

Pg 26

**SAVING THE MIGHTY  
MAHSEER**

Tata Power's hatchery in Lonavla has the largest breeding stock of the 'tigers of the water'

Pg  
26





# SAVING

*the mighty*

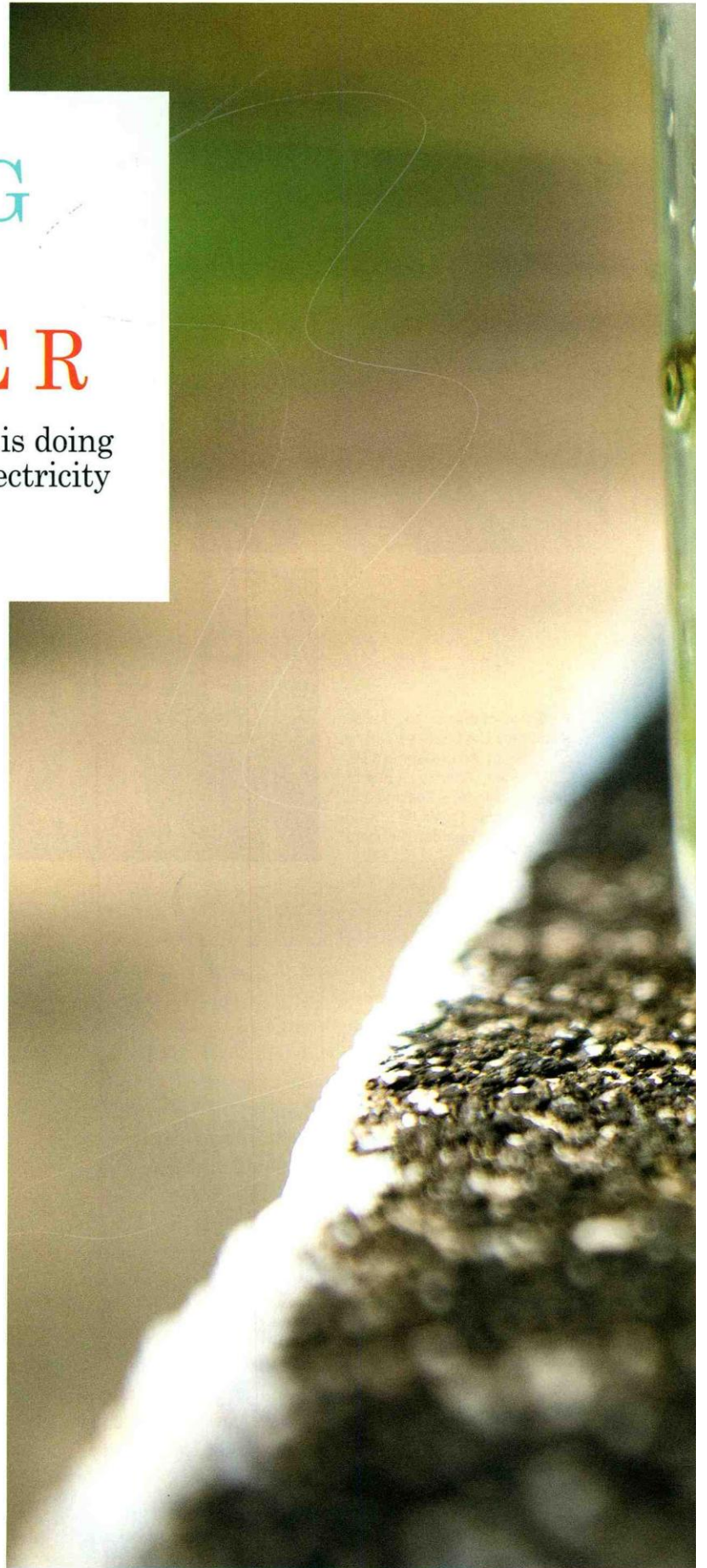
# MAHSEER

In sleepy Lonavla, Tata Power is doing much more than generating electricity

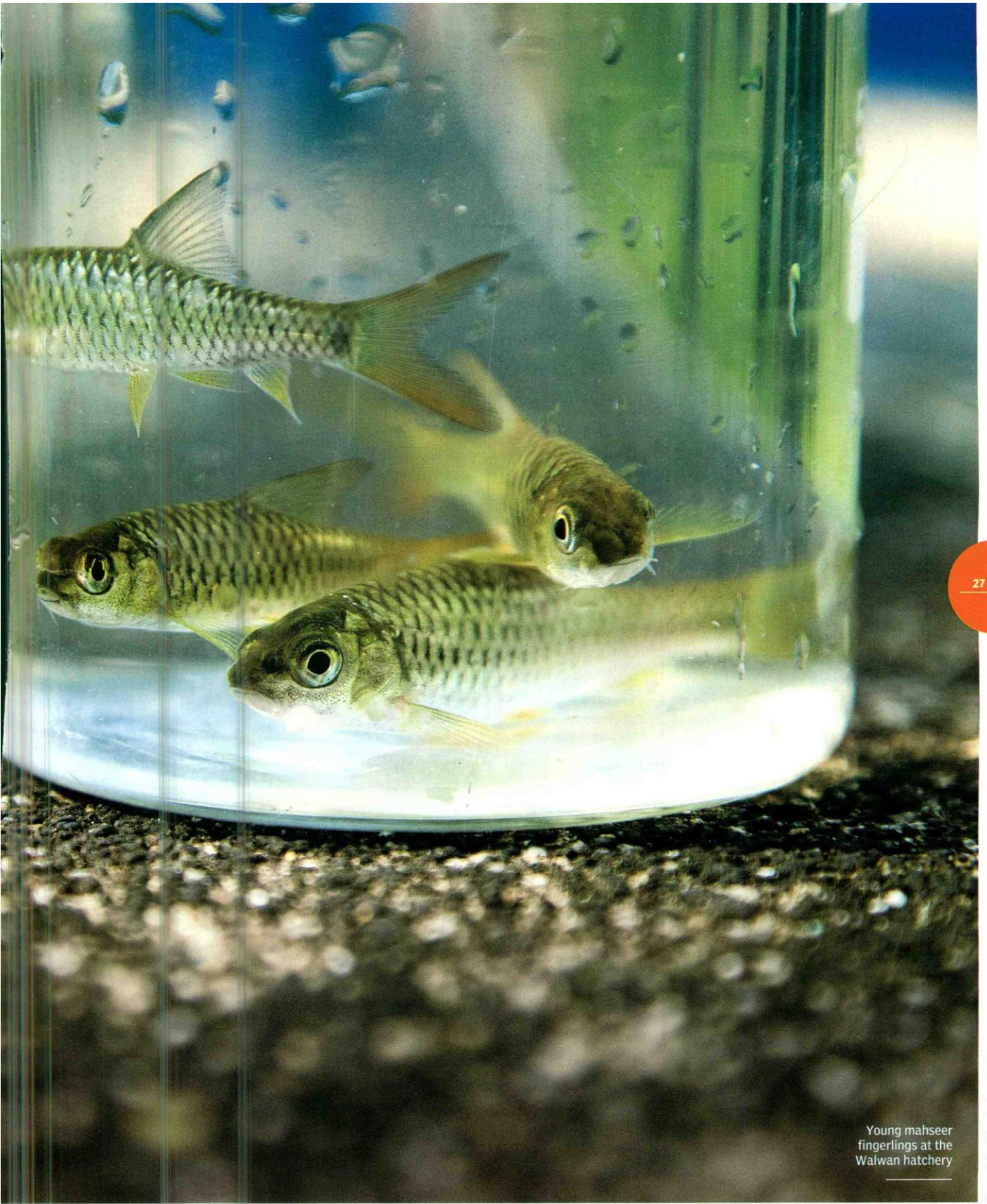
BY **CUCKOO PAUL**

**T**he cloudburst of June 2013 brought much devastation to Uttarakhand in north India. Thousands of people perished in mudslides as rivers burst their banks and swept away everything in their path. The impact of the floods on life and property is felt to this day, and the ecological shock on flora and fauna is still being calculated. Amid this tragedy, freshwater fish, which were already threatened by habitat loss, have become rarer to find. And one of the biggest casualties of both human callousness and natural disaster is the mahseer, of the genus *Tor*.

This freshwater fish is a type of carp that once swam in great numbers in Himalayan rivers like the Ramganga and other Indian rivers such as the Indrayani, which originates in the Sahyadri Mountains in Maharashtra, and the Kaveri that flows through Karnataka and Tamil Nadu. By mid-March this year, two years after the 2013 floods, a batch of 10,000 young mahseer fingerlings will be shipped from Lonavla, a tiny hill station in Maharashtra where they were hatched, and introduced into Uttarakhand's rivers. But it's yet to be seen whether this effort will help replenish the depleting stock. Poaching and unmonitored angling, polluted and toxic waters and river construction projects are contributing towards the slow extinction of many fish species, including the mahseer. Sadly, freshwater fish are hardly on the radar of policy makers or the general public, and their decline receives little attention.

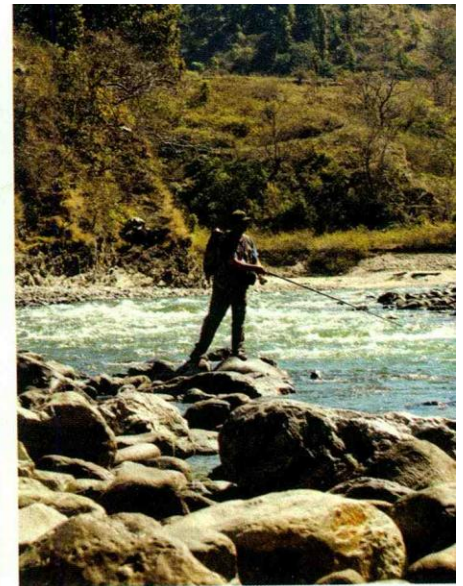






Young mahseer fingerlings at the Walwan hatchery





(Above left) Vivek Vishwasrao, biodiversity head at Tata Power, at the greenhouse near the Walwan dam; angling at Ramganga

It's not without reason that mahseers are counted among the 20 mega fishes of the world. They can grow up to 2.75 metres (9 feet) in length, and easily weigh 35 to 40 kg. Anglers know them as 'tigers of the water' and say they are the world's hardest fighting fish. They have won the respect of locals who admire the mahseer's ability to constantly swim upstream in search of food and more oxygen. At Sringeri, along the Tunga river in Karnataka, the fish is worshiped at local temples.

But the reverence the mahseer has garnered has failed to keep it off lists of endangered animals. The IUCN (International Union for Conservation of Nature and Natural Resources) Red List, one of the world's most comprehensive sources on the conservation status of plant, animal and other life forms, has five species of mahseer on its endangered list: The black or Deccan mahseer (*Tor khudree*), the dwarf mahseer (*Tor kulkarnii*), the Malabar mahseer (*Tor malabaricus*) and the golden mahseer (*Tor putitora*). The exact numbers are not known, but a 2010 report referred to by

the IUCN notes that the golden mahseer is estimated to have declined by more than 50 percent in recent years, "and if the current trends continue and with the new dams being built, the population may decline even up to 80 percent in the future".

**C**ut to Walwan dam in Lonavla in the Pune district of Maharashtra, where four burly, bare-chested fishermen, knee-deep in massive outdoor tanks, are busy herding a school of mahseer. The hill station most famous for its crunchy *chikki* (a peanut and jaggery snack) is home to a fish-hatchery, the history of which is tied to Tata Power. With its hills and lakes and catchment areas for dams, Lonavla is not just a weekend destination for Mumbaikars, it's also an ideal setting for hydro-power generation.

Tata Power commissioned its first power station at Bhivpuri in the nearby Raigad district, a hundred years ago. It now generates 350 MW of power from six dams that supply the power-houses with water. And one of the company's enduring

gifts to the region is the hatchery, located right next to Walwan, an artificial dam built over the Kundali and Indrayani rivers. It has the biggest breeding stock of mahseer in India, and produces four to five lakh mahseer seed every year. With its penchant for fresh, running water, the mahseer is a very difficult fish to breed in captivity. After experimenting with various techniques, experts at the Walwan hatchery have been able to breed two species: The Deccan mahseer and the golden mahseer.

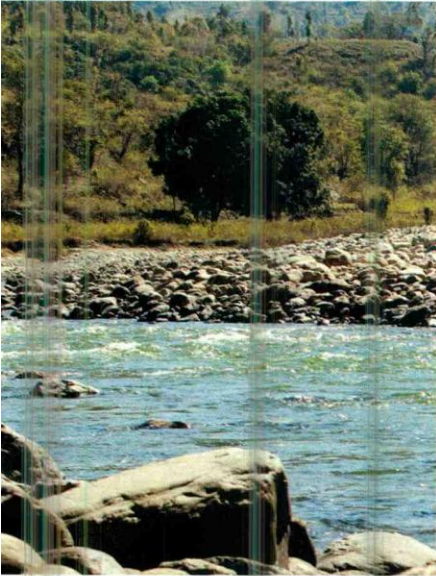
In the tanks, the men are feeding fingerlings a few inches long. They are also getting ready to prepare 10,000 of them for a journey to the Himalayas. The hatchery has been sending fish every year to rivers in a dozen states, including Karnataka, Punjab, Haryana, Andhra Pradesh and Assam. This time, the baby mahseer are headed to Uttarakhand. "We are responding to a call from the state government. The plan is to release 50,000 of them in the rivers there over the next few months," says Vivek

*Vishwasrao, head of biodiversity at Tata Power.*



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A trained horticulturalist, Vishwasrao runs the mahseer project in the Walwan hatchery. He will ensure that the fingerlings are specially packed in polythene bags with enough oxygen so that they survive the 24-hour journey by air and road to Uttarakhand.

Tata Power's mahseer project dates back to 1975, making it the longest running conservation efforts by a private corporation in India which is aimed at preserving a single species. The company operates in seven lakes in the region and also controls catchment areas in the surrounding hills from where rainwater collects in reservoirs. "This makes us ideally suited to breed the fish," says Vishwasrao, who is leading studies to record biodiversity in the region.

Tata Power decided to start the mahseer project after it was approached by the state fisheries department in the late 1960s to help save the endangered fish. "The project has survived for so many years because it falls in the framework of the company's focus on sustainability. It is not seen as a CSR [corporate social responsibility] effort," says Anil

Sardana, managing director and chief executive officer, Tata Power. (The company is celebrating its centenary year in 2015.)

Across India Inc, companies are struggling to identify meaningful social initiatives ever since 2014, when the government made it mandatory for them to spend 2 percent of their profit on CSR activities. According to NGOs, popular and highly visible causes such as education and health are attracting most of corporate resources. It doesn't help that many corporates are looking at funding with a short-term view of two to three years even though many of the problems need steady, long-term investments. Most funding tends to be in areas that impact the corporation, its employees or customers. Few organisations are looking at preserving nature or the ecosystem, say conservation experts. "Environmental conservation efforts in India could get a huge fillip if every large company adopted one endangered species and made a long-term commitment towards helping it come back," says Vishwasrao.

Any power project disturbs the local ecology and population. It's why there has to be a continuous effort to protect the environment. Mahesh Paranjpe, Tata Power's chief of hydro and renewable operations, says that protecting and improving biodiversity is an important objective for the company. About 14 percent of Tata Power's electricity production comes from non-greenhouse gas-producing methods. "Our attempt is to increase this to 25 percent," says Paranjpe.

Tata Power is one of the few Indian companies to have a department of biodiversity, which, apart from the mahseer

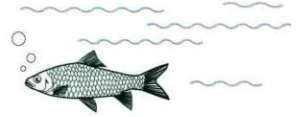
breeding programme, is involved in efforts like afforestation, conservation and other such initiatives. So far, the company has published four books on birdlife, wild orchids, amphibians and reptiles and scorpions and spiders, in collaboration with the Pune-based nature conservation and education NGO, Ela Foundation. Tata Power executives credit the emphasis on sustainability to the vision of the founders.

**A**mong the Tata Group pioneers who had a role in building the hatchery at Walwan is the late Sumant Moolgaokar who passed away in 1989. As vice chairman of Telco (now Tata Motors), he led the auto company for more than four decades. He served as vice chairman, Tisco (now Tata Steel), was chairman of TCS and a director of several other group companies. He is also remembered for being a great nature-lover, who may have started out as a hunter in the 1940s and '50s, but later exchanged his gun for a camera

His son, Anil Moolgaokar, who like his father is a keen angler, recalls many stories of fishing at the Walwan and Shirwata (also called Shirota) lakes in Lonavla. The "mighty mahseer"—as he calls the fish—occupied a central role in many of the father-son weekend fishing expeditions. "The jaws and teeth of the mahseer are so powerful that it is able to crunch your lure and hook," says 78-year-old Anil, who retired from the Shapoorji Pallonji Group in 1998.

He recounts one particular expedition to Shirwata, which he undertook with his father, in the late '60s. It was in August, when the mahseer had spawned. "My father had a favourite cove

## **MOST FUNDING TENDS TO BE IN AREAS THAT IMPACT THE CORPORATION, ITS EMPLOYEES OR CUSTOMERS**







Measuring a specimen that will soon be released into the Lonavla lakes

there called Gwala where a lovely waterfall, (perhaps the best) in the catchment area, comes cascading down to meet the lake waters during the monsoon. He told the oarsmen, 'Drop me off at the cove and the rest of you go fish elsewhere.' My father walked to where the gushing waters of the waterfall met the lake waters, bringing with it food particles, other edibles and fresh supply of oxygen."

Mahseer love fast-flowing waters. "It was late evening and although my father was not a good swimmer, he waded into the lake; the water was a little above his knees. We were some distance away keeping a watch, lest he slip or fall. His first two casts drew a blank. The third cast saw the rod bend and the line being ripped off by the yards. The fight between man and mahseer had begun in right earnest. The first run had ended, and he slowly started reeling the fish in. Then suddenly the mahseer must have spotted a pair of legs and the second run into the deep commenced. The fight continued until the fish gave up. We were summoned, and we picked up my father and a superb specimen of mahseer weighing 16 pounds."

Anil recalls that the silver spoon lure, which is shaped like a spoon and attracts fish

by reflecting light, was deeply embedded in the mahseer's throat. "Father had to cut the line and wait till we got to the bungalow to remove the spoon," he says.

**A**ngling enthusiasts all over the world attest to the great experience that fishing the mahseer provides. One of the few locations in India, where their population is indeed thriving in the wild, is in a part of the Ramganga West river (a tributary of the Ganga) in Uttarakhand and Uttar Pradesh. The stretch of the river that runs through the Jim Corbett National Park in Uttarakhand has a healthy population of the fish. But that's because of the protection the national park offers. Catch-and-release fishing is allowed on a 25-km stretch of the river in the buffer area. A small number of anglers from around the world travel to the region every year to be able to fish the mahseer and goonch (giant devil catfish). The fish are released after they are measured and, in most cases, after at least one customary photograph.

Sumantha Ghosh, a naturalist who runs Vanghat Lodge in Corbett national park and offers this experience to tourists, is critical of the conservation efforts. He argues that it serves no purpose releasing fish into river systems that are not ecologically healthy. "The fisheries department keeps doing that. But it's like planting a lot of saplings on barren land," he says. "There is genocide of our rivers taking place, largely because of sand mining for construction [mainly to build roads]."

The health of this freshwater fish is linked to the health of India's big rivers, including the Ganga, the cleaning of

which has become a national mission under the new NDA government. Ghosh feels that, in many ways, the mahseer is an emblem of India's greatest river. "If you can save this fish, you can save the river," he says, adding that conservation efforts can be boosted by encouraging recreational fishing. The fish are poisoned, stunned, electrocuted, and even dynamited, often for small sums of money. "If you can convince locals that tourism income from the fish can be worth Rs 50,000 instead of Rs 500 that they get from killing it, then they will support conservation efforts," he says.

The battle to save the mahseer can only be won if locals, government officials and hatcheries like the Walwan initiative, work together. Tata Power's Paranjpe says that the Walwan fishery has two strict conditions before it transports hatchlings to various rivers. First, the species of mahseer should be native to that region, and second, there has to be a proper programme to induct the mahseer into the wild, to give it a chance to survive.

The survival rate for hatchlings in the wild is very small. "It's about 30 percent," says Vishwasrao. What does this mean for the hatchlings he's preparing to release in Uttarakhand? Their future is at best tenuous, and dependent on multiple factors from stricter enforcement of fishing rules to better pollution control measures. Ultimately, the fate of India's mahseer will depend on whether we can reverse the damage of recent decades and nurture our ecology and its beautiful components, so other species have a fighting chance to thrive. Like the magnificent mahseer, our future could depend on this. **FL**