

India: continue rowing in the sewer

January 19, 2020

Gilbert Kolonko



The Adyar River and the other two rivers, Chennais, are almost all sewage at this time of year. Photo: Gilbert Kolonko

In Chennai in southern India, an efficient solution is already being used to end India's water crisis. However, it is better to invest in questionable large-scale projects while the wastewater rivers and sewage lakes are spreading

Dense green grass in front of me as far as the eye wants to see. A sign from the Tamil Nadu nature conservation *authority* advises that no plastic should be thrown into the *Pallikanarai* wetlands here. But the nose already says that something stinks here.

A look to the left shows a sewer that leads a black broth into the wetlands. The white dots in the distance are not *spot bill ducks* , which according to the nature conservation authority's sign are supposed to be hidden in the grass, but high-rise buildings and factory buildings. Immediately behind me a metal avalanche races on the four-lane Tambaram Main Road in the next traffic jam in the metropolis of 10 million people.

Velachery Lake is four kilometers further towards the city center . A ring of houses around the lake indicates why its area has shrunk from 107 hectares to 20. With millions of liters of fresh

water, it could still be a source of drinking water, but a sewer leads its stinking broth into the lake.

Empty water storage

Chennai's wetlands used to cover 200 square kilometers. Until 1980 they shrank moderately and still had an area of 186.3 ^{km²}. Today, they are only 15 percent of their former size, as a **study by the CareEarth Trust [1]** shows. The main reasons are the boom in IT companies in the south of Chennai and the growth of the real estate market in general.

"For more than two decades, scientists and environmentalists have been pointing out that Chennai is headed for a water disaster," says Dr. Avilash Roul from the *Indian Institute of Technology (IIT)* in Chennai. "But it only took the heavy flooding in 2015 for those responsible to wake up." In the past, the wetlands with their lakes and inlets would have absorbed a large part of the water and thus alleviated the flood damage. They also served as water reservoirs, explains Avilash.

But this summer, almost all of Chennai's natural and man-made water reservoirs were empty. *Veeranam Lake*, 235 kilometers away, from which Chennai otherwise covers 35 percent of its water requirements. The metropolis had to be supplied with trains full of drinking water from the neighboring state of Kerala.

Monsoon and fountain

"It is true that the summer monsoon came very late last year. Also that the north-east monsoon, which is more important for Chennai, was weak. But if for years the whole city is concreted without thought and the rainwater can no longer seep into the groundwater through the ground "The water crisis is a logical consequence," Avilash concludes calmly.



When there is no rain, the poorest Chennais suffer, and when it does. Photo: Gilbert Kolonko

There is a reason why his young colleague Akshaya Ayyangar is more optimistic: "I have only been working in Chennai in the field of water management for five years and see that there has been progress since 2015." There are now also competent experts on the government side with whom they can work well. The main reason is that things are going slowly. "It's a coordination and communication problem," says the technologist.

At least 13 government agencies need to work together on water. Only rarely does one authority know what the other is doing.

Akshaya Ayyangar

Then Ayyangar names one of the many small problems: "Only about 10 percent of households in Chennai have a water meter." Water waste **is the result [2]** .

But the young woman is immediately optimistic again and says with a wink: "By the way, we haven't had a water problem here in the neighborhood for years." Then she sends me two streets down to a gentleman who is responsible for it.

"But they are late," says Sekhar Raghavan of the *Rain Center* organization in greeting. "The BBC was already here in June." "Maybe I'm the first to come before the next crisis," I reply. The answer is the laugh of a person who has been used to fighting windmills for 25 years without giving up. "Oh, there will definitely be, even if it doesn't become a world news again," says Raghavan.

The current north-east monsoon brought more rain than last year, but it was still less

than the average of previous years.

Sekhar Raghavan

Then Raghavan leads me to the yard of his landlord's house. "When this pipe is full, it means that the first rain has cleaned the roof terrace. Then the rainwater flows into the other pipe and from there into a 50,000-liter underground water tank."

But the rainwater collection system that Raghavan designed for all of Chennai two decades ago is even simpler. "Normally the rainwater would flow from the concrete floor of the courtyard onto the street and from there into the river." You can smell it from here.



A sewer ends in Chennai's remaining wetlands. Photo: Gilbert Kolonko

Then Raghavan points to some large gullies and leads me to a fountain. "We collect the rainwater and pipe it into this well, from where it can seep into the groundwater." In front of a second well in the courtyard, he says: "And here we can remove the groundwater after it has of course been cleaned."

Finally, Raghavan explains why the water crisis in 2019 was completely unnecessary: "After the water crises from 2001 to 2003, the then chief minister of Tamil Nadu, Jayaram Jayalalithaa, also asked me for advice. Shortly afterwards, her government passed a comprehensive law for the storage of rainwater. "

Money is better invested in large projects

For Raghavan there are several reasons why not much has happened since: "The ministers around Jayalalithaa showed no interest because they didn't benefit from it themselves. Rather,

money is invested in large-scale projects such as desalination plants and dams." Another problem is that it rained excessively well after the 2003 crisis. "Apparently people need a crisis to move," says Raghavan with a smile.

Jayaram Jayalalithaa was not the only one who asked Raghavan for advice. "Two years ago, Arvind Kejriwal asked me to fix Delhi's water crisis using a comprehensive rainwater collection system," he says.

However, why the chief minister of the Union Territory of Delhi has made little progress so far - although New Delhi is also expected to run out of groundwater this year - Raghavan indicates with a few boxing movements: "Arvind is too busy bickering with Narendra Modi ' . " In Delhi, the responsibilities of the chief minister overlap with those of the central government of Modi.

There are solutions

A kilometer north is a picture that could also have come from Delhi, Kanpur or Mumbai: framed by new buildings, an athlete rowed into the sunset on a giant sewer. The river on which a dozen rowing enthusiasts pursue their passion is called Adyar and at this time of year it consists almost entirely of sewage. Just like the *Cooum River* and *Buckingham Canal* , both of which also flow through Chennai.



The Cooum River in Chennai. Photo: Gilbert Kolonko

Sekhar Raghavan had pointed out that the black broth of the Chennai rivers seeps into the groundwater. Gandhi Sooad, the director of *Waterneer* , describes to Telepolis that there have been solutions to this problem for years :

There are highly efficient water purification systems that treat the wastewater and immediately return it to the residents without first leading it into a sewer. These decentralized cleaning systems are available for single-family houses. For high-rise buildings or entire residential areas.

Sekhar Raghavan

But the Modi government prefers to plan 3,000 additional dams. In addition, new channels with a total length of 15,000 kilometers. These are intended to connect the 30 major rivers of India with one another in order to supply the major cities with water. One proponent of this mega project is Mukesh Ambani, the owner of *Reliance Industries Limited*, who has received a number of government contracts from Narendra Modi in recent years.



Successful and clean - the image of Chennai that the wealthy like to spread. Photo: Gilbert Kolonko
Dr. doubts that such massive interventions in nature should be listened to by a group boss. Gopal Krishna from *Toxicwatch*. "The fact that natural rivers can be turned into an artificial network does not mean that you can simply transport water from A to B, as is done with containers," says Krishna.

Rivers are not simply "things" in which water flows - they are part of the dynamics of the environment that surrounds them. The large-scale diversion of the rivers will give parts of India what has happened to the Aral Sea.

Gopal Krishna

An unexpected rain shower on a January morning shows who is suffering the most in Chennai:

the poorest of the poor who sleep on the sidewalks. Dr. knows that too Gopal Krishna:

Growing financial inequality in the country is a serious problem. Whether air pollution or the lack of drinking water: the poorest are hardest hit.

Gopal Krishna

Of course, there is also the upper middle class Chennai with luxury buildings, shopping centers and air conditioning cafes, where milk tea costs 190 rupees instead of 10. There, the wealthy can meet their peers, who proudly tell them that there are no slums and no need in Chennai sleep on the street. The \$ 100 million *Chennai Super Kings* are also often mentioned because they have won the Indian cricket Premier League three times.

An elegantly dressed elderly gentleman at least showed on the beach promenade that he knew about poor people in Chennai. "Our rivers are so dirty because the poor and uneducated dump their dirt there and relieve themselves on the bank."



\$ 100 million for a successful cricket team. There is no money for clean rivers and canals. Photo: Gilbert Kolonko

Something exemplary then reminded me of Germany: The government of Tamil Nadu has tightened environmental laws against their dirty leather tanneries - they have now **moved to Kolkata [3]** .

The leather processing industry in Chennai is now shopping in Bantala-Kolkata. There the government promises **500,000 jobs [4]** / through the business with the dirty leather , even if the growth will come at the expense of its own wetlands. How did Dr. Avilash Roul six months ago,

addressed to the government of West Bengal: "Learn from our mistakes and stop the destruction of the wetlands in Kolkata."

Chennai will get his water problem under control, that's for sure - the only question is how many crises it will take. It is just as certain that Kolkata will get its ecological meltdown, against which the "Chennai crisis" is an entertaining children's birthday party.

It is also certain that the Avilahs, Ayyangars, Gopals, Raghavans and Sooads must not lose their courage and humor - no government or corporation falls on its head the words "sustainability", "inequality" and "environmental protection".

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[1] <https://timesofindia.indiatimes.com/city/chennai/80-of-Chennai-was-wetland-in-1980s-now-15/articleshow/54010947.cms>

[2] <https://www.adb.org/sites/default/files/publication/27970/2007-indian-water-utilities-data-book.pdf>

[3] <http://www.uniindia.com/about-100-tanneries-to-shift-to-bantala-leather-complex-undergoing-infrastructure-enhancement-at-a-cost-rs-540-crore-amit-mitra/east/news/1764972.html>

[4] <https://mediaindia.eu/business/bengal-leather-hub-to-create-500000-new-jobs>