



## Water scarcity in India: an unresolved gender issue

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**The Sustainable Development Goal (SDG) 6 aims to ensure access to water and sanitation for all. In India, 600 million people cannot access water on a daily basis. Women bear the brunt of the water crisis with strong repercussions on educational attainment, their physical and psychological wellbeing and their chances for a better future.**

### 3 key points

- Water scarcity affects 1.1 billion people worldwide. In India, nearly half of the country's population is affected by lack of access to clean water.
- The lack of access to basic water services is burdening farm productivity, economy and social stability in the country.
- Sustained access to clean water is a key health determinant that could lead to reduce inequalities in India, specifically, gender inequality.

### Introduction

India faces one of the worst water crises in the world. About half of India's population, which is around 600 million people, faces extreme crisis and stress related to water. Almost three-fourths of the rural households in India lack potable and piped water. Thus, a huge percentage of the Indian population is dependent upon polluted sources of water in order to sustain themselves, thus facing a massive health risk (NITI Aayog, 2018). Above 50 per cent of the Indian population lacks access to safe drinking water and close to 200,000 people die annually from correlated causes (Hota, 2020). The lack of clean water availability has far-reaching spill-over effects, such as the propagation of health hazards, lower educational attainment and social mobility for girls and women, and the perpetuation of inequality. This crisis is projected to worsen over the coming decade due to global warming and reach catastrophic proportions by the year 2030 and is far from the sustainable goal's achievement. The national government, policy makers, non-governmental organizations and the global community need to treat this issue with the urgency that it demands.

### Analysis

The water crisis and the scarcity of clean water accentuate health and gender equality concerns in many parts of the world. India, with its vast geography and complex socio-economic dynamics, is one of the main exponents of the pervasive negative effects of clean water scarcity. Annually nearly 37.7 million people in India are suffering from waterborne diseases and 1.5 million children die of diarrhea. Moreover, enteric infections have been the leading cause of death for children from 5 to 14 years old for the last 30 years. The economic burden of water shortage impacts the life expectancy of the Indian population.

Besides, the lack of clean water and sanitation in many regions of the country leaves the population vulnerable to pandemics. The COVID-19 pandemic had illustrative effects on the Indian population, with the highest number of COVID-19 deaths to date. This pandemic has demonstrated the critical relevance of sanitation and access to clean water in preventing the spreading of the disease. According to the World Health Organization, handwashing is one of the most effective measures to effectively control communicable diseases. All evidence points to direct and drastic consequences that the scarcity of water has in making individuals worse-off when public health, equal opportunities and overall wellbeing are concerned. However, women are more vulnerable in front of the escalating water crisis. For instance, Indian women who have access to water and sanitation are at a lesser risk of developing reproductive tract infections.

Additionally, recent studies correlate women sanitation insecurity with poor mental health outcomes, such as anxiety and depression. Another relevant issue that has a disproportionate effect on women is the lack of sanitation facilities. In fact, having access to a functional household latrine is associated with higher well-being scores among women (Caruso BA et al. 2018). Furthermore, women are frequently confronted with a lack of access to hygiene resources such as private and secure latrines or decent menstrual management materials. These factors could contribute to an increase in exposure to diseases such as cholera in comparison to the male population.

Hazardous chemicals and water pollution and contamination lead to a great number of deaths and illnesses in India and affect women disproportionately. For instance, a study showed that Indian women exposed to higher concentrations of arsenic during pregnancy had a sixfold increased risk of stillbirth (Von Ehrenstein OS et al. 2006). Water pollution was also correlated with low birth weight, abortion, preterm delivery and infant mortality.

The lack of access to clean water accentuates gender inequalities in many parts of the world. In India, as in other developing countries that struggle with basic water services, women are the main household water providers. Approximately 8 out of 10 households without onsite water supply delegate water collection tasks to women (WHO & UNICEF, 2019). This gendered distribution of household

chores has dire consequences on both the equality of opportunity and physical and psychological well-being of women. The time and effort allocated to water collection equates with an increased likelihood of missing school or abandoning studies altogether which, in turn, translates into less opportunities for higher earnings and economic losses (according to Srinivas (2003), it amounts to 10 billion rupees every year for approximately 150 million days). Pandya (2002) points out how women are victims of a vicious cycle, where they must walk for kilometers to fetch water, carry it back home, and then get into the daily chores of cooking, washing, cleaning, care work, etc., before they get ready to fetch water again. Women lack the time and energy, therefore, to look for safe water sources. Priorities like hygiene and disease prevention automatically take a backseat.

Moreover, during the long walks to water points, women are at an increased risk of exposure to violence (e.g., physical and sexual abuse, animal attacks) and are subjected to the reinforcement of gender roles (e.g., male partners justify violence when women do not fulfill their domestic “responsibilities” in terms of water provision).

Women bear the brunt of the water crisis with strong repercussions on educational attainment. This mix of structures of incentives and socio-economic factors confine many women to agricultural labour and lowers their social mobility. All these factors contribute to the reinforcement of gender disparities in the regions where the population is confronted with a lack of basic water services. Recent studies predict a dramatic water shortfall for India by the next decade (2030 WRG, 2020). This, in turn, will result in a further reduction in the set of available and feasible occupational options for women who live and work in the regions most affected by the water crisis.

Water scarcity is accentuated by climate change, and significant changes can be seen from year to year. The combination of global warming, inefficient water usage and inadequate infrastructure is all adding to the challenge of making clean water and sanitation readily available in India (Dasgupta, 2019). Although the infrastructure is not fully developed in urban areas, it is often significantly better in comparison to the rural part of India. The large variance across the country can be accounted for by the lack of governmental oversight, which reinforces inequality between regions. With valuable water resources drying up faster than ever before, the agricultural industry is now facing a significant challenge. Farmers that have relied on natural water resources might no longer have the same alternative when their local rivers are drying up, and there is no adequate water infrastructure in their area. The water scarcity will have a severe impact on the food

security and the livelihoods of people across the country if nothing is done soon to improve the situation. In addition, it is important to be cognizant of the consequences of India's largest industry in the more populated areas. Here, the textile industry releases large amounts of wastewater and toxins into valuable water resources. Unfortunately, not enough is done by the government to monitor and prevent pollution. By turning a blind eye to this situation, several textile companies get away with discharging their waste into the ecosystem, which is often the same water resources that others use for their household requirements (Chowdhary et al., 2019). Stronger enforcement of environmental laws would keep the industrial sector accountable for unethical practices, such as water contamination, and prevent the entrenchment of a more resilient environmental indifference. With a current water crisis that is escalated by global warming, it is vital to closely monitor and maintain existing water resources by addressing water management efficiency.

## Conclusions

It is urgent to solve the water scarcity in India, before this issue worsens due to the impact of climate change. Recognizing the human right to safe water has important implications for improving population health, even more so in times of the COVID-19 pandemic. Water scarcity and the lack of sanitation brings about a wide range of negative health consequences and boosts social inequalities. Particularly, women are the most affected group. Nexus approaches are needed to understand the interlinkages among water scarcity, health and inequalities and provide an integral view of the issue. If the debate is to be moved forward, a better understanding and solutions needs to be developed. Lessons from India could be extrapolated globally. Local and international institutions should work together to find innovative solutions to support and strengthen disadvantaged groups to build their own future with dignity.

## Recommendations

- **Infrastructure investment**

Building functional household latrine and more light posts near the water collection points in rural areas. This will help in addressing the issue of violence, rapes, molestation, eve-teasing, etc. and will led to major benefits for women mental and their reproductive health.

Implementation of water and sanitation management strategies would reduce waterborne diseases and pollution, which disproportionately affect the women and children.

- **Research investment**

It is imperative to extend the analysis to other gender minorities. A research interest expansion would help policymakers avoid one-size-fits-all response strategies.

- **Implementation and scalation of innovative programs with focus on women**

Providing families from marginalized socio-economic backgrounds with incentives tied to the access to clean water for sending their daughters to school.

Implementing financial solutions, such as the Water Credit.

Providing safe environments and preventive policies regarding violence, such as the panic button.

Promoting support networks with interdisciplinary staff for women who have suffered violence related to water issues.



## Further relevant SDGs:



### Relevance to the 2030 Agenda

SDG 3: *Ensuring healthy lives and promote well-being for all at all ages*, SDG 5: *Achieving gender equality and empowering all women and girls*, SDG 6: *Ensuring availability and sustainable water management for all*, and SDG 10: *Reducing inequality within and among countries* are four of the seventeen sustainable development goals crucial to the 2030 agenda.

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