

The purpose of these *Key Sheets* is to provide decision-makers with an easy and up-to-date point of reference on issues relating to the provision of support for sustainable livelihoods.

The sheets are designed for those who are managing change and who are concerned to make well-informed implementation decisions. They aim to distil theoretical debate and field experience so that it becomes easily accessible and useful across a range of situations. Their purpose is to assist in the process of decision-making rather than to provide definitive answers.

The sheets address three broad sets of issues:

- Service Delivery
- Resource Management
- Policy Planning and Implementation

A list of contact details for organisations is provided for each sub-series.

This Key Sheet is one of a series on fiscal reform in fisheries<sup>(1)</sup>.

## Overview of the debate

This Key Sheet looks at the way in which fiscal reform may allow the fishery sector to contribute to poverty reduction. It has no pretence of dealing with the issue of poverty reduction *per se*. Poverty is clearly a multifaceted issue and no single economic sector can be expected to deal with it alone. It is a problem which requires that a broad policy agenda be developed (see for instance CEC, 2000).

However, the wealth that fish resources are capable of generating under appropriate management arrangements means that the fisheries sector does have the potential to play a role in poverty reduction. Given the nature of fishing, this role may be particularly important in certain regions of both developed and developing countries. In some cases, fishing may be of such importance that it can play a role in national poverty reduction, although such cases are relatively rare.

The question of poverty reduction raises a series of policy questions such as the roles of the public and private sectors in fishing and the nature of the contribution that fishing can make to macroeconomic objectives.

## Key issues in decision making

**Defining the issue** - Many developing countries have, on the one hand fish resources with considerable implicit wealth and, on the other considerable levels of poverty amongst their population. The question is: how can the wealth from the fish resources best be used to reduce poverty?

The way in which resource rent is dealt with in the fisheries exploitation and management system lies at the heart of the answer. A number of policy issues must be resolved that will have a key bearing on the ability of the fishery sector to contribute to poverty reduction.

**How can poverty be reduced?** There are three key ways that poverty can be reduced. First, broadly-based economic growth may reduce poverty across-the-board. Second, increasing wealth and income may be redistributed to reduce the gap between the rich and the poor elements of society. Third, targeted investments may be made in areas where the main beneficiaries are known to be the poor.

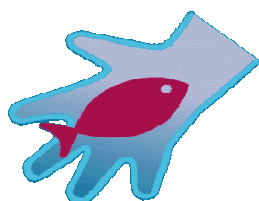
In general, fiscal policy is one key factor in the success of each of these three. Appropriate fiscal instruments can promote economic growth, redistribute wealth and income more evenly through society and fund spending in key areas that affect the poor. The fishing sector could contribute to all three elements. One broad policy choice would therefore be to use the potential (or implicit) wealth of the fish resource in this way.

The fishing sector may also be used more directly to alleviate poverty by giving the poor a livelihood opportunity. Free and open access systems effectively use the wealth of the fishery to provide a social safety net (or a contribution to one).

**Economic growth** - Policy towards the poor in the fishery sector often seems to be grounded in an assumption that the poor must be helped to become better exploiters of fisheries resources. However, the best way to help the poor may not be to help them to become better fishers, nor to encourage them to become fishers at all, but to use the wealth of the fishery to create alternative employment opportunities for them.

In this view, poverty reduction is considered to be a macroeconomic, and not a sectoral, issue (save in the exceptional case of a very large fishery sector). It will be difficult to improve the incomes of the poor in the fisheries sector alone because incomes in the fisheries sector are linked to those in the rest of the economy. If a policy successfully improves incomes in the fisheries sector, the relative attractiveness of this sector will increase, attracting more fishers and restoring the equilibrium position where opportunity incomes are earned.

Therefore, the fisheries sector can most contribute to poverty reduction as a creator of wealth, which can, if desired, be invested to enhance the lot of the poor, most obviously through supply-side policies (funded by resource rents) such as education and training programmes for the poor.



## DFID experience

- The DFID Workshop and Exchange of Views on Fiscal Reform in Fisheries took place in the context of a wider OECD-DAC ENVIRONET initiative examining issues related to environmental fiscal reform (EFR) for sustainable development and poverty reduction. Outcomes of this initiative will include a joint-agency paper on EFR - Environmental Fiscal Reform.
- DFID has also supported work on EFR in China, India and South Africa.

## Centres of expertise

- Australian Bureau of Agricultural and Resource Economics - ABARE
- Department for Environment, Fisheries and Rural Affairs - DEFRA
- Department for International Development - DFID
- European Union - EU:
  - DG VIII Development
  - DG XI Environment
  - DG XIV Fisheries
- Food and Agriculture Organization of the United Nations - FAO UN, Fisheries Department
- German Technical Cooperation Agency - GTZ
- GOPA Consultants
- IDDRA
- Institut de Recherche pour le Développement - IRD
- Integrated Marine Management - IMM
- Marine Resources Assessment Group - MRAG
- National Oceanic and Atmospheric Administration - NOAA Fisheries
- Natural Resources Institute - NRI

**Resource ownership** - The focus on resource wealth raises the related question of who owns the resource. Does the fish resource effectively belong only to those who can exploit it, or is it part of a common social heritage? Should the target for poverty reduction be restricted to those involved in the sector or should the fish resource make a contribution to general poverty reduction?

If one takes the latter view, then the primary responsibility of the management authority is to ensure that resource rents are generated on a sustainable basis so that funds are available to make appropriate poverty-reducing investments<sup>(2)</sup>.

**Who is to exploit the resource?** Decisions about resource rent objectives will also require that policy choices be made concerning who is to be allowed to exploit the resource and under what conditions. Assuming that an appropriate exploitation level has been defined for a fishery, coastal states may, for example, find that they can generate more financial resources on a sustainable basis if they allow the fishing to be done by foreign fishers. The reason is simply that foreign fishers may be prepared and able to pay a higher price for access rights than domestic fishers. But excluding the latter faces the difficulty that the losing group often seems to comprise some of the poorer members of society, precisely because fishing has often been conducted on a free and open access basis.

Nonetheless, in principle, net social welfare can be increased with such trade since the gains made should exceed the losses of those who lose. For there to be a non-ambiguous gain, the Government would need to ensure that those who lose are compensated, either directly or through the use of the rents acquired to make investments that benefit the losing group. One reason why access agreements often receive a bad press is perhaps because coastal state governments have paid insufficient attention to identifying potential losers, and ensuring that they in fact benefit from the increase in resources which are available through the rents achieved.

Care also needs to be taken to ensure that distant water fishers have a genuine comparative advantage. If they can afford to pay higher prices for rights merely because they are subsidised, the situation requires very careful handling.

**Devolved rent collection** - One practical problem with the suggestion that the Government should ensure that resource rents are generated and used to make poverty-reducing investments is that in many, if not most, countries the contribution that the fisheries sector could make to national economic welfare is so small that states have had relatively little interest in adopting economically-rational fishery management systems.

One way to avoid this problem would be to devolve rent collection to a level in the system where the amounts involved matter. Such an approach should help to ensure that the economic issues involved in fisheries exploitation and management are taken into account more effectively.

There are a number of possible choices. At one extreme, the most devolved solution of all would be to give property rights to fishers and the resource rent could be capitalised at their level. The empirical evidence suggests that this is likely to generate economically-efficient outcomes. The problem is that it may be considered unfair and this may ultimately affect the sustainability of the management system itself. The State could, of course, relatively easily remedy the situation by establishing resource rental charges but there seems a general reluctance to do this. In a number of countries, legislation specifically limits to very low levels the amount of rent that the State can collect.

An alternative would be to adopt a co-management system where use rights are devolved to fisher organisations. Once again if desired a rental charge could be levied on the organisations. This solution may not be very different in practice from a system where rights are allocated directly to fishers, but the organisation may serve to meet subsidiary objectives such as the protection of certain regions.

Another alternative, suggested by Hannesson (1993), would be to establish a coastal commission to collect resource rents. This commission could be set up at various levels, depending on objectives and the nature and importance of the fisheries involved. It could be local (perhaps as part of a local authority), coastal or regional (for instance, in line with the regional seas idea). In countries where fishing is important enough the commission could be national.

It must be noted, however, that although decentralisation may be a useful approach, care is required in its implementation. In particular, it may be easier for powerful interest groups to take control of a decentralised system than a centralised one (Bardhan, 1996). Where, therefore, fiscal reform means that the power of collection and allocation is transferred away from the centre, the consequences of such a move might need to be carefully considered.

**Use rights** - The issue of devolving resource rent collection is clearly linked with use right allocation. It has been argued in other contexts (e.g. de Soto, 2000) that one of the greatest problems faced by the poor is that they generally lack property or use rights, which places them in a precarious situation. One approach that

## Centres of expertise cont.

- Netherlands Institute for Fisheries Research - RIVO
- Organisation for Economic Cooperation and Development, OECD-DAC
- Overseas Development Institute - ODI
- Support unit for International Fisheries and Aquatic Research - SIFAR
- University of British Columbia - UBC, Fisheries Centre
- University of Portsmouth, Centre for the Economics and Management of Aquatic Resources - CEMARE
- World Bank
- WorldFish Center - WFC

could be used in fishing would be to allocate use rights quite deliberately to the poor and allow them to keep the resource rents that are generated.

This use right allocation may be strongly associated with resource rent devolution through the involvement of coastal communities (Morales jr, 1999).

Related to this idea is the development of sustainable livelihoods both in fishing and elsewhere in the economy. FAO is currently running a major programme aimed at enhancing sustainable fisheries livelihoods (SFLP, 2004).

**Social safety nets** - Rather than seeking to generate wealth, the fishing sector has often been given a more direct role in poverty alleviation as an employer of last resort, providing or contributing to the social safety net (particularly in isolated regions).

In unmanaged or poorly managed fisheries, fishers are often among the poorer members of society. This situation is a consequence, which may or may not be an explicit policy choice, of leaving access to fish resources open and free. As Mackenzie (1979, p.816, footnote 5) observes "the received image of the poor fisherman is to be stood on its head - he is a fisherman because he is poor, not the other way around". The consequence of leaving access to the resource open and free is that resource rents are dissipated. However, this outcome may be socially acceptable, or preferred, if the poor have no alternative source of livelihood. The implicit wealth of the fish resource is then used to provide a social safety net.

In making such policy choices, there is a need to be clear about the consequences, both good and bad. Clearly, in desperate times, overexploiting fish resources may be a small price to pay to alleviate poverty by providing livelihood opportunities to the poor. But no policy is without risks and costs.

One clear risk in this approach is that the fish resource may be placed under great stress. In some circumstances, the fish stock could collapse completely with dire consequences for those who have come to depend on the resource. The collapse of the Canadian Atlantic cod fishery offers lessons in this regard where the failure of the stock in the early 1990s resulted in something like 40,000 people being made unemployed.

Mercifully, stock collapse remains relatively rare. A more likely phenomenon is that overfishing will gradually reduce the size and quality of fish so that the revenues that the poor are able to extract from the resource gradually decline. The widespread development of so-called trash fishing in Asia shows how fish resources that are initially exploited as food-fish can gradually be reduced to low value catch, suitable only as feed in aquaculture operations.

A social safety net policy that relies on free and open access to the resource may therefore provide opportunities to the poor but these opportunities may not be sustainable in the longer term. In fisheries policy, it is difficult to escape the constraint imposed by the renewable nature of the resource.

The policy also has another flaw. In order to benefit from fish resources, a poor person must be actively involved in fish exploitation. Not only does this play a key role in the overexploitation of the resource, it also discriminates against those poor members of society who are not able to fish for one reason or another.

**Employment** - The use of fishing to provide employment of the last resort merits some further comments. Improving the economic performance of the fishing industry often involves reducing the exploitation rate and this may mean the loss of some employment. However, employment depends more on how the fishery is managed than the level to which it is managed. Given the exploitation rate determined by the biological resource constraint, employment can be increased by requiring that the fishing industry use less than the best available technology. This might help the poor but the question would have to be asked why the fishing sector should be condemned to inefficiency in this way rather than other sectors of the economy. If employment is the goal, one clear policy guideline is not to subsidise the fishing industry to modernise since this will almost certainly reduce employment. But this may conflict with other goals, such as ensuring that exporters meet hygiene standards. The problem of conflicting goals is pervasive in fisheries management.

**Limits and transitions** - Because of the natural limit set by the fish resource, it will be difficult to extend indefinitely any policy that aims to achieve poverty alleviation by increasing the numbers of fishers. For instance, if the fish resource is used to provide employment, it is clear that this can only be a partial solution to the problem – not everyone can become a fisher.

There appears to be a gradual realisation based on theory and experience that the most effective way in which the fishing sector can make a sustainable contribution to poverty reduction is to ensure that its potential wealth is generated. In order to achieve this, it is necessary to correct the generally overexploited state of the world's fisheries. Although this correction will improve things in the long run, during the



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transitional period things are likely to get worse because of the need to reduce the resources (people and vessels) involved in catching the fish. If the people involved are poor, they may be unable to withstand a worsening of their situation, even for a short period of time. It is essential therefore to develop a transitional process that will enable the situation to be improved gradually.

**Poverty, institutions, politics and governance** - In concentrating on fiscal aspects, the above paragraphs have concentrated on wealth generation as a key aspect of poverty reduction. But this is far from the end of the story. Poverty in fisheries also has strong institutional and political dimensions. Even if many fisheries may be capable, with appropriate management, of generating considerable wealth, which can be re-invested in the economy and used as a basis for economic growth and poverty reduction. The success of this process will depend on institutional capacities of various types and political 'will' to make the right investment choices and ensure effective implementation (Neiland, 2004). At a local level, poverty in fisheries may be caused and persist because fishery stakeholders do not have access to fishery resources or cannot hold on to the wealth which they generate through fisheries because the system is controlled by powerful elites within society.

Therefore, at both of these levels, national and local, the diagnosis of poverty must include a consideration of the governance context. Understanding the relationship between the 'governors' and the 'governed' in society, and the associated control of access to productive natural resources such as fisheries, and the resultant benefits, is now recognised as fundamental to poverty analysis. Researchers such as Galbraith (1980) and Sen (1981) helped to develop these ideas, and today poverty is widely conceptualised from a multi-dimensional perspective to include economic, social, institutional, political and other factors (e.g. DFID/FAO SFLP website and the World Bank's World Development Report (2000)).

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(1) This special series of Key Sheets on Fiscal Reform in Fisheries disseminate the outputs of a 'Workshop and Exchange of Views on Fiscal Reform in Fisheries - To Promote Growth, Poverty Eradication and Sustainable Management' organised by SIFAR/FAO, Rome in October 2003 and sponsored by DFID. See Fiscal Reform in Fisheries Key Sheet 1: [Workshop overview](#).

(2) See: Fiscal reform in fisheries, Key Sheet 4: [Management instruments and rent collection](#).

N.B. Text in blue indicates online links.



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