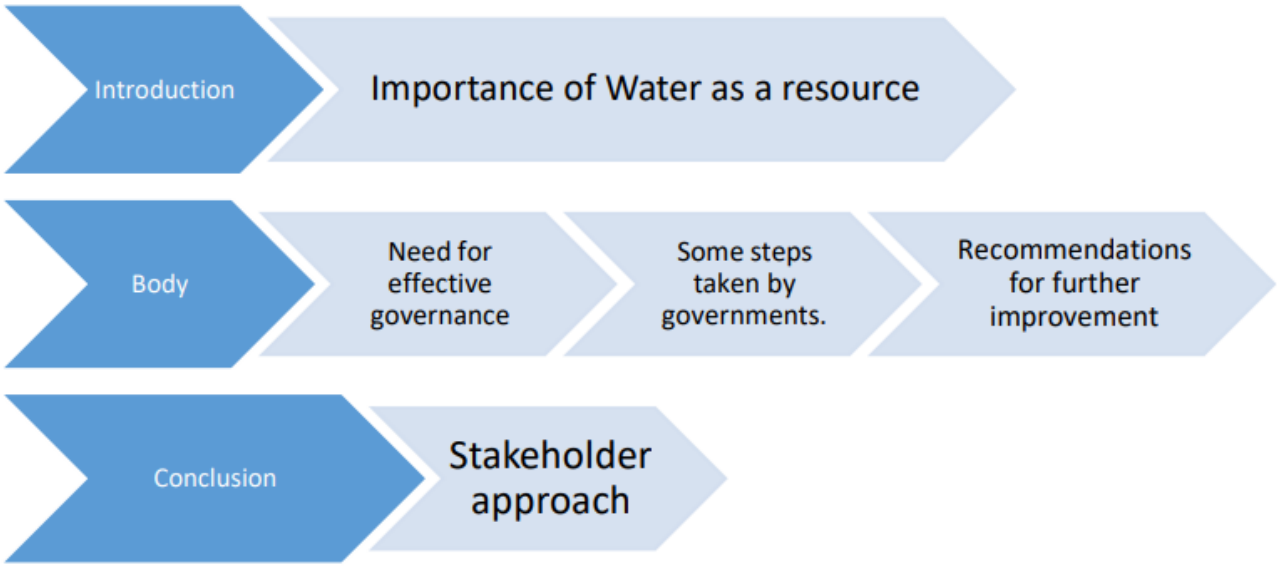
# Examine the need and ways to ensure effective water governance at national and local levels given the water stress future of India.




## Introduction

Water governance and availability forms a huge component of Millennium Development Goals (MDGs) and in the Sustainable Development Goals (SDGs) more recently. According to estimates, India has 16% of the world's population but only 4% of the world's freshwater resources. The water crisis in the 21st century has more to do with poor management than scarcity and stress. Given that Constitution decentralises management of water resources at state level with financial control with Centre, there is a need to model a bottom approach to ensure sustainable water governance.

## Need to ensure effective water governance

- The World Health Organization estimates that 97 million Indians, second only to China, do not have access to safe drinking water. Without action, the problem is certain to worsen, since India is expected to develop rapidly in the next decades, overtaking China to become the world's most populated country by 2028.
- NITI Aayog's 2018 CWMI underlined 'zombie statistics' wherein 21 major cities are expected to run out of groundwater as soon as 2020, affecting [nearly] 100 million people.
- Population expansion, declining groundwater supplies due to over-extraction by farmers, and inadequate investment in treatment facilities at the federal, state, and local levels have all contributed to the country's water crisis.

- Increasing demand from a growing population, combined with increased economic activity, puts further strain on already overburdened water resources. Water scarcity and pollution are both caused by the use of water as a coolant in industries and for washing.
- Due to climate change, India will see more hot spells in the near future, as well as changes in rain patterns, which will exacerbate the problem of frequent floods and droughts.

**Steps taken for improved water governance**

- At the central level for improved water governance and to ensure holistic approach, Jal Shakti ministry was formulated by merging of two ministries; Ministry of Water Resources, River Development & Ganga Rejuvenation and Ministry of Drinking Water and Sanitation in 2019.
- NITI Aayogs' Composite Water Management Index: A tool for water management' provides a way to monitor the States' water resource management strategies and provide the necessary course-shift, beyond supply augmentation approaches through cooperative and competitive federalism.
- Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India. This has further been complemented by Atal Bhujal Yojana and the Jal Jeevan Mission.
- Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by CGWB in consultation with States/UTs which is a macro level plan indicating various structures for the different terrain conditions of the country.

**The following recommendations address the most important issues in India's water crisis.**

- The Mihir Shah Committee report underlines need to de-bureaucratise water governance in India and recommends the setting up of the National Water Commission (NWC) as the nation's apex organisation dealing with water policy, data and governance by subsuming both CWC and CGWB.
- The Mihir Shah report called for a more holistic approach to water systems and governance, which was to include opening up of water policy to disciplines beyond engineering and hydrogeology towards a more participatory and inclusive approach.

- The Central and state governments should provide local communities with knowledge, understanding, and real-time information about groundwater status so that extraction can be managed cooperatively. Farmers extract as much groundwater as they can because it is an open resource. However, if everyone does this, extraction will rise above a sustainable level. Only a cooperative agreement among aquifer users, who should know how much may be collected without depleting the resource, can solve this problem.
- India must encourage the development of watersheds and indigenous water conservation methods such as kuls in Himachal Pradesh through involvement of LSGs. The state of Gujarat, as well as Rajendra Singh and Anna Hazare's initiatives, have demonstrated that this technique is both effective and profitable. Furthermore, it can be carried out at the local level across the country and in a relatively short period of time.
- India must educate its citizens on the importance of dams for water storage. Environmentalists and other anti-dam groups should engage in a debate to come up with alternatives and reach a consensus.
- Chokkakula and A. Pandya argue that firstly, India needs to reconsider the institutional processes for dissemination of knowledge about water resource management. Secondly, we need to recognise the crisis is not as much of scarcity as of delivery. Lastly, with major water related aspects with states under entry 17 in List II, the Centre has to work with States towards an institutional change for the necessary course-shift.
- Another important pillar of water governance relates to ensuring economically sound and cost-effective solutions. Hydro-economic approaches including Circular economy solutions, such as recycling and reuse of water, emerge as favored solutions over freshwater abstraction along with technological developments.

The government intends to release a new version of the National Water Policy (NWP), which **will include significant changes to the water governance structure and regulatory framework.**

## Conclusion

We need to redefine, rethink and recalibrate what we mean by Integrated Water Resource Management. Aspects of basin and sub-basin planning must be examined in order to create realistic goals including a more holistic and stakeholder-based approach to river, ground water and surface water to ensure better water management and improve both availability and accessibility in a sustainable manner.