



Water ATMs

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For Prelims: Water ATMs, Swajal Scheme, MGNREGA for Water Conservation.

For Mains: Water ATMs: Need, Related Significance, Challenges, Other related Initiatives.

Why in News?

Recently, the Delhi government has floated a **tender to install 30 water vending machines with reverse osmosis (RO)** systems in slum clusters to avoid inconvenience to people who depend on water tankers.

What are Water ATMs?

- Anytime Water Machines (ATM) is a **water dispensation system** which can be automatic with a coin or smart card, or manually.
- Operated by private companies, water ATMs provide an **alternative solution to the safe drinking water challenge**.
- Essentially water ATM is a community **community RO (Reverse Osmosis)**.
- Installed at various public places such as railway stations, bus stands, places of worship and slums where the need for potable water is acute.

What is the Need for Water ATMs?

- [Comptroller and Auditor General of India \(CAG\)](#) pointed out that **only 18% of the rural population has access to potable piped water**.
- According to the [Niti Ayog](#), India is **ranked 120 out of 122 countries** on the [Water Quality Index](#).
 - 70% of the country's water supply is contaminated.
- Many households cannot afford to buy a household RO.
- 21% of communicable diseases are linked to unsafe water.
 - Contaminated water and poor sanitation are linked to transmission of diseases such as **cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio**.
- To fulfil [Sustainable Development Goal](#) of ensuring availability and sustainable management of water for all by 2030.

Growth of Water ATMs: What is the Current Scenario?

- Community water purification plants have grown from less than 12,000 in 2014 to almost 50,000 in

2018.

- Water ATMs have become a popular **Corporate Social Responsibility (CSR)** activity for companies that want to build community assets.
- To reach the government's **Har Ghar Jal target of 100% piped water by 2030**, almost ₹5 lakh crore of infrastructure investment will be required.
- It is estimated that if the government spends less than 10% of that amount on small water enterprises, **it could provide affordable and safe drinking water at a fraction of the cost.**

What are the Advantages of Water ATMs?

- **Affordability:** Its comparatively low investments and operating costs provide a cheaper alternative than exorbitantly priced packaged drinking water.
- **Environmental Sustainability:** By reducing the use of plastics which are integral to packaged water.
- **Availability:** Most groundwater in India is estimated to be contaminated with pollutants that cause renal failure and other diseases. Through Water ATMs, the availability of safe drinking water can be ensured.
- **Accessibility:** Water ATMs will provide round the clock provision of water. Cashless dispensing and pay-per-use methodology will enhance accessibility.
 - The Water ATMs **will reduce the drudgery of women who travel long distances to fetch water** saving their time and energy.

What are the Challenges regarding Water ATMs?

- Water ATMs are being seen as a way of privatising the water supply.
- Operational and maintenance challenges like timely replacement of malfunctioning filters etc.
- Ensuring availability of 24x7 electricity supply to run Water ATMs in rural areas.
- RO is expensive and wasteful, and could well be replaced by cheaper technology such as UV purification.
- Excessive use of water from a particular location may cause drying up of water, exacerbating the water shortage.

What are the Other Initiatives?

- **Swajal Scheme:**
 - The Ministry of Drinking Water and Sanitation has initiated "Swajal" - a demand driven and community owned program to provide **sustainable access to drinking water** to people in rural areas.
 - This scheme will **aim to provide villages with piped water supply** powered by solar energy.
 - The scheme will **train hundreds of rural technicians** for the operation and maintenance of Swajal units. Thus, **creating employment opportunities** for rural youths besides solving the problem of availability and accessibility of drinking water.
- **MGNREGA for Water Conservation:**
 - Mahatma Gandhi National Rural Employment Guarantee Act is **one of the biggest government-funded employment schemes** in the world.
 - The **huge** workforce employed under the MGNREGA has enabled the government to introduce water conservation as a project under the Act.
 - The government aims to improve groundwater harvesting and build water conservation and storage mechanisms through MGNREGA.
- **Jal Kranti Abhiyan:**
 - The government is making active efforts to revolutionise villages and cities through block-level water conservation schemes. For example; the Jal Gram Scheme under the Jal Kranti Abhiyan is **aimed at developing two model villages in water-starved areas** to lead the other villages towards water conservation and preservation.
- **National Water Mission:**
 - The Government of India has launched the National Water Mission with the objective of conservation of water, minimising wastage and ensuring more equitable distribution both

across and within states through integrated water resources development and management.

- One of the objectives of the Mission is to **increase the water use efficiency by 20%**.

- **National Rural Drinking Water Programme:**

- It seeks to provide every rural person with adequate safe water for drinking, cooking and other basic domestic needs on a sustainable basis.

- **NITI Aayog Composite Water Management Index:**

- With the objective of achieving effective utilization of water, NITI Aayog has developed the Composite Water Management Index.
- The index **revolves around issues ranging from water scarcity** and related morass like deaths due to lack of access to safe water, its projected increase in demand over the years and finding ways for its effective conservation.

- **Jal Shakti Ministry and Jal Jeevan Mission:**

- The efforts like the formation of Jal Shakti Ministry (to tackle water issues holistically) and the goal to provide **piped water to all rural households by 2024**, under the Jal Jeevan mission, are steps in the right direction.

What can be the Way Forward?

- The Supreme Court has decreed in various judgments that **water is a fundamental human right** as part of the **Right to Life under Article 21 of the Constitution.**
- Government needs to play a more active role in ensuring its constitutional obligation to provide safe and affordable water to people.
- Successful implementation of the concept of Water ATMs **needs robust policy structures** specifying tariffs, quality, maintenance schedules etc.
- However, ATMs **cannot be standalone solution to the water crisis in the country.** The real solution lies in conservation of water and its sources and in using it efficiently.

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