

Foaming Bengaluru lakes: Problems aplenty that don't quite meet the eye

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Nearly a week after frightening images of lakes spewing foam surfaced from Bengaluru, civic authorities in the city are yet to respond even as citizens are concerned about their health and safety.

While authorities at the Karnataka State Pollution Control Board (KSPCB) and Bangalore Water Supply and Sewage Board (BWSSB) insist that the pollution and foaming in Varthur and Bellandur lakes are a result of household detergents, experts and residents however disagree.

"A major component of untreated sewage is urine and faecal matter which comprises phosphates, ammonia and nitrates that result in foaming. Lesser dissolved oxygen also aggravates this phenomenon," says Sushmita Sengupta, Deputy Programme Manager (Water Management) at Centre for Science and Environment (CSE).

Management and restoration of lakes is the responsibility of not just urban local bodies such as the Lake Development Authority (LDA), Bangalore Development Authority (BDA), Bruhat Bengaluru Mahanagara Palike (BBMP), BWSSB but also of residents.

Toothless body

The Lake Development Authority constituted in 2002 is an autonomous body with an objective to reclaim, restore and conserve lakes and wetlands. However, the body lacks legal powers to address encroachment issues.

To overcome this shortcoming, the Karnataka Lake Conservation and Development Authority Bill (2014) was introduced with the Governor recently giving his assent. The biggest advantage of the bill is that now the body would have the power to prosecute errant residents and officials.

According to Section 25 of the Bill, breaking laws would entail — "imprisonment for a term which shall not be less than three years but which may extend to five years and with a fine of not less than ten thousand rupees but which may extend to rupees twenty thousand."

In addition, the new body would constitute members from the BBMP, Urban Development, Forest Department, BDA, BWSSB, KSPCB amongst others to facilitate effective execution of the body. Having representation from various agencies would mean lesser time wasted in co-ordination with individual bodies.

However, the new Bill has drawbacks too. "There would be no say for citizens or civic groups in the committee. Therefore if there any problems, the common man has to approach the court which may take several years, during which the lake may have suffered more in worst case, it would have died," Sengupta points out.

Why are lakes in danger?

Expansion and urbanisation of the city at an exponential rate has made it difficult for authorities to attend to the extent of sewage generated in the city. As a result, close to 70% of the untreated sewage is directly discharged into the lakes, leading to higher pollution and contamination.

On the other hand, land developers often find lakes and lake beds an irresistible temptation on which to develop large-scale constructions.

Over the last couple of weeks, civic authorities are on an extensive demolition spree to clear our structures that have encroached upon lake beds and dried lakes. "While I appreciate the action to demolish structures, the ecology of the lakes cannot return to its previous form once they are encroached upon," says Sengupta.

In an article in Down to Earth, she quotes Prof. TV Ramachandra, a scientist at Indian Institute of Science, "The number of lakes in Greater Bengaluru has drastically reduced due to anthropogenic factors. From 207 lakes in the 1970s, the number came down to 93 in 2010."

In a report titled 'Modelling and Simulation of Urbanisation in Greater Bangalore', he predicts that by 2020, the land use in Bengaluru could pave the way for an "urban jungle" while simultaneously marked by the "disappearance of ecologically important landscape elements – vegetation, open spaces and water bodies."

In another report called, 'Conservation of Bellandur Wetlands: Obligation of Decision makers to Ensure Intergenerational Equity' he traces the disappearance of so many water bodies to "intense urbanisation and urban sprawl". He writes, "Vegetation has decreased by 32% (during 1973 to 1992), 38% (1992 to 2002) and 63% (2002 to 2010). Many lakes (54%) were encroached for illegal buildings. Field survey of all lakes (in 2007) shows that nearly 66% of lakes are sewage fed, 14% surrounded by slums and 72% showed loss of catchment area."