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

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