India’s Water Governance

***Mains**: GS-III – Environment & Ecology | Water resources conservation*

Why in News?

Despite receiving abundant rainfall, only a small portion is effectively captured and stored, exposing India’s weaknesses in governance and management.

What about India’s water governance’s key contradictions?

- **Global Context** – India supports nearly one-fifth (20%) of the world’s population, but has access to *only about 4% of global freshwater resources*.
- **Rainfall vs. Usability** – India receives nearly 4,000 billion cubic metres (bcm) of annual rainfall, but only about 1,100 bcm are considered usable, due to storage limits, uneven rainfall distribution & ecological constraints.
- **NITI Aayog Composite Water Management Index** – Around 600 million people face high to extreme water stress, and at the same time, India receives substantial precipitation each year.
- **Decline in Per-Capita Water Availability** – Per-capita water availability has dropped from 5,000 cubic metres per person annually (post-independence) to 1,400 cubic metres today.
- **Groundwater Dependence** – India is now the world’s largest groundwater user, accounting for roughly a quarter (25%) of global extraction.
- This dependence has enabled agricultural expansion and rural livelihoods, but it has also resulted in declining water tables across several regions.

What is India’s Institutional Framework on water governance?

- **Multi-Level Institutional Structure** – India’s water governance operates through a complex, multi-level institutional structure involving the Union government, State governments and local bodies.

National Level

- **Ministry of Jal Shakti** – Serves as the nodal authority responsible for water resources, drinking water supply and sanitation.
- **Central Water Commission** – Focuses primarily on surface water planning, river basin development and flood control.
- **Central Groundwater Board** – It assesses groundwater resources and provides scientific inputs for sustainable aquifer management.
- **NITI Aayog** – Evaluates water governance performance across States through

indicators such as the Composite Water Management Index.
- This benchmarking mechanism has helped introduce accountability and evidence-based policymaking into the water sector.

***Water** is classified as a **State Subject** under Entry 17 of the State List; however, the Central Government maintains regulatory powers over inter-state rivers (Entry 56 of the Union List) and environmental pollution.*

- **Federal Design** – India's federal constitutional structure places most water-related responsibilities like irrigation, water supply and groundwater regulation, etc., with the States.
- **State Level Coordination** – As a result, State irrigation departments, urban water boards and local governments play a decisive role in implementing water policies.
- **Institutional Challenge** – India's water crisis is as much institutional as it is hydrological.
- This multi-layered institutional system reflects India's federal design but creates coordination challenges across Union–State–local levels.

What are the key legal & regulatory frameworks that govern water resources in India?

- **Article 21 (Right to Life)** – The Supreme Court of India has repeatedly interpreted this article to include the fundamental right to clean, safe, and sufficient drinking water.
- **Water (Prevention and Control of Pollution) Act, 1974** – Primary legislation aiming to prevent and control water pollution, and restore the health of water resources.
- It established the Central and State Pollution Control Boards (CPCB/SPCB).
- **Water (Prevention and Control of Pollution) Cess Act, 1977** – Provides for the levy and collection of a cess (tax) on water consumed by industries and local authorities to encourage conservation and generate funds for pollution control.
- **Environment (Protection) Act, 1986** – A comprehensive law under which the central government can take actions to protect the environment, including water bodies.
- **Central Ground Water Authority (CGWA)** – It regulates groundwater extraction by issuing 'No Objection Certificates' (NOC) for industries and infrastructure projects.
- **River Boards Act, 1956** – Enables the central government to establish boards to advise state governments on the development and regulation of inter-state rivers.
- **Indian Easements Act, 1882** – It contains provisions defining rights to water and land, generally recognising the state's ownership over natural water resources.
- **National Water Policy (2012)** – Acts as a non-binding strategic guide for water management, which promotes integrated water management, water conservation, and treats water as an economic good.

What are the national missions that helps tackling the challenges?

- **To Address Institutional Fragmentation** – The Union government has increasingly relied on national missions that align central funding with State-level implementation.
- **Jal Jeevan Mission (2019)** – To provide functional tap connections to rural homes; By recognising the scale of the task, the mission has been extended until 2028 to enable States to achieve universal coverage.
- **Atal Bhujal Yojana** – Promotes participatory aquifer management in water-stressed regions to address groundwater sustainability.
- By encouraging community-based groundwater budgeting and monitoring, the programme attempts to correct the long-standing gap in groundwater regulation.
- **Pradhan Mantri Krishi Sinchayee Yojana** – Promotes micro-irrigation technologies and improved water management practices.
- Given that agriculture consumes the majority of India's freshwater resources, improving irrigation efficiency is essential.
- **Atal Mission for Rejuvenation and Urban Transformation** – Aims to expand water supply networks, sewage treatment systems and wastewater reuse in cities.
- **Namami Gange Programme** – For river basin restoration, which combines pollution control, sewage treatment and ecological restoration in the Ganga basin.

What are some suggestions for ensuring water governance in India?

- **Global Best Practices** – Like circular water economy, agricultural reform, science-policy links underscore the value of wastewater reuse, efficient irrigation, and technological innovation.
- **Expanding Recycling** – Expanding wastewater recycling in Indian cities can ease pressure on freshwater resources.
- **Agriculture** – Adopting better crop choices and irrigation methods can improve agricultural water productivity.
- **Policy Imperative** – Strengthening the architecture of water governance will be central to sustaining economic growth and social well-being.

What lies ahead?

- India's water governance is moving toward a more integrated, circular approach & its future will depend less on how much rain it receives and more on how well it is governed.
- By aligning governance with scientific knowledge, technological innovation, and participatory approaches, India can transform its water economy from a cycle of scarcity to a framework of sustainability.
- As India works toward the global commitments of the UN-SDG 6 (clean water & sanitation), and the national aspiration of becoming a developed economy by 2047.

References

1. The Hindu | How India is governing its water resources
2. India's Water Portal | Water policies in India



SHANKAR
IAS PARLIAMENT
Information is Empowering