



Enhancing Water Resources Management and Conservation in India

For Prelims: [National Perspective Plan for Interlinking of Rivers](#), [National Aquifer Mapping and Management Program \(NAQUIM\)](#), [PMKSY](#), [Mission Amrit Sarovar](#), [Jal Jeevan Mission \(JJM\)](#)

For Mains: Government Initiatives and Interventions for Water Resource Management.

Source: [PIB](#)

Why in News?

Recently, in a written reply in [Lok Sabha](#), the Minister of State for Jal Shakti, provided valuable insights into **India's [water resource management strategies and conservation efforts](#)**.

- These initiatives, undertaken by the government, play a crucial role in addressing the challenges of water scarcity and ensuring sustainable utilization of this precious natural resource.

What are India's Initiatives Related to Water Resource Management?

- **[National Perspective Plan for Interlinking of Rivers](#):**
 - Formulated to transfer water from **surplus basins to deficit areas in 1980**.
 - **[National Water Development Agency \(NWDA\)](#)** identified 30 interlinking projects (**16 under Peninsular Component and 14 under Himalayan Component**) under Inter-linking of Rivers Project.
 - However, river interlinking projects are largely dependent on consensus on water sharing between participating States.
- **[National Aquifer Mapping and Management Program \(NAQUIM\)](#):**
 - Implemented by **[Central Ground Water Board \(CGWB\)](#)** under **Ground Water Management and Regulation (GWM&R) Scheme**, a **[central sector scheme](#)**.
 - Maps **aquifers (water-bearing formations)**, characterizes them, and develops Aquifer Management Plans.
 - Aims for sustainable management of groundwater resources across the country.
- **[Pradhan Mantri Krishi Sinchayee Yojana \(PMKSY\) - Har Khet Ko Paani \(HKKP\) - Ground Water \(GW\)](#):**
 - Launched to **enhance farm water access and promote efficient irrigation**.
 - Involves on-farm water use efficiency, sustainable conservation practices, and more.
 - Department of Agriculture & Farmers Welfare is implementing the **"Per Drop More Crop" component of PMKSY**.
 - The PMKSY- "Per Drop More Crop" mainly focuses on **water use efficiency at the farm level through micro irrigation (drip and sprinkler irrigation system)**.
 - Operational since 2015-16, enhances water conservation at the farm level.
 - **Command Area Development & Water Management (CADWM)** Programme has been brought under PMKSY - HKKP.

- The main objective of taking up CAD works is to **enhance the utilization of irrigation potential created and improve agriculture production** on a sustainable basis through Participatory Irrigation Management (PIM).

- **Mission Amrit Sarovar:**

- Launched as part of **Azadi Ka Amrit Mahotsav** to conserve water bodies.
- Aims to develop and rejuvenate **75 water bodies in each district**.

- **Jal Jeevan Mission (JJM):**

- Aims to provide potable **tap water to every rural household by 2024**.
- Focus on tap water supply in water-scarce and drought-prone areas.
- Includes bulk water transfer and regional water supply schemes.

- **Jal Shakti Abhiyan (JSA):**

- Conducted in water-stressed districts for water conservation and management.
- **"Catch the Rain" campaign** launched to cover all districts, rural and urban areas.
- Aims to capture rainwater where and when it falls.

- **Water Use Efficiency and Performance Evaluation Studies:**

- **Central Water Commission (CWC)** promotes studies for irrigation projects.
- Focus on improving water use efficiency and conservation practices.

- **Atal Bhujal Yojana (ABY):**

- Central sector scheme in water-stressed areas in 8,774 gram panchayats of 81 districts of seven States namely Haryana, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.
- Emphasizes community participation and demand-side interventions.

- **National Commission on Integrated Water Resources Development (NCIWRD):**

- Reports on projected water requirements for different scenarios.
- Provides insights for planning and management of water resources.

- **National Disaster Management Agency (NDMA):**

- Utilizes **water-related data and technologies for disaster alerts** and management.
- Uses platforms like NavIC for timely dissemination of alerts.

- **"Sahi Fasal" Campaign:**

- Launched to encourage water-efficient crop choices in water-stressed areas.
- Promotes economically viable and sustainable crop cultivation practices.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. What are the benefits of implementing the 'Integrated Watershed Development Programme'? (2014)

1. Prevention of soil runoff
2. Linking the country's perennial rivers with seasonal rivers
3. Rainwater harvesting and recharge of groundwater table
4. Regeneration of natural vegetation

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2, 3 and 4 only
- (c) 1, 3 and 4 only
- (d) 1, 2, 3 and 4

Ans: (c)

- The Integrated Watershed Development Programme (IWDP) is implemented by the Department of Land Resources of Ministry of Rural Development.
- The main objective of IWDP is to restore ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover and water. Statements 1, 3 and 4 are describing ways to conserve and develop soil, water and vegetative crop and are included in IWDP.

- Watershed development refers to the conservation, regeneration and the judicious use of all the resources – natural (like land, water, plants, animals) and human – within the watershed area. Hence, 1, 3 and 4 are correct.
- However, the linking of the country's perennial with seasonal rivers is not done under the watershed development programme. Hence, 2 is not correct.
- Therefore, option (c) is the correct answer.

Q. On the planet earth, most of the freshwater exists as ice caps and glaciers. Out of the remaining freshwater, the largest proportion (2013)

- (a) is found in atmosphere as moisture and clouds
- (b) is found in freshwater lakes and rivers
- (c) exists as groundwater
- (d) exists as soil moisture

Ans: (c)

Mains

Q. Enumerate the National Water Policy of India. Taking river Ganges as an example, discuss the strategies which may be adopted for river water pollution control and management. What are the legal provisions of management and handling of hazardous wastes in India? **(2013)**

Q. "The ideal solution of depleting ground water resources in India is water harvesting system". How can it be made effective in urban areas? **(2018)**

Q. What is water stress? How and why does it differ regionally in India? **(2019)**

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