

Days and nights on the Ganga

Can India's worshipped and polluted National River be cleaned? A father-son duo, who undertook a three month-long expedition on the Ganga, recount what they saw



Theo (left) and Zanskar leaving Kolkata for Sagar Island.
Photo: Indranil Bhoumik/Mint

On 18 February, when Prime Minister **Narendra Modi**'s pinstripe monogrammed suit went on auction in Surat to raise additional funds for the Union government's "Namami Gange" mission of cleaning the Ganga river, the father and son duo of Emmanuel Theophilus and Zanskar Theophilus Singh stood at the mouth of the river in West Bengal's Sagar Island.

This was the end point of their long journey down riverine systems from Banbasa in hilly Uttarakhand to the Ganga's distributary, the Hooghly river's confluence at the Bay of Bengal. Theo and Zanskar, as they like to be identified, covered a distance of around 2,500km in 87 days in a kayak. For only a day, when faced with the new moon's tidal upsurge near Sagar Island, did they use a motorized boat.

When they finally came off the boat at the fishing village of Namkhana, near Sagar Island, their tired expressions, unkempt beards and sun-burnt faces reflected the gruelling nature of their expedition, evocatively called *Nadisutra*, after the *sutradhar* (person holding the thread of the narrative) in Indian classical and folk theatre forms.

"The journey is yet to sink in," says 23-year-old Zanskar. Behind him, his mother Malika Viridi, who had joined them on the post-Kolkata leg of the journey, hugs his father. Parting compliments are exchanged with the boatmen who guided them on the last day. In many ways, it is a reunion through exploration and escapade for this family from Munsiyari, Uttarakhand.

What has left an indelible impression on them, though, is the imperilled state of our National River, the Ganga, on which they travelled from Chapra in Bihar to the Bay of Bengal, a distance of over 1,000km. It is an impression based on the duo's first-hand experience of the way the river—considered by many to be India's holiest and, paradoxically, the most polluted—is freely used as a dump for industrial effluent, municipal sewage, dead bodies and deliberately obstructed by man-made barrages and dams. While sightings of turtles, *gharial* or crocodiles were frequent when they were travelling through the Mahakali-Karnali-Sharda-Ghaghara-Sarju river system, once they were on the Ganga, they did not spot any of these, the duo reports. "Not a single one," says Theo, 56, reiterating the environmental cost of pollution.

Interestingly, this is not Theo's first river project. In 2011, he received a fellowship to research the modern ecological history of the Kali river, which originates in Uttarakhand, from the Bengaluru-based New India Foundation, which supports scholars and researchers. The book that is expected to emerge from his work is also likely to link the Kali river with his latest riverine expedition—a link that anyway exists naturally. The Kali flows as the Mahakali in Nepal, which is part of the Ganga's oldest and largest tributary system. For Theo, a matter of concern is the break within this continuum of water right till the confluence at the Bay of Bengal.

"Thousands of crore of rupees have been spent on successive clean Ganga missions. All of this money has gone somewhere but it's not quite apparent where. See, you don't need to throw money at the Ganga to clean it," says Theo.

On the last day of the Surat auction, coinciding with their return to Kolkata, the Prime Minister's suit was auctioned for `4.31 crore, the amount likely to be added to the `2,037 crore allocated for the clean Ganga campaign in the 2014-15 Union budget.

Under the previous regimes, `950 crore was spent over two decades from 1986 when former prime minister **Rajiv Gandhi** launched the Ganga Action Plan; `6,400 crore was sanctioned by the United Progressive Alliance government in 2010 under Mission Clean Ganga. While the Ganga has seen a cumulative outlay touching `10,000 crore for its cleaning and rejuvenation, Zanskar says his own experience after having navigated through the waters is "gloomy".

"What the government needs to do is to let the Ganga flow by removing dams and diversions, at least the major ones. When there is enough volume of flowing water, the river automatically flushes away the pollution," says Theo, a former employee of the National Dairy Development Board, its offshoot National Tree Growers' Cooperative Federation and then with the Foundation for Ecological Security, a not-for-profit working towards the restoration and conservation of land and water resources.

While the decommissioning of ecologically damaging and under-productive dams and barrages as well as recycling of municipal waste by turning it into drinking water are already established practices in the West, here, "we continue to take out the water of the Ganga for our use and return it to the river as effluent," says Theo.

Supported by nature, conservation and advocacy-related organizations like Himal Prakriti, World Wildlife Fund-India and India Water Portal, the duo opted for a kayak for their hallmark expedition since Zanskar is a trained kayaker and also to be close to “the living ecosystem” of the rivers, and the narrative they bear and nourish along the banks. The duo camped on desolate banks or islands at night, cooked their own meals and shunned anything expensive or fanciful, to complete Nadisutra at roughly a budget of ` 2.5 lakh.

On one occasion, Theo inadvertently toppled the kayak, and both father and son, along with their supplies and electrical equipment, had an unwanted drench. But their choice of a slow-moving mode of transport, which barely skimmed the water’s surface, also allowed them views and experiences which also speak generously of the bounty of healthy river systems.

On multiple occasions, they found crocodiles basking on the banks, jackals singing on moonlit nights, a family of otters sprinting past. *Nilgai* and wild boar kept them company on an island, clams drew doodles on the sand for their eyes only. They counted 34 varieties of fish caught by village fishermen, and met one who parted with a portion of his catch without asking for money. They encountered dolphins that swam alongside fishing boats on moonless nights and yet another which bumped into the base of their kayak and then splashed them and their camera with a swish of its tail fin. “I cannot describe the beauty of the moment when a dolphin took a huge leap in a perfect arc. It turned into a silhouette against the beautiful setting sun,” recalls Zanskar.

The most enriching natural experiences happened in the early days of their trip, when they were charting their way through the Mahakali-Karnali-Sarda-Ghaghara-Sarju river system. Zanskar, who has done an outdoor adventure skills and leadership course in New Zealand, knows theirs might be the last of such adventures. “Nothing of the existing systems will be the same. I wanted to document them before they are gone,” he says.

What was initially estimated to be a 45-day journey finally turned out to be 87 days long, including a couple of stopovers. The duo hadn’t factored in the low volume of water on the way—the choking of what were earlier perennial waterways—because of a network of barrages and diversions and the sand heads they encountered. It brings our discussion to the “flow” of rivers and the Narendra Modi government’s renewed initiative towards the inter-linking of India’s rivers.

At its core, the National River Linking Project (NRLP) “envisages the inter-basin transfer of water from surplus to deficit basins/areas”, according to the government’s Press Information Bureau website. In simple terms, the “surplus” water of rivers in flood-prone areas will be diverted to drought-prone, water-scarce parts of the country through an interlinked network of canals and reservoirs. The project’s agenda of providing water equity across the country will be facilitated through 14 links under the Himalayan Component and 16 links under the Peninsular Rivers Component: a total of 30 river links which will fall under the NRLP.

As part of the government’s development agenda, river interlinking will not only provide water to places like the dry terrains of Gujarat and Rajasthan and spread the irrigation base of the country, but will also generate 34,000 MW of additional power. In actual terms, the NRLP envisages the linking of rivers like the Sharda with the Yamuna in Haryana and moving further westward to Rajasthan and finally down to the Sabarmati in Gujarat before draining into the Arabian Sea. It will be a complete westward man-made fork in the flow of a river whose waters have joined those of the Ganga to flow into the Bay of Bengal in the east since geological time. With the water of Ganga’s tributaries getting diverted under the NRLP’S plan, the river will not be required to be cleaned, says Theo in jest. “The Ganga will be cleaned of its water,” he adds. “It will be a monumental disaster. Interlinking of rivers is a misnomer for stealing rivers.”

The river interlinking project, under which work for a link between the Ken and Betwa rivers involving the states of Madhya Pradesh and Uttar Pradesh has already been initiated, has been criticized by hydrologists and river experts who are concerned about its human, ecological and environmental fallout. Experts warn of the adverse effect the NRLP will have on the monsoon.

“With the river interlinking project what we’ll see is the killing of an existing utility like a flowing river which has been providing social, ecological and economic services since time immemorial. Already one finds the bigger rivers to be in bad shape,” says Himanshu Thakkar, an IIT-Bombay alumnus who is the coordinator of the New Delhi-based South Asia Network on Dams, Rivers and People, an organization working on issues relating to rivers and communities in India. “The new government is diluting environmental laws, so much so that one does not even need environmental clearances or public consultation for the construction of a hydropower project under 25 MW capacity. Increasingly, we see that the government is not only indifferent about the value of rivers but also uncaring of the social cost,” he adds.

Kolkata-based river scientist Kalyan Rudra, who is known for his exhaustive study of the Ganga river basin, wants the government to maintain a balance between modern science and traditional systems, which are both people-centric and eco-friendly. “Currently, there is a crusade against nature,” Rudra says. “The government plans to build 16 barrages in the river between Haldia and Allahabad, which essentially means creating 16 stagnant pools of water and interruptions in the Ganga’s free flow. Such development will immediately cease the ecological services of the river.”

When a river is dying, says Rudra, the first to disappear will be its biodiversity. “Losing biodiversity might seem like a small component within development plans but it reflects the health of a river,” he warns.

A critical narrative strain of the Nadisutra expedition has been to follow one fish and one crustacean—the *Anguilla* eel and the freshwater shrimp, respectively—as these are “long-distance migrants, who, as resilient proxies, can tell the story of the long continuum of the river”. The *Anguilla* eel, which is known to travel up to Indonesia to breed and whose fossil evidence takes it back 70 million years, can provide links across terrestrial and oceanscapes as well as through geological time. While there were reports of the eel’s availability, though in vastly reduced numbers, at the start of their journey in Uttarakhand, the freshwater shrimp was missing in action above Bengal’s Farakka Barrage—a construction that has also halted the upstream movement of the hilsa fish, explains Theo.

"In aquatic systems, the volume of water is habitat. With the volume being very low in our rivers, the assemblage of aquatic life is seriously affected too," says Theo. "Most of the fishermen we spoke to had the same complaint: "*paani kam ho gaya hai, machhli kam ho gaya hai.*" Less water; fewer fish.

In his book, *Land Of The Seven Rivers: A Brief History Of India's Geography*, which traces India's history through changes in its geography, author **Sanjeev Sanyal** dwells on the drying up of the Saraswati river, possibly during the Vedic era, and "a major event in the evolution of India's civilization".

Fed by both the Sutlej and the Yamuna, the Saraswati, much like the Ganga, was once invoked as the mother of all rivers. Its misfortune started when it first lost the Yamuna source, and was compounded by the loss of the Sutlej, both to natural causes. "Without a perennial water source, the Saraswati must have become a rain-fed seasonal river. Even this became untenable as the climate became drier. Eventually, the river broke up into a series of lakes and then completely dried up," Sanyal writes. The disappearance of the Saraswati, many think, could also have played a defining role in the end of the Indus Valley Civilization.

Even as the description of the death of one river reads ominously close to a future foretold by experts of India's rivers, Viridi, the third vital component of the Nadisutra expedition, remains hopeful. "If people are the problem, they are also part of the solution," she says.

Viridi, also 56, moved with Theo from New Delhi to Munsiyari in 1992 to be a subsistence farmer producing the food they eat, work with the local community as a *sarpanch* of the village, join a women's collective and start an environment-sensitive home-stay enterprise in the Kumaon area overlooked by the Panchchuli peaks. Viridi also talks about "proposals for setting up dams and hydroelectric power projects in their valley and on the Gori river and its tributaries" over the past few years—as many as 30 projects over a length of 100km.

She draws her sustenance from the fact that a popular protest movement in 2010 could stall the Rupsia Bhagar Khasia Bara hydel power project by the National Thermal Power Corp. Or from her own experience of having trekked the Trans Himalayas from Arunachal Pradesh to Karakoram in Pakistan with two other women in 1997—an experience that told her that in the higher reaches of the world, nature is yet unblemished by human greed.

When the family stepped off the boat in the late evening at Namkhana after reaching their final destination, Sagar Island, there was an element of optimism. At the point where the Ganga meets the sea, the new moon tide made the waters choppy, and the tidal difference in water level was over 6.2m. Had it gone up a little higher, their country boat would have been imperilled, Theo says.

At Sagar Island, also locally known as Gangasagar, small crabs had turned the beach red with their presence. In the twilight hour, the family went for a swim in the Bay of Bengal; delighting too in the glowing phosphorescence carried by the waves before the high tide rushed in.