

Water crisis in Bengaluru: Reviving lakes critical

Sheela K Ramasesha,

28-36 minutes



- Oct 01 2019, 00:05am ist
- updated: Oct 01 2019, 11:53am ist

“Water, water, everywhere, not drop to drink”, from *The Rime of the Ancient Mariner* seems apt for Bengaluru with most of its lakes and ponds polluted and frothing.

Despite covering about 70% of the earth’s surface, only 3% of freshwater is fit for human consumption. Water shortage in Bengaluru is a common phenomenon, especially during the summer months.

Many lakes in the city have been drained and the remaining ones are drying up. With over three lakh borewells pumping out groundwater, the water table is receding. The governments are doing precious little to revive the lakes. The only source of water for our city will be the pumped water from Cauvery.

Most of the ancient civilizations developed in different parts of the world in places where natural resources like water, fertile land and animals to hunt were available in abundance. Mohenjo-Daro and Harappa civilizations were located in the Indus valley.

Similarly, the region between rivers Tigris and Euphrates, the Mesopotamia region, witnessed settlement of many civilizations including the Persians, Greeks and Romans. Water is essential for the survival of humans, animals and plants. Thus, most of the civilizations evolved on riverfronts.

Even in modern times, most of the cities are located on riverbanks. Bengaluru is one of the few large cities in the world that is not on any major waterfront. Of course, there were many lakes in the city that provided enough water to the city population.

Water from the natural underground streams fed by rainwater was the input to these lakes. Thus, it was a self-sustaining system that worked for many centuries.

According to reports from the Indian Institute of Science, there were more than 265 water bodies in Bengaluru in 1972 when the city was spread over 161 sq km. But by 2016, there were 194 with the city extending to 741 sq km.

The trend of the city expanding and the number of lakes decreasing is because of the encroachment into the lake basin and concretisation of the catchment areas. Many lakes are intentionally dried up to create new residential colonies and for sand quarrying.

Bengaluru, with its population of 1.2 crores, requires 20-30 TMC of water for domestic use. Bengaluru urban district, on an average, receives about 870 mm of rain annually and amounts to about 22 TMC of water.

This water is not being saved because the city is mostly concretised and not much greenery or open land is left for the rainwater to seep into the ground to raise the underground water table.

Whatever water that collects in the remaining lakes is unusable because of the presence of pollutants.

The city is water-stressed and a majority of its water need is coming from the Cauvery river with Arkavathy river chipping in with a small fraction.

The reality is that 7,35,000 units of electricity are consumed to transport 4,700 crore litres of water into the city every month from KRS and Kabini reservoirs at a cost of Rs 46 crore.

This electricity can be used to develop some of the smaller towns and rural areas in the state to provide jobs to people. The exodus to Bengaluru will come down and the associated stress on infrastructure will automatically reduce.

All this is possible only if we can allow rainwater to seep into the ground and replenish the lakes and other water bodies.

The city and state planners, and administrators have to think of solutions to stop the random growth of the city simply because they also have to live in this city. A time may come when we have money, but we may have no water to buy.

Given the water situation, as citizens of the city, where can we save water? If one walks on the road during morning hours, in front of almost all the houses, there is a puddle of water from washing their front yard and vehicles.

In doing so, we are not only wasting water but also dirtying the roads. Vehicles going over the puddle of water will splash dirt back into our yard. The puddle of water on the roads also bothers pedestrians.

Senseless wastage

The bigger houses have bigger puddles of water because the entire driveway gets washed using hosepipes with water flowing continuously. Often, three or four cars belonging to big bungalows, are washed, including tyres, with hosepipes every day and then they are driven over the water puddles, dirtying the tyres.

These amount to senseless wastage of water. Wiping the vehicle with a dry cloth first followed by a wet cloth will give the same effect. The saved-up water from each house can be supplied to poorer localities and public toilets for encouraging “Swacch Bharat Abhiyan”.

The water distribution system is also very disproportionate in the city. The rich, powerful and influential localities have overhead tanks overflowing even during summers whereas less affluent localities suffer from water shortage.

Even if we are using borewell water, we should be conscious that we are depleting the groundwater and year by year, the water table in Bengaluru is going down.

According to a BBC report, Bengaluru is one of the 11 cities around the world that will run out of water. Pumping water uphill from Cauvery using large amounts of electricity (which is also in short supply) will be the only option for water supply for the city.

Borewells that are over 1,500 ft deep can only supplement water to some extent. It is not too late even now if the lawmakers along with BBMP can revive the lakes by clearing the catchment areas and polluting them.

The citizens also have to be responsible and sensitive to senseless wastage of water.

(The writer is with Energy and Environment Research Programme, School of Natural Sciences and Engineering, National Institute of Advanced Studies, Bengaluru)

NEXT STORY



[Sushil Kumar Singh, Aditya.](#)

- Oct 08 2019, 22:44pm ist
- updated: Oct 09 2019, 08:00am ist

A few years ago, there were murmurs that the NITI Aayog will be setting up a ‘Nudge Unit’ which would subtly guide people towards the ‘desired’ behaviour. This was around the time when noted American economist Richard Thaler was awarded Nobel prize for his seminal work on behavioural economics.

Although the then Minister of State for Planning Rao Inderjit Singh asserted that NITI Aayog has not established any such unit., in his reply to the first author’s question in the Lok Sabha in February 2019, this year’s Economic Survey staunchly supports the idea of establishment of a behavioural economics unit at the NITI Aayog. Consequently, NITI Aayog is seeking to recruit behavioural economists to reform policy-making.

The chapter titled ‘Policy for Homo Sapiens, Not Homo Economicus: Leveraging the Behavioural Economics of “Nudge”’ brings to the fore the importance of behavioural economics in the diverse and complex arena of public policy. The chapter emphasises employing the principles of behavioural economics by ‘nudging’ the beneficiaries (users) of social policies and government programmes towards a desirable pattern of behaviour.

There is no denying the fact that if used correctly and ethically, such interventions are effective tools in the kitty of policy-makers for achieving desired policy outcomes.

But at the same time, behavioural interventions should also involve influencing the public service professionals who implement the policy at the grassroots (the real service providers). To do so, it is essential to understand the multifaceted motivational urges which drive the behaviour of public servants.

Subsequently, the incentive structures of public doctors, nurses, teachers, civil servants etc, should be designed keeping in mind their motivations. While creating the policies, this is the other side of the coin, which is either ignored or misjudged.

The principal concern of a knave is to further his or her interests. They are the so-called homo-economicus or the economic man who always aims to maximise their own utility. Therefore, in order to influence the behaviour of the knaves, a definite hierarchy in public services along with external rewards and penalties in the event of non-compliance can be beneficial.

The incentive structures for public servants in our country primarily revolve around this principle. Pay for performance incentive models can also be introduced for public service professionals.

On the other hand, there is no dearth of knights in our public services apparatus who go beyond their call of duty for making the lives of citizens better. Inayat Khan, an IAS officer from Bihar, adopted daughters of two Pulwama martyrs and along with the district officials, has promised to bear all the educational expenses for these girls.

Pari Baldevpari Javerpari, a teacher in a government school in Gujarat, has developed several mobile apps that help students engage actively and effectively with curricular experiences in mathematics free of cost.

The inference is that the knights are individuals who are motivated to help others without expecting any rewards. In pursuing their selfless motives, they may even undertake activities that are detrimental to their interests.

Therefore, the policies designed with the assumption that people are knaves might suppress the natural altruistic impulses. This, in turn, affects their motivation for contributing effectively towards public service delivery. Hence, solely relying on monetary incentives might not be a useful tool while dealing with the knights.

To remedy this, equipping the knights with autonomy could be helpful as it may serve to strengthen their resolve for public service. The 'street-level bureaucrats' require some amount of independence for addressing the problems faced by people at grassroots, which are sometimes not visualised at the stage of policy formulation.

However, it is easier said than done. First, it is difficult to ascertain who is a knight and who is a knave. There isn't necessarily a shortage of knights. There are jobs around us that reinforce this point of view — for example, the forces.

Binaries exist within the same subset – say there are doctors who work for Medicines Sans Frontiers and for that matter in our public hospitals like AIIMS, while there are also the doctors who are 'homo-economicus' and try to maximise their own utility.

Without casting any aspersions on the morality of the latter, we argue it is crucial to identify the knightly and knavish tendencies in people. Identification of knights requires extensive psychometric tests and correct identification of drives and motivations via the same. Although it will not be 100% accurate, it will give us an insight into the motivations of the public servants.

Autonomy and discretion

Second, providing autonomy and discretion without proper accountability framework in place can lead to corruption, especially in the case of a society which primarily consists of knaves. Therefore, an appropriate framework of accountability is necessary.

Third, the empirical evidence suggests that people in public service are not purely knights or knaves; instead, they are a mixture of both. Therefore, to tackle the entire spectrum of stakeholders in public policy, we need to develop interventions and an incentive structure which can cater to both the knavish and the knightly motivations of the officials.

While designing policies, the conflict between self-interest and altruism has to be satisfactorily resolved. We are not arguing that knaves should be converted to knights or vice versa, rather we suggest that knavish and knightly incentive structure should be aligned. Awards for public service are another means (to be distinguished from rewards).

India is set to be the world's most populous country by the middle of the next decade, and the stakes in the arena of public policy for growth are high. Behavioural economics can prove to be a gamechanger where orthodox approaches seem to have failed.

As the decades pass, behavioural changes will be the difference between success and failure in tackling issues such as climate change and population control. It remains to be seen whether the prescriptions of this year's Economic Survey are given the due attention they deserve. A radical rethink is long-pending.

(Singh is a Member of Parliament; Aditya is a student at London School of Economics and a policy analyst)

NEXT STORY



[Kewal Kapoor,](#)

- Oct 08 2019, 22:40pm ist
- updated: Oct 09 2019, 02:13am ist

Earlier this year, the United Nations Population Fund released a report indicating that India's population growth has slowed considerably between 2011 and 2019. The decline registered is sharper than estimates, and is only set to slow down further in the coming decades. According to the government, India will have 34 crore people above the age of 60 by 2050, more than the total population of the United States.

The current strength of our demographic dividend will soon turn into a disadvantage, rendering a huge chunk of our population dependant. The central government's pension expenditure estimates for 2019-2020 fiscal year is 1.66 lakh crores, which is more than its salary expenditure. With the life expectancy also set to rise, our pension system will end up bearing the brunt of a rapidly ageing population.

Raising the age of retirement makes sense in this context. Policymakers should consider increasing the retirement age in a phased manner, signalling their intent to do so before the

inevitable shift in demographics. Currently, the age of retirement for most government employees is 60 years. However, owing to increased life expectancy and people living healthy post-retirement lives, it only makes sense to stretch the age of retirement gradually to the late 60s.

The Economic Survey also made a case for raising the age of retirement to improve the viability of the pension system, leverage a healthy older population, and increase female labour force participation among older age groups. At present, there is a stigma about older workers, most of which are based on fiction rather than fact. Multiple studies conducted on older workers' productivity, attitudes and abilities found that the stereotypes about older workers have little basis in reality unless the job involves heavy physical labour. The only criteria employers need to focus on are their employees' education, expertise, skillset, and willingness to learn and adapt.

Older workforces have many advantages. Here are many of them listed.

1) Better at problem-solving: A study published in *Frontiers in Aging Neuroscience* revealed that the performance of older workers was more consistent over time compared to their younger peers, making them better at problem-solving. Their experience enables them to create more effective strategies, make better decisions, are more capable, and take fewer uncalculated risks.

2) Less cost: Recruitment costs are the highest recurring costs faced by any organisation. If the employee turnover is high, then employers need to continuously recruit and train new employees. Older workers have lower turnover rates, costing their employers less. Research has shown that people over the age of 50 are unlikely to change jobs compared to people in their 20s.

3) They don't call in sick: According to a report by the insurance firm RIAS, older workers tend to call in sick less often than younger colleagues. The report revealed that only a quarter of the older workers called in sick in 2014, compared to half of the people in the age group of 20-30.

4) They learn fast: One of the most prevalent myths about older workers is that they have trouble learning new things, which is far from the truth. They have higher motivation rates, good attention spans, and tend to retain information longer than young people.

5) They are just as focused on their careers: Old workers care about their jobs just as much as young people. They are interested in advancing their careers, taking up more meaningful work, are willing to take up challenges, and learn new skills. They are also motivated by more selfless causes like family and community, compared to younger workers who are motivated by the benefits they stand to get from the job, such as a better position or a pay hike.

A higher retirement age will motivate workers to invest in skill upgradation, allowing them to remain productive and healthy. It will also help save more money, and more importantly, improve the fiscal state of the economy through higher income tax revenues and better labour market incentives.

(The writer is Director and Creative Strategist, CHAI Kreative and Return of Million Smiles)

NEXT STORY



[Amit Basole](#),

- Oct 06 2019, 22:21pm ist
- updated: Oct 07 2019, 01:37am ist

At 5%, the rate of GDP growth in the first quarter of 2019 is the lowest in six years. It is also likely that even this may be an overestimate. Given that the impact of demonetisation fell largely on the informal economy and official statistics do not adequately measure its output, the actual output and demand in the economy are probably lower than officially captured.

For the common person, the weakening of the economy is evident in two ways. Unemployment is at a historic high and is rising. And adjusted for inflation, wages in rural as well as urban areas, and in casual as well as regular wage work have either stagnated or declined.

The response to the rapid rise in prices in 2013 took the form of inflation targeting by the RBI. This may have erred too far in the other direction resulting in very low inflation, depressed earnings (particularly in the rural areas), and hence weak consumer demand.

It has been pointed out that the RBI's inflation target of 4% is too low for a developing economy. Added to that, private investment has suffered due to the build-up of bad loans in banks and non-banking financial corporations, a legacy of the rapid growth years. On top of these two factors, demonetisation and GST compliance have also hit output and earnings, particularly in the MSME sector.

In addition to these problems building up over the past few years, a longer-term increase in economic inequality resulting from higher-income growth at the top of the distribution (the top 20%), is also a factor. Growth has failed to create an adequate number of well-paying jobs.

Some economists have suggested that India's growth model, based on top-end consumption, has run into its limit and without a more broad-based demand structure, the days of 8%-plus growth may be over.

Finally, to domestic woes has been added a global element, with the world economy entering a downturn. Thus, there are a variety of factors, cyclical and structural, domestic and global, at work, together contributing to the slowdown.

The responses thus far have included a reduction in interest rates by the RBI, cut in GST rates, and a reduction in the corporate tax rate. These are mostly what economists call 'supply-side' measures to boost private investment. But they are unlikely to work.

Even if the RBI target rates were to translate into lower costs of borrowing for the economy in general, higher borrowing (and hence investment) would not follow because, in the absence of consumer demand, businesses would not want to borrow, no matter how cheap the credit. For the same reason, corporate tax cuts are also unlikely to work.

The logic of the cuts is that more money with corporations will induce them to invest more. But again, with demand being weak, it is likely that they will simply sit on the extra cash, waiting for demand to pick up.

So, what can be done? Clearly, with consumer and investment demand weak, and global demand also slowing down, there remains only government expenditure. That is, the government must spend in order to create demand and kickstart spending in the other sectors.

Two questions arise - does the government have money to spend? And if so, what should it spend on? Regarding the first question, it has been widely suggested that there is no room to expand government spending because the consolidated fiscal deficit (central + state + PSU borrowings) is nearly 10% of GDP, which is almost large enough to mop up all available household savings.

But this is not the right way to think about government spending. In fact, government spending is not constrained by the supply of funds, it is rather constrained by physical resources. As long as actual resources such as labour and production capacity lie underutilised (which is clearly the case now), government spending can enable these resources to be used and such spending will not be inflationary.

Where does the money come from? The RBI simply creates it. This is sometimes called 'monetising the deficit,' and is considered a slippery slope to fiscal profligacy (irresponsible spending) and high inflation.

But with low inflation, high unemployment, a large number of women as well as some men out of the labour force, and low capacity utilisation, we are very far from any such scenario. An unlikely prospect of high inflation should not be used to perpetuate the harsh effects of the current slowdown.

As long as the government spends in a way that puts money where it is most effective, it will work. The increase in the fiscal deficit will be controlled when the economy rebounds, raising growth and tax revenue.

What form should the spending take? Two considerations are important. Spending should directly target the bottom 80% of the economy, where demand needs to be boosted and it should, in some measure, improve productivity to alleviate supply constraints (that will cause inflation if unaddressed).

Rural job scheme

The MGNREGA budget should be increased at least by 50% in real terms. An urban employment programme similar to MGNREGA, already in operation in states like Kerala and Madhya Pradesh, should be expanded nationwide. Wages of anganwadi and ASHA workers and other similar lower-rung government workers should be increased.

Public investment in local infrastructure (as opposed to large infra like highways and airports) should be increased. This includes not only local roads, but also storage facilities, irrigation canals, extension services, and other farm support.

Wage subsidies to the private sector, again tried in a few states, can also be considered. Vacancies in government services like education and health should be filled. All these interventions will boost demand and create productive physical and human capital. Corporate investment and growth revival will follow.

Between recapitalisation of banks, corporate tax write-offs and other stimulus measures, the government has already spent several lakh crores on measures that are unlikely to work. But it not too late to start spending better.

(The writer teaches Economics at Azim Premji University, Bengaluru)

NEXT STORY

POLICE PERCEPTION MANAGEMENT



[DHNS](#),

- Oct 06 2019, 22:21pm ist
- updated: Oct 07 2019, 08:07am ist

The perception that the people may have about the police force needs to be received and communicated with an open mind regardless of any criticism by any stakeholder.

A recent report in some quarters of the media about the status of policing in India is being widely read and talked about and is largely believed to be true. The methodology and analysis of the findings do not find a place in such media reports while only the outcome is highlighted.

This report appeared at a time when a news item about the police chief of a state seeking a prosecution sanction under Section 199 of CrPC (defamation) was also finding the headlines in some parts of the country.

Incidentally, both these attention-drawing pieces of information reached me when I was visiting a police museum in Tokyo.

These interludes of the wider fame of police perception necessitated me to write this opinion piece. There are certain harsh realities that we will have to accept. Perception can only be built by a professional outlook and a conducive medium. In one state in India, the police chief of that state resigned from service to contest the election. Shockingly, after he lost the election, he was permitted to rejoin the service.

It is an 'easier said but rarely practiced' concept of separation of personal life with official duties. Such professionals are not seen with political ambitions and, if such a rare breed exists, it is extremely difficult to identify.

The news report doing the rounds of the media on prejudices prevailing in the police force about Muslims, Dalits etc can be painted as a clear piece of sensationalism. The changing society has reduced prejudices significantly. Police forces are also affected by the societal changes irrespective of accusations of bias.

The perception management in the police and achieving higher professional standards cannot be segregated. The various approaches about the perception management adopted by the police forces of the country have not helped. Even the engineered publicity like various 'Singhams' of the police force, has bitten the dust; reality exposed in due course of time.

The political sabbaticals for many of them have ended up as misadventures. Political parties relying on such serving and retired officials have not been able to count many gains. This is because, the simple philosophy of poor perception about police force is much deeper which needs to be addressed.

The recent attack by an Opposition leader against a police chief of a state, the latter seeking sanction under Section 199 CrPC and the same being extended to the police chief, have been widely reported in the media.

This provision lays down duties on the state to protect public servants against acts of defamation. It also necessitates that the expenditure incurred by the state in defending the officers is rationalistic and for good public cause. Thus, the need to produce such details in the public domain.

However, various retrograde analyses will demonstrate that these cases do not reach their logical conclusions. At best, they symbolise a defensive approach. Therefore, it will only be appropriate that the police chief - the state government in particular - take such cases to their logical end.

The records of the trial of such cases must be brought to the public domain to know how and why such accusations were made, the truth and falsehood in these allegations, the optimum of prosecutions and counters of the defence, all as a guide for younger officers to decide a professional path and improve the standards of policing.

My recent visit to the Tokyo police museum was an eye-opener. Admission is free at this six-floor museum. Its mascot is named Peopo – taken from people and police. The theme of

“trustworthy and community-friendly police” set me thinking about the enormity of the challenges in police perception in India.

Each floor is dedicated to highlighting key characteristic of the police force with themes like protecting the people and the city, the capabilities to resolve incidents and accidents, the present and future of the Metropolitan Police Department, safeguarding the capital, changing with the times, history of the police force, and a hall for conducting events.

On one floor, children can wear police uniforms, take photographs, ride on police choppers procured by the Tokyo Police in 1953. It displays an array of exhibits tracing the Metropolitan Police Department’s history including the current engagements.

Instilling fear

Children can have fun learning what it is like to be a police officer with child-friendly attractions such as animation movies and police-work simulators; on floor 4 is an exhibit titled “present and future of the city police and how they are safeguarding the city”.

The perception about the police is formed and changed from childhood. In the Third World countries, fear of the police is instilled in the minds of children. Here, the police organise “crime week” or “crime month” with big banners with photos of police officers for self-glorification. The reality, however, is that neither the banners nor the photos instill confidence.

My brief police museum visit and interactions with the police officers there made me realise a few things, paramount being perception is not a projection. It is a product of realising the hard reality of imbibing professional values and professional approach to a common man.

The least we can do is to give access to the people to our working environment, reach out to them with an interactive approach, reduce the service deficit by introspection, correction and by adopting an honest approach.

Challenging criticism by self-denial, finding a legal way to silence criticism and riding on the vectors of misplaced publicity through the captive forces will elude any perception improvement. At best, it could provide only transient perception management.

(The writer is Additional DGP, Government of Karnataka)

Water crisis in Bengaluru: Reviving lakes critical

Read more at: <https://www.deccanherald.com/opinion/panorama/water-crisis-in-bengaluru-reviving-lakes-critical-765336.html>

Water crisis in Bengaluru: Reviving lakes critical Read more at:
<https://www.deccanherald.com/opinion/panorama/water-crisis-in-bengaluru-reviving-lakes-critical-765336.html>

Read more at: <https://www.deccanherald.com/opinion/panorama/water-crisis-in-bengaluru-reviving-lakes-critical-765336.html>