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Globalization, Corporatization and water Democracy: India's Water Economy

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"Water may become a more significant source of contention than energy or minerals out to 2030 at both the intrastate and interstate levels."
American National Intelligence Council (2012)

Abstract

The ongoing water crisis has resulted in conflicts at both national and international levels, indicating its rapid escalation. The global consumption of water has risen at a rate twice that of human population growth, leaving around one billion individuals without access to safe drinking water. Predictions suggest that the demand for freshwater will increase by 56% by 2025, exceeding its natural availability. Consequently, an additional 2.6 billion people will face acute water shortages, and one-third of the global population will confront complete water scarcity. The World Bank and World Resource Institution have cautioned that some regions are withdrawing more water than they can supply, causing surface water supplies to dwindle, and groundwater reserves are being depleted faster than they can be replenished by precipitation (Barlow, 2001). Hence, the "thirst" for water has become the most crucial issue of the 21st century.

Key words: Water Crisis, Inequality, Commodification of Water, Privatisation, World Bank, Renewable Resources

WATER RESOURCES AND CONSUMPTION PATTERN

India, known as one of the wettest countries in the world with annual rainfall of 1,170 mm, experiences around 120 rainy days from June to September. While Cherrapunji receives the highest rainfall of 11,000 mm, Jaisalmer only receives a meagre 200 mm of annual rainfall (Sampath, 2012). Despite having 4% of the world's freshwater resources, India is classified as a "water-stressed region" due to its utilizable freshwater of 1000 cu m, which falls below the international limiting standards of 1700 cu m per capita (Intergovernmental Panel on Climate Change). India has fourteen large, forty four medium, and fifty five minor river basins, with major and medium river basins accounting for 83-91% of the total drainage. Groundwater resources are estimated at 26.5 million hectare-meters, with 85% of it utilized for agricultural processes, mainly irrigation. Irrigation alone consumes 92% of the total utilizable groundwater in India (World Resources Institute, 2000).

Groundwater amounts to ten times India's annual rainfall, but only one-fifth of it is used for domestic purposes in rural India, while the remaining is used for industrial and urban purposes.

The International Irrigation Management Institute (IIMI) cautions that because water is used twice as quickly as it is regenerated, India's water table is dropping by one to two meters year. Over the next 20 years, the residential sector's freshwater demand—which currently accounts for only 5% of total freshwater consumption—is expected to rise from 25 billion m3 to 52 billion m3 (Sampath, 2012). Furthermore, the demand for freshwater by the industries, energy production, and other sectors will rise from 67 billion m^3 to 228 billion m^3 by 2025 (World Bank). Globally, industry, energy, and agriculture consume 5-20 times more freshwater than the domestic sector (Johnston, 2003). The availability of renewable freshwater has declined from 5,277 m^3 (cubic meters) in 1955 to 2,464 m^3 (cubic meters) in 1990 and is projected to decrease to 1000 m^3 (cubic meters) with the expected population rise (Sampath, 2012).

COMMODIFICATION OF WATER.

Globalization has spread across the world, with financial institutions and corporations imposing universal, market-oriented rules primarily in the economic sphere. The outcome has been the consolidation of economic and political authority within multinational corporations, which manage resources and services by means of both national and international regulations. The economic clout of the top 200 transnational corporations has grown significantly, surpassing the combined economy of 182 countries and impacting four-fifths of humanity, as per the Washington-based Institute. Corporations have emerged as the key players in the global marketplace, dominated by faceless bankers and hedge-fund investors who often act in unison within the opaque realm of international finance. David Korten, a former senior advisor at the U.S. Agency for International Development, asserts that these financial entities manage a staggering two trillion dollars in transactions daily, influencing currency values and stock prices, thereby shaping and destabilizing national economies. Furthermore, they engage in the buying and selling of companies, effectively holding political leaders accountable to their agendas. (Korten, 2001)

Furthermore, the impact of globalization on employment, wages, and income inequality has been the subject of much debate. Some scholars argue that globalization has contributed to the rise of inequality within and between countries, as it has enabled companies to shift their operations to low-wage countries, reducing the bargaining power of workers in developed countries. Others contend that globalization has benefited both developed and developing countries, leading to higher wages and more opportunities for workers in low-wage countries, while also reducing prices for consumers in developed countries.

Concerns about the effects of globalisation on the environment have also been raised. The increased international trade of goods and services has accelerated climate change by increasing greenhouse gas emissions. This issue has been exacerbated by the expansion of energy-intensive industries and the long-distance movement of goods.

In order to create a global market, transnational corporations use their financial clout to persuade national governments to deregulate their economies by privatising industries and

lowering trade and foreign investment barriers, according to Victor Menotti, director of the International Forum on Globalisation. However, this new market economy contributes to the depletion of natural resources and disregards environmental protection. As a result, large numbers of people are left out of production and unable to control their local resources, which are now being shipped away. Immanuel Wallerstein's World-System Theory explains this phenomenon as a relationship between the core and periphery, with the core exploiting the periphery for raw materials, labour, and as a market. Wallerstein's theory also includes the concept of "commodification," which refers to the transformation of anything, including human beings, into goods or commodities that can be sold in the market. (Barbosa, 2009, pp. 35-36). Harvey (2004, as cited in Liverman, 2004) defines commodification and privatization as a strategy of "accumulation by dispossession where states collude with capital to pillage nature and the commons." Leslie (2009) defines commodity as a term with multiple interpretations, including "a thing of value, things used for trading or exchanged, and objects that are merchandised for money" (p. 268). In a commodity-driven society, entrepreneurs select both the products and the methods of production by considering their marketability and potential for profit generation. Consequently, in the context of Human Geography, commodification is defined as "the expansion of the commodity form to include goods and services that were not previously classified as commodities" (Leslie, 2009, p. 268). The commodification of water arose when its scarcity became a destabilizing force, leading to social, political, and economic conflicts worldwide.

The commodification of water has become a pressing issue in recent years, with increasing demand and scarcity leading to conflicts and destabilization. Vandana Shiva (2002) argues in her book “Water Wars: Privatization, Pollution, and Profit” that the globalized economy has transformed water into a commodity that can be extracted and traded freely, leading to the loss of self-management and collective ownership for communities. This is facilitated by policies and regulations that legalize water trading and promote water privatization, such as those of the World Bank, WTO, and GATS. These organizations not only circumvent governmental regulations but also enable corporations to litigate against nations whose internal policies hinder free-market access, as highlighted by Shiva (2002). Additionally, the European Community has broadened the scope of water services to encompass water collection, purification and supply. Nevertheless, Shiva (2002) argues that water is a shared resource and that communities should take charge of its management, given that it serves as the ecological basis for all life and its sustainable use relies on the collaborative efforts of community members.

The process of water commodification is supported by international financial entities, including the World Trade Organization (WTO), the World Bank and the General Agreement on Trade in Services (GATS). These organizations provide transnational corporations with unparalleled access to water resources in countries that are signatories to these agreements (Shiva, 2002). Legal trades of water in the globalized market result in transnational investments between countries, with the water industry being the most profitable for investors (Shiva, 2002). The

World Bank allocates financial resources for a range of water initiatives, with member countries in southern Asia contributing 20% of the total funding. This funding supports urban water and sanitation, rural water projects, irrigation, hydropower, and environmental projects related to water (Shiva, 2002). For example, Monsanto, a prominent multinational in agricultural biotechnology, partners with the World Bank and other global corporations to invest in the water sector in India (Shiva, 2002).

Privatisation of water in India

The privatization of water refers to the transfer of control over water resources or water management services from government bodies to non-government organizations or private companies. The push for water privatization gained momentum due to the belief that water subsidy led to wastage and that levying water tariffs would reduce consumption and wastefulness of water. As a result, the common process of water management services provided by the local government infrastructure lost its hold.

In India, the national water policy established by the government in 2002 advocated for the privatization of water resources as a strategy to address water scarcity, promoting the involvement of the private sector in the planning, development and management of water resource initiatives. This prioritization of water privatization was further extended by interlinking of rivers, which aimed to bring water from surplus to deficient areas. The Indian government adheres to all international aid regulations following its accession to the World Trade Organization, which facilitated economic liberalization aimed at boosting national income. The favourable deregulations and initiatives from international financial institutions have attracted transnational investments in India, positioning it as an appealing market for investments in water services.

Transnational corporations such as PepsiCo, the Coca-Cola Company, Bechtel, Suez and Vivendi have made significant investments in urban water supply and wastewater management in India. They collaborated with municipal authorities and public entities to enhance and oversee water infrastructure and its distribution to both consumers and industries. This surge of major companies entering the water services sector prompted the privatization of water resources in India, culminating in the Ministry of Urban Development establishing a policy aimed at privatizing urban water supply, sewerage, sanitation and wastewater management. This policy permits 100 percent foreign investment across all sectors via an automatic approval process.

The growing middle class's consumption and the interests of multinational corporations are two further elements driving India's water privatisation. Aiyar (2007) highlights that the urban middle-class population's demand for improved infrastructure and services has led to a rise in the privatization of water management sectors that were once under government control. Major players like PepsiCo and Coca-Cola, which dominate 40% of the bottled water market and 80% of the soft drink market, have specifically targeted middle-class consumers. Consequently, the

bottled water sector in India has experienced significant growth, positioning the country as the 10th largest consumer of bottled water globally (Bhushan, 2006, as cited in Aiyer, 2007). Furthermore, international investments in India have been encouraged by factors such as inexpensive labour, affordable groundwater extraction, and supportive government policies (Aiyer, 2007).

Rural communities have not reaped the benefits of global investment. The economic reforms initiated in the 1980s triggered an agrarian crisis, resulting in agriculture's share of the national GDP declining to 25%, while 75% of the population continues to rely on it. According to Aiyer (2007), 70% of the rural populace experiences daily starvation in terms of calory intake. Although the government has asserted progress in poverty reduction during the 1990s, many economists challenge this claim, noting that 55% of the urban population and 75% of the rural population still live under officially recognized poverty conditions. The rural population has also been adversely affected by the mounting expenses of agricultural inputs, including fertilizers, seeds and pesticides. The deregulation of the banking sector has resulted in a credit shortage for many small and impoverished farmers, exacerbating their reliance on moneylenders and traders and increasing their levels of debt (Aiyer, 2007).

In recent years, deregulation and privatization in India have resulted in increased tariffs previously paid by the government. This increase in tariffs has led to high costs for farmers, particularly in arid areas where farmers rely on canal irrigation and tube wells which generates power at a high cost. As a result, many farmers have been unable to pay for this power and have become indebted, leading to crop failures. The situation worsened when water corporations began to engage in water mining to maximize profits, leading to control over 1000 crore of groundwater and annual growth of 40-50 percent (Aiyer, 2007).

The explosive expansion of the bottled water sector in India has intensified the existing challenges. At present, approximately 1,200 bottling facilities and 100 brands of packaged water are vying for market share, leading to excessive extraction of groundwater and depriving local communities of essential water resources and their means of livelihood (Aiyer, 2007). As per the Bureau of Indian Standards, there are 1,200 factories in the business of bottled water in India, and the cost of water mining is negligible compared to the profits derived from the industry (Aiyer, 2007). The southern region of India, which is water-stressed, is the dominant market for the bottled water industry, with Chennai alone contributing to a quarter of the industry's revenue (Business Wire, 2013).

Despite the profits, the corporate governance of freshwater resources by these companies is alarming, leading to the exploitation of local communities and depletion of natural resources (Aiyer, 2007). Reports estimate that the domestic packaged bottled water market in India was Rs 8,000 crores in 2012 and Rs 10,000 crores in 2013, and is projected to exceed Rs 36,000 crore by 2020 (Business Wire, 2013). Industry experts believe that the bottled water industry may become the next oil industry due to the increasing scarcity of safe drinking water and aggressive expansion by market players (Motiwala, 2012).

In the absence of regulatory measures, the privatization of water has resulted in escalating prices, which deprives a large section of the populace access to water due to their economic inability to purchase it. This is ironic since privatization was intended to improve access to water services for the population. Due to limited water supplies in these settlements, people are dependent on private water vendors, who exploit the situation by reselling water sourced from the municipality or groundwater, with arbitrary pricing and unregulated water quality. This results in the most deprived section of the population bearing the burden of high tariff prices for the unregulated quality of water. Additionally, discriminatory policies towards underprivileged settlements of slum and pavement dwellers, deeming them as 'illegal occupants,' have resulted in inequitable access to water. These issues, such as the domination of private companies backed by international funding agencies, exclusion of non-profit sectors, and restructuring of the state for the maximization of profit, are rooted in entitlement of citizenship, social rights, and responsibilities, governance, and legislative measures

This situation of inequitable access to water due to privatization and regulatory failures is not unique to India. It is a global issue that affects many countries, particularly those in the developing world (United Nations, 2010). In such cases, the lack of access to safe and affordable water has negative impacts on health, education, and overall development (Gleick, 2015). The recognition of the responsibility of ensuring access to safe drinking water as a basic human right, is of the governments.

Conclusion

In many parts of the world, including India, the problem of guaranteeing fair access to water remains a major concern. Water resource privatisation has been suggested as a way to improve access, but it hasn't achieved the desired results. Instead, it has led to the exclusion of underprivileged communities, who are unable to afford the high prices that private water providers demand. Private companies have started taking advantage of the lack of government regulations, supplying inferior quality of water at varying prices resulting in the situation getting worse day by day.

A comprehensive regulatory framework that prioritises the needs of water supply system administrators and consumers is necessary to address this issue. Democratic and accountable governance principles must serve as the foundation for this framework, guaranteeing that underprivileged and marginalised communities participate fully in reform discussions. Distributive privatisation can be inclusive and successful when it is based on good governance and participatory budgeting, as demonstrated by the example of Porto Alegre in Brazil.

In addition, it is crucial that the right to water be expressly protected by statutes or the constitution. At-risk communities are put in a vulnerable position when such a right is absent, making them dependent on private companies with no legal safeguards. Unambiguous definitions of clean water standards are also essential because they will enable all communities to have fair access to water which is safe and potable.

Alternative Community-Based Water Management Models

There are several small-scale, community-focused water management and distribution programs that provide financial advantages and promote long-term sustainability as an alternative to privatisation. Notable outcomes are produced by these cooperative and participatory approaches, which guarantee that water utilities remain accountable and sensitive to community needs. Furthermore, by offering customised local solutions that are modified to meet specific environmental requirements, these models address the global issue of water scarcity.

Rainwater harvesting, which involves gathering water from surfaces where precipitation falls and storing it for later use, is another very successful strategy. Rainwater harvesting is a millennial phenomenon in India that emerged from participation, scientific understanding, and local wisdom. In cities like Chennai and Delhi, where privatisation poses a serious threat, it has been successfully modelled and put into practice. The rapid depletion of groundwater resources in Chennai due to massive construction projects emphasises the urgent need for rainwater harvesting as a workable solution. Similarly, authorities have made rainwater harvesting systems mandatory in all new residential and hotel projects in New Delhi, where the water table is dangerously low.

The gender-sensitive movement in the Bhal region of Gujrat, which was launched by Utthan, a non-governmental organisation, is another successful example of a community-based model. Using decentralised rainwater harvesting systems such as roof water collection tanks and plastic-lined ponds, this project focused on the creation of community-managed drinking water resources using a gender-sensitive approach. Policymakers were compelled to acknowledge the impact that the movement had because of the tremendous pressure it put on state and local bureaucracies.

The issue of water scarcity has been successfully addressed through alternative community-based water management models, which offer sustainable and economically viable solutions. These models offer a workable approach to water management, and their successes can be used as a model for other communities facing similar challenges. In Kothapally, in the Ranga Reddy district of Andhra Pradesh, a cooperative group of stakeholders, including the Central Research Institute for Dryland Agriculture, the state government's Rural Livelihood Programme, and the Drought-Prone Areas Programme, has successfully implemented community-driven watershed management initiatives. This has raised water levels in the region, increased vegetation cover, and enhanced agricultural productivity. The non-governmental organization Tarun Bharat Sangh, located in Rajasthan, has made significant strides in drought-affected regions by enhancing agricultural productivity and expanding forest cover through the implementation of water harvesting systems. In Maharashtra, the village of Ralegaon Siddhi, which previously faced challenges such as drought, poverty, debt, and unemployment, has transformed into a model community through extensive tree planting, the terracing of hills to prevent erosion, and the construction of canals with ridges on both sides to capture rainwater. Similarly, the

participatory water management approach implemented in Porto Alegre, Brazil, has empowered impoverished communities by involving them in the decision-making process for new water projects, thereby ensuring their access to clean water. In Santa Cruz, Bolivia, a thriving consumer co-operative model has been operational since 1979, characterized by effective and transparent management that offers reduced rates for the initial 15 m^3 (cubic meters) of water consumed by each household monthly, while also preventing disconnections for non-payment. Meanwhile, in Dhaka, Bangladesh, the Dhaka Water Supply and Sewerage Authority (DWASA) assigned one zone to the DWASA Employees Union. Following a year of trial, the performance of the union cooperative surpassed that of private water companies, prompting DWASA to transfer the contract from the private sector to the union. The effective community-driven water supply models highlight the significance of empowering and fostering communities as they strive for their own democratic and people-focused approaches to water provision (Kothari & Manohar, 2012; Sharma, 2005; Simha, 2007; World Commission on Water, 2000).

The fundamental concern regarding equitable access to water is intrinsically linked to the principles of citizenship, social rights, and associated responsibilities. A comprehensive strategy is necessary, one that acknowledges the dual economic and social significance of water, while avoiding its treatment as merely a commercial asset. Such a strategy is essential to guarantee that all individuals can obtain safe, clean, and affordable water, irrespective of their economic or social circumstances.

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