



Employment generation and revenue earning potential of marine fisheries sector in India

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Abstract

India is the second largest fish producing country in the world accounting for 6.56% of global production and contributing about 1% to the country's Gross Value Added (GVA) and over 5.37% to the agricultural GVA, fisheries and aquaculture continue to be an important source of food, nutrition, income and livelihood to millions of people. Export earnings from the Fisheries sector has been Rs.45106.89 crores during 2017-18 and has registered an impressive average annual growth rate of about 19.11%. The fisheries sector has been recognised as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food, at the same time it is an instrument of livelihood for a large section of economically backward population of the country. Fishery sector occupies an important place in the socio-economic development of the country. "Fisheries is a fast-growing sector in India, which provides nutrition and food security to a large population of the country besides providing income and employment to more than 16 million people.

Keywords: fisheries sector, revenue earning and employment generation

Introduction

The fisheries sector has been recognised as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food, at the same time it is an instrument of livelihood for a large section of economically backward population of the country. Fishery sector occupies an important place in the socio-economic development of the country. "Fisheries is a fast-growing sector in India, which provides nutrition and food security to a large population of the country besides providing income and employment to more than 16 million people," observed the Economic Survey.

India is the second largest fish producing country in the world accounting for 6.56% of global production and contributing about 1% to the country's Gross Value Added (GVA) and over 5.37% to the agricultural GVA, fisheries and aquaculture continue to be an important source of food, nutrition, income and livelihood to millions of people. Export earnings from the Fisheries sector has been Rs.45106.89 crores during 2017-18 and has registered an impressive average annual growth rate of about 19.11%. The sector provides livelihood support to about 160 lakh people at the primary level and almost twice the number along the value chain and the annual average growth rate in the Fisheries sector has been 7% over the last few years. Fish being an affordable and rich source of animal protein, is one of the healthiest options to mitigate hunger and nutrient deficiency. The sector has immense potential to double the fish farmers' incomes by 2022, as envisioned by the government. Hence it is essential that sustained and focused attention is given to the fisheries sector through policy and financial support to accelerate its development in a sustainable, responsible, inclusive and equitable manner.

Revenue Earning Potential of Fisheries Resources

The country has long coastline of 8118 km and equally large

area under estuaries, backwater, lagoons etc., conducive for developing capture as well as culture fisheries with the declaration of the Exclusive Economic Zone (EEZ) in 1977, an area of 20.02 million sq km, (comprising of 0.86 million sq. km on the west coast, 0.56 million sq. km on the east coast and 0.60 sq.km around the Andaman & Nicobar Island) has come under our jurisdiction with absolute right of exploring, exploiting and natural utilization of living resources falling within it. The full potential of the fisheries sector is yet to be realised due to critical gaps in quality inputs, investment, infrastructure, value addition, technological know-how and skilled manpower. It is also essential to consolidate the sectoral gains and sustain growth by providing financial support for infrastructure creation and through targeted interventions aimed at harnessing the unrealized potential in a responsible and sustainable manner. To utilize the dormant and untapped potential, there is need for enhanced investment in the sector and there is need for increased allocation for the sector which would provide the much-needed thrust in the areas of enhancing Production and Productivity, Aquaculture Development, Post-Harvest and marketing infrastructure and other priority Interventions. There is an urgent need to modernize and strengthen the value chain in the sector. It is estimated that there is a huge post-harvest loss to the tune of 20-25% in the sector. It is therefore, essential to reduce to below the post-harvest losses to less than 10% for enhancing the incomes of the stakeholders. This requires substantial investment in logistics, infrastructure and supply chain.

Employment Generation Potential of Fisheries Sector

Being a foreign exchange earner fisheries sector is the source of livelihood for a large section of population of the country. The main challenges facing fisheries development in the country includes accurate data on assessment of fishery resources and their potential in terms of fish production, development of sustainable technologies for

fishery, yield optimization, harvest and post-harvest operations, landing and berthing facilities for fishing vessels and welfare of fishermen.

Fishery worker communities are often isolated in rural areas with little access to market information and infrastructure. High post-harvest losses of already low volumes of production are common due to poor handling and processing, as well as a lack of proper storage facilities and distribution technologies. As a result, many small-scale fishers and aquaculture producers are poor and often depend on unpaid family labour, including that of women and sometimes children. They face numerous obstacles in raising their productivity and income levels, including limited access to credit, knowledge and inputs. Whether employed in small-scale or larger operations, fish workers are particularly prone to occupational hazards.

Investment in Fishery Harbours/Fish Landing Centres are sure to generate more employment opportunities for the unemployed people usually not much found in the coastal belts. Employment generation will include workers during construction phase, support staff, additional jobs for the people engaged in fishing and related fish processing and allied fish industries. An estimated 5,000 to 15,000 people are likely to be benefiting directly and indirectly from a Fishery Harbour/Fish Landing center. A large number of

workers in the Fishery Harbours/Fish Landing Centres are from the fisher community comprising of the boat crew, head-load and ice workers, prawn peeling and fish processing workers, fish vendors, fish merchants etc.

By the end of the July 2019 there were about 66,198 mechanised fishing vessels registered in the country all along the coastline. The Ministry of Agriculture, Govt. of India under the Centrally sponsored scheme have sanctioned 7 major fishery harbours, 80 minor fishery harbours and 203 small fish landing centres by the end of September 2019. Out of these, construction of 7 major fishery harbours, 49 minor fishery harbours and 181 fish landing centres have been completed and the remaining are under various stages of construction. The present landing and berthing facilities created and sanctioned so far under the Central sector and Centrally sponsored schemes can accommodate 26,099 MFVs, which is about 39% of the operating fishing fleet in the country.

The sea area under the EEZ of India is 2.02 million sq km comprising 0.86 million sq km on the west coast including Lakshadweep, 0.56 million sq km on the east coast and 0.60 million sq km around Andaman and Nicobar Islands. The depth and region-wise area under the EEZ is presented in table no. 1.

Table 1: The depth and region-wise area under the EEZ

Region/Latitude	(in '000 sq.km.)				
	Depth zone (m)				
	0-100	100-200	200-500	Total up to 500	Total for EEZ
North west coast (15°-23' N)	196.90	16.50	7.70	221.10	
South west coast (8°-15' N)	58.60	10.20	10.10	78.90	
Total for west coast	255.50	26.70	17.80	300.00	860.00*
Wadge Bank & Gulf of Mannar	16.80	5.80	3.30	25.90	
South east coast (10°-15' N)	33.80	4.80	1.80	40.40	
East coast (15°-21' N)	56.60	14.50	3.90	75.00	
Total for east coast	107.20	25.10	9.00	141.30	561.40
A & N Islands	24.80	10.10	9.00	43.90	596.50
Total	387.50	61.90	35.80	485.20	2017.90

* including Lakshadweep

The total potential yield of the marine fisheries resource of the Indian EEZ is 3.9 million tonnes consisting of 2.0 million tonnes of demersal, 1.6 tonnes of pelagic and 0.2 million tonnes of oceanic resources. The summary of estimated potential yield from Indian EEZ resource-wise and level of exploitation (2017-18) is presented in table no 2.

Table 2: Potential of Fisheries Resources in the Indian Exclusive Economic Zone (EEZ)

Sl. No.	Resource	Potential Yield (t)	Present Contribution
1.	Dimersal (Main land)	2298281	43.28
2.	Pelagic (Main land)	2631827	49.56
3.	Lakshdweep (Excluding Oceanic)	14490	0.27
4.	A & N Island (Excluding Oceanic)	43794	0.82
5.	Oceanic (for entire EEZ)	230832	4.35
6.	Others	91369	1.72
	Total	5310593	100.00

Considering the present level of exploitation during 2010-11 of 32, 49,460 tonnes and the potential estimated as 39, 81,000 tonnes, an additional harvestable yield from the

Indian EEZ would be 7, 31,500 tonnes. The summary of estimated potential yield from Indian EEZ and level of exploitation during 2010 State/UT wise is presented in table no 3.

Table 3

State /UTs	Coastline in kms	Continental shelf in sq.kms	No. Fishing Villages	Fish production 2017-18 (in Lakh Tonnes)
Gujarat	1,600	1,84,000	280	7.01
Daman&Diu	27	-	12	0.24
Maharashtra	720	1,12,000	526	4.75
Goa	104	10,000	41	1.18
Karnataka	300	27,000	162	4.14
Kerala	590	40,000	220	4.14
TamilNadu	1076	41,000	575	4.97
Puducherry	45	1,000	39	0.42
Andhra Pradesh	974	33,227	533	6.05
Orissa	480	26,000	739	1.51
West Bengal	158	17,000	1171	1.85
A & N islands	1,912	35,000	169	0.39
Lakshadweep	132	4,000	10	0.21
India	8118	5,30,000	3,477	36.88

Conclusion

Considering the limitations by the mechanised boats to fish, the fishery resources upto 100m has been exploited and there is very little scope for additional yield. There are about 66,198 mechanised vessels operating in the country. Whereas the infrastructure developed for landing the fish catch caters only for about 23,032 mechanised vessels which is about 44% of the total operating fleet size. The fishery harbour project proposals which have been investigated for which techno-economic feasibility reports are prepared and submitted/under preparation for consideration for sanction are planned to cater to about 6,974 mechanised vessels which is about 13% of the total operating fleet size. Sites recommended for investigations for finding its suitability for development of fishery harbour based on the information furnished by the respective State Governments and reconnaissance survey undertaken by CICEF would cater to about 3819 mechanised vessels which is about 7% of the total operating fleet size. Total of the infrastructure developed and identified for development would cater to about 64% of the total operating fleet size of the country

Indirect manifold benefits of FHs/FLCs in the places of coastal communities not only help the poor fisher populace with other income generating opportunities, but also offers significant socio-economic benefits to other communities as well as to boost the overall national economy. On the contrary, the absence of FHs/FLCs could result in all or some of the disadvantages like increased cost of fish landing, deterioration of fish quality, denial of fish prices and encouragement to improper trading practices, wastage of valuable fishing/leisure time, increase in fishing effort etc. Further, the increased fish catch and the role of fishery related support industries are expected to enhance the supply of food protein for local consumption, contribute to fish exports, improve fish quality, increase employment opportunities and additional income for fishers.