

Fish dressing facilities in inland areas of India: Challenges and opportunities

A look at how youth in Tripura are creating livelihoods through informal fish dressing and what it tells us about the future

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Entrepreneurs providing dressing services for small fish at the Durga Chowmuhani fish market in Agartala.

When you think about fisheries in India, you probably imagine vast coastal waters. But here's something most people don't realise: 70% of India's fish actually comes from inland sources such as rivers, lakes, reservoirs, and ponds scattered across the country. States like Andhra Pradesh, West Bengal, and Bihar have turned their inland waters into goldmines of food production.

But there's a critical problem that often gets overlooked. While we've become quite good at producing fish from inland waters, we're not particularly efficient at handling the catch after it comes out of the water. In fact, between 15 and 20% of the fish we produce in inland areas simply spoils and goes to waste before it even reaches your plate. That's roughly one fish out of every six that doesn't make it to market in decent condition.

This wastage happens because fish dressing - the critical process of cleaning, scaling, gutting, and packaging fish - remains stuck in the past in most inland areas of India. And this isn't just an economic loss. When fish isn't properly handled, people's health suffers too. The quality drops, food safety risks increase, and fisherfolk and vendors don't get fair prices for their hard work.

In this article, we want to focus on what's actually happening on the ground in one particular place: Tripura. What I've discovered there is something quite surprising and encouraging. While the challenges are real, a new story is emerging - one about young people finding entrepreneurial opportunities in the simple act of dressing fish.

Tripura's fish culture: High demand, local supply problem

Let us start by explaining why fish dressing matters so much in Tripura specifically. Tripura is a small northeastern state with rich inland water resources. Rivers, reservoirs, and wetlands are everywhere. The state has a vibrant fishery sector, with farmers cultivating Indian major carps, catfish, tilapia, and other species.

But what really sets Tripura apart is the cultural significance of fish. It's not just food here; it's part of daily life, woven into celebrations and everyday meals. Fish consumption in Tripura is around 27.6 kilograms per person per year. That is roughly four times the national average of about 6-7 kilograms. Fish appears in virtually every household, in multiple forms including smoked, fried, curried, and steamed.

Here's the challenge: Tripura can't produce enough fish to feed its own population. Despite ongoing efforts to boost aquaculture and fish farming, the state faces a supply-demand gap. So Tripura imports fish from neighbouring states like Andhra Pradesh and West Bengal, and even from Bangladesh. The state government has been pushing hard to increase local production and reduce this dependency on imports, but it's an uphill battle.

All this imported fish, plus the locally caught fish, needs proper dressing and preservation. That's where things get interesting.

The current reality: Informal processing with surprising demand

Walk into most inland fish markets in India, and you'll see workers processing fish the traditional way - by hand, with simple tools, at market stalls. But in Tripura's retail markets, something different is happening.

A visit to Tripura and conversations with different stakeholders of fish marketing in 2024 revealed a striking pattern. When we collected information from fish retailers across several retail fish markets in West and South Tripura, covering many retailers, we found something unexpected. More than 95% of retailers offer fish dressing services. Most of them do this without any formal infrastructure, just market space and traditional tools. They primarily dress large-sized carps, which consumers prefer to buy fresh-dressed rather than pre-packaged.

But here's where it gets interesting. For small indigenous fishes - the ones Tripura's consumers actually prefer most - fewer than 10% of retailers offer dressing services. Why? Because dressing small fish is time-consuming and intricate. It takes patience and skill. Most retailers simply refuse to do it, even if customers offer to pay.

This created a gap. Consumers wanted their preferred small fish cleaned and ready to cook, but nobody was providing that service. That gap turned into an opportunity.

Youth fish dressers: A new entrepreneurship story

At the Durga Chowmuhani fish market in Agartala, something remarkable has emerged. Around 22 young people, mostly unemployed urban and semi-urban youth, have turned fish dressing into a viable business. They set up by the market entrance each morning, tools in hand, ready to dress fish for customers who need it.

Let us paint the picture: these young people work roughly from 7 in the morning to 11 in the morning - about 4 hours a day. During those hours, they're completely occupied. There's demand. People want their small fish cleaned, gutted, and scaled, and they're willing to pay for it. Consumers prefer not to do the work at home, because they find it tedious and time-consuming.

What did we observe? Each dresser earns between 530 and 680 rupees per day. That translates to a monthly income of between Rs. 15,900 and Rs. 20,400, or an annual income of roughly Rs. 190,800 to Rs. 244,800 (~US\$2,100-2,700). To put this in perspective, Tripura reported a per capita income of Rs. 159,419 (~US\$1,740) during 2022-23. This means these young fish dressers are earning incomes that significantly exceed their state's average per capita income.

The remarkable part? Their startup cost was minimal. The primary capital investment was a fish dressing sickle - a specialised curved knife - costing a maximum of 500 rupees per person. Their daily running cost was Rs. 50 per dresser, which they paid as rent to the fish marketing cooperative for using market space.

The average age of these dressers is 27.4 years. Most of them had been unemployed before taking up this work. Now they're not just earning, they're earning above average. And interestingly, about 77% of them have additional income sources for times when fish dressing isn't happening - mainly after 11 am in the morning when the morning market rush ends.

Why this matters

What we're seeing at Durga Chowmuhani is not just a business - it's a livelihood solution that emerged organically from market demand. These young people identified a gap (the need for small fish dressing services), had minimal barriers to entry (a simple tool and a bit of market space), and found willing customers. They're not waiting for government schemes. They're not sitting idle. They're making it work.

This tells us something important about fish dressing in Tripura. There's a real, profitable market for these services. It's not formalised, it doesn't require expensive infrastructure, and it's generating decent incomes for young people who would otherwise be unemployed.

The challenges remain real

Of course, this success story at one market doesn't mean everything is perfect. The informal nature of fish dressing in Tripura still presents problems.

Most fish processing happens manually at markets or by vendors, often without access to proper hygiene and sanitation facilities. The lack of modern fish dressing infrastructure - cold storage, mechanical processing units, proper water supply - has led to high post-harvest losses. The quality of processed fish varies. And consumers, particularly those buying imported fish, deserve better assurance about food safety.

Additionally, traditional fish dressing methods often don't meet hygiene standards. Fish gets contaminated. It spoils faster. When workers don't handle fish properly, consumers get food-borne illnesses. The quality of the product suffers. It's a concern that shouldn't be ignored.

Many inland areas also lack basic infrastructure that would support better fish dressing. There's no reliable electricity supply in remote fishing villages. There's no clean water on demand. There's no cold storage. These aren't luxuries - they're essential if you want to dress fish properly and keep it fresh for longer.

Moving forward: Building on what works

The encouraging part is that solutions exist, and we know what works. Here's what we think matters most:

First, we should recognise and support what's already working - like the fish dressing at Durga Chowmuhani. These informal businesses are responsive to market demand, they're generating employment, and they're profitable. Rather than trying to replace them overnight with formal facilities, we could work with them. Provide them with basic training on food safety. Help them access better tools and cleaner work spaces. Connect them with resources to improve gradually.

Second, there's enormous potential for cooperative-based processing centres. A group of young fish dressers pooling resources to establish a modest facility with basic equipment - cleaning units with running water, proper drainage, basic packaging - could scale up their current success. It's more affordable than individual investments in large facilities, and it builds on an existing community of people who already understand the business.

Third, the Tripura government has initiated programmes under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) to promote the establishment of modern fish dressing units and cold chains. If these government initiatives support informal businesses to upgrade gradually, they could be transformative.

Fourth, research institutions and NGOs are introducing low-cost, eco-friendly technologies. Solar-powered ice plants and portable fish dressing kits exist. Cooperatives could adapt these for Tripura's context and scale them up through cooperative models.

Finally, targeted training programmes can help. Not theoretical training, but practical workshops where young fish dressers learn about food safety, better hygiene practices, and perhaps the operation of simple mechanical tools.

Institutions like the Central Institute of Fisheries Technology can play a key role in spreading knowledge and skills tailored to Tripura's actual market conditions.

Conclusion

Fish dressing facilities in Tripura tell a story that's different from the usual narratives about agricultural development. Yes, there are challenges - infrastructure gaps, hygiene concerns, post-harvest losses. But there's also emerging evidence that the market itself is creating solutions.

Young people in Tripura have discovered that fish dressing can be a viable livelihood. They're filling a gap that retailers weren't filling. They're earning decent incomes with minimal startup investment. That's entrepreneurship in action, and it deserves recognition and support.

The path forward isn't necessarily about importing expensive technologies or waiting for large-scale government facilities. It's about strengthening what's already working, upgrading gradually, and creating the conditions for these informal businesses to formalise and scale up when it makes sense.

Fish dressing in Tripura isn't just about post-harvest processing. It's becoming a source of employment, livelihoods, and dignity for young people. That's the story worth telling and supporting.