingos chicos* (little vikings) and *bolichitos* (mini-purse-seines) in the sea around Tumbes.

The 1995 modification also makes the ban conditional on the technical opinion of Peru's Marine Institute (IMARPE). And here lies the bone of contention for artisanal fishermen in the south of the country, notably those from the port town of Ilo. In February 2001, IMARPE published a technical report, titled *The Problematic of the Five-mile in the South of Peru and Technical Alternatives for Its Management*. The report observes that, in the south of the country, the distribution and concentration of the main fishery resources are localized in the zone 10 miles from the coast. This is due to climatic and oceanographic factors, and the presence of a very narrow continental shelf. In this southern region, the shelf width averages five nautical miles, but ranges from a maximum of 13 nautical miles to less than two (compared to 70 nautical miles in the northern region around Chimbote).

IMARPE notes that the concentration of fishery resources becomes more pronounced in summer (between December and March), especially in the five-mile zone. Its report provides an overview of oceanographic

There have been fierce conflicts between artisanal fishermen and aquaculture enterprises over issues of access rights in several fishing communities along the coast

conditions in the southern region, and describes the spawning behaviour of the Peruvian anchovy. Known locally as *anchoveta* (*Engraulis ringens*), it is the main species targeted by industrial fishing activities supplying the fishmeal processors. The report then goes on to describe the activities of both the industrial and artisanal fishery in the south of the country.

In Peru, some 700 marine species are legally classified according to whether they are destined for direct human consumption (some 150 species) or for industrial purposes (two or three main species, including anchovy/ anchoveta—*Engraulis ringens* and *Anchoa nasus*—and sardine). In fact, it has recently become national government policy to mobilize supplies of fish (scad, locally called *jurel*, and mackerel, *caballa*) to address the problems of widespread malnutrition amongst the low-income segments of the Peruvian population.

This has been enshrined in law through Supreme Decree D.S. 021-2004, which establishes special conditions for the catch of industrial fishmeal vessels to be used for human consumption. But FIUPAP is highly critical of this, pointing out that the industrial sector targeting these resources is already showing overcapacity. Rather, priority should be given to developing the artisanal sector and providing market support to ensure that fishermen obtain a fair price, and low-income consumers an affordable food.

IMARPE's 2001 report documents the significant increase in fishmeal processing capacity since 1997 in the south of the country, and the resulting increase in fishing effort for anchovy, particularly in the summer. In the period 1990-95, the industrial fleet operating out of the port of Ilo remained more or less constant, reaching a maximum of 85 vessels in 1992. By 2000, vessel numbers had increased to 165, with a peak of activity in the summer months.

In the period 1991-92, more than 60 per cent of the southern industrial fish catch (for fishmeal) was taken within five miles of the coast. During the summer months between 1993 and 1997, this rose to 80 per cent. The report also notes that, in most years, anchovy represents more than 80 per cent of the industrial catch. It refers to an additional 10 species caught by the industrial fleet classified as species for human consumption, but claims that industrial fishing activities have had little impact on the mainstay species of the artisanal sector.

In a subsequent report on artisanal fishing in the zone 16°S - 18°20'S, IMARPE states that over the period 1996-2002, 65 per cent of the artisanal fishing fleet's activities were carried out in the 0-1.5 mile zone, and 99.5 per cent within the 2-5 mile zone. These observations have been hotly contested by the artisanal sector. They claim that part of the sector has been forced to retreat inshore to avoid interference from the industrial sector.

New sector

Also, in the last few years, a new deep-sea sector has developed, and artisanal fishing boats range as far out as 150 miles to catch *perico* (*Coryphaena* spp) and sharks (*Tiburon diamante* and *Tiburon azul*).

The IMARPE study only looked at activities in the five-mile zone, and not outside it. As such, it provides an incomplete picture. Also, it only looks at interference between sectors, and not into sustainability issues. The Ilo fishermen, therefore, contest the validity of the report and its use for policy decisionmaking.

The IMARPE report states that "due to the greater concentration of fishery resources in the coastal zone in the summer months, the application of a seasonal exception is justified in this period, that would allow for less interference with artisanal fishing. As there is a much smaller artisanal fleet South of 18°s (that is, up to the Chilean border), free fishing should be allowed in this area during this period." The report goes on: "One measure that could be applied is that when industrial

fishing vessels fish inside the five-mile zone and catch fish classified as being for human consumption, these could be given to the artisanal fishermen," with the caveat that "so long as catch controls are improved for the bycatch of fish for direct human consumption. This would also require improving the port infrastructure (the artisanal fishing quays) and establishing marketing channels."

For the artisanal fishermen, the conclusions and recommendations provide stark prospects. According to IMARPE, the applicability of the five-mile zone law in the south of the country is not in line with the seasonal oceanographic variations and changes in species abundance.

They, therefore, recommend that "during the summer, there should be a seasonal exception to the five-mile law". This would involve allowing the industrial fleet to fish within three miles of the coast in a belt of about 120 miles (16°S to 17°59'S). From 18°S to the Chilean border, industrial vessels would be allowed to fish freely right up to the coast. "In all cases, bycatch of species for human consumption should be handed over to the artisanal fishing community."

In December 2003, these recommendations found their way into Peruvian fisheries law. Supreme Decree No 037-2003 calls for a special fisheries regime to be established for anchovy in the southern region, from 16°s to Peru's border with Chile. It proposes that larger-scale purse-seiners be allowed access to specified areas (so-called 'penetration windows') within the artisanal five-mile zone.

The law also establishes that a special, non-Statal, financing mechanism (FONDEMPASUR) be set up for the development and modernization of the artisanal fishing sector in the southern region. This is to be financed by a levy placed on each metric tonne of fish landed by licensed industrial fishing operations.

The law also specifies that all fish caught other than anchovy should be handed over to the authorities at the nearest artisanal fish landing quay, or to the most representative organization of artisanal fishermen. Permission is also given to the owners of artisanal fishing vessels to catch anchovy, and, under exceptional circumstances, sell it for human consumption.

In effect, the industrial sector is required to set up a compensation fund in exchange for being given these 'windows of penetration', and is being ordered to do the artisanal fishermen's work of catching fish for human consumption.

This decree is more or less exactly what the industrial fishing sector had been lobbying for. It is strongly backed by the southern fishmeal producers organization, APROSUR, which claims that in 2003, due to the lack of nationwide access to the five-mile zone, some US$ 95 mn worth of foreign exchange from potential fishmeal exports was lost to the nation, and further, that in the southern region, a potential US$17.33 mn and 4,000 jobs were lost due to fishmeal plant closures. They say that the IMARPE report completely vindicates their claims.

Coastal fishing

"The (artisanal zone) decree applies to the whole coast without taking into account the difference in the nature of the coastline in the south and the north. While in Chimbote, the shelf extends to 70 miles, in Ilo, it hardly reaches 3.5 miles. This means that the (southern) industrial fishing has to be predominantly coastal," they say.

They claim that reserving the five-mile zone for artisanal fishing makes their industry less competitive than Chile's. "The anchovy that is not caught by the Peruvian fleet is caught by the Chilean industrial vessels," they say. APROSUR and the National Society of Fishing Vessel Owners (SONAPE) have been actively organizing demonstrations and other lobbying

Applicability of the five-mile zone law in the south of the country is not in line with the seasonal oceanographic variations and changes in species abundance

efforts to raise public awareness and influence the political processes in their favour. The artisanal fishermen of Ilo have strongly challenged both the IMARPE findings and the claims of the industrial fishing sector. They accuse the Minister of Production, Javier Reátegui Roselló, of being both judge and jury, given his personal interests in the fishmeal industry. In their view, allowing 'windows of penetration' for the industrial fishery in the south is tantamount to ruining the fishery.

According to them, the anchovy and other fishery resources of the south represent a natural resource bank. It is of major importance as a feeding and spawning area, which is disrupted and harmfully transformed by industrial fishing activities.

They claim that "measures like making exceptions to closed seasons in the south or making penetration windows in the border area for the industrial fishery are irrational, and undermine the sustainability of the fishery by not guaranteeing any resource or income for tomorrow."

They report that there are around 1,500 organized artisanal fishermen based around the port of Ilo. The main organization is the Sindicato nico de Pescadores Civiles del Puerto de Ilo Artesanales-Buzos (SUPABCPI), which is a member of the national artisanal fishermen's federation, FIUPAP. They claim that there are a similar number of unorganized fishermen in the region as well.

Artisanal fishing activities around Ilo, which are all aimed at producing food for human consumption, are diverse: mini-purse-seines (*bolichito*), gill-nets, high-seas fishing, launch (*pintero*) fishing, line fishing, shellfish gathering, and diving using both compressors and aqualung.

Over the last 10 years, these activities have undergone considerable change. For example, there are very few launches (*pintero*) and gill-nets (*cortineros*) today. The artisanal fishers claim that the root cause of these changes is the impact of industrial fishing.

On the one hand, the inshore sector has been increasingly pushed toward the shore to find areas inaccessible to industrial fishing vessels. This has resulted in localized overfishing and a particular demise of the shellfish resources.

In response, closed seasons have been established, although no seasonal bans on the sale of closed-season species have been applied. This has tended to encourage illegal fishing. Traditional fishing areas have also been designated as areas for aquaculture concessions, putting further pressure on fishermen and resources in the increasingly restricted areas where they can fish.

On the other hand, an offshore artisanal fishing sector has developed in the last few years. Due to interference from the industrial sector, artisanal fishermen have been extending their range of operations to as far out as 150 miles, according to Ilo fishermen. But conditions are very harsh, with fishermen spending more than two weeks away from their families, and working in extremely dangerous and exposed conditions. Not only are there significant investment costs to be made in navigation equipment and fishing gear, but, with dramatically increasing fuel prices, this fishery is also becoming an economic struggle, particularly as fishing trips may clock up distances of 700 miles.

Since its introduction, the December 2003 Supreme Decree has been hamstrung by the extreme polarization of the situation. In January 2004, the Ilo fishermen initiated a 'Peruvian Five-Mile Zone Defence Committee', supported by fishermen from Arequipa, Ilo and Tacna. This was followed up by a number of strikes in the south, aimed at disrupting fishing and related activities.

These local activities took on national significance when, at the end of March 2004, FIUPAP called for an indefinite national artisanal fishermen's strike starting on 5 April. This was scheduled to coincide with the start

Final Statement of the Ilo Forum

The first International Forum on Artisanal Fishing convened by the International Defence Committee of the Five-Mile Zone, meeting from 29 to 30 September 2004 in Ilo, Peru, declares that:

The conservation of marine biodiversity and the protection of fishery resources are fundamental in assuring a supply of indispensable food for humanity, as well as in assuring the livelihoods of the communities that depend on fishing.

The coastal zone within five nautical miles is pre-requisite to the conservation of resources, providing an area for spawning, growing and nutrient upwelling, and, for these reasons, it should neither be subject to intensive fishing activities nor used as a dump for the industrial wastes that destroy it.

For these reasons, industrial fishing activities should be excluded from this zone, which should be used exclusively for artisanal fishing with selective and non-destructive fishing gear. Under no circumstances should industrial fishing be allowed in this zone through 'windows of penetration'.

In order to ensure its own ustainability, the industrial fishing sector should try to overcome its dependence on fishing for fishmeal, and target a greater variety of species for producing value-added products, following the principles of responsible fisheries and with greater benefits for the fishing communities.

In order to ensure the sustainable management of fishery resources and the marine environment, as well as the full participation of fishermen in decisions that affect them, we demand that the FAO Code of Conduct for Responsible Fisheries be turned into an International Treaty with the force of law.

The application of individual transferable quota systems fragments and divides artisanal fishing communities, depriving them of their rights and transforming them into a low-cost workforce for the industrial sector, due to which we reject their implementation.

In the case of Peru, we demand the lifting of Decree 037 that establishes 'windows of penetration' and the aspects of the fisheries law that allow these kinds of rules; in the case of Chile, we demand the lifting of the regime of 'windows of penetration' in the north of the country and an end to the quota system; in Mexico, we demand that Rule 002 that prohibits trawling in the five-mile zone be respected; and with regard to Argentina, Uruguay and Brazil, we express our concerns and reject the development of an anchovy fishery for fishmeal, which threatens the ecosystems of the region.

We call for the Second Forum of the International Commission for the Defence of the Five-Mile Zone to be implemented on the 29 and 30 September 2005 in Sinaloa, Mexico.

Also, and on the invitation of the Chilean delegation, we have decided to meet again during 20-22 November in Valparaiso, Chile, where the Congress of the National Confederation of Artisanal Fishermen will be held.

The conservation of marine biodiversity and the protection of fishery resources are fundamental in assuring a supply of indispensable food for humanity, as well as in assuring the livelihoods of the communities that depend on fishing

of the Holy Week, a time when many Peruvian families traditionally eat fish. Subsequently, FIUPAP asked the Food and Agriculture Organization of the United Nations (FAO) to intervene formally in the process, claiming that Article 6.18 of the FAO Code of Conduct for Responsible Fisheries supported their claims for a five-mile zone, and was a just cause for complaint.

On 1 April 2004, the Ministry of Production suspended the implementation of the new access regime for three months. At the same time, an Enquiry Commission was established to evaluate the proposed new fisheries regime, and to report within 75 days. This 'temporary suspension' has since been renewed twice—on 1 July for 90 days, and then, most recently, on 4 October 2004 for a further 90 days, up to January 2005. The most recent suspension came four days after the first International Forum on Artisanal Fishing, and was considered a victory.

But although a battle may have been won, the 'windows of penetration' law still poses a very clear and present danger. It is only a matter of time—three short months before the current suspension expires. In the meantime, the government and industrial

sectors are gathering information to support their case to lift the five-mile zone restrictions in the south. Nevertheless, the artisanal fishermen of Peru continue to protest, to organize themselves in readiness for the next onslaught, and to widen their support base in defence of their sacrosanct five-mile zone—a zone that is fast becoming the Holy Grail of artisanal fishermen throughout Latin America, and a banner under which they are uniting to defend their rights. They will need all the strength and support they can muster if they are to prevail in the unequal power struggle with the mighty industrial fishery lobby, which have influential friends in high places. ■

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Frustrating private agreements

Marc Allain

The Canadian court battle over owner-operator policy in inshore fisheries has resulted in a significant ruling

Defenders of Canada's inshore fisheries policies got a major boost in April when a court decided that the Department of Fisheries and Oceans (DFO) could effectively frustrate private agreements designed to undermine its policies.

The case, reported in the December 2004 issue of *SAMUDRA Report*, involves two fishermen who had entered into a private contract or trust agreement to transfer the right to use a fishing licence that one of the parties was not eligible to hold.

In recent years, these private agreements have become increasingly widespread as fish processors, wealthy inshore fishermen and other investors attempt to purchase licences from retiring inshore fishermen, particularly in the lucrative crab and lobster fisheries. The agreements often contravene two important government policies designed to keep fishing licences in the hands of individual working fishermen in coastal communities.

The *owner-operator* policy states that licences for species fished from vessels of less than 19.8 m LOA (length overall) will only be issued to individual, independent fishermen who must fish the licence personally.

Moreover, a qualified individual can only hold one licence per species, that is, while an individual can hold a portfolio of inshore licences (crab, lobster, scallops, mackerel), he or she can only hold one licence per species. The *fleet separation* policy states that corporations, in particular fish-processing companies, cannot hold inshore licences, making it impossible for them to vertically integrate fish-harvesting and fish-processing operations in fisheries like lobster and crab. With the collapse of the groundfish resource and the increasing values for shellfish species, these inshore licences have become more and more valuable and sought after. Over the last 10 years, ineligible investors have been using trust agreements to accumulate these licences and, by the same token, turn the licence holders into their employees.

For years, the DFO ignored the problem, claiming it was powerless to act in private agreements. As the practice became more and more blatant, fishermen's organizations, especially the Canadian Council of Professional Fish Harvesters (CCPFH), the national organization representing independent owner-operators, pressured the federal government to enforce its policies.

In 2002, the DFO's Gulf region finally acted in the case of five snow crab licences found to be tainted by trust agreements. The DFO suspended the licences and ordered the licence-holders to extricate themselves from the agreements. In one of these cases, the holder of the trust agreement decided to ignore the government's action and asked the courts to enforce the agreement.

After several years of legal wrangling, the case finally came to trial. Lawyers for the plaintiff, the holder of the trust agreement, called a series of witnesses, including the lawyer who crafted the trust agreement, a former provincial cabinet Minister turned lobbyist and a lower-level DFO official, all of

This article was written by Marc Allain, Senior Policy Adviser to the Canadian Council of Professional Fish Harvesters. This article first appeared in *SAMUDRA Report* No. 41, July 2005

whom downplayed the importance and even the existence of the government's owner-operator policy.

Defence counter

The defence countered with testimony from the DFO official responsible for fisheries management decisions in the Gulf Region, who explained in detail the nature of the government's policies and how it had applied them in this case.

The CCPFH, which received intervener status in the case, also presented a brief to the court that strongly supported the government's policies and actions.

Citing an abundance of case law, CCPFH's lawyer argued that Canada's Fisheries Law grants the Minister of Fisheries absolute discretion in the granting of fishing licences and that the Minister has the right to adopt policies to guide his discretion and the right to delegate his officials to apply these policies.

On 11 April 2005, the judge ruled that the contract could not be completed because the DFO exercised its ministerial discretion in such a way that the transfer of the fishing licence became impossible. In legal terms, the judge ruled that the contract was 'frustrated'. Unfortunately, the judge did not offer an opinion on the validity of the DFO's actions by stating that he did not have the jurisdiction to rule on this question.

The ruling, however, is very significant because a court has now determined that private trust agreements involving fishing licences can be made inexecutable by the DFO actions. This supports the position of the CCPFH. For the last six years, CCPFH has been urging the government to use its power to thwart agreements purposely designed to circumvent public policy.

The court ruling increases the pressure on the Minister of Fisheries to act, since it is now clearly within his power to protect the integrity of the public policy and the inshore licensing system. The Minister has appointed an official to report on what measures would be required to solidify the policy framework and committed himself to protect the policy. The report is expected in early June.

What remains to be seen is how the Department will deal with violators of the policy, especially those fleets in the province of Nova Scotia, which, although they remain nominally owner-operator, have come completely under processor control through the use of trust agreements. Meanwhile, the legal battle between the two fishermen to clarify the strength of the government's fisheries policy will drag on as the plaintiff has decided to appeal the judge's decision. ■

The power of co-management

Co-management of fisheries resources needs to ensure genuine involvement of gear groups, and consultation with their representatives

Co-management, intended as a collaborative and participatory arrangement between governments and resource users to share the responsibility for resource management, is increasingly being put forward as a framework for the management of fisheries resources, partly also due to the perceived failure, or inability, of centralized fisheries management regimes.

Co-management arrangements may be more effective in a context where property rights are well defined. As pointed out by Svein Jentoft (see pg 57), co-management arrangements in situations where community property rights are established and recognized, are likely to be more effective, as they enable communities to control access, to sanction, and to exclude others. However, the co-management framework also has relevance in fisheries where property rights are not defined, undoubtedly a more common situation in fisheries across the world where governance structures are still poor. The advantage of co-management is that it enables governments and fishery gear groups to adopt and develop meaningful fisheries management measures that can minimize costs and that can also expect realization of management goals in a reasonable time frame. At least, it is one way to develop appropriate fisheries management measures that can engender ownership among all user groups even in the absence of property rights.

To the extent that co-management recognizes the significance of the participation of resource users at all stages of resource management, it is important. However, experience from various parts of the world indicates that often the government commitment to participation of actual users remains on paper. The article from South Africa (see pg 60), for example, points out that all too often, brief consultation takes the place of genuine local involvement in decisionmaking in the co-management of resources, in this case in the management of marine protected areas (MPAs).

Co-management of fisheries resources needs to ensure genuine involvement of gear groups, and consultation with their representatives. Particularly where traditional institutions for management and conflict-resolution exist, it would be essential to recognize them and ensure their integration within co-management arrangements.

Co-management efforts will also need to recognize the fact of large power differentials between various stakeholders in the co-management process, and, in the interests of equity, will need to take steps to prioritize the concerns and participation of those lower down in the power hierarchy—small-scale fishing communities, and, particularly, the women in these communities. Conversely, it would be imperative to work towards developing the capacity of communities to engage with co-management.

Co-management should not mean pushing all costs on to local communities, as is happening in certain situations. Some costs, such as, for example, the costs of effective enforcement and keeping in check encroachments by the industrial/large-scale/mechanized fleet, should be borne by the State. The need is not for 'less' State, but for a more effective, accountable and responsive State.

And finally, in the context of so many donor-supported co-management projects working in specific locations with communities, there is a risk of a fragmented approach to resource management. It makes little sense

The advantage of co-management is that it enables governments and fishery gear groups to adopt and develop meaningful fisheries management measures

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if communities and local governments were to manage adjacent areas, while rampant fishing by the large-scale/industrial/ mechanized fleet continues unchecked just outside the managed areas. Co-management arrangements must be developed at the larger level, taking into account the natural management unit, with both small-scale and large-scale fisheries being viewed through the same lens, as it were. ■

Co-management arrangements must be developed at the larger level, taking into account the natural management unit, with both small-scale and large-scale fisheries being viewed through the same lens, as it were

Go for it

Svein Jentoft

Property rights and co-management could connect to improve the management of artisanal fisheries

This article attempts to bridge two separate but potentially overlapping discourses in fisheries management—that on property rights and the other on co-management. The property rights discourse is concerned with access rules, economic efficiency and rent production. The co-management discourse is predominantly focused on decision-making, stakeholder involvement and participatory democracy.

However, the two discourses tend to converge on one important issue—power. In the first instance, property rights entail the power to exclude someone from access to fisheries resources. In the latter instance, co-management is about the power to define the rules of access: who should decide on fisheries management regulations, among other things. Usually, a property right also involves the power to make the rules. Thus we would assume that one is a precondition for the other; that, for instance, a co-management regime would have to rely on, and preside over, a property right. Or conversely, that co-management comes with a particular property right. In this article, I argue that neither has to be the case. First, I shall say something on property rights. Then, I shall define what co-management is. Finally, I shall discuss how they might possibly connect in improving fisheries management for the benefit of artisanal fisheries.

The important thing to stress about a property right is that it is essentially a social relation. It establishes the position of the holder of some good vis-à-vis the position of other contenders for the same good. A property holder can lawfully deny others the possibility to enjoy the good or the benefits that stream from it. In other words, the key relation of property is not between the rights holder and the thing itself, but between people: the owner and the non-owner.

Provided that the rights holder can effectively deny the access and use of others, he or she is also the holder of power. No wonder that Karl Marx saw property rights as structuring the relations among social classes, and turning class into an instrument of power and exploitation, and as a source of inequity. Similarly, Pierre Proudhon, the 19th century French anarchist, famously claimed: "Property is theft." This is also why the property rights issue makes fisheries management systems so controversial and why artisanal fishers protest against privatization.

Undoubtedly, property rights do serve a purpose in fisheries management. The absence of property rights places some risks on the resources. But property comes in many forms. A private individual may possess a property right, and so may States and communities. The question is what different property rights are able to deliver to fisheries management. The State is said to have only thumbs and no fingers. Therefore, it is not able to sufficiently use the power that property vests in it, to manage diversity and complexity and situations that require a lot of detailed local knowledge and fine-tuned management mechanisms.

Transferable quotas

Private property, on the other hand, leaves communities at risk as it induces individuals to care more about themselves than their fellow community members and the places

This article by Svein Jentoft of MAREMA/ Centre for Marine Resource Management, Norwegian College of Fisheries Science, University of Tromsø, Norway, is based on a presentation at an ICSF-CeDePesca workshop. This article first appeared in *SAMUDRA Report* No. 42, November 2005

they come from. Thus, in many parts of the world, individual transferable quota (ITQ) systems have proven to concentrate fishing rights, and hence fishing capacity, in the hands of the few, while communities and artisanal fishers have been stripped of their access to fisheries resources.

Property rights vested in communities are an alternative that has been largely neglected in modern fisheries management theory and practice. Instead, fisheries management has been arranged as a relationship between the State and the individual, with no institutional mediating link in between, such as the community. In this system, the individual is placed passively at the receiving end of the management chain, giving the State the role of patron. This system also has its ideological underpinnings, emphasizing the supremacy of the market and the inferiority of the community.

Property rights vested in communities are an alternative that has been largely neglected in modern fisheries management theory and practice

It is important to stress that there exists a range of property rights types and that State or private property is not the only remedy to the problems involved with open access. Let me also emphasize, because it is relevant to co-management, that open-access systems come in many forms, and that they do not have to imply a rule-less fishery. Furthermore, managers rarely find themselves in a situation where they can simply make a choice between one property-rights system or another as if they are displayed on a shelf when entering a store. In real life, property-rights reform implies that you move from one form to another. You always carry baggage, and you never start with a clean slate; getting rid of an old system can be as difficult as implementing a new one.

We can think of a number of reasons for this; one is that after a while property rights, as institutions in general, acquire a status of objective reality—they become like nature. We take them for granted and can not imagine how life and society would have been without them. Another reason is that property rights, as Proudhon hinted at, always produce winners and losers. It is in the interest of winners and generally also in their power to keep the system as it is. Thus, property-rights reforms are constantly imbued with social conflict, as history has shown time and again.

I believe that we need more research into the issue of property-rights reform. We know fairly well how property-rights systems work in fisheries: what their problems and benefits are, what they do and do not do. Much less attention has been paid to how one moves from one system to another, and under what conditions system changes occur.

Community property

Let me suggest, for instance, that it is much easier to move from State and common property to private property, than the other way around. It is not for nothing that private property is written into the constitutions of many countries while community property is not. It is also for this reason that it seems like privatization of fish resources—as within an ITQ system—is an irreversible process. Once quota rights are privatized, there is no way back. They produce what social scientists call 'path dependency'.

The moral is that property-rights reform should not come easily and as a quick fix. They do change social relations drastically, and thus have an impact on how society—in our case, the fishery—works. They have implications that are not always easy to foresee: for instance, on power structures, settlement patterns and social values. You risk empowering distinguished social groups that are already enjoying power. So don't do something that you may later regret.

Co-management can be defined as a collaborative and participatory process of regulatory decision-making between representatives of user-groups, government agencies, research institutions and other stakeholders. Power sharing and partnership are essential elements. Co-management vests authority over, and responsibility for, regulatory functions outside the realms of government, for instance, in user-organizations or fisheries co-operatives at the

national, regional, and/or community level. Co-management does not leave decision-making to the vagaries of the market, but draws heavily, but not entirely, on the forces and capacities of civil society. If we think of the relationships of fisheries management as a triangle, with the State at the top, the market at bottom left, and civil society at bottom right, co-management would be placed right in the middle.

I believe community-(or common-property) rights is particularly effective as a co-management tool. Communal or 'collective' property rights vested in the co-management institution provide the authority with an extra stick. It allows the co-management system to control access; it gives the right to sanction and, ultimately, to exclude. A system that enjoys this power would *ceteris paribus* be more effective than one that does not have this leverage. A co-management system operating within a State property, private property or open-access system would normally have no right to sanction by exclusion. It can only rely on persuasion and moral condemnation.

Exit alternative

Thus, a co-management system that is underpinned by one of these three property-rights types is vulnerable to free riding, as members would always have an exit alternative. If members do not like the collective decision, they can simply opt out, go solo. In a co-management system residing over a communal property right, however, people would have to use their voice to express their dissatisfaction. If they should then choose not to abide by the rules set by the co-management authority, they risk being penalized, not only through moral condemnation, but also by losing access.

It should be noted that this does not mean that co-management can not work in less-than ideal circumstances. In many countries, we see co-management systems operate well on property rights other than communal ones. If co-management could not function in less-than-ideal circumstances, it would hardly be much to strive for. It would then only work in exceptional cases.

Since co-management can function regardless of the form of property right, there is no reason to wait for a property-rights restructuring to launch a management reform. The former is usually a more difficult undertaking than the latter, as it tends to provoke power. Comparatively speaking, co-management takes an administrative reform that, in many instances, does not need more than marginal reorganization of administrative boundaries, redistribution of management functions, and readjustments of procedural routines. Property-rights reform is more consequential since it changes basic social relations in lasting ways, as mentioned above. Hence, it tends to be more controversial and conflictive.

Co-management reforms and property-rights reforms could certainly be mutually reinforcing, and should, if possible, be integrated as part of the same process. Yet, they do not have to happen in concert. One reform could run independent of the other. Co-management could be initiated and implemented in the short run, while the property-rights transformation could be a project for the longer term. If you should meet obstacles in implementing the latter, it does not mean that you can not succeed in the former. So here is my advice for artisanal fisheries: if you want co-management, go for it. You don't have to wait for the revolution.■

Shifting gear?

Moenieba Isaacs, Mafaniso Hara and Jesper Raakjær Nielsen

Not enough progress has been made in reallocating quotas to previously disadvantaged groups in the South African fishery industry

The African National Congress (ANC) contested the April 1994 elections in South Africa on the basis of a vision of 'a better life for all', to be achieved through its people-centred Reconstruction and Development Programme (RDP) policy framework. This created expectations that many in the 'marginalized' fishing communities would secure their own fishing rights and small businesses. It was hoped that the revised fisheries policy would deliver on these expectations, while, at the same time, maintain an internationally competitive fishing industry.

Due to pressure from established economic interests, in 1996 the new government shifted its macroeconomic policy to a 'homegrown' structural adjustment programme called the Growth, Employment and Redistribution (Gear). The new framework abandoned the key principles and policies of the RDP, and instead adopted neoliberal economic principles, including privatization, subsidy removal and downsizing of the public sector; and encouragement of small black entrepreneurs.

Gear was aimed at achieving equity and redistribution through economic growth and job creation. The authors of Gear imagined poverty alleviation would be achieved through the 'trickle-down' effect of a new group of entrepreneurs who would establish labour-intensive small, medium and micro-enterprises (SMMEs).

This was in direct contrast to the RDP's approach of redistributing wealth through interventionist State policies based on socialist ideology. The shift to Gear resulted in large numbers of bona fide fishers being excluded from the formal allocation process because they could not demonstrate their entrepreneurship through being able to complete application forms and engage in related bureaucratic procedures without help.

In order to understand how the transformation process was supposed to contribute to poverty alleviation, one needs to understand the capital-accumulation/ wealth-generation and safety-net functions of enterprise development and job creation. In this article, we will use the concepts of poverty, vulnerability and entrepreneurship to look at the contribution (or failure) of fisheries to the improvement of the livelihoods of coastal communities, including the proposed mechanism of co-management.

The shift in macroeconomic policy was an important factor in relation to 'transformation' of the fisheries sector in that the focus for transforming the sector moved from re-allocation of access rights to one of promoting black economic empowerment (BEE). BEE was focused mainly on addressing racial and gender imbalances within the industry.

It took the form of offering ownership of shares in established enterprises to historically disadvantaged individuals (HDIs) organized in empowerment groups and/or labour unions, transferring technical and management skills to HDIs, and promoting HDI employees to positions of management decisionmaking.

New fishing rights

The focus was not on the vulnerability of the workers within the existing established companies under BEE schemes, and new

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rights holders and the SMMEs that were established after achieving access to fishing rights.

'Transformation' is not defined in the Marine Living Resources Act (MLRA) of 1998 or in any other legislative or policy document. The vision of the government's new policy is probably what was meant by `transformation' in the Act:

> *the marine resources are a national asset and part of the heritage of the people of South Africa, present and future, and should be managed and developed for the benefit of the country as a whole, especially those communities whose livelihoods depended on these resources; and that the allocation of the resources would be made on an equitable basis, with a view to ensuring the long-term sustainability of the resources and their healthy condition for present and future generations.*

Two approaches to transformation were being used: the broadening of access rights to new rights holders (individuals and companies) through State intervention (external transformation); and market-led change within State BEE policy (internal transformation). The Department of Environmental Affairs and Tourism (DEAT), a branch of Marine and Coastal Management (MCM), was given the responsibility for external transformation.

The new Constitution with its 'Bill of Rights' and the new fisheries policy paved the way for new entrants to the sector, but MCM struggled with managing and administering the process.

A complicating factor was that the sector was already oversubscribed—making space for new entrants would have required cutting existing allocations. Internal transformation was to take place through market-based reforms within companies through change in ownership, giving workers more benefits and share schemes, assisting in the empowerment of new rights holders, and so on.

This market-based intervention had an impact on the extent of State intervention from the start, leaving little room for a more community-based empowerment option for transformation in the industry. The responsibility of the State through MCM is to ensure that equity and redistribution are achieved without endangering the economic stability of the industry and sustainability of the resource.

From the very beginning, it was clear that the goals of transformation would be in conflict with the principles of resource management since meeting the expectations of the many potential new entrants would not be in line with the limited room for expansion that sustainable resource management entailed.

The responsibility of the State through MCM is to ensure that equity and redistribution are achieved without endangering the economic stability of the industry and sustainability of the resource

Adding to this was the fear among the established companies that allowing too many new entrants could create chaos and result in economic instability in the industry. Several factors impeded—or were used to block or slow—transformation, especially by those already in the industry.

The following were the constraints to transformation in the early years:

Unwilling sellers, unwilling buyers: As a matter of principle, HDIs and HDI groups were unwilling to 'buy' fishing rights that they felt they had been dispossessed of under apartheid. There were expectations that government would put this travesty right by simply taking these rights back from established companies and redistributing them to HDIs after the advent of democracy. The established companies were equally unwilling to share, sell or give up their fishing rights, arguing that they had spent decades building up their companies.

Foot-dragging tactics: Established companies used foot-dragging tactics to delay redistribution by employing leading lawyers to find loopholes in the new fisheries policy and to litigate on all large-scale cuts in their quota allocations. Many courts ruled in favour

of the established industry, hindering government from taking large portions of their quota allocations to accommodate new entrants to the industry.

Court challenges on administrative grounds: Numerous allocations by the former Quota Board under the old Sea Fisheries Act were successfully challenged in court on administrative grounds from 1993, following the promulgation of the 1993 Quota Board guidelines. The constitutional entrenchment of the right to just administrative action reinforced the strength of administrative remedies, as evidenced by the number of court cases after 1996. For example, the first quota allocations made under the MLRA were successfully challenged and set aside for reconsideration on various administrative grounds.

The alliance between unions and employers against redistribution of fishing rights further marginalized poor bona fide fishers who had expected fishing rights after apartheid

Alliances between large companies and labour unions to oppose transformation: Established companies were able to secure the support of their largely black labour unions to oppose transformation using the slogan "A cut in our quota allocations will result in a cut in jobs". The unions (especially the Food and Allied Workers' Union—FAWU) traded their support for maintaining existing quota allocations for better working conditions and improved benefits for their members (pension funds, shareholding schemes, medical aid, and improved health and safety).

The irony was that FAWU is an affiliate of the Congress of South African Trade Unions (Cosatu), one of three partners in the ruling ANC Alliance. The alliance between unions and employers against redistribution of fishing rights further marginalized poor bona fide fishers who had expected fishing rights after apartheid.

Constitutional protection of property rights: The Constitution provides that nobody may be deprived of property except in terms of law of general application (the 'property clause'). This, together with the government's commitment to support market forces, effectively gave established companies a veto against the reform of the fishing industry.

Most established companies claim to have implemented internal changes that meet the requirements provided by DEAT guidelines. The established industry quickly responded to internal transformation requirements.

For example, Oceana Fishing Group sold half of its equity to a black empowerment consortium, while Premier Fishing shares ownership with Sekunjalo, and Pamodzi/ Foodcorp owns Marine Products.

Allowing a larger degree of black ownership strategically put such companies in positions of strength for maintaining or even increasing their quota holdings, since most of these empowerment groups had good political connections.

Companies like Sea Harvest and Irvin & Johnson started on a fairly small scale, offering limited shareholding ownership for employees at favourable prices. Although employee shareholding constituted a small percentage of the total stock, the symbolic effect was considered important. The established companies wasted no time in bringing in HDI leaders in an attempt to transform the leadership structures of their companies.

Within the labour unions, this was regarded as a window-dressing exercise, since some of these individuals were given the privileges of power but not the right to make crucial decisions.

The major dilemma that faced many new entrants was the lack of infrastructure (vessels, processing facilities and marketing networks) and business knowhow. A possible, seemingly obvious, solution to this dilemma was the formation of joint ventures and business partnerships as promoted by the new fisheries law (the MLRA).

In spite of all this, most new entrants complain that there has been no change in the power dynamics in the industry as a whole or within individual companies. Since established companies own most of the infrastructure, they retain control of fishing, processing and

marketing operations, even where new entrants have entered into joint ventures with them.

The prices charged for these services make it very difficult for new entrants to succeed. Established companies recoup their transaction costs through reduced prices for fish from new entrants or inflated costs for their services. The top management of most companies remains largely white. Where blacks have been given top positions, their ability to make management decisions is frequently constrained or absent. Most 'internal transformation' appears to be window dressing.

The lack of infrastructure and business knowhow among new entrants and the lack of real black ownership and power within established companies leave black workers and entrepreneurs vulnerable to manipulation and exploitation. Eventually, everyone, including the established companies, had to accept that some re-allocation of rights was unavoidable. MCM's major indicator of transformation has been quantitative—that is, the number of new individuals (mostly HDIs) or HDI fishing companies that have been granted access rights. MCM's stated achievements after 10 years of 'transformation' are, for example, in the abalone, West Coast rock lobster, small pelagic and deep-sea hake fisheries.

Commercial allocation

In the abalone fishery, the number of rights holders increased from five in 1992 to 271 in 2002. The five original quota-holding companies retained 49.5 per cent of the total commercial allocation, while original abalone divers received 17.5 per cent. The 228 new entrants under the limited commercial category got the remaining 33 per cent in allocations of 202 quotas of 430 kg and 26 quotas of 200 kg. Individuals held 95 per cent of the limited commercial allocations.

A total of 87.5 per cent of the companies holding commercial abalone quotas were classified as SMMEs. According to DEAT, 90 per cent of the global abalone total allowable catch (TAC) was allocated to SMMEs in 2002.

In the West Coast rock lobster fishery the number of rights holders increased from 39 in 1992 to 745 in 2002. While the top 10 companies held 57 per cent of the quota in 1992, this had been reduced to 36 per cent in 2002. Ninety per cent of right holders were classified as SMMEs and 66 per cent of these companies were HDI-owned. In 2003, a further 274 individuals were awarded limited commercial fishing rights in the east of Cape Hangklip area. In the limited commercial sector, the allocations ranged from 200 kg to 1.5 tonnes (average: 712 kg).

A total of 91.5 per cent of the limited commercial quota was awarded to HDI or HDI-owned micro-enterprises. Thus, 70 per cent of the global TAC was HDI-controlled. Whereas there were only 12 rights holders in the small pelagics sector in 1990, by 2002, the number had grown to 91 sardine and 70 anchovy rights holders. About 85 per cent of these were considered to be SMMEs. Furthermore, 73 per cent of the rights holders were HDIs and these held 75 per cent of the pelagic TAC. Most of these got 0.3 per cent of the TAC as their annual quota for the duration of the medium-term rights.

This means the access of HDI rights holders to the pelagic sector had increased tenfold (from 7 per cent to 70 per cent) over the 10 years 1992–2002. Despite this, the established companies have maintained their allocation (in terms of volume) of anchovy and sardine due to the increase in TAC. While only 21 predominantly white-owned companies had rights to exploit deep-sea hake in 1992, the number of rights holders had increased to 56 by 2000. The top five companies held 92 per cent of the TAC in 1992.

This had been reduced to less than 74 per cent by 2002. Furthermore, government claims that the large companies had been compelled to transform in terms of their ownership and management structures. In addition, 42 per cent of companies in the

sector were classified as SMMEs, and 74 per cent of rights holders were deemed to be majority HDI-owned and managed by 2002. According to DEAT, HDI shareholding in the sector had increased from 0.5 per cent in 1992 to 25 per cent in 2002.

These reported results need to be compared to the extent of internal transformation that took place within the established companies, that is, the link between HDI ownership and quota allocation. External transformation is directly linked to internal transformation and it is situated in the need to maintain stability and efficiency within the fishing industry.

In reality, most new entrants are finding it very difficult to establish themselves in the industry

A consequence of the direct link between internal and external transformation means that there was very little TAC left for MCM to allocate to the new entrants. The industry's long-term economic viability could have been compromised by the short-term political goal of MCM—that is, to show the extent to which it has allocated rights to new entrants.

Impressive as these figures would appear, they do not describe the realities on the ground. The guidelines for award of medium-term rights outlined the objectives and assessment principles for re-allocation of fishing rights as being: "ability of applicants to invest in the industry and to demonstrate that they would be actively involved and committed to the industry"; "past performance and capacity to harvest and process the resource"; "potential for significant impact on local community economies and development"; and "the degree of risk of new entrants becoming paper quota holders".

Categoric commitment

DEAT categorically stated that while the department was committed to bringing in new entrants into the industry, the potential of such new entrants to enter, participate in and share the risks of the industry had to be examined in the light of the degree of their knowledge, experience, their fishing plans and business acumen.

It was further stated that where joint ventures had been entered into, these had to be capable of validly empowering the rights holders.

In reality, most new entrants are finding it very difficult to establish themselves in the industry. A number of reasons have been put forward for the problems they are encountering:

- the quotas that they receive are too small to set up, establish and operate economically viable fishing businesses;
- banks do not accept fishing quotas as collateral for loans, making it difficult to raise investment capital;
- new entrants lack the technical and managerial skills to survive in the industry and no assistance is being provided in this regard; and
- it is very difficult for new fishing companies to compete with, or break into, the monopolistic business systems and structures that established large companies have created and fiercely guard in order to maintain their competitive advantage.

In view of the foregoing, the new entrants have adopted four main survival strategies:

- entering into joint-venture agreements involving catching or processing or marketing with established companies;
- pooling their quotas with other rights holders and jointly obtaining a vessel to exploit the pooled quota;
- selling their fishing rights outright to someone (usually an established company) with the ability to make use of the quota as their own (such rights holders are referred to as 'paper quota holders'); and

- acquiring fishing rights for several species (if they own a vessel) in order to create an economically viable quota 'package'.

Active participation

Since the first three strategies are the most common, the number of rights holders actively taking part in fishing operations is actually at least 50 per cent lower than the official number of rights holders. One analysis suggests that approximately 25 of the 51 new anchovy fishing rights holders sold their quota to vessel owners or processing companies. This accounted for about 25 per cent of the TAC.

In deep-sea hake trawling, the 53 rights holders have been consolidated into less than 20 operational clusters through joint-venture agreements. Joint-venture arrangements were being used by both sides for their own benefit.

For new entrants, this would demonstrate that they were actively involved in the industry, while, for the established companies, joint ventures provide increased raw material for processing. If the motivation for joint ventures was the transfer of skills in management and operations, it has rarely been successful—most new entrants are not gaining any skills that would enable them to stand on their own as independent and thriving companies.

As pointed out earlier, government's policy goal was to award rights to new (mainly black) entrepreneurs. In turn, these could form viable fishing businesses in rural coastal areas and so contribute towards poverty alleviation by creating jobs. Little progress has been made so far.

Apart from the lack of skills transfer, another major stumbling block has been that the sizes of quotas that have been awarded to most new entrants do not meet the criteria of being minimum viable quotas (MVQ). For example, most new entrants in the abalone and West Coast rock lobster fisheries were awarded quotas under the 'limited commercial' category.

Under this category, the maximum size of individual quotas is 430 kg (minimum 200 kg) for abalone and 1.5 tonnes (minimum 200 kg) for West Coast rock lobster.

The rights holders point out that these quotas are fished up within a month or two. Since one fisher could not apply to fish for more than one species, there was no other source of livelihood as soon as the annual quota had been exhausted.

In the small pelagics, most new entrants got quotas equivalent to 0.3 per cent of the TAC. In an industry based on high-volume, low-profit economics, such quota sizes are hardly big enough as basis for investment and future planning.

MVQs were seen as being necessary if government intended to eliminate 'paper quotas'. The pooling of quotas by some new entrants could be seen as an attempt to create MVQs. But most new entrants were very unwilling to pool quotas.

As entrepreneurs, they would prefer to go it alone, but they face enormous constraints such as lack of capital, infrastructure, support systems and skills. An economic sectoral study of the industry concluded that pooling of resources (as most new entrants were forced to do) went against that grain of entrepreneurship that is usually based on taking business risks.

By allowing too many rights holders into the industry and spreading the cake too thin without any support systems, the government had set up the new entrants for failure. As a result, the majority of new entrants have been forced, *de facto*, to become paper quota holders or have been forced to make investments that were not based on firm business calculations, but rather to demonstrate activity with their quotas in order to qualify for the next round of quota

allocation. The non-viable quotas made new entrants vulnerable and easy targets for exploitation by those in more powerful positions.

External transformation primarily focused on allocating fishing rights to established industries and to SMMEs. In the process, a large number of bona fide fishers had fallen by the side, as they could not get into either of these groups.

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Interim relief

In the 1990s, the government had attempted to include this group through various interim relief measures, such as the community quotas of 1993, subsistence permits to fishers in the Western Cape in 2001, the Eastern Cape and KwaZulu-Natal, and linefish interim relief measures in 2003. The abolishment of the subsistence sector for abalone and West Coast rock lobster and institutionalization of the 'limited commercial' category in the Western Cape resulted in most members of this group being excluded.

In a province where livelihoods from the sea has been extremely important historically and culturally, this is proving absolutely debilitating for such coastal communities. It is this category of bona fide fishers (who had been excluded through the formal processes) that are currently in litigation with government over their rights to a livelihood from fishing.

The basis of the litigation is that government should recognize and protect their historical and cultural rights (and entitlement) to a livelihood from fishing (with an option to sell their catch), as provided for under the Constitution.

Additionally, they argue that the transformation process that favoured commercial enterprises has so far been unsuccessful in job creation in their communities. They propose that a two-mile zone should be allocated exclusively for coastal communities for livelihood purposes. Most of those who are supposedly benefiting from internal transformation efforts in established companies describe the changes that have taken place as 'cosmetic' and mere 'window dressing'. The external transformation efforts of the State aimed at increasing the numbers of new entrants to the fishing industry. However, since most of the beneficiaries have been allocated economically unviable quotas, the result has been a multiplicity of 'paper quota holders' who usually sell their rights to the established companies. Both internal and external transformation can thus largely be labelled as cosmetic.

The lack of clear transformation objectives in government and its inability to provide direction for transformation for the established companies gave the companies *carte blanche* to restructure their enterprises the way they chose to. Many have, therefore, merely tinkered with their existing profiles in order to create the impression that they have changed.

The lack of real change within established companies can be attributed to the lack of political will on the part of the State to force through real changes using quotas as leverage. The introduction of neoliberal macroeconomic policy enhanced the position of established companies by providing them with the argument that their ability to change the way they do business was limited because stability is vital for them to remain internationally competitive in the age of globalization.

Assessment needed

A future direction for fisheries in South Africa must be based on an assessment of how effectively internal and external transformation processes have addressed poverty, job creation and entrepreneurship. Government's policy for poverty alleviation has been through promotion of SMMEs that could new create jobs. This has not been much of a success.

With regard to the workers within the established companies, the process of negotiation between labour unions and

established companies, which started in 1995 to improve working conditions and secure jobs for workers, seems to have run its course.

According to FAWU, many permanent jobs are being lost in the fishing industry. Established companies have followed the trend towards casual, temporary and contract employment. Women engaged in processing fish have been most affected by 'casualization' in the industry.

A number of interventions are necessary in order for genuine transformation to occur and the fishing industry to contribute towards poverty alleviation. Many of the new operators in the industry did not have any access to credit (other than the value of the quota when sold). Government intervention is necessary to support new entrants in becoming more competitive and visible in the industry through providing access to affordable sources of capital.

There is an urgent need to establish training, especially in entrepreneurial skills. If the aim is to level the playing field, MCM has a responsibility to provide training, in co-operation with non-governmental organizations (NGOs) and other interested parties. Training should be a requirement for all successful new applicants. The established industry should be made to share in this responsibility.

One way of addressing the training needs of the new entrants is the introduction of a resource fee for leasing a fishing right, which can be used for capacity-building programmes for new entrants. A resource fee is a means by which society can benefit from giving the fishing industry the privilege of using a limited national resource. Since most of the marine resources in South Africa have been utilized to the maximum capacity, only a few can be given commercial fishing rights.

Such a tax could be used for general development projects like education, health and housing, and the provision of welfare, especially in fishing communities that unsuccessfully applied for fishing rights.

It is clear from the experience of the last 10 years that there is a definite need for institutional support to new entrants. Interestingly, such an approach was used in the 1940s by the government of the time. The Fishing Industry Development Corporation (FIDC) was established to, among other things, establish rivals to Irvin & Johnson in the deep-sea hake trawl fishery by granting fishing rights to a limited number of rights holders in order to enable them to develop vertically integrated, economically viable companies.

What later became Sea Harvest only materialized because the FIDC was able to support skills development and provide capital. Similar human and financial support is needed for emerging companies to be able to ably compete with established companies.

Although a verification unit was established for the technical vetting and verification of applications for medium-term rights, it appears that no unit has been in place thereafter to audit progress in internal transformation in established companies and ensure new entrants are genuinely engaging in the industry. Such a unit is supposed to have been vital for vetting this progress as part of the process for awarding the proposed long-term rights from 2006.

In order to avoid having the kind of 'fox in the henhouse' situation that led to the Enron scandal in the United States, it is important that the verification unit is completely independent. An independent verification unit must have the ability to audit internal transformation within companies, joint ventures, as well as 'paper quota holders' in a credible and transparent manner.

Bona fide fishers

The inshore resources could have largely been left aside for bona fide fishers. Government could have used this as a bargaining chip against the arguments of the

established companies for maintaining their rights in the commercial sector.

This would have gone a long way in providing a source of livelihoods and so contribute towards poverty alleviation for these fishers and their communities. Regarding capital-intensive fisheries, government could have followed the advice from the Access Rights Technical Committee and acknowledged that it would be very difficult to transform these fisheries.

There is no clear definition of co-management in a South African context, even though it appears to be seen as a panacea by government and academia for the sustainable utilization of fisheries resources and the economic development of fishing communities

Instead, these fisheries could have been seen as a generator of funds for the development of coastal communities or society at large by imposing a special levy on fishing rights, like the resource tax charged in Namibia.

Established companies would most likely have argued that they already pay tax on profit and a levy on fishing rights would thus be unfair. It is clear, though, that, under the medium-term rights, established companies were willing to buy and pay for fishing rights under many different arrangements. By institutionalizing transformation through, for example, a Trust Development Fund, the transaction costs for the established industry to acquire access rights would have been substantially lower.

In South Africa, as elsewhere in the world, fisheries co-management has become a frequently used term to refer to involvement of fishers and fishing communities in order to improve their livelihoods in a consultative/ collaborative manner. However, as with the concept of transformation, there is no clear definition of co-management in a South African context, even though it appears to be seen as a panacea by government and academia for the sustainable utilization of fisheries resources and the economic development of fishing communities.

Experiences so far with fisheries co-management in South Africa indicate that the existing co-management arrangements have primarily focused on management of the fish resources rather than being a mechanism for facilitating economic development within fishing communities.

Livelihoods issue

Except for KwaZulu-Natal, the government has generally not taken its responsibility for collaborative management seriously. In addition, one can not expect poor communities and individuals to buy into the concept if they can not see that it would improve their livelihoods. Thus, it will be important that poverty-reduction strategies are embedded in co-management arrangements.

The government's intention for the redistribution of fishing rights was for fish resources to contribute towards poverty alleviation in coastal communities. Allocating fishing rights to new entrants was a necessary step to start addressing the legacy of apartheid's economic and social deprivation of black communities.

The shift to Gear meant that government's poverty-alleviation approach focused on poverty prevention (through SMMEs) and poverty reduction (through job creation). It envisaged giving fishing rights to entrepreneurs within fishing communities who could start businesses using their rights, thereby creating jobs within these communities. While rights would act to reduce poverty for the rights holders and entrepreneurs, the creation of jobs would prevent poverty for a few. It is clear, though, that the market solution (Gear) has been insufficient in effective transformation and contributing towards poverty alleviation in coastal communities. It is imperative, at least for the time being, that government should still play an interventionist role in order to contribute to poverty alleviation. ■

Important yet marginalized

Siri Gerrard

Why there are so few registered women fishers in Norway and what the consequences might be

Fishing in Norway is—and has been—a highly gendered activity, with only a few women working on fishing boats. The total number of Norwegian fisherwomen—and men—has decreased enormously after the cod moratorium in 1989 and the introduction of the quota system in 1990. The table overleaf illustrates this decline.

According to the table, women fishers in Norway registered as full-time fishers have decreased by almost 50 per cent in the last five years, while the number of female part-time fishers seems to be more stable, though with certain variations. The table also shows that between 1988 and 1998, the number of female fishers was relatively stable, while the number of men fishers decreased throughout the whole period, but at a greater rate after 1990. Such a marked decrease says something about the changing fishing industry. In the following sections of this article, I shall go further into why there are so few women in fishing and relate the phenomenon to the regulation of the Norwegian fisheries. Finally, I shall also try to comment on men's changing situation, and point to some social and cultural changes that fishing communities might face.

Following the moratorium and the first years of the quota system, Norway had the largest number of registered female fishers since the gendered registration started. The registered female fishers work on big factory ships filleting fish as well as on boats that are considered 'small' in a Norwegian fishery context. In Finnmark, one of the most fishing-dependent areas of Norway, I know of only one woman, who is skipper on her own boat of 14.98 m length and has her own crew. It should, however, be mentioned that throughout Norwegian history, women have been engaged in shore-based activities as wives, daughters, relatives and neighbours, without having been officially registered as fishers. Even today, women function as such shore or ground crew, carrying out work that has helped develop an efficient fishery.

It should also be mentioned that only a small number of women have formal ownership in boats. As of August 2004, only 181 women had more than 50 per cent of ownership shares in fishing boats, while 296 women had less than 50 per cent. In the municipality of Nordkapp, close to very good cod grounds, only one woman has been registered as sole proprietor of a boat (5.1 m long), while some are registered as shareholders and part-owners in the companies that own fishing boats. Considering that there are 8,184 registered fishing boats of various sizes in the whole of Norway, the number of female owners seems very small indeed.

Norwegian fisheries are heavily governed by different laws and regulations like the Raw Fish Act, the Participation Act and the Act of Fishing in Salt Water, to mention a few. In order to be registered as a fisher, one has to send in an application to the Directorate of Fishery. To be accepted as a registered full-time fisher, one has to earn 60 per cent of one's income from fisheries, and spend at least 20 weeks in a year fishing.

Different criteria

The criteria for the part-time fishers are different. They can show earnings from shore-based work and spend less time at sea.

This article, by Siri Gerrard (sirig@sv.uit.no) of the University of Tromsø, is based on information collected for the project Sustainable Coastal Culture, financed by the Norwegian Research Council and the University of Tromsø. This article first appeared in *SAMUDRA Report* No. 42, November 2005

Table
Full- and Part-time Women and Men Fishers in Norway, 1983–2004

	Full-time				Part-time		
Year	Women	%	Men	%	Women	%	Men
1983	182	0.64	22,273	78.69	106	0.37	5,7
1988	575	1.95	21,473	72.69	102	0.35	7,2
1990	554	2.01	19,921	72.39	112	0.41	6,9
1993	572	2.26	18,500	73.21	105	0.42	6,2
1998	530	2.49	14,611	68.60	166	0.78	5,9
2003	283	1.64	12,957	75.31	130	0.76	2,8
2004	281	1.80	12,396	79.53	114	0.73	2,7

In order to buy a fishing boat with a quota, one has to have been an active registered fisher for at least a year. In addition to these regulations, there are also specific rules for buying and selling boats with a quota, depending on the region where one lives.

Eva Munk-Madsen argued some years ago that a resource that was common property and open to 'everybody', has, with the quota system, become closed for most women—in her view, about half of the fishery population. In view of the low numbers of registered women fishers and boatowners, and the fact that women in 1994 owned 192 of 16,216 units of quotas, Munk-Madsen concluded that quotas have become "men's formal property right". Since Munk-Madsen presented her work, even fewer women have been registered, and, consequently, fewer women have formal rights to the quotas. There are several examples of widows who have had to sell their boats with the quota even when they wanted to keep them and start fishing—because they were not entitled as 'fishers', according to the Norwegian laws that regulate fishing. This has been the case even if the woman had performed substantial unpaid work related to fishing and to the upkeep of the boat. Instances of divorces also illustrate the imbalance between women and men as far as quotas and other type of capital investments are concerned. As few women have the right to quotas in Norway, they are effectively a marginalized group in Norwegian fisheries, with little access to the wealth that the resources in the fisheries might represent.

Why are there so few registered women in Norwegian fisheries? This is a question I have often asked since Norway is a country famous for its policies of gender equality. I will explore some possible explanations. First of all, it is important to remember that the majority of women in fisher families have, for ages, performed work on shore, connected to, and important for, the fishing boats. However, this work has, in most cases, not been registered or officially recognized, neither by fisheries officials nor by employment authorities. It has not been considered as a type of work that qualifies for membership in fishermen's unions or resource policy-making institutions. Fishery institutions beyond the community level, and fisheries policymaking have, in this way, remained the domain of men.

Recent years have seen more examples of women who are active in fish harvesting and working together with their husbands. Some of them are registered fishers and enjoy a formal status. Some are also active members of the Norwegian Fishermen's Union. However, neither do the policies of unions

and associations focus on questions relevant for women, nor do they recognize that women have contributed to the production in fisheries.

White papers

This neglect is also mirrored in public white papers on fisheries. Fishery questions are also left out in most Norwegian white papers on gender equality. A contrasting example is a 2004 white paper from the Sami Parliament, where women's participation in fishery and fishery politics is heavily emphasized.

The quota system has not made it easy for the majority of women and men in Norwegian fisheries. Even though only a few women were fishing before the quota system was launched, they could, under certain conditions, continue to own their boat or rent it out if their husbands passed away. This is almost impossible today since a widow seldom has the right to the quota. And, obviously, a boat without fishing rights has a low value. Today even a very old boat with a quota can be sold at a very good price.

Thus, it is not only fish in the market that is a commodity, but fish rights through the quota system are also now a part of the market. If we examine the quota system—at least, the way it is applied in Norway—we will find it consists of a complicated arrangement of decisions, practices, rules and regulations at so many levels as to make it difficult to get a comprehensive overview. For most people, the quota system appears to result from a rather complicated and faceless power process.

Fishery politics and quota questions are still the men's domain since there are few women in the institutions that make the most important decisions. The Norwegian Russian Fishery Commission that decides upon the total allowable catch (TAC) of cod in the Barents Sea is an example where the gender balance is very uneven. In 2004, four women and 24 men from Norway and the same number of women and men from Russia met to negotiate the TAC for the cod stock in the Barents Sea. A national-level example is the committee that advises on the size of the quotas. This committee has always had a heavy deficit of women.

Both these important committees have applied for exemptions from the gender equality Act that mandates 40 per cent women's participation in public committees. They argue that the fishery organizations have few women as members. Representatives from the Ministry of Fisheries also claim that few women are interested in, and seen as eligible for, such posts.

Such a view reflects the Ministry's attitudes on who ought to be considered as experts in fishing and who should hold special offices. The net result is that women have little influence when quota questions are discussed at the political level. Some have tried to influence the policy, for example, in the committee that advises the Ministry regarding fish stocks. Fisheries and resource management policies are arenas where some men still have the power to define the agenda. The quota system and the debate about this system can, therefore, be looked upon as a strong symbol of men's maintenance of the power in fishery policy and the hegemony of some men. Some say that women's position in fishery policymaking only reflects their position in society at large. This might have been the case if only the number of registered women is taken into consideration. However, if we also consider the number of women who work alongside men, often their spouses, I would rather say that Norwegian fishery policy is facing a democratic deficit.

It should, however, be mentioned that even though little attention has been given to women in relation to resource questions, women's positions have, once in a while, been put on the fishery policy agenda. In the 1970s and 1980s, students and researchers, along with members of the Fisherwomen's Association, raised questions about women in fisheries, in fishing communities and women's influence on fishery politics. The Fisherwomen's Association also emphasized local welfare and cultural questions. The association was among those that put safety

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at sea on the political agenda. Coastal women from Srya in Finnmark went on the barricades in 1989 after the moratorium was declared and tried to influence policymaking. Women from the environmental association and the Sami Parliament have been among those who have tried to influence the national committee discussing quotas.

Women's projects

Some of the 1980s' activities resulted in the fishing industry's Committee for Women. This Committee put women in coastal communities and women in the different sectors of fisheries on the fisheries agenda and tried to support women and women's projects in different ways. However, it was not considered a policymaking institution and had little influence on the resource management policy. The committee lasted until 2000, when the Minister of Fisheries cut off financial support.

In recent years, women in the Lofoten area have tried to give more attention to the importance of coastal fisheries, through the mass media and by circulating petitions. Women parliament members drew attention to resource policy matters, just as their counterparts in the Sami Parliament had done. The gender-oriented white paper mentioned earlier was a result of their work. In spite of such efforts, the women's situation, the challenges in fisheries and fishing communities and the lack of recruitment in many of the fishery districts are topics that seem to be very difficult to get on to the political agenda in the new millennium.

To be sure, there have been several changes in the men's situation as well. In one community in Finnmark, there are about 20 boats, 20 local and some non-local registered fishers, of whom three are women. All the fishers are over 30 years old. The majority are more than 40. Four owners or enterprises own half the boats and quotas. The number of quotas exceeds the number of boats used in the daily fishery. This is possible due to the new arrangements that have been adopted which states that one can transfer for a limited period one quota from one boat to another boat within the same length class (for example, within the group of boats of length 10 to 15 m). Two of the owners have organized themselves into private limited companies, while two others have individual or sole enterprises, the traditional ownership model in this area. We can see a concentration of ownership of boats and quotas and a change in the ownership pattern: Some fishers are trying to succeed in the fishery by getting more quotas, others manage with one boat and one quota, and yet others are leaving the fishery. The 'deficit' of youngsters entering the fishery is quite obvious and the number going into the fishery from this area is smaller than ever before. For the young ones, the fishery industry seems to be a closed industry.

Loose connections

Today, more and more women in the coastal areas of Norway seem to have only a loose connection with fishing, fisher's work and processing in general, compared to the situation years ago when women contributed with an enormous amount of work. Today, they can be their husbands' consultants and share the financial burdens of the household. The majority of women are employed outside the fishing sector, for example, in teaching, or in other public-and private-sector jobs, since fishery work has been so heavily downscaled in Norway.

Young women and men are moving away from fishing villages. Youngsters and women in fishing and fishery-related activities seem to be the main losers in the fishing industry.

But there are also other considerations to be taken into account. When women leave fisheries, fishing-related households seem to weaken or disappear. When fishing-related households weaken or disappear, fishery as a way of life for women, men and children seems to weaken. When this happens, the population in the fishing villages decreases. These tendencies also have consequences for men—especially for those who are not willing to compete for more and more

quotas—and for the young women and men who, in future, would like to go into fishing and fisheries and live in fishing communities.

Unless we all succeed in changing the market-oriented resource policies and the male hegemony in the majority of fishery institutions, the entire fishery-dependent population—women, the majority of men, and the future generations—will all be losers. ■

Today, more and more women in the coastal areas of Norway seem to have only a loose connection with fishing, fisher's work and processing in general, compared to the situation years ago when women contributed with an enormous amount of work

Empowering co-management

Sebastian Mathew

The issue of co-management came up for detailed discussion at the ESA Fish Workshop organized by ICSF at Dar es Salaam, Tanzania

The workshop on "Fishing Communities and Sustainable Development in Eastern and Southern Africa (ESA): The Role of Small-scale Fisheries" was organized by the International Collective in Support of Fishworkers (ICSF) in collaboration with the Western Indian Ocean Marine Science Association (WIOMSA), the Masifundise Development Trust and the Coalition for Fair Fisheries Arrangements (CFFA). It was held at Dar es Salaam, Tanzania, from 14 to 17 March 2006.

Among the various issues discussed, considerable interest focused on co-management in fisheries. Simeao Lopes of the Institute for the Development of Small-scale Fisheries (IDPPE), Mozambique, said fishing contributes to the country's employment, food security and foreign exchange. The sector is organized into the industrial, semi-industrial and artisanal fisheries. Private and joint-venture companies engage in industrial fisheries, especially for shrimp resources in the Sofala bank. The semi-industrial fishing vessels are mainly Mozamibque-based trawlers that target shrimp. They also include handlines as well as freshwater fishing platforms for *kapenta*. The artisanal fisheries are spread along the seaboard and the inland waters, employing about 130,000 in canoe fishing and fish processing. There are about 11,000 artisanal fishing vessels, only 3 per cent of which are motorized. Beach-seines, gill-nets and handlines are the popular artisanal fishing gear.

The development of co-management in Mozambique began, Lopes said, with the structural adjustment programme (SAP) in the post-Second World War era, as demands increased on Africa to democratize and implement SAPs, from its traditional Western donors, led by the World Bank and the International Monetary Fund (IMF), who stressed resource management based upon participatory approaches, devolution of authority and decentralization of powers. Thus, by the early 1990s, user participation had become almost a *given* requirement for donor-funded development projects in Mozambique.

Within the fisheries sector, studies were conducted to evaluate fisheries programmes and projects implemented during the previous two decades so as to draw lessons and propose appropriate future interventions. A Fisheries Master Plan (FMP) was developed and approved by the Mozambican government in 1994. The process of elaboration of the FMP involved many central fisheries institutions, fishing communities and other stakeholders, Lopes said.

The FMP laid out the priorities and strategies for development to be pursued in the subsequent years. With regard to the management of small-scale fisheries, the FMP emphasized the involvement of fishermen in setting and enforcing management regimes. It was from the FMP that co-management approaches were formally declared as part of the general new strategic interventions for fisheries management and development.

Better analyses

A subsequent evaluation underscored the importance of more careful and comprehensive analyses and discussions, and

This report has been filed by Sebastian Mathew (icsf@icsf.net), Programme Adviser, ICSF. This article first appeared in *SAMUDRA Report* No. 43, March 2006

the development of more active participation of beneficiaries. Pilot measures for user-sensitization began in the late-1990s. Several co-management committees were since set up in the marine coastal areas of the country to improve the efficacy of fisheries management through developing a sense of ownership of management programmes amongst active fishers.

However, Lopes identified several constraints to realizing co-management goals in Mozambique. Firstly, the State acts as the custodian of all natural resources, including marine resources. Through the Ministry of Fisheries' directorates and autonomous institutes, the State has the right to manage marine resources for the benefit of the people. In artisanal fisheries, the users (coastal communities) have the right to use fisheries resources; however, they do not have the right to participate in planning for the use nor the right to legally act, individually or collectively, in respect of management of the fishery resource. This is a serious constraint to the goal of better resource management.

Secondly, there are restrictive meanings associated with the concept of participation. Thus, for example, as far as fishing communities and their traditional leadership are concerned, participation does not apply to the crew on board fishing vessels. It applies only to those who have the political and economic power to take strategic decisions, to the local elite, the traditional and religious leaders and other individuals who are willing to offer their services on behalf of others. These people may not be the most appropriate to deal with issues related to fisheries co-management. There could thus be conflicts between participatory democracy as demanded by the main donors, and effective fisheries management. However, to guarantee the success of co-management, the government should understand these socio-cultural aspects (as traditional leaders are still respected by the majority of rural people), and ensure that all relevant institutions, individuals or interest groups, which are considered legitimate by different members of fishing communities, are engaged in the process, Lopes added.

Thirdly, the government has not been able to empower fishing communities (legally, through economic incentives or through capacity building) to cope with resource management responsibilities. Neither has there been an effort to use local knowledge in decision-making processes or to explain the criteria used to make some management decisions. As long as there is poor understanding of fisheries management amongst the fishermen, there might be unwillingness to comply with fisheries regulations.

Local knowledge

It is important to integrate traditional/local authorities, as well as local knowledge, into co-management as a means to connect political and scientific objectives of the government to the community. For the fishing community, it could be a way to reach full control of their marine resources through the devolution of power and responsibilities from government, Lopes observed.

The pressures on the coastal fishing resources in Mozambique result, among other things, from the overall unhealthy economic situation in the country, he added. To raise enough income for subsistence, fishing communities are putting pressure on the resource by increasing fishing effort through the use of inappropriate fishing gear like fine-meshed nets in beach-seines that target small pelagic fish. Open access to fisheries resources further complicates the matter, resulting in serious threats both to the resource and to the economic development of fishing communities.

The fishermen themselves say that the catch rates from the nearshore waters have declined, and the average size of commercial fish species have decreased. The falling productivity of fishing units indicates the need to manage the fishery and exercise caution in promoting any increase in fishing effort. Co-management arrangements should be able to reconcile conservation with the subsistence

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or livelihood interests of fishing communities. The competition for the marine coastal resources of Mozambique is becoming increasingly evident, with both artisanal fishing communities and tourism relying on the resources for livelihoods and development. At present, the Government of Mozambique (GoM) is encouraging tourism as a way to rapidly develop the economy, Lopes said. As part of this process, the GoM has delegated the management responsibility of some areas of the coastal zone to private tourism developers.

Artisanal fishing communities are concerned about the use of, and access to, the same coastal resources, leading to conflicts where fishing communities have been displaced from their traditional living and fishing grounds. These are more evident where tourism interests are promoting the preservation of marine coastal resources as their primary asset, which contrasts with the extractive value of the coastal fishery resource, as perceived by the fishing communities.

On the one hand, the GoM is supporting the development of co-management in the artisanal fisheries sector without the legislative framework that can delegate resource management responsibilities to the communities. On the other, it is providing the legislative framework for delegating resource management concessions to private tourism developers without the co-management institutional framework that would consider the needs of all resource users. In both instances, the result of partial regulation and control over each resource user group risks overexploitation of marine coastal resources.

Co-management is seen by the GoM as a means to better control fisheries activities (especially the fishing effort and conflicts of interest) through sharing or decentralization of some responsibilities to the local institutions. But the communities view the arrangement as a step to achieve full control over the fishery resources through the devolution of power and authority to the local institutions.

However, the GoM may not be able, or even willing, to devolve the authority, as that would require some changes to the country's constitution. Sufficient financial capacity would also be needed to ensure appropriate collective organizations among the communities. Lopes raised the following questions in the light of the experience of Mozambique with co-management: (i) What are the different approaches of different players in co-management and what is their understanding of 'sustainable development'? (ii) How could balance between conservation objectives of governments and the livelihood needs of fishing communities be established while implementing co-management programmes? (iii) Could co-management achieve the objectives of all players, given that the outcome might not always be exactly the same and may often be contradictory in nature? (iv) How could participatory and traditional elements work together? (v) Are co-management institutions willing, or able, to use multiple sources of knowledge in management decisionmaking? (vi) What could be the implications of the two models—decentralization and devolution—for fisheries co-management arrangements? (vii) What are the impacts of participatory development approaches on the traditional and (new) economic power structures in a co-managed resource environment?

In the discussion that followed Lopes' presentation, it was observed that co-management basically referred to shared management responsibility between the government and the community. It was noted that it is important to have an understanding of what definition to use in the ESA context. It was further observed that the participation of women in co-management initiatives is poor.

Friday Njaya of the Fisheries Department of Malawi spoke about the status of participatory fishery management (PFM) in Malawi lakes. PFM was introduced in Lake Malawi at the behest of international agencies in the 1990s in response to declining lake fishery resources and intensifying conflicts between small-scale and commercial

fisheries. Historically, there were traditional controls over fisheries resources in some parts of Lake Malawi and Lake Chiuta, and user committees and associations called beach village committees (BVCs) were formed to establish PFM in all the lakes.

The composition of the BVCs varied from lake to lake. While some were associations of chiefs, others had mixed composition. The issue of devolution of fisheries responsibilities to local district assemblies is still an outstanding one. BVCs have to be redefined to allow for the participation of all representatives of different fishing activities. Formal bye-laws are yet to be developed for effective devolution of fishery management powers.

There are doubts whether or not PFM could work in Lake Malawi, which is a large water body supporting small-scale, semi-industrial and commercial fisheries, including trawling. The fishing communities along Lake Malawi are multi-ethnic. There are problems in successfully imposing access regulation on fishing, in demarcating boundaries and in enforcing fishery regulations, Njaya said.

Yet, despite difficulties, it is possible to set up 'broadbased co-management' in Lake Malawi, with the participation of stakeholders such as the police, magistrates, chiefs, natural resourcesbased government departments and the district assembly. There is a move now to introduce a closed season for trawlers. In smaller lakes such as Lake Chiuta, PFM structures are useful mechanisms to resolve transboundary conflicts between Malawi and Mozambique. Njaya said co-management should be based on local conditions, and defined and developed in a contextual manner. It is important to make a policy distinction between the rural poor and the village elite in co-management programmes. There should be clarity on the introduction of property rights or access regulation regimes. Sufficient caution should be exercised while applying theories in practice. Implementation of a co-management initiative is a learning process and it evolves with time, Njaya concluded.

Mafaniso Hara of the University of Western Cape, South Africa, gave a presentation on the implications for coastal communities of co-management perspectives and experiences in the ESA region. The objectives of fisheries management mainly involve three aspects: setting management objectives; defining and providing the knowledge base for management decisions; and implementation of management decisions. Historically, fishery management decisions have been top-down. The fisheries resources have been treated as State property, and the objectives of fisheries management have mainly been confined to conservation of fishery resources, relying on biological sciences. The implementation of fishery management was through policing measures.

Conventional regimes

Co-management of fishery resources was proposed in light of the failure of conventional fishery management regimes to prevent overexploitation of fishery resources. It is also proposed as an effective mechanism to break the barriers between fishery administrators and user communities—a legacy of the top-down approach through democratic decentralization, Hara said.

Co-management of fishery resources mostly as short-term, externally funded projects—was led by government line agencies through the creation of 'user' representative organizations ('democratically' elected committees). The process has sometimes lacked flexibility because of specific donor requirements.

The experiences with co-management in the ESA region have so far been mixed. The most common types of co-management have been 'instructive' or 'consultative'. Hara discussed several critical aspects of co-management as it is currently practised in the region. Firstly, there are conflicting objectives between conservation of fishery resources and socioeconomic development of fishing

The objectives of fisheries management mainly involve three aspects: setting management objectives; defining and providing the knowledge base for management decisions; and implementation of management decisions

communities. The government approach has usually been instrumental; it co-opts users into the management process to achieve the same old conservation objectives without really accepting alternative knowledge, ideas and views from them. By and large, governments do not perceive co-management as a means of introducing more democratic principles of fisheries management, but as a means to better achieve the government's original conservation objectives.

Secondly, co-management has been proposed as a way to deal with open-access problems. The introduction of access rights has been with the idea of enabling effort control. However, such measures often clash with historical fishing practices. Enforcing access control was particularly problematic in areas lacking alternative economic opportunities.

Thirdly, centralized co-management systems are favoured that rely on the government's natural scientists. Very few inputs from users are incorporated into such systems. Usually, only tasks that the governments have failed to implement, or are costly, are left to the user groups. The local communities are usually not legally empowered. Their negotiating position in relation to the government is still weak. The governments are also reluctant to devolve real power and genuine authority to user groups.

Fourthly, co-management usually requires customary sources of power held by traditional leaders for effective application of sanctions. There is thus a need to involve traditional authority. The traditional authorities or local elites often capture power to offset any challenge to their authority that could crop up from co-management programmes.

Fifthly, while the governments may lack appropriate skills and capacity to undertake co-management, communities might not have the economic, social and political incentives or capacity to undertake some responsibilities required under co-management.

Finally, the definition of 'user community' and 'stakeholders' can be evolving and dynamic in a temporal and spatial sense. Existing mechanisms cannot define the users and decide on how to represent them in co-management structures. There is also the problem of lack, or low degree, of downward accountability of representative organizations. However, tacit threats of governments to revoke powers and authority force upward accountability.

Hara had the following recommendations for "efficient, equitable and sustainable fisheries management" in the ESA region. Firstly, co-management models should acknowledge and integrate the role of poverty in community/individual decisions, and occupational and geographic mobility in community/individual livelihoods. The role of fishing in the community's livelihood interests should be better understood.

The community should know the status of fishery resources and be better informed about alternative sources of livelihoods that could possibly combine with fishing. In this context, how far occupational and geographic mobility could help improve socioeconomic status is important, Hara added.

Secondly, there is a need for "empowering co-management" by fully involving users in setting up management objectives, in integrating `user knowledge' into formal science and in the implementation of management decisions.

And finally, it is important to improve the ability of communities to agitate. They should challenge formal science (including international conventions) using their local knowledge to balance conservation with local socioeconomic concerns. They should agitate for enabling legislation and improvement in the attitude of governments to their concerns. They should agitate for better information and better organization of co-management structures with improved human and financial resources, Hara concluded. ■

A meaningful beginning

John Kurien, So Nam and Mao Sam Onn

The following is from a document published by the Inland Fisheries Research and Development Institute (IFReDI), Cambodia

The main objective of this document is to make a modest attempt to highlight the challenges which are emerging with the current phase of Cambodia's aquarian reforms—the most important component of which is the current transition from fishing lots to community fisheries. The challenges include the realms of institutional and policy reform, local action, innovation and research. We contextualize our effort by commencing with an assessment of the importance of the aquatic resources and by providing a brief historical background to the reforms. This is followed by an examination of the changes in the access and property rights and the system changes which have been brought about as a result of the reform.

How some of the transitional changes can be assessed and the manner in which the efforts at community fisheries can be made more economically and socially viable are also addressed. We deal with the complex issue of social identity and the aspirations for creating a new sense of community. The new role of women, the importance of creating networks and closer collaboration with Cambodia's local governance structures and vibrant civil society organizations are also highlighted. The reforms have created new legal realms of local 'micro' ecosystem space and resource governance.

But this should not detract from the need for an understanding of the larger 'global' context—be it in relation to the ecosystem dynamics or governance priorities. We suggest that research and development priorities must be re-oriented to consider ways of dealing with the vast number of new and evolving 'local realities' and yet, link them up contemporaneously to the big 'global picture'. We end with a few recommendations addressed to different actors involved in the process of aquarian reforms. There is a call for a new mission and greater collaboration by research institutions; new methodologies for data collection; greater participation with local governance structures; an exit strategy for aid agencies and the need for setting up a national institute for co-management applications and training.

Developing countries have been recently challenged by many opportunities and problems pertaining to their efforts to facilitate economic growth and promote human development. Providing a growing population with the entitlements and capabilities needed to meet rising aspirations in a globalized, market-dominated economy is often a daunting task before policymakers and politicians. Tapping into the renewable natural resources in a country—its real wealth—is often the 'fallback option' which both the State and the people adopt when crisis brews in the other sectors of the economy. The market-oriented option of converting natural resources to wealth often ends up in what economist Herman Daly recently referred to as the tragedy of artificial or self-inflicted scarcity. This approach generally leads to private riches for a few and exclusion from the public wealth for the many.

Under pressure

Recognizing the pitfalls of such an approach, but often under pressure from the people and civil society, States have increasingly resorted

This excerpt is from *Cambodia's Aquarian Reforms: The Emerging Challenges for Policy and Research* by John Kurien, Fellow, Centre for Development Studies, India, So Nam, Deputy-Chief, Fisheries Domain and Extension Division, and Mao Sam Onn, Deputy-Chief, Administration and Personnel Division and Assistant of the DG, Department of Fisheries, Phnom Penh, Cambodia. This article first appeared in *SAMUDRA Report* No. 43, March 2006

to measures to open up the terrain of renewable natural resources to communities who depend on them for a livelihood. Doing so without the appropriate institutional arrangements to modulate the use and management of these resources has often led to the tragedy of open access.

Finding the 'middle-path'—wherein both efficiency and equity considerations can be adequately met within their social, cultural and political frameworks—has been on the agenda of many developing countries.

These reforms are meant to empower people to relate collectively to the country's rivers, lakes, floodplains and the fishery resources therein

Cambodia is pictured in international per capita income comparisons to be one of the poorest countries in the world. There is certainly much truth in this statistic. However, viewed from the perspective of availability of per capita natural resource—land, aquatic resources, particularly fish, and forests—it is certainly one of the richest countries in Asia. Converting this latter statistical average into equitable access and well-being for the majority is indeed the greatest challenge before the State and the people of Cambodia. The challenges to achieve this goal with respect to the most valuable aquatic resource of the country—the fish in its inland waters—are the focus of this document.

We term the efforts at aquatic resource management which have been unfolding in Cambodia as 'aquarian reforms'. We adopt the term 'aquarian reforms' rather than 'fishery reforms' for a variety of reasons. The reforms have a historical context. In the past, government intervention in the sector was focused on gathering revenue rather than managing fish production or promoting local livelihoods. In the current phase, the attention of the reforms is focused on the institutional changes which are being made—contemporaneously by the State from above and the communities from below. These reforms are meant to empower people to relate collectively to the country's rivers, lakes, floodplains and the fishery resources therein. In future, the reforms will play a role in conditioning the technological choices and organizational decisions that people make in order to obtain sustainable gains from their collective action. In brief, we are concerned with a dynamic process of transformation. The focus is not merely on fish but on the whole aquatic terrain and the evolving manner in which people relate and intervene in it. Our contention is that the ecological and socioeconomic initial conditions have a definite bearing on these evolving circumstances. The present course and the future trajectory of the new institutional changes sought to be introduced need to be envisioned with this perspective. Aquarian reforms cover this entire canvass.

Good scholarship

An excellent body of scholarship already exists about these reforms written before the sub-decree of community fisheries management was formally approved. Our efforts build upon that corpus of information and on recent (late 2005) discussions with fishery officials and researchers and field visits to several provinces for firsthand information from the women and men in the villages most impacted by these reforms. The document primarily addresses the various actors associated with the aquarian reforms in Cambodia. It seeks to provide them with some guideposts on the range of issues that may arise if the reforms are to be taken to their logical conclusions.

The community access to resources, if managed well and strengthened, can yield significant familial and societal changes that sustain resources and foster convivial livelihoods.

More than mere poverty alleviation, it can contribute significantly to enhancement of the capabilities and entitlements of the rural masses in Cambodia. Combined with enlightened advice and support from research and development agencies, local control over resources can lead to greater care and nurture of the unique aquatic ecosystem of Cambodia.

During our visits to community fisheries we were informed about the greater livelihood

opportunities available for men and the increased employment and income-earning opportunities for women.

People spoke about the manner in which the availability of greater money income was utilized to keep children healthier and educated. They spoke about reduced domestic violence.

The greater control over local natural resources also leads to reduction in 'push-pull' migration of men in search of work. These factors taken together can yield intergenerational reduction in infant mortality, family size, enhancement of educational levels and greater gender justice.

Such positive socioeconomic and demographic changes will create different occupational expectations in the next generation. This can yield reduced population pressure on the aquatic resources in the not-too-distant future.

Coupled with changes in the access right to aquatic resources, if there is a general revival of economic growth and employment opportunities in the country, this can result in the new generation opting for other gainful occupations.

These opportunities can arise in small and medium village enterprises dealing with aquatic resource processing, which can be rural-based, urban-or export-market-oriented, and yielding higher incomes.

Greater economic democracy is a necessary condition for raising human dignity and creating stable political democracy and peace. This will have far-reaching implications for the future of the country.

Aquarian reforms in Cambodia have a long history. The earlier phases were measures taken with considerations aimed at efficiency and maximum rent extraction, and tempered in accordance with some sociopolitical considerations.

The current phase is anchored in the context of the country's recent voyage towards greater democratization and integration into the global economy. It is part of the government's Rectangular Strategy which is intended to "firmly and steadily build Cambodian society by strengthening peace, stability and social order, entrenching democracy and promoting respect for human rights and dignity."

These are indeed laudable objectives. The current move towards community fisheries should be seen as an important commitment towards achieving these goals. Being simultaneously a top-down and bottom-up approach, it is only natural that there will be doubts and anxieties about the sense and the viability of the whole enterprise, both on the part of the government and the people.

There is no need to concentrate excessively on the organizational form of the reforms. The debate is not about whether the inland fish of Cambodia are better harvested through large fishing lots or small community fisheries organizations.

Complete reforms

Aquarian reforms are complete only when those who directly relate to the aquatic resource through their labour, to give value and meaning to it, are assured the freedom and given their rightful rewards for doing so on a sustainable basis. On this count, a meaningful beginning has been made in Cambodia. But there will be many challenges ahead and a long way to go. ■

Who's sharing the fish?

Derek Johnson

This is a reaction to the 'temperate minority'-worldview on the allocation of fishing rights that dominated the *Sharing the Fish Conference 2006*

Fremantle, Australia, the site of the *Sharing the Fish Conference 2006*, was not exactly temperate between 26 February and 2 March 2006, with Celsius temperatures in the mid- to high-30s. Nonetheless, the intellectual climate of the conference was distinctly Northern. In retrospect, perhaps this should not have been a surprise, given that it was hosted and supported by various Australian fisheries agencies and the New Zealand Ministry of Fisheries. However, the lack of representation from the South was still a shock, considering that the theme of the conference—allocation issues in fisheries management—is of enormous global importance currently, and also considering that the Food and Agriculture Organization of the United Nations (FAO) co-hosted the conference.

As someone with experience of primary fisheries research in both the South (India) and the North (Canada)—sufficient to have generated an international perspective—I offer this review from the perspective of the majority of world fishers, whose interests and concerns were largely left out of the conference, which was, nonetheless, a stimulating and thought-provoking experience.

Sharing the Fish 2006 was an expensive event. Conference fees were AUD700 (US$500). For those who wished to stay in the hotel where the conference was held, room rates were another AUD175 (US$125) a night. Such rates allowed the conference committee to hire a professional event management company to run the event , and thus it was extremely well organized. The downside, of course, was that ordinary participants from other parts of the world, not already dissuaded from attending by the high cost of travel, would have had to think twice about participating because of the high fees.

There was thus a paucity of representation from the most important fishing regions of the world and even a surprisingly small number of academic participants, particularly from the non-economic social sciences. I counted only three of this last group, along with the economists, lawyers and biologists who made up the academics at the conference, although there may have been several more than were immediately apparent. The character of the conference was thus professional and corporate. Tables 1 and 2 give a breakdown of conference participants by region of origin and by work.

Table 1. Origin of Speakers

Country	Speakers
Australia	61
New Zealand	15
United States	11
Northern Europe	8
Canada	7
Africa	4
South Pacific	3
Southeast Asia	3
Asia	2
Latin America	1
FAO	1

The allocation theme of *Sharing the Fish 2006* was divided into three subtopics: "allocation across jurisdictions" (26 papers);

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"allocation across sectors" (51 papers); and "allocation within sectors" (25 papers). Thirteen papers did not fit into these categories. The three conference subtopics were further divided. The "allocation across jurisdictions" subtopic included "high seas, regional and national cases". "Allocation across sectors" included "extractive vs. non-extractive uses"; "allocation between commercial and recreational sectors"; "indigenous, recreational and commercial allocation"; and a number of more conceptual papers grouped under the headings of "temporal and spatial systems of allocation" and "approaches to the allocation problem". "Allocations within sectors" included "recreational allocation" and "allocation and reallocation within the commercial sector".

Table 2. Speaker Affiliations

Affiliation	Speakers
Government	62
Academic	27
NGO	13
Private Sector	11
Other	3

The notion of "sector" was debatable, in the sense that the indigenous sector overlaps with the commercial and that some papers did not fit into either the "allocation across sectors" or the "allocation within sectors" subtopics. On the whole, however, the logic of the division was clear and as consistent as possible under the messy circumstances that characterize fisheries.

A final distinctive element of the conference was the large number of keynote and invited speakers, who numbered 22 out of the total 116 speakers. In combination with the effective use of daily rapporteurs and conference overview speakers on the last day, this innovation gave the conference an admirable coherence and sense of purpose.

Allocation can be seen as the implementation challenge of assigning rights to fish. In this sense, *Sharing the Fish 2006* built directly on the foundation laid by its predecessor, the Fish Rights 1999 conference. Whether deliberate or not, the selection of keynote speakers for *Sharing the Fish 2006* fostered the impression that individual transferable quotas (ITQs) are the ideal path to allocation. Two of the three conference keynote speakers, Peter Pearse and Gary Libecap, purveyed this point of view along with Ragnar Arnason, one of the invited speakers for the conference.

The argument for ITQs is well known and was clearly presented by these three speakers. When quota rights can be assigned such that they are secure, transferable and permanent, they result in fisheries that are ecologically sustainable because quota holders gain the incentive to care for the resource that they now own. Ecological considerations, previously externalities, are now internalized under ITQ systems.

When quota rights can be assigned such that they are secure, transferable and permanent, they result in fisheries that are ecologically sustainable because quota holders gain the incentive to care for the resource that they now own

Of most interest in relationship to this perspective, and perhaps in dissonance with the intentions of the conference organizers, several strong voices pointed to the limitations of the ITQ approach. The most forceful critique came from the invited speaker and representative of the International Collective in Support of Fishworkers (ICSF), Chandrika Sharma, whose staunch advocacy of the small-scale fisher perspective came like a cry in the wilderness. Sharma pointed out that a very small minority of the world's fishers are subject to ITQs and wondered why such a high-profile conference was devoting so much attention to an issue of relevance only to a small proportion of the globe. As she and members of the small South African delegation to the conference noted, ITQs threaten the livelihood basis of small-scale fishers. Moeniba Isaacs and Andrew Johnston showed in their presentations how artisanal fishers in South Africa have been badly divided, and had their ability to make a living from fishing undermined by the recent South African legislation that has based all South African fisheries on ITQs. The inequity of ITQs was echoed by Frank Alcock and the two end-of-conference overview speakers,

Susan Hanna and Ray Hilborn, who affirmed the challenge to equity that ITQs represent even in countries of the North.

Weak defence

The three proponents of ITQs seemed unable to defend themselves against these challenges, saying that while ITQs might increase inequity, the broader environmental and social benefits they brought were worth it. Pearse succinctly encapsulated this response by stating that it is the end, not the means that is important, a statement I personally found highly problematic as it goes against the increasing emphasis on process and social justice that has informed theories of co-management and fisheries governance in recent years. I was also troubled by the amiable reasonableness of the ITQ proponents, which softened an otherwise harsh message.

The lack of sufficient participation by delegates representing the world's most populous fishing regions meant that the conference did not adequately discuss allocation and rights-based approaches appropriate to the majority of the world's fisheries, which are highly complex, diverse and rapidly changing

The lack of sufficient participation by delegates representing the world's most populous fishing regions meant that the conference did not adequately discuss allocation and rights-based approaches appropriate to the majority of the world's fisheries, which are highly complex, diverse and rapidly changing. The invited speaker Mahfuzzudin Ahmed did list allocation alternatives for tropical fisheries but at a level of generality that sparked little debate. ITQs are clearly of little relevance in most complex developing country fisheries. What is the cutting edge in community-based quotas? How can allocation be worked out between semi-industrial fleets and small-scale subsectors with thousands of units? While I can see the real advantages of introducing ITQs for semi-industrial fisheries in developing countries for capacity reduction and sustainability, how could such ITQs co-exist with other forms of rights for the small-scale subsector that would have to be extremely well protected? How do we manage large and complex fisheries that are also data-poor and in regions where governance is weak? How can fishers be protected when coastal tourism, industrial development and oil exploration move into traditional fishing grounds? It is not enough to leave such questions to the very end of the deliberations, for the conference overview speakers; and it makes me wonder why the FAO was not able to put such questions more forcibly on to the agenda of the conference.

Despite these concerns about the conference, within the confines of the largely antipodal group of papers at the conference, there were many that provided examples of challenges—and creative solutions—similar to those encountered in the fisheries of the South. The Maori case in New Zealand, for example, as introduced by the invited speaker Alison Thom, shows that strong communities can participate in an ITQ process and come out ahead.

Equity implications

It would be interesting, nonetheless, to see a more disinterested presentation of that process, and to hear about the equity implications of sharing quota for the communities. The Alaskan native quota allocation case would be another example to consider. There are surely lessons from many of the other papers presented at the conference that may be helpful for the majority-world fisheries. One example was the paper presented by Claire Anderson, which discussed the development of a more transparent instrument for inter-sector allocation by the Queensland government.

If the debate over the applicability and equity of ITQs bumped along mostly in the background during the conference, two topics created a buzz during the event. The first of these followed the presentation of Rosemary Rayfuse, who talked about allocation across jurisdictions. She argued that the principle of freedom of the high seas has now been sufficiently constrained by international agreements that it should be withdrawn.

In effect, obligations under international law, particularly when regional marine fisheries organizations are involved, have created a situation where there are now legal

instruments to control access and allocate fish stocks on the high seas. These instruments are still far from perfect, and illegal, unreported and unregulated (IUU) fishing persists to the degree that some observers, such as another invited speaker, Gordon Munro, are pessimistic about their ever being controlled.

The increasing concern of international organizations like Greenpeace, represented at the conference by Alistair Graham, for the protection of deep-sea mounts may be a recognition that the time may have come for effective restrictions on such sensitive areas. The question that arises, however, is whether so much effort on the part of international organizations should be invested in environmental areas that are marginal to the livelihoods of the world's fishers. In terms of social benefit, it would seem a better use of resources to focus on threats to the tropical coastal waters where most of the world's fishers and marine biodiversity co-exist.

The second topic that stimulated considerable interest at *Sharing the Fish Conference 2006* was triggered by an example given by Pearse, and relates to ITQs and allocation across sectors. Pearse stated that the Canadian Minister of Fisheries has recently given an ITQ share to the recreational fishery sector for halibut on Canada's Pacific coast. This arrangement satisfied the commercial halibut sector, which had been increasingly concerned about the growing share of fish caught by the recreational sector. The advantage for the commercial sector was that, in future, any further growth in the recreational catch would have to be purchased from them, and they would thus get a fair market rate instead of the gradual erosion of their quota as had been occurring. The buzz at the conference revolved around the innovation of giving a transferable quota to a disparate group of unorganized recreational fishers who would have little choice but to become organized in order to administer their new right. This experiment clearly stimulated the minority-world fisheries managers present, all of whom face large and growing demand from recreational stakeholders. It is less relevant for places like India, where recreational fishing is virtually nonexistent. Nonetheless, it does raise an interesting comparison with small-scale sectors in majority-world fisheries, which also have large numbers of diverse stakeholders who often lack effective institutional means for negotiating their rights.

As these points demonstrate, the *Sharing the Fish Conference 2006* was a stimulating forum. Clearly, however, it would be preferable, in future, to seek much greater participation from the majority areas of the fisheries world. If that is not possible, then it would be wise to indicate more clearly that such a conference is geared primarily towards the interests of the fisheries of the North, a small minority in global terms. It would be a pity if this were the outcome, however, as *Sharing the Fish Conference 2006* and its predecessor *FishRights99* have been important milestones on the path to improving fisheries management. ■

No one-size-fits-all approach

Ichiro Nomura

This response to an article in *SAMUDRA Report* No. 43 discusses rights-based schemes in fisheries

I refer to Derek Johnson's article, "Who is Sharing the Fish?", in *SAMUDRA Report* No 43 (March 2006), discussing the *Sharing the Fish 2006 Conference* that was held in Australia last February and to which the Food and Agriculture Organization of the United Nations (FAO) gave technical support. While the tone of the article is positive regarding the conference, and its outcome in supporting better-managed fisheries, I would like to emphasize a few points:

The FAO Secretariat has moved, beyond a doubt, on the matter of whether fishing rights are good or not. They are absolutely necessary and fundamental to the sustainability of the world's fisheries resources.

However, fisheries policies, management approaches—and fishing rights—need to be tailored to the specific context of countries and localities with respect to the fisheries in question, the social setting, culture, etc. Indeed, fishing rights have been allocated under long-standing programmes, such as the community development quota (CDQ) systems that have been operating in fishing communities in the Bering Sea; the various types of territorial use rights in fisheries systems (TURFs) such as those found in Japan, the Philippines, Samoa and Fiji; the Management and Exploitation Areas for Benthic Resources of Chile; and the beach management units (BMUs) found in Uganda, Tanzania and Kenya. It is for communities to decide on how efficient they would like their fisheries to be, with few or many boats of small or large size.

Fishing rights do not simply equate to the big individual transferable quota (ITQ) systems that have been designed for large-scale fleets. Moreover, fishing rights should not be limited to large-scale fisheries. The current variety of schemes for formally allocating fishing rights has vastly expanded the range of fisheries and fishing situations to which rights-based schemes can be applied. They should apply to large and small fisheries, both with large and small boats. They are, by far, the best tool to re-establish and formalize traditional fishing rights and, thus, protect the rights of fishermen. Even ITQs need not threaten the livelihoods of small-scale fisheries, and they should not foster inequity if well designed.

There is no one-size-fits-all approach, and more attention needs to be given to appropriately sequence policies and policy reforms. Perhaps it is time to convene an international conference on the allocation of rights in small-scale fisheries, to which I am sure ICSF would be able to contribute. ■

This Letter to the Editor is from Ichiro Nomura, Assistant Director General, Fisheries Department, Food and Agriculture Organization of the United Nations (FAO). This article first appeared in *SAMUDRA Report* No. 44, July 2006

Fishing rights vs human rights?

Naseegh Jaffer and Jackie Sunde

An ongoing class action litigation in South Africa brings to focus the challenge to the rights-based management system in the country's fisheries

A group of South African artisanal fishers has launched class action litigation against the Minister responsible for fishing rights allocation on the grounds that the policies pursued by the South African government are inequitable and discriminatory, and violate the human rights of artisanal fishers in the country. Is it possible that the introduction of a rights-based management system might violate the human rights of certain fishers?

South Africa began introducing a rights-based fisheries management system as early as the 1960s, when quotas were introduced by the Department of Sea Fisheries for a limited number of commercially exploited species. From 1988 onwards, the Department allocated rights in terms of the Sea Fisheries Act 12 of 1988. These quotas were allocated within a racially defined fisheries structure and were largely held by white rights holders, while the artisanal fishery was being marginalized. Highly capitalized commercial companies predominated in the industry during this period.

Following the election of the first democratic government in 1994, the government began a process of restructuring the fishing industry and developing new legislation and policies to guide the allocation of fishing rights and the management of these rights. Towards this end, the Marine Living Resources Act (MLRA) was introduced in 1998.

This Act empowered the Minister of Environmental Affairs and Tourism to allocate fishing rights in three defined fishing categories: subsistence, commercial and recreational. No provisions for artisanal fishers were included in this Act and the legislation states clearly:

> *"no person shall undertake commercial fishing or subsistence fishing, engage in mariculture or operate a fish processing establishment unless a right to undertake or engage in such an activity or to operate such an establishment has been granted to such a person by the Minister"* (MLRA, 1998,18 (1)).

In terms of the MLRA, a fishing right is granted to a specific person or entity and, "in terms of Section 21 of the MLRA, the right may not be transferred without the approval of the Minister or his delegate. Upon the death, sequestration, or liquidation of the right holder, the right vests, respectively, in the executor, trustee or liquidator and the right may continue to be exploited for the period of time permitted by the applicable legal provisions. However, any transfer of the fishing right to a third party requires approval" (General Fishing Policy, 2005).

Following the introduction of this Act, the government established a Subsistence Fisheries Task Group (SFTG) to investigate the nature and extent of subsistence fishing and to advise on the management of this sector. This task group undertook research along the coast in South Africa and identified approximately 30,000 subsistence fishers.

Most significantly, the SFTG recognized that three categories of fishing practices could be discerned amongst these fishers, based on the empirical survey data that was gathered for this purpose.

This article is by Naseegh Jaffer, Director of Masifundise Development Trust, South Africa, and Jackie Sunde, a Researcher for Masifundise, and Member of ICSF.
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According to a 2005 affidavit by Ken Salo, presented in support of the court case of Kenneth George and others vs the Minister of Environmental Affairs and Tourism, these three categories "were classified as subsistence, artisanal and commercial according to a comprehensive combination of social, economic, technical, spatial, ecological and historical criteria that did not weigh any one criterion more than the other".

Artisanal fishers historically live in communities near the shoreline, use low-technology fishing gear, and harvest a variety of marine species found near the shoreline. Over generations, they have developed an understanding of the main biological lifecycle and migration patterns of certain marine species

In South Africa, the artisanal fishery has specific characteristics. Artisanal fishers historically live in communities near the shoreline, use low-technology fishing gear, and harvest a variety of marine species found near the shoreline. Over generations, they have developed an understanding of the main biological lifecycle and migration patterns of certain marine species. Their catch is either consumed, shared, bartered or marketed through a complex set of relations and traditions developed between men and women, families, neighbours and local retailers. In this manner, fishing communities have developed a culture and caring for one another's livelihood.

There was considerable debate regarding the definition of artisanal fishers, and, although it was acknowledged by the Task Group that their needs should be accommodated, no formal recognition of this group legally ensued.

Business and the large-scale commercial companies actively lobbied the authorities to maintain the status quo regarding the allocation of quotas and not to re-allocate to the artisanal or small-scale sector to any extent. They argued that government could best achieve its transformation and redistribution goals by supporting established industry to provide employment and to increase its black empowerment component. They were also successful in wooing organized labour in these companies to support them by promising them job security and, in some instances, a share in the profits through worker share schemes.

Following the introduction of the new legislative framework, the government department responsible for allocating and managing fishing rights, Marine and Coastal Management, developed a medium-term fishing rights allocation policy with a view to allocating rights for the period 2002 -2005. It was intended that a long-term rights allocation policy would be implemented following this initial period. The medium-term rights period did not recognize artisanal fishers as a category of fishers on their own and instead forced them to apply for 'commercial' or 'limited commercial' rights.

Limited rights

Only a small number of artisanal fishers were successful in obtaining these limited commercial rights and those who did get rights were allocated totally unsustainable quotas. Many bona fide fishers were left out of the system completely and hence no longer had access to the sea. Others were able to eke out an existence by working for rights holders in one or other sector at certain times of the season but often had no income during other times of the year.

During 2005, Marine and Coastal Management released the Draft Long-term Fishing Rights Policy, which would effectively allocate long-term rights for up to 15 years in 19 of the commercial species. Artisanal fishers up and down the coast held high hopes that this policy would recognize and accommodate them; however, this new policy further entrenched their exclusion. The application process was extremely costly and complicated, and the application forms were only provided in English, which is not the home language of the fishers. The fishers were forced to either form companies or other legal entities with others and compete with the large commercial companies for the high-value species or apply as individuals for meagre quantum in a few limited nearshore species.

The majority of the artisanal fishers have been completely excluded from obtaining

long-term fishing rights. For example, in the nearshore West Coast rock lobster sector, of the 4,070 fishers who applied, only 813 have been allocated rights. Those who have been allocated rights have only received between 250 and 750 kg per annum. Once their catching and marketing costs have been deducted, these fishers will barely be living above the poverty line and those allocated only 250 kg will be way below the poverty line. Those who did get long-term rights have to operate in the narrow confines laid down in the policy. They are not skilled operators within this system and thereby remain totally vulnerable to exploitation.

The past 18 months have seen unprecedented action by the artisanal sector in South Africa as the fishers fight for their rights to their traditional livelihoods and those of the coastal communities in which they live, which depend on the artisanal fishing economies. They have embarked on a range of advocacy and lobbying activities, including numerous letters and memorandums to the Ministry and Presidency, meetings with officials, marches on Parliament, the chaining of leaders to the gates of Parliament, a hunger strike and vigil by veteran artisanal fisher activist Andrew Johnston, and building strong alliances with other stakeholders in civil society.

Currently, the fishers' hopes are pinned on the outcome of litigation, which they have launched with the support of Masifundise Development Trust, members of the Artisanal Fishers Association of South Africa and the Legal Resources Centre. The Legal Resources Centre, a non-governmental organization (NGO), is funding this class action against the Minister, and has launched papers on behalf of the artisanal fishers in this regard. The court cases have been launched in both the High Court and the Equality Court. The Equality Court is a new court introduced in South Africa, following the introduction of the first democratic Constitution in the country in 1996. The Equality Court aims specifically to give effect to the Equality Clause in the Constitution, which states that "everyone is equal before the law and has the right to equal protection and benefit of the law" (Section 1).

In order to provide the legal framework for this protection, the Promotion of Equality and Prevention of Unfair Discrimination Act of 2000 was promulgated. This Act states: "Neither the State nor any person may unfairly discriminate against any person" (Section 6). The argument presented by legal counsel for the artisanal fishers centres on the belief that the Minister's failure to define and provide for the artisanal fishers in the Marine Living Resources Act of 1998, and the consequences of this failure on the lives and livelihoods of this fishing community, constitute a violation of a number of human rights contained in the South African Constitution. Matters of 'non-equality' nature in this case will be argued in the ordinary High Court.

Right to choose

The artisanal sector argues that the Minister has deprived them of their right to choose their trade or occupation. Section 22 of the South African Constitution provides that "every citizen has the right to choose their trade or occupation freely" (Constitution of South Africa, 1996, Section 22). According to a 2004 affidavit filed by Naseegh Jaffer on behalf of Masifundise in the matter between Kenneth George and others vs the Minister of Environmental Affairs and Tourism: "These fishers are faced with the untenable options of either forsaking their traditions and the skills passed between generations of fishers, and entering a commercial fishing industry for which they are not skilled, or resigning themselves to a life of poverty outside the framework of legal fishing operations, risking prosecution and criminal sanction. It is thus believed that these options do not constitute a proper 'choice' of trade or occupation as contemplated by the Constitution and are, accordingly, unlawful and unconstitutional".

It is also argued that the current legislative framework violates a number of other basic socioeconomic rights, most notably, the right

of access to sufficient food, and hence the internationally recognized right to food security is threatened. The impact of this violation is felt by not only the fishers but by all members of their households and the extended community that depend on these livelihoods within the local marine and coastal economy. The right to healthcare, housing and education, and the rights of the child to basic nutrition are threatened by this violation, and hence are also cited in the arguments to be presented to the Courts. The right to have the environment protected through reasonable legislative and other measures is central to the case as the Minister has a duty to develop legislation that fulfills this right whilst promoting the sustainable use of the country's natural resources. In addition to the abovementioned socioeconomic rights, the fishers argue that the way in which the policy and application process has been administered violated several key constitutional provisions, namely, the right of everyone to use the language of their choice. Enshrined in this is the duty imposed on the State to "use at least two official languages and to ensure that all official languages are treated equitably". The failure of the Department to provide application forms in the home languages of the fishers greatly exacerbated the difficulties experienced by the artisanal sector in understanding what was required of them when applying for rights. This aspect is directly linked to the right to reasonable administrative action, which is also a right protected by the Constitution.

The fishers argue that the way in which the policy and application process has been administered violated several key constitutional provisions

This case argues that all of the above-alleged violations of the rights of artisanal fishers arise because the State, through the Minister, has failed to treat the fishers equitably in comparison to the other fishing sectors. In failing to do so, the law is inequitable and discriminatory and hence violates the central tenet of the Constitution, that of the Equality Clause.

The Minister of Environmental Affairs and Tourism has, to date, fought the legal proceedings by appealing against the decision to hear the matter in the Equality Court. The fishers were heartened by the judgment of the Appeal Court that insisted that the fishers had the right to have the matter heard in this Court and noted that the Minister should not deny the fisher's prayer to have their say in court. The advantage of the matter being heard in the Equality Court as well as the High Court is that the Equality Court is empowered to order a variety of forms of redress, if it is deemed necessary. This raises the hope that it may yet be possible to envisage a real, rights-based fisheries management policy in South Africa, one based on the principles of social justice and the rights enshrined in the country's Constitution, and upon which the future of South Africa's new democracy rests. ■

Opening the tragedy?

Bjørn Hersoug

Institutional reform and the need for reallocation should figure prominently in policy on fishing rights, especially in developing countries

Through the last two issues of *SAMUDRA Report*, we have witnessed an interesting debate regarding the allocation of fish rights. First, Derek Johnson reflected on the *Sharing the Fish Conference 2006*, held in Australia, pointing out the traditional dominance of the rich 'temperate minority' countries over the Southern developing countries in matters of presentations, discussions and solutions (see *SAMUDRA Report* No. 43, March 2006, pg. 11). Later, Ichiro Nomura, Assistant Director General in the Fisheries Department of the Food and Agriculture Organization of the United Nations (FAO), came up with a reply, claiming that rights-based fisheries are the solution but admitting that 'one size does not fit all', ending with the suggestion for a conference where focus should be on the challenge of allocating fishing rights in developing countries (see *SAMUDRA Report* No. 44, July 2006, pg. 25).

My reflection here is on the dilemmas contained in this challenge. Before that, however, a clarification on rights-based fisheries management in the North. Rights-based management comes in many forms, including licensing and individual as well as community quotas. Individual quotas may again be allocated as individual fishing quotas (IFQs), individual vessel quotas (IVQs) or individual transferable quotas (ITQs), each with special features and outcomes. All solutions are well known in the North (and 'down under' South), but during the last 10 years, focus has increasingly been on the ITQs, a fact reflected also at the first *Fish Rights 1999*, where New Zealand and Australia featured prominently.

I think it is fair to say that ITQ systems, as originally developed in New Zealand and Iceland and later copied in at least 15 other countries, have experienced differential success. They have, most often, improved the economic performance of the fisheries, and have contributed to more sustainable fisheries in biological terms (although hard evidence is still often lacking), but they have generally been weak on equity, especially in terms of neglecting crews and local communities. Some countries, like the United States, have introduced community quotas (as in Alaska), but these attempts have been few and marginal compared to the massive drive towards ITQs or systems closely resembling them (as is the case with the Norwegian IVQ system). Generally, these countries have the human and economic resources necessary to run ITQ-systems, and, even more important, they have (although to a variable degree) alternative employment possibilities for fishers who are made redundant. To illustrate, Norway had 115,000 fishers in 1946, but it now has fewer than 15,000. Yet, this decline has not created any major unemployment problems.

The problem arises, as pointed out by John Kurien in *People and the Sea: A Tropical 'Majority World' Perspective*, when the ITQ-missionaries start preaching the ITQ gospel to large developing countries with thousands of artisanal fishers, like China, India, Indonesia and Vietnam, and also smaller ones in Africa and Latin America.

Greater caution

FAO is a little more cautious, advocating in favour of *rights-based fisheries*

This article is by Bjørn Hersoug of the Norwegian College of Fishery Science, University of Tromsø, Norway. This article first appeared in *SAMUDRA Report* No. 45, November 2006

Figure: A Framework to Identify the Occurrence and Types of Poverty (Béné 2004)

management (although not necessarily ITQ systems), with the rhetorical bottom-line that without biological sustainability, all fishers are going to end up poor. According to Nomura, "The current variety of schemes for formally allocating fishing rights has vastly expanded the range of fisheries and fishing situations to which rights-based schemes can be applied.

They should apply to large- and small-scale fisheries, both with large and small boats. They are, by far, the best tool to re-establish and formalize traditional fishing rights and thus, protect the rights of fishermen. Even ITQs need not threaten the livelihoods of small-scale fisheries, and they should not foster inequity if well designed."

As indicated by Johnson in his *SAMUDRA Report* article, there are good reasons to be sceptical about too simple solutions. While donor agencies have gradually changed their priorities, more in favour of small-scale fishers and, in particular, targeting the poor (and for a period 'the poorest of the poor'), the underlying logic has all along been that fishers in developing countries are generally poor, measured against any standard.

However, as pointed out by C. Béné (*When Fishery Rhymes with Poverty: A First step Beyond the Old Paradigm on Poverty in Small-scale Fisheries, World Development* 31, No. 6, 2003), in the current literature on poverty there is almost a complete absence of references to case studies from fisheries. Béné attributes this lack of references not to the low number of fishing studies portraying poverty but to the nature of scientific production and the way the literature proposes to explain the cause(s) and origin(s) of poverty in small-scale fisheries.

Generally, there seem to be two contrasting interpretations of the relationship between poverty and fisheries. The first claims, "They are poor because they are fishermen". Within this intellectual tradition, there are two lines of reasoning. One has its origins in H. S. Gordon's classic paper on open-access fisheries (*The Economic Theory of a Common-Property Resource: The Fishery, Journal of Political Economy* 62, 1954), an idea that was powerfully reinterpreted in Hardin's seminal article, describing the tragedy of the commons (*The Tragedy of the Commons, Science* 162, 1968).

Here the open-access nature leads to more and more people entering the fisheries, resulting in overfished resources, an elimination of the resource rent and, ultimately, in the impoverishment of the fishers and their communities. This intellectual tradition is a solid one, with a large number of contributions from both scientists and donor organizations. There is no doubt that overexploitation is a major cause of impoverishment, but not necessarily the major cause.

Exogenous origin

While poverty, in this tradition, is explained as an endogenous effect, the exogenous origin of poverty is explained by showing the low alternative cost of labour in the fisheries. Writing on the particular problems of small-scale fisheries, T. Panayotou pointed to the fact that most fishers (in Asia) have a low alternative cost of labour, and with easy access and difficult exit they are 'trapped' in the fisheries (*Management Concepts for Small-scale Fisheries: Economic and Social Aspects*, FAO Fisheries Technical Paper 228, 1982).

In other words, the situation *outside* the fisheries is most important. However, several writers combine the two explanations without making the necessary distinction, thus confusing the analytical understanding of what causes poverty in the fisheries.

The other major idea—"They are fishermen because they are poor"— indicates that fisheries is an employer of last resort, where those falling out of the agricultural system can manage to eke out a living by fishing. Common-property resources are, therefore, extremely valuable for poor people, and any attempt to close the participation may result in increased poverty. The coastal fisheries in Mozambique may be a good case in point, where large numbers of people have migrated from the countryside to the coast, because of the civil war and the problematic agricultural situation. They have taken up subsistence fishing, partly in competition with existing fishers. Limiting access for them would often be a life-and-death matter.

Both solutions (limiting access and providing alternative employment) have been utilized by a variety of donor-assisted fisheries projects, with mixed success. The latter approach opens the way for a diametrically different policy than the former. If the fisheries is seen as an essential employer of last resort, within a much larger system of livelihood creation (based on various resources and various occupations), it is hard to stick to the idea of sector development. It is even harder to limit access in the classic way done in Western, developed fisheries. On the other hand, unlimited access can cause severe damage to a developing fishery. So what should we do? If we limit access to 'traditional fishers', 'original fishers' or 'existing fishers', we run the risk of cutting off an important source of livelihoods for poor coastal populations, while, if we keep the commons open, the resources will sooner or later be fished down.

If the fisheries is seen as an essential employer of last resort, within a much larger system of livelihood creation (based on various resources and various occupations), it is hard to stick to the idea of sector development

Some try to escape the dilemma, by pointing to the fact that open access does not necessarily have to produce the tragedy.

According to one study (*Management, Co-management or No Management? Major Dilemmas in Southern African Freshwater Fisheries*, FAO Fisheries Technical Paper 426/1, FAO, 2004), classical management approaches applied to the inland lake fisheries in southern Africa have been misplaced, being led by patchy or simply wrong information regarding fishing effort (catching capacity).

The main argument is that the catching capacity of the inland lake fisheries has been extremely variable, fluctuating not only with the amount of fish available (following natural variations), but also following macroeconomic variations, thereby creating increasing or decreasing opportunities in other occupations. During severe droughts, many people are naturally attracted to the fisheries, while when the situation is more normal, they will return to former occupations. Capacity moves up

and down as a result of numerical flexibility, while few fishers have invested in more efficient gear or vessels. Most fishers in the southern African inland fisheries are not specialist fishers. They have fishing as one of several possibilities in a livelihood repertoire. Even if the total effort has increased in all inland lakes' fisheries, this increase is not always considered serious enough to warrant limiting access. Limiting access under these conditions would only aggravate the situation for the poor. In some cases, *no management* can actually be better than the existing regime!

Greater mobility

This is, no doubt, an important result, having profound consequences for management of the fisheries in these lakes, but it is difficult to generalize and extend these findings to other artisanal fisheries, for example, in the marine sector, for several reasons.

First, because of greater mobility in marine fisheries, it is much more difficult to maintain the idea of slow growth. Vessels from neighbouring countries as well as distant-water fleets will easily operate in fisheries that seem promising and profitable. This is even more so since most developing countries do not have an efficient system of monitoring and control.

Second, it seems that technological improvements are much more easily spread in the marine fisheries. This is partly because marine fishing, especially in several Asian countries, is extremely dynamic, with access to varied sources of capital and with few obstacles in acquiring more efficient gear.

Third, much of the marine catch is now meant for a world market, being within reachable destinations and quality standards, and market opportunities are much greater than those for African inland lake fisheries.

Finally, there are good reasons to return to Panayotou's argument about easy access and difficult exit or Daniel Pauly's concept of 'Malthusian overfishing' (*On the Sex of Fish and the Gender of Scientists: Essays in Fisheries Science*, Chapmann and Hall, 1994). While this may not be the case for inland fisheries in southern Africa, it is definitely the case in a number of Asian fishing nations. Effort is being increased both vertically (improved technology) and horizontally (numerically).

In sum, these factors would indicate that we cannot be too optimistic regarding the catching capacity in the marine fisheries. Even if stock assessments are scarce, we know enough to say that the fishing pressure on near-shore resources in a number of large fishing nations in the Third World, especially in Asia, is not sustainable in biological terms. Still, we should maintain the institutional perspective, turning "the research away from the issue of natural resources limitations per se, toward social, cultural and political elements which shape the relationships between poor people and these natural resources and between poor and less poor people" (Béné, 2003).

There is no clear-cut solution to this dilemma, but perhaps we should start discussing more in the direction of policy reform, that is, on the need for reallocation. While fisheries economists are eager to make a distinction between management and allocation, I believe that there is a clear connection.

Effective management

Without a better, more legitimate allocation, it will prove impossible to introduce (and maintain) an effective management system. Again, I find it useful to return to a scheme developed by Béné (*The Challenge of Managing Small-scale Fisheries with Reference to Poverty Alleviation*. In Neiland, A. and C. Béné (Eds.): *Poverty and Small-scale Fisheries in West Africa*. Kluwer Academic Publishers, Dordrecht, 2004).

One route to poverty is via the lack of surplus generation, caused by lack of efficient gear or an ecological crisis (a temporary disappearance of the exploited stocks). But

even with surplus generation, there may be poverty, because of what is called an institutional entitlement failure. As Béné puts it: "In other words, satisfying the constraints of ecological and economical viabilities is a necessary, but not sufficient, condition to reduce the level of, or to prevent the occurrence of, poverty in fishery. A second necessary condition is the existence of some sort of (re-)distribution mechanism which will ensure that the rents generated through fisheries activities are redistributed (either directly or indirectly) to the community/ society. If such mechanisms do not exist, the rent is likely to be appropriated by the most powerful, and poverty will occur."

Béné concludes by saying, "Poverty in fisheries [may be] more related to institutional factors than to natural ones". If this is the case—and I happen to believe Béné's analysis is correct also outside west Africa—more effort and thinking need to be devoted to institutional reform. The point is simple: rights-based fisheries management may secure some type of ownership, be it individual or collective. But we need to secure rights for the right people. That can only be done through institutional reforms, giving some type of preferential access to the poor fishers. This can be done in many ways. Indonesia, for instance, has shown the beneficial results of prohibiting trawling in the near-shore fisheries.

In other cases, fishing rights have to be reallocated. Needless to add, this will be difficult. Even in developed countries, it is extremely complicated to carry out redistributional reforms. But this institutional requirement has to be set on the agenda, and one start could be made by donor organizations operating in fisheries contributing to the buying out of more powerful interests. While confiscation was the key to many previous land reforms, the principle of a 'willing buyer' and a 'willing seller' is more appropriate at present. To phrase it differently: starting a new fisheries policy by confiscating the rights of the most powerful will quite often be detrimental. I am not saying that direct reallocation of rights and quotas can be done in all developing countries' fisheries, but we certainly need to start the process of considering such reforms. If not, we will repeat the case of the South African fisheries reform, where a large part of the bona fide fishers were excluded from participating precisely because the reforms mainly catered to the more powerful interests. Institutional reform and the need for reallocation should figure prominently in policy and a future conference on rights-based fisheries should perhaps be called 'Fishing Rights to the Right People'. Even if one size does not fit all, *reallocation* will certainly fit most poor fishers. ■

The point is simple: rights-based fisheries management may secure some type of ownership, be it individual or collective. But we need to secure rights for the right people

The litmus test

Svein Jentoft

Unless it can be demonstrated that a property-rights regime will increase the welfare of those most in need, we all have legitimate reasons to remain sceptical

Recently property rights have been heralded as *the* solution to the 'fisheries problem' (that is, overfishing)—by economists at a conference in Australia (see article by Derek Johnson, "Who's sharing the fish?", *SAMUDRA Report* No. 43, March 2006) and by leading institutions such as the Food and Agriculture Organization of the United Nations (FAO) (see piece by Ichiro Nomura, "No one-size-fits-all approach", *SAMUDRA Report* No. 44, July 2006). That comes as no surprise. It is old news. The puzzle worth pondering however, is this: If property rights are such a blessing to fisheries as alleged, why are they so often received with animosity within the fishing population? Let me suggest the following possibilities:

The reason could be that people do not get the message; it is either incomprehensible or they are not yet ready for it. They may not see the problem for which property rights are held to be the solution. Thus, what is needed is more effective communication to make people understand the significance of the message and feel better about it. Maybe it is not property rights *per se* that people find so problematic, but the particular kind of property rights that is promulgated. To proclaim that property rights "are absolutely necessary and fundamental to the sustainability of the world's fisheries resources" (Nomura) does not say much unless one is willing to specify what type of property rights one is talking about: private property, common property, community property, State property, corporate property, etc.— which all come in various forms and have different implications. Therefore, if the argument had been more nuanced and people were offered a set of alternative property-rights solutions that they could relate to, they might be more supportive.

But perhaps the problem lies elsewhere. People may both understand the message and see its merits, and yet oppose it because they see it as threatening to their livelihoods and ways of life. For people living under an open-access regime, the property-rights concept is often perceived as an alien and inappropriate concept: "How can somebody acquire privileged ownership of a resource that was free for all to share?" If that is the case, a more cautious presentation that does not ignore people's unease might do the job.

Still another explanation for people's defiance may be that property rights do not offer any solution to what people perceive as their most important and urgent problems: "Whatever the problem property rights are supposed to solve, my problem is another one." If you, for instance, struggle to feed your family on a daily basis, a property-rights regime might not figure high on your priority list. I can think of yet another reason, which is perhaps the most likely one, why many fishing people show resistance to the property-rights systems favoured by economists: They have already suffered their consequences. They, in contrast to academics, fisheries managers and others who believe so strongly in property rights, know how it feels to lose access to the resource.

Standard definition

But in order to understand what the problem is really all about, we need to dig even deeper

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and ask what property rights are in the first place. Here is a standard definition: The essential thing about a property right is not the relationship it establishes between a person who is the owner and the item that is owned but the relationship it forms between people: the haves and the have-nots. Thus, property rights are a social relationship, and any change in property rights is intervening into existing social relations by differentiating categories of people. As someone benefits from acquiring a property right, others necessarily lose, because the owner is in a rightful position to exclude others from enjoying the stream of benefits from the thing that is owned. Thus, property rights are inherently inequitable, and this problem does go away if you simply ignore it—as Derek Johnson found was happening at the *Sharing the Fish 2006 Conference*. Neither can the equity issue be postponed until after property rights are introduced, as it will typically pop up long before you try to implement them, because people can anticipate their social and economic impacts.

It is not for nothing that social scientists have long been concerned with the empowering and disempowering effects of property rights. The famous French anarchist and philosopher Pierre-Joseph Proudhon captured the quintessence of this problem in his 1840 treatise *What is Property? Or, an Inquiry into the Principle of Right and Government* through his oft-quoted statement, "Property is theft!" Fishing rights are often opposed by similar language. That is perhaps going too far since property rights can mean many things, and also serve good purposes. As Bjørn Hersoug argues in his commentary on both Johnson and Nomura ("Opening the tragedy", *SAMUDRA Report* No. 45, November 2006), we, therefore, need to ask if fishing rights are used to empower the right people. Consequently, one should not be dogmatic about property rights, as they come with potentials as well as risks. Property rights can lead to more inequity but they can also be employed for correcting inequities, as they can be used as a mechanism to protect those in need of protection, that is, the marginalized and impoverished among fishers. This is unfortunately not what those who most eagerly sponsor property rights such as individual transferable quotas (ITQs), have in mind.

I suggest, therefore, that before we embrace any particularly property-rights regime, it should be litmus-tested against the "difference principle' established by John Rawls–perhaps the most important philosopher of the 20th century—in his 1971 work, *Theory of Justice*: "Social and economic inequalities should be arranged so that they are to the greatest benefit of the least advantaged persons."

Specific situation

Thus, unless it can be demonstrated—not only in theory but also in practice, and not only on average but for the specific situations in which fishing people find themselves—that a particular property-rights regime will increase the welfare of those most in need, we all have legitimate reasons to remain sceptical, whatever the economists and FAO might say. ■

Maybe it is not property rights per se *that people find so problematic, but the particular kind of property rights that is promulgated*

Fulfilled, healthy, secure?

John Kearney

Conventional fisheries management has been dominated by the enclosing-the-commons model, even as small-scale fishers demand social justice and ecological sustainability through recognition of their fishing rights

A debate has emerged in the last three issues of *SAMUDRA Report* (Nos. 43-45) about rights-based fisheries and the allocation of fish resources. The debate was triggered by Derek Johnson in his review article on the *Sharing the Fish Conference 2006* in Australia, in which he describes how the discussions on rights-based fishing were dominated by presenters from the rich, "temperate-minority" countries. Debate at the conference thus tended to focus on the options preferred by policymakers and economists in these countries; namely, market-based access rights and allocation mechanisms, such as individual transferable quotas (ITQs). Conference participants had little to say about the applicability of these or alternative rights schemes to the tropical-majority countries.

Ichiro Nomura, Assistant Director General of Fisheries of the Food and Agriculture Organization of the United Nations (FAO) highlights in the next issue of *SAMUDRA Report* that fishing rights and rights-based schemes are "absolutely necessary and fundamental" to the sustainability of all the world's fisheries. However, the configuration of these rights needs to be tailored to the specific social setting of the countries in question. He proposes that it may be an opportune time to organize an international conference on the allocation of rights in the small-scale fisheries that dominate the tropical and developing countries.

Finally, in the last issue of *SAMUDRA Report*, Bjørn Hersoug picks up the thread by connecting the debate over rights-based fishing to the existence of widespread poverty in fishing communities throughout the developing world. He concludes that poverty may be more related to institutional failures than ecological or economic ones, and thus institutional reform is a prerequisite for the establishment of right-based fisheries in order to ensure preferential access to individual or collective rights for poor fishers. For Hersoug, a conference on rights-based fishing should perhaps be entitled, "Fishing Rights to the Right People."

In response to this timely debate within the pages of *SAMUDRA Report*, I wish to examine more closely what is meant by fishing rights and rights-based fishing. When economists and government officials talk about fishing rights at conferences and in publications and policy documents, are they talking about the same fishing rights that small-scale fishers have been demanding for the last few decades? I say, no. Like many progressive ideas promoted in the recent past by small-scale fishing organizations around the world —ideas like community-based management, ecological fisheries management, and integrated management—the notion of fishing rights has been seized by the academic and bureaucratic sectors, filtered through their market-based frameworks, and promoted as something quite different from the original intent. In other words, the notion of fishing rights has been co-opted to mean not the guarantee of rights but rather the granting of privilege. In most cases, rights-based management consists of the granting of fishing privileges to certain groups within fishing communities as a means of 'enclosing the commons'. Based on common-property theory, the objective is not to guarantee a fishing people the right to fish, but to exclude as many as necessary to ensure that those

This article is by John Kearney, an independent researcher who has worked with small-scale fishers and fishing communities for the past 28 years. This article first appeared in *SAMUDRA Report* No. 46, March 2007

remaining can capture the wealth produced by the sea for themselves.

If rights-based fishing then has nothing to do with rights, what is the alternative view of rights? In my view, the notion of rights is about a fundamental respect for the human being, and addresses the many conditions necessary for fulfilled, healthy and secure living. If we are going to talk about fishing rights within this understanding of rights, there are a number of dimensions in the lives of fishers that must be considered.

The first is to state that the current distortion in the distribution of the world's resources makes it close to impossible to guarantee this fundamental respect and provide the necessary conditions for every human to have fulfilled, healthy and secure lives. As we increasingly realize the limits on the availability of resources on this planet, it is clear that the guarantee of rights involves not only poverty reduction but also, and just as importantly, wealth reduction on the part of the minority who control the vast bulk of those resources. It is only in this two-pronged approach that there can be the ability to ensure fishing rights since so many fishers are among the world's poorest inhabitants. If the meaning of this view is not immediately evident, let me illustrate by saying that the demand for such products as luxury aquaculture seafood, industrial chemicals and tourism beaches on the part of the wealthy has led to serious degradation of coastal habitats and the viability of fishing livelihoods.

Among the many other dimensions of fishing rights, I would list the following as some of the most important:

1.The right to fish for food
Fishers provide food for their families, communities, regions and country. In Asia and Africa especially, large numbers of people depend on fish protein for their basic nutritional requirements. Local, regional and national food security should be the number one priority of sustainable fisheries management. All fisheries development should be built on this foundation, not only in developing countries but also in the developed countries where there is an increasing recognition that the most healthy and nutritious food comes from local sources.

2.The right to fish for a livelihood
For many coastal communities, fish, as a renewable resource, has the potential to be an unending means of deriving a livelihood. Coastal communities have depended on this resource for generations, and they should be permitted to continue to find their livelihoods thus for generations to come.

3. The right to healthy households, communities and cultures
Fishing provides not only an income stream to fishing households but is also an activity around which many dimensions of life are organized, and from which meaning is derived by men, women and youth. The way fishing activities are managed and the benefits distributed are crucial in fostering healthy social relations in communities and in nurturing the culture that binds them together.

4. The right to live and work in a healthy ecosystem that will support future generations of fishers
All of the above rights depend on taking care of the environment in which it takes place, living within the limits of what the ecosystem can produce, and without upsetting irreversibly the functioning of that system.

5. The right to participate in the decisions affecting fishing
The protection of fishing rights and their optimal implementation for the benefit of fishing communities requires that everyone in these communities have a voice in decisionmaking. This means placing a high value on the knowledge of fishing people about fishing and the environment, promoting a bottom-up and community-driven decision-making process, and implementing national policies that protect fishing rights.

The development of fisheries and the design and implementation of management plans

As we increasingly realize the limits on the availability of resources on this planet, it is clear that the guarantee of rights involves not only poverty reduction but also, and just as importantly, wealth reduction on the part of the minority who control the vast bulk of those resources

based on the above-listed rights would look very different from a rights-based fishery as advocated by those who wish to enclose the fishery commons. A rights-based fishery stresses one value: economic efficiency. On the other hand, a fishery based on a guarantee of the fundamental rights of fishing people recognizes their equal status and dignity as members of global society, and their equal right to a fulfilled, healthy and secure life.

...a fishery based on the fundamental rights of fishing people would result in a fishery where communities shape a future based on providing their basic human requirements for food, livelihood, communal living and a vibrant culture

A rights-based fishery would allow one factor to determine the future of fisheries development: a privilege granted to a few to promote the sale of fish as a commodity to the highest bidders on international markets. In contrast, a fishery based on the fundamental rights of fishing people would result in a fishery where communities shape a future based on providing their basic human requirements for food, livelihood, communal living and a vibrant culture. It is a fishery where fishing people could begin to realize their dreams to steward the resources of the sea, make friends with them—as some of them would say—own boats and gear, obtain a fair price for their fish, and offer a brighter future to their children.

It is also important to point out that the five fishing rights listed above can all be found in a more generalized form in the Universal Declaration of Human Rights. All too often, the denial of human rights is understood narrowly as the violation of civil liberties, without adequate recognition of the rights to food, livelihood, communal living and culture.

Finally, I wish to conclude by making reference to Derek Johnson who started this debate in *SAMUDRA Report* No. 43. In another article that he wrote last year ("Category, Narrative and Value in the Governance of Small-scale Fisheries", *Marine Policy* 30, 2006), he argues that the perceived importance of small-scale fisheries may not only lie in the sustainability of their scale of operations but also in the values of social justice and ecological sustainability that small-scale fishers have come to represent in response to the dominant modern narratives of change. He goes on to state that this view does not always correspond to reality, given those situations where small-scale fisheries have been overly exploitative and ecologically destructive.

The fact that the fisheries of the last 50 years have been dominated by the drive to kill fish and that many are responsible for this mining of the sea, is not at issue. The theme of this article is that fisheries management for the past 30 years has been dominated by the enclosing-the-commons model, at the same time that small-scale fishers have been demanding social justice and ecological sustainability through recognition of their fishing rights. I would argue that the dominant model of fisheries management has contributed to—or, at least, not stopped— the collapse of fish stocks and ecological degradation around the world. It has resulted in greater inequities in the distribution of fisheries benefits, and now has co-opted the notion of fishing rights in support of itself. It is time to recover the true and full meaning of fishing rights, to listen to small-scale fishers, and allow them the opportunity to exercise their fishing rights for a socially just and ecologically sustainable fishery. ■

Private rights tragedy

Marc Allain

This article draws from the Canadian experience to show how flawed economic theory works to undermine sustainable development in fishing communities

The possibility that the Food and Agriculture Organization of the United Nations (FAO) would sponsor an international conference on the allocation of fishing rights focused exclusively on the interests of small-scale harvesters and traditional fishing communities is heartening. Such an event is long overdue and, if it were to provide an opportunity to hear and document those authentic voices that have been resisting and offering alternatives to the private appropriation of public fisheries resources, it would be a good thing. It might even begin to re-establish some sense of balance and objectivity in the debate about the merits of different rights schemes by identifying those that work to support sustainable development in traditional fishing communities and those that undermine it.

If the objectives of such a conference were to include discussions about how the allocation of rights could "re-establish and formalize traditional fishing rights and thus, protect the rights of fishermen", as Ichiro Nomura of FAO suggests (see pg.82), it would also challenge the central orthodoxy of modern fisheries management; that in their natural state, fisheries develop in the absence of rights and play out the "tragedy of the commons".

In "Opening the Tragedy?" (*SAMDURA Report* No. 45), Bjørn Hersoug correctly identifies Scott Gordon's *The Economic Theory of a Common-property Resource: The Fishery* and Garrett Hardin's *The Tragedy of the Commons*, as the core intellectual foundations that underpin the theories of modern fisheries management.

But the Hardin contribution to this foundation is seriously flawed when it comes to understanding fishing communities and how they manage fisheries resources held in common. While Gordon recognized that fishermen come together to establish rules to regulate fishing activity, Hardin did not. This is a very significant difference.

Gordon's treatise recognized that the so-called common-property problem was, in fact, an open-access situation. Even the most primitive of societies, he noted, generally recognized the risks of overexploitation caused by unregulated access, and moved to regulate resource use for "orderly exploitation and conservation of the resource". Societies that failed to do so, he posited, simply would not survive. Gordon recognized that humans live in societies that impose norms to inhibit socially destructive individual behaviour.

In Hardin's construct, community or societal regulation is non-existent, and society is but the aggregation of selfish individuals, each seeking their own individual short-term advantage.

Since Gordon understood social control as an essential trait of human society, he did not prescribe the form it should take to avoid resource depletion. (Like Nomura, he appears to have been of the "one-size-does-not-fit-all" school.) On the other hand, the absence of community in Hardin's flawed analysis led him to prescribe only two options to prevent resource depletion: paternalistic State management or privatization of the common property.

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In Canada, unfortunately, Hardin, not Gordon, has been used to understand the problems and make prescriptions for sustainable fisheries management. In fact, it could be argued that Canada's modern fisheries management has followed Hardin to the letter: first, through a short-lived and failed experience with paternalistic State management; and, in the face of failure, the subsequent dogged pursuit, in many of the country's fisheries, of Hardin's alternative — the privatization and concentration of the common property in individual and primarily corporate hands, through market mechanisms.

The first phase–the one of paternalistic State control–started with the extension of Canada's fisheries jurisdiction to 200 nautical miles in 1977, and saw the uncontrolled growth of harvesting capacity, much of it encouraged by the government's desire to industrialize the fishery. By the mid- to late-1980s, overcapacity, overfishing and sharp conflicts between fleet sectors over resource access defined many of Canada's fisheries. In Atlantic Canada, much of this conflict was between the traditional small-scale sector, known as the inshore fishery, and the highly capitalized corporate offshore and individually owned midshore sectors.

The second phase of Canada's modern fisheries management, dealing with this overcapacity through the allocation of property rights through individual transferable quota (ITQ) schemes, began in the late 1980s, and has been the State's preferred, almost exclusive, option ever since.

Descriptions of the Canadian State-sponsored private-property schemes can be found in the proceedings of both the *FishRights99* and the *Sharing the Fish 2006* conferences. They provide textbook examples of the efficiency of property rights and market-based mechanisms in putting a stop to the dissipation of resource rents in individual fisheries thereby generating rents and subsequently allowing the State to recuperate some of these through negotiated agreements with quota holders, an increasingly important objective of Canada's Department of Fisheries and Oceans (DFO) as it attempts to generate external revenues to compensate for more than a decade of continued budget cuts.

Critics in the small-scale fishery do not challenge the efficiency of classic ITQ systems in dealing with the macroeconomic problems of oversubscribed fisheries. The efficiency of the market is readily acknowledged. It is the externalized costs to fishing communities of the ITQ approach that is in question.

Small minority

From the small-scale/community-fishery perspective, ITQ systems give rights and benefits (including significant economic windfalls) to a small minority of individuals in fishing communities, who are encouraged to dispose of these rights in pursuit of their economic self-interest, irrespective of the impact on the community. Under this system, the benefits of the right go to the individual, while the long-term costs, in terms of employment opportunities, resource access and wider distribution of resource rents, get transferred to the communities and future generations.

In late 2004, the environmental non-governmental organization (NGO), Ecotrust Canada, published a major study on the impacts of resource privatization in Canada's Pacific fishery, documenting, for the first time, its costs from the perspective of community and the small-scale fishery.

According to the study, the capital costs of vessels and equipment in the Pacific fishery shrunk dramatically from Can$777 mn in the pre-privatization period (the late 1980s) to Can$286 mn in 2003, as fishing rights concentrated in fewer and fewer hands, and individual quotas eliminated overcapitalization in the race for fish. But the research also found that this decrease was offset by the soaring capital costs of quota and licences, which are now estimated at Can$1.8 bn.

According to the report, "In the past, the problem was too many fishermen chasing too few fish, but today it has become too much money chasing too few fish. Overcapitalization in licence and quota has become the problem, especially in terms of social equity."

The costs of licences and quotas are now so high, Ecotrust Canada says, that a fisherman needs to be a millionaire to enter most British Columbia (BC) fisheries, putting ownership of licences and quota out of the reach of most rural families, aboriginal people and younger fishermen.

The study goes on to document how market-led mechanisms undermined the interests of traditional fishing communities by stripping them of fishing licences and quota. With virtually no restrictions on who could buy fishing rights, rural ownership of both quota and licences declined precipitously. Traditional fishing communities—particularly aboriginal communities, which have been hit especially hard—lost 45 per cent of all major licences. The big winners were urban investors—both corporate and individual—who had better access to the capital needed to purchase the quotas and fishing licences that increased rapidly in value as more buyers entered the market.

Limited ability

Rural residents, hobbled by lower incomes, reduced economic opportunities and lower property values that limited their borrowing ability, simply could not match the prices urban dwellers and corporations were willing to pay for licences and quotas that were put up for sale by harvesters in their communities.

Another notable consequence of this transfer of fishing rights from rural to urban hands has been the siphoning off of resource rents from working fishermen to 'slipper skippers', absentee resource-rights owners, who do not fish but lease the rights they own back to working fishermen. In separate research, the Canadian Council of Professional Fish Harvesters (CCPH) has documented how in some BC fisheries, like herring, up to 70 per cent of the landed value in some years is paid to rights holders. Since the rights are leased at prices set prior to the fishing season, this has led to fishermen fishing an entire season at a loss. The practice of leasing is now so widespread that even those captains who own licences and quotas deduct the going market rate for leases from the calculation of crew shares, thereby significantly reducing returns to crew members. According to CCPH, the costs of leasing are also endangering the lives of fishermen as captains cut back on crew levels to reduce costs and also venture out in unsafe conditions because of the need to fish quota they have paid for, before the season ends.

...market-led mechanisms undermined the interests of traditional fishing communities by stripping them of fishing licences and quota

The DFO is now in the process of introducing ITQs for the Pacific salmon fishery, following the recommendations of Professor Peter Pearse, a consultant to the department who was also one of the keynote speakers at the *Sharing the Fish* conference. This will bring the last major Pacific fishery under a property-rights scheme. There is nothing to suggest that safeguards will be established to protect coastal-community interests as that process is launched.

With property rights now firmly established in Canada's Pacific fishery and the costs of acquiring these rights beyond the reach of most residents of coastal communities, the only way to restore these rights to the communities that originally had them is by entering the rights market. This is what Ecotrust Canada now proposes to do. It hopes to establish a capital fund to acquire fishing licences in the open market, and then lease them to young, new entrants to the fishery from coastal communities at affordable rates. The irony here is that an NGO is having to raise significant amounts of capital to purchase rights in order to restore them to a new generation of rural residents whose predecessors acquired them for nominal costs but were allowed—even encouraged—by government policy, to sell them off to the highest bidder.

In Atlantic Canada, there has been generalized resistance to market-driven privatization by the inshore fishery, generally understood as comprising boats under 45 ft length overall (LOA). There, inshore fishermen's organizations have developed alternative rights-based schemes to control and regulate access to the fishery. These alternatives tend to be value-driven, and are generally concerned with the equitable distribution of resource rents because of the impacts of inequitable distribution on coastal communities. They are also very process-oriented, seeking to build consensus through bottom-up, democratic decisionmaking that builds from the community level towards larger territorial units (region, province, inter-provincial). They have also tended to be ecocentric, seeking to provide small-scale harvesters with rights to the full range of harvestable species adjacent to their communities, using low-impact, fixed-gear techniques, as opposed to limiting these rights to specialist, single-species fleets using higher-impact mobile gear. Throughout the last 30 years of modern fisheries management, this community-/small-scale approach has been in constant tension and conflict with a corporate view of rights schemes that concentrates access and seeks primarily to maximize the generation of resource rents.

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Modernization process

There are numerous examples of how the small-scale sector in Atlantic Canada has been successful in devising value-based rules to allocate rights and restrict access to the fishery. Very early on in the modernization process, as the State imposed limited entry to control access to fisheries resources, it made a significant concession to the small-scale sector by prohibiting corporations from holding licences for species fished from vessels of less than 65 ft LOA. This became known as the 'fleet separation policy' as it prohibited fish processors from 'owning' inshore fishing licences, thereby 'separating' processing from harvesting. Individuals who obtained fishing licences in the under-65 ft fleets also had to fish these licences themselves. They could not (and still can not) lease the licence or hire others to fish for them. This became known as the owner-operator policy.

Individuals were also prohibited from holding more than one licence for the same species but a multispecies-licence portfolio approach was encouraged for the small-scale sector, allowing only those who held certain key licences to obtain licences for other species as these became available either through harvester retirement or the development of new fisheries. The use of value-based criteria such as 'dependency' (level of income derived from fishing) and 'attachment' (length of time in the fishery) were also used first in the Gulf region of the Maritime provinces (New Brunswick, Prince Edward Island and Nova Scotia) under the 'bona fide policy' and, subsequently, in Newfoundland, under the fish harvester professionalization programme, to restrict access to full-time fishermen. In Newfoundland, this led to the denial of access to approximately 15,000 part-time licence holders, cutting the numbers in the small-scale sector in half, a process that generated surprisingly little opposition, largely because of the extensive community-level consultations on the measures.

Nowhere has the contrast been sharper between the value-driven approach for the equitable distribution of fishery rents and the rents concentration model than in the Atlantic's Area 12 snow-crab fishery.

Until the 1980s, snow crab was a marginal fishery in Atlantic Canada. The collapse of the Alaskan king crab fishery and the Japanese appetite for seafood conspired to increase international demand for this product and turn it into one of Canada's most lucrative fisheries. Under limited entry, access rights to Area 12, the most bountiful of the Atlantic's different crab-fishing areas, have been restricted to 130 licence holders, since the 1970s. (They include seven native-owned licences that were transferred to aboriginal communities following a Canadian Supreme Court ruling recognizing their treaty rights to

the fishery.) This fishery is generally recognized as being well-managed. The owner-operator licence holders in this midshore fleet (vessels under 65 ft LOA) moved to individual quota management with strict limits on transferability in the late 1980s, eliminating the race for fish and many wasteful practices. The licence holders fund and manage dockside monitoring, and contribute significantly to funding the government-based scientific stock assessment through co-management agreements. In many ways, the midshore Area 12 crab fishery is a model fishery except in one crucial area: the equitable distribution of resource rents.

The generation and concentration of rents, however, is the fishery's hallmark. According to costs and earnings estimates for 2002, this fishery generated gross earnings per vessel of more than Can$750,000, and average net returns of Can$363,000 for what amounts to a five-to-eight-week fishery. (The net return is the amount generated above the break-even point of Can$400,000 per vessel. The break-even point includes salary of Can$50,000 for the captain, and wages of Can$29,400 for each of the crew, and a return on capital invested of 11 per cent.)

Despite fluctuations in crab prices and total allowable catch (TAC), this pattern of very high profitability has been consistent for the last 15 years. It also contrasts sharply with the very low returns to both labour and capital for the 1,230 inshore-fishery licence holders in some of the same communities along the eastern shore of the province of New Brunswick (NB). These small-scale, multispecies fishermen, who derive most of their income from lobster but also fish other species in a season that lasts six months, generate net incomes per vessel between Can$3,500 and Can$5,600, after paying themselves wages between Can$10,350 and Can$14,000.

Easily accessible

NB inshore fishermen were excluded from the snow-crab fishery until 1995, despite the fact that the resource was both plentiful and easily accessible to them using their existing vessels. In communities where unemployment is very high and where job opportunities outside the fishery very limited, this exclusion was a source of resentment, social conflict and general instability in the fishery.

After extensive political lobbying, the Minister of Fisheries reallocated a small percentage of the snow-crab fishery quota to NB inshore fishermen for the first time in 1995. Under the leadership of their organization, the Maritime Fishermen's Union (MFU), the licence holders chose to exercise this right in a highly creative and democratic way, with a strong emphasis on equitable distribution of benefits.

Given that the allocation was not large enough to make a significant impact on each individual enterprise—had it been divided equally—the licence holders chose to hold and manage the quota collectively, through the MFU, and distribute its benefits in the following way:

- Approximately 60 per cent of the quota was divided into 11,000-lb individual quotas, which were distributed by lottery to partnership groups of four or more fishermen (that is, a partnership of four would receive 44,000 lb) who were leased crab traps purchased by the MFU. It was agreed that any fishermen who received quota through the lottery would not be eligible in subsequent years for another chance at receiving quota until all licence holders had received a 11,000-lb share.
- The remaining quota was fished by charter, and the proceeds were used to:
- finance an extended healthcare plan for all 1,230 licence holders and their families
- support a fish-harvester professionalization programme, finance scallop- and lobster-enhancement projects, and for scientific research on herring stocks.

Except for the years it was excluded from the crab fishery (1998, 1999 and 2000), the MFU continued to manage its allocation of

snow-crab quota according to the same formula.

Fleet rationalization

However, the long-term decline of lobster landings in eastern NB and the deteriorating returns to the inshore fleet forced the MFU, in 2004, to significantly change its strategy and to begin using the crab resource for fleet rationalization purposes. It chose an approach, however, that was a radical departure from traditional practices. Instead of using market mechanisms or centrally managed licence buyback and retirement schemes, it has instead turned the crab resource over to fishing communities and empowered them to make the decisions on how best to use it to bring harvesting capacity in their communities in line with resource availability and fleet economic viability. The approach, if it is successful, will ensure that revenues from the inshore crab allocation are spent in the best interests of coastal communities by allowing these very same communities, through democratic, grass-roots processes, to make these decisions themselves.

Under the new approach, which was adopted in 2005 after extensive community consultations, the MFU continues to receive an allocation of snow crab on behalf of all inshore licence holders in eastern NB. From the proceeds of the crab allocation, it also continues to fund a health insurance plan, which is available to all licence holders and their families. But the MFU no longer conducts a central lottery for the distribution of individual crab quotas. Instead, it distributes the crab quota on a pro-rata basis to 12 Communities of Interests (COI), territorial units made up of groups of inshore fishing licence holders who share a certain affinity/ territory (see map). The COIs decide how many vessels will harvest their respective quotas and how much they will pay to have fishermen in their communities fish the crab according to harvesting plans determined and approved by all licence holders in public meetings.

The other significant change is that a mandatory minimum of 50 per cent of net revenues - after paying administration and health-plan costs - must be used for licence-retirement schemes in the communities. However, it is up to the COIs to decide how best to remove excess capacity in the fishery in their communities, according to the funds available to them.

In addition, monies from the crab sales are also set aside in each COI for economic diversification and development funds to finance sustainable-development projects in the communities, again decided upon by the fishermen according to criteria common to all COI. For example, several COIs have already identified the purchase of lobster larvae for seeding in their communities from a project that was initiated by the MFU several years ago.

The COI approach to the allocation of fishing rights is a radical departure from the market-driven, individual-property-rights process experienced elsewhere in Canada. Instead of allocating fishing rights to individuals, who are then free to use them in the pursuit of their self-interest, irrespective of the impact on the community, it creates a situation whereby community interests are placed front and centre. In the words of the MFU, under the COI approach, fishermen have to organize themselves and make decisions collectively on the use of the fishing rights "to tackle both the problems of the fishery and the economic development challenges faced by their communities." The approach is designed to work in the long-term interests of fishing communities and to make fishermen accountable for the decisions that they make on the use of their rights. The programme is very new and has created all kinds of challenges for the MFU. It remains to be seen how successful it will be. But from the community perspective, it can do no worse than the alternative processes that have already proven to strip communities of access to fishery resources.

The Canadian experience with the allocation of tradable, individual property rights as a means for dealing with fisheries overcapacity shows that these schemes can be highly successful in concentrating the benefits of the fishery in the hands of individual rights holders. These schemes, however, have worked to undermine sustainable development in traditional, rural fishing communities by depriving them of access to fisheries resources. In the best interest of their communities, the small-scale fish harvesters in Canada have consistently sought to devise rights-based systems for fisheries management that distribute the benefits of fisheries access equitably and avoid concentration.

If there is to be an international conference on rights-based systems focused on the interests of the small-scale fishery and traditional fishing communities, then representatives of the Canadian small-scale fishery would surely want to participate. They would not come forth proselytizing for ITQs, however, nor representing a 'temperate-world minority' view. Rather, I suspect, they would come to share, listen and learn as part of a universal majority of women and men who fish for a living, care passionately about their small communities, and want them to continue providing decent livelihoods for their children's children's children. ■

...fishermen have to organize themselves and make decisions collectively on the use of the fishing rights "to tackle both the problems of the fishery and the economic development challenges faced by their communities"

Sizing Up

Property Rights and Fisheries Management: a collection of articles from *SAMUDRA Report*

As the world's fisheries continue to come under scrutiny for their potential to be depleted of resources due to various pressures, including overfishing, modern fisheries management has focused on allocation of fishing rights as one prescription for sustainable fisheries management. Solutions based on such a perspective have often pivoted around the gamut of property rights, and how to control the social arrangements that govern the ownership, use and disposal of factors of production and goods and services in the fisheries sector.

Rights-based management in fisheries, as this dossier shows, can take several forms, including licensing, and individual and community fishing quotas. How property-rights regimes address the issue of allocation of ownership will determine their effectiveness in equitably spreading welfare throughout the fishing/coastal community. Only by recognizing fishing rights that are socially sensitive and address the issues of labour, gender and human rights, can fishing communities, especially small-scale, traditional ones, be assured of social justice in the face of moves towards ecological and resource sustainability.

These are some of the issues discussed in this dossier, which is a collection of articles from *SAMUDRA Report*, the triannual publication of the International Collective in Support of Fishworkers (ICSF).

ICSF (www.icsf.net) is an international NGO working on issues that concern fishworkers the world over. It is in status with the Economic and Social Council of the UN and is on ILO's Special List of Non-Governmental International Organizations. It also has Liaison Status with FAO. Registered in Geneva, ICSF has offices in Chennai, India, and Brussels, Belgium. As a global network of community organizers, teachers, technicians, researchers and scientists, ICSF's activities encompass monitoring and research, exchange and training, campaigns and action, as well as communications.

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