

Sustaining small scale fishing, navigating social and market disruptions: A case study of inland capture fishery in Vembanad Lake, Kerala, India



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Importance of inland fishery

- National and global food security and livelihoods
- Over 75 % of total inland captures was contributed by 14 countries in 2022
- India possesses vast and diverse inland fisheries resources comprising rivers, canals, flood plain lakes, reservoirs
- The inland sector of the Kerala contributes around 1.40 lakh metric tones of fish
- Vembanad Lake is a wetland of international importance
- It was designated a Ramsar site, for conservation and sustainable utilization of the ecosystem

(SOFIA 2024)

Research methodology

- The study was conducted in 4 fishing villages located around Vembanad
- Household were selected randomly
- A semi-structured interview schedule was prepared
- In-depth interviews were done with fishers, fisher women, clam-processors and traders
- **Dimensions of the study**
 1. Fishing/harvest practices in fish and clam
 2. Post-harvest/processing practices in clam
 3. Marketing
 4. Social dynamics
 5. Environmental concerns
 6. Local governance and organizations
 7. Constraints

Profile of fishery households

- Both Men and women are engaged in fishing, fish processing and marketing
- Youth are educated and not involved in fishery (very few are involved in marketing through mobile apps)
- Alternate employment options- wage employment schemes, agriculture, trade
- Education upto high school
- Average experience 15 years
- Caste system: Dheewara fishermen community





Fish, clam landing center



- Fishermen deploy fishing gear in the evening and retrieve them in the morning
- Fishermen primarily use wooden boats, some equipped with small petrol engines
- While fiberglass boats exist, wooden boats are more common

Post-harvest/processing practices

- Clams are harvested for their meat and shells
- Harvesting clam is a significant activity, done as a family occupation wherein husband go for clamming and wife and other family members help in pre-processing and processing clam
- Clams are collected, boiled to extract the meat, and the shells are sold for lime production



Black Clam



Black Clam-meat



Marketing

- Women are involved in headload vending of fish
- During peak seasons (like June-July), a daily income of ₹1000 is generated
- Lean season (after August) can see significantly reduced or no catch
- Clamming can yield 10-15 kg of meat daily, with the price for clam meat being around ₹250 per kg
- A significant portion of the catch, especially clam meat, is sold to companies or domestic markets
- Traders Dictate Prices Due To Their Collective Influence
- Conflicting Role Of Middlemen



Environmental concerns

- Fishing is heavily dependent on weather conditions
- During monsoons (June-July), strong winds and rain can prevent fishermen from going out
- pollution, waste disposal (plastics) and runoff from agriculture wetland
- Sedimentation in the lake hinders boat movement, especially during dry seasons
- Frequent floods
- Eichhornia infestation



Blockages in the lake due to weeds or sediment hinder fishing operations

Economic challenges

- Fishermen face financial difficulties, often needing to borrow money for maintenance, petrol, or daily expenses
- Lack of fair prices for catch (local traders takes maximum profit)
- Grading of fish by traders
- Lack of awareness about new schemes
- Exploitation by private money lenders (credit at high interest rate)
- Informal arrangements with buyers, in exchange for selling their catch exclusively to them
- Boat and net maintenance is expensive

Health issues

- The physically demanding nature of the work, especially clamming, leads to health issues like hand and leg pain, back pain
- Breathing smoke from clam boiling is also a concern-respiratory issues

Local governance and organizations

- Women self help groups-provide interest free loans
- State Department of fisheries providing fishing inputs (equipment like fishing nets, boat)
- Grama Sabhas (village assemblies)
- MATSYAFED- pension to fishers- Rs.1600/month, after 60 years
- Cooperative societies especially for clam fishers Provide welfare schemes to its members
- Community caste based sabhas/groups

Local governance and organizations

Feature	MATSYAFED	Fisheries Department
Primary Focus	Financial assistance, provision of gear (loans, insurance, nets, engines), and strengthening cooperative societies.	Extension, transfer of technology, training, monitoring, stock enhancement (ranching), and implementation of various government/local schemes.
Extension Activities	Generally not involved in general extension activities.	Fully responsible for extension activities.
Mechanism of Support	Primarily through Primary Cooperative Societies and District Offices.	Directly through various tiers of officials and field staff (Promoters, Enumerators, Officers).

Conclusion

- Existing infrastructure should be fully utilized for direct sales and auctions to ensure fair prices for fishermen
- Existing marketing system should be revised
- Encouraging fisherfolk, especially women, to form units for packing and branding fish and clam products
- Conducting awareness programs and workshops for fisherfolk to educate them about available schemes, management practices, and the benefits of collective action is crucial
- Stricter enforcement against pollution from houseboats and general waste disposal is necessary
- Providing better infrastructure for clam processing, including access to clean water for washing, is essential
- Exploring modern, energy-efficient boiling methods beyond traditional gas or electric blowers would also be beneficial.

Thank you...