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#WHATSYOURISSUE

It's been decades since most lakes were desilted

- Staff Reporter



The Hindu

Prashanth J. Soni, resident of south Bengaluru



— Photo: Bhagya Prakash K.

Despite removal of encroachments, Sarakki lake overflowed its banks in July 2016. Photo: Bhagya Prakash K.



The Hindu Wg. Cdr. G.B. Athri

NO PLACE FOR WATER

It's been decades since most lakes were desilted

As a result, the storage capacity of most water bodies has reduced significantly; when it rains, the water simply floods the neighbourhood

PEOPLE SPEAK

In several lakes, like Arakere, where the rejuvenation has been taken up, desilting hasn't been thorough. The huge amount of silt sedimentation continues to reduce their storage capacities

— Wg. Cdr. G.B. Athri, former town and water committee member of Malavalli and Arakere lakes

Apara Lake, Bilar Lake and Chikka Tegur lake are filled with weed. They are filled with silt. The condition of Singasandra lake, which was recently rejuvenated, is no different. It's high time we wake up to the problem

— Praveen K. Gowd, resident, South Bengaluru

KEEP SEWAGE, GARBAGE AWAY

There is no scientific study on silt sedimentation. Experts have sought a haphazard survey of all the lakes to estimate silt sedimentation. The Rajachudra, member secretary of BMC, who conducted a haphazard survey of Malavalli/Venkatapura, has argued that the silt can be used to make bricks. This is one way to make funds for rejuvenation. However, desilting of lake beds is not the only solution. The lake of sewage deposits toxic substances in the lake bed. Sewage, dumping of garbage in lakes and storm water drains (SWD) has to be fixed. BMC has suggested concrete flooring of SWD, but experts say it will only push the problem to the lakes. If the SWD flow is controlled, silt will not enter them. It will all be washed up into lakes.

READER'S MAIL

Once the agencies rejuvenate a lake, there is no maintenance. Even those lakes on which covers have been spent are today filled with weeds and grasses filling up. If not maintained properly, these lakes will only need to be rejuvenated again after some years. The best example is Malavalli lake.

— Rajachudra, member, Malavalli

Sewage is being let into and garbage dumped in Malavalli lake over today. If this is not stopped immediately, Malavalli lake will again turn a cesspool.

— Subramanyam, Madhappa Layout, Malavalli

Two councillors promise to save lakes

Following the BMC's report on garbage dumping in lakes, at least two councillors have promised concrete measures.

A. Subudhi, BMC councillor, has asked to clean up the surroundings of Malavalli lake on Wednesday.

Consequently, concrete measures to prevent dumping of waste in Malavalli lake by waste processing units, 750 area north of the lake does not have sufficient space for dumping. This is a grievance. I have spoken to the ward engineer and asked to prevent and cooperate in the area to enable taking up cleaning the area in a bid to help by the BMC. I have included Malavalli lake in its programme for rejuvenation of lakes," he said.

TOURISM

Lakes as recreation places

SRIL analysis must be an annual post-monsoon process to be followed by desilting of water bodies. Even in lakes that have been rejuvenated, the desilting process is often not up to the mark. The city's water bodies could once hold 35 TMC of water while the annual rainfall the city receives is around 15 TMC. If the city gets flooded with just 15 TMC of rainfall, it shows the extent of silt in water bodies

— Babu Lal, Campaign for People's Right to Water

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HEARD. NOT JUST READ.



Why has the storage capacity of most water bodies reduced significantly?

NO PLACE FOR WATER

LAKE DESILTING | PAGE 4

As a result, storage capacity has reduced; when it rains, water simply floods the neighbourhood

During the monsoon, Sarakki lake overflowed and flooded the surrounding areas in July despite removing encroachments.

Mahesh Sundaram, a local resident, said that civic officials dug up diversion channels preventing water from entering the lake in a desperate attempt to control the flooding. He has an explanation for the flooding. "After many years of encroachment and no water, we were happy to see water accumulate in the lake. But the neighbourhood was flooded because the lake had not been desilted for more than two decades, which in turn, drastically cut down its storage capacity. With water not allowed inside, the lake is almost dry," he said.

Dwindling storage capacity of lakes due to over-silting was one of the chief contributors for the floods in July. Most of the lakes that overflowed – Arakere, at Akshay Nagar and at Madiwala – had not been de-silted.

While there is no exact data or study on the level of silting and sedimentation, the Indian Institute of Science recently conducted a sonar-based bathymetric survey of Bellandur and Varthur lakes. Researchers found that where the depth of the lakes was 10 metres in the 1970s, it had reduced to less than a metre in many places. Senior scientist T.V. Ramachandra, who conducted the study, estimates that there is 7.3 million cubic metres of silt in the two lakes.

Any restoration and rejuvenation project should ideally include de-silting and dredging of the lake. However, in many cases, de-silting has been neglected.

A technical expert committee that was appointed for finalising the technology to be used for rejuvenation of Bellandur lake is undecided on suitable technology for dredging. While some experts recommend dry dredging (done after removing water from the lake). This technique was used in Ulsoor lake in the early 2000s.

Critics say that wet dredging is more expensive but is being promoted by the lobby of firms possessing the technology.

Silt traps

Kasavanahalli lake has built-in silt traps to delay silting. A silt trap is an area where water with suspended sediment – usually caused by construction activity – is contained. While the water is in the trap, the sediment will settle to the bottom and is later removed.

Ashutosh Sharma, a resident of Kasavanahalli, however said that silt traps is only a temporary measure and not an alternative to periodic de-silting.

Meanwhile, a new technology that breaks silt compounds and evaporates them is being tested in lakes in Arunachal Pradesh and Nainital in Uttarakhand. However, it's early days yet, and the jury is still out on the effectiveness of this technology.

Many of these technologies are a stop-gap arrangement, experts argue. Regular desilting of SWDs and lakebeds, apart from preventing inlet of untreated sewage and dumping of garbage, is necessary.

Proposed solution: 'Keep sewage, garbage away'

There is no scientific study on silt sedimentation. Experts have called for a bathymetric survey of all the lakes in the city to estimate silt sedimentation.

T.V. Ramachandra, senior scientist of Indian Institute of Science, who conducted a bathymetric survey of Bellandur-Varthur lakes, has argued that the silt can be used to make bricks. This is one way to raise funds for rejuvenation of the respective lake.

However, desilting of lake beds is not the only solution. The inlet of sewage deposits toxic sediments in the lake bed. Secondly, dumping of garbage in lakes and Storm Water Drains (SWDs) has to end.

BBMP has suggested concrete flooring of SWDs, but experts say it will only push the problem to the lakes. If the SWD floor is concretised, silt will not stay there. It will all be washed up into lakes.

Expert Speak

"Silt analysis must be an annual post-monsoon process to be followed by desilting of water bodies. Even in lakes that have been rejuvenated, the desilting process is often not up to the mark. The city's water bodies could once hold 35 TMC of water while the annual rainfall the city receives is around 15 TMC. If the city gets flooded with just 15 TMC of rainfall, it shows the extent of silt in water bodies," says Kshitij Urs, Campaign for People's Right to Water.

People Speak

"In several lakes, like Arakere, where the rejuvenation has been taken up, desilting hasn't been thorough. The huge amount of silt sedimentation continues to reduce their storage capacities," says Wg. Cdr. (retd.) G. B. Athri, member, lake watch committee of Madiwala and Arakere lakes.

"Agara Lake, Iblur Lake and Chikka Togur lake are filled with green weed and the lakes are filled to the brim with silt. The condition of Singasandra lake, which was recently rejuvenated, is no different. It's high time we wake up and form an action plan for desilting and for maintenance of lakes," says Prashanth J. Soni, resident, south Bengaluru.

Reader's Mail

"Once the agencies rejuvenate a lake, there is no maintenance. Even those lakes on which crores have been spent are today filled with weeds and are fast silting up. If not maintained properly, these lakes will only need to be rejuvenated again after some years. The best example is

Hulimavu lake," says Neelakanthaiah, resident, Hulimavu.

"Sewage is being let into and garbage dumped in Hebbal lake even today. If this is not stopped immediately, Hebbal lake will again turn a cesspool," says Satyanarayana, Bhadrappa Layout, Hebbal.

IMPACT: Two councillors promise to save lakes

Following a report in *The Hindu* on garbage being dumped in lakes, at least two councillors have promised corrective measures.

A. Kodanda Reddy, councillor, Sarvagna Nagar, promised to send officials to clean up the surroundings of Banaswadi lake on Wednesday.

Nittesh Purushottam, councillor, Garudacharpalya promised to take up temporary measures to prevent dumping of waste in Nalurhalli lake by waste processing units. "The area to the north of Nalurhalli lake does not have sufficient space for fencing. Plus, there is a graveyard nearby. I have spoken to the ward engineer and to private companies in the area to consider taking up cleaning the area as a CSR activity. The BBMP has included Nalurhalli lake in its programme for rejuvenation of lakes," said Mr. Purushottam.

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