

CHENNAI WATER CRISIS: IT'S NOT JUST METEOROLOGY BUT MISMANAGEMENT THAT'S MADE CHENNAI RUN DRY

Relevant for: Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

A man fills water from a hand pump at Marina beach in Chennai | Photo Credit: [B. Jothi Ramalingam](#)

Every morning for the past two months, N. Thangaraj has set out from his home at 4 a.m., carrying plastic pots, ready to jostle through crowds, to collect a few litres of water to meet his family's basic needs. This family of four in Chennai's Vyasarpadi neighbourhood gets busy before dawn, waiting for the tanker to arrive. Water drives the daily routine of all 200 families in the Tamil Nadu Slum Clearance Board (TNSCB) tenement.

Scores of pots of every colour line up the streets of Vyasarpadi, some marked with the owner's initials, as everyone waits with visible anxiety. Chennai, India's sixth biggest city, has run almost entirely out of water. After a weak northeast monsoon, the city's four main reservoirs — Red Hills, Chembambakkam, Cholavaram and Poondi that contribute 60% of the city's requirements — have shrunk and dried up, and the cracked lake beds have become grazing grounds. What little water the city has now comes from dwindling aquifers and tankers — some of which ferry water from agricultural wells or quarries several kilometres away from the city. The Central Water Commission has reported a 41% rainfall deficit in Tamil Nadu, up until when this went to press.

With this, Chennai becomes one of the first Indian cities to have run dry. The Chembambakkam reservoir, for instance, has never dried up fully in the last 25 years, indicating the severity of the crisis.

Are desalination plants the answer?

As taps stop flowing, residents have turned to borewells, but these are drying up too. The average groundwater level in Chennai has declined by a staggering nine metres this month, according to a study by Rain Centre, a city-based voluntary organisation. On an average, a contractor sinks 30 borewells a month, says V. Ravichandran of Chennai Borewell Rig Owners and Contractors Association. Some borewells are sunk to depths of 600 feet in suburbs such as Avadi, Pallavaram and Irumbuliyur. Yet, some residents have to settle for saline water.

It was early this year when Chennai Metrowater tankers began to replace piped water in many locations, a clear warning sign. At 10 a pot, residents say they spend as much as a fourth of their earnings on tanker water, but even that supply is erratic. Many people walk with their pots for at least a couple of kilometres to reach a tanker, and many homes wait as long as one month to get one lorry-load of water to fill up their overhead tanks.

"Initially, we often fought over water. Now, everyone seems to understand the situation and we form a queue," says Thangaraj. He and his daughters carry back five or six pots of water home every day. "I buy a pot of water for 10 from private tankers. If the crowd is less, I fetch up to 10 pots."

K. Viji has rescheduled her day around the water supply hours. Viji lives in the TNSCB tenement

in Perumbakkam, which gets piped water for one hour every two days. “I begin filling my pots at 5 a.m.,” she says. “Then I try to finish some chores like bathing and washing clothes while the water still runs in the taps.”

This year, not even Chennai’s tony neighbourhoods have been immune to the crisis — you can see the same scramble in T. Nagar, Adyar and Triplicane. Nobody has been spared — the water crisis has brought the rich and the poor, homes and industries to their knees. The hotel and construction industries have been hit particularly hard. Several restaurants are planning to stop offering lunches to reduce water consumption, says M. Ravi, president, Chennai Hotels Association. Banana leaves have replaced plates in some restaurants, while others are providing finger bowls because there’s no running water.

The city’s famous IT corridor, which has always been dependent on private tankers, is the worst hit. Each time private tankers threaten to go on strike, the residents here literally take to the streets, either to ask for help or to protest. “We can’t use the saline water from our borewells. And a 12 kl private tanker load now costs 3,000. We are looking for more rainwater harvesting solutions and we’re creating awareness on the judicious use of water,” says S. Sakthikumar, secretary of Olympia Opaline Flat Owners Association in Navalur.

To make matters worse, this year there has been no Krishna water from Andhra Pradesh either. This has been a blow to a city that’s just about recovering from a severe heat wave.

Over the years, Chennai has tried to fight back. Desalination plants in Nemmeli and Minjur, giant borewells in Neyveli aquifer and mines, agricultural wells in Tiruvallur district, and abandoned quarries on the city’s fringes — all of these now provide roughly 525 million litres a day to the city. Nearly 900 tankers hired by Chennai Metropolitan Water Supply and Sewerage Board (Metrowater) are criss-crossing the city this year, making as many as 11,154 trips a day. This is the highest in 15 years.

Smaller vehicles mounted with two- or three-kilolitre tanks have been added to this fleet. Metrowater is scouting everywhere for new water sources, and the latest plan is to transport water to Chennai by train from Jolarpet, 220 km away.

These are, however, essentially short-term survival strategies. Such band-aid solutions are hardly sustainable, nor can they help the city become water-sufficient, says Bharath Jairaj, an environmental researcher with World Resources Institute-India. “Instead of looking at solutions within the city, we are focusing energy and money on figuring out how far we can go from Chennai to bring in water; why should Chennai become a parasite eating the resources of the rest of the State?” he asks.

Jairaj says the problem is not just meteorological, but administrative: gross mismanagement of water resources and unplanned urbanisation has brought on this crisis. “We have always had enough water — let’s not forget that just a few years ago, Chennai was in the throes of a flood and had to release excess water from the reservoirs.” But the city’s watershed areas have been neglected. “Reservoirs should be regularly desilted, we need to create more storage areas by making use of existing ponds and tanks and creeks. We need to manage the water channels that bring water into these — instead, we have built over them, allowed construction over them.”

Indumathi M. Nambi, associate professor, Environment and Water Resources Division, IIT Madras, also calls for better water governance. “We can’t depend on a few reservoirs to supply water to a growing, water-starved metropolis. We need a decentralised system that stores and

supplies water. Every lake must have a treatment plant,” she says. “Only then will the misuse of water bodies stop.”

Sekhar Raghavan, director, Rain Centre believes that rainwater harvesting (RWH) and grey water reuse in the apartment complexes that have mushroomed in the suburbs could go a long way. Though most buildings in the city have rainwater harvesting structures, after it was made mandatory in 2003, many of them are either not maintained or are badly designed. An audit done a few years ago found that 52% of the multistoried buildings surveyed in the suburbs did not have functional RWH structures.

The huge disparity in water consumption and access to water among various sections of people must be addressed too. For example, as Jairaj says, we take it for granted that people living in slums can manage with four-five pots of water a day. “Tenements too must get water pipelines,” he says.

Grey water recycling, regulation zones where development is restricted, banning constructions over water bodies — these can all be easily implemented if there’s political will. But that seems to be clearly missing.

The crisis has now escalated into a political feud. Tamil Nadu’s opposition party DMK has staged protests against the AIADMK government, demanding a solution. It has charged the government with neglect and inefficiency. The government, meanwhile, has chosen to ignore the signs and instead says the crisis is being exaggerated.

As we go to print, the skies are cloudy. The little rain that looks likely will bring some respite from the heat, but will certainly not replenish the reservoirs.

In this bleak scenario, residents are showing the way. Harsha Koda, coordinator, Federation of OMR Residents Association, says that his apartment was able to harness 10 lakh litres of rainwater even during the drought last year. “During a good monsoon, we can collect 30 lakh litres.”

It is unthinkable that a chronically water-starved city does not have systems already in place. “All we need is more R&D,” says Jairaj. “But today, we are about to hit Day Zero — the day our reservoirs run dry.”

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New find is bigger in size than one discovered in 2016, also in Arunachal Pradesh

The Nandankanan Zoological Park (NZP) has lost one of its beloved members — 41-year-old Orangutan, an extant species of great apes. According to NZP,

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