"The State of World Fisheries and Aquaculture" (SOFIA) is a comprehensive biennial publication brought out by the Fisheries Department of the FAO. Accompanied by a CD-ROM, SOFIA facilitates "a balanced and comprehensive understanding of the fisheries sector, particularly its international aspects". Reproduced here are excerpts from a chapter on small-scale fishing communities in the 2002 edition of SOFIA, which was out last year.

Poverty alleviation in small-scale fishing communities

The issue

hile economic growth has helped to reduce the number of poor people in the world, the numbers of those that remain poor is disturbingly high. The positive impacts of growth on poverty have been less than expected, in part because of inequitable distribution of the benefits, population increases, and the effects of the HIV/AIDS epidemic. As a result, there has been a re-focusing on poverty from many governments and donor agencies.

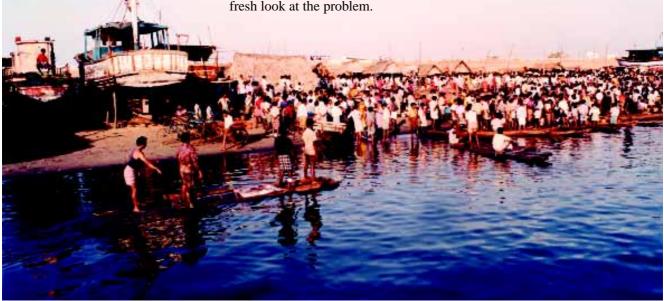
In the past, while many development interventions aimed at reducing poverty, most did not focus explicitly on improving the living conditions of poor people but on accelerating economic growth



through technology and infrastructure development, and market-led economic policies. The lack of an explicit focus on poverty may in part explain why many interventions have been neutral in their impacts on poverty, and some may actually have been detrimental. The continued levels of poverty in small-scale fishing communities, and in the world more generally, require all those concerned to take a fresh look at the problem.

Poverty is a very complex, multidimensional concept, has many determinants, and is about much more than just low earnings *i.e.* income poverty. An explicit emphasis on poverty is therefore necessary to better define and understand it, to measure progress towards poverty alleviation targets, and to gain an improved awareness of whom it affects and what strategies can best tackle it.

Poverty in small-scale fishing communities, as in other sectors, is difficult to measure. While there are many studies on poverty in farming communities and the urban poor, there are few empirical studies focussing on fisheries. Those that have been undertaken have often focussed just on income, and on the fishers themselves, rather than on a broader concept of poverty in fishing households and communities.





Oru, a traditional fishing craft of Sri Lanka.

Poor fishers and their dependents are not a homogenous, unchanging group of people. The level of absolute and relative poverty, within and between small-scale fishing communities, varies considerably by area, country, and region.

Although there are poverty traps in fishing communities, over time community members can sometimes become less, rather than more, poor. Fishing communities are often relatively cash-rich, compared to farming communities, mainly because fishers sell a larger proportion of their production, more frequently and consistently than do most farmers. They remain vulnerable to sudden variations in earnings, however. Some factors may be important determinants of poverty but not of vulnerability, and vice versa.

Small-scale fishing communities are vulnerable to many events, the outcome of which may be poverty. Examples: climatic/natural events such as yearly and seasonal fluctuations in fish stock abundance, poor catches, bad weather, and natural disasters such as cyclones and hurricanes; economic factors such as market price fluctuations, and variable access to markets; and the dangers of working at sea. People in small-scale fishing communities may also be vulnerable to poor health and other

wider determinants of poverty. Unfortunately, studies suggest that vulnerability is increasing among the poor in small-scale fishing communities.

In developing countries many millions of people live in smallscale fishing communities. Not all small-scale fishers can be assumed to be poor, but a large proportion certainly are, and remain so despite the efforts of donor agencies, national and local governments, NGOs, and the communities themselves. Reasons for continuing poverty include factors within and outside of the fisheries sector: vulnerability as already discussed; insecure access to resources: proneness to resource depletion; the remoteness of many fishing communities; the agro-ecological characteristics of nearby land; their low socio-economic, cultural and political status; a lack of political and financial support (often as a result of an emphasis on semiindustrial and industrial fishing); and competition and conflict with industrial vessels and other economic sectors in coastal areas.

Despite the difficulties of measuring poverty in small-scale fishing communities, and indeed of defining who is a fisher (as fishers farm, and farmers fish) and what is a "fishing community", some crude estimates of the numbers of "income-poor" fishers can be

proposed. Global estimates of income-poor small-scale fishers and related employment in marine and inland capture fisheries suggest that 5.8 million, or 20 percent of the world's 29 million fishers, may be small-scale fishers earning less than \$1 a day. The income-poor in related upstream and downstream activities e.g. boat-building, marketing and processing, may be as many as 17.3 million. These figures suggest an overall estimate of 23 million income-poor people, plus their household dependents, relying on small-scale fisheries (See box on page 10).

Possible solutions

Economic factors are not the only determinants of poverty; there are also social, cultural and political variables. Understanding these determinants is crucial in designing and implementing effective solutions.

The poor can often be difficult to help due to poor health, illiteracy, a lack of time, and a common aversion to risk. Their lack of influence and power is an especially important problem, and necessitates trying to identify win-win solutions that are in the interests not just of the poor, but also of the rich, the elite and the powerful.

The World Bank suggests that "without economic growth, there can be no long-term poverty reduction", citing the experience of the last decade. Between 1990 and 1999 those regions of the world with the fastest economic growth made the most gains in reducing the numbers of people living on less than \$1 a day. In regions that experienced economic contraction, the numbers of income-poor increased. However, without concerted efforts to redistribute wealth from economic growth, the gap between the rich and the poor is likely to widen.

Solutions outside of the fisheries sector can be as important, if not more so, than strategies employed within the sector, and may therefore require action and co-ordination across sectors.

Strong economic performance in a country, especially of labourintensive sectors, is important for small-scale fishing communities because it can create alternative employment opportunities. Diversity and mobility are key livelihood strategies of the poor; improvements in general economic performance and diversification not only offer potential for some fishers to leave fishing, thus benefiting those that remain, but also create a wider range of opportunities and possible strategies to contribute to household livelihoods of those who remain. This appears to have occurred in Malaysia, one of the few developing countries where the number of fishers showed a decreasing trend in the 1990s.

Improvements in general economic performance also provide opportunities to improve health services, education, public service delivery (such as the provision of roads and thus access to markets), governance, political stability, and safety nets, all of which are likely to help with poverty alleviation in small-scale fishing communities. Even where there is little economic growth, there is scope for progress towards poverty alleviation if policy-makers address these issues. An example often cited is that of Kerala in India, where levels of social attainment (education, health, longevity) are high and incidence of poverty is low, despite limited economic growth and low per-capita income.

Solutions within the fisheries sector: As there is little scope for further expansion of capture fisheries given current levels of exploitation, it is crucial to manage fish resources to avoid further resource depletion. Effective and flexible management can improve incomes by limiting entry to the coastal fisheries, avoiding wasteful investments and over-capitalisation, and by supporting sustainable exploitation practices. It can also improve incomes for the poor by effectively protecting small-scale fishers from the activities of large-scale industrial fishing vessels, thereby



Shoe dhoni – a fishing boat of Andhra Pradesh that also serves as a home for the fisher family.

enlarging the resource base that the poor fishers can exploit.

There are many different types of fisheries management regimes including unregulated common property (i.e. de-facto open access), regulated common property (in which regulation ranges from weak to strong), and management regimes which seek to use private property rights as a management tool. A particular management regime can have a significant influence on poverty; so can the governance framework and institutional arrangements that determine the distribution of wealth. Management regimes must therefore be appropriate for each specific context, and effectively enforced, so as to contribute to poverty alleviation in small-scale fishing communities.

Community management, and perhaps even more so, comanagement (the sharing of power and responsibility between the manager e.g. government, and the resource user e.g. small-scale fishers), offer promising solutions to poverty alleviation, although collective action and comanagement can require many years of capacity-building before they are effective.

The importance of alternative employment opportunities has already been stressed. Aquaculture is often suggested as an obvious alternative, but although it does have potential, there may be constraints that prevent poor capture fishers moving into aquaculture. Such constraints may include high capital costs, lack of suitable sites, and the lack of access to land and water for the poor. Marine-based eco-tourism, another possible alternative, is generating interest in many countries.

Development assistance has often been found to be particularly effective when it supports women in post-harvest and value-added activities, because they often show a greater desire and ability than men do to save and contribute to enhancing household assets. Given that managerial ability and skill are key determinants of the success of individual fishing operations, interventions that upgrade management and skills and address dynamic entrepreneurship may have an impact on poverty in fishing communities.

Three other important solutions to poverty alleviation within the fisheries sector are worth mentioning.

- Reducing/removing subsidies on production inputs may lead to the use of smaller boats and engines, reduced expenditure on fuel, and increased expenditure on labour. In the long-term, this should increase profits, create more employment and income for poor fishers and reduce debt. The removal of subsidies to large-scale fishing operations and infrastructure would also remove market distortions that often disadvantage small-scale fishers.
- Support must be provided both for ex-ante risk management and ex- post coping mechanisms that are used to deal with shocks and stresses.
- Support for effective organisations in fishing communities (e.g. cooperatives, political lobbying groups, social support groups) can benefit the poor by increasing access to credit, effecting policy change in favour of the poor, and reducing vulnerability. Such organisations are most beneficial when Governments are supportive and enabling, rather than constraining or restrictive; fishers identify strongly with the aims and motivations of the organisations concerned; and there is able leadership within fishing communities.

Recent actions

Considerable work is now being undertaken to better understand who and where the poor are, why they are poor, and what mechanisms are most effective for poverty reduction. This explains the increasing importance of poverty mapping, development of poverty assessment methodologies, and the emphasis on well-being and capabilities (rather than just income) which focuses on sustainable livelihoods. However, few such analyses have been carried out in fishing communities.

Recent activities outside the fisheries sector include the development of Poverty Reduction Strategy Papers (PRSPs), jointly with the World Bank and the IMF. Although few of these currently

Studies on poverty in fishing communities

The principal findings of a review, indicate that of nearly 300 published and Internet documents on various aspects of poverty in fisheries there are very few studies and analyses on the extent, nature, causes and dynamics of poverty in fishing communities. Similarly, the extent to which the fisheries sector and its various linked activities (e.g. fish processing, marketing and distribution) contribute to poverty alleviation and food security has been subject to limited study. On the other hand, the literature abounds with statements, largely unsupported by empirical evidence, that suggest that fishing communities belong to the poor, or the poorest strata of society. There is also limited understanding of the impact of poverty (incidence, depth and dynamics) on technological change, community and fishers' organizations, and alternative fisheries management governance regimes. On the policy side, the review found that while government programmes (especially donor-supported fisheries development and management programmes) usually seek, at least implicitly, to reduce poverty in fishing communities, these programmes are rarely targeted on the poor.

Macfadyen, G; Corcoran, E *FAO Fisheries Circular.* No. 979. Rome, FAO. 2002. 93p.

focus specifically on fisheries, they should help if fisheries are identified as a key economic sector, or more generally where strategies to reduce poverty are in place and small-scale fishers are poor.

Recent debt relief to Highly Indebted Poor Countries (HIPC), accompanied by efforts to improve health, education and other social services, should also benefit smallscale fishing communities.

Bilateral assistance is focusing increasingly on poverty reduction and food security. Most donors have now put in place strategies and

criteria that seek to ensure that their assistance is reaching the poor.

Recent activities within the fisheries sector include those carried out by civil society, donor agencies, and national governments.

NGOs and civil society continue to work with local fishing communities to reduce poverty through credit, retraining and alternative employment creation programmes, and through support for fishing-related and social organisations.

National governments are becoming increasingly involved in

Chandi boat – a commonly used traditional fishing craft in the estuarine waters of Bangladesh.



co-managing the control of industrial vessels' activities in waters where small-scale fishers operate, and in ensuring fairer international access agreements.

There is also a growing realisation that many small-scale fisheries need to be restructured. The Philippines is implementing a governance model, based on community management systems, with some degree of success; A much broader approach to poverty alleviation in fishing communities is being tried out in 25 West African countries by the Sustainable Fisheries Livelihoods Programme (SFLP), which is funded by the United Kingdom (DFID) and implemented by the FAO.

Outlook

The objective of poverty reduction requires special strategies and targeting.

Given the importance of overall economic performance, the expected expansion in the world economy can be viewed positively; so can an improving balance of external debt in HIPC. But questions remain about whether this overall growth will be sustained, whether it will be reflected in developing countries, whether small-scale fishing communities will benefit, and whether the gap between the rich and the poor can be narrowed.

It is promising that the weaknesses of many conventional centralised fisheries management regimes are increasingly being recognised. There is now a greater awareness of the need for a process approach to fisheries management (accompanied by capacity-building and reform), that is participatory and flexible enough to adapt to changing conditions. Co-management and community-management arrangements offer some potential in this regard.

Greater awareness that good governance (by administrators, politicians, local elites, fishermen and scientists) lies at the heart of many of the solutions to poverty in small-scale fishing communities is vital. However, despite this

Global estimates of income-poor small-scale fishers and related employment in marine and inland capture fisheries

Assumptions:

- Overall figures for the numbers of fishers are based on 1990 FAO data.
- 2. Marine deep sea fishers and those engaged in aquaculture are excluded, along with all those in North America and Europe.
- 3. The percentage of total fishers and those engaged in related employment who are estimated to be income-poor is based on the *World Development Report* 2000/1 figures for the share of the population in each region in 1998 that was living on less than US\$ 1 a day, *i.e.*, it is
- assumed that the level of poverty in fisheries is the same as it is in other sectors.
- 4. There are assumed to be three people in related jobs for every one fisher.
- 5. One hundred per cent of all inland fishers are assumed to be small-scale, while 90 percent of all marine coastal, unidentified marine and unspecified fishers are assumed to be small-scale.

Sources: FAO 1990 data on total number of world fishers and World Bank. 2000. World Development Report 2000/1, Washington, DC.

Poverty in small-scale fisheries communities

	Africa	Soutl Ameri		Oceania	Former USSR	Total
% of population on < US\$	1					
a day	46.3	15.6	25.6	11.3	5.1	0
Inland	279 598	2 583	514 023	0	0	796 203
Marine Coastal	112 119	10 148	95 837	458	1 331	219 892
Marine other	112 875	43 867	551 133	13 515	0	721 390
Unspecified	1 320 733	40 716	3 660 428	0	0	4 021 876
Total	825 325	97 313	4 821 421	13 972	1 331	5 759 362
Number of related incomepoor jobs	2 475 974	291 940	14 464 262	41 916	3 993	17 278 087
Total income-poor	3 301 299	389 254	19 285 683	55 889	5 324	23 037 449
World population on < US\$ 1 a day 1 198 900 000						
% of world population on < US\$ 1 a day 1.9%						
Source: SOFIA 2002. FAO, Rome						

realisation, improving governance and the institutional capacity to effect meaningful change in the poverty status of small-scale fishing communities is still a formidable challenge; even though it is at least a challenge that is now being embraced.

Without outside assistance, poverty in small-scale fisheries can be combated only gradually. Improved governance paradigms and capable management institutions are needed. They will become effective only if public resources are provided, at least at an initial stage.