

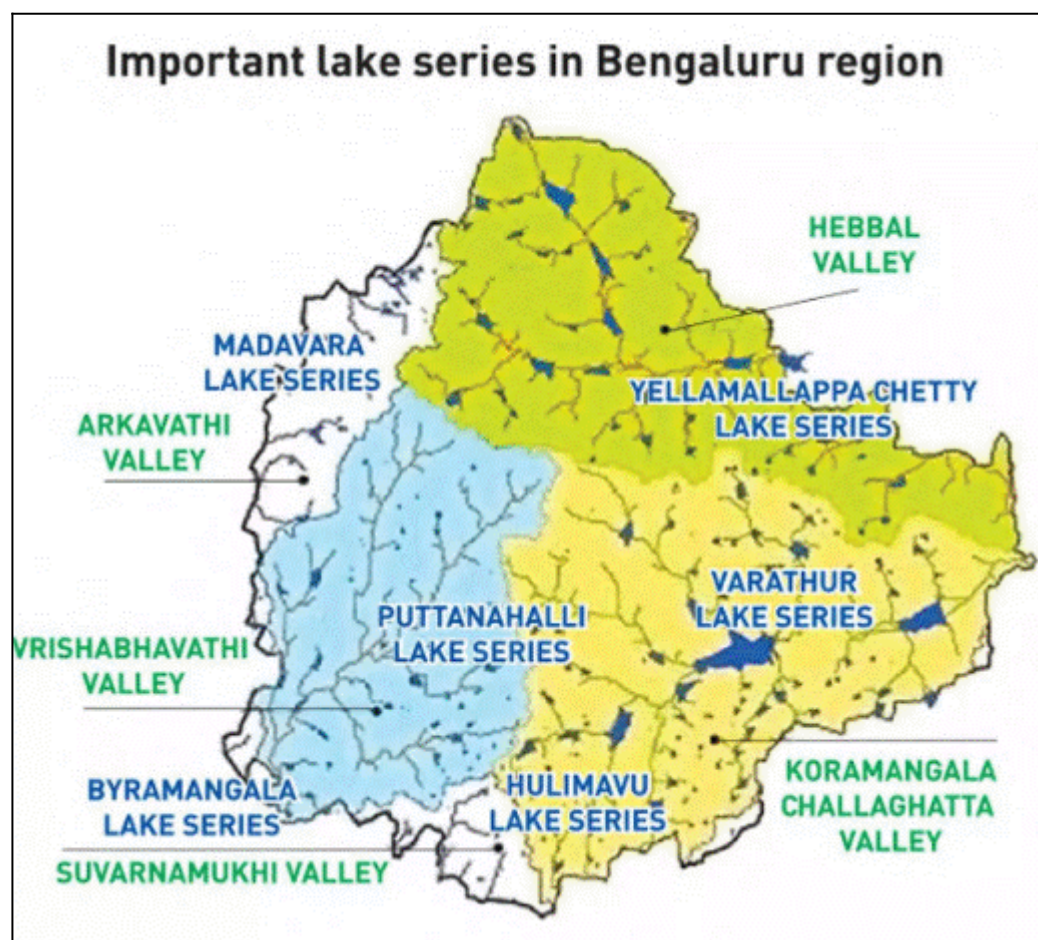
## Bengaluru's Water Crisis

### Why in news?

Bengaluru, India's 3<sup>rd</sup> most populous city is facing the worst potable water crisis in its nearly 500-year history.

### What is the issue?

- Bengaluru was once known as the "*the necklace of lakes*".
  - **Important lakes of Bengaluru** - Dharmambudhi Lake, Shoolay Lake, Akkithimanhalli Lake, Sampangi Lake, Bellandur Lake, Hebbal Lake, Madiwala lake, Ulsoor lake, Lalbagh Lake, Agara Lake, etc.
  - **Important rivers of Bengaluru** - Vrishabhavathi, Arkavathi, Dakshina Pinakini, Chinnar, Suvarnamukhi, Cauvery and Netravathi rivers.
- At present, the city is facing a severe water shortage.



### What led to severe shortage of water in Bengaluru?

- **Lack of rainfall** - There hasn't been enough rain thereby causing the water levels in

the Cauvery River to drop.

- As per the Karnataka State Natural Disaster Management Centre, the water levels in Cauvery Basin reservoirs like Harangi, Hemavathi, KRS, and Kabini are at 39% of their total capacity.
- **Geography** - Bengaluru is part of the *semi-arid zone* and falls in the *rain shadow* of the Western Ghats, without a perennial source of water.
- Tributaries of the Cauvery, such as the ***Arkavathy and Vrishabhavathi*** that flowed through parts of the city were seasonal.
- **Changing climatic conditions** - The plunging groundwater levels, with more than 3,000 borewells drying up, have caused the current water crisis is also adding to the issue of water shortage.
- **Urbanisation and industrialization** - Population explosion, Encroachment, unplanned urbanisation, unfriendly industrial policies have also resulted in this problem.
  - Bengaluru, up until 1961, had 262 lakes which has now come down to 81.
- **Pollution** - In Bengaluru (once known as the city of 1,000 lakes), many lakes are polluted and marked as Category D or E lakes.
- **Other issues** - Poor Rainwater Harvesting (RWH) in the city has also added to the problem.
- The Bangalore Water Supply and Sewerage Board (BWSSB), which is primarily responsible for supplying the city with water has acknowledged the city's excessive reliance on the Cauvery and the lack of co-ordinated water management.
  - Bengaluru requires 2,100 million liters per day (MLD) of potable water, of which 1,450 MLD comes from the Cauvery River.

*Day Zero refers to the "day when a city's taps run completely dry, forcing people to stand in queues to collect their daily quota of water."*

### **What efforts have been taken in this regard?**

- The Karnataka government has banned the use of drinking water for gardening and other purposes.
- It has ordered supply of water in huge tankers to Bengaluru from adjoining towns.
- A substantial budget of Rs 131 crore is allotted by civil bodies for drilling borewells in priority zones.
- To control water prices, all private water tankers and borewells are instructed to register with the BWSSB.
- In the 2024-2025 budget speech, CM Siddaramaiah announced that the BWSSB would start Phase-5 of the ***Cauvery project***, aiming to provide 110 liters of drinking water daily to 12 lakh people.
- The project is expected to be completed by May 2024.
- ***Karnataka Water Policy 2022*** had suggested strategies like re-cycling, re-use of treated waste water and rain water harvesting, industrial water use planning and other such measures.

India was one of the first signatories to the First World Convention on Waterbodies and Conservation held in Ramsar, Iran in 1971.

## What lies ahead?

- **RWH** - According to a vision document, '**Mattondu Cauvery**' prepared by the Centre for Public Problem Solving, harvesting just 10% of rainwater in the Bangalore Metropolitan Region will increase the water supply in the region by nearly 100%.
- Minor changes can be made to the building code to enable open spaces to be more permeable to water can help promote groundwater recharge.
- **Innovative measures**- The BWSSB in a document titled "**Blueprint for the Future**" had suggested some innovative measures for water management
  - Establishment of a forum called **Water Future Hub** would connect local companies with national and international experts to share knowledge and capabilities that can develop new ideas, innovative solutions to address future water challenges.
  - Establishing a **Water Centre** will promote concepts like water conservation, rainwater harvesting and water reuse among people.
- **People centered planning** - Approaches towards water governance should be more human-centric rather than tech-centric to help common people understand what is happening with respect to water planning.
- **Local water management** - There is a need to identify local watersheds, mark their boundaries, and create a water balance plan to use the local water more effectively.
- **Use of treated water** - Given Bengaluru's limited water resources, systematic use of treated water for most purposes is crucial in bringing down the demand for fresh water.
- Dual piping should be mandatory in all new constructions to ensure treated water is used for tertiary purposes.
- **Lake rejuvenation** - It is crucial in ensuring better water seepage to recharge the groundwater tables.

## References

1. [The Wire | Bengaluru's Water Crisis](#)
2. [Deccan Herald | Decoding Bengaluru's water crisis](#)
3. [TOI | Water shortage in Bengaluru](#)