

**Water Resources in India: Questions, Guidelines and Politics**

**V.C Shushant Parashar  
Dr. S. Ganapathy Venkata Subramanian**

Research Scholar, Amity Institute of Social Sciences, Amity University, Noida, Uttar Pradesh  
Prof., Centre for Environmental Studies, Anna University, Chennai,  
Tamil Nadu

**Abstract**

Water is the very premise of life and is essential for human survival and advancement. Manageable and fair utilization of water over the centuries has been guaranteed by socially adjusting to water accessibility and availability. However, over the recent couple of decades the outcome of development, industrialization, urbanization and the introduction of consumerist culture have tampered the nature cycle of rainfall and other natural hydrological processes. This has led to the abuse, overuse and contamination of our nation's crucial water assets and also has disturbed the quality and quantity of water across the length and breadth of our nation. The current paper talks about the contemporary state of water resources in India in the context of the various questions, guidelines and associated politics.

**Keywords:** Water Resources, industrialization, urbanization, quality of water, rainfall

**Introduction**

Among the various difficulties to India's current economic development, water asset requirement is amongst the most troubling ones. The water resource challenge to India's advancement is outstandingly mind boggling, including a deadly mix of geological, political, financial and social measurements. This paper depicts the underlying drivers of India's water asset challenge; survey's the Indian government's strategy to date and lastly offers suggestions to make effective policies.

In short, India's water asset challenge comprises of both water amount and quality issues, each one showing unmistakable difficulties for the Indian strategy. Even though the Indian government is implementing many ambitious water resources administrative methodology, its endeavors are being challenged by legislative competitions, corruption and motivations that support monetary utilization over feasible resource management. Specifically, between jurisdictional clashes over water resources debilitate to undermine arrangements to address water shortage, while miscoordinated motivations between contamination control and financial advancement at local levels of the government debilitate to undermine water quality control objectives.

**Indian Water Crisis**

In total, India has considerable water assets constituting 4% of the world freshwater resources (Jain, 2007, p 1065). By per-capita norms, in any case India's water assets are roughly 1720 cubic meters for every individual every year in contrast to a worldwide normal of around 6200 cubic meters per individual per year (FAO, 2011, pp 261-268). These total insights in any case disguise local disparities in perception and water system design, which joined with uneven disseminations in populace and monetary action imply that a few regions have ample water assets while others confront devastating deficiencies. Some of India's biggest and quickest developing urban regions are facing water scarcity (Panwar, 2015, pp 69-70). At the same time, India is seeing diminishing groundwater supplies due to over-extraction by farmers. This is on the grounds that groundwater is an open-get to asset that anybody can use for their own purposes. Given how divided possession of land is in India, the country is facing shortage of groundwater as the extraction of groundwater has increased since the 1980's (Gandhi, 2011, pp 91-95).

Different elements have worsened this fundamental geographical mal-conveyance of water accessibility and request. Climate change is expected to heighten the impact upon water resources availability (Mall, 2007, pp 157-159), upgrading its shortage of both surface and

subsurface water supplies. Rising demand for water-intensive harvests and in addition different items require huge amounts of water to deliver, process, refine, thus additionally stretching the water assets. In the case of India, coal powered thermal plants used for generation of electricity depend upon freshwater supply for cooling purposes. From 2011-2016, the amount of water required has grown from 1.5 to 2.1 billion cubic meters a year (Luo, 2018, pp 2-5). These developing weights on water assets are of mounting worry to the Indian government.

The Indian government has adopted policy responses to address the issue of water scarcity. Firstly, in the year 1982, the Government of India adopted the First National Water Policy which was further updated respectively in 2002 and 2012. The policy aims at the strengthening of various facets of water management in India. Secondly, is the grand scheme of interlinking rivers. The main aim of the project is to transfer water from water rich areas to water deficit areas in order to prevent floods and droughts (Gupta, 2001, pp 125-147). The proposed plan is divided into two parts, Himalayan part and peninsular part.

In spite of the culmination of the interlinking rivers project which is expected to take care of anticipated water demand development in the country, the project seen from a geographical perspective will be expensive. The estimated cost of the project is in the range of US\$ 112 to US\$ 200 billion (Vombatkere, 2004), the last cost will be probably even much higher. Also, evaluations of the quantity of individuals who must be resettled range from few thousands to over a million, adding considerable social disturbance thereby further increasing the project expenditure. Moreover, the project will require extra water redirection and capacity attempts to transfer water into locales tapped to send out water to the other parts of the country and also treatment plants to guarantee that the water is sufficiently clean to supply drinking water to the masses. Also the project can lead to inter-state conflicts when it comes to cost bearing of the project.

### **Water Quality Crisis**

Water quality is seemingly a considerable major issue than water shortage. In provincial regions, where not much as a large portion of the populace approaches filtered water, horticultural run-off is the prevailing contamination source, while in urban territories human and mechanical waste are left to a great extent untreated, defiling both surface and underground supplies (Kumar, 2006, pp 1-14). Recent reports show that many surface supplies of water are unfit for modern utilization. Autonomous assessments are considerably more pessimistic. This emergency of water quality has added a genuine environmental wellbeing emergency. Arsenic has defiled groundwater and is believed to be far reaching and in a few zones high rates of specific diseases have connected to natural water pollution (Chaurasia, 2012, pp 2-4). The biological effect of the high contamination of water is additionally intense, drastically lessening freshwater wild fish populace and additionally driving bigger creatures to the verge of extinction.

The Indian government's policy responses to water quality issues rely largely on strengthening monitoring capabilities and enforcement mechanisms (MEA 2014). However in spite the government coming up with measures to curb the problem of pollution, the risks related to environment, human health are ever increasing. Lack of policy, inadequate institutions, planning and implementation and monitoring of government policies, lack of funds, majority of rivers being polluted etc., are some of the institutional barriers to resolving India's water quality crisis.

### **Water Scarcity, Pollution and India's Future**

India's water asset challenges are intense; however it has likewise built up a considerable strategy foundation to meet them. What remains is to guarantee that arrangements to address water shortage and to enhance water quality are executed viably and productively. The obstructions to policy implementation identified in this paper reflect some deep seated and systematic issues in India's governance system. Inter-jurisdictional and inter-agency coordination, cooperation and communication mechanisms are under-developed while

weakness in the rule of the law undermines regulation and enforcement procedures. Fully addressing water quality and quantity issues there for entails some basic and institutional and political reforms, all of which require substantial political will. Nonetheless, if this can be marshaled, these five points can help enormously India in tending to water asset amount and quality issues.

To begin with the political party's cadre assessment framework ought to be upgraded to accentuate ecological and water asset administration and management. Secondly, formalized components for inter-provincial counsel ought to be set up at regional levels. Thirdly, abnormal state support ought to be given to inter-governmental participation on water asset issues, which are by nature between departmental. Fourthly, the central government should aim to reinforce the legal system by setting up special courts for dispute resolution. Lastly, the civil society groups should be encouraged to check water pollution levels.

### **Conclusion**

A sustainable pathway can only be charted if India uses water sustainably and at the same time improves the water quality. Foundations need to be reinforced, expanded and built upon if India wants to avoid a future wherein its development and growth is curtailed due to water resource constraint.

### **Bibliography**

1. Jain, Sharad; Agarwal, Pushpendra & Singh, Vijay. (2007). *Hydrology and Water Resource in India*. Springer Publications.
2. FAO. (2011). *Irrigation in Southern and Eastern Asia figures*. FAO Report.
3. Panwar, Manoj & Antil, Sunil. (2015). Issues, Challenges and Prospects of Water supply in Urban India. *IOSR Journal of Humanities and Social Science*. 20(5). DOI: 10.9790/0837-20526873.
4. Gandhi, Vasant & Bharmoriya, Vaibhav. (2011). Groundwater Irrigation in India: Growth, Challenges and Risks. In: *India Infrastructure Report 2011*. Oxford University Press.
5. Mall, Rajesh. (2007). Water resources in India and impact of climate change. *Jalvigyan Sameeksha*, 22.
6. Luo, Tianyi; Krishnan, Deepak & Sen, Shreyan. (2018). Parched power: water demand, risks, and opportunities for India's power sector. World Resources Institute. Accessed online: <http://www.wri.org/publication/parched-power>.
7. Gupta, Rajiv. (2001). Human rights dimensions of regional water transfer: experience of Sardar Sarovar Project. *Water Resources Development*. 17(1).
8. Vombatkere, Sudhir. (2004). Interlinking National rivers: to link or not to link? In: Medha Patekar (ed.). *River Linking: a millennium folly?* National Alliance of People's Movement.
9. Kumar, Dinesh & Shah, Tushaar. (2006). *Groundwater pollution in India: The emerging challenge*. Sir Ratan Tata Trust.
10. Chaurasia, Neha; Mishra, Amarnath & Pandey, SK. (2012). Fingerprint of arsenic contaminated water in India-A review. *J Forensic Res*. 3(172). DOI: 10.4172/2157-7145.1000172.
11. MEA. (2014). *Water Pollution in India*. Government of India.