

## 9. Socio-Economic Conditions of Fishing Communities: Challenges, Trends and Opportunities.

**Sanjaykumar Rambhai Vala<sup>1</sup>, Vadra Jagdev<sup>2</sup>, Shubham Patidar<sup>3</sup>**

<sup>1</sup>Senior Research Assistant, Fisheries Research and Training Centre,  
Kamdhenu University, Mahuva

<sup>2</sup>M.FSc. Scholar, Department of Fisheries Extension, ICAR-Central Institute of Fisheries Education, Mumbai

<sup>3</sup>Ph.D. Scholar, Department of Aquaculture, School of Agriculture, SAGE University, Bhopal, Madhya Pradesh.

### Introduction

Fishing communities play a vital role in the coastal and inland economies of many countries, particularly in India. These communities depend primarily on fisheries for their livelihoods, food security, and cultural identity. Despite their importance, fishing communities face socio-economic challenges. In India, the Pahumara river region in Assam, fishermen face extreme economic hardships. Most of them uses indigenous gear like Maha jaal and lacks modern infrastructure and are not aware of various beneficial Government schemes. Also in Valsad district in Gujarat 55% fishermen are over age of 45, highlighting a lack of youth entering the profession due to lack of education (40% have only primary education) and low annual income averaging \$600-\$800USD. Likewise in Bangladesh, Bengali river region has 78% full time fishermen but only 32% earn below 10,000BDTC (approximately \$85USD monthly). This led trend of Subsistence Work, where fishermen abandon their primary occupation for any available manual labour. So, this shows that fishermen, particularly in India and other developing countries, are low-income earners.

Many depend on middleman which reduces their profit.

### Global Status of Fishermen

About 50-60 million people are directly engaged in capture fisheries and aquaculture. Nearly 90% Of world's fishermen are working in small-scale fisheries, mostly in developing countries. It provides Livelihood to over 200 million people when post-harvest activities are also included.

Food and Agriculture Organization FAO of United nation recognizes fishermen a key contributor to global food security and nutrition but also, they consider them a most Vulnerable groups that are exposed to Poverty, Climate risks and resource depletion. FAO also emphasizes that fishermen often suffer from low income, unsafe working conditions and lack of social protection. In this Sector, Women plays a major role particularly in Post harvest or in Processing sector. Women are considered as primary stakeholders. In India, Karnataka 95% women are solely depending on fisheries for income generation primarily in fish drying, Salting and marketing. Despite their giant role, they fall into medium to low-income groups. But Women also get affected due to marine pollution and decline catches in fishing areas. The

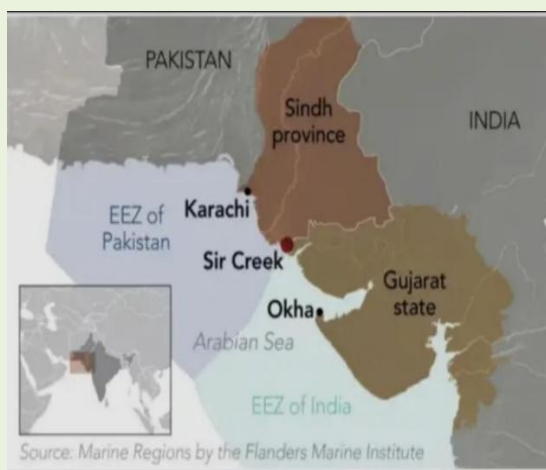
major global challenges highlighted by FAO are: Overfishing, Climate Change like Ocean acidification, Ocean warming and extreme weather conditions, IUU (Illegal, Unreported and Unregulated fishing), Poverty and inequality in fishing communities.

Fisherman remains one of the most hazardous occupations as they face conflicts with neighboring countries also. Like in India, fishermen face conflict with Sri Lanka, Pakistan and Bangladesh. With Sri Lanka, Indian fishermen have Palk-Bay Conflict in which Tamil Nadu fishermen has major conflicts with Sri Lankan Navy. The boundary in Palk Strait is extremely narrow about 12 nautical miles because of these Indian fishermen stray into Sri Lankan waters unknowingly in search of better catch. Also, Sri Lanka strictly bans 'Bottom trawling' which Indian fishermen often uses so this creates trade disruption for Indian fishermen and causes Conflicts. With Pakistan, Indian fishermen have Sir-Creek dispute in which Gujarat fishermen has conflict with Pakistan Maritime Security Agency PMSA. The boundary in the Sir creek marshland remains undermarketed which results in inadvertent crossing of fishermen from both sides. The other big issue between 2 countries is Known as No Mans Land in which fish stocks are higher near the mouth of Creek, fishermen take risk entering the disputed region, often results in seizure of boats. With Bangladesh: Humanitarian exchange is one the biggest conflict between 2 nations in which due to shifting of river channels and cyclones, fishermen from West Bengal and

Bangladesh frequently drift into each other's territorial waters.

Fishermen also face Conflict with their own countries governments like Indian government is pushing 'Blue Economy' to modernize the fisheries sector but traditional fishing communities feel these policies favour large corporations and threatens ancestral livelihood. Other major conflict in 2025 was 'EEZ Rule 2025' where traditional fishermen marked this day as 'Black Day'. They argue these rules allow large corporate industrial trawlers in EEZ which was previously protected space for small scale fisheries. Some Organizations protests like Akhil Maharashtra Machhimar Kruti Samiti claim that government ignored 22 specific suggestions from Traditional fishing farming Communities and feared that massive corporate vessels will deplete fish stocks, leaving nothing for small boats. But the government's view is different on that particular issue. Government maintains that these rules are necessary to tap into high- value resources like Tuna, which are currently being poached by foreign vessels and for Indian fishermen it creates lot of issues because Indian traditional boats cannot reach deep-sea water. Another Conflict is that due to expansion of Blue Economy often requires building of massive new ports and industrial hubs, which directly displaces fishing villages like in Kerala (regarding the Adani-backed deepwater port), Karnataka (between police and fishers) and In Gujarat (Demolition Drives) January 2025, homes of small-scale fishers in islands like Beyt Dwarka were razed during state-backed demolition drives, leading to widespread

displacement and legal battles. Marine Mining Protests in Kerala is another major conflicts Kerala fisherman and Union Government. The Government allows offshore sand and mineral mining but fishermen claims that it might destroyed the seafloor and breeding grounds for fish and creates havoc for fishermen.



### Government initiatives

In India, Government introduced PM-MKSSY Scheme focusing on formalization and digitization of fisheries sector through NFDP(National fisheries Digital Platform) and helps government to send benefits directly to fishers without middlemen and also because of this Scheme they get Access to Institutional Credit and Aquaculture insurance ,KCC(Kisan Credit Card) in which lending limit for fishermen is upto 5 lakh, Blue Economy Certification in which Indian government has introduced mandatory certification to make Indian seafood globally competitive and Sustainable .The Catch Certificates are issued by MPEDA (Marine Products Export Development Authority),Health and Safety certificates are issued by EIC(Export Inspection Council) and also now Modern vessels are required to use QR-coded Aadhaar IDs for

fishers and digital logs to track a fish from the net to the plate. EEZ (Exclusive Economic Zone) harnessing schemes are implied to empower traditional and small-scale fisher cooperatives to tap into deep-sea resources (beyond 12 nautical miles) that were previously only accessible to large commercial vessel corporations.

### Blue Economy

The main aim of Blue Economy is balancing growth with Ocean health. It moves away from the old model of "extract and exhaust" towards a "circular" model where the ocean is treated as a long-term asset rather than a shrinking resource. The main 3 Core Pillars of Blue Economy is: 1. Economic Growth: Modernizing sectors like fisheries, shipping, and tourism, while launching new ones like offshore wind energy and marine biotechnology. 2. Environmental Health: Ensuring that activities do not damage the marine ecosystem. and last one is 3. Social Equity: Ensuring that local communities and traditional fishermen benefit from the ocean's wealth.Blue Economy matters for Fishermen because they can use modern technologies to catch fish efficiently and get paid for "Ocean Stewardship".



Other beneficial schemes for Fishermen are National Scheme of Welfare of that provides basic

Amenities to fishermen community like Funding for low-cost housing, tube wells for drinking water, and community halls in fishing villages. Fishermen can avail these opportunities for themselves and also participate in Skill and development training programmes to get information about modern fishing techniques, Fish processing and Value addition as many women are involved in fish processing industry making fish pickles.

Identification of PFZ potential fishing zones is very crucial for increasing Catch per Unit Effort (CPUE) of fishermen community. Ocean colour i.e. Chlorophyll content along with the sea surface temperature plays critical role for determination of PFZs. Hence, timely and reliable information on different meteorological as well as oceanographic variables such as winds, wave circulation, Sea surface temperature and Ocean colour is required for fishermen for increasing their effectiveness.

### Conclusion

Improving socio-economic conditions of fishing communities required integrated approach focuses on fishermen health, Education, livelihood, Social and financial inclusion. The Conclusion helps us identify the key reasons for low income of fishermen community are: Overfishing and declining fish stocks reduce catch size, Climate change affects fishing days and fish migration, Lack of access to credit, insurance, and modern technology, post-harvest losses due to poor storage and transport, Unregulated markets and exploitation by traders. Government should bring more beneficial schemes for fishermen communities mostly small scale and traditional

communities which are mostly affected and also should create awareness campaigns so that fishermen would get time to time knowledge about schemes. Like in Agriculture there is an Extension Service for farmers, likewise government should also think about creating this service for fishermen communities. Some other recommendations to improve this community are Strengthening small-scale fisheries value chains, ensuring fair market access and reducing middlemen, promoting alternative livelihoods like aquaculture and eco-tourism), Providing social protection, insurance, and income security and also empowering and supporting women's income-generating roles in fisheries.

**Table 1: Challenges & Opportunities**

| S. No. | Challenges                                                       | Opportunities                                                                                                                                                                              |
|--------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | Blue Economy: Marginalization, Capital Barriers, Market Inequity | Blue Economy: Sustainable Diversification from Sea weed farming, Pearl culture and marine biotechnology and Value addition i.e. Better Cold chain infrastructure and digital marketplaces. |
| 2.     | Border Disputes between                                          | Joint Management i.e. Creating Shared                                                                                                                                                      |

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|    | Countries directly affects the fishermen like Risk of arrest, boat seizure, lack of clear traditional fishing rights in UNCLOS                            | fishing zones, Installation of GPS and Vessel Monitoring system to prevent accidental crossing.                                                                                                     |
| 3. | Ecological Destruction like bottom trawling destroys the sea bed and future stocks. Climate change like Rising sea levels and ocean shift fish migration. | Regenerating Marine Protected areas like fish nurseries to replenish nearby water. Blue Carbon incentives for fishermen to act as Ocean stewards earning credits for protecting mangroves/seagrass. |
| 4. | Digital divide, Lack of real time weather, safety and fish finding data.                                                                                  | Smart Fishing: AI driven apps for Potential fishing zones and satellite linking safety devices.                                                                                                     |
| 5. | Lack of awareness of government                                                                                                                           | Modernization Subsidies like Deep Sea Fishing Vessels                                                                                                                                               |

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| schemes, Paper Barriers to access government schemes. | and funding for modern fish harbors, cold storage to reduce post-harvest losses. |
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### Conclusion

Improving the socio-economic conditions of fishing communities requires a holistic and inclusive development approach. The major causes of low income among fishermen include overfishing and declining fish stocks, climate change impacts on fishing days and fish migration, lack of access to institutional credit, insurance, and modern technology, high post-harvest losses, and exploitation by middlemen. Government schemes must focus more on small-scale and traditional fishers and ensure effective awareness and easy access. Establishing fisheries extension services similar to agricultural extension can help disseminate knowledge on schemes, technology, and sustainable practices. Strengthening value chains, reducing middlemen, promoting alternative livelihoods, and empowering women in fisheries will enhance resilience, income stability, and long-term sustainability of fishing communities.

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