



GENDER DYNAMICS IN WATER SCARCITY: A HUMAN RIGHTS PERSPECTIVE

Dr. Sandeep Singh

Assistant Professor, Department of Lifelong Learning, University of Jammu, J&K, India

Abstract-- The right to safe drinking water has been acknowledged by the UN, yet access to this vital resource is still a major problem in many parts of India, especially in the nation's impoverished rural areas. Securing affordable and safe water is difficult in these places due to a number of issues, such as groundwater depletion, insufficient rainwater collection, and sewage and agricultural effluent contamination. Water scarcity disproportionately affects women, who frequently go through extreme measures to provide water for their family. They wait in long queues, lift big containers, and put their lives in peril by plunging into extremely shallow wells. Communities have turned to polygamy in certain situations, such in a hamlet in Maharashtra, as a last-ditch effort to deal with the water shortage. Opportunities for women to grow personally and economically are diminished by the time and energy they devote to gathering water. The gender gap in water, sanitation, and hygiene (WASH) is examined in this chapter, which also emphasises the need for inclusive policies that support women's leadership and participation in water-related decision-making. We can increase women's access to clean water and provide them with opportunities to participate in activities that improve their economic, social, and financial well-being by addressing these inequities and promoting gender-inclusive approaches.

Keywords: Water Scarcity, Gender Dynamics, Human Rights, Safe Drinking Water.

INTRODUCTION

Water is the lifeblood of all existence, a vital yet finite resource crucial for sustaining all living organisms on Earth. It plays an essential role in the biosphere, supporting life and facilitating the movement, circulation, and cycling of nutrients. Despite its importance, the amount of potable water is limited and its availability per person is declining due to population growth and environmental damage. While natural water is free, considerable investment and planning are necessary to provide water of the desired quality and quantity consistently.

The United Nations has declared access to safe drinking water a human right, yet it remains a significant challenge in both urban and rural India. Rural areas, in particular, face difficulties in securing safe and affordable water due to groundwater depletion, inadequate rainwater harvesting, and contamination from sewage and agricultural runoff. Remarkably, 97% of Earth's water is saltwater, with only 3% being freshwater. Of this freshwater, over two-thirds are trapped in glaciers and polar ice caps, leaving a small fraction as accessible groundwater. As a result, around 1.1 billion people globally lack access to water, and 2.7 billion experience water scarcity for at least one month each year.

Some communities have resorted to desperate measures to cope with these challenges. For instance, a village in Maharashtra has turned to polygamy to secure water, a practice known as 'water wives' (Siddique, 2015). This underscores the critical need for innovative and inclusive solutions to address water scarcity, emphasizing the importance of women's leadership and participation in water-related decision-making. This chapter explores gender disparities in water, sanitation, and hygiene (WASH) and advocates for policies that foster gender-inclusive approaches, ensuring equitable access to clean water and empowering women to contribute to their economic, social, and financial development. It is critical to understand that certain populations experience disproportionately high levels of inequality in the use of WASH resources. Women and rural communities, for instance, are marginalised groups that are further hindered by inadequate WASH practices or encounter additional difficulties in obtaining WASH resources (WHO and UNICEF, 2019).

The water crisis has affected the women and children more severely. This crisis of water only puts them at a higher risk of vulnerability. Fetching water in India has been perceived as a woman's job for



centuries. Women, especially in the rural areas, walk miles to collect water from the nearest source. Wells, ponds and tanks are drying up as groundwater resources come under increasing pressure due to over-reliance and unsustainable consumption. This has escalated the water crisis and placed an even greater burden of accessing water on women. A rural woman in Rajasthan walks over 2.5 kilometres to reach a water source, according to a report by the National Commission for Women (National Commission of Women, 2015). They will travel long distances for it, carry the burden of heavy vessels, stand in queue for hours and even risk their lives by climbing down the dangerously shallow wells, just in search of water. The fact that they have to do all this, sacrifice their time that could be spent doing some other activities. Access to safe drinking water becomes paramount for women so that they can pursue other activities that can add meaning to their lives and help their economic, social and financial growth.

THE HUMAN RIGHT TO WATER

Water is intrinsically linked to the advancement of human societies. Recognizing its vital role, the United Nations (UN) General Assembly declared safe and clean drinking water a human right in 2010. Given its profound social importance, water is deeply intertwined with social dynamics, including gender roles. These roles shape how water is used and collected, traditionally involving women in domestic settings, and how water resources are managed, typically involving men in public and economic spheres.

The UN's assertion that "water management fosters gender equality" (UN, 2019) is rooted in the longstanding recognition of the gender-water nexus. This understanding dates back to 1992, when the Dublin International Conference on Water and the Environment emphasized that "women play a central part in the provision, management, and safeguarding of water." This perspective acknowledges that women, often responsible for fetching and using water in their households, possess crucial insights and expertise regarding water resources.

However, despite their pivotal role, women frequently lack representation in formal water governance structures, which are predominantly male-dominated. This disparity in involvement not only reinforces gender inequalities but also hampers the effectiveness of water management strategies. Inclusive policies and practices that integrate women's knowledge and experiences are essential for sustainable water management.

Promoting gender equality through water management involves recognizing and addressing the distinct needs and contributions of both women and men. Ensuring women's participation in decision-making processes related to water governance can lead to more equitable and efficient management of this vital resource. Additionally, empowering women in water management roles can enhance community resilience, as women are often at the forefront of coping with water-related challenges.

There are now three major worldwide policy frameworks that demonstrate the incorporation of gender in climate change concerns and are also relevant to the global administration of water:

1) The Sustainable Development Goals

Water and gender are closely linked through several Sustainable Development Goals (SDGs), highlighting their interdependence in achieving broader developmental outcomes. Specifically, the interplay between SDG 5, which focuses on achieving gender equality and empowering all women and girls, and SDG 6, which aims to ensure the availability and sustainable management of water and sanitation for all, underscores the critical role that water plays in promoting gender equality and vice versa.



a. **SDG 5: Gender Equality and Empowerment**

The provision and management of water resources have significant gender implications. Traditionally, women and girls are primarily responsible for water collection in many cultures, a task that can consume a considerable portion of their time and energy. Ensuring access to safe and reliable water sources close to home can alleviate this burden, freeing up time for educational and economic activities. Additionally, involving women in water governance can lead to more effective and inclusive decision-making processes, thereby advancing gender equality and empowerment.

b. **SDG 6: Clean Water and Sanitation**

Achieving sustainable management of water and sanitation is crucial for the well-being of all, but particularly for women and girls. Access to clean water and sanitation facilities directly impacts their health, safety, and dignity. For instance, improved sanitation reduces the risk of waterborne diseases and provides a safer environment, particularly for women who are often vulnerable to violence when fetching water or using inadequate sanitation facilities.

c. **SDG 1: No Poverty**

Water scarcity and poor water management can exacerbate poverty, particularly in rural areas where communities depend heavily on agriculture. Women, who often play key roles in small-scale farming, are disproportionately affected by these challenges. By ensuring equitable access to water and improving water management practices, we can enhance agricultural productivity and resilience, thus contributing to poverty alleviation.

d. **SDG 3: Good Health and Well-being**

Access to clean water is fundamental to health and well-being. Contaminated water sources are a leading cause of diseases such as cholera, dysentery, and typhoid. Women and children are particularly susceptible to these health risks. Improving water quality and sanitation facilities reduces the incidence of these diseases, promoting better health outcomes for entire communities.

e. **SDG 4: Quality Education**

The time-consuming task of water collection often falls on girls, limiting their ability to attend school regularly. Additionally, the lack of adequate sanitation facilities in schools can lead to higher dropout rates among girls, particularly during menstruation. By providing safe water and proper sanitation in educational institutions, we can support uninterrupted schooling for girls, contributing to their overall development and future opportunities.

f. **SDG 13: Climate Action**

Climate change significantly impacts water availability and quality, with adverse effects on communities' livelihoods, especially those reliant on agriculture. Women, who are often responsible for managing household water resources, are on the front lines of these challenges. Implementing climate-resilient water management practices and involving women in climate action can enhance community resilience and adaptive capacity.

In summary, the links between water and gender extend across multiple SDGs, highlighting the interconnected nature of these goals. Addressing water and gender issues in tandem can drive progress toward achieving not only SDG 5 and SDG 6 but also SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 13 (Climate Action). This integrated approach ensures that water management practices are sustainable, equitable, and capable of empowering women and girls, ultimately contributing to a more just and prosperous world.



2) *The Sendai Framework for Disaster Risk Reduction*

The Sendai Framework for Disaster Risk Reduction 2015-2030, particularly in its Priority 4, underscores the importance of enhancing disaster preparedness to ensure effective response and to “Build Back Better” during recovery, rehabilitation, and reconstruction phases. This priority highlights the critical role of empowering women and persons with disabilities in leading and promoting gender-equitable and universally accessible disaster response and recovery efforts. Two key aspects under this priority are the improvement of understanding of water-related disaster risks and the promotion of resilient critical infrastructure, including water systems.

3) *The Lima Work Programme On Gender and The Gender Action Plan Under The United Nations Framework Convention On Climate Change (UNFCCC)*

Although no explicit mentioning of water is present in either document, the Lima Work Programme on gender calls for an integration of “a gender perspective in the activities and work under the Convention, the Kyoto Protocol and the Paris Agreement” (3). The Gender Action Plan was established under the Lima umbrella and “recognizes the need for women to be represented in all aspects of the UNFCCC process and the need for gender mainstreaming through all relevant targets and goals in activities under the Convention as an important contribution to increasing their effectiveness”. The UNFCCC focuses on water management and allocation as the main gendered aspect of water.

GENDER AND WATER MANAGEMENT

Control over water resources encompasses two primary aspects: management and governance. These aspects highlight the disparities in gender roles and the implications of such disparities on the well-being and socio-economic status of women and girls.

Management: The "Doing" Aspect

Management of water involves practical, day-to-day activities related to water collection, use, and infrastructure construction. This aspect can be broken down further into:

- a. **Household Water Collection and Usage:** Women and girls are predominantly responsible for collecting and using water for household tasks such as cleaning, cooking, and hygiene. This role is essential for the functioning of households but often receives little social recognition or economic compensation. According to the UN, in 80% of households where water is not available on premises, women and girls are primarily responsible for water collection (UN, 2018). This task typically requires walking long distances, which can have serious health implications, including musculoskeletal damage and chronic stress.
- b. **Infrastructure Construction:** On the other hand, women are significantly underrepresented in the construction and planning of water infrastructure, which is generally associated with engineering and technical positions. These roles are typically higher in social recognition and economic value, highlighting a stark gender disparity in the management of water resources.

Governance: The "Planning" Aspect

Governance refers to the broader framework of decision-making and power structures that determine how water resources are allocated, distributed, and commercialized. Key components of water governance include:

- a. **Planning and Decision-Making:** Governance involves the planning and decision-making processes related to the construction and maintenance of water infrastructure. Women are often excluded from



these high-level discussions and decision-making bodies, leading to policies and projects that may not fully consider their needs and perspectives.

- b. Allocation and Distribution: Effective governance also encompasses the allocation and distribution of water resources, determining priorities among competing users such as families, agriculture, and private companies. Women's voices and concerns are frequently underrepresented in these discussions, which can lead to inequitable water distribution.
- c. Commercialization: The governance of water resources often involves the commercialization of water, where decisions about pricing and access can disproportionately affect low-income families, especially women who manage household water supplies.

The gender disparities in both the management and governance of water resources have significant implications:

- a. Health Impacts: The physical burden of water collection can lead to serious health issues for women and girls, including musculoskeletal damage, chronic stress, and increased vulnerability to violence during long walks to water sources.
- b. Economic Impacts: The time spent on water collection and household water management tasks limits women's opportunities for education, employment, and other economic activities, perpetuating cycles of poverty and gender inequality.
- c. Social Impacts: The exclusion of women from decision-making processes in water governance means that their unique needs and perspectives are often overlooked. This can result in water policies and infrastructure that do not adequately address the realities of all community members, leading to inefficiencies and injustices.

Addressing these disparities requires concerted efforts to promote gender equity in both the management and governance of water resources. Key strategies include: Inclusive Policies, Capacity Building, Health and Safety Measures, and Awareness and Advocacy

In short it can be said that the control over water resources involves both practical management and strategic governance, with significant gender disparities in each aspect. Addressing these disparities through inclusive policies, capacity building, health measures, and advocacy is essential for promoting gender equity and improving overall water resource management.

GENDER AND WATER GOVERNANCE

Women are significantly underrepresented in higher levels of water governance, resulting in limited power and control over water resources. For instance, globally, ministries of water are the least likely to have a gender focal point (Fauconnier, I, et al, 2018). High-level policies and programs seldom incorporate gender aspects. Additionally, privatization disproportionately impacts women, as it often leads to increased prices (Food and Water Watch, 2010), affecting the most disadvantaged individuals, among whom women are the majority.

In Bolivia, during the Cochabamba water war in 2000, women played a crucial role in defending public ownership of water (Razavi, 2019). This involvement boosted women's self-esteem and positively changed community perceptions of women's leadership, not only in water issues but also in their overall social status within the community.

The underrepresentation of women in water governance can be attributed, among other factors, to the legal discrimination against girls in many countries. Control over land and water is closely linked to power and authority over water resources. According to the 2018 Global Gender Gap report by the World Economic Forum, women have equal access to financial services as men in only 60% of countries, and to land ownership in just 41% of countries (World Economic Forum, 2018). This disparity



leaves women vulnerable in accessing water and weakens their position in water governance. For example, in Vietnam, rice fields managed by female-headed households produce 20% less due to unequal water access.

GENDER AND SANITATION

Meeting women and girl's needs around menstrual, sexual and reproductive health, WASH (Water, Sanitation and Hygiene) is also indispensable for their economic and social development, contributing to gender equality and the fulfilment of their rights. Currently in the world 2 billion people lack safely managed drinking water and 4.5 billion lack safely managed sanitation. Sexual assault linked to lack of sanitation is a major problem in India, where 600 million people still practice open defecation in 2019. Menstrual Hygiene Management (MHM) is another very relevant and neglected WASH issue that affects women and girls, due to the gender roles and the stigma that surrounds menstruation. Girls may avoid going to school during their menstrual days due to lack of privacy or cleanliness in toilets, or just because of stigma or cultural taboos, causing absenteeism (Vashisht,2018). Girls face shame, anxiety, and embarrassment, which affects their school performance. Teachers are also affected by an inadequate MHM in schools. Similarly, women and girls may not have a suitable space to manage their menstruation in their working environment, especially if they are labouring in the informal sector, which is associated with a lack of proper infrastructure. In some cases they may stay home and lose income for that period. MHM is instrumental in progressing women's and girls' ability to manage their menstrual periods safely and with dignity; thereby, allowing them to participate in school, work, and other activities (Sommer et al., 2016)

CONCLUSION AND SUGGESTIONS

The symbiotic relationship between water and women is undeniable, as women's health, livelihoods, and social status are significantly influenced by access to water. This connection is rooted in both biological needs and socially constructed gender roles, making women particularly vulnerable to water scarcity and poor access to safe drinking water. Women face unique challenges due to their specific biological needs related to menstruation, pregnancy, childbirth, and breastfeeding, which require reliable access to clean water for hygiene and health. Additionally, in many cultures, women and girls are primarily responsible for water collection and household management, including cooking, cleaning, and caring for family members. This responsibility often involves long hours of physically demanding labor, which can lead to musculoskeletal injuries, chronic fatigue, and increased vulnerability to violence and harassment. Poor access to clean water also heightens the risk of waterborne diseases, which women are more likely to encounter due to their caregiving roles.

Providing clean, readily available, and inexpensive water can significantly enhance women's well-being. Easy access to water reduces the time and physical effort women spend on water collection, allowing them to engage in other productive activities, pursue education, or participate in income-generating work. Improved access to safe drinking water and sanitation facilities decreases the incidence of waterborne diseases, promoting better health outcomes for women and their families. When women have more time and better health, they can contribute more effectively to the economy, enhancing their financial independence and socio-economic status.

Addressing the barriers women face in accessing water and other resources requires policy frameworks that incorporate women's unique experiences and perspectives. Legal reforms are necessary to remove barriers that prevent women from owning land and accessing financial services. Policies should ensure equal property rights, inheritance laws, and access to credit, enabling women to have a more secure



stake in resource management. Inclusive policy development that engages women in the creation of water policies and programs ensures that their needs and insights are considered. Targeted interventions, such as providing training for women in water management and technical skills, can help bridge the gender gap in higher-skilled roles within the water sector.

Inclusive governance and management of water systems are essential for addressing the gendered dimensions of water access. Promoting women's leadership in water governance can lead to more equitable and effective water management. Women leaders can advocate for policies that address the specific needs of their communities and ensure fair distribution of water resources. Infrastructure projects should consider the different ways men and women use and access water, including designing water systems that are accessible and safe for women, such as well-lit water points and secure sanitation facilities. Encouraging community-based water management practices that involve both men and women can foster more sustainable and inclusive solutions. Communities where women participate actively in water governance tend to have better maintenance of water systems and more equitable access.

The close connection between water and women highlights the importance of gender-sensitive approaches to water governance and management. We can improve women's well-being and contribute to broader social and economic development by increasing access to clean water, eliminating legal barriers and promoting inclusive policies and governance. Empowering women in the water sector not only reduces gender disparities, but also leads to more effective and sustainable water management strategies.

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