

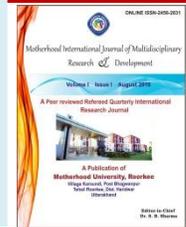


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**Perceptions on Water Policy for India**

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**ABSTRACT**

*To minimize the negative impacts of the overuse and misuse of water and to ensure that our precious water resources are used optimally in removing poverty and achieving economic and human development, it is necessary that we have a water policy which recognizes and adequately addresses the challenges we face and are going to face in the twenty-first century. Water quality has to be a very important aspect of water policy. Improvements in existing strategies and the innovation of new techniques resting on a strong science and technology base will be needed to eliminate the pollution of surface and ground water resources, to improve water quality and to step up the recycling and re-use of water. Conservation through demand management, recycling and reuse after treatment, improving irrigation efficiency and then desalination of brackish or seawater and inter-basin transfers can be considered, among the steps needed to increase the availability of utilizable water.*

**Keywords:** resources, water policy, recycling, reuse, desalination.

**Introduction**

Water is a scarce natural resource, fundamental to life, food security and sustainable development. It is essential for everybody's living and livelihood, fulfills most basic human and ecological needs and is indispensable to almost all economic activities, including agriculture, energy production, industry, and mining. Though India has more than 18 % of the world's population, yet has only 4% of world's renewable water resources and 2.4% of world's land area.

Sustainable and equitable use of water over millennia has been ensured by cultural adaptation to water availability through water conservation technologies, agricultural systems and cropping patterns adapted to different climatic zones, and conservation-based life styles. But in the last few decades the consequences of population growth, industrialization and urbanisation, and the associated consumerist culture, have interfered with the natural hydrological cycle of rainfall, soil moisture, groundwater, surface water and storage of all sizes. This has led to overuse and pollution of our vital water resources and has disturbed the quality and the natural cleansing capacity of water. The proper management of our limited water resources are essential to ensure food security for our growing population and to eliminate poverty. It will be essential also to avoid the growing conflicts and the possibility of social unrest in the country in future due to water scarcity.

### Growth in Water Demands

Growth in Demand for Various Sectors in 2025 and 2050						
Year / Sector	Base 2010	2025	%Growth 2025	2050	%Growth (Over 2010/2025)	
Irrigation	688	910	32.3	1072	55.8	17.8
Drinking Water	56	73	30.4	102	82.1	39.7
Industry	12	23	91.7	63	425.0	173.9
Energy	5	15	200.0	130	2500.0	766.7
Others	52	72	38.5	80	53.8	11.1
Total	813	1093	34.4	1447	78.0	32.4

### Why there is need for Water Conservation/Reuse?

- Because India is becoming a water short country
- Several parts are already facing physical shortage and several others economic shortage
- Also, urbanization is degrading water resources
- More Water storages are difficult to add
- There are conflicts with agricultural sector and food security

**The present scenario of water resources** and their management in India has given rise to several concerns, important amongst them are;

- (i) Large parts of India have already become water stressed. Rapid growth in demand for water due to population growth, urbanization and changing lifestyle pose serious challenges to water security.
- (ii) Issues related to water governance have not been addressed adequately. Mismanagement of water resources has led to a critical situation in many parts of the country.
- (iii) There is wide temporal and spatial variation in availability of water, which may increase substantially due to a combination of climate change, causing deepening of water crisis and incidences of water related disasters, i.e., floods, increased erosion and increased frequency of droughts, etc.
- (iv) Inter-regional, inter-State, intra-State, as also inter-sectoral disputes in sharing of water, strain relationships and hamper the optimal utilization of water through scientific planning on basin/sub-basin basis.
- (v) Climate change may also increase the sea levels. This may lead to salinity intrusion in ground water aquifers / surface waters and increased coastal inundation in coastal regions, adversely impacting habitations, agriculture and industry in such regions.
- (vi) Access to safe water for drinking and other domestic needs still continues to be a problem in many areas. Skewed availability of water between different regions and different people in the same region and also the intermittent and unreliable water supply system has the potential of causing social unrest.
- (vii) Water quality and quantity are interlinked and need to be managed in an integrated manner, consistent with broader environmental management approaches inter-alia including the use of economic incentives and penalties to reduce pollution and wastage.

### **Reuse /Recycling are quite attractive in urban/industrial setting**

#### **Urban Reuse:**

- Horticulture use in public parks and recreation centres, athletic fields, schoolyards and playing fields and landscape areas surrounding public buildings, lakes and facilities.

- Dust control and concrete production on construction projects.
- Toilet and urinal flushing in commercial and industrial buildings.

**Agricultural Irrigation:**

- Treated wastewater used for irrigation application on land

**Industrial Reuse:**

- Evaporative cooling water.
- Boiler-feed water.
- Process water, and
- Horticulture and maintenance of plant grounds.

**Bonding beyond boundaries on water**

**India Nepal Cooperation - Pancheshwar Development Authority:** The visit of Hon'ble Prime Minister to Nepal during August, 2014, paved the way for speedy implementation of Pancheshwar Multi-purpose project proposed on river Mahakali / Sarda. As a result, a Pancheshwar Development Authority has been set up at Kathmandu for expeditious implementation of the project. With the mutual cooperation and understanding, the formulation of the project details and financing has been taken up for starting the construction of the project.

**India-China Cooperation:** An Implementation Plan (IP) for providing Hydrological Information of the Yarlung Zangbu/Brahmaputra River in Flood Season by China to India was finalized during the 8th Meeting of India-China Expert Level Mechanism held in India during June, 2014 and signed in Beijing on June 30, 2014 during the visit of Hon'ble Vice President of India to China.

**India-Bangladesh Joint Rivers Commission:** 58th and 59th meetings of Joint Committee for implementation of Treaty on sharing of Ganga Waters at Farakka were held in June 2014 in Bangladesh and January, 2015 in India respectively.

**Permanent Indus Commission (India and Pakistan):** 110th and 111th meeting of Permanent Indus Commission (PIC) held during August, 2014 and February, 2015 on implementation of Indus Water Treaty.

**India- Australia cooperation:** A Memorandum of Understanding between India and Australia for cooperation in water resources development and management, both surface and groundwater, and particularly river basin management and impact of climate change on water resources was signed on 5th September, 2014 at New Delhi during the visit of Australian Prime Minister to India.

### **Riding the waves of technology with Digital India**

- Based on the data shared on the Open Govt. Data Platform, and its usage, the Ministry of Water Resources, RD & Ganga Rejuvenation was selected as one of the awardees under the category "Open Data Champion".
- A web based Water Resources Information System on GIS platform has been set up by Central Water Commission in association with Indian Space Research Organization. All unclassified data of CWC and CGWB has been uploaded and placed in public domain. The web portal has already been used for developing alternative project proposals for developing consensus amongst the implementing agencies.

### **e-Governance:**

In the field of Social Media Platform for dissemination of information and interacting with the stakeholders, a Facebook page and Twitter account of the Ministry has been launched on 12th November, 2014.

- A fully automated portal was launched for online processing and monitoring of proposals under AIBP.
- A web based application for issuing NOC for ground water extraction by industries/infrastructure/mining projects was launched by Hon'ble Union Minister of Water Resources, RD & GR on 28th January, 2015.

- Generating awareness & connecting with masses through Information, Education and Communication Participation in Fairs/Exhibitions: The Ministry of WR, RD & GR participated in the 34th edition of the India International Trade Fair organized by ITPO in Pragati Maidan from 14th to 27th November, 2014 with the theme "CLEAN RIVER - BRIGHT FUTURE".

### **National Water Mission**

- A National Convention of Water User Associations (WUA) on Participatory Irrigation Management (PIM) was organized on 7th-8th November, 2014 at New Delhi to discuss and identify the problems being faced by WUAs, with the overall objective of increasing water use efficiency in irrigation sector.
- A Memorandum of Understanding (MoU) with National Institute of Rural Development and Panchayati Raj was signed in Dec. 2014 for training & capacity building of multiple stakeholders and Panchayati Raj Institution in the area of water conservation.
- A MoU with Tata Institute of Social Sciences (TISS) was signed in September, 2014 for undertaking activities related to promotion of citizen and state action for water conservation, augmentation and preservation.
- A MoU with Indian Institute of Water Management - Indian Council of Agricultural Research, Bhubaneswar was signed in March, 2015 for organizing training and capacity building programme for multiple stakeholders on water conservation and increasing water use efficiency in irrigation.
- A scoping study for a National Water Use Efficiency Improvement Support Program for Major/Medium Irrigation Projects has been completed with technical assistance from Asian Development Bank (ADB).

### **Conclusion**

To meet the need of the skilled manpower in the water sector, regular training and academic courses in water management should be promoted. These training and academic institutions should be regularly updated by developing infrastructure and promoting applied research, which

would help to improve the current procedures of analysis and informed decision making in the line departments and by the community. A national campaign for water literacy needs to be started for capacity building of different stakeholders in the water sector. National Water Board should prepare a plan of action based on the National Water Policy, as approved by the National Water Resources Council, and to regularly monitor its implementation. The State Water Policies may need to be drafted/revised in accordance with this policy keeping in mind the basic concerns and principles as also a unified national perspective.

### References

1. 2030 Water Resource Group Report titled Charting Our Water Futures 2009. Available at [www.2030wrg.org/publication/charting-our-waterfuture/](http://www.2030wrg.org/publication/charting-our-waterfuture/)
2. Draft Model Bill for the Conservation, Protection, and Regulation of Ground water. Available at [http://www.planningcommission.nic.in/aboutus/committee/wrkgrp12/wr/wg\\_model\\_bill.pdf](http://www.planningcommission.nic.in/aboutus/committee/wrkgrp12/wr/wg_model_bill.pdf) (last accessed on May 20, 2014)
3. Global Water Partnership—The World Bank. Strategic Overview Series Number 2, Conjunctive Use of Ground water and Surface Water, 2010. Available at [http://www.un-igrac.org/dynamics/modules/SFIL0100/view.php?fil\\_Id=202](http://www.un-igrac.org/dynamics/modules/SFIL0100/view.php?fil_Id=202) (last accessed on June 13, 2014)
4. Ground Water Year Book—India 2010–11. Report of the Committee for Drafting of National Water Framework Law, 2013. Available at <http://mowr.gov.in/writereaddata/nwfl1268291020.pdf> (last accessed on May 10, 2014)
5. National Commission for Integrated Water Resource Development Report (NCIWRD), Ministry of Water Resources, Government of India, 1999
6. National Water Mission under National Action Plan on Climate Change, 2009. Available at <http://www.nicra-icar.in/icrarevised/images/Mission%20Documents/WATER%20MISSION.pdf> (last accessed on May 20, 2014)
7. National Water Policy of India 2012. Available at <http://mowr.gov.in/writereaddata/linkimages/NWP2012Eng6495132651.pdf> (last accessed on May 10, 2014)

8. Summary of Draft National Water Policy 2012 by PRS Parliamentary Legislative Research. Available at [http://www.prsindia.org/administrator/uploads/general/1345794528\\_Draft%20National%20Water%20Policy%20,2012-Summary.pdf](http://www.prsindia.org/administrator/uploads/general/1345794528_Draft%20National%20Water%20Policy%20,2012-Summary.pdf) (last accessed on May 10, 2014)

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