11 Lessons for out-scaling and up-scaling from *Fisheries and economic growth*

Key points

- The contributions that both industrial-scale and small-scale fisheries make to the economies of developing countries are neglected.
- Economic growth from both industrial-scale and small-scale fisheries depends on maintaining sustainable fish stocks. Tools to help governments and communities assess and manage fish stocks need to be widely used.

Lessons learned

The economic potential of fisheries is neglected. Fisheries are not a high-profile sector in many developing countries, partly because official data on fisheries is often scanty (particularly for small-scale fisheries). So, the contribution that both industrial-scale and small-scale fisheries make to these economies is invisible, unacknowledged and, as a result, neglected in economic growth and poverty reduction strategies.

Research shows that fisheries can contribute to growth at both national and local levels. However, few governments act on these results and most do not appreciate the economic potential of fisheries. Thus, opportunities for fisheries to boost economic growth are lost. Ways need to be found to 'give fisheries a voice' when developing national economic growth and poverty reduction strategies.

Economic modelling tools help developing countries decide how to realise the economic potential of industrial fisheries. Fish products (mostly from industrial-scale fisheries) are a major source of foreign exchange for developing countries. Globally, they bring in more than coffee, cocoa, sugar and tea combined. Fisheries also generate taxes, employ people and provide protein foods for domestic markets.

Researchers have developed economic modelling tools that have helped governments to explore options for fisheries, manage stocks and maximise revenue from industrial fisheries. These tools help users avoid risky or uncertain decisions. The trick is to convince governments to use them (Box 11.1).

Economic growth in both industrial-scale and small-scale fisheries depends on sustainable fish stocks. The global fish population is taking a nose dive as species become rare or disappear because of overfishing. There are therefore two main issues for governments to address: The first is to assess fish stocks—a complex task in marine and river basin fisheries as it's hard to pin down where fish are at any one time. The second is to manage fish stocks—again not so easy as fishers will lose out if they are prevented from fishing.

Box 11.1

Modelling tools can help governments realise the economic potential of industrial fisheries

Countries can benefit from selling licenses to fish in Exclusive Economic Zones and from exporting fish. But they only benefit if such licensing and exports are well managed. Even then, they have to cope with trade-offs, for example earning export income as opposed to supplying the domestic market, or selling licenses to foreign fishing fleets as opposed to developing their own fishing industries. Export earnings and revenues from licenses can buy imports to substitute for the fish exported. Or, they can be put towards better health or education services. Researchers have developed tools to help governments make these decisions.

Seychelles tuna long-line fishery

The Seychelles quadrupled annual revenues from its tuna long-line fishery by applying models that:

- assessed the benefits of selling licenses to foreign fishing fleets
- assessed the costs of monitoring and controlling foreign fishing fleets
- set fees, legal penalties and budgets for surveillance

Case studies of license fees for foreign fleets fishing Exclusive Economic Zones show that:

- in the short term, improving compliance and selling more licenses brings in more revenue than raising license fees
- in the medium to long term, governments need to collect precise data on catches by licensed and illegal boats to ensure sustainable industrial fisheries

Researchers have come up with tools that can help managers and communities assess and manage stocks in industrial-scale and small-scale fisheries. These help them quickly collect data, produce reports and take appropriate action. But more people need to use these tools.

At the policy level, research-based advice to governments makes clear that there is a short-term cost to restricting catches so that stocks can recover, but that managing the stocks so that the population can replace itself will increase total economic benefits in the long-term. But governments need to act on this advice.

They often don't because economic, social and environmental goals for fisheries conflict. Addressing this means working with governments to develop coherent policies that recognise and maximise the ways that fisheries can contribute to economic growth. In other words, it means being part of the process of developing national economic growth and poverty reduction plans.

Fisheries that have dollar value are more likely to be well managed.[39] The value of a fishery can be measured by adding up the costs that would be incurred if the fishery were to collapse: the cost of imports to replace fish caught, cost of unemployment and other costs. A study of 50 fisheries showed that when the value of the fishery was known it was more likely to be well managed.

The invisible economic benefits of small-scale fisheries. Small-scale fisheries employ and support 22 million people, mostly in developing countries. Data on these fisheries is difficult to collect and, so, often does not appear, or is underestimated, in national statistics. Most data comes from secondary sources, for example per capita fish protein consumption may be based on official fish production and imports minus exports.

Research has helped raise the income of fishers working in small-scale inland and marine fisheries, for example by stocking fisheries with fingerlings and introducing fish with a higher market value. Research has also provided tools and guidelines for managing small-scale fisheries (Box 11.2). However, governments may not be aware of economic growth potential in small-scale fisheries and so may not consider them when developing economic plans.

Box 11.2

Economic growth in small-scale fisheries may be invisible to national governments

In Lao PDR, communities doubled profits by stocking fisheries with young fish. The additional income was used to develop community facilities and help poorer households.

In Indonesia, to allow stocks to regenerate, researchers developed criteria for selecting river areas where fishing was forbidden. Because of these reserves, fishers' daily catches increased.

This synopsis of lessons learned for up-scaling and out-scaling research into use is based on:

MRAG/DFID. 2006. 'Fisheries and economic growth', FMSP Policy Brief 2, London: MRAG Ltd. FMSP

see

http://www.fmsp.org.uk/Documents/keylessons/FMSPBrief2_Economic%20Growth.pdf

[39] See also Dollar, D. and Kraay, A. 2001 Growth is good for the poor. Washington, DC: World Bank Research Group.