

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.

8. Marine Fisheries

Overview of the debate

Over the last 5 years the debate about marine fisheries has focused on:

- conflicting aims of fisheries development policies;
- over-exploitation of fisheries resources in many parts of the world and the associated over-capitalisation and subsidies within the fishery;
- the need to develop efficient and effective fisheries management systems to address local and national goals, and to avoid illegal fisheries and international conflicts;
- access rights to common-pool resources, particularly for developing countries and the poor;
- change in the post-harvest sector, especially the decline of traditional processing, increasing demand and static supply, quality standards and trade (especially tariff and non-tariff barriers and the potential role of WTO regulations);
- the need to create alternative income opportunities that provide real options for reducing pressure on already depleted resources, and thus linking into wider coastal livelihood strategies;
- co-ordination among sectors and development agencies to ensure harmonisation of policies and policy implementation (e.g., EU Common Fisheries Policy with Development Policy).

Key issues in decision making

The resource: threats and trends Fish are fugitive and mainly common-pool resources that defy easy boundary or ownership. Fish cross or bridge national borders or move between national waters and the high seas. Some species are migratory and/or vary in seasonal abundance. Most tropical fisheries are multi-species with high levels of inter-species dependence and interaction. The availability of fisheries resources depends, in part, on the carrying capacity of the environment.

Many of the world's fishing resources are exploited at or beyond their limit. This is caused by over-expanded fishing efforts, inappropriate fishing methods, and declining carrying capacity of many coastal waters due to environmental degradation. Much degradation is from other sectors, hence the growing need for inter-sectoral coordination. Current exploitation levels are leading to:

- a further increase in fishing effort to compensate for falling catches;
- increasing conflict among resource users;
- increasing transaction costs throughout the sector;
- displacement of traditional fishers, processors and traders (especially the poorer groups);
- reducing biodiversity;
- increasing fish prices and declining fish availability for poor consumers;
- a growing need to assess fish stocks and for management and control systems.

Many fishing communities traditionally had some form of management, but few are able to accommodate modern developments. Governments have tried to compensate through centrally planned management. Few of these have worked well because of the difficulties in ensuring compliance. Attempts are now being made to work with communities to build on traditional knowledge, institutions and systems to provide co-management by government and communities. A major obstacle to be addressed by co-management is how to harmonise the management objectives of the state with those of the different stakeholders involved in the fishery. Fisheries-management objectives are invariably subservient to wider national development objectives, and these often require the fishery to provide a conflicting array of benefits such as foreign-exchange generation, poverty alleviation in local communities, employment and food security.

At the international level there are also policy coherence issues, particularly related to foreign fishing agreements and wider development policy. The Code of Conduct for Responsible Fisheries, which builds on the earlier UN Convention on the Law of the Sea and other initiatives such as Agenda 21, does provide a sound but evolving framework for improved international collaboration and for sustainable development that considers the needs of the poor.

Stakeholders in fisheries The sector provides livelihoods for some 150 million poor people worldwide. They work side-by-side with larger industrial craft, both local and foreign. Key features of the stakeholders in marine fisheries are:

- They range from wealthy investors in capital-intensive production and processing units to subsistence fishers, processors and traders.
- They have diverse livelihoods, often reflecting the high level of biodiversity in coastal areas.
- Division of labour occurs mainly on a gender basis.
- Class, caste, tribe and ethnic origin influence access to fishing rights and skills in many countries.
- Migration across state and national borders is common.

Marine Fisheries *continued*

Experience

- DFID supports a wide range of work in E, W and S Africa, S and SE Asia, the Caribbean and Latin America.
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Expertise

- FAO Fisheries Dept, www.fao.org
- FAO Support Unit for International Fisheries and Aquatic Research, www.onefish.org
- ICLARM, World Fish Center, www.iclarm.org
- Marine Resources Assessment Group, London, www.mragltd.com
- Netherlands Institute for Fisheries Research (RIVO), IJmuiden, www.rivo.dlo.nl
- Univ. of Aberdeen, Dept of Zoology, www.abdn.ac.uk/zoology
- Integrated Marine Management, Exeter, www.ex.ac.uk/imm
- Univ. of Portsmouth, Centre for Economics and Management of Aquatic Resources, www.pbs.port.ac.uk/econ/cemare
- Wageningen University Fish Culture and Fisheries Group, www.zod.wau.nl/venv

- Their remote location, migratory nature, poverty and (generally) low status marginalises them from political decision making.
- Many people enter the fishery when other work opportunities are reduced.

Livelihoods for the poor Poverty in fishing communities can be obscured by the diversity of stakeholders and by high levels of cash-flow in the communities. High cash-flow, however, reflects the rapid turnover of a very perishable product rather than profitability. The fugitive nature of fish, the hostile environment of the seas, and the perishability of the product make the sector one of high risk. This is associated with indebtedness and weak access to formal credit. As a result, middlemen (and women) play a significant role in many fisheries. Their position is controversial, and some see them as exploitative. However, the cost of their services is likely to reflect the transaction costs of the sector and may disguise a range of other 'uncosted' services they provide.

The sector is increasingly globalised. Over 40% of the world's fish production by weight enters international trade, making it the most international form of food production. Most of this output is produced by developing countries for export to developed countries. Modern technologies and practices are improving the quality of fish but reducing livelihood options for traditional workers. Fish have also traditionally been the main source of animal protein of the poor in many countries, and changes in fish availability on domestic markets threaten food security for many poor people.

An important coping strategy is migration, either to follow the fish or to search for work elsewhere. Such movements can result in complex social relationships with local people, international conflicts, and policy and service-delivery dilemmas for local administrations.

Changes are threatening the livelihoods of many of the poorest communities, which are unable to respond quickly to new opportunities. Their livelihoods are being displaced by unsustainable practices that hasten resource over-exploitation. This is in part being fuelled by the production focus of the sector. The potential social benefits of the sector for the poor are largely being lost.

Key actions Key actions for development agencies include:

- Shifting from a focus on fish production to a focus on people, where the needs and aspirations of the fishing communities are listened to and valued, and their opinions actively sought.
- Reorienting research to be multidisciplinary and demand-driven, to bridge between communities and policy makers through greater involvement of fishers and indigenous knowledge in research.
- Encouraging and supporting the uptake of the Code of Conduct for Responsible Fisheries and the provisions of Agenda 21 on fisheries (chapter 17) and on poverty alleviation (chapter 3).
- Actively supporting the improved, more transparent and accountable management of resources through a partnership between the state and resource users, and across national boundaries, but acknowledging that simple solutions to long-term management problems do not exist.
- Supporting the identification and development of viable alternative livelihoods for those excluded from the sector. This means viewing fisheries in the wider context of coastal communities.
- Enhancing environmental carrying capacity by reducing the adverse effects of other sectors through inter-sectoral and international cooperation in policy-making and implementation.
- Supporting the search for new fish stocks and their scientific assessment, the exploitation of previously under-used resources, the reduction of discards, improvements in access to markets and adding value to fish, and improvements in handling, preservation and storage of fish.
- Assisting governments to understand the potential conflicts among different aims of fisheries development, and to improve policy processes. In particular, focusing on the potential fisheries as a social-policy instrument that can support the sustainable livelihoods of the rural poor.
- Promoting an awareness of the weak social and financial assets of the very poor (especially women) and their importance when designing service-delivery programmes.

Key literature

FAO (1995) *Code of Conduct for Responsible Fisheries*. www.fao.org/fi/agreem/codecond/ficonde.asp

FAO (1997) 'Review of the State of the World's Fishery Resources: Marine Fisheries'. *FAO Fisheries Circular 920* FIRM/C920 (En), www.fao.org/docrep/003/w4248e/w4248e00.htm

United Nations Conference on Environment & Development (1992) *Rio Declaration on Environment and Development* and the provisions of *Agenda 21*, www.ecouncil.ac.cr/about/ftp/riodoc.htm

Key Sheets are available on the Internet at: www.odi.org.uk/keysheets/
or through the websites of DFID and the Netherlands Ministry of Foreign Affairs

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