

2020

THE GREENISTS



GREENISTS2020

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UNIVERSITY DEPARTMENT OF CHEMICAL
TECHNOLOGY

Chennai, formerly known as Madras, city and capital of Tamil Nadu state, southern India, situated on the Coromandel Coast of the Bay of Bengal. Known as the "Gateway to South India,". Chennai is a major administrative and cultural centre of India. The problem is Chennai has become the first major Indian city to face an acute water shortage.

Every morning, millions of residents line up daily to fill cans and pots of water from state water trucks across the city.

Some residents get their rationed quota of water daily, while others get it once a week. People are having to wash utensils in the same dirty water, saving a few bottles of clean water to cook food.

But it is the city's essential services that have been the hardest hit: hospitals, businesses and schools have struggled to stay afloat.

Some of the stories from Chennai are nerve wrecking. Manjula Sridhar went into the operation theatre of a maternity ward in Chennai, the capital of the southern Indian state of Tamil Nadu, her mother began arguing with the doctor over a water shortage that threatened to delay the delivery.

Cradling her little girl, Sridhar recalls the doctor saying that they would have to wait for a water tanker to arrive because all the water in Egmore's Government Hospital for Women and Children had run out.

"We have a problem at home and we have a problem here in the hospital. How can we trust our own government?" Sridhar said.

Another situation telling a horror story about conditions of Chennai is; a line of small restaurants at Chennai's Pantheon Road have had their shutters down for weeks. One restaurateur, Kathir J., said he has been closed for two weeks and he is losing 5,000 rupees (\$72) every day.

"I used to have at least 20-30 customers during lunch and more during dinner. This was where people who could afford a complete meal for 20 rupees (30 cents) came," he added.

The shortage in India's sixth largest city is symbolic of a crisis that is being felt across a country battling with one of its longest heatwaves, which has killed at least 137 people. BUT the question is why the city is facing such severe crisis. There are reasons for these horrifying conditions which are as follows:

1) Almost 2400 acres of water bodies disappeared by 2016

For a city that does not have a perennial water source, Chennai has lost water bodies large and small that add up to ten times the size of the Velachery Lake over the last four decades!

2) Only 5 out of 210 water bodies restored

The restoration and proper maintenance of reservoirs and lakes and tanks in the city has been in the picture for the past two decades. There have been poor efforts to desilt and restore the water bodies.

3) Over 50% structures non-compliant with rainwater harvesting

With high dependence on monsoons, rainwater harvesting is crucial. The much-touted rainwater harvesting scheme that was launched as an ordinance in the state in 2003 has suffered from poor planning and enforcement.

4) **20% decrease in reservoir capacity due to poor maintenance**

The failure to periodically desilt the four main reservoirs – Poondi, Red Hills, Cholavaram and Chembarambakkam – has resulted in a 20% decrease in their storage capacity. The last of the reservoirs created for water supply in Chennai was Poondi in 1944. Only two out of the four reservoirs have been desilted in the last decade.

5) **No action on 3 heavily polluted rivers**

The rampant pollution of the three rivers that run across the city has been a problem that has not found a viable solution to date. The CAG report too highlights this failure on the part of the state.

This is what has happened but now we should focus on what we can do to improve conditions in this Chennai community. Here are some solutions for the situation:

1) **Harvest rainwater:** The easiest and lowest-hanging fruit for the city is to better enforce existing laws related to rainwater harvesting in buildings. Rapid urbanization has brought more and more pavement into the city, which prevents groundwater recharge and rainwater absorption. Recharge points like green spaces and wetlands can absorb stagnant water from roads and increase groundwater levels. Corporations could also fund these solutions as part of their corporate social responsibility programs.

2) **Reuse wastewaters:** The Cooum and Adyar rivers carry a huge amount of sewage into the sea every day. Multiple lakes across the city have also been affected by sewage dumping. Small sewage treatment plants combined with apartment-level sewage treatment systems could help treat the sewage without using up more land. The treated sewage water could be reused for non-potable purposes (such as running HVAC systems, flushing toilets and landscaping) across the city while improving water quality overall.

3) **Conserve lakes and flood plains:** Chennai's master plan must incorporate the protection of lakes and associated flood plains. Flood plains are the biggest recharge points. They also help prevent floods. Rapid construction over flood plains has made Chennai vulnerable to both floods and drought. The Chennai Metropolitan Development Authority should immediately take steps to stop construction over floodplains and consider providing incentives to prioritize developments over ridges instead.

4) **Open data:** Part of the problem is that the government does not provide open and transparent data on water resources and uses, such as the extent of water pipes and how much water flows through them every day. More research and analysis could be done with open data, which could help lead to better solutions. Many experts in the industry and academia would be able to pool their thoughts and ideas if data were made available to them.

5) **Improve efficiency:** Agriculture is the biggest consumer of water resources around the world, and India is no exception. Improvements in irrigation efficiency can increase available water resources for other sectors, including municipal users. Although many of India's farmers, most of whom are small scale, cannot implement high-cost irrigation systems, new financing

models can help. City governments could explore and implement policies to invest in and improve rural irrigation systems. Without addressing rural and agricultural water, Chennai (or any part of Tamil Nadu, the state where Chennai is located) is unlikely to solve its water crisis.

Even though water is a renewable resource, there is a finite amount in our lakes, rivers and oceans. So, use water wisely and so that the people of Chennai could minimize their crisis.

-TEAM GREENISTS

WE BOLDLY MAKE A CALL

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#PGC2020

SAY IT LOUD!!!

POLLUTED WATER = H 2 OH NO

WATER RIGHTS ARE AS IMPORTANT AS HUMAN RIGHTS



THE GREATEST THREAT TO OUR PLANET IS WE BELIEF THAT SOMEONE ELSE WILL COME AND SAVE IT!!

WAKE UP!

LET'S FIGHT BACK THIS WATER SCARCITY SITUATION

-TEAM GREENISTS -SK-



   

 Liked by **s.h.r.u.t.i_16** and **3 others**

the_greenists_ Stop suffering. Speak it loud. Water rights are for all!! 

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