

Addressing India's Water Crisis

What is the issue?

- India is witnessing depletion of water resources due to several reasons and instances of water shortages across the country.
- In this context, here is a look at India's water conditions and the possible measures at addressing the water crisis.

What is India's water resource scenario?

- Today, India conserves only 8% of the rainfall it receives, which is among the lowest in the world.
- Further, only 4% of world's water resources are available to India.
- In contrast, India has to provide for 16% of world's population.
- Moreover, agriculture consumes nearly 80% (65% in China) of fresh water in India.
- The rest 20% is used for drinking and other household activities.
- The latest available World Bank statistics show that India produced \$0.5 of agricultural GDP (in 2010) for a litre of fresh water.
- This figure is \$1.6 for China (in 2012) and \$3.9 for Israel (in 2004), which all stand as success stories of efficient water use for agriculture.
- In contrast, there has been no increase in agricultural output per unit of water usage in India during the last 3 decades.

What is the emerging threat?

- Water crisis is now a worldwide phenomenon.
- Nearly, two-thirds of the global population is living under water-stressed conditions.
- By 2025, about 1.8 billion people are expected to face absolute water scarcity.
- However, it is much worse in India due to mismanagement of water usage in agricultural operations.
- The country is already witnessing water shortage, particularly in Tamil Nadu, Rajasthan, Uttar Pradesh, Telangana and Haryana.
- The huge water shortage is likely to land the country in a critical situation, if urgent steps are not taken.
- NITI Aayog's report of 2018 asserts that groundwater in 21 cities of India is

set to plunge to bare minimum levels by 2020.

What are the possible measures?

- **Recycling** sewage and other household waste water by setting up water-treatment plants with innovative technologies, and reusing the extracted water for irrigation
- Singapore, Windhoek (Namibia capital) and Israel are great examples of treating such water for reuse and even for drinking.
- **Increasing awareness** among the masses about scarcity of water and the dire need of conserving it
- **Imposing penalties** suitably for wasting and polluting water
- **Limiting per capita use** of water and imposing fines for exceeding the limit
- **Traditional water conservation/harvesting methods** must be revived.
E.g., -
 - i. constructing farm ponds, check dams, gully plugging, dug wells, borewells and artificial glaciers in Ladakh
 - ii. Tamaswada Pattern nallahs treatment in Maharashtra
 - iii. soak pits in Punjab
 - iv. watershed development and management in Maharashtra and Madhya Pradesh
- **Agricultural universities** should take a lead in advising farmers on suitable cropping patterns to save water.
- This should take into account soil and other climatic conditions of a region.
- **Drip irrigation and sprinklers** should be promoted.
- **In urban areas**, there is water theft and also loss of clean water due to slackness on the part of water management bodies.
- This is due to the inferior water service infrastructure and its poor maintenance.
- This needs to be corrected by adopting strict procedures for compliance and monitoring.
- **Stopping providing subsidised power** or free power to farmers
- However, small and marginal farmers may need to be compensated for this loss by increasing the MSP for their produce.
- Free power to farmers leads to excessive withdrawal of groundwater, as well as increases soil salinity, jeopardizing farm sustainability.

What lies ahead?

- Water crisis in urban areas normally attracts governments' attention.
- However, it is the inefficient water use in agricultural sector in rural areas that is largely contributing to this situation in India.

- Keeping in mind the India's water scenario, the government rightly launched the Jal Shakti Abhiyan (JSA) recently.
- The objective is to take measures for rainwater harvesting, water conservation and replenishing water bodies for meeting acute water shortage.
- While launching JSA, the government announced reorientation of MGNREGA towards water conservation and harvesting.
- Accordingly, it reserved 75% (instead of 67% in 2018-19) of 2.58 billion person-days expected to be generated during 2019-20.
- Going further, it would be necessary to provide adequate funds to complete all pending water storage projects in states.
- The Centre and states will have to reflect on the much-needed water conservation measures, for JSA to achieve its objectives.

Source: Financial Express

