

Toxic seas, empty nets

As pollution and environmental degradation drive fish way from the city's coast, the *kolis*, Mumbai's original inhabitants, struggle to survive

Aditya Ghosh
Mumbai, February 15

LAST YEAR, fisherman Moreshwar Londhe sold his two boats and took up a job in an engineering workshop that paid Rs 3,000 a month. With his first month's salary, he bought a home aquarium. He could not live without fish.

After 25 years of fishing, this resident of the Versova *koli* village was forced to turn to another job because the sea was no longer yielding enough catch to help him get by. Londhe's two sons also stopped fishing: one now works as a driver and the other in a mall, each earning the same wage as his father.

Industrial effluents, oil drilling, climate change and environmental degradation along the coast have combined to drive away fish from the Arabian sea near Mumbai.

Over the past five years, seven species have vanished and the quantity of catch has plummeted to less than a eighth its previous level.

"The fish that remain are highly toxic (see 'Pollution wipes out seven fish species along city coast' on Page 1 and 'Fish swim away from polluted city waters' below).

For the city's fish lovers, this means sacrificing *surmai masala* and *stuffed pomfret*. For the city's 10 lakh-odd fishermen it means a loss of livelihood — and a way of life.

After generations of drawing sustenance from the sea, the *kolis* have realised it is not going to feed them any more. Like Londhe, they have no choice but to brave the land in search of jobs.

"Costs kept increasing and the catch dropped dramatically, so we did not have a choice but to leave the profession so dear to us," he explained. "Every trip to the sea cost me Rs 30,000, while I earned at most Rs 3,000."

Under pressure

While supply has fallen, economic growth and a rise in population have boosted the demand for fish, forcing fishermen to go deeper into the sea and spend longer hours there.

Security patrols after the terrorist attack in November have made their life even more difficult.

Prahlad Marve, 45, who owns three boats, will vouch for this. "The catch is sparse and it is becoming riskier by the day. I am seriously thinking of selling my business, but there are no takers."

"Moreover, checks by the coast guard and navy eat into valuable fishing time," he continued. "Often, we are asked to lift our nets from the water to show them what's inside,

which spoils the entire catch."

To help *koli* families in distress, the National Association of Fishermen has urged the state government to provide subsidies to those who wish to start a chain of fish stalls, along on the lines of the state-promoted *jhunka bhakar* stalls.

"This will help the women sell the fish at decent prices," said G.K. Bhanji the associa-

tion's chairman and president of the Maharashtra Koli Samaj.

Even if the state government takes notice, Londhe is unlikely to be tempted back into fishing. Looking at the small fish darting in his tank, he said, "Even if I get a boat and gear on hire, I won't go back. There are hardly any fish left to catch."

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HT PHOTOS: SOUMITRA GHOSH

Desperate fishermen are tightening the weave of their nets in the hopes of catching more fish.



While supply has fallen, economic growth and a rise in population have boosted the demand for fish, forcing fishermen to go deeper into the sea and spend longer hours at work.

Fish swim away from polluted city waters

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THE FISH tried to adapt to all adversities, even protracting their breeding period. But they could not stretch themselves any further.

That is how scientists describe the crisis of fish catch along the coast of Mumbai, Thane, Navi Mumbai and Raigad. Over the past five

years, seven fish and prawn species have vanished from the city's coast, the quantity of catch has dropped precipitously and whatever is left in the sea is highly toxic.

Catch has dropped to 14 per cent of what it used to be five years ago. Particularly badly hit are the northern outskirts of Mumbai, where most of the industrial units have now shifted from city fringes.

Plastic is also causing havoc in the creeks; fishermen now find fish choked in it even in the nets. The destruction of mangroves is another major reason for catch dropping. "This used to be a nesting site of many varieties, including prawns, lobsters and crabs. In four years, we have not spotted a single sand lobster. It is like cutting the forest to hunt for deer."



—SUSHANT CHAKRABORTY, head of the Central Institute of Fisheries Education in Versova

Chakraborty said. Catching females with eggs, once avoided by the fishermen themselves, is no longer a taboo. A recent study done by Fishery Survey of India estimated that 42 tonnes of egg were destroyed off Mumbai coast in one month. "Considering that each egg weighs 0.5 gm, one can imagine how much fish potential was destroyed," said Chakraborty.

India's coastline includes part of the most heavily polluted oceans in the world: about

70 per cent of the world's oil trade goes through the Indian Ocean, claimed Baban Ingole, a biological oceanography expert at the National Institute of Oceanography in Goa.

"We desperately need a proper treatment facility for industrial discharges for all units across the state, all of which discharge their waste in the sea, particularly in the creeks of Vashi, Vasai, Raigad and Dahanu," said Verendra Veer Singh, principal scientist and an expert on the effect of pollution on marine ecosystems

at Central Marine Fisheries Research Institute.

A yet unpublished study by the National Environment Research Institute and the Central Marine Fisheries Research Institute showed that

the telapia fish was 44 per cent more toxic than the level safe for human consumption; sardines and Bombay Ducks caught off the Vashi and Raigad coasts had toxic lead levels; the sea water off Bandra had ammonical nitrogen beyond the safe value, even at five kilometers into the sea.

To protest against pollution and the absence of any government initiative to bolster fishing, over 100,000 fishermen will launch a statewide protest in March this year, said G.K. Bhanji, chairman, National Association of Fishermen's and president, Maharashtra Koli Samaj.

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Indira and Moreshwar Londhe, *kolis* who have abandoned fishing for more lucrative employment.

TROUBLED WATERS

Reasons why fish are deserting the Mumbai coast

- Industrial effluents
- Oil drilling at 113 locations
- Destruction of mangroves
- Excess fishing,
- including catching young fish and females carrying eggs
- Bottom-trawling, which destroys the sea bed
- Security alerts



FISH OUT OF WATER

Pollution has wiped out seven fish species from the Mumbai coast

Local name
Scientific Name
Common Name

