



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor (RJIF): 8.4  
IJAR 2024; 10(12): 28-29  
[www.allresearchjournal.com](http://www.allresearchjournal.com)  
Received: 12-10-2024  
Accepted: 17-11-2024

**Shamina Banoo**  
University Department of  
Zoology, Ranchi University  
Ranchi, Jharkhand, India

**Ganesh Chandra Baskey**  
University Department of  
Zoology, Dr. Shyama Prasad  
Mukherjee University Ranchi,  
Jharkhand, India

**Matiur Rahman**  
Department of Zoology,  
Doranda College, Ranchi,  
Jharkhand, India

**Corresponding Author:**  
**Matiur Rahman**  
Department of Zoology,  
Doranda College, Ranchi,  
Jharkhand, India

## Role of fisheries in the economic development of Jharkhand

**Shamina Banoo, Ganesh Chandra Baskey and Matiur Rahman**

DOI: <https://doi.org/10.22271/allresearch.2024.v10.i12a.12206>

### Abstract

Fisheries play a pivotal role in the economic and social development of many regions worldwide, and Jharkhand, with its vast network of reservoirs, rivers, and water bodies, is no exception. The state holds immense potential for fisheries development, with its inland fisheries contributing significantly to rural livelihoods, food security, and employment generation. Despite its relatively small geographical size, Jharkhand is endowed with diverse aquatic resources that remain underutilized in terms of aquaculture and fish production. In recent years, government initiatives such as the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and support from organizations like the National Fisheries Development Board (NFDB) have aimed to boost the fisheries sector in the state. Cage culture, integrated fish farming, and the cooperative management of fisheries resources have emerged as transformative practices, enabling rural communities to harness aquatic resources sustainably. This article examines the critical role of fisheries in the economic development of Jharkhand, focusing on current practices, challenges, and future prospects. The interplay between fisheries and rural livelihood enhancement is explored, alongside recommendations for maximizing the sector's potential.

**Keywords:** Pradhan Mantri Matsya Sampada Yojana (PMMSY), the National Fisheries Development Board (NFDB), The Jharkhand State Co-operative Fisheries Federation Ltd. (JHASCOFISH), Food and Agriculture organization (FAO)

### Introduction

#### Role of Fisheries in Jharkhand's Economy

The fisheries sector in Jharkhand has progressively emerged as a vital component of the state's primary sector, contributing significantly to its economy. The state government has recognized the potential of fisheries in fostering economic development and has adopted a multi-pronged strategy to enhance fish production. This approach aims at ensuring sustainable development through an effective value chain and boosting exports. Furthermore, the government is committed to investing in infrastructure, promoting the welfare of fishermen, and establishing institutions to build necessary skills (Jharkhand State Co-operative Fisheries Federation Ltd., 2023) <sup>[5]</sup>.

Jharkhand, often referred to as the "mineral heartland" of India due to its vast mineral resources, is also rich in cultural and historical significance, particularly with its deep-rooted tribal history (Planning Commission of India, 2019). Although primarily known for its mineral wealth, the state has been focusing on diversifying its economic activities, and fisheries have become a key growth enabler and employment generator (Prasad & Roy, 2020) <sup>[7]</sup>. This shift not only enhances the economic landscape of Jharkhand but also provides livelihood opportunities to many local communities, contributing to their overall socio-economic upliftment.

#### Economic Impact of Fisheries in Jharkhand

The fisheries sector plays a significant role in the economic development of Jharkhand, a predominantly agricultural state where fisheries are an integral part of the production system. This sector not only contributes to nutritional security but also has a substantial impact on the state's economy by generating employment and foreign exchange (FAO, 2022) <sup>[3]</sup>.

Employment in the fisheries sector provides livelihood opportunities to over 14 million people across India, with a considerable portion belonging to poor, backward, and tribal communities. In Jharkhand, specific schemes such as "Matsya Mitra" have been instrumental in promoting fishery activities, leading to the creation of new potential farmers and increasing fish production in the region (Mishra, 2021)<sup>[6]</sup>. For instance, in West Singhbhum district, 152 new farmers took up fishery activities due to the intervention of Matsya Mitras, while in Saraikela, 226 new farmers were introduced to the sector (Jharkhand State Co-operative Fisheries Federation Ltd., 2023)<sup>[5]</sup>.

The economic impact of these initiatives is evident through the significant increase in spawn distribution. In the 2009-10 period, West Singhbhum district saw the distribution of 874 lakhs of spawn, and Saraikela district saw 625 lakhs of spawn—a fourfold increase compared to the previous year. The overall economic benefits from fisheries are further highlighted by the sector's contribution of over ₹8,000 crores in foreign exchange, strengthening the livelihood opportunities for the rural communities involved in fishery activities (Department of Animal Husbandry and Fisheries, Jharkhand, 2024)<sup>[2]</sup>.

### Initiatives by Fisheries Cooperatives in Jharkhand

The Jharkhand State Co-operative Fisheries Federation Ltd. (JHASCOFISH) was established to strengthen fishermen cooperative societies in Jharkhand by providing education and developmental support to help them grow and function in accordance with state co-operative norms. The federation is managed by a Board of Directors, including prominent government officials such as the Secretary of the Department of Agriculture, Animal Husbandry & Cooperation, and other departmental secretaries from the Government of Jharkhand.

Water resources play a critical role in sustaining rural livelihoods, particularly in sectors like agriculture, fisheries, and aquaculture. In Jharkhand, innovative projects such as the cage fish farming initiative have significantly improved the economic conditions of local communities. For instance, in Dumka district, the utilization of previously unused surface water bodies for fish farming has opened new livelihood opportunities, helping to alleviate poverty and food insecurity (Ghosh & Rao, 2021)<sup>[4]</sup>.

In a noteworthy initiative, the Department of Fisheries in collaboration with the Jharkhand Department of Fisheries has promoted cage fish farming at the Getalsud Dam in Ranchi. This project has made the area a hub for Pangasius and Tilapia fish species, involving fish farmers from sixteen surrounding villages who are members of fisheries cooperative societies. These farmers use galvanized iron (GI) pipes or modular cages, achieving an average production of 3-4 tons per cage, with an overall annual profit exceeding ₹4 lakhs per annum (Roy & Ghosh, 2023)<sup>[8]</sup>. This initiative has enabled the local fishermen to sell fish at an average price of ₹120 per kilogram, thereby contributing to the economic well-being of the region.

### Conclusion

Fisheries in Jharkhand hold the key to unlocking significant economic opportunities, especially for rural communities. The sector has demonstrated its ability to create jobs, improve nutritional standards, and contribute to sustainable rural development. However, realizing its full potential

requires addressing challenges such as limited infrastructure, lack of advanced technology, and the need for skill development among local fish farmers. Government initiatives, combined with support from academic and research institutions, have started to yield promising results. Practices like cage culture and cooperative fisheries management have showcased the state's capacity to integrate traditional knowledge with modern aquaculture techniques. By fostering public-private partnerships, enhancing water resource management, and providing financial incentives, the fisheries sector in Jharkhand can serve as a model for sustainable economic growth.

The future of fisheries in Jharkhand lies in its ability to adapt to changing climatic, economic, and social landscapes while promoting sustainable practices. With a strategic approach to resource management and community empowerment, the sector can emerge as a cornerstone of the state's economic prosperity.

### Acknowledgement

Authors acknowledge the help and timely support given by DR G C Baskey, Head, University department of Zoology, DSPMU

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