



Reclaiming B'luru's natural water systems with true pricing

By Suhas Dhruvakumar and Shrimoyee Bhattacharya

The monsoons in 2016 left Bengaluru's citizens fuming when the Bruhat Bengaluru Mahanagara Palike (BBMP) started the demolition of built-up properties across the city after heavy flooding occurred in some parts of the city. The annual saga of demolition drives repeated itself as stormwater drains, historically known as the rajakaluves, could not drain out the run-off water into the lakes.

On the other hand, there were efforts by some segments of citizens, civil society organisations and the administration to tackle the problem of polluted lakes and the unliveable situation created by them in the surrounding localities. Around the same time, Karnataka witnessed frantic reactions to the Cauvery water issue, especially in Bengaluru, to protect its drinking water source. Water poses challenges to Bengaluru's citizens and authorities, be it in its presence or absence!

Bengaluru's water system consists of both lakes and drainage channels. Recommendations made by various reports on the water situation in Bengaluru (like the Lakshman Rau Committee Report in 1986, A T Ramaswamy Committee Report in 2007, N K Patil Report to the High Court in 2011 and B V Balasubramanian Task Force Report of 2011) include actions such as adoption of watershed-based urban planning, strict enforcement of regulations prohibiting encroachment of water systems, better alignment of institutional mandates and better coordination protocols. However, these recommendations have either never been translated into policy or the implementation has been done in a piecemeal fashion.

The question that arises is: despite facing persistent problems with water, why do the city's natural water systems continue to receive apathy and neglect from the large sections of citizens and

administration alike? Critical natural territories are repeatedly violated by both planned and unplanned activities, such as encroachments by built structures (including planned development by the Bangalore Development Authority), dumping of untreated sewage, poor solid waste collection and disposal and lack of maintenance. A quick exploration of the demand side of natural water systems provides important clues towards solving these problems.

The users of a city's water systems include its citizens, government agencies, such as infrastructure and service providers, regulators and various business groups. The perceived and real use of water systems are for a variety of purposes such as for drinking and other uses, drainage, management of sewage, livelihood, aesthetics, ecological balance, environmental improvement, etc.

Different sub-groups within each user group are interested in very specific issues of water systems; neither citizens nor the administration fit into a monolithic black box. Thus, the supply of water, which is a daily 24x7 indispensable necessity, could be explored as a potential driver to create a strong demand for the conservation of natural water systems. Urban environmental researchers such as Harini Nagendra and others have shown that since Bengaluru started receiving water from the Cauvery, the degradation of its natural water systems, specifically lakes, has been happening faster.

Positive pressure groups

One of the reasons for the public and administrative apathy has been attributed to the pricing of piped water. It is heavily subsidised as opposed to the cost of infrastructure involved, as well as the cost on the environment and ecology. Rather, there is a potential to use pricing as an instrument to generate demand to conserve local water systems, where one or more of the user groups shall emerge as positive pressure groups.

The traditional discourse on water pricing incorporates electricity costs of pumping water to Bengaluru (which is at a relatively higher altitude), operation and maintenance costs and sewage treatment costs. However, the current pricing mechanism does not allow even the operating costs of pumping Cauvery water to Bengaluru to be recovered.

According to Avinash Krishnamurthy of Biome Environmental Solutions, the Bangalore Water Supply and Sewerage Board (BWSSB) incurs Rs 26 per kilolitre, but the end user is charged Rs 7 for the same. Environmental economists like Partha Dasgupta of the University of Cambridge have always argued for accounting the environmental costs associated with drawing water from the natural water systems.

For example, any new real estate project is considered as an asset when measuring the region's GDP, but if it happens to be on a wetland, the damage is not counted as a cost to the region. This approach hides the risks of unavailability of usable water.

The pricing mechanism used for a commodity, even water, is an indicator of informing the true cost of the commodity to its end users. This approach can allow the pricing to account for risks associated

with unsustainable practices of sourcing and managing water, as opposed to sustainable management of waterbodies within Bengaluru.

To that effect, the true cost of water supplied to Bengaluru needs to include the opportunity costs and risks such as drought and other environmental risks of the water pumped for drinking purposes from a distant source.

Utilisation of this instrument should not be restricted to just the piped-water supply from the Cauvery; charges for groundwater extracted for domestic or commercial purposes by private citizens, water tankers or government also need to be revised if necessary.

True pricing by design has the capability of conveying the environmental cost of a resource to all the relevant stakeholders. This can force a change in the discourse by seeking to find alternatives such as use of existing water systems in Bengaluru and thus the need for its conservation and enhancement.

True pricing complimented with information and awareness campaigns can enhance the chances of implementation of existing legal remedies. This will place the citizenry in a better position to start a debate on the need to use and thus maintain the quality of city's natural water systems.

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