

The Gendered Cost of Calamity

Dr. Ashish Kumar¹, Dr. Neenu Mathews^{2*}

ABSTRACT

Climate change, which is powered by emissions from fossil fuels, deforestation, and agriculture, results in rising temperatures, harsh weather, and resource shortages. These raise the risk of disease, famine, and eviction. Gender discrepancies are made worse in low-income communities, where women and girls endure a disproportionate share of the burden due to caregiving responsibilities and social inequities. To mitigate this, inclusive policies that promote women, renewable energy sources, and global shifts toward sustainable practices are necessary. This study examines the gendered impacts of disasters, drawing on literature from 2007 to 2023. Drawing on a diverse range of scholarly works, primary research, and media sources, it provides a thorough examination of how disasters disproportionately affect women.

Keywords: *Deforestation, Extreme Weather, Displacement, Natural Calamities, Gender Disparities*

Global warming—the climate crisis—is caused by greenhouse gas emissions. The greenhouse effect absorbs and retains solar heat due to carbon dioxide, methane, and water vapor. Global warming is caused by fossil fuels, deforestation, and certain agricultural practices. These actions warm the planet by emitting greenhouse gases. Climate change causes sea level rise, heat waves, droughts, storms, and changes in animal behaviour. These shifts may cause disease, flooding, and food and water shortages. Reduce greenhouse gas emissions and adopt eco-friendly policies to slow climate change. Renewable energy, habitat restoration, sustainable agriculture, and eco-friendly transportation are examples. Global business and lifestyle changes are also needed. Climate change has the potential to devastate women and girls. More people in the United States are volunteering.

Most household chores are typically performed by women and girls, such as grocery shopping, cleaning, and caring for the sick and elderly. Due to climate change, drought-stricken regions will have to work harder to achieve the same goals. Low-income women and girls are disproportionately affected by climate change. Gender bias in society, as well as women's and girls' vulnerability to environmental hazards and scarcity, exacerbates this. The climate crisis will have a greater impact on women and girls. Women must take the lead

¹Former Assistant Professor, University Institute of Legal Studies (UILS), Chandigarh University, Mohali, Punjab, India. <https://orcid.org/0000-0003-4098-9557>

²Assistant Professor, Inter University Centre for Disability Studies (IUCD), Mahatma Gandhi University, Kerala, India. <https://orcid.org/0009-0005-8191-5214>

*Corresponding Author

Received: December 15, 2024; Revision Received: December 20, 2024; Accepted: December 30, 2024

in order to keep global warming to 1.5°C. Females make up 51% of the global population, and they are leading crises and shaping a more just and sustainable society. Inequality continues to exist. Recognizing women's contributions closes the generational gap and speeds up climate action. This article is a secondary analysis in which the authors use content analysis to attempt to demonstrate that climate change has had a deleterious effect on Indian women.

RESEARCH METHODOLOGY

This study examines the gendered cost of disasters from 2007 to 2023 using a comprehensive review. The study summarises the results of a thorough examination of secondary literature, which includes both primary and secondary research as well as published scholarly publications and press stories. As suggested by their titles, the review procedure entailed locating and assessing pertinent research according to their goals and importance. These papers were chosen because they supported the goal of examining the gendered effects of disasters during the designated time frame. This article offers a solid examination of the gendered aspects of disaster impacts by combining a variety of sources, relying on a broad range of data to guarantee an exhaustive and well-rounded conversation.

Social Upheaval and Climate-Induced Migration

Climate-related disasters such as powerful hurricanes, prolonged droughts, and torrential floods are anticipated to displace around 143 million people in Latin America, South Asia, and Sub-Saharan Africa by 2050. Families are forced to flee in search of stability as a result of the upheavals, which ruin livelihoods. In contrast to progressive environmental changes, these rapid calamities tear apart communities and drive millions to relocate in peril (Kaczan and Orgill-Meyer, 2020).

In the same way that long-term climate changes encourage mobility, climate shocks upend established social structures (Kaczan and Orgill-Meyer, 2020). Crop damage from floods and droughts forces rural residents to migrate to cities or cross borders, often at great personal cost (Brulé, 2023). Family responsibilities and community links are harmed by this instability, which exacerbates vulnerabilities for those who are already marginalised and strains social cohesiveness in the affected communities.

Women's Burden in Water-Scarce Regions

Gender inequality is exacerbated by climate shocks, especially in areas with limited water resources. Due to traditional expectations, women and girls perform the arduous, unpaid chore of collecting water for around 200 million hours every year (Ray, 2007). Tribal women in Banswara, Rajasthan, carry out "Dhaad" rituals, offering up prayers for rain while tackling the difficult task of obtaining water (Sharma, 2021). When local sources dry up, women in Maharashtra's Denganmal trek 8–12 km to far-off wells or the Bhatsa Dam (Rode, 2010).

The availability of life-sustaining resources, such as drinking water, during pregnancy was quite challenging because of the high incidence of infectious diseases and illnesses exacerbated by freezing temperatures. The horrific deaths of unborn children caused by two women carrying heavy buckets of water from the hillside without recognising they were pregnant and miscarrying were detailed by a mother with two children who was confined to home responsibilities (Moreno & Shaw, 2018, p. 213).

Cultural Norms, Gender Inequity, and Women's Health Risks

An adverse atmosphere encourages bad social behaviours. Women in Rajasthan are not permitted to own property or have leadership roles in the community because of patriarchal inheritance laws that favour boys (Sharma, 2021). Due to Maharashtra's water scarcity, males have been marrying more women to access water, which has led to the practice of "water wives," which is related to labour needs and family size (Siddiqui, 2015; The Times of India, 2015; Kaur, 2022). Food insecurity-induced early marriages perpetuate women's subjugation (Sharma, 2021).

Women's health is at risk due to the physical strain of gathering water in arid environments. Pregnant women in Rajasthan are particularly vulnerable to the malnutrition brought on by the drought, which results in weakness, fever, and reproductive problems (Sharma, 2021). Carrying a lot of water and some women not knowing they are pregnant are the main causes of miscarriages in Maharashtra (Rode, 2010). The fact that exposure to contaminated water and diseases increases these risks emphasises the gendered cost of climate disasters (Ray, 2007).

Disproportionate Environmental Impact on Women

The United Nations agency known as the Intergovernmental Panel on Climate Change (IPCC) claims that women are more susceptible to environmental risks and are disproportionately impacted by environmental deterioration (IPCC, 2014). This disparity is particularly apparent in regions with limited or contaminated water supplies, where women and girls are largely in charge of gathering water due to deeply rooted social conventions. This labour-intensive and time-consuming task is mostly their responsibility; according to Ray (2007), women and girls execute an estimated 200 million hours of unpaid water collecting annually worldwide.

Water Scarcity in Denganmal

Water scarcity is a major problem in Denganmal, a dry village in the Shahpura Taluka, Thane District of western Maharashtra, which is 185 kilometres from Mumbai. Because of its closeness to the Arabian Sea, Denganmal, which is home to 500 people and 100 families, enjoys year-round warm temperatures, with summer highs of 35°C and winter lows of 26°C. However, the area experiences ongoing dryness due to rocky topography, high humidity, and its location within Maharashtra's "monsoon-shadow arc." Due to the lack of piped water, summer droughts destroy cattle and deplete the village's only well. The sole water sources are the Bhatsa Dam reservoir, which is 8 kilometres away and mostly provides water to Thane and Mumbai, and a well at the foot of a stony hill 12 kilometres away (Rode, 2010).

Social Norms and "Water Wives" in Denganmal

Villagers are forced to obtain their own water because there is no local water infrastructure. Women in Denganmal are forced to spend eight to ten hours a day travelling to the reservoir or dam well since men are not allowed to gather water from the well due to cultural conventions. The obligations placed on women, who already have to take care of the children, cook, clean, and gather food, fuel, and fodder, are increased by this duty. Some villagers use polygamy as a solution to this problem, with men taking several women to divide up the work of fetching water. While later women, also known as "Water Wives" or "Paani Bai," are responsible for fetching water, the "first" wife usually manages all household chores, including cooking, cleaning, teaching, and caring for livestock.

The Gendered Cost of Calamity

Many of these women are poor, infertile, single mothers, or have gone through several divorces; they remarry in an effort to rise in society. Despite their diligence, “Water Wives”—particularly widows, divorcees, and unmarried women—face social stigma. As a means of aiding impoverished women, local authorities encourage the practice of allowing successive wives to be from any caste, even if the first wife must be unmarried and from the same caste (Siddiqui, 2015).

Climate Change and Women’s Empowerment

According to some scholars, women's employment and education have improved as a result of climate change, which has also increased their ability to fight for their rights. Due to the effects of climate change, more women are entering the workforce and pursuing higher education, which has increased their representation in state legislatures and encouraged a more equitable distribution of income. As a result, states are no longer seen as lawless thanks to these developments (Kruks-Wisner, 2011).

During fieldwork in South Asia, which is home to the largest democracy in the world, a researcher applied this methodology to a dataset that was not from Chile. Nonetheless, women's social standing in the area was severely lowered by the 2004 Indian Ocean tsunami. In order to ensure that elderly and pregnant women could obtain pensions and other government benefits in person, female survivors who took on leadership positions in Gramme Panchayats (village councils) actively helped them. The tsunami also brought to light institutional injustices by exposing a number of laws and practices that discriminate against women (Kruks-Wisner, 2011, p. 1151).

Gendered Labor and Social Perceptions

The physical and psychological toll that such crises have on women is largely overlooked by males because of ingrained social norms and the gendered division of labour. As a result, women have placed a greater emphasis on the importance of parenting and household duties, which has led to broader conversations in society over the importance of women's unpaid chores (Kruks-Wisner, 2011). Women's resilience and leadership in crisis response are demonstrated by the “Palomitas Blancas,” a group of 12 women who organised the collection and distribution of food aid to sustain 170 families in the town of El Morro after the devastating 2010 earthquake in northern Chile (Moreno & Shaw, 2018).

Findings

The systematic review of literature from 2007 to 2023 reveals the profound gendered impacts of calamities, particularly in water-scarce and climate-affected regions. Key findings include:

- Ray (2007) highlights the critical role women play in water collection, emphasizing their gender-specific burdens in resource-scarce environments and the intersection of gender, water access, and sustainable development, underscoring women's unpaid labor in water-scarce regions.
- Rode (2010) examines water supply challenges in Maharashtra's urban and rural areas, revealing systemic issues and opportunities to address water scarcity that exacerbate women's labor burdens and water-fetching responsibilities.
- Kruks-Wisner (2011) demonstrates how post-tsunami recovery in India enhanced women's leadership in local governance, advancing gender equity.

The Gendered Cost of Calamity

- IPCC (2014) establishes women's disproportionate vulnerability to climate change impacts, providing a global framework for understanding gendered environmental risks.
- Siddiqui (2015) and The Times of India (2015) expose the practice of "water wives" in Maharashtra, illustrating how water scarcity drives harmful social practices, such as polygamy, that perpetuate women's subordination and degrade their social status.
- Moreno and Shaw (2018) showcase how disasters can catalyze women's empowerment through leadership roles in community recovery efforts in Chile, tracking long-term social changes that highlight women's increased agency and contributions to community resilience.
- Kaczan and Orgill-Meyer (2020) synthesize evidence on climate-driven migration, emphasizing its disruptive effects on women and marginalized communities.
- Sharma (2021) and Sharma, Y. K. (2021) analyze how climate variability and drought in Rajasthan disproportionately affect women, reinforcing gender inequities through socio-cultural lenses while highlighting their resilience amidst adversity.
- Kaur (2022) explores the social consequences of water scarcity, particularly the exploitative practice of "water wives" in water-stressed regions.
- IPCC (2022) provides updated evidence on climate change impacts, reinforcing the need for gender-sensitive adaptation strategies to protect vulnerable women.
- Brulé (2023) examines how climate shocks reshape women's political representation, highlighting opportunities for gender equity in crisis response.

These findings collectively underscore the disproportionate burdens women face in calamity-affected regions, while also highlighting their resilience and potential for leadership in recovery and adaptation efforts.

CONCLUSION

Climate change disproportionately impacts Indian women, exacerbating gender inequalities through increased labor burdens, health risks, and social upheavals. In regions like Denganmal, Maharashtra, and Rajasthan, women face arduous tasks like water collection, compounded by cultural norms that limit their agency and perpetuate practices like "water wives." Climate-induced migration disrupts communities, while environmental degradation heightens vulnerabilities, particularly for low-income women and girls. Despite these challenges, women's leadership in crisis response and growing roles in education and governance signal resilience and potential for empowerment. Urgent action to integrate gender equity into climate policies is essential to mitigate these impacts and foster a sustainable, just future. Gender equity must be incorporated into climate policies immediately in order to lessen these effects and promote a fair and sustainable future.

REFERENCES

Brulé, R. (2023). Climate shocks and gendered political transformation: How crises alter women's political representation. *Politics & Gender*, 19(4), 1–7. <https://doi.org/10.1017/S1743923X23000456>

IPCC. (2022). *Climate change 2022: Impacts, adaptation and vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press. <https://doi.org/10.1017/9781009325844>

Intergovernmental Panel on Climate Change. (2014). *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects*. Cambridge University Press.

The Gendered Cost of Calamity

Kaczan, D. J., & Orgill-Meyer, J. (2020). The impact of climate change on migration: A synthesis of recent empirical insights. *Climatic Change*, 158(3–4), 281–300. <https://doi.org/10.1007/s10584-019-02560-0>

Kaur, P. (2022). Water wives: A harsh consequence of water scarcity. *International Journal of Research Publication and Reviews*, 3(10), 113–117.

Kruks-Wisner, G. (2011). After the deluge: Gender, representation, and local governance in post-tsunami India. *Politics & Gender*, 7(4), 1145–1170. <https://doi.org/10.1017/S1743923X11000380>

Moreno, J., & Shaw, D. (2018). Women's empowerment following disaster: A case study from Chile. *Disasters*, 42(2), 205–225. <https://doi.org/10.1111/disa.12246>

Moreno, J., & Shaw, D. (2018). Women's empowerment following disaster: A longitudinal study of social change. *Natural Hazards*, 92(1), 205–224. <https://doi.org/10.1007/s1069-018-3204-3>

Rode, S. (2010). Drinking water supply management in municipal corporations of Maharashtra. *Global Journal of Management and Business Research*, 10(6), 35–42.

Ray, I. (2007). Women, water, and development. *Annual Review of Environment and Resources*, 32, 123–147. <https://doi.org/10.1146/annurev.energy.32.041806.143704>

Ray, I. (2007). Women, water, and development. *Annual Review of Environment and Resources*, 32, 421–449. <https://doi.org/10.1146/annurev.energy.32.041806.143704>

Rode, S. (2010). Water resource management in rural Maharashtra: Challenges and opportunities. *Journal of Rural Development*, 29(3), 321–338.

Rode, S. (2010). Water resource management in Maharashtra: Challenges and opportunities. *Journal of Water Resource and Protection*, 2(6), 573–582. <https://doi.org/10.4236/jwarp.2010.26066>

Sharma, S. (2021). Gendered impacts of climate variability in Rajasthan: A socio-cultural analysis. *Journal of South Asian Studies*, 29(2), 145–162.

Sharma, Y. K. (2021, November 12). Drought and women of Rajasthan. *KnowDisaster*. <https://knowdisaster.com/drought-and-women-of-rajasthan/>

Siddiqui, D. (2015, June 11). Water wives. *Reuters Wider Image*. <https://widerimage.reuters.com/story/water-wives>

Siddiqui, Z. (2015). 'Water Wives' in drought-hit Maharashtra: A study of social practices and gender roles. *Indian Journal of Gender Studies*, 22(3), 355–372. <https://doi.org/10.1177/0971521515594065>

The Times of India. (2015, June 11). 'Water wives': How lack of water in this Maharashtra village led to polygamy. *IndiaTimes*. <https://www.indiatimes.com/news/india/water-wives-how-lack-of-water-in-this-maharashtra-village-led-to-polygamy-568090.html>

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Kumar, A. & Mathews, N. (2024). The Gendered Cost of Calamity. *International Journal of Social Impact*, 9(4), 165-170. DIP: 18.02.016/20240904, DOI: 10.25215/2455/0904016