Marine Fisheries Census- 2025: A comprehensive overview

J. Jayasankar*, Somy Kuriakose, K.G. Mini, Eldho Varghese, Vinaya Kumar Vase, Sindhu K. Augustine, Sijo Paul, V.K. Manu, R. Manjeesh, Paulose Jacob Peter and Grinson George

ICAR-Central Marine Fisheries Research Institute, Kochi- 682 018, Kerala

*E-mail: jjsankar@gmail.com

The Indian marine fisheries sector is a critical component of the nation's economy, food security, and coastal livelihoods. With a vast coastline and a large fishing population, accurate and up-to-date data are essential for effective policy-making, resource management, and the welfare of the fishing community. The Indian Marine Fisheries Census (MFC) 2025 is a comprehensive, multi-layered exercise designed to address this need by providing a complete and detailed enumeration of the sector.

Overarching Importance of Periodically Updated Data

- a. Foundation for Evidence-Based Governance: The census provides the fundamental data required for scientific and informed fisheries governance. Without a complete and regularly updated list of villages, households, and infrastructure, it is impossible to formulate effective policies that are tailored to the specific needs of the community.
- **b. Socio-Economic Profiling:** The census moves beyond simple headcounts to capture the intricate socio-economic status of fishing families. This includes:
- Socio-demographic details of fisher households.
- Primary and secondary occupations to understand income diversification.
- Outstanding loans and indebtedness, which are critical indicators of financial vulnerability.
- The status of their housing and living conditions.

- **c. Infrastructure and Asset Mapping:** The census provides a detailed inventory of the physical assets that underpin the fishing industry, including:
- Types and numbers of fishing units (boats, crafts, etc.).
- Fishing-related equipment and gears owned by households.
- The status of officially recognized marine fish landing centres. This data is vital for planning and enhancing infrastructure facilities, such as fisheries harbours, jetties, and cold storage units, to improve economic returns.



Role of the Coordinating Agency and Field-Level Data Collection

ICAR-CMFRI, with its long-standing presence and expertise, is uniquely positioned to coordinate this large-scale exercise. Its role as a "scientific watchdog" ensures that the data collection is rooted in robust scientific methodologies

and validated on the field. It will coordinate the fieldwork in the nine maritime states. The Fishery Survey of India (FSI) will cover the four Union Territories, including the island territories, ensuring a comprehensive national reach. The MFC is being conducted with a single, unified agency-led approach. This ensures standardization of data collection, a consistent methodology across the country, and the ability to compare data points from different regions. This coordinated effort prevents duplication and ensures the integrity of the data.

New Ministry and a "Paradigm Shift" in Focus

The formation of the Ministry of Fisheries, Animal Husbandry and Dairying in 2018 marked a significant shift in the government's attention to the fisheries sector. This new administrative structure required a more granular and comprehensive structure required a more granular and comprehensive understanding of the sector to formulate targeted schemes and allocate resources effectively. The MFC 2025 is a direct response to this need, providing the foundational data to guide the ministry's initiatives.

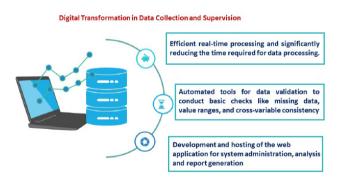
Detailed Information on Professional Livelihoods: The census places a special focus on the professional details of fishermen households, which goes beyond previous censuses. This includes:

- A clear distinction between primary and secondary occupations to understand income sources and reliance on fishing.
- Outstanding loans, which helps in identifying financially distressed families and planning debt relief programs.
- Detailed information on the benefits received from central and state schemes like the Pradhan Mantri Matsya Sampada Yojana (PMSSY), allowing for a performance evaluation of these schemes and identification of areas for improvement.

Digital Transformation and Enhanced Data Collection

The Fully Digitalized and Multi-Layered Approach for the MFC involves the following

- **a. Web Interfaces and Special Apps**: A significant leap from previous censuses, the MFC 2025 is a fully digitalized exercise. The use of specialized mobile applications and web interfaces for data collection and supervision is a key feature. This digital transformation aims to:
- Reduce manual errors and data entry mistakes.
- Accelerate the data collection and compilation process.
- Enable real-time data validation and monitoring.
- **b. GIS Integration**: The data collected through the digital platforms will be populated into a Geographical Information System (GIS). This integration is crucial for:
- Spatially mapping fishing villages, landing centres, and other infrastructure.
- Visualizing the distribution of fishing households and assets.
- Conducting spatial analysis to identify clusters of poverty, infrastructure gaps, and areas needing specific interventions.
- Providing a powerful tool for planning and resource allocation



Special Focus on New Data Points and Community Structures

a. Enumeration of FFPOs and SHGs: Unlike the previous three censuses, the MFC 2025 places a special emphasis on enumerating the details of Fish Farmer Producer Organsations (FFPOs) and Self-Help Groups (SHGs) in the coastal zone. This is vital for:

- Understanding the level of community organisation and collective action.
- Identifying strong community-led institutions that can be leveraged for implementing government schemes and development projects.
- Assessing the economic empowerment of fishing communities through these organisations.

provide a comprehensive view of the sector. The enumeration will take place in roughly 3000 fishing villages cover approximately 1.2 million households. The census leverages enormous human resources, within a digital supervisory framework. Around 3000 enumerators will be deployed on the ground who will be digitally supervised by a team of 300 officials from ICAR-CMFRI, FSI, and State Fisheries Departments, ensuring accountability and quality control. The census

Digital Transformation in Data Collection and Supervision

Enumerators' App

- Nearly 350 data fields -10 schedules
- Real-time census data submission
- Offline functionality with partial form storage capabilities
- Natural Language Processing (NLP)-based voice data entry



Supervisors' App

Verification and finalization



Role based access and progress tracking of enumeration



Real-time dashboards



Enumerator enrolment duty summary reports



b. Wholesale Market Enumeration: The census also includes the enumeration of wholesale markets in the coastal zone. This data is essential for:

- Understanding the value chain and post-harvest infrastructure.
- Identifying bottlenecks in the supply chain.
- Planning for enhanced market connectivity and infrastructure, which can lead to better price realization for fishermen.

Scope, Structure and Timeline of the Census

The census is a massive undertaking, designed to

has a clear timeline and a significant financial outlay. The household enumeration is scheduled to be completed in November-December 2025 and the final reports are targeted for submission by March 2026. The exercise has a budget outlay of around INR 14 crores, highlighting the government's commitment to a detailed and accurate census.

Key Takeaways, Focal Areas and Strategic Benefits

- **a. Identification of Vulnerable Clusters**: One of the most important outcomes of the census will be the identification of specific clusters of fishery families that are in need of government attention. This includes:
- Families with low income and high indebtedness.

- Communities lacking basic infrastructure and market access.
- Households that have not benefited from existing government schemes.
- The data will provide a clear picture of poverty hotspots and areas of socio-economic disparity, allowing for targeted policy interventions.
- **b. Infrastructure Enhancement and Upgrading**: The census will provide a detailed, data-driven map of the infrastructure facilities that need to be enhanced and shored up. This includes:
- Identifying landing centres that require modernization.
- Determining the need for new fisheries harbours, cold storage facilities, and processing units.
- Planning for improved road and transport connectivity to markets.

This data will serve as a blueprint for future infrastructure development projects, ensuring that investments are made where they are most needed to maximize economic returns.

The Broader Strategic Significance of the MFC

- **a. Boosting Economic Returns**: By providing a clear picture of the sector's strengths and weaknesses, the MFC will help in formulating strategies to improve the economic returns for fishermen. This includes:
- Promoting value addition and post-harvest management.
- Facilitating access to formal credit and financial services.
- Connecting fishermen to better markets and reducing the role of intermediaries.
- **b. Sustainable Marine Resource Management:** The census data on fishing units and equipment, combined with other scientific data from ICAR-CMFRI, will be instrumental in developing and enforcing sustainable marine resource

management plans. This will help in:

- Assessing fishing pressure and the health of fish stocks.
- Formulating regulations on fishing effort and gear types.
- Protecting marine biodiversity and ensuring the long-term viability of the sector.
- **c. Empowerment and Inclusivity**: The detailed enumeration of FFPOs, SHGs, and the benefits from schemes like PMSSY is a step towards empowering the fishing community. The census data will help in:
- Measuring the impact of empowerment initiatives.
- Designing new schemes that are more inclusive and reach the most marginalized communities.
- Strengthening the role of community-based organisations in the development process.

Conclusion

The Indian Marine Fisheries Census 2025 represents a landmark effort to modernize and scientifically ground the understanding of India's marine fisheries sector. With its digital-first approach, enhanced data collection on socio-economic indicators and community structures, and the coordinated efforts of leading scientific and administrative bodies, the census will provide an invaluable dataset. The outcomes will not only serve as a critical tool for the newly formed Ministry of Fisheries but also as a strategic roadmap for fostering a more sustainable, prosperous, and equitable future for the millions of people who depend on the oceans for their livelihoods.