Measures to Address Chennai Water Crisis

Why in news?

Tamil Nadu's state capital Chennai is facing severe water crisis due to lack of water governance.

What is the status of water crisis in Chennai?

- According to the Central Water Commission, there is a 41% rainfall deficit this year till mid-June.
- The city has four main reservoirs Poondi, Cholavaram, Puzhal and Sembarambakkam which are at a storage level of less than 1%.
- According to Niti Aayog Chennai is amongst the 21 Indian cities which the will run out of groundwater by 2020.
- Even during 'normal' times, as against the city's requirement of 1,300 mld, Metro water was able to supply only 830 MLD.
- Now, they 'officially' maintain that the supply is in the region of 500-525 MLD
- There is about 80% drop in frequency as well as quantity of water supplied to the households.
- That residents are now given minimum piped water and meagre tanker supplies totaling a third of the installed capacity of 1,494 million liters a day, that too mainly from desalination plants, faraway lakes and farm wells, is proof of the neglect of water governance.
- Chennai's Information Technology corridor alone requires around 3crore liters of water per day, only half of its requirement is being fulfilled.

What are the reasons behind the water crisis?

- **Dying Water bodies -**Chennai and its adjoining district Kancheepuram and Thiruvallur are together known as lake districts.
- These districts together had more than 6000 water bodies like lakes, ponds and reservoirs that maintained water table throughout the year.
- At present only 3896 waterbodies have survived, Chennai city alone had lost 150 such water bodies.
- Cooum, Buckingham canal and Adayar are the three rivers that runs through the city, all are dried up and dead due to industrial wastes and lack of civic measures.

- **Topography of the city -** The city unlike any other cities in the east like Vishakhapatnam, Kolkata, Bhubaneshwar, and Guwahati doesn't have a prominent river channel to feed its need.
- Chennai being a coastal city its run of rate is high and it is almost impossible to build dams to save the water for dry months ahead.
- **Anthropogenic factors -** Being an Industrial hub with multiple industrial corridors in and around the city, It had failed to protect its water resources.
- The main reasons for the water crisis the city is facing is due to poor water management and a rapidly expanding urban population.
- Even parliamentary panel had stated that large scale real estate projects had destroyed a good portion of water bodies in the city.

- **Poor Policies -**Tamil Nadu's capital, which in a normal year gets anything between 1,300 mm and 1,400 mm of rainfall, has been laid low by the indifference of successive governments.

- In late 90's to address the growing population the state government permitted real estate establishments in the dried up lakes.
- The Pallikaranai marsh land which was about 7000 hectare was now shrunken to mere 700 hectare in just 15 years due to new real estate establishments.

- The state government also had failed to conduct audits on rain water harvesting scheme which was announced in 2003, and failed to follow it up with an institutional mechanism to help citizens implement it.

- Apart from this the state administration has deliberately failed to make use of resources offered by Kerala, and also failed to co-operate with other neighboring states like Karnataka, Andhra Pradesh to resolve existing water issues.

What strenuous measures are needed to address water crisis?

- A time-bound plan is needed to augment the resources in the Greater Chennai region encompassing the neighboring districts of Thiruvallur and Kancheepuram.
- This plan should be tasked to a Special Officer, to be framed by officials in consultation with credentialed experts in research and academia, and public comments invited before it is finalized.
- Given the large base of tanks and reservoirs in Greater Chennai over 4,000 waterbodies of significance prudent rainfall management can help it through withering summers and weak monsoons.
- A white paper with a full assessment of these wetlands and their storage potential should be a priority for the State's Sustainable Water Security

Mission.

- Deepening storage in the four major reservoirs must get priority, such a project must quantify the increase in storage and set an early deadline of a year.
- These measures can harvest the bulk of the rain in a good year, and prove superior to the fire-fighting approach of installing expensive desalination plants and bringing small quantities by rail from another district.
- The government should give monetary incentives to NGOs, as NITI Aayog proposed in its Water Index report, to encourage them to install systems and show quantifiable recharge outcomes.
- On the consumer side, devices and practices to reduce wastage should be promoted, especially on commercial premises.

Source: The Hindu, Times of India