Water Scarcity and Water Governance in India: A Study

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ABSTRACT

"If we get into thinking what we are facing is only a drought, then we are in serious trouble. You are in the midst of a mega water crisis"- by P. Sainath.

Water, a natural resource, is one of the most valuable gifts of nature for the survival of living beings on earth. Life on earth depends on some common and precious resources like air, water etc. without which human existence is not possible. Therefore it is crucial to handle water recourses carefully and properly so that it can ensure human existence not only for today, but for all the future generations. For centuries water is being treated as an infinite resource and free gift of nature. But with the change of time, world has been witnessing severe scarcity of water. Extensive growth of population, increased urbanisation and industrialization has made water scarce and limited resource. For that water conservation, water distribution and water management has assumed importance all over the world. To address the issues of water scarcity proper governance and management of water resources are the need of the time. Recent reports of NITI Aayog have clearly stated that India is facing its worst water crisis in history which is alarming. For that the basic aims of this paper is to highlight the importance of water management in India.

Key words: Water Scarcity, Water Governance, Water Management, India.

Introduction

Water, a natural resource, is one of the most valuable gifts of nature for the survival of living beings on earth. Two third of earth's surface is covered with water but only 2.5% is freshwater and less than 1% is usable for human. With the Growth of population and increase in urbanization and industrialization, gradually water has become a scarce resource. According to a United Nations Report, more than 2 billion people are affected by water shortage in over 40 countries and about 12 crore populations of developing countries of the world does not have access to fresh and potable water. (S. Muralidhan, 2004)

Water scarcity broadly implies the lack of access to adequate quantities of water for human and environmental uses.

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In general, water scarcity is defined as a point at which the aggregate impact of all users impinges on the supply or quality of water under prevailing institutional arrangements to the extent that the demand by all sectors including the environment cannot be satisfied fully. In reaction to these issues the U.N. General Assembly declared 2013 as the U.N.'s "International Year of Water Cooperation," with the objective of raising awareness for increased cooperation for access to water and the challenges facing water management. ("International Decade for Action 'Water For Life" 2005-2015, UN Water)

Though water is a finite resource, earlier it was assumed as an infinite recourse. Water crisis and its impacts are noticeable at the local, regional, national and trans boundary levels. Depletion and degradation of water resources are reflected in terms of groundwater over-exploitation, decline in the number and size of surface water bodies, water quality changes, pollution caused by environmentally harmful industries and agricultural activities, among others has led to the scarcity of water. Water is also closely linked to food security and economic growth prospects. Vrinda Narain therefore, rightly observes that World Water Crisis has become an important concern for social, economic and environmental aspects. Therefore it becomes significant to study the importance of governance of water to address the issues of water scarcity.

Water is distinct from all the other natural resources because of its essential role in supporting all the life on this planet earth. Water is considered as a commons which means it is difficult to exclude someone from using it and one person's enjoyment does not affect another person's enjoyment. This life supporting characteristics requires government responsibility and accountability so that water should be available to everyone. Apart from privatization, at present water management and water governance problems are more difficult than ever because of both natural and manmade causes such as increased population, periodic drought, and depletion of groundwater, degradation of water quality, land use concerns and competition among water users such as agriculture, recreation, urban drinking water and industrial use. These factors have emphasized the role and responsibility of government in formulating proper and useful policies on water conservation, water distribution and water sharing. While developing effective water policies it is also important to consider economic, ecological, environmental, cultural, legal and political issues.

Water Scarcity and Water Governance in India

If we talk about India, traditionally space, air, water and energy have been viewed as 'incapable of being bound into property relations.' Water has been considered as a sacred common heritage to be nurtured, conserved, used

sustainably and shared equitably. Various cultures have developed numerous creative mechanisms of water management and ownership through collective and consensual decision making processes ensuring sustainable resource use and equitable distribution, especially in regard to the needs of the poor. In India people even worship rivers as mother. In India water scarcity is looming seriousness in various parts. According to recent Reports of [National Institution for Transforming India](#) (NITI) Aayog, around 600 million Indians are facing high to extreme water scarcity currently which is seriously alarming. The report also mentioned that around two lakh people die every year due to inadequate access to potable water. It gave a warning that water crisis will only get worse by 2030 for the country's demand for water will be double of the supply. According to '[Composite Water Management Index](#)' report released by Minister for Water Resources Nitin Gadkari, hundreds of millions of people would suffer from water shortage and the country's GDP will register a drop of 6 percent. The report also foretold that by 2020, 21 major cities would have dried up their groundwater, which in turn, would affect 100 million people. The report pointed out that 70 percent of India's water is contaminated while citing data by some independent agencies. In terms of water quality index, India stands at 120th position among 122 countries. The NITI Aayog report has also designated ranks to all the states in the index based on composite water management,

comprising nine broad sectors with 28 different indicators covering various aspects of groundwater, restoration of water bodies, irrigation, farm practices, drinking water, policy and governance. Gujarat has been ranked first the country, followed by Madhya Pradesh, Andhra Pradesh, Karnataka and Maharashtra. The worst state is Uttar Pradesh, followed by Bihar, Rajasthan, Haryana, and all the states, that has a population of over 600 million people. The poor performance of these states on the Index highlights a significant water management risk for the country going forward, the news channel quotes from the report. Tripura has emerged as the top state in 2016-17, among northeastern and Himalayan states. The state is followed by Himachal Pradesh, Sikkim and Assam. (NITI Aayog Report, 2018)

Studies have also highlighted that out of the four billion people living in water scarcity, one billion live in India and 0.9 billion in China, which means every second person in the world facing severe water scarcity for at least a month a year is from India and China. It also implies that 80% of India's 1.25 billion populations face severe water scarcity for at least a month every year. In Marathwada, an agricultural region east of Mumbai, journalists have recorded 320 farmer suicides so far in 2016, with many blaming insufficient monsoon rains. Recently, members of India's Lower House, the Lok Sabha, have criticized the government for its inadequate response to

the crisis, and the Supreme Court has repeatedly taken New Delhi to task for being slow to address several inter-state water disputes, including a long-running row between Punjab and Haryana over a shared river. These unresolved disputes have questioned the government's response to drought and water scarcity and also to the credibility of Government water management policies. Lack of proper water supply system the women in India's rural areas has to struggle so much to get a bucket of drinking water daily. Due to improper irrigation many farmers with no other alternative are forced to use the toxic waters from various polluted sources to irrigate their crops. Some villagers wait for a water tanker that arrives twice a week to replenish their dried up water well where the land is ferociously dry, suffocating. The importance of water availability in poverty alleviation process as well as for economic development assumes significance especially in drought prone area. (Ratna Reddy, 2010)

It is important to state here that the UN World Water Report of 2006 as it stated that there is enough water for everyone if carefully and technically managed. The Global Water Partnership (GWP), for instance, describes the water crisis as "…mainly a crisis of governance". According to the UN report water insufficiency is often due to mismanagement, corruption, lack of appropriate institutions, bureaucratic inertia and a shortage of investment in both human capacity and physical infrastructure. It can be said that present day water scarcity is not because of natural factors only there are several man made factors too which contribute to the physical scarcity of water.

In India, eminent water right activists like Rajendra Singh, Medha Patkar, Sadhguru and Vandana Shiva took the lead to create awareness among people regarding the importance of Government of water in India.

Medha Patkar highlighted the role of International Financial Institutions (IFIs) such as the World Bank and Asian Development Bank in forcing privatisation and creating "imposed development". She further added that there is a need to promote community ownership of water management and conservation.

Sadhguru had launched a nationwide campaign 'Rally for Rivers' in India, traveling across 16 states in 30 days with the message of rejuvenating India's rivers by maintaining a minimum of one kilometer tree cover on riversides. According to him if we don't act now, the recovery will take much much longer. Sadhguru also called on people and communities to join hands for efforts towards water conservation, including through overhauling irrigation systems and putting enabling government policies in place.

Rajendra Singh has said various parts of the country grapple with drought conditions because of lack of political will

and clear vision. He further showed his disappointment with the fact that budget allocated for water management is insufficient and not responsible. He also highlighted the importance of water literacy.

According to Vandana Shiva, "... Water is a commons because it is the ecological basis of all life and because its sustainability and equitable allocation depend on cooperation among community members. Although water has been managed as a commons throughout human history and across diverse cultures, and although most communities manage water resources as common property or have access to water as a commonly shared public good even today, privatization of water resources is gaining momentum."

All these above mentioned factors have pointed out the need of governance and proper management of water resources in India. Water governance here refers to the political, social, economic and administrative systems in place that influence water's use and management. Essentially, who gets what, when and how, and who has the right to water and related services, and their benefits. Governing water includes the formulation, establishment and implementation of water policies, legislation and institutions, and clarification of the roles and responsibilities of government, civil society and the private sector in relation to water resources and services. It determines the equity and efficiency in water resource and services allocation and distribution, and balances water use between socio-economic activities and ecosystems. The water sector is a part of broader social, political and economic developments and is thus also affected by decisions by actors outside of the water sector. Similarly water management is the control and movement of water resources to minimize damage to life and property and to maximize efficient beneficial use. For example Good water management of dams reduces the risk of harm due to flooding. Irrigation water management systems make the most efficient use of limited water supplies for agriculture. It is concerned with ensuring supply of clean, potable water to people who need it while balancing the needs of industry, agriculture and the environment. This also includes monitoring the amount of water in the environment, seasonal and annual changes in water levels and other characteristics, and keeping an eye on the cleanliness of water supplies.

Despite such huge stoke of water resources people are suffering from water scarcity which definitely questions the efficiency and credibility of the management and governance of water in India. In India devastating drought has affected a quarter of the country's population which is prompting in growing despair and consequences are visible throughout the country's politics. Here it is important to state that our water bodies started getting polluted with the industrial and agricultural waste. Along with that use of plastic has to be controlled which is

most of the time dumped into water bodies. Further groundwater has been depleted day by day because of over exploitation of it. There is no proper and strict policy to control ground water. The creation of a Central Ground Water Authority of 1997 has also not shown fruitful results in this regard. Apart from that India has not been able to develop rain water harvesting. Above all lack of consciousness among people water is been misused and wasted by people. Lack of awareness of water scarcity this problem has been often overlooked. Distribution of water between urban consumers, the agriculture sector and industry has to be addressed with seriousness by the government of India.

Further since 1991, after economic liberalization, India is following Structural Adjustment Policies and has made a significant shift towards privatization of water sector by managing water as a commodity. In India privatization and commercialization of water resources started with the adoption of national Water Policy 2002 (NWP) as it has stressed that water needs to be managed as an economic asset and it has been recommended that particularly the Urban Water Supply will operate on commercial line either by private parties or through Public Private Partnership. But, people are apprehensive of such provisions of this policy which has given space for privatization as according to them it may lead to burden on people instead of solving the problem of water scarcity. Here it is very important to cite the example of those states which has faced the consequences of water privatization. For example in Cochabamba, Bolivia, privatization of water services resulted in an increase in the cost of water that caused widespread civil unrest. The Bolivia government canceled the contract with the private water company and the case is pending before the international Centre for Settlement of Investment Disputes of the World Bank Group. The moment we declare water as a commodity it loses its inherent quality of being commons. When water is such a natural resource which should be available to every human being pricing and commodification of this life saving resource may raise many important questions. Here we can highlight Amartya Sen's capability approach which focuses directly on the quality of life that individuals are actually able to achieve. Though there is utility of priced water because water is so important, but everybody does not have the capability to buy water. These are the basic challenges to the governance in India.

Conclusion

From the discussions above it can be stated that water scarcity is a major problem for the people of India which need to be addressed with seriousness. For that effective and efficient water governance is needed. This study has highlighted that there many problems related to water governance in India such as improper fund allocation, lack of political will, improper management of

water, no clear vision, lack of awareness among people, privatization, commercialization of water etc. In this context it can be stated here that water scarcity in India is not only because of physical scarcity of water but also because of improper management of water resources. The issues of water scarcity can be resolved only when government will take effective measures like rain water harvesting, water pollution control, effective ground water management policies, proper irrigation technologies, reduction of misuse and wastage of water resources etc.

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