

Matsya Baibhav

A Digital Leap in Assam's Fisheries Sector

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The fisheries sector holds immense socio-economic significance for Assam, contributing substantially to the livelihood of rural communities. With an average annual growth of about 6% in fish production, Assam's total fish output has increased from 2.94 lakh tons in 2015-16 to 3.93 lakh tons in 2020-21. Similarly, fish seed production has seen a significant rise from 5,678 million fry to 9,886 million fry in the same period. However, despite this positive trend, the demand for fish in the state surpasses the supply, necessitating the import of fish from other states.

Ghare Ghare Pukhuri Ghare Ghare Maach (GPGGM) Initiative

Recognizing this gap, the Assam government introduced a strategic project in 2017-18 to enhance local fish production and generate employment for rural youth. The project, Ghare Ghare Pukhuri Ghare Ghare Maach (GPGGM), was launched under the Rural Infrastructure Development Fund (RIDF-XXIII) with an outlay of Rs. 12,155 lakh, sourced from NABARD (Rs. 9,509.50 lakh), State Share (Rs. 500.50 lakh), and

Matsya Baibhav is a digital initiative to enhance fisheries management in Assam. Launched under the GPGGM project, it tracks and geo-tags fishery assets using a mobile app and web portal available at <https://fisheryassets.assam.gov.in/> integrated with Bharat Map Services. With 9,083 ponds created and 9,029 geo-tagged, it ensures transparency, real-time monitoring, and data-driven decision-making. By reducing fish imports and boosting self-sufficiency, Matsya Baibhav plays a key role in Assam's fisheries development.

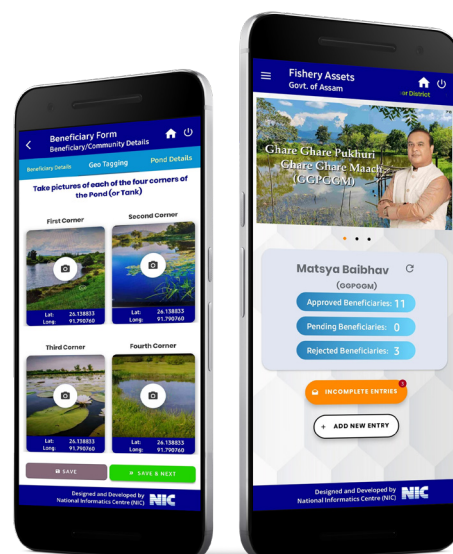
tracking of assets and beneficiaries became essential, leading to the development of a digital solution.

Objective

To streamline the monitoring and evaluation of GPGGM, the National Informatics Centre (NIC), Assam State Centre, developed a web portal and a mobile app called Matsya Baibhav. The Matsya Baibhav mobile app and Portal <https://fisheryassets.assam.gov.in> was launched in the month of February, 2022. The primary objective of this application is to geo-tag the assets created under the project and provide a centralized platform for data management, integration of Fishery Assets created in the Bharat Map with location and transparency.

- **Common Platform:** Facilitate monitoring of the GPGGM scheme through an integrated web portal.
- **Real-time Status Updates:** Provide up-to-date information on the implementation progress.
- **Dashboard & Reports:** Summarize scheme status with graphical representation and detailed reports.

Fig 8.1: Fishery Assets Mobile App



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beneficiaries (Rs. 2,145 lakh). The project aimed to boost fish production by 5,000 metric tons annually.

As part of the initiative, beneficiaries received fish culture input support, including fish seed and feed, for two consecutive years under the Chief Minister's Samagra Grammya Unnayan Yojana (CMSGUY). They were also provided with training through College of Fisheries in Raha, and Krishi Vigyan Kendras under Assam Agricultural University, Jorhat, to ensure the long-term success of the project.

The GPGGM scheme focused on constructing 1,000 hectares of individual farmer ponds and 430 hectares of village community tanks across all Legislative Assembly Constituencies (LACs) in Assam. Given the scale of the project, real-time

- **Geo-mapping of Ponds & Tanks:** Display location-based data of assets created under GGPGGM.

- **Public Access:** Ensure transparency by making dashboard and reports accessible to the public.

User Roles and Workflow

The system follows a hierarchical approval mechanism:

- **State-level users** can approve or reject entries made by district or block-level users.
- **District-level users** can approve or reject only block-level entries.
- **Block-level users**

Features of Matsya Baibhav

The portal includes distinct categories to track assets and beneficiaries:

- **Ponds Geotagged:** List of all approved ponds/tanks
- **Individual Ponds:** Approved private ponds
- **Community Ponds:** Approved village community tanks
- **Pending for Approval:** Entries awaiting validation
- **Rejected Entries:** Ponds/tanks not approved by state or district authorities
- **Monthly Geotagging Updates:** Summary of geotagged ponds/tanks within a specific month

Additionally, the system provides district-wise, LAC-wise, and block-wise reports, ensuring comprehensive data accessibility for state-level users.

Latest Data from Matsya Baibhav Portal

As per the latest records, a total of 9,083 ponds and tanks have been created under the GGPGGM initiative, of which 8,706 are individual ponds and 377 are community tanks. In terms of geo-tagging, 9,029 water bodies have been successfully mapped, with 8,650 being individual ponds and 379 being community tanks. These figures highlight the remarkable progress made in implementing the initiative, demonstrating the crucial role of Matsya Baibhav in accurately tracking, mapping, and managing fisheries assets across Assam.

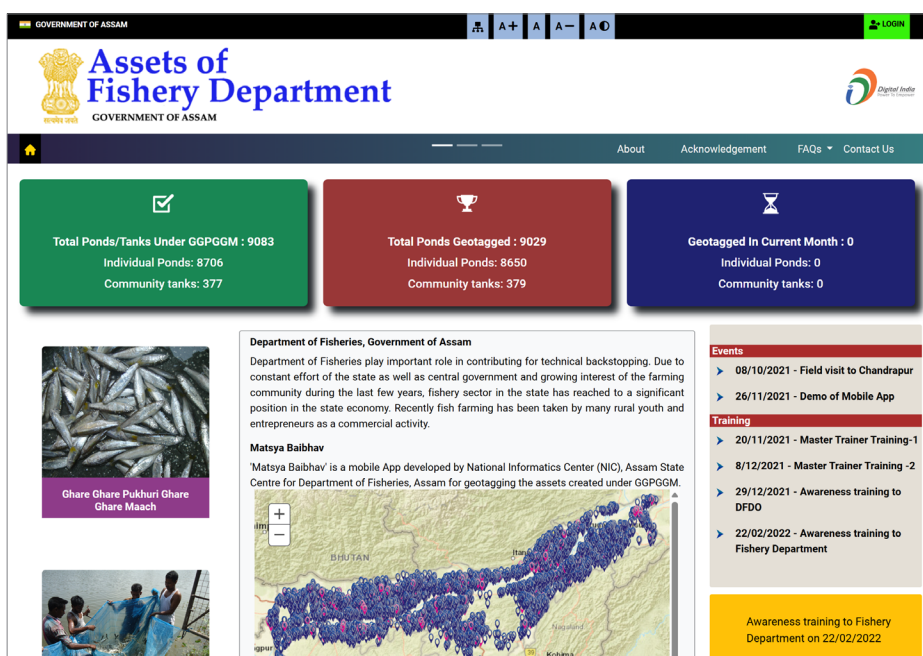
Geotagging Process in Matsya Baibhav

The geo-tagging process involves:

- **Adding a new entry:** Users input beneficiary or community details
- **Capturing images:** Clicking photos at all corners of the pond/tank, which records latitude and longitude
- **Saving and uploading:** Users review entries, ensure accuracy, and upload them to the server
- **Approval process:** Entries are verified and ei-



▲ Fig 8.2: Online Training-cum-awareness Programme on MATSYA BAIBHAV conducted for all District and State level officials of Fishery Department



▲ Fig 8.3: Website Home page of Assets of Fishery Department

ther approved or rejected with feedback

If required, images can be re-captured before uploading to the server, ensuring precise geolocation data.

Conclusion

Matsya Baibhav has revolutionized fisheries management in Assam by integrating digital tracking, ensuring transparency, and enhancing decision-making capabilities. By accurately geo-tagging ponds and tanks, the initiative strengthens the state's ability to achieve self-sufficiency in fish production. With over 9,000 ponds/tanks already mapped and tracked, the

project showcases the power of technology in boosting local livelihoods and reducing Assam's dependency on fish imports. Moving forward, continuous monitoring and expansion of Matsya Baibhav will be crucial in sustaining this progress and maximizing the benefits for fish farmers across the state.

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