

# Major Trends in the Utilisation of Fish in India: Poverty-Policy Considerations

December 2003

## Fisheries In India: An Important and Dynamic Sector

Fisheries in India are a major part of the livelihoods of many coastal and inland people. FAO (2000) has estimated that in 1997 there were approximately 6 million people involved in catching fish and many more involved in processing, storage and trade. The sector also contributed over US\$1107 million in foreign exchange, amounting to about 3.4% of total export earnings. The overall contribution of the sector to the economy is about 1.3% of GDP.

One of the most important contributions is to food security in the country. India is estimated to produce some 6.2 million tonnes of fish (live weight equivalent) of which 4.7 million tonnes is for direct domestic human consumption. The sector also contributes very significantly to poverty reduction in the country by providing work and food for some of the poorest and most marginalised people.

Development within the sector has been

influenced by global forces, particularly the opening up of markets and the increasing global demand for seafood. This has been complemented by improved communications that have facilitated linkages between suppliers and consumers. Fish is now a widely traded commodity and trade linkages reach even the most remote fishing villages in order to access fish supplies.

As with much of the rest of the world, fisheries in India are in a state of transition with many changes in technology, skills, markets, infrastructure and industry that impact upon the lives of those people who depend upon the sector for their livelihoods. These changes are influenced by trends such as: the rising demand and the static or possibly declining supply of fish in some locations; motorisation and mechanisation of the fishing fleet; the increasing degradation of the aquatic environment from land-based

sources; the availability and distribution of ice; and the development of the aquaculture sector. The rapid shift in the macro-economic policies of the government in the 1990s towards economic liberalisation and globalisation have also contributed significantly to these changes, as have broader trends such as urbanisation and population growth. These changes have affected the supply of fish, its quality, the species diversity, where it is landed and who benefits from it.

While change is an inevitable, often irreversible process, the small-scale fishers' ability to cope with it is often limited. This briefing note outlines the sort of changes that are occurring, how they are affecting different groups and what might be considered from a policy perspective to maximize the benefits from such changes.

*FAO (2000). India Country Profile. FAO, Rome Italy*

## Analysing Change in the Sector

Broadly the analysis of changes affecting the sector can be discussed under the following headings:

- Trends in supply;
- Trends in processing;
- Trends in marketing;
- Trends in consumption.

### Trends in Supply

There are very clear changes in the supply of fish in India that range from increases in landings into larger landing

centres from larger vessels fishing further off shore, to changes in species composition of the catch. Among fishers themselves there is a widespread perception that the catch rates, and the sizes of fish caught have declined significantly and that catches have often become more unpredictable. But overall the supply of fish appears to have increased as production from freshwater fisheries and aquaculture has grown.

Closely linked to the supply of fish is the state of the wider marine environment. Growing coastal population pressure is

increasing pressure on resources and increasing environmental degradation. Expansion of industrial development is increasing coastal pollution as is agricultural intensification and aquaculture development.

Changing fishing practices are also affecting the make-up of supplies of fish as greater levels of more effective fish catching technology are applied to the resources and more species specific fishing practices are employed. This in turn is increasing the levels of capital investment in the fishery and concentrat-

*The India Fish Utilisation (IFU) Project (R7799) was implemented by IMM Ltd in the UK in partnership with ICM in India. The Project was carried out in five coastal states in India (Orissa, Andhra Pradesh, Tamil Nadu, Kerala and Karnataka) over the period 2000-2003. The Project was funded by the UK Government's Department For International Development (DFID) through the Post-Harvest Fisheries Research Programme. This briefing note is an output from the IFU project. It is designed to briefly inform policy-makers, planners and implementers about key issues concerning the livelihoods of poor people in the fisheries post-harvest sector.*

# Analysing Change in the Sector (continued)

ing ownership in fewer hands. Changes in fleet composition are resulting in a greater concentration of vessels into fewer landing centres where they can benefit from greater security, better support facilities and improved access to markets.

## Trends in Processing

A key change in the processing side of the sector is the change in access to fish. For traditional village-based processors the supply of fish has generally declined as more fish is landed at urban centers and less in the village. Even when fish is immediately available in these communities, competition for that fish has increased. The increased availability of ice in most fishing villages combined with the increased demand for fresh fish from consumers, has meant that less fish is available for traditional processing. The expansion in the use of ice has been one of the most dramatic changes that is affecting the fishery. Improved roads and use of improved storage containers and insulated trucks has enabled an increase in the use of ice for fish storage in many villages. The use of ice and refrigeration has been further facilitated by widespread electrification, which has reached most rural locations in the country.

Even where processors are able to make it to the larger landing sites, access to fish supplies is not guaranteed. Increasing competition from other traders and processors pushes up costs and reduces margins. In many cases the smaller-scale processors simply do not have the financial resources or the connections to participate in these larger-scale trading operations.

There are also changes in post-harvest technology for producing high-value products. At the larger landing centres there has been a growth in freezing capacity to allow products to move into the export markets.

These changes are not only affecting the fish processors; traditional rural artisans, such as fish basket makers, are also seeing their livelihoods threatened through the introduction of plastic containers and ice boxes.

In the villages the growing population and expansion of economic activities such as fish farming are also reducing the

space available for traditional forms of processing and changing patterns of land use and resource access.

## Trends in Marketing

In terms of marketing there has been a significant increase in demand for fish generally resulting from both a rising population and from export markets. The ability of traders to access fish supplies has also been affected by the concentration of landings in larger landing centres. Local supplies in villages are becoming more erratic, and competition has increased.

In villages where coastal communications have improved, outside buyers can locate good fish landings quicker than before and can access those landing sites by using larger vehicles carrying ice. Likewise, improved feeder roads to coastal communities mean that fish that previously only reached consumers in such villages by foot or by cycle rickshaw can now be transported by motorized vehicles.

This has resulted in increased competition to buy fish, not only because more traders are coming into the villages from outside, but also because more people from within villages are entering the fish trade. Some of these are displaced from fishing, others are processors who have moved into fresh fish trading, and some are people who have been displaced from non-fisheries activities.

Likewise more men are entering fish trading, at times displacing the women who traditionally were more involved. The operating costs of many small-scale traders, who now access fish from landing sites away from where they live, are also likely to be increased. Their fish now needs to be transported back to the fishing communities where they live in order to access their local markets. Accompanying these changes has been an increase in the trade of fish based on cash transactions rather than loans or long-standing relationships of trust and interdependence. This has meant that reciprocal arrangements between wholesalers, processors, retailers and fishermen have declined and transactions have become more cash-based and commercial in character.

The expansion of the iced fish trade, and

the higher levels of investment associated with it, has meant that in many locations the level of fish loss along fish marketing chains has decreased and more fish is reaching the consumer in better condition. The greater landings of by-catch from the trawlers and the increased demand for this fish for human consumption have also reduced fish loss. In addition, these changes have also prompted a greater degree of grading of such fish to address different segments of the market, which has provided more work opportunities in fish handling and grading in those areas.

Whilst the expansion of demand for fresh fish has generally been beneficial for the petty traders, the greater quality consciousness of the consumers has meant that there is more pressure for improved use of ice, increasing costs. Combined with the need to move the focus of purchasing to larger centres, or to compete with larger fresh fish buyers at the village level, this has prompted many petty traders to form groups. This enables them to reduce competition between themselves and to buy larger quantities of fish, and thus more effectively compete with larger buyers coming from outside.

## Trends in Consumption

Both export and domestic demand have increased and the growing domestic purchasing power of the middle classes is reflected in their willingness to pay for the higher price of quality fish.

For poorer consumers, some traditional products are less available or are priced beyond their means. This has meant changes in eating habits, at least in coastal communities. However, the effects on wider food security of the poor are less well understood.



# The Impacts of Change

## General impacts

These changes are having impacts across the fishery from harvesting to consumption. For the majority of the different groups of people operating in coastal fisheries the impacts of the recent changes in fish utilisation have been positive. The strong demand for fish combined with better technology and communications has led to more competition for fish at the landing site and the prices paid at the beach have reportedly improved. The higher value of fish has provided increased opportunities for more people to become involved in the transportation and marketing of fish and thus provided more employment opportunities.

For processors who can access larger landing sites, supplies have tended to improve and fish is reportedly available for longer periods of the year. The expansion of icing, freezing and export-quality facilities have led to better access to foreign markets and have increased foreign exchange earnings, as well as creating a completely new set of jobs. The associated industrialization of some of the processing facilities has provided new opportunities for people such as shrimp peelers, packers etc. Likewise, the greater focus on a wider diversity of fish, especially from the trawl fishery, has expanded job options for graders. For wealthier consumers the quality of fish has improved, and fish can now enter markets further away, faster and in better condition.

## Impacts on the poor

However, for some of the poorer groups the positive impacts of changes have been less apparent and, in some cases, changes have clearly threatened the livelihoods of certain groups who depend on access to fish. For these groups, the process of transition from a traditional

industry to a more modern one presents problems.

For the poor involved in supplying the sector with fish, the changes have generally been positive but their livelihoods are becoming more vulnerable, largely because the sustainability of the stocks of fish in inshore waters is threatened by over-exploitation and environmental degradation.

**“Most people have benefited from change but some livelihoods are becoming more vulnerable”**

The potential threat to the marine capture fishery is partly offset by an increase in supply from inland fisheries and aquaculture but these compensatory effects will not necessarily be of benefit to those who currently depend on supplies from marine capture fisheries. Any future decline in resources will ultimately threaten all fish users from those harvesting right through to consumers, both poor and wealthy.

Higher capital investment in the fishery in response to increasing competition for resources has led to changes in the ownership and working practices of poorer fishers that have had effects at the household level. For many, incomes are reduced and the security of employment in the household has declined. Migration and mobility represent coping strategies for dealing with these changes, but strategies that are not open to all. For women in particular such responses are often difficult or lead to increased vulnerability as they find themselves heading *de facto* female-headed households where male household members maybe absent for prolonged periods.

Women have also been particularly affected by the changes in patterns of fish use associated with the widespread uptake and use of ice. This has had particularly serious implications for poor fish processors, many of whom are women. They are often unable to compete with those offering better prices to producers and demand for their traditional processed products has often declined in favour of fresh fish.

The cost to processors, and particularly to female processors, of moving to larger landing sites to access fish is not limited to the financial cost of increased travel. Operating outside of their home communities involves social costs from being far from the household. They also have to deal with new and unfamiliar marketing systems and intermediaries. This often leads to higher transaction costs marginalising those with less capacity to adapt. In many cases the livelihoods of small-scale processors are deteriorating while few viable alternatives are currently available for them.

For traders, rising fish prices have helped to offset some of the adverse effects of increasing competition, but the benefits from price increases have not always gone to the poor.

While the changes that have taken place in fish supply and patterns of use have had both positive and negative impacts on livelihoods, it is the poorest groups—small-scale processors and traders, and particularly women and the elderly—that have suffered the most adverse impacts.

**“Small-scale processors and traders—especially women and the elderly—have experienced the worst impacts”**

## Policy Considerations

Responding to the above changes is a major challenge for policy makers and field practitioners alike.

The **Code of Conduct for Responsible Fisheries (CCRF)** offers some sound advice for dealing with many of the issues. Whilst the main focus of the CCRF is with wider fisheries development and

management its overall goal is to contribute to achieving sustainable benefits from fisheries in terms of food, employment, recreation, trade and economic well-being for people throughout the world. Much of the CCRF relates to good practice in support of the sustainable livelihoods of poor people. Lessons can be learnt from this and adapted to the

current situation in India. Wider government development practice in support of the rural poor has provided other lessons that are applicable. Combined with the CCRF, these provide a broad range of policy considerations that suggest strategic options for the development and management of the sector.



## Policy Considerations (continued)

These policy considerations can be broadly summarised as follows:

1. Gaining a better understanding of the state of the fisheries resources and ensuring sustainable supplies of fish through their sound management and effective enforcement;
2. Recognising the needs of traditional and resource dependent communities in those management measures, and providing local communities with preferential access to traditional fishing grounds and resources where appropriate;
3. Involving the fishers in the decision making about the management and development of the fisheries, especially concerning aquaculture development;
4. Balancing the needs for fish export with promoting the contribution of the fisheries sector to domestic food security, and giving priority to the nutritional needs of local communities;
5. Recognising the holistic nature of the livelihoods of the poor, better understanding those livelihoods, integrating fisheries into wider coastal area management, planning and development, and working in cross-sectoral, multi-agency, partnerships to achieve this;
6. Focussing on the most vulnerable people in the post-harvest sector, especially women, those in ill health, old people, and groups such as small-scale processors and traders; recognising their rights to an adequate and secure livelihood, and mainstreaming concerns for them in policy support;
7. Recognising the importance of safety nets for the poor but also the need to help them to deal with change in the future, and recognising the value of appropriate

credit/finance sources and self-help groups as mechanisms to allow the poor to better access service delivery and to become empowered;

8. Recognising that change within the sector, whilst driven by similar forces across the country, is having different effects and impacts on different stakeholder groups in different locations; and understanding the consequences of change on the livelihoods of these different groups and responding accordingly;

9. Understanding the importance of increased migration and mobility to the livelihoods of the poor in the post-harvest sector and mainstreaming these issues in the policy process;

10. Understanding existing coping strategies of the poor to the changes they face in the sector, identifying viable and sustainable alternative livelihoods for those wishing to leave the sector, and supporting the uptake of those options;

11. Sponsoring and supporting innovative research into new opportunities that exist for the poor such as for improved use of small, low-value species;

12. Better understanding consumption patterns of the poor, how they are being affected by changes in the sector and promoting the contributions of fish to food security for these vulnerable groups.

*This briefing note is condensed from a more detailed report called:*

*IMM (2003). Major Trends in the Utilisation of Fish in India: Poverty-Policy Considerations. Output from the Post-Harvest Fisheries Research Programme Project R7799. IMM Ltd, Exeter, UK.*

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