

The toll that extreme heat takes on women

Extrême heat is our planet's norm for now and perhaps for years to come. The warmest year on record was 2023. Temperatures in several parts of India during May-June 2024 were reported to be record-breaking. Women are disproportionately harmed by extreme heat, largely because of unequal power dynamics, gender norms, and unequal access to resources, as reflected in the Global Gender Gap Index that places India at 18th rank from the bottom. Perhaps we should be alarmed by the numbers – India is home to more than one-in-six women in the world – and extreme heat is now their reality.

Hidden toll

A recent report by the ADB (Rising Above the Heat) highlights the unequal impact of extreme heat on women in Asia and the Pacific. For instance, women living in informal settlements in cities (also at the margins and in slums) face multiple challenges due to rising temperatures. Their homes could turn into heat chambers since the material used in informal, urban neighbourhoods, such as tin, asbestos, and plastic, trap heat. Women also toil in poorly ventilated kitchens, experiencing scorching temperatures while cooking. Rising temperatures are compounded by extreme time poverty and care burden for them.

Due to lower productivity stemming from heat stress, women work considerably longer hours to complete their share of unpaid work at home. According to Arsht-Rock's 'Scorching Divide' report, the productivity loss due to heatwaves translates to 90 more minutes of care work per day in India. This adds to the pre-existing gender differences in time-use pattern; in doing unpaid work like cooking, cleaning, and fetching water and fuel, women spend two and a half times minutes more per day than men (National Statistical Office 2019 data). Intriguingly, more than two-third of women's productivity

Women are disproportionately harmed by extreme heat, largely because of unequal power dynamics, gender norms, and unequal access to resources



Pradeep Kumar Choudhury

Assistant Professor at Zakir Husain Centre for Educational Studies, School of Social Sciences, Jawaharlal Nehru University, New Delhi



Steny Rapheal

PhD student at Zakir Husain Centre for Educational Studies, School of Social Sciences, Jawaharlal Nehru University, New Delhi

loss from heat strain occurs in the domain of unpaid labour in India. The loss also reflects opportunity costs associated with heat stress – that women could have earned extra income, acquired skills, or rested enough.

Worryingly pervasive

Urban female informal labourers face harsh weather, whether working in marketplaces, streets, construction sites, landfills, or even their employers' homes. Due to their occupational settings, these casual-wage workers – street vendors, paid domestic helpers, construction workers, and sanitation workers – are vulnerable to climatic extremes, reports the International Labour Organization ('Work in a Changing Climate'). The situation worsens with energy poverty – living without cooling facilities such as ventilated spaces, fans, air conditioners, or coolers. Greenery and other natural forms of cooling are also becoming increasingly unavailable for public consumption in dense urban areas. Furthermore, water scarcity and power fluctuations raise the challenge of being hydrated and staying comfortable.

The situation in rural India is equally severe. Consider the daily routine of a woman in a heatwave-affected rural area: she begins her morning cooking using biomass over a hot stove, bearing the brunt of ensuing disease burden. Since 56.8% of rural Indian families cook on biomass (NFHS-5), acknowledging the extent of this public health hazard is essential. Women's days also involve longer working hours under heat stress. If she does home-based work inside the living area with asbestos or tin roofing, temperatures could become unbearable, making labour increasingly unsafe. Also, if she faces restrictive gender norms on mobility and clothing, she could be forced to stay indoors and follow dressing styles that are not heat friendly. Conversely, if she works outdoors in the field,

MGNREGA, for example, it is under the scorching sun. Additionally, prolonged exposure to heatwaves adversely affects crop yields; for poor rural women, heat may decide whether they live in hunger and poverty or not.

Unequal health strain

The incidence of heat-related diseases is also on the rise with increasing temperature. Heat stress puts the body under a great deal of strain, making it harder for it to regulate its temperature, leading to several illnesses, including heat cramps, severe heat stroke, and hyperthermia. Women are at greater risk because of their physiological makeup – their body fat percentage and water content levels affect heat tolerance and hydration, while hormonal changes associated with menstrual cycles and pregnancy affect body temperature regulation. Women have a dual burden from heat-related health issues since they are more susceptible to its effects and also shoulder majority of the care-giving responsibility that follows. Additionally, heat stress has a pronounced impact on maternal and child health. The data on heat strain's effects translating to a rise in preterm delivery, miscarriage, and stillbirths is especially worrying in India, given its higher maternal mortality rates.

The burden on women becomes evident as India grapples with soaring temperatures. Millions continue to face worse heat-related losses, with no respite in sight. Strengthening their resilience to heat strain is the need of the hour – climate-friendly urban planning, development of and access to sustainable cooling technologies, fair division of care work, and public provisioning of essential services should be our immediate concerns. And we cannot talk about adaptation and resilience without addressing the social power gradient that determines women's capacity to face the crisis we are experiencing.