Responding to the Emergency of Heat:

Heat Stress and Its Impact on Women

The world is facing an emergency of extreme heat, with frequent and prolonged heatwaves threatening human lives and economies, especially for women.

Islamic Relief Pakistan (IRP) is actively responding to these disasters by developing integrated solutions to help communities thrive, despite rising temperatures.

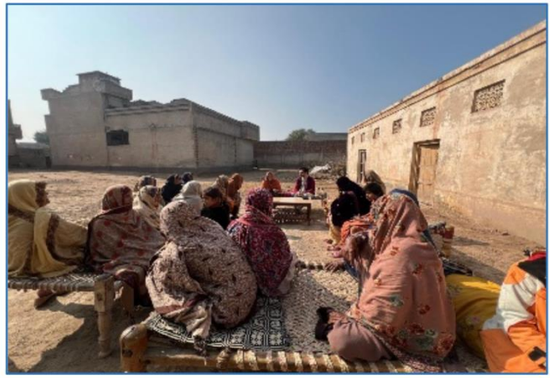
About Islamic Relief Pakistan

- Operating in Pakistan since 1994, serving millions over 30 years.
- Main mission is to enable rapid disaster response and fight poverty through Islamic values and global expertise.
- Guided by the principles of being “First on Ground” and “Reaching the Most in Need.”
- Works across poverty reduction, health, WASH, food security, livelihoods, DRR, and women’s empowerment.

Climate Change and Heat Stress – the Context of Pakistan

1. Ranked among the top 10 most vulnerable countries to climate change.
2. Global Climate Risk Index (2021): Pakistan ranked 8th in climate-related disasters (2000–2019).
3. ND-GAIN: Pakistan ranked 152 out of 181 countries in climate readiness.
4. Temperatures frequently exceed 50°C during peak summer months.
5. Historical heat records: Jacobabad reached 52°C (2021) and 51°C (2022), Turbat recorded 54°C (2023).
6. Karachi 2015: 1,181 deaths in five days; 65,000 heat-related illnesses reported.
7. Key Projections: Average temperatures to rise by 2.5–2.8°C by 2050, and 3.9–4.4°C by 2080.
8. Extreme heatwaves to intensify, straining public health, water availability, and infrastructure.

IRP's Rapid Risk Assessment on gendered impact of extreme heat



- Objective: **Assess impacts of extreme heat on women's health, livelihoods, and safety.**
- Methods: 24 Focus Group Discussions and 28 Key Informant Interviews.
- Coverage: 5 cities (Rawalpindi, Jacobabad, Karachi, Lahore, Peshawar and Multan) from 3 provinces (Sindh, Punjab, KhyberPakhtunkhwa)
- Respondents: 220 total with **218 women**
- Key sectors: Health, education, agriculture and livestock, informal industry, and domestic work.

Sector-Wise Analysis: Heat and Health in Pakistan

In Pakistan, the health sector is heavily impacted by heat stress, with women bearing a disproportionate burden as both patients and health workers.

1

Rising Heat-Related Illnesses

High exposure leads to dehydration, exhaustion, and pregnancy risks and worsens chronic conditions.

2

Workplace Challenges

High patient influx, verbal abuse, and lack of medical resources hinder service delivery.

3

Weak Public Awareness & Outreach

Heat stress awareness programs and campaigns are inconsistent, especially in rural areas.

4

Inadequate Health Facility Infrastructure

BHUs & RHCs lack cooling, clean water, and essential medical supplies. Shortages of ORS, IV fluids, and medications

5

Mental Health & Emotional Toll

Dual role with Professional & Domestic responsibilities, Chronic burnout, stress, and lack of mental health support.

6

Coordination Gaps & Data Deficiencies

Lack of coordination and disaster preparedness within departments, lack of sex-disaggregated data, and No integrated policy linking health sector with climate induced disasters.

Sector-Wise Analysis: Heat and Education in Pakistan

Extreme heat in Pakistan disrupts education by exacerbating overcrowding, poor ventilation, and weak infrastructure, reducing attendance and performance, with girls disproportionately affected by cultural expectations.

1

Teaching & Learning Disruptions

Overcrowded classrooms, poor ventilation, and power outages reduce concentration and attendance, especially for girls. Heat-induced closures further shorten terms and add pressure on students and teachers.

2

Health Impacts on Teachers & Students

Teachers face exhaustion, dehydration, and reduced productivity. Female students frequently faint, fall ill, or miss classes due to heat stress.

3

Infrastructure Deficiencies

Schools lack shaded areas, drinking water, and cooling systems. Inadequate sanitation facilities, especially affecting menstruating girls.

4

Lack of Preparedness and Policy Gaps

No standardized heat emergency protocols; school closures remain ad-hoc. Poor coordination between education, health, and disaster management sectors.

5

Resource Constraints and Inequities

Rural schools lack cooling infrastructure, medical support, and funding. No system to track related data, health impacts, or academic decline due to heatwaves.

6

Gendered Expectations

Girls are expected to wear Islamically appropriate attire which further compounds the heat stress they experience.

Sector-Wise Analysis: Heat, Agriculture, and Livestock in Pakistan

Women in Pakistan's agriculture and livestock sectors are among those most exposed to extreme heat. Without protective measures, they face greater risks of illness and injury, as well as significant economic and productivity losses due to reduced yields.

1

Physical & Health Impacts

Dehydration, heatstroke, and exhaustion, especially dangerous for pregnant women. Skin diseases, respiratory issues, and insect bites due to prolonged heat exposure.

2

Economic Consequences

Reduced working hours (from 6–8 to 3–4), lowering income and worsening hardships. Crop failures and livestock deaths reduce food security and earnings.

3

Limited Resources & Infrastructure

Women walk up to 900m daily for water due to unreliable local facilities. Electricity outages limit access to cooling solutions.

4

Institutional Neglect & Lack of Adaptation

No early warning systems; low mobile ownership prevents heat alerts. No ambulance services or proper healthcare access for heat-related emergency.

5

Physical & Emotional Toll

Stress from balancing labor and caregiving leads to chronic fatigue. No community-based mental health & social support structures for women.

6

Adaptation Strategies & Structural Gaps

Women rely on makeshift solutions like wet shawls and tree shade. No heat-resilient infrastructure (cooling centers, shaded rest areas, or water stations).

Sector-Wise Analysis: Heat and Home-Based/Industrial Workers in Pakistan

In Pakistan, heatwaves intensify unsafe and unregulated conditions for women in factories and home-based work. Long hours in poorly ventilated spaces, limited cooling, and the absence of legal protections heighten health risks and economic insecurity.

1

Health & Work Challenges

Exhaustion, dehydration, and headaches due to extreme heat and long hours. Poor ventilation in kitchens worsens heat exposure, especially for pregnant and menstruating women.

2

Lack of Workplace Support

Minimal cooling facilities; air-conditioning often reserved for employers. Frequent loadshedding further exacerbate existing conditions.

3

Economic Vulnerabilities

No sick leave or social protection; workers lose wages if they take leave. Many continue working despite severe health risks due to financial dependence.

4

Intersection with Gender-Based Violence

Heatwaves intensify financial and emotional stress, increasing domestic abuse. Women suppress frustrations to maintain household peace, affecting well-being.

5

Mental Health Struggles

Women juggle household and job responsibilities, leading to extreme fatigue. High stress, irritability, and anxiety; heat-induced tensions lead to conflicts at home.

6

Lack of Institutional Support

Laws exist, but the implementation and departmental coordination remains to be a challenge. Few government programs and community-based protection and referral mechanisms for home-based and domestic workers.

Impact of Heat Stress on Gender-Based Violence (GBV) and Violence Against Women (VAW)

In Pakistan, heat-induced stress has been linked to a rise in verbal, emotional, and physical abuse within households. Economic pressures, reduced incomes, and cultural norms that silence survivors create conditions where women endure heightened violence during extreme heat.

1. **Household Violence**
   Heat stress correlates with increased verbal, emotional, and physical abuse against women and girls.

2. **Economic Pressures**
   Reduced household income during heatwaves intensifies tensions, fueling aggression in families.

3. **Cultural Norms**
   Social stigma and cultural expectations discourage survivors from reporting or seeking support.

4. **Heightened Vulnerability**
   Women with dual responsibilities in income generation and caregiving are particularly at risk during periods of extreme heat.

A woman uses a paper sheet to fan her child amid a power cut in Jacobabad [Aamir Qureshi/AFP]

A woman fills containers with water from a hand pump during a heatwave in Jacobabad [Aamir Qureshi/AFP]

Strengthening Gender-Responsive Heat Stress Adaptation in Pakistan – Insights from IRP's Leading Humanitarian Efforts

- Enhancing Gender Integration in Heat Action Plans
- Strengthening Multi-Sectoral Coordination
- Expanding Outreach & Early Warning Systems
- Embedding Gender-Responsive Approaches in Disaster Management
- Promoting Women's Leadership in Climate Adaptation
- Fostering Inclusive Stakeholder and Community Engagement

Annex. Summary of Findings

Women's experiences of heat stress in Pakistan highlight critical challenges across health, education, and livelihoods. IRP's assessment identifies six key vulnerabilities that must be addressed to strengthen women's resilience to heat stress:

1

Health Impacts

Women experience dehydration, exhaustion, and pregnancy-related complications during heatwaves, with little medical or cooling support.

2

Healthcare System Strain

Overcrowded clinics, supply shortages, and stressful patient interactions increase pressure on healthcare workers, leading to stress and burnout.

3

Education Disruptions

Female students and teachers endure overheated classrooms, resulting in fainting episodes and absenteeism.

4

Agricultural Losses

Women farmers and laborers experience reduced productivity and income as extreme heat shortens working hours.

5

Workplace Risks

Factory and domestic workers encounter unsafe conditions, wage cuts, and lack of protections such as sick leave.

6

Social Consequences

Domestic violence, harassment, and women's limited role in safety decisions heighten vulnerability during heatwaves.