

Water, Sanitation, and Hygiene (WASH) Access for Women and Girls: Challenges in Achieving SDG 6



Dr. Daisy Sharma

Assistant Professor, Department of Public Administration
University of Rajasthan, Jaipur (Rajasthan)

Abstract

Water, sanitation, and hygiene (WASH) are vital for health and well-being; however, a significant gender gap remains around the world. This paper examines challenges faced by women and girls in accessing WASH services, through the lens of Sustainable Development Goal 6 (SDG 6) which advocates for the availability and sustainable management of water and sanitation for all. Women and girls assume a disproportionate share of the WASH burden due to socio-cultural norms, privacy issues, and unfavourable or inadequate infrastructure which impacts their health, opportunities for schooling and education and economic participation. The paper explores how responsibilities such as water collection take considerable time and places them in risky situations, while poor sanitation increases exposure to disease and gender-based violence. Menstrual Hygiene Management (MHM) is one crucial area of WASH that is often overlooked impacting school attendance and social inclusion. The paper reviews several regional case studies and the current policy landscape to generate examples of successful gender-sensitive WASH interventions and approaches, the importance of community engagement and inclusive infrastructure. The paper finishes with a call for integrated and gender-responsive WASH approaches and supports the need for targeted policies and resourcing investment to address barriers to attain SDG 6. It is essential to tackle these gender-related issues in support of women's rights as well as equitable and sustainable development globally.

Keywords: Wash, SDG 6, Gender Equality, Menstrual Hygiene Management, Sustainable Development

Introduction

Sustainable Development Goal 6 (SDG 6) was adopted on September 25, 2015 by the United Nations to “ensure availability and sustainable management of water and sanitation for all” by 2030 (SDGs). This goal addresses targets for universal access to safe drinking water, adequate sanitation and hygiene, as well as water quality, wastewater management and water resources management and development. Despite efforts globally and between 2020 and 2024, approximately 2.2 billion people live without access to safely managed drinking water, 3.4 billion do not

have safely managed sanitation, and 1.7 billion have no access to basic hygiene services in the home (SDGs). Achieving SDG 6 is important not only for public health itself, but in achieving other Sustainable Development Goals (SDGs) related to health, education, gender equality, and economic growth (United Nations, 2015). Access to safely managed water and sanitation is something that is central to human dignity and well-being, yet inequality persists for women and girls in many regions.

Water, sanitation, and hygiene (WASH) services are critical for the well-being, dignity, and agency

of women and girls. Women and girls worldwide bear the burden of water collection and often must walk long distances to obtain it, which has an opportunity cost in terms of time spent on education and economic activities. In many settings, lack of adequate sanitation services can also put women and girls at risk of ill-health and gender-based violence, particularly when menstruating and pregnant. Without adequate access to safe and private sanitation services, women and girls also face limitations with dignity and privacy, which can lead to social exclusion and stigmatization.

Literature Review

In general, women and girls hold the responsibility of collecting water for household uses, which is a physically hard and time-consuming activity. According to the WHO, women and girls spend many hours each day gathering water in developing regions. Furthermore, in some developing areas, the water source may be more than 30 minutes away from the household. This burden of water collection can perpetuate “time poverty,” where time spent collecting water does not afford opportunities for education, income generation, or leisure. The physical challenge of lifting heavy stuff, when getting water for long distances, is detrimental to health is associated thigh muscle injuries and tiredness (Sorenson, Morssink, & Campos, 2011). Additionally, the act of collecting water puts women and girls at risk for harassment, being assaulted, and violence with water collection being an even more dangerous activity when the walk is through isolated ruins/areas, or in less secure settings (UN Women, 2022). In some situations, the fear of gender-based violence limits women’s and girls’ collection of water to daylight hours, often leading to not enough water being available for minimum household needs (UNICEF & WHO, 2023).

Having access to safe, private, and sanitary sanitation services presents the largest challenge for women and girls if they are in rural settings, urban slums, and refugee camps. UN-Water (2023) confirms that about 3.6 billion people do not have access to safely managed sanitation

in the world; often, women and girls face risks from unsafe facilities, such as them being in rural settings, urban slums, and refugee camps. The lack of secure access to sanitation services presents an increased risk of gender-based violence (GBV) in terms of harassment and sexual assault. Much of this is true when women are outside of any safe services and experience the act of open defecation, or their only access is to share poorly managed sanitation toilets. The absence of privacy during sanitation can also cause embarrassment and social isolation thereby threatening women’s dignity and mental well-being (UN Water, 2023). Furthermore, it is often the case for sanitation facilities to be designed without factoring in women’s unique needs during menstruation, pregnancy, or postpartum periods, aggravating discomfort and risk of health complications (Wilbur et al., 2016). Safety issues often inhibit women from entering toilets at night and during menstruation, and consequently, women must often limit their food and water consumption or resort to more dangerous alternative options, increasing the risk of violations to additional safety (UN Women, 2022). Thus, safe sanitation is not just about hygiene, but the rights and safety of women. Menstrual Hygiene Management (MHM) issues MHM remains a significant area of WASH, but it is frequently overlooked, and can inform serious health, education, and empowerment issues related to girls and women. Inadequate MHM facilities in schools and the public environment, coupled with cultural taboos and stigma associated with menstruation, restrict the ability of many girls to manage their periods in a hygienic and dignified manner (World Vision International, 2022).

In several regions of the world, girls miss considerable time from school during their menstruation period due to a lack of private toilets, running water, or sanitary products (World Vision International, 2022). According to UNESCO (2019), menstruation procedures can cause girls to miss an estimated 20% of school days, impacting school completion and educational attainment by elevating school dropout. In ad-

dition to education, poor menstruation hygiene management (MHM) practices can increase risk of reproductive tract infection, urinary tract infection, and health risks overall (House et al. 2012). There are strong cultural taboos that don't allow open dialogue on the topic of menstruation. So, they limit awareness and the chance for successful intervention (Sommer et al., 2016). Improving MHM is not limited to infrastructure but involves education in the community on the diluting of stigmas and providing considerations in WASH interventions.

Women's health is disproportionately affected by the lack of safe water, sanitation, and hygiene (WASH) services, which has both multiple direct and indirect impacts. Unsafe WASH situations have injustice impacts up to and including preventable deaths associated with water-borne diseases such as cholera, diarrhoea, and dysentery, continue to be among the leading causes of global morbidity and mortality (WHO & UNICEF, 2023). Furthermore, women and girls, in particular, are at increased risk of water-borne diseases; this is exacerbated for women and girls that are pregnant or caregiving due to their role in the household related percent to water management, and caregiving. Restrained access to sanitation and hygiene services also heightens the possible risk of urinary tract infections and reproductive health problems in women. Women who do not have access to clean water and safe toilets when menstruating or giving birth are at higher risk of infection, complications, and in extreme cases maternal death (UNICEF, 2023).

Methodology

The methodology for the proposed study will be qualitative in nature, mostly comprised of a review of the literature and considerations of global and regional datasets. Literature sources shall include documents published by respected agencies, such as UN organizations, WHO, UNICEF, and UN-Water. The literature review portion of the study will be assessed by examining peer-reviewed articles, policy documents, and case studies investigating the gendered aspects of WASH access and access, with specific implica-

tions for women and girls. The analysis also includes data from the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation, and Hygiene (JMP), which monitors progress towards SDG 6 targets and provides disaggregated data on WASH access by sex, age, and location (UN-Water). We also analyse case studies from different settings to identify successful approaches and interventions used to alleviate gendered disparities in WASH access. In order to provide a fuller understanding of the challenges and opportunities to achieve gender equality in WASH services, this paper amalgamates findings from various sources. In this way this study contributes to the larger evidence base on sustainable development and social equity.

Discussion

Limited access to safe water, sanitation, and hygiene (WASH) services has serious health consequences for both women and girls. For example, it as it is found in WHO and UNICEF study the risk of communicable diseases such as diarrheal diseases, cholera, typhoid, and parasitic infections with poor sanitation and hygiene is increased for all groups, but women in low- and middle-income countries are more susceptible to these diseases (WHO & UNICEF, 2023). These diseases are among the top five causes of illness and childhood mortality in children under five years of age, as mother are primary caregivers to these children, it compounds their health vulnerabilities and stress. Women are prone to important health risks related to their access to WASH. For example, reproductive tract infections (RTIs) and urinary tract infections (UTIs), along with other gynaecological issues, are more frequent among women who have limited access to safe water and hygienic sanitation, especially during menstruation and childbirth (UNICEF, 2023). Maternal and neonatal infections during childbirth can be directly linked to Access to WASH. These infections are one of the leading causes of deaths in many developing countries (Campbell et al., 2016). Limited access to water and sanitation often causes inadequate menstrual hygiene management (MHM), it also increases other health risks.

Women and girls who cannot regularly change menstrual materials or wash with clean water experience a higher risk of infections (House et al., 2012). Lack of awareness and cultural stigmas about menstruation are biggest bottlenecks that hinder women from seeking adequate health care. It further worsens health inequalities (Sommer et al., 2016).

The economic impact of restricted WASH on women is substantial. Women and girls spend an estimated 200 million hours each day gathering water globally, hours that could have otherwise been spent on education, generating an income, or leisure (UN Women, 2022). This lack of time reduces women's ability to fully engage in economic activities, which is one of reason for gender disparity in the labour market and corresponding income. As indicated in the literature, improved access to water, that is closer to home, positively impacts women's labour market participation and earnings (Blackden & Wodon, 2006). More generally, a deficit in WASH infrastructure in place leads to loss of productivity, high costs for healthcare, and higher financial burdens on households related to waterborne diseases (Hutton & Chase, 2016). Apart from the time costs, women have to pay the costs of the cost of water or hygiene products where public services do not exist. These costs may put strain on family budgets. Thus, they force difficult decisions between different basic needs (WHO, 2023). Lack of WASH services can increase poverty and constrain women's opportunities for financial independence (Sphere Association, 2018).

In many contexts, menstruation is considered a taboo, and women and girls who menstruate may face social exclusion, shame, and stigmatization (Sommer et al., 2016). On a larger scale, the stigma surrounding menstruation, in turn, creates negative social attitudes towards gender roles and gender equality more broadly. The burden women experience around menstrual hygiene management in schools, work, and/or public environments contributes to their marginalization. Girls may be prohibited from participating in regular activities, religious ceremonies, or

even social functions—and this exclusion may reinforce gender stereotypes and hinder social inclusion (World Vision International, 2022). Sanitation-related issues can also contribute to social discrimination and insecurity. Studies have found Women and girls living in informal settlements or refugee camps faces higher number encounter harassment or violence while accessing sanitation facilities that are unsafe or shared (UN Women, 2022). These fears of violence inhibit women's freedom of movement and hinders their ability to participate in community life.

Policy and Programmatic Recommendations for Gender-Responsive WASH

Realizing equitable and inclusive access to water, sanitation, and hygiene (WASH) requires that gender be framed as a foundational and cross-cutting principle in WASH policies, WASH programming, WASH infrastructure, and community-based practices. Women and girls have specific vulnerabilities in WASH contexts, with challenges ranging from limited access to menstrual hygiene products and services to physical safety in shared or public facilities to when they are simply feeling sick. Therefore, WASH programs must go beyond infrastructure development to eliminate systemic barriers and address cultural practices, taboos, or discrimination, with specific focus on empowering women in governance and planning decisions.

WASH Policies which are Gender-Responsive:

Gender-responsive WASH policies need to be developed recognizing the differing impact of water and sanitation access by reference to gender. As stated by UN Women, "sanitation policies need to address gender-specific needs and include necessary features such as menstrual hygiene, lighting, privacy and security, in particular for public and school sanitation" (2018). WASH infrastructure needs to be designed and planned with the knowledge of the physical, cultural, and socioeconomic barriers to women's sanitation access. Legal and policy measures should guarantee gender-responsive mainstreaming at every stage of the WASH policy cycle - from the needs assessment and budgeting, to policy/action plan decisions and implementation, to monitoring. For

example, financial resources need to be directed to young women using safe and hygienic gender-responsive sanitation, and municipal staff trained on gender responsiveness, for government representation on decision making regarding water governance (UN Women, 2018).

Community Engagement and Participation:

By engaging communities, especially women and girls, in the process, the sustainability and relevance of WASH programs can be enhanced. Women are often the principal users and managers of household water and sanitation services and must be represented if practical and culturally appropriate solutions are going to be generated. For example, a study in rural Ghana found that when management committees had women members, the water and sanitation services were more sustainable, and the built infrastructure better met user needs (Ankomah et al., 2025). In a study conducted in Mufindi District, Tanzania, it was found that involvement female in WASH management including planning, organizing and management the projects resulted in improved efficiency on projects while also addressing community ownership and accountability (Nkwera & Mahenge, 2024). We must ensure that engagement with community members includes all voices, including those from marginalised groups i.e. disabled women, ethnic minorities, and adolescent girls.

Infrastructure Enhancement: While developing infrastructure Women safety, privacy, and reliability must be taken into account. when it comes to infrastructure development. Gender-sensitive infrastructure should include separate toilets for men and women, management of menstrual hygiene (washing facilities and disposal bins are suggested), indicators for enhanced privacy for users (e.g., lockable doors), adequate lighting, and safe access to sanitation facilities. According to UN Women (2018), these items are part of the basic service delivery standards regarding infrastructure, especially in educational settings, public places and camps for displaced people. Across all settings increased attention is needed to determine gender-sensitive infrastructure, particularly in emergency settings.

Education and Awareness: Education is a transformative force that can shift norms and decrease stigma, especially stigmas around menstrual hygiene. Menstrual hygiene education should be multi-faceted for all learners (girls and boys) and typical stakeholders (teachers, parents, and community leaders). UN Women (2018) advocates that menstrual hygiene education be a part of standard school curricula to dispel myths and uphold dignity. In addition, public awareness campaigns can engage long-standing social norms that ascribe the responsibility of the collection of water for the household and hygiene to women only-related roles that call for equal roles regarding domestic and public spaces. For example, in humanitarian WASH programming, (Joint Action for Water, 2022) emphasizes the role of MHM education in restoring dignity and resilience to displaced women and girls. The education about longer-term outcomes needs to include men and boys for their advocacy as advocates for equitable access WASH between the genders.

Monitoring and Evaluation (M&E): Effective monitoring and evaluation (M&E) frameworks are vital to assess the effectiveness and equity of WASH interventions. Gender-sensitive indicators are used to assess whether programs genuinely empower women and reduce inequities. They look beyond simply counting the number of infrastructure units. The Empowerment in WASH Index (EWI) has been created by the Stockholm Environment Institute (SEI) to assess levels of women's agency, participation and decision-making power in WASH settings (Dickin et al., 2021).

Institutional Strengthening and Financing: Developing strong institutional capacity is critical to advancing the actions presented here. more inclusive planning for sanitation, disaster risk reduction, and waste management can be achieved by training officials about gender equity in WASH. (e.g., undertaken at the Paurashava municipalities in Bangladesh) (SaniRepo, 2023). Gender-responsive WASH budgets must have operational budgets and budget for infrastructure. Only then it can ensure the safety and sustainability of related infrastructure. Donor agencies and govern-

ments must support long-term investments in maintenance and monitoring and capacity building. We must use public reporting systems and feedback loops ensure transparency and create opportunities for active citizenship.

Conclusion

The wide-ranging regional case studies and policy recommendations empirically demonstrate that gender inequality in WASH access is both persistent and systemic. In Sub-Saharan Africa women and girls are tasked with collecting water for their families, this often directly causes issues related to their health, safety and productivity (Apinga et al., 2024). Also, in South Asia cultural taboos regarding menstruation and the lack of sanitary facilities in schools reduce the educational opportunities and dignity of adolescent girls (WaterAid & HERD International, 2017). Women in urban slums in Latin America continue to use unsafe or shared sanitation facilities that put them at risk of violence, insecurity, and stigma (Borja-Vega & Grabinsky, 2020). Such gendered inequalities in WASH constitute not only a denial of basic rights but also constraints to wider development targets of health, education and poverty reduction. These results emphasise the necessity of gender-sensitive approaches to WASH planning, implementation, and monitoring. Gender is not a secondary issue in WASH; gender is critical to effectiveness and equity in WASH. Women and girls experience WASH services differently than men based on biological, social and cultural realities. The consequences of failing to act are simple: gender inequalities in WASH will maintain the marginalization of women and girls, limiting their opportunities to access school, engage in work for money or produce, engage in public life, or live with dignity. In contrast, WASH interventions that are designed with a focus on gender equity can generate invaluable impacts, improving health, learning outcomes, reducing gender-based violence and supporting women's leadership and economic empowerment. In light of this, orderly, coordinated and multisectoral collective action is warranted. Governments must seek to prioritize gender both in national WASH poli-

cies and associated budget support. Donors and global agencies must facilitate gender-focused and transformative WASH programming with funding and long-term commitment. Civil society, community organizations and local leaders must drive inclusive planning, accountability to ensure that institutions deliver and provide equitable services to communities. And most importantly, women and girls must be recognized not only as beneficiaries of WASH but as essential actors of change - their needs, voices and leadership must be at the centre of equitable, safe and sustainable access to WASH for all.

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