THE HINDU CENTRE
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Interview

Water Conservation in Bengaluru Needs Attention

S. RAJENDRAN

The newly inaugurated 40 MLD Sewage Treatment plant at Doddabele, off Mysuru road, at Kengeri, by Bangalore Water Supply and Sewerage Board (BWSSB), in Bengaluru November 08, 2019. Photo: K Murali Kumar

Bengaluru, with its perennial supply of drinking water from the River Cauvery, may be the envy of many, particularly the residents of Chennai who face a serious drinking water shortage for most parts of the year. But then, nothing much is being done in Bengaluru to conserve water leave alone the massive wastage in the water supply lines maintained and managed by the Bangalore Water Supply and Sewerage Board (BWSSB).

While the residents are being penalised if they do not have a rainwater harvesting facility in their premises, the Bruhat Bengaluru Mahanagara Palike flagrantly violates by concreting all roads and pavements and very few Government buildings have rainwater harvesting systems in place. Commercial establishments are dependant on ground water since the water supply rates of the BWSSB for non-domestic use are unrealistic.

In this interview with** S. Rajendran**, Senior Fellow, The Hindu Centre for Politics and Public Policy, Bengaluru,** the Chairman of the BWSSB, Tushar Girinath**, speaks on the drinking water supply in Bengaluru.

Bengaluru is one of the few cities in the country with an assured drinking water supply thanks to the River Cauvery although there are many challenges given the city's elevation. What is the present supply and will the available water, as provided in the orders of the Supreme Court, suffice to meet the demand?

Presently BWSSB is supplying 19 TMC of water in a year (which amounts to around 1,480 MLD of water per day) to the consumers in the city. The Government of Karnataka has allotted an additional 10 TMC (775 MLD) of water which will be supplied to the consumers by 2023-24 with the completion of Cauvery Stage V. This will meet the demand for drinking water in the city till 2030.

The country's think tank—Niti Aayog—in a report has said that 21 Indian cities, including Bengaluru, will run out of ground water in a few years and has called for efficient management of water resources. What are the steps being taken by the BWSSB? What is the elevation of the ground water table in the city, and the regulations on tapping ground water?

At present the peripheral parts of Bengaluru city are solely dependent on ground water as the drinking water distribution network is not completed. Also in the core area of the city as well as erstwhile municipal areas, people are augmenting BWSSB supply with ground water extraction. The rate of extraction of ground water is much higher than the rate of replenishment through Rain Water Harvesting (RWH) in the BBMP area. Hence ground water level is going down.

Tushar Girinath

However, there is no estimate for the total quantum of the ground water available in the aquifer below the city. Hence, nobody can predict when the ground water will run out. The ground water is controlled by the Ground Water Directorate under the Minor Irrigation Department in the State of Karnataka. Within the BBMP area the ground water authority is headed by the Engineer-in-Chief of BWSSB, who gives permission for the drilling of bore wells for domestic purposes. For non-domestic purposes it goes to the Directorate. While giving permission the distance with respect to existing bore wells and the availability of ground water is ascertained by the Geologist.

Does the quantum of water pumped from the River Cauvery match with that received in city and what are the efforts in plugging leakages? Is there any enforcement to prevent illegal water connections particularly in the revenue pockets of the city? Please highlight the manner in which BWSSB is working towards conserving water. As per an estimation, nearly 45 per cent of the water pumped from the River Cauvery is either wasted in leakages or not charged.

The water is pumped from T.K. Halli to Bengaluru and there is no perceptible leakage till the time water reaches the city. However, the leakages are in the distribution network which is laid from the ground level to the households. At present the losses are at 36 per cent and the BWSSB has taken various projects and administrative measures to reduce leakages which has resulted in reduction of losses from 48 per cent in 2012 to 36 per cent at present.

The projects are based on dividing the distribution areas into the smaller units called District Meter Areas (DMAs) so that the leakages can be measured in the micro areas and actions are taken to reduce leakages through improvement of networks, detecting illegal connections and plugging physical water leakages. In addition, by increasing the frequency of check measurements and monitoring the consumption patterns of consumers the anomalies are detected and prevention of revenue leakages is undertaken. Vigilance activities have also been increased and criminal cases have been filed for theft of water. We are taking all the steps to reduce the wastage to 25 per cent in another five years.

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What are the efforts in treating and supplying recycled water for non-drinking purposes? Will parallel water supply lines be provided for both domestic and commercial purposes? Is it not imperative for the BWSSB to mandate all high rise apartments to have dual piping—one for recycled water and the other for drinking water supplied by the BWSSB.

The regulations of BWSSB are in accordance with the directions given by the Karnataka State Pollution Control Board wherein 20 apartments or 2000 sq. metres and above construction for residential purposes is mandated to have a sewage treatment plant with dual piping system--one for recycled water and other for fresh water supply from BWSSB. The reuse of treated water is an important strategy in reduction of demand for fresh water and is taken up vigorously by the board.

File photo: K. Murali Kumar

At present BWSSB is supplying tertiary treated water to an extent of around 10 MLD to various Government complexes, Golf courses, BIAL etc., and another 80 MLD has been committed to industrial areas and 15 MLD for Karnataka Power Corporation plants at Yelahanka. Other than this around 700 MLD of secondary treated water is committed for filling up of the tanks in the rain deficient districts of Kolar, Chikkaballapur and parts of Bangalore urban and at present 400 MLD of water is being supplied to these areas.

While BWSSB is seeking the support of all residents for rain water harvesting, the Bengaluru Mahanagara Palike is working at cross purposes by concreting all pavements at a huge cost. Is it not necessary for the civic agencies to put in a coordinated effort to save precious water? Will it not be appropriate for the BWSSB to empanel contractors who can execute standard rain water harvesting projects at a fixed cost?

The BWSSB is requesting its consumers to have Rain Water Harvesting Structures and also reuse the harvested water. The design of roads in the new road policy of the State Government is such that it can carry the rain water to the lakes through ducts.

The BWSSB has prescribed certain designs for the Rain Water Harvesting Structures to recharge the ground water. We have also opened a park at Jayanagar to showcase the rain water harvesting technologies and the structures and a large number of people have taken advantage of the same. The current emphasis is on reuse of rain water harvested from the roof top which requires a much simpler technology that can be implemented by the house owner through any plumber. The BBMP is also incorporating the design of allowing a portion of water in the Storm Water Drain to percolate and recharge the water table.

The BBMP also plans to allow a portion of water in the Storm Water drain to recharge the water table.

There is also a complaint that there is no rationale in the water charges—with a huge disparity between the residential and the commercial rates resulting in misuse thanks to collusion between the officials and the consumers. Is it not time for a review?

The water charges are not high and they barely match with our revenue expenditure. The water tariff needs to be revised from time to time to adjust the rates to cover the cost. This differential tariff between commercial and residential will be there as there is a component of cross subsidy between commercial and residential. However, the difference should be such that the commercial consumers do not start exploiting the ground water for their needs as it will defeat the very purpose of differential treatment.

Corruption is stated to be of a high order in obtaining water connections particularly in the case of highrise apartments thanks to the role of the area municipal corporators and local legislators. How can the system of providing new connections be streamlined?

The BWSSB has started an online process for new water connections from February 2017. The practice of maintaining both the hard copies along with the online processes has been completely stopped. It has brought in great transparency and expedited the processing time in giving connections.

Since the water connections require the services of a registered plumber to be taken by the consumer, it is a fact that some plumbers have tried to exploit the consumers. The online water connections website gives the choice of plumber to the consumer. The consumer has the right to change the plumber if any such practice is observed. The BWSSB has given an advertisement to ask more and more plumbers to get themselves registered with BWSSB. The conditions for getting registered as a plumber with BWSSB is very simple and easily met by most of the plumbers. Once more plumbers register, it will ensure that such practices of duping the consumer is stopped.

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Lakes in Bengaluru are dying thanks to sewage being let into them on an unprecedented scale. What are the efforts in stemming such practices particular with reference to sewage treatment plants (STPs) reduced to mere ornamental structures. As per a report, most of the Sewage Treatment Plants of the BWSSB are not connected to sewage lines and people's money has been wasted. What is the quantum of drinking water supplied, the sewage that is generated, the quantum of sewage that is treated and the quantum of recycled water that is generated.

On an average around 1440 MLD per day of sewage is generated in Bengaluru city and at present we have a capacity to treat around 1100 MLD of sewage. The

capacity will be enhanced to 1575 MLD by 2020 and by 2023 the capacity will be around 1725 MLD.

The conveyance of sewage to STP for treatment is also being revamped at a cost of Rs.1000 crores and the major works will be over by the end of 2020. This will increase the present capacity utilisation of the STPs from 80 per cent to around 95 per cent. Hence the lakes will be relatively free from Sewage water from 2020 onwards and the lakes in the peripheral areas of Bengaluru where a sewage treatment system is under implementation will be free from sewage in 2023 after completion of Cauvery Stage V.

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What are the plans of the BWSSB to educate its engineers and other personnel apart from the people at large in conserving water.

BWSSB undertakes a large number of activities to sensitise consumers towards conserving the water. The engineers are also trained at various institutions in the country and also through our training programs. BWSSB has started its own training centre at Suvarna Bhavan, Malleswaram from November 2019 to enhance the performance of its work force.

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In a journalistic career of nearly 40 years with The Hindu in Karnataka, he has extensively reported on and analysed various facets of life in the State. He holds a Master's degree from the Bangalore University. The Government of Karnataka, in recognition of his services, presented him the Rajyotsava Award - the highest honour in the State - in 2010. He can be contacted at srajendran.thehindu@gmail.com].