



Policy Briefs

The purpose of these Policy Briefs is to ensure effective dissemination of information collected and generated as a result of the World Bank-funded Study of Good Management Practice in Sustainable Fisheries, the ACP Fish II Feasibility Study (EC), and a Workshop on Fiscal Reform in Fisheries (DFID and GTZ).

World Bank Study

During 2003, the project 'Study of Good Management Practice in Sustainable Fisheries' was undertaken by SIFAR with funding from the World Bank. This resulted in an initial (brief) report followed by the substantive report which have contributed to a recent internal World Bank process aimed at justifying future investments in fisheries sector development.

EC ACP Fish II Feasibility Study

During 2002/2003 SIFAR/FAO undertook a feasibility study on behalf of the European Commission (European Aid Cooperation Office - AIDCO). This comprised an extensive consultation process with fisheries sector participants from over 60 ACP countries, together with the preparation of a range of major project proposals covering capacity building for more effective fisheries management in Africa, the Caribbean and the Pacific.

2. The reality of success in fisheries management

Overview

The findings of the case-studies (shown in the list of references below) which were undertaken as part of the World Bank funded project 'Study of Good Management Practice in Sustainable Fisheries' are presented in this Policy Brief. The comparison and synthesis of the findings from across the world highlight seven important issues or factors which can help us to understand the reality of success in fisheries management. It is clear that successful fisheries management is rarely due to one factor, but to a complex combination of numerous elements. Furthermore, some of the factors are beyond the control of fisheries managers (environmental factors being an obvious example) and others which are local and not replicable in other circumstances (the role of key people being an obvious example).

Key issues

IDENTIFYING THE FACTORS FOR SUCCESS

The following are some of the factors that are needed for successful fisheries management – the list is far from exhaustive. Few, if any, of these factors are able to contribute to success on their own: inevitably each factor is operating alongside a number of other factors.

1. *Creating appropriate incentives*

In unmanaged and poorly managed fisheries, incentives are created which push the fishery towards overexploitation. An important challenge for fishery management authorities is to devise management systems that remove such perverse incentives and instead encourage rational exploitation.

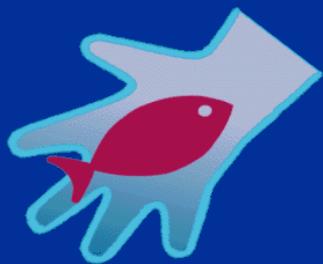
One approach is to develop use right systems. A range of choices is available for such systems, and the best choice will depend on the particular circumstances of the fishery. Defining use rights may help to achieve success in a number of ways. An important element is that, if well-designed, such systems give users a stake in the future of the resource which can help to improve compliance and with exploitation patterns. They can also eliminate the race for fish.

For use rights to contribute to success they have to be both equitable in their allocation and seen to be a fair means of controlling effort by the wider group of stakeholders (the nation-state).

Rights can come in a wide variety of forms. The cases of the [Pacific Halibut Fishery](#), the development of [Namibia's](#) fisheries post-independence and the allocation of fishing rights in [Shetland](#) all show how formal rights in terms of an individual or vessel quota can help reduce the race to fish. Defining fishing opportunities enables fishers to match their fishing activity to the market rather than being driven in the race to fish. In the case of Namibia, allocation of use rights in the form of quota also helped build 'identity' with the new fishery which prior to independence had been a *de facto* open access fishery. But rights-based management does not have to manifest itself in the form of formal quotas. The cases of the fisheries in [India](#) and [Senegal](#) show how community norms and

DFID Fiscal Reform in Fisheries Workshop

In October 2003, SIFAR organised a Workshop and Exchange of Views on Fiscal Reform in Fisheries - to 'promote growth, poverty eradication and sustainable management'. This took place in the context of a wider OECD-DAC Initiative, promoted through the UK Department for International Development (DFID), examining issues related to environmental fiscal reform.



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April 2004

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processes control effort and catch through assigning 'rights'. In the case of [Senegal](#) the catch levels were set by the community themselves, rather than by an outside agency.

2. Institutional Capacity

There is little doubt that institutions are critical to fisheries management. Biology was the original basis for management, economics and the behaviour of fishers was then added to the biological framework and, in the last decade or so, institutional approaches to understanding fisheries have come to the fore. An institutional approach to fisheries management emphasises that besides the biology and the economics, fisheries managers need to understand how a wide range of institutional arrangements impact upon the fishery. These institutional arrangements include legislative frameworks, policy processes, mechanisms for cooperation, institutions for research and information collection and analysis and so forth. But, more than just institutions, fisheries require sufficient institutional capacity to carry out these tasks. This capacity is often lacking in many developing countries, but, even so, success stories are in evidence.

The study of [Mauritania](#) demonstrates how an appropriate institutional framework was able to ensure that a significant proportion of central government revenue came from the fisheries sector through the collection of resource rent. Likewise the [Indian](#) case study shows how informal institutions such as the caste Panchayats contributed towards the cooperative management of fisheries resources. Institutions are dynamic and the case of [Pacific Halibut](#) shows how institutional change (which is often very slow) was partly responsible for the long time it took fisheries managers to regulate the fishery in a manner which effectively lengthened the season and reduced risk.

3. Holistic approaches to fisheries management planning and stakeholder participation

Fisheries managers cannot act in isolation. Fisheries may be just one part of livelihood strategies and from an ecosystem perspective they are just one part of a bigger picture. Successful management must be cognisant of this. Where appropriate, multi-sectoral approaches must be taken so that fisheries management recognises the interests and impact of related sectors. Generally speaking the risk is that other sectors will adversely impact the fishery sector (e.g. through habitat destruction) but there is a need to take account of possible negative impacts by the fishery sector, again to avoid challenges to the management system. As part of this holistic approach, stakeholder participation is critical.

The case study from [Shetland](#) provides an excellent example of how a fishery can be turned around when all concerned work together. Through cooperation by environmentalist, fishers and the state, significant results were achieved. In [India](#), the caste Panchayats are charged not with managing the fishery, but with managing the community – taking account of all the constituent parts. The cooperation of stakeholders is also evident in [Senegal](#) where fishers were able to work together to improve conditions on the beach and the state was willing to work with the fishers also.

4. Dealing with complexity and change in fisheries management

Fisheries are located within diverse and complex systems. Biology, sociology, economics and institutions all bring pressure to bear on the system. Complexity is often charged with being the cause of failure in management systems where in fact it should be the catalyst for innovation. To successfully manage such complexity requires flexibility, the ability to learn and adapt.

The caste Panchayats in [India](#) are an excellent example of how flexible such a system can be. Over a long period of time, these institutions have managed the fishery and the community that depends on it, by being able to adapt to external changes and respond to internal demands. The [Namibian](#) case study demonstrates that through a period of considerable turmoil at independence, the fisheries management system was able to define the boundaries to the fishery (the EEZ), establish a quota system and create a sense of 'ownership' amidst a complex political and economic environment. What is more both the [Namibian](#) case and the [Pacific Halibut](#) case show how the biological complexity of a fishery can be successfully managed and a fishery brought back from a state of over-exploitation.

5. Cooperation in fisheries management

A fishery that is able to draw on the cooperation of all concerned will be more likely to demonstrate success than one where there is disunity. Cooperation can be both horizontal (between fishers) and vertical (between fishers, industry and the state). Cooperation can also manifest itself through co-management arrangements.

The [Senegalese](#) case study is an excellent example of how cooperation amongst fishers was able to halt stock decline, improve livelihoods, and, eventually, co-opt the merchants too. Cooperation amongst the fishers in the [Northern Prawn Fishery](#) in Australia was able to help a new management regime be put in place, something also demonstrated by the [Pacific Halibut](#) study. In [Namibia](#), cooperation between industry and the state was instrumental in the early success of the new fisheries regime and cooperation between different stakeholder groups was able to work towards a successful resolution to the sand-eel problem in the [Shetlands](#).

6. Resource rent as a central concept in fisheries management

The ability to extract resource rent and allocate it within the economy is a critical contributor to success in fisheries management for two reasons. Firstly, because if resource rent is being collected then there is a chance that the fishery is being managed effectively from an economic perspective, in which case it is also likely that exploitation levels are biologically sustainable also. Secondly, a fishery that is able to contribute to the wider economy through the collection of resource rent is potentially fulfilling the social objectives of a fishery management plan. Although it is often assumed that resource rent is being dissipated in the fishery, there are some notable examples of where resource rent has been collected successfully.

[Mauritania](#) has consistently financed over 20% of its central government expenditure with revenues from fishing. To begin with, the domestic fishing industry provided the lion's share of this revenue through the extraction of resource rents via export taxes. Since 1995, however, the situation has gradually changed and the contribution now comes almost exclusively from the fishing access agreement with the European Union. [Namibia](#) was also successful in generating resource rent from its fisheries and for most of the period since independence has succeeded in covering costs.

7. Policy frameworks

Management of natural resources has to sit within a national policy framework. Such a policy framework is made up of the stated objectives of the various state departments (fisheries, trade, environment etc.) and the overall macro-economic goals of the government. The strength, flexibility and appropriateness of the framework will have a sizeable impact on the success of the management objectives. Policy frameworks for natural resources can range from the highly optimistic and lacking in any identifiable goals to the more realistic that identify clear goals and how and when they may be reached.

The [Northern Prawn Fishery](#) in Australia is a good example of how a good policy framework was able to set the boundaries for the fisheries management system – and how this was ably supported by a good legislative framework too.

Concluding remarks

The factors identified above are among the most important contributing to success. They are certainly not the only ones. Given the multi-dimensional nature of success (and failure), other factors may be more important in some places, at some times and to some people. Among other factors, one could also mention a perception of fairness amongst stakeholders. This may be engendered through cooperation and co-management arrangements as mentioned above. The development of a process of fishery management planning is also important – a process which needs to be on-going and reflective of its context. Enforcement, compliance, monitoring and surveillance are also all elements that are needed in a successful fishery if the policy is to be efficiently put into place, if the legislative framework is to be respected and if biological targets are to be met.

In addition to being multi-dimensional, success is also dynamic. It is never achieved definitively. Fishing takes place in a very dynamic environment, both in a physical and in an economic sense. A successful management system is one that can cope with the dynamics, either through its inherent design or through adaptation of management measures or by some combination of the two. The management features underpinning success must be continually reassessed, adapted and evolved.

Key literature

WORLD BANK/SIFAR/IDDRA (2004) [A rights-based approach to management: The case of the Pacific Halibut Fishery in Canada and the USA](#). Policy Brief 4.

WORLD BANK/SIFAR/IDDRA (2004) [Building institutional capacity: The case of Mauritania](#). Policy Brief 5.

WORLD BANK/SIFAR/IDDRA (2004) [Holistic approaches to fisheries management planning and stakeholder participation: the case of the Shetland Isles](#). Policy Brief 6.

WORLD BANK/SIFAR/IDDRA (2004) [Dealing with complexity and change in fisheries management: the case of small-scale fisheries in Andhra Pradesh, India](#). Policy Brief 7.

WORLD BANK/SIFAR/IDDRA (2004) [Cooperation in fisheries management: The case of Senegal](#). Policy Brief 8.

WORLD BANK/SIFAR/IDDRA (2004) [Resource rent as a central concept in fisheries management: The case of Namibia](#). Policy Brief 9.

WORLD BANK/SIFAR/IDDRA (2004) [Appropriate policy frameworks: The case of the Northern Prawn Fishery, Australia](#). Policy Brief 10.

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