

Small-Scale Fisheries (SSF) in India

Dr. Ansy Matthew¹

Introduction

Traditional fisheries involving fishing households using relatively small amount of capital and energy, relatively small fishing vessels, making short fishing trips, close to shore, mainly for local consumption. Almost entire fishery may be considered as small scale fisheries, which not only contributes to nutrition, food security, poverty alleviation and trade but also closely associated with the sustainable livelihood of millions of fishers and fish workers through generations.

Fisheries Sector is contributing to the socio economic development of India. It is a source of over 14 million people. The total fishermen population as per Livestock Census, 2003 was 14,485,354, which include 4,696,158 males, 4,033,963 females and 5,755,233 children. Fishermen engaged full time in fishing operations were 933,124 and part time were 1,072,079 (Handbook on Fisheries Statistics, 2014).

Characteristics of small scale fisheries in India

The small-scale fishery has some of the following attributes:

- (i) Use of small craft and simple gear of relatively low capital intensity;
- (ii) Communities have good understanding of the coastal systems and resources, which is passed on from generation to generation;
- (iii) Fishers largely work as share-workers or owner-operators of their fishing craft;
- (iv) Marked by decentralized and scattered settlement pattern;
- (v) Fishing is restricted to near shore waters in single day or night operations;
- (vi) Linked to local market networks;
- (vii) Considerable financial dependence on middlemen and those who buy their harvest;
- (viii) Relatively socially and economically disadvantaged compared with other sections of the society, with low employment and low mobility out of fishing.

Importance of Small Scale Fisheries (SSF) in India

All the vessels operated in India may be classified under small-scale category. Compared to industrial fisheries practiced, small scale fisheries in general, and motorized and non-motorized fisheries in particular, are environment friendly, causes less harm to the habitats and discard less fish. Due to severe competition from the mechanized sector and declining catches, the small scale sector is constantly under pressure to introduce technological changes. Introduction of outboard motor and ring seine are important technological advancements in the small-scale fisheries sector over the years. Among the fisheries sector, motorized and non-motorized fisheries will be most vulnerable to climate change. Their survival depends to a large extent on the recognition and protection or acquired fishing rights.

In Indian marine fisheries, the Over All Length (OAL) of commercial fishing vessels rarely exceeds 20 m (except for the hired Letter of Permit (LOP) vessels). Fishing vessels are classified as mechanized, motorized and non-motorized based in the technology adapted for propulsion and fishing. Mechanized vessels are relatively larger with the engine fitted inside the vessel (inboard engine), motorized vessels are smaller with engine fitted outside the boat (outboard engine) and non-motorized boats, which do not use any mechanical device for propulsion and fishing. Within the mechanized subsector, there are diversified craft-types, ranging in overall length from 9 m to 20 m. Among these, the smaller boats (less than approximately 13 m OAL) undertake single day cruises, fishing in grounds near their base, and the larger ones (mostly trawlers, >13 m OAL) undertake multiday fishing lasting up to seven days in fishing grounds far away from their base. The fish-hold capacity of this latter category of

¹ The views expressed in the article are those of the author and do not necessarily reflect the views of the Government of India.

vessels is larger and they land the catches, mostly at their base. Nevertheless, all the vessels operated in India will be under small-scale category.

Issues

Artisanal fisheries is facing problems because of a lack of data and understanding on real trends and socio-economic impact. They are difficult to administer in the conventional top-down mode because of their physical scattering along the edges of the coastal systems, including difficulty in accessibility. There are severe constraints faced by these fisheries in terms of management, access to modern technology, capital, health care, markets, electricity, education, manpower, etc. These constraints are furthermore compounded by the lack of mobility out of the sector and the area (except perhaps through migrations).

Another set of constraints and threats is added by the high pressure exerted by manifold coastal activities causing water pollution, destruction of fish habitats, and increasing competition and high prices of coastal land. Pollution affects human health and safety as well as fish product quality. Removal of coastal mangroves and other coastal habitats does not only negatively affect fisheries resources, especially during the most vulnerable life stages of many species, but also results in an immediate threat to coastal communities because of their high exposure to the vagaries of nature such as storms and floods. Moreover, with the constraint pressure of continued population growth, migration from the hinterland and development of industrial fishing, the “survival” of small-scale fisheries depends to a large extent on the recognition and protection of traditional or acquired fishing rights.

Development of small-scale fisheries in India

Government of India has initiated registration of all fishing vessels in the country under Online Registration System (Real Craft). When completed, this database will provide accurate information on the number of boats in each category of fishing vessels.

Advantages of small-sale/artisanal fisheries

Lower running costs and fuel consumption: Having less mechanical power than industrial fisheries, they tend to optimize human power and reduce fuel costs, using more passive gears, and practices such as handling, hooks and lines and small gillnets.

Lower ecological impact: While artisanal/small-scale fishers may, and do, use destructive methods (such as poison and dynamite), it is usually agreed that their environmental impact is reduced because they employ mainly passive gears. However, this does not mean that they cannot overfish available resources.

Lower construction costs: As small-scale boats do not usually stay out for long, not go far offshore, they can be relatively lightly (and inexpensively) built and either stays ashore or else run for nearby cover when the weather turns foul. The negative side is that safety on board of small fishing boats is poor.

Conclusion

Those dependent on the small-scale fisheries sector may be empowered to participate in decision-making with dignity and respect through integrated management of the social, economic and ecological systems underpinning the sector. Small-scale fisheries may develop rapidly-expanding markets (e.g. export markets) and adopting new technologies (echo sounders, satellite positioning systems). The decentralization process may offer them opportunities to control their own development through forms of community-based management or co-management. To develop and maintain the advantages of small-scale fisheries, the system of diversified family livelihoods characteristic of the sector should be protected and strengthened through rights of access of the communities to a sustainable matrix of productive activities.

Reference

Handbook on Fisheries Statistics, 2014. Government of India, Ministry of Agriculture, Department of Animal Husbandry, Dairying & Fisheries, Krishi Bhavan, New Delhi.p.1-2.