

Resource degradation and conflicts affecting small-scale wetland fishers of West Bengal, India



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India is endowed with various kinds of wetlands, including freshwater floodplain lakes, dams, coastal and marine wetlands. These wetlands, especially the floodplain wetlands locally known as *Beels* or *Baors*, are more than an important regulator of many environmental and climatic factors and a habitat for a wide array of biodiversity — the wetlands also play a crucial role as a source of livelihoods to the people living on or around their periphery. Fisheries are an integral part of livelihoods for the communities living adjacent to the wetland areas. Small-scale wetland fisheries directly provide livelihoods and nutritional security to approximately 2 million people of India, particularly in Assam, West Bengal and Bihar.

Wetlands in India serve as a common pool resource, used by multiple stakeholders, including fishers. For example, wetlands are used for irrigation of agricultural fields, production of water-based crops, jute retting, and dumping ground for industrial waste. As a consequence of overlapping interests and uses, different conflicts arise among the stakeholders. Wetland areas in West Bengal, India, are under the jurisdiction of the Land and Land Reform department, which is predominantly interested in revenue building. In such circumstances, small-scale wetland fishers get less attention due to their poor socio-economic status. The voices of these fishers often remain ignored by the government. As a result, the resources are getting overexploited, which is threatening the livelihoods of small-scale fishers. Therefore, there is a need to develop a great number of improvements to ensure the utilization of these wetlands to their full potential in a sustainable manner. To do so, we argue that the conflicts between stakeholders need to be resolved.

Photo: *Wetlands: source of livelihoods to millennia.* © Priya Chatterjee

Location:
Khalsi beel, West Bengal, India

Ecosystem type:
Freshwater

Main gear:
Drag net, lift net, cast net, gillnet, harpoon, hook and line and traps

Target species:
Catla (*Labeo catla*), Rohu (*Labeo rohita*), Mrigal (*Cirrhinus mrigala*), Snakehead murrel (*Channa striata*) and Mola (*Amblypharyngodon mola*), Puti (*Puntius sp.*)

Vessel type:
Small non-motorized boats

No. of small-scale fishers:
250 (Approx)

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Justice in context

Types of justice:

- **Distributive**
- **Social**
- **Economic**
- Market
- Infrastructure/wellbeing
- **Regulatory**
- Procedural
- **Environmental**
- COVID-19 related

Prioritizing irrigation: Since wetlands are a huge repository of rainwater, they are the preferred choice for irrigation in agricultural fields, especially during the dry seasons. Unregulated irrigation practices create a shortage of water in the wetlands from February to May, which hampers both the capture and culture fisheries. Consequently, it affects the livelihoods of the fishers dependent on the wetland. The governing bodies of these wetlands are mostly non-fishers, and they often give preference to agricultural farmers.

Encroachment of wetland area: During the dry seasons (February to May), the wetlands are used for cultivation. Agricultural farmers build embankments across the wetland in order to access the dryland areas. Additionally, with the cooperation from the local government, they establish sluice gates to divert the water and gain access to the land. In some cases, local non-fisher elites take a lease of wetland areas and convert them for different uses, such as, for example, vegetable culture, fish/shrimp culture, and even for construction. As a result, the total wetland area is gradually getting reduced. Some of these wetlands include the wetlands of lower Gangetic plain viz. *Bhomra beel*, *Khalsi beel*, *Beledanga beel* and others. Furthermore, different infrastructure developments are causing changes in the water flow in/out of the wetlands, especially as they are closing off smaller channels, which used to be connected to larger rivers. Eventually, the change of water flow affects not only the hydrology of the wetland but also its biodiversity.

Consequences of jute retting on fisheries: Jute retting in water bodies is a common practice in rural Bengal. Jute retting results in the production of many harmful gases, which increases the organic load of the water that may lead to eutrophication. Consequently, substantial deterioration of water quality makes wetlands unsuitable for fishing and other aquaculture practices.

Definition of small-scale fisheries

There is no official definition of small-scale fisheries in India. As defined by the Food and Agricultural Organization of the United Nations (FAO), small-scale fisheries involve a relatively small amount of capital and energy, use small fishing vessels, involve family labours, make short fishing trips, mainly for local consumption, and mostly destined for the local markets. In India, inland open-water fisheries are considered small-scale fisheries since they involve less amount of energy and capital.

” ... reform is required in the existing governing system of wetlands, starting with participatory planning and execution. Equal representation from all strata of beneficiaries will ensure that the interests of every stakeholder involved in wetlands are safeguarded, thus protecting the livelihoods of the small-scale fishers as well.

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Dealing with justice

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Social injustice occurs when people in a society are not treated equally. The small-scale fishers are already a disadvantageous group. In West Bengal, India, small-scale fishers that live around the wetlands are dependent on beel fisheries as their primary occupation. The degradation of the wetland ecosystem directly affects the life and livelihoods of the wetland fishers. Steps should be taken to manage the resources of wetlands in a way that can sustain current and future uses through the active participation of all the relevant stakeholders.

First, stakeholder consultation should be done prior to any infrastructure development activities. Second, the government has to be more proactive in tackling the social injustices caused by the abuse of political power by the local elites. Third, connecting the Indian Government Schemes like [MGNREGA/RVKY](#) to the wetland ecosystem can improve the water quality. The dredging of wetlands or removing the water hyacinths can be helpful for both fisheries and agriculture production. Four, jute retting can be done through advanced practices like chemical retting or microbial retting instead of traditional retting processes that take place in wetlands. This will not only reduce pollution of water bodies but will also be beneficial for jute farmers, as it will improve the quality of the fibre and reduce the retting time.

Finally, a reform is required in the existing governing system of wetlands, starting with participatory planning and execution. Equal representation from all strata of beneficiaries will ensure that the interests of every stakeholder involved in wetlands are safeguarded, thus protecting the livelihoods of the small-scale fishers as well.

Photo: Participatory Rural Appraisal to prioritize the needs of the small-scale beel fishers. © Sujit Chowdhury



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