

# In India's dry regions, crowd-funding comes to a lake's rescue

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Water activists and farmer Gaju Rawat look over Lake Nilona in Yavatmal, India. TRF/Stella Paul YAVATMAL, India, Dec 2 (Thomson Reuters Foundation) - When residents of a city in one of India's most water-stressed regions banded together with authorities to de-silt their local reservoir, they were trying to secure the future of their drinking water supply. But the activists discovered that the silt that clogs the Nilona reservoir, 750 km (470 miles) east of Mumbai in Maharashtra state, could also boost harvests in this drought-stricken area, where crop failures have driven thousands of farmers to suicide. Their innovative model of crowd-funded, citizen-led action has become a model for what's possible to protect water supplies in India, backers say. Residents of Yavatmal in Vidarbha district rely for their water on an earth-lined reservoir 10 kilometres (6 miles) away. The nearly 700 metre-long lake, built in 1972, originally had a capacity of 6.39 million cubic metres, but this has fallen by at least a third as soil has washed into the lake, according to government estimates. Local activists contend that the silt, combined with vegetation growing along the edges of Nilona, has reduced its capacity by as much as half. The monsoon in Maharashtra, as in other parts of India, has become increasingly erratic in recent years, and this is partly to blame for the silt problem. Although rainfall has been enough to keep the 700-metre-long lake more or less full, heavier than average downpours have washed large quantities of soil into the lake. In July 2014, authorities in Yavatmal halved the supply of water to the city, from 64 million litres to 32 million litres weekly. Residents now receive piped water for just two or three hours, three times a week. Local farmers do not have access to the reservoir for irrigation, and the unreliable rainfall, combined with prolonged drought, has made planting and harvesting crops unpredictable, as well as damaging crops and playing havoc with livelihoods. In drought-ravaged Vidarbha district, thousands of farmers have killed themselves in the past two decades because of crop failures and debts. INSPIRATION TO ACT Alok Gupta, a 45-year-old doctor in Yavatmal, was inspired to act after hearing a talk by a physician-turned-activist who had spearheaded efforts to revive over a dozen reservoirs across Maharashtra. "It was a wake-up call for us," recalled Gupta, who is a member of Prayas, a network of professionals who promote civic action for social causes. "The water supply was already inadequate. How would we survive if it got worse?" The Prayas members were sure of one thing: reclaiming their reservoir would have to be a collective act. "De-silting Nilona would need huge amount of money, time and hard work. A few of us couldn't do it. We needed a citizen movement," said Kamal Bagdi, a businessman and a member of Prayas. Local government officials initially argued that Nilona would not become completely silted up for another 20 years, at which point they planned to divert water from the Bembla reservoir, 25 kilometres away. The government estimated the cost of digging canals from Bembla to Nilona at 25 million rupees (\$377,000). But the Prayas members wanted to act sooner, and they proposed an alternative: Mission Deep Nilona (MDN), a crowd-funded project to de-silt the reservoir at a cost of 3.5 million rupees (\$52,700). The activists published a brochure and roped in young people to tour the city in an open truck singing patriotic songs and appealing to locals to save their only source of drinking water. The response was overwhelming, said Avinash Saoji, founder of Prayas. MDN raised 2.3 million rupees of its 3.4 million rupee budget from private donations. The government provided the remainder and helped get the necessary approvals from agencies. The rest of the effort depended upon expertise from Prayas members and the contributions of the city's residents. Apart from cash, donations also came in the forms of dredgers, trucks and free labour. "A total of 12,000 people donated labour, helping clear grass, water weeds, pebbles and mud. Some served free food and drinks," Saoji said. MDN was formally launched in April 2015. By the end of May, MDN had removed the first 35,000 cubic metres of the 6.3 million cubic metres of silt clogging Nilona. FROM THE LAKE TO THE FIELDS For MDN's leaders, what they did with that silt is a highlight of their story. "Silt increases soil fertility. If farmers use the silt from Nilona, they can get a higher (crop) yield. In turn, we don't have to worry about its disposal," said Gupta, who volunteer's as MDN's project director. Farmer Gaju Rawat, who owns a 2-acre farm in Barwada, one of 10 villages around Nilona, agrees. "They offered us tonnes of silt for free, provided we transported it ourselves. I brought 30 tractors of silt, which is a very good way to increase moisture to my field. Normally I get 15-30 quintals of cotton. But this year, I am expecting at least double that," Rawat said happily. Dattatreya Gaekwad, a senior government official in the district's agriculture department, described MDN as "a perfect example of people's cooperation for social development." In January the group plans to remove a further 100,000 truckloads of silt. The initial success of the project has inspired the activists to add other improvements to the water system. They have created a storage pond 5 kilometres upstream from Nilona to prevent waste water from Yavatmal flowing directly into the reservoir. Several check dams and canals are also due to be constructed over the next several years. The budget for the whole project will expand to 17.5 million rupees (\$260,000). It's a large sum, but less than the cost of the government's planned diversion of the Bembla reservoir - and, activists argue, a more sustainable solution. The Prayas members are confident that they can crowdfund the remainder of their plans. "It will be challenging, but together we can do it," said a confident Gupta. First published by

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