International Journal on Science and Technology (IJSAT)
E-ISSN: 2229-7677 ● Website: www.ijsat.org ● Email: editor@ijsat.org

Fisheries- A Catalyst for Poverty Alleviation in India- Study on the Prospects of Pradhan Mantri Matsya Sampada Yojana (PMMSY)

Pilla Gowri

Department of Zoology
Kakatiya Government College (A),
Hanamkonda (TG), India

Abstract

Small-scale fisheries (SSF) in India are a cornerstone of marine and inland resource utilization, contributing substantially to food and nutritional security, employment generation, and cultural identity. The fisheries account for nearly half of India's total fish production and provide livelihoods for over 14 million people, including women engaged in post-harvest activities. Beyond their economic footprint, SSF ensure affordable protein intake for marginalized populations, thereby addressing both poverty and malnutrition. However, these fisheries are increasingly threatened by overexploitation of resources, habitat degradation, climate variability, and the marginalization of artisanal fishing communities due to the expansion of mechanized and industrial fleets. Despite challenges from overfishing, climate change, and competition with mechanized fleets, SSF remain vital for equitable and sustainable growth. Strengthening community-based management and eco-friendly practices can ensure their long-term contribution to both people and marine ecosystems and achieving India's goals of livelihood security, environmental sustainability, and alignment with the UN Sustainable Development Goals (SDGs). This paper addresses the implications and government support such through Pradhan Mantri Matsya Sampada Yojana (PMMSY) and also discussed on some setbacks in its implementation at the rural India. However by the sustainable practices can unlock fisheries as a resilient, inclusive pathway to rural prosperity and poverty alleviation in India.

Keywords
Fisheries, Small scale Industry, Rural Development, Livelihood, Poverty Alleviation, PMMSY, Sustainable Development.

1. Introduction

Fisheries have historically played a critical role in sustaining rural livelihoods, especially in India's coastal, riverine, and inland communities. The sector not only ensures food and nutritional security but also provides employment opportunities to millions of people. According to government estimates, more than 16 million people depend directly or indirectly on fisheries for their livelihoods. States like Kerala, Tamil Nadu, Andhra Pradesh, Odisha, and West Bengal dominate coastal fisheries,

while Assam, Bihar, and Uttar Pradesh are significant players in inland aquaculture. This paper examines the multifaceted contributions of fisheries to rural economies and their potential as a driver of inclusive development. Globally, small-scale fisheries (SSF) contribute nearly 40% of the world's fish catch and are recognized as essential for achieving the United Nations Sustainable Development Goals (SDGs)**,** particularly SDG 1 (No Poverty), SDG 2 (Zero Hunger), and SDG 14 (Life Below Water**)**. In India, SSF are often family-operated enterprises relying on traditional knowledge, local skills, and community networks, which make them both resilient and vulnerable.

The Indian fisheries sector contributes around 1.24% to the national GDP and over 7% to the agricultural GDP (Government of India, 2022). The sector also earns valuable foreign exchange, as India is one of the world's largest exporters of frozen shrimp. However, beyond exports, the domestic role of fisheries in nutrition security, women's empowerment, and rural entrepreneurship is equally important. Rural fish markets help the local economy by creating work in related activities like building boats, making nets, producing fish feed, and running ice plants. These activities provide employment opportunities for both skilled and unskilled workers, making fisheries a critical part of inclusive rural development. Despite these strengths, the sector faces persistent challenges such as climate change, overfishing, post-harvest losses, lack of cold-chain infrastructure, and limited access to institutional credit. By improving policies, giving proper training, and encouraging fishers to work together, India can make small-scale fisheries reach their full potential.

2. Literature Review

Existing studies highlight the role of fisheries in providing affordable protein, employment, and supporting local markets. Research on small-scale fisheries emphasizes their cultural and ecological importance, but also identifies challenges such as overfishing, climate change, and inadequate infrastructure. Cooperative models from states like Kerala demonstrate how collective bargaining and shared infrastructure can improve fishers' incomes. Emerging work also points to the role of women in fish processing, marketing, and value addition, which strengthens gender equity in rural economies.

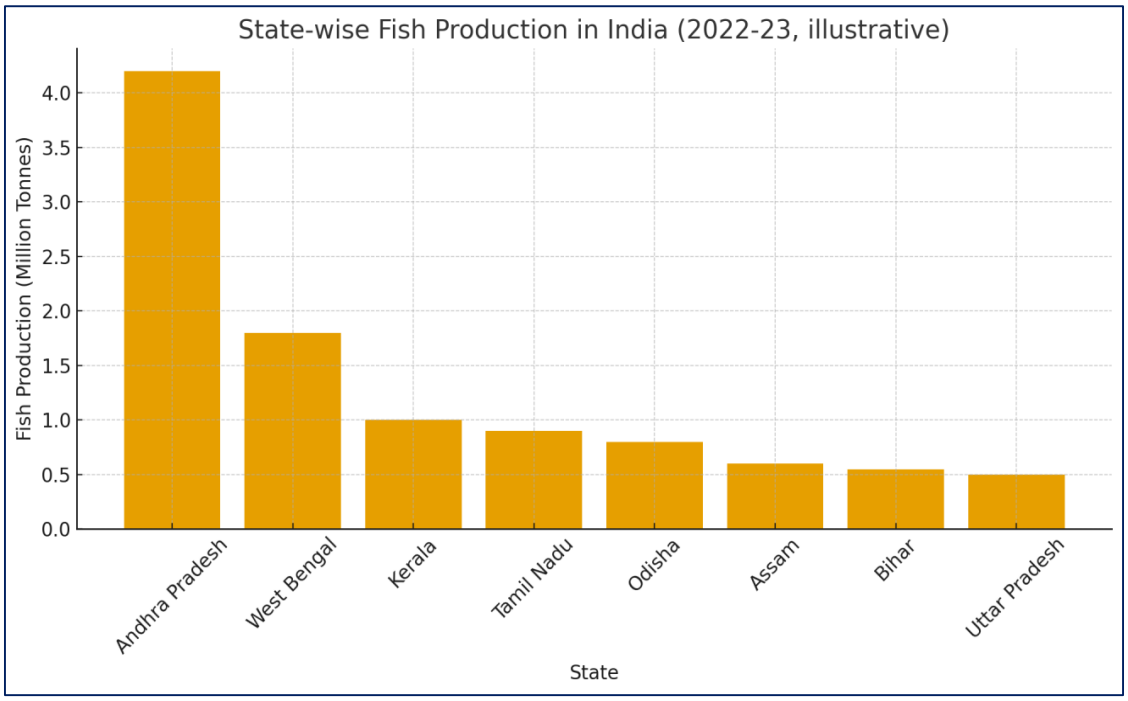
3. Methodology

This research is based on secondary data sources, including government reports, policy documents, and published literature. Descriptive and comparative analysis has been used to evaluate the role of fisheries in rural development. Illustrative data and charts are included to highlight state-level contributions and progress under the PMMSY scheme.

4. Results and Discussion

The findings demonstrate that fisheries play a critical role in rural development by creating employment, improving food security, and generating income through allied industries. Rural fish markets act as hubs of economic activity, benefiting not only fishers but also traders, ice vendors, boat builders, and transporters. Women's participation in fish processing and marketing contributes significantly to rural household incomes. Aquaculture, especially integrated fish farming, is rapidly emerging as a sustainable model for enhancing rural incomes while promoting efficient resource use.

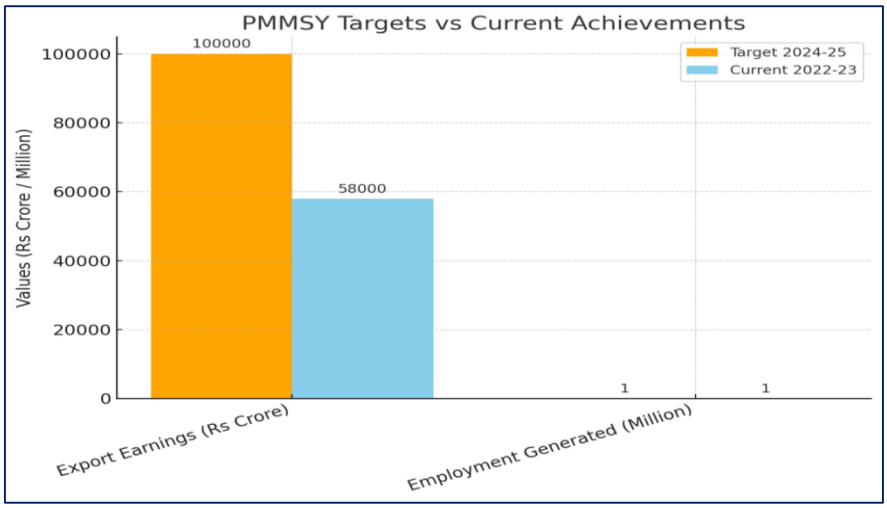
Figure 1: State-wise Fish Production in India



Data Analysis:

The state-wise fish production data for 2022–23 highlights the regional distribution of fisheries in India. Andhra Pradesh emerges as the leading contributor with over 4 million tonnes of production, accounting for the largest share in the country. West Bengal follows at a distant second with about 1.8 million tonnes. States such as Kerala, Tamil Nadu, and Odisha contribute moderately, each producing between 0.8 and 1 million tonnes. Meanwhile, inland states like Assam, Bihar, and Uttar Pradesh produce smaller quantities, around 0.5–0.6 million tonnes each. This distribution underscores the dominance of Andhra Pradesh in aquaculture and coastal fisheries, while also reflecting the importance of inland fisheries in eastern and northern states.

Figure 2: PMMSY Targets and Current Achievements



Data Analysis

The progress of India's fisheries sector under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) can be assessed by comparing the 2022–23 achievements with the 2024–25 targets. The available data highlights two key indicators: export earnings and employment generation.

Export Earnings:

In 2022–23, India recorded export earnings of approximately ₹58,000 crore against the PMMSY target of ₹1,00,000 crore for 2024–25. This achievement represents a little over half of the target. While this growth demonstrates India's expanding presence in the global seafood market, it also emphasizes the need for enhanced strategies in value addition, cold chain facilities, and access to international markets to ensure the ambitious target is met.

Employment Generation:

Employment generation under the fisheries sector has shown stronger progress. By 2022–23, the sector created about 0.6 million jobs, which is already 60% of the 2024–25 target of 1 million jobs. This underlines the sector's crucial role in rural development, particularly in providing livelihood opportunities in coastal and inland fishing communities.

Interpretation:

The analysis suggests that India is well on track to meet its employment goals, showcasing fisheries as a reliable source of income and livelihood diversification in rural areas. However, export performance lags behind the set target, signaling the importance of policy support, infrastructure investment, and sustainable practices to enhance competitiveness in international markets. Achieving the export target will not only boost foreign exchange earnings but also strengthen rural value chains and allied industries such as processing, feed production, and logistics.

Conclusion and Policy Suggestions

Fisheries hold vast potential to transform rural economies in India by providing jobs, improving nutrition, and supporting inclusive growth. To fully unlock this potential, it is essential to strengthen rural infrastructure, improve access to credit, and promote sustainable fishing practices. Cooperative institutions and women-focused entrepreneurship must be scaled up. Government programs like PMMSY are a step in the right direction, but more efforts are required to integrate fisheries into rural development and food security strategies.

References

1. De, H. K., Chattopadhyay, D. N., Radheyshyam, R., et al. Strengthening the livelihoods of rural women through polyculture of carps in seasonal ponds. Indian Journal of Fisheries.

2. Bunkar, K., Ananthan, P. S., Qureshi, N. W., et al. (2022). Human development of small-scale fishers: Evidence from Rana Pratap Sagar Reservoir Region, India. Journal of Indian Fisheries Association.
3. Radheyshyam, ., Saha, G. S., De, H. K., et al. (2013). Status and economy of community fish farming in rural Odisha. Indian Journal of Fisheries.
4. Das, S. K. (2019). Small-Scale Rural Aquaculture in Assam, India – A Case Study. World Fish Center.
5. Bhattacharya, S., Das, B. K., Ekka, A., et al. (2025). Empowering women through alternative sustainable livelihood: Ornamental fish farming in India. Frontiers in Sustainable Food Systems.
6. Sharma, A. P., & Chandra, G. Issues & Challenges for sustainable small-scale fisheries in Inland Fisheries sector of India. ICAR-CIFRI.
7. V2V Working Paper. (2022). Situational Analysis of Small-Scale Inland Open Water Fisheries in India: From Vulnerability to Viability.
8. Pukkalla, D., & Rama Mohan, K. R. (2022). Marine fishing community in South India and impacts of technological transformation.