Jal Jeevan Mission

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***Source**: The Hindu*

Manifest pedagogy: Despite high economic development in India, millions are deprived of potable water for human sustenance. In the back drop of water crisis across the world, Jal Jeevan mission strives for accessibility of potable water with aim of conservation and efficient usage. Issues related to water conservation and related programs/policies are important area of preparation for mains.

In news: Jal Jeevan mission will be launched soon.

Placing it in syllabus: Changes in critical geographical features and environmental issues

Static dimensions:

- Reasons for water crisis in India
- Accessibility of potable water in India
- Need and steps for water conservation in India

Content: Honourable Prime Minister Narendra Modi said on Independence Day that the government will launch a Jal Jeevan Mission to bring piped water to households and has resolved to spend more than ₹3.5 lakh crore in the coming years.

The Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman said that ensuring India's water security and providing access to safe and adequate drinking water to all Indians is a priority of the Government. While presenting the Union Budget 2019-20 in the Parliament, the Union Finance Minister had said that the **Jal Shakti Mantralaya,** has been constituted , integrating the Ministry of Water Resources, River Development and Ganga Rejuvenation and Ministry of Drinking Water and Sanitation.

This new Mantralaya would look at the management of water resources and water supply in an integrated and holistic manner, and will work with States to ensure **HarGharJal (piped water supply) to all rural households by 2024 under the Jal Jeevan Mission.**

Reasons for water crisis in India:

- Large population has stressed planned water resources and rural areas are left out.
- Rapid growth in India's urban areas has stretched government solutions, which have been compromised by over-privatization.
- Water sources are contaminated.
- India is also a major grain producer with a great need for water to support the commodity.
- Many rural communities in India who are situated on the outskirts of urban sprawl depend on groundwater sources, hence bore more tubewells.
- India's water crisis is often attributed to lack of government planning, increased corporate privatization, industrial and human wastes and government corruption.
- There are issues of leakage losses, water pricing and metering of water.
- Lack of proper maintenance of existing infrastructure causes further water losses.
- With no rain catchment programs in place, most of the water is displaced or dried up instead of used.
- The consecutive years of weak monsoons have affected around 330 million people with severe drought.

According to the **Composite Water Management Index (CWMI) report released by the Niti Aayog in 2018, 21 major cities (Delhi, Bengaluru, Chennai, Hyderabad and others) are racing to reach zero groundwater levels by 2020,** affecting access for 100 million people.

12 percent of India's population is already living the 'Day Zero' scenario. The country's water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual six per cent loss in the country's GDP.

This indicates that there is a clear disconnect between water, society and economy. Some areas of mega cities like Delhi and Mumbai are privileged to get more than the standard municipal water norm of 150 litres per capita per day (lpcd) while other areas get 40-50 lpcd. Aggravating the problem is that the water being supplied currently is not of drinking water standards.

Accessibility of potable water in India:

- More than 163 million people in India do not have access to clean water, the highest in the world.
- People who spend more than 30 minutes travelling to procure water are to be considered without access to water.
- The lack of political will and finance are the primary reasons 11 per cent of the world remains without access to water.
- India drew a Master Plan for Artificial Recharge to GroundWater way back in 2013, but is yet to be implemented as most state governments are dragging their feet over it.
- This is worrying as the country depends heavily on groundwater to meet its drinking water needs.
- National Rural Drinking Water Programme (NRDWP) aims at assisting states in providing adequate and safe drinking water to the rural population in the country.
- In 2018-19, the scheme has been allocated Rs 7,000 crore, accounting for 31% of the Ministry of Drinking water and sanitation finances.
- As of August 2017, 96% of rural habitations have access to safe drinking water.

- **As of February 2018, 74% habitations are fully covered (receiving 55 litres per capita per day), and 22% habitations are partially covered** (receiving less than 55 litres per capita per day).
- The Ministry aims to cover 90% rural households with piped water supply and 80% rural households with tap connections by 2022.
- It has been noted that NRDWP is over-dependant on groundwater and groundwater is contaminated in over 20 states.
- For instance, high arsenic contamination has been found in 68 districts of 10 states.
- Chemical contamination of ground water has also been reported due to deeper drilling for drinking water sources.
- It has been recommended that out of the total funds for NRDWP, allocation for water quality monitoring and surveillance should not be less than 5% and water quality laboratories for water testing should be set up throughout the country.

Need and steps for water conservation in India:

- India’s per capita water availability has fallen from 1,816 cubic metres in 2001 to 1,545 cubic metres in 2011.
- It is projected to decrease further to 1,345 cubic metres per capita per year by 2025.
- States like Rajasthan, Tamil Nadu, Telangana are more ground water exploiting states.
- Almost 89% of the water is being used for irrigation in our country, which is 3-5 times more compared to countries like China. Hence there is a need to shift to less water-intensive crops and recharge aquifers.
- Presently, India captures only eight per cent of its annual rainfall, among the lowest in the world.
- According to World Resources Institute (WRI), over 100

million people in India are living in areas where water is severely polluted.

- Lack of safe drinking water poses many health hazards such as diarrhea, cholera, and typhoid which have seen millions of registered cases during the past 3 years.
- On an average, women and young girls spend 700 hours every year filling and carrying water for home consumption which directly affects their economic productivity.
- Adequate drinking water, sanitation, and hygiene are all essential ingredients to ensure good health.
- Safe drinking water received attention in 2014 when Swachh Bharat mission was launched.
- It added further momentum and strength to the implementation of WASH (Water, Sanitation and Hygiene) facilities in the country.

Steps for water conservation:

- Farmers should be given financial incentives to **shift from paddy to less water- mongering crops** like millers.
- Apart from awareness campaigns, farmers should be mobilised through Krishi Vigyan Kendras and urged to shift to **efficient irrigation practices.**
- Nodal officers should work with urban local bodies for **reuse of waste-water** for industrial and agricultural use, including **segregation of grey water (kitchen) and black water (sewage)**.
- Each of the urban areas need to **restore at least one traditional water body**.
- The water conservation strategies fall under five categories – **rainwater harvesting, renovation of traditional water bodies and tanks, reuse of water and recharge structures, watershed development and intensive afforestation**. The activities would be carried out under the Mahatma Gandhi National Rural Employment Guarantee Scheme.

- Promoting **micro irrigation practices** like drip-irrigation, sprinkler irrigation.
- All stakeholders including hydrogeologists, economists, planners and communities should actively participate in **watershed management**.
- With the Government of India's emphasis on CSR spending, it is imperative that the government agencies collaborate with private sector companies to deliver sustainable projects on the ground that can deliver water to people in a consistent and affordable manner.
- One such private sector initiative is **JanaJal, who install and operate safe drinking water ATMs in India.**

Steps taken by some Indian states to conserve water:

1. In Punjab, drainage lines are being fixed to avoid the problem of waterlogging.
2. In Telangana's Thummalapalli, construction of tanks is changing the lives of the villagers.
3. In Rajasthan, people have created small ponds in the farms which have brought a lot of change to the people.
4. In Vellore, Tamil Nadu, 20 thousand women came together to revive Naga river.

Jal Jeevan mission:

This Mission, **under the Department of Drinking Water and Sanitation**, will focus on integrated demand and supply side management of water at the local level, including creation of local infrastructure for source sustainability like rainwater harvesting, groundwater recharge and management of household wastewater for reuse in agriculture. The Jal Jeevan Mission will converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management across the country.

The government has identified **1592 Blocks which are critical and over exploited, spread across 256 Districts** for the Jal

Shakti Abhiyan. Besides using funds available under various Schemes, the Government will also explore the possibility of using additional funds available under the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for this purpose.

How it meets present challenges?

While the provision of a basic quantity of drinking water in rural India has been achieved through handpumps, dug wells or public stand posts, relatively low percentage of rural Indian households have access to household water supply (HWS). The strategy so far to increase access to HWS faced obstacles, including not paying enough attention to sustaining or recharging groundwater, the primary source.

A further challenge at the policy level was that, until now, the institutional landscape for water conservation and management at both the Centre and state government has been fragmented, with several departments in states dealing with different aspects of water management, with overlapping roles and responsibilities. The creation of the Jal Shakti Mantralaya in the Government of India to integrate the management of India's water resources and supply of drinking water is a landmark step in diagnosing and addressing this problem.

At a policy level, therefore, the stage has been set to deliver integrated water management solutions. Instead of taking simple and local measures, like creating rainwater harvesting structures and point recharge structures in the vicinity of borewells, the emphasis has been more on maximising the pumping of water and distributing it through pipes. The proposed **Jal Jeevan Mission will make source sustainability measures mandatory prior to pumping and distributing water to households.**

Another major issue with the traditional approach to service

delivery was that the provision of drinking water was viewed primarily as an engineering solution, with schemes being planned and executed by the public health and engineering departments. But programmes like the **Swajal project in Uttar Pradesh and Uttarakhand and the WASMO programme in Gujarat,** demonstrated that with adequate capacity building and training, water can be most efficiently managed at the lowest appropriate level.

Adopting this principle, the **Jal Jeevan Mission's first preference will be to have single village ground water-based schemes, wherever sufficient quantity and good quality of groundwater exists**. These schemes would be managed by the community itself through the setting up of a village water and sanitation committee, a sub-committee of the gram panchayat. Wherever adequate quantity of safe groundwater is not present, or where it may be technically not feasible to have single-village schemes, surface water-based multi-village schemes will be promoted.

Further, in some remote regions, where it may not be techno-economically feasible to have household water supply schemes, local innovations, such as **solar-based schemes** will be encouraged. Under the mission, it is planned to include a mandatory provision for the **effective channeling and treatment of household waste water (known as grey water)**, through appropriate and low cost drainage and treatment systems. Once appropriately treated, the grey water can be used for both recharge of groundwater as well as for irrigation purposes.

The ongoing Jal Shakti Abhiyan will help in creating awareness about the importance of integrating source sustainability and water reuse with the provision of household water supply. This integrated approach to decentralised, community managed, and sustainable water management is the backbone of the Jal Jeevan Mission to ensure that every household gets the benefits of water supply.