

"With growing environmental distress, policymakers cannot shy away from adopting best eco-management practices."

In a report last year, the Comptroller and Auditor General of India (CAG) called the Chennai floods of 2015 a "man made disaster", a pointer to how the encroachment of lakes and river floodplains has driven India's sixth largest city to this ineluctable situation. The Chennai floods are a symbol of consistent human failings and poor urban design which are common to most urban centres in India if not urban centres across the world. Now, Chennai is in the midst of another crisis — one of water scarcity.

Unlike issues such as traffic congestion or crime which are visible, environmental degradation is not what most people can easily see or feel in their every day lives. Therefore, when the consequences of such degradation begin to wreak havoc, it becomes difficult to draw the correlation between nature's vengeance with human failings. In Chennai, more than 30 waterbodies of significance have disappeared in the past century. Concretisation or the increase in paved surfaces has affected the percolation of rainwater into the soil, thereby depleting groundwater levels to a point of no return.

Urbanisation without vision

Chennai, however, is not alone in terms of suffering from the consequences of human folly. Urbanisation at the cost of reclaiming water bodies is a pan-India if not worldwide phenomenon. There are examples in cities such as Bengaluru, Hyderabad and even Mexico city. In Bengaluru, 15 lakes have lost their ecological character in less than five years according to a High Court notice to the Bruhat Bengaluru Mahanagara Palike, the city's administrative body responsible for civic amenities and some infrastructural assets. The lakes, which are now encroached areas, find use as a bus stand, a stadium and, quite ironically, as an office of the Pollution Control Board. In Mexico city, what was once a network of lakes built by the Aztecs in the 11th and 12th centuries, has given way to a downtown city centre. Parts of the city, especially downtown, sink a few metres every year causing immense damage to buildings.

In Telangana, the byzantine network of tanks and lakes built by the Kakatiya dynasty has disappeared over the years. However, the question is not about what follies were committed in the past, but about what we can do in the present and, more importantly, for the future. In Telangana, "tanks have been the lifeline of the State because of its geographical positioning". The State's "topography and rainfall pattern have made tank irrigation an ideal type of irrigation by storing and regulating water flow for agricultural use".

The Telangana example

There are a number of lessons that can be learnt. The Chief Minister of Telangana launched a massive rejuvenation movement in form of "Mission Kakatiya" which involves the restoration of irrigation tanks and lakes/minor irrigation sources built by the Kakatiya dynasty. From the perspective of inter-generational justice, this is a move towards giving future generations in the State their rightful share of water and, therefore, a life of dignity. The city of Hyderabad is now moving towards a sustainable hydraulic model with some of the best minds in the country working on it. This model integrates six sources of water in a way that even the most underdeveloped areas of the city can have equitable access to water resources and the groundwater levels restored in order to avoid a calamity of the kind that has gripped Chennai now.

The larger question is: Can we not take inspiration from the following examples? When Mexico city can create a new executive position of a “resilience officer” to save its sinking urban sprawls, Bengaluru can reclaim Kundalahalli lake (once a landfill) through corporate social responsibility funds in a Public Private Partnership model, and Hyderabad and the larger state of Telangana rebuild its resilience through a combination of political will and well-designed policies such as the Kaleshwaram Lift Irrigation Scheme and Mission, what stops us from learning from each other?

Why should other urban centres shy away from adopting, remodelling and implementing some of the best water management practices to avoid disaster? The answer perhaps lies in the tendency of policymakers to discount the future and of their obsession of focussing on the here and now.

By 2050

It is estimated that in just 30 years from now, half of India will be living in cities. If we truly envision a great future for this country, how can we possibly risk the lives of half of our people and the next generations who could be facing a life in cities parched by drought, stranded by floods, mortified by earthquakes or torn by wars over fresh water? What has happened in Chennai now or what happened in Kerala last year in the form of floods are not a case of setting alarm bells ringing, but one of explosions. If we do not wake up now, we have to be prepared to face the consequences of nature wreaking great havoc on humanity. We would not need nuclear bombs for our obliteration.

GS World Team...

Kaleshwaram Lift irrigation Project

Why in the discussion?

- Recently, the Chief Minister of Telangana, Andhra Pradesh and Maharashtra, together inaugurated the world's largest Kaleshwaram Lift Irrigation Project, made on Godavari river.
- The Kaleshwaram Lift Irrigation Project established in Telangana is the biggest project in the world.
- Earlier, America's Colorado Lift Scheme, the plan made on the man-made river of Egypt was considered as the world's largest irrigation scheme.
- The world's largest irrigation project has been completed in just 24 months. Under this project, the water of Godavari river has already been transported to the Medigadda pumping house.
- Since 2000, large-scale lift projects have started in Telugu states. Among them are Handri-Neeva, Devdula, Kalvakurthy, Nettampadu, Pattiseema, Purushottamapuram etc.

Its main points

- This project will irrigate 18 lakh acres of land in 13 Districts of Telangana.
- Apart from this, the state's drinking water crisis will be overcome.

- With this, it will also remove water congestion in many districts of Maharashtra and Andhra Pradesh.
- This project has been done with the support of Megha Engineering and Infrastructure Limited (MEIL) and BHEL.
- The project has been prepared with the help of about Rs. 82 crores.
- A plan to lift the water of the Godavari river has been planned to tackle the suicides due to dry drought in Tamil Nadu.
- For this, the world's largest pumping station with a capacity of 139 MW and 330 meters below the surface has been built.
- With this, 13 TMC water will be transported daily to the Medigadda Barrage through the world's longest 14.09 km tunnel using Godavari water pump.
- From here through the canals, water will be sent to various drought-hit areas and cities.
- Under this project, 20 reservoirs with 145 TMC capacity have been excavated in 13 districts.
- Under this project, 139 MW capacity pumps will be used for the first time in the country.



Expected Questions (Prelims Exams)

1. In the context of Kaleshwaram Lift Irrigation Project, consider the following statements-
1. This project is situated on godavari river.
 2. The project situated in Telanagna is world's biggest project.
 3. This project will benefit Telangana along with Andhra Pradesh and Maharastra.
- Which of the above statement are correct?
- (a) 1 and 2 (b) 2 and 3
(c) 1 and 3 (d) All of the above

Expected Questions (Mains Exams)

- Q. The increasing urbanisation in the country has created environmental crisis. For addressing it best eco-managed practice needs to be adopted. Explain with giving the example of Kaleshwaram Lift Irrigation Project. (250 Words)

Note: Answer of Prelims Expected Question given on 13 July. is 1(c).

