Water conservation

GS III - Conservation

Why in news?

World water day was celebrated recently on March 22, emphasizing the importance of **collective action** in conserving water for present and future generations.

What is the water situation in India?

- **India's water resource** - India has 18 % of the world's population, but possesses only 4 % of global fresh water resources, leading to high water stress nationwide.
- **Growing demand -** The NITI Aayog report predicts that the country's water demand will be twice that of the available supply by 2030.
    - This will affect a large section of the population and could lead to around 6 % loss in the country's GDP.
- **Inadequate access to safe water**: Yale University's 2022 unsafe drinking water index ranked India 141 out of 180 countries.
    - 70 % of the country's freshwater is polluted.
    - This is estimated to cause 200,000 deaths annually.
- **Depletion of ground water resources -** According to the World Bank, groundwater is being abstracted much faster than it is being replenished, so that 60 % of India's districts are likely to reach critical levels of groundwater depletion within two decades.

How has the water policies of India evolved?

- **1987 water policy** - The first National Water Policy stressed the necessity of a comprehensive water resource development plan.
- It gave top priority to drinking water supply, irrigation, hydro-power, navigation, and industrial consumption.
- **2002 water policy** – This revision emphasized the need for a national perspective on water planning.
- It added the idea of planning for water as a common resource, highlighting the importance of community participation.
- **2012 water policy** – It is the current policy and it encourages treating water as an economic good in order to encourage conservation and efficient use.
- It underscores the necessity of integrated water resources management, rainwater harvesting, and the augmentation of water availability through direct use of rainfall.
- Additionally, it calls for rationalizing water pricing to reflect its scarcity and economic

value.

- **Draft 2021 policy** - To address the present challenges in water sector, revision of National Water Policy has been envisaged and a drafting committee was constituted to revise the National Water Policy.

What are the water conservation measures taken ?

Water being a State subject, steps for augmentation, conservation and efficient management of water resources are primarily undertaken by the respective State Governments.

- **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) -** Supports the construction of water conservation and harvesting structures in rural areas to improve groundwater recharge.
- **Jal Shakti Abhiyan (JSA) -** Encourages states and cities to repair and construct rainwater harvesting structures, using funds from various schemes like MGNREGS and AMRUT.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 -** Helps cities manage rainwater by channeling it into water bodies and promoting rainwater harvesting.
- **Atal Bhujal Yojana -** Focuses on managing groundwater efficiently in 8,213 water-stressed villages across seven states.
- It encourages communities to actively participate in water conservation.
- **Pradhan Mantri Krishi Sinchai Yojana (PMKSY) -** Aims to ensure every farm gets water efficiently.
- It includes repairing water bodies, improving irrigation, and promoting water-saving techniques.
- **Bureau of Water Use Efficiency (BWUE) -** Works to improve water efficiency in agriculture, drinking water supply, power generation, and industries.
- **Mission Amrit Sarovar -** Aims to develop or rejuvenate at least 75 water reservoirs (Amrit Sarovars) in every district for long-term water storage and conservation.

What are the challenges in water conservation policy?

- **Lack of decision making power for communities** - Existing policies provide for their participation, but it is limited to the management of water sources.
- Decision-making powers remain with state authorities.

Water User Associations (WUAs), brought in during the 1990s, were intended to increase participatory irrigation management. farmers have been entrusted with responsibility but without actual decision-making authority.

- **Uniform practices** – Formalisation of water governance by introducing uniform practices have often overlooked the need to identify and empower communities' own

ecological practices on water management.

- **Fragmented water management** - Different parts of the ecosystem, such as forests, water, land, and biodiversity, are regulated by different policies and authorities.
- Such an approach fails to consider the interdependence of these constituents and adversely affect each other's potential to do so.
- **Vulnerability of Weaker Sections** – Weaker social and economic sections are disproportionately affected by environmental disasters, such as water scarcity and climate change.
- Among these, individuals at the nexus of social and economic marginalization (e.g., landless farmers, tribal groups, women) are most vulnerable.
- **Neglect of non -human environment** – Non human environment are integral intrinsic part of water management.
- For example, the amount of water available for irrigation is partly dependent on its sufficient availability for animals.
- Water policies have often overlooked this aspect and focused more on human needs of water.
- Indian courts have acknowledged the rights of nature in a number of judgments, yet water policies continue to favor human use over ecosystem equilibrium.

What lies ahead?

- New environmental challenges and renewed understandings of ecosystems underscore the need to recalibrate water policies.
- **Effective community participation** - Policies need to ensure effective participation from communities and mainstream their ecological practices along with entrusting significant decision-making power.
- **Recognizing diversity** -Water policies need to consider the disproportionate vulnerability of certain groups to environmental crises and recognise their agency in managing water and ensure their participation in decision-making.
- **Integrated ecosystem-based approach** - For example, the practice of establishing orans in rural areas of western India.
- Orans are sacred forests which hold deep religious and cultural significance to local communities which is also used for water conservation.
- By augmenting tree and grass cover, orans trap surface runoff and support in-situ rainwater harvesting.
- **Non - human environment** - Considering the interests of the non-human environment in laws and policies that regulate the environment and water management.
- **Incorporating climate change adaptation into water management** – Water policies need to focus on creating climate-resilient water systems and increasing the climate resilience of existing systems.

Reference:

The Hindu | The role of communities in conserving water



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