Deccan Herald- 09- January-2022

Cong hopes to make leap of faith with Mekedatu march

Campaign seen as party's attempt to test the waters before polls

SHRUTHI H M SASTRY
BENGALURU, DHNS

If the Covid-19 pandemic is disregarded, then over 4,000 people are expected to show up for the Congress' 10-day foot march or padayatra, that starts today from Mekedatu, a gorge some 100 km from Bengaluru, has kicked up a political storm.

The padayatra is to mount pressure on the government to implement the Mekedatu balancing reservoir project. The 100-km march will start from the Sangama and pass through Kanakapura, Ramanagara and Bidadi, before culminating at Basavanagudi in Bengaluru on January 19.

Much is at stake for the Congress, especially its president D K Shivakumar. The padayatra is being seen as the party's attempt to test the waters, with Karnataka having entered the election year.

The controversial padayatra, coming as it does amidst a spike in Covid-19 cases, has got the ruling BJP's goat. The BJP has criticised Congress for delaying the project in its own regime.

Backlash has come from the JD(S), too, with the regional party terming the padayatra as a dummy political initiative, bound to fail.

The project envisages construction of a balancing reservoir at Mekedatu (Ramanagara district) at the confluence of Kaveri and Arkavathi rivers, to store drinking water for Bengaluru and surrounding areas. It also proposes a 400 MW hydroelectricity plant.

Karnataka submitted a Detailed Project Report (DPR) to the Central Water Commission (CWC) in 2019, which was then referred to the Cauvery Water Management Authority (CWMA). The DPR is stuck here as Tamil Nadu has opposed the project tooth and nail.

Political analyst A Narayana says the padayatra perhaps heralds the Congress' campaign for the 2023 Assembly polls. "Given that this is the election year, all parties are looking to strengthen themselves. The Old Mysore region, where JD(S) got most of the votes in the previous elections, is of crucial importance. If Congress doesn't wake up, BJP will enter the space," he says.

The padayatra strikes at the core of JD-S' electoral base in the Old Mysore region.

JD(S) spokesperson T A Sharavana says the Congress "hijacked" the party's idea. "H D Kumaraswamy had announced three months ago that the party would focus on regional issues, including Mekedatu. The JD(S) will launch Janata Jaladhare on January 26, focusing on water resources, which will be more extensive," he says.

The Congress' campaign puts the BJP in an awkward spot. The project remains stuck, even though the BJP is in power both at the state and the Centre. With its own leader K Annamalai protesting against the project in Tamil Nadu and with the BJP looking to make inroads in the state, the party is in a fix.

There is no denying that this could also be Shivakumar's effort to position himself as a chief ministerial candidate. It's an opportunity to not just overcome his image as a leader confined to his Kanakapura fief, but also sway the Vokkaliga votes in the region.

Shivakumar candidly told *DH* he does not want the foot march to become a one-man show. "Every leader needs to go through struggle and agitation. H D Deve Gowda and B S Yediyurappa are what they are because of their struggles," he says on what this padayatra means to him. "It's important to go out there and see what the pulse of the people is." But, mobilising the party's cadre for something like this is a challenge, he admits.

Political parties resorting to padayatras is not new. Among the most successful in recent years are H D Deve Gowda's march (from Channapatna to Bengaluru) against the S M Krishna government in 2003 and the Congress's march from Bengaluru to Ballari against illegal mining in 2010.

"Padayatra is still one of the most effective ways to reach out to the public and make the government hear public concerns," former minister R V Deshpande, who was the KPCC president during the 320-km Ballari march that helped the party come to power, says.

Will the Mekedatu march help the Congress leap like the fabled goat?

Preparations are on for setting up a stage for the launch of Mekedatu padayatra event on the banks of River Kaveri at Sangama in Kanakapura taluk of Ramanagara district on Sunday. DH PHOTO

'Will walk in small groups'

BENGALURU, DHNS: Leader of the Opposition Siddaramaiah said Congress workers will walk in groups of five to circumvent prohibitory orders for the party's Mekedatu foot march that is scheduled to start on Sunday.

Speaking to mediapersons here, Siddaramaiah said they would hold the padayatra while abiding by Covid-19 norms. Alleging that the ruling BJP is acting with the vested interest of sabotaging their march, Siddaramaiah questioned why the curfew was imposed only in Ramanagara.

The Congress leader's statement came in response to Home Minister Araga Jnanendra announcing that the government would take action against anyone flouting Covid-19 curbs under provisions of the Disaster Management Act. "Congress leaders must stop being adamant and co-operate with the government. They were once the ruling party. They should conduct themselves responsibly," he said.

Siddaramaiah has also bought four pairs of shoes for the padayatra over the next 10 days.

Meanwhile, Ramanagara SP S Girish told mediapersons that the police have already given a notice to Congress leaders asking them to drop the foot march. Action will be taken as per law if the leaders don't abide by it, he said.

KPCC president D K Shivakumar hosted a meeting of senior party leaders at his Kanakapura residence to plan the padayatra. "Even if they send us to jail, we will not stop our initiative," he stressed.

Deccan Herald- 09- January-2022

Way out of Bengaluru's recurring water crisis

RASHEED KAPPAN
BENGALURU, DHNS

Record rains last year had Bengaluru's streets water-logged, houses flooded and sewers overflowing. Harvesting this would have helped the city avert any summer water crisis. A city blessed with an annual average rainfall of 787 mm even without a record year, could have avoided the perennial struggle to meet its yearly water demand of 13 TMCft.

A robust rainwater harvesting system, a

DH PHOTO/PUSHKAR V

foolproof wastewater treatment mechanism and a strong renewable energy network should have left Bengaluru self-reliant in both water and power supply.

The solutions are clear, and yet every summer, both citizens and the government are caught unawares by the water shortage. While citizens have been slow to warm up to rainwater harvesting, the government's response to effectively treat and manage the available water has been sluggish at best.

INSIGHT

But there is still a way out — the city's 193 surviving lakes can serve as reservoirs for rainwater. Dr T V Ramachandra, from the Indian Institute of Science Centre for Ecological Sciences, believes that rejuvenating lakes can enable the city to retain its rainwater.

▸ Water management, Page 2

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For water security, implement plans

Water management

from Page 1

"Bengaluru's topography that allows an inter-connected lake system gives us this option. In the Koramangala-Challaghatta Valley alone, we can store about 5.2 TMCft of water," Ramachandra says.

To achieve this, clearing silt in most lakes and connecting canals is essential. "Desilting will enhance the storage capacity of lakes and recharge groundwater with clean water," he says. However, desilting seems to be a half-hearted effort. A case in point is the slow pace of desilting work at the Varthur-Bellandur lakes.

In the 1800s, Bengaluru had 1,452 water bodies with a total storage capacity of 35 TMCft. Taking advantage of the city's topography, an inter-linked lake system was created in an area of 740 sqkm, the city's current spatial extent.

But the dramatic 79% decline in water bodies, aggravated by a sharp fall in green cover from 68% in 1970 to barely 3% now has left the city's once-famed green image in jeopardy. In the last five-and-a-half decades alone, the concretised area has risen by 1,055%, says Dr Ramachandra.

The potential of rain

Rainwater harvesting (RWH) offers a clear way out if the lake storage is smartly executed. Studies have established that about 73% of Bengaluru's water demand can be met by efficient harvesting. The city's four valleys have a rainwater yield of about 14.80 TMCft.

Treating the 18 TMCft of wastewater generated in the city could yield another 16 TMCft. "This means you end up with 31 TMCft of water, which is a surplus situation," says Dr Ramachandra.

However, there is a problem of implementation for RWH. In a city with an estimated 35 lakh properties, the Bangalore Water Supply and Sewerage Board (BWSSB) has recorded only about 1.65 lakh buildings that have installed RWH systems, domestic, commercial and industrial combined.

Having relied entirely on harvested rainwater for over 27 years, A R Shivakumar, a water management advisor to the United Nations Development Programme (UNDP), sees in this slow progress, a public mindset problem.

By innovating a simple RWH system at his Vijaynagar home, he has demonstrated how up to 2.23 lakh litres of rainwater could be harvested. "This is adequate for a family to survive without outside water for a year," he says.

Shivakumar attributes people's reluctance to the availability of highly subsidised Cauvery water. "The BWSSB charges only about Rs 7 for 1,000 litres. There is also a fear of investment. But the infrastructure required for RWH is very simple. Bring the water from the roof by pipes, connect the end to a filter and divert it to a sump."

Wastewater treatment

Wastewater treatment is also critical to ensure sustainability. But most Sewage Treatment Plants (STPs) in the city, functioning at low efficiency, have not stemmed the inflow of untreated wastewater into the stormwater drains. On paper, the BWSSB's treatment capacity with 35 STPs stands at 1,523.5 MLD.

A way out could be to replicate the treatment model perfected in the city's Jakkur lake. A constructed wetland there was integrated with an algal pond and a secondary treatment plant. The primary treatment removes large particles from sewage, the secondary one removes the chemical ions and the tertiary treatment takes out the nutrients.

For the last 10 years, the project team led by Dr Ramachandra monitored the lake water quality. "In 2005, all the wells near the lake had nitrates which are carcinogens. Today, none of the 300 wells in the vicinity of the lake have nitrates and offer clean water," he says.

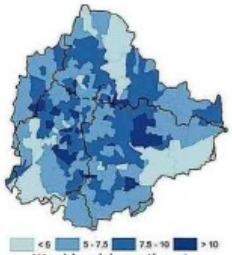
Drain remodeling

To stop the sewage inflow into lakes, a massive drain remodeling exercise has been in the process for years. "But in the name of remodeling, they are mismanaging. The drains remodeled in the last eight years have narrowed down and concretised the surface," says Ramachandra.

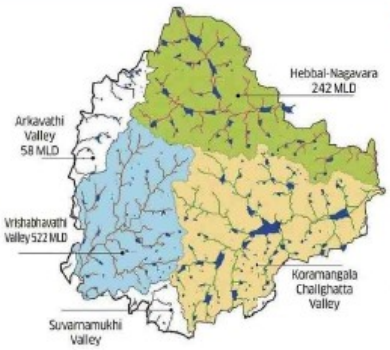
Concretisation completely halts groundwater recharge. This triggers more overland flow during rainfall, leading to frequent floods. "This is an unscientific method. This is at the cost of the people's water rights," he says.

For decades, self-reliance meant digging borewells. While individual wells mushroomed, both the BBMP and BWSSB adopted this as an official policy to quench the thirst of lakhs who settled in the city's newly added areas on the outskirts. BWSSB estimates that there could be around six lakh borewells in and around the city.

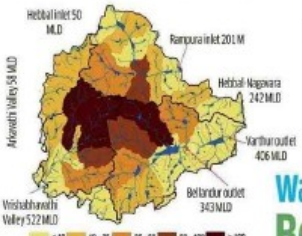
Many farmers have completely given up agriculture and switched to borewells. Tying up with tanker operators, the partnership has turned lucrative for many. Inevitably, the groundwater table has taken a massive hit. The levels have depleted to an alarming 1,000 to 1,200 ft. The explosive growth of water tankers, particularly in the outlying villages, is symptomatic of a system exploited much beyond its limits.



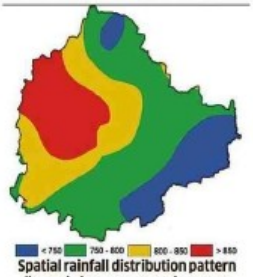
Ward-level domestic water requirement (Million liters per day).



Bengaluru's lake network along 4 valleys. Covering 225 sqkm, KC Valley is largest.



Valley-wise generation of domestic sewage. Vrishabhavathi valley generates 522 MLD.

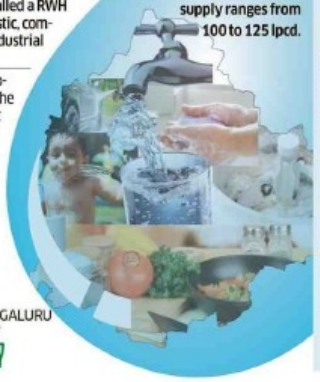


Spatial rainfall distribution pattern (in mm) shows an annual average of 787 mm.

Rainwater Harvesting (RWH)

- The BWSSB (Amendment) Bill, passed in September 2021, makes RWH mandatory by law for all buildings on sites measuring 60x40ft and above, and for 30x40ft sites (new connections)
- Buildings on sites measuring 10,000 sqft are required to provide dual piping system and RWH for supply of water other than for drinking, cooking and bathing.
- Only about 1.65 lakh buildings have installed a RWH system, domestic, commercial and industrial combined.
- BWSSB has proposed to hike the penalty for not installing RWH by 100% for commercial and by 50% for domestic connections.

BWSSB estimates water demand per person in Bengaluru city is 150 to 200 lpcd (liters per capita per day). But average supply ranges from 100 to 125 lpcd.



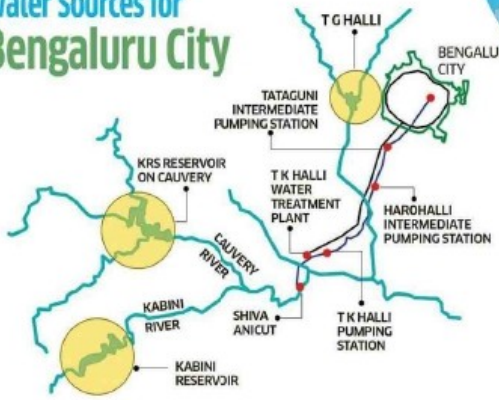
Recycling wastewater

- Tertiary treated water can be used for landscape irrigation, toilet flushing, construction, floor washing, air-conditioning and cooling
- 5 Tertiary treatment plants operational at total capacity of 90.5 MLD (V Valley: 60 MLD, Jakkur: 15 MLD, Yelahanka: 10 MLD, Cubbon Park: 4 MLD and Lalbagh: 1.5 MLD)

Lake rejuvenation

- Bangalore Development Authority (BDA) desilting Bellandur and Varthur lakes.
- Bellandur lake: Out of 25 lakh cubic metres of silt, 12 lakh taken out, awaiting transportation. Only 2.20 lakh cubic metres transported.
- Varthur lake: Out of 12.5 lakh cubic metrers of silt, 3 lakh carted out.
- Project completion deadline: August, 2022. About 40-45% work completed, says BDA.

Water Sources for Bengaluru City



Poor water quality of restored lakes

- An IISc research team monitored 40 'restored' lakes of Bengaluru spread over three valleys. The study, published in 2020, found the Water Quality Index (WQI) of most lakes was poor.
- Only 4 lakes, Jakkur, Devasandra, Ullal and Handrahalli had good water quality.
- 15 lakes had poor water quality. Among these were lakes of Sankey, Yediyur, Ulsoor, Yelahanka, Dasarahalli and Kodigehalli.
- Rest of the lakes were categorised as 'very poor.' Among these were Kasavanahalli, Herohalli, Munnekolalu, J P Park, Kaikondrahalli, and Puttenahalli lake.
- Most restored lakes were polluted as they continued to receive untreated / partially treated sewage from the catchment and dumping of industrial effluents.

BWSSB sewerage system

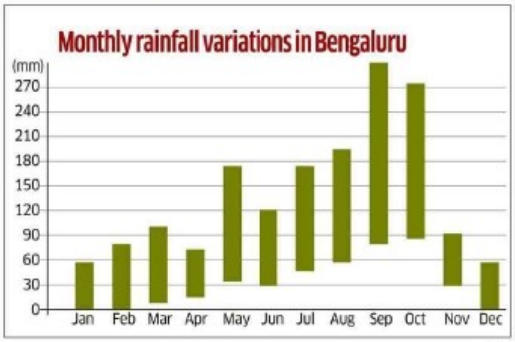
8,387 km
Total length of sewer system

10 lakh
Sanitary house service connections

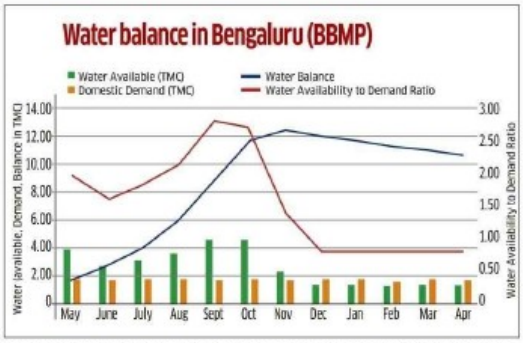
35
Number of STPs

1,726.50 MLD
Targeted capacity of STPs by 2023-24 end

Monthly rainfall variations in Bengaluru



Water balance in Bengaluru (BBMP)



SOURCE: CENTRE FOR ECOLOGICAL SCIENCES, IISC., BWSSB COMPILED BY RASHEED KAPPAN. DH GRAPHIC: GANGADHAR

Millennium Post- 09- January-2022

City witnesses highest single-day rainfall for Jan in 22 years; waterlogging reported

NEW DELHI: Delhi recorded its highest rainfall in a day for January in 22 years on Saturday, yielding the city's best air quality in over two months even as the minimum temperature settled at 15 degrees Celsius, eight notches above normal.

The record rainfall led to waterlogging at several low-lying areas, including New Friends Colony, Pul Prahladpur, Ring Road and Mandawali among others.

According to the India Meteorological Department, the Safdarjung Observatory, considered the official marker for the city, recorded 41 mm rainfall in a 24-hour period ending at 8.30 am on Saturday, the highest for the month of January

in 22 years. The highest single-day rainfall for January recorded in the city was 46 mm in 1999.

Delhi's Palam observatory received a record 47.6 mm rainfall in the span of 24 hours ending at 8.30 am on Saturday, its highest in a day for the month of January after 1995, when it had recorded 52.2 mm downpour, IMD data showed.

The weather station in Ayanagar recorded 49 mm rainfall from 8.30 am on Friday to 8.30 am on Saturday, Ridge 48 mm, Lodhi Road 42.2 mm and Najafgarh 42.5 mm.

From 8.30 am on Saturday till 5.30 pm, the Safdarjung observatory recorded 6.2 mm rainfall, Palam 14 mm, Ayanagar 6.9 mm, the Ridge 7.2 mm, Lodhi Road 6.7 and Najafgarh 16 mm, the IMD data showed. The weather office predicted cloudy skies with the possibility of light rain or drizzle on Sunday. "There will be partly cloudy sky with possibility of drizzle and moderate fog in the morning," it predicted.

According to Central Pollution Control Board's 24-hour AQI bulletin at 4 pm on Saturday, Delhi's AQI was 91, in the 'satisfactory' category.

The record rain led to inundation in several low-lying areas of the city in the morning. The areas which witnessed waterlogging include the Pul Prahladpur underpass, New Friends Colony, IP Marg Ring Road, Mandawli, New Ashok Nagar, Dabri, Mahavir Nagar, Bindapur, Yamuna Vihar, Wazirabad, Pushta Road, Kirari, and Nangloi among others. MPOST

The Tribune- 09- January-2022

Groundwater situation critical in 26% of state villages, says survey

K'shetra dist worst, with more than 97% villages in this category

BHARTESH SINGH THAKUR
TRIBUNE NEWS SERVICE

CHANDIGARH, JANUARY 8

Nihalwas village in Mahendragarh has the worst scenario of groundwater availability, with the water table plummeting to 111.20m below ground level. Another village Palan in the same district has a groundwater table depth of 110m.

In the first-ever village-level survey on water table, the Haryana Water Resources (Conservation, Regulation and Management) Authority (HWRA) has reported that 25.9 per cent of villages in the state fall under the "Severely groundwater stressed" category.

The survey covered 6,885 villages. The data is for June 2020. As many as 1,780 villages fall in this category as the depth of water table has reached 30.01m or more.

In this category, Darbi in Sirsa has seen a slump in the water table by 47.20m. It was 21 m in 2010, but in 2020, it reached 68.20m. Similarly, Bharokhan village in the same district has seen a slump in the water table by 47m, with 21m in 2010 and 68 m in 2020.

MICRO-LEVEL PLANNING BY CATEGORISATION

> This village-level categorisation will assist in awareness generation and will be useful in micro-level planning of policies and remedial action regarding groundwater management of the villages. **Keshni Anand Arora,** CHAIRMAN, HWRA

On the basis of the decadal fluctuation, 957 villages have a decline rate between 0-1m per year, 707 have a decline rate between 1.01-2m per year, 79 villages show a decline rate of more than 2m per year and 37 have no decline.

In the district-wise analysis, Kurukshetra represents the worst picture, with 97.5 per cent of villages in the "Severely groundwater stressed" category. Out of the 433 villages, 422 are in this zone.

The second-worst in the state is Mahendragarh, where 308 out of 378 (81.5%) are in the "Severely groundwater stressed" category. In Fatehabad, 151 out of 245 villages (61.6%) fall in this categorisation, while the figure for Kaithal is 170 out of 284 villages (59.9%).

There are 1,041 villages (15.1%) in the state in the "Moderately Groundwater Stressed" category as the water table here is between 20.01m to 30m. Also, there are 1,807 villages (26.2%) that have a water table between 10.01m to 20m and fall under the "Potential groundwater stressed" category.

In total, there are 4,628 villages (67.2%) in the state which fall under the area of concern.

Earlier, the Central Ground Water Board used to bring out the block-level data on groundwater stressed areas. But with the formation of the HWRA, the village-level projections have been made by dividing these into seven categories.

There are 1,261 villages in "Good groundwater potential" having water table depth from 5m-10m, 319 in "Potential waterlogged" having a depth of 1.5m-3m, and 85 in "Severely waterlogged" with a depth of less than 1.5m, categories.

"This village-level categorisation will assist in awareness generation and will be useful in the micro-level planning of policies and remedial action with regard to the groundwater management of the villages," said chairman HWRA Keshni Anand Arora. The authority has called for objections or suggestions from the public on the proposed categorisation.

The Tribune- 09- January-2022

Let's get water-wise

SABITA SINGH KAUSHAL

TODAY, water is a word of disquiet, laced with apprehension, foreboding and uncertainty. Heavy rains translate into less water, swift floods follow droughts, plummeting groundwater equals water-rich crops; all these and more ceaseless assaults of water-related news recur in our lives, again and again. The waters are shifting, and Mridula Ramesh's new book, 'Watershed: How we destroyed India's water and how can we save it', delves deep into this seemingly tectonic shift to the waterscape around us.

WATERSHED: HOW WE DESTROYED INDIA'S WATER AND HOW WE CAN SAVE IT
by Mridula Ramesh.
Hachette.
Pages 432.
₹699

At some level, we all seem to sense this not-so-subtle change, but are somehow unable to put our finger on the right spot. This book takes us through a kaleidoscope of the nation's fluctuating water resources, clamouring demands, the yearnings and the complexity that shape and fulfil our collective and individual water needs. Stitching together water stories from ancient India to modern urban cities, it traverses a journey that is both insightful and thought-provoking.

From the prosperous Pataliputra protected and enriched by its rivers, to medieval Delhi reshaped and framed by water, till present-day Chennai's lost water connect, historical anecdotes make it an interesting read. It tells of how Israel, a global leader in water management, resonates India's famed strategist Chanakya's concept of how 'all water belongs to the state/king'.

Arthashastra decrees that during that period, all water was highly valued (fine for urinating in a water reservoir was twice that of doing the same at a holy site) and fairly priced, where everyone paid, but the rich paid more. Wealthier farmers who could afford to lift water mechanically into channels were taxed 1/3rd of the produce, while those who manually transported water paid only 1/5th of the produce as tax.

It details how Punjab's canal system, 'colonial state's greatest achievement', was not simply an agricultural incentive, but represented 'a hard-nosed, highly profitable investment' for the British Raj that helped their 'control, profit and colonise' intent effectively. In the same state, it explains how free power has translated into groundwater abuse, with over 14 lakh borewells dug (till 2015). Rainfall is not enough for the Punjab farmer, s/he digs deep into the earth and mines groundwater to fulfill the need for a twin crop pattern of paddy and wheat. And, the farming community now finds it nearly impossible to break out of this powerful addiction. Why is that so, even though the farmer realises that the depleted groundwater and soil in the farm serve up as collateral damage?

Interspersed with water-bound stories, the book looks into many such dichotomies. Of how features that played a formidable role in the waterscape for centuries have lost out; and how it is these dilapidated tanks, fettered rivers and hacked forests that need to be reimagined and refurbished for a better tomorrow. The book ends with possible answers, ideas and action plans that an individual, community and organisation can arm themselves with, to be able to secure a future that is water-efficient.

However, a fine-tuned emphasis on rivers and their present state of flux would have been a helpful addition. A candid discussion on the river-linking projects, whether they are an ambitious pipe dream or another disaster in the making, would have added to the depth and understanding of India's current water issues. Nevertheless, if water interests you or simply baffles you; if you have questions on water that trouble you, then this is just the book to pick up and become a little bit more water-wise.