

# POINT BLANK

## Enormous benefits await water body's revival

It is ironic that Hussain Sagar lake in Hyderabad, spread across 1,100 acres attracts thousands of visitors daily, while another such waterbody in Bengaluru – Bellandur Lake – is struggling for its existence.

Hyderabad may not have a robust sewerage system such as Bengaluru. Yet, it managed to protect its biggest water tank from pollution and turned it into a big tourist destination. It will be interesting to assess what Bellandur lake will offer to the city once revived.

The chief executive officer of Karnataka Lake Conservation and Development Authority (KLCDA) G Vidyasagar says Bellandur lake has a plus point that it is connected to another waterbody, Varthur lake in its downstream.

“Both Varthur and Bellandur put together increase the size of water bodies to 1,400 acres, which is more than the size of Hussain Sagar,” says Vidyasagar.

In its report on Bellandur lake, the expert committee led by additional chief secretary in Urban Development Department Mahendra Jain has pointed out the prospects of a revived Bellandur lake.

The report says, “The lakes provide diverse ecosystem services – fishing, fodder, microclimate improvement, space for recreation, ground water recharge, aesthetic value, biodiversity, medicinal plants.”

It also pointed out that the treated water can be diverted to meet the irrigation demands in Kolar district.

Former BBMP commissioner Siddaiah says a revived lake will open a vista of opportunities for Bengaluru. Once revived, Bellandur lake will be a magnificent tourist destination. It will provide a rich bio-diversity in the region. Trees can be grown, walkways can be developed, he explains.

Siddaiah notes that the treated water filling Bellandur lake can quench the thirst of water-starved Kolar and Chikkaballapur districts.

Vidyasagar says the first effect will be on the water table. Fresh water into the lake after desilting will increase the water table.

“A revived Bellandur lake means lessening the demand for Cauvery fifth stage. We need to look into this aspect,” says Vidyasagar.

Besides, he says, the water requirement for the construction industry can be met if the lake comes to life once again.

G Manjusainath

### LETTERS [pointblank@deccanherald.co.in](mailto:pointblank@deccanherald.co.in)

Remove the nexus between politicians, builders and industrialists at once, under the appropriate laws in place, to check the menace. The nexus has led the once famous Bellandur lake to this pathetic state. Secondly, identify and punish those who blatantly break the law of the land by polluting the lake.

T Varghese  
Malleswaram

We are an apartment complex that overlooks the Bellandur lake. Last October, we witnessed a huge fire that burned for over five days and caused all of us residents respiratory and skin problems.

We contacted the BBMP

which did not respond. When we approached the fire brigade, they said as there is no threat to human life they were not responsible.

Only after media attention did BBMP dumped mud in trucks and put out the fire. They dug trenches at all points where trucks were entering with mixed hazardous waste. This stopped the dumping for a few days. But the garbage trucks covered the trenches and went back to dumping.

Where do we go from here? Who do we complain to? How much more time and energy do we invest for clean air, our basic right?

Swati G, Bellandur

# Bellandur can wait no more

The bizarre smoke that billowed out of a fiery Bellandur lake was another warning sign that time to save the city's largest waterbody is fast running out. Revival plans cannot be delayed anymore.

Frothing and on fire, Bengaluru's biggest waterbody, the Bellandur lake has shot off another warning sign of its terminal illness. Polluted beyond half-hearted redemption efforts, the lake's message is unquestionably clear: Long stuck in planning, the revival plans have to take off. Now!

In its wide expanse of 379 hectares, the lake under the Koramangala – Challaghatta Valley receives over 40% of the city's mostly untreated sewage.

Incessant inflow of heavy metals through sewage and storm water drains has pushed the lake to almost a point of no return.

In its wide expanse of 379 hectares, the lake, under the Koramangala-Challaghatta Valley, receives over 40% of the city's mostly untreated sewage



Every settlement around the lake is at risk, the water and air around thick with health hazards. Death and despair looms in its vicinity.

But the danger goes beyond. Irrigated with the toxic water, vegetables cultivated on the banks of Bellandur and Varthur lakes find their way to the city's markets. So do the fish.

Enriched by the pollutants, the proliferating water hyacinth on the lake surface is a clear sign of the decay, both visible and

underneath. As Karnataka State Pollution Control Board (KSPCB) informs, the hyacinth blocks sunlight from penetrating the surface, dramatically reducing the Dissolved Oxygen (DO) levels.

**Alarming water quality**  
Water quality parameters monitored at three different locations in Bellandur lake by KSPCB in December 2016 gave out alarming results: “Except water temperature, pH and

lead, all other parameters were beyond the tolerance limits,” analysed the Board.

The DO levels had dipped to 2.20, 2.36 and 2.66 milligrams / litre at the three points, way below the > 4 mg/l optimum range. Biochemical Oxygen Demand (BOD) concentration, at 10.96 to 12.28 mg/l was at least four times higher than the limit of less than 3 mg/l.

The Carbon-dioxide (CO<sub>2</sub>) concentration was also extremely high, while Nitrate Ni-

trogen and Phosphate Phosphorus were two times higher than the optimum range.

In its report, an expert committee on rejuvenation of Bellandur lake, has acknowledged the poor management of waste water flowing into the lakes. “The lakes have come to suffer abnormal levels of pollution,” it said.

### Multiple pollutants

The pollutants were linked to septicity, obnoxious odour, aerosols with toxic volatile organic compounds, eutrophication, breeding of mosquitoes, disappearance of native fish species, algal bloom, and profuse growth of invasive exotic aquatic macrophytes.

The local community had also complained to the panel about water-borne diseases and contaminated borewell water. “The committee is convinced of the problems faced by the local biological entities (humans, livestock, etc.) of serious water and soil contamination and consequent impacts in the food chain.”

The biggest cause of pollution was clearly the release of untreated sewage, poorly treated industrial effluents and domestic sewage into the lake.

### Inefficient STPs

Over the years, 252 residential apartments have sprung up in the Bellandur catchment area. Many of them have installed Sewage Treatment Plants (STPs), although treatment efficiency is questionable. “An estimated 480 MLD of total waste water flows in the catchment area, partly treated by the STPs,” the report says.

So, what has been done so far to translate plans to action? The Bangalore Development Authority (BDA) says tenders are being floated for dewatering and installation of aerators in the lake. These measures are critical to remove the macrophytes/hyacinth and boost dissolved oxygen levels inside the waterbody.

### Community consensus

For years, the local community, lake activists and Indian Institute of Science (IISc) researchers have been campaigning hard to work out some action plan to stem the lakes' decay. But differences had cropped up on the method to be adopted. This has now been resolved, says Elangovan from Whitefield Rising.

An active citizen's collective, Whitefield Rising now wants the short-term measures recommended by the expert panel to be immediately and simulta-

neously implemented for both Bellandur and Varthur lakes.

The panel had mandated that macrophytes have to be regularly harvested to curtail accumulation of nutrients, dumping of municipal solid waste halted and all waste processing units in the vicinity of the lakes evicted.

### Jakkur lake model

The survey sketch for both Bellandur and Varthur lakes, says Elangovan, should be published immediately and the water bod-



**DAINA EMMANUEL**  
IT manager

There should be one dedicated authority that civic groups can approach with their grievances. At present, each agency passes off the responsibility to another, leaving the problem unsolved.

ies fenced. “These two lakes need to be desilted, macrophytes removed and treated waste water let in through the wetlands and shallow algae ponds, as is done for Jakkur lake.”

Not everyone is convinced that the lake panel's report will lead to concrete action unless the symptoms are identified and well-documented. Researcher Nagesh Aras suggests that the fire spots and garbage/construction debris dumping sites should be mapped.

### Crowd-source evidence

Simply put, the need is to crowd-source the evidence by marking all the black spots on a map. Volunteers could take photographs of each black spot and upload them through their smartphones. This could be an anonymous exercise, says Aras.

The data thus collated with GPS-positioning could be furnished to the National Green Tribunal (NGT). Only then can a properly structured remedial action work. Or else, he warns, the attention sparked by the fire and smoke will subside without a whimper.

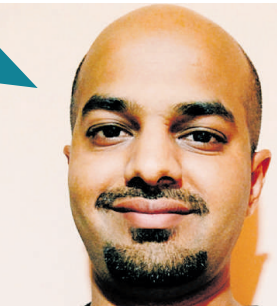
Rasheed Kappan



DH PHOTOS / R. SRIKANTA SHARMA

**SUSHANT LOKHANDE**  
Resident, Bellandur

There was more water earlier, now there are weeds. There have been no efforts to clean up the Bellandur lake. It is a prime candidate for cleanup and conservation.



**ODETTE KATRAK**  
Environmental activist

A dedicated hotline number should be set up for the public to register complaints on violations. Swift and transparent action should be taken against the violators to set a precedence.



**K JAGANNATH**  
Former GP member

The government should spread awareness and arrange demonstrations on how to build small and low-cost STPs in homes. I would be willing to set one up for my house.



## Life around the lake, a trail of health hazards

Bellandur lake, the city's largest, has become a symbol for what ails Bengaluru: Unplanned development and official apathy.

Reports of toxic foam and fires at the lake have become so commonplace that hardly any attention is paid to the woes of the local residents and commuters. However, the worsening condition of the lake has served to make life miserable for those who live in its surroundings. Some of them spoke to *DH* to share their woes.

A high concentration of effluents in the lake water causes it to foam often, with the froth spilling out on to the streets

and causing inconvenience to commuters. Santosh, a software engineer, rides past the lake daily to get to his workplace in Domlur. When exposed to the foam, the toxic chemicals make his eyes water and skin itch. “It is an unpleasant sight to encounter regularly when riding to work in the morning,” he complains.

According to Sheetal K, a mother of two, who resides in an apartment close to the lake, the pollution is causing serious health problems. “Even on an ordinary day, the stench from the lake is unbearable. Now, due to the fires, the toxic fumes are causing severe respiratory

The Bellandur lake area has shrunk considerably due to encroachment. Unregulated and rampant dumping of garbage is slowly choking the water body.

problems in my son who is asthmatic. How can one live like this?” she wonders.

The lake area has shrunk considerably due to encroachment. Unregulated and rampant dumping of garbage is slowly choking the lake. Odette Katrak, co-founder of Beautiful Bengaluru, says that the vacant private plots along the lake boundary serve as perfect dumping sites.

Many of them are not fenced and people unscrupulously dump malba (construction debris) and garbage in these plots in the night. Caretakers of the plots then set fire to the piles of garbage, instead of disposing it properly, she points out.

Fires in the lake are a regular

occurrence and have not subsided after the major one on February 16. “One of these days, they may spiral out of control and cause damage to life and property. What action are the authorities taking to control illegal dumping of garbage on the lake bed?” she asks.

Former Bellandur Gram Panchayat member K Jagannath has a different take on the issue. “The problems haunting Bellandur Lake are not new. It is now in the limelight after the issue has received a lot of publicity in the media,” he says.

Jagannath draws attention to the few families in the vicinity

who make a living by harvesting the grass that grows on the lake bed and selling it as fodder.

He says it is a long-standing practice to set the stalks on fire during the summer to get a better yield. “The fires would not harm anybody earlier. Now, with all the garbage and sewage being dumped into the lake, the plastic catches fire along with the grass, releasing toxic fumes,” he explains.

The problem is compounded by the untreated sewage let into the lake from localities nearby. Not only industrial effluents, but also partially treated sewage from homes enter the lake. The BWSSB regulations mandate apartment com-

plexes with more than 20 flats to set up sewage treatment plants (STPs) on their premises. While many high-rise apartments have complied with the rules, there are others who are yet to follow.

“The Bangalore Development Authority (BDA) has given permission to build many highrise buildings despite paucity of space for STPs,” Jagannath says, holding the authorities accountable for the problem.

Sushant Lokhande, another resident of Bellandur, is of the opinion that builders should ensure that they do not encroach the lake and its surroundings. They should also

not violate rules that require the construction of STPs. If Bellandur becomes a terrible place to live in, real estate values will plummet, causing losses to the builders, he feels.

Reviving Bellandur lake is clearly a complex task and requires both the government agencies and citizens to work together. Citizens' groups and volunteers could keep a tab on those who dump garbage or set fires and promptly alert the authorities. Residents say the State should be more proactive and transparent in its rejuvenation effort.

Mythri Bangalore



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