SURVEY QUESTIONNAIRE

Survey on the Impact of Extreme Heat on Small Businesses

From the study *Towards Climate and Extreme Heat Resilience: Lessons from African and Asian Communities*

India · In English

The questionnaire used with small business owners on how the 2025 extreme heat affected their food, energy and water, health and income, whether it forced them to move, and what early warning they want.

Consent

I am from the All India Disaster Mitigation Institute (AIDMI).

We are conducting a study to understand the impacts of the 2025 extreme heat on small business owners like you. The information you provide will help us and others better understand the effects of extreme heat.

Your participation is completely voluntary. Your responses will be kept confidential and used only for research and planning purposes. No personal details will be shared with anyone outside the research team.

If you agree to participate, we will now begin the survey.

1. General information

1.2 Name of State:

_____

1.3 Name of City:

_____

1.5 Name of Small Business Owner:

_____

1.6 Home Address:

_____

1.7 Business Address:

_____

1.8 Age of respondent:

_____

1.9 Gender of respondent: Male/ Female

_____

1.10 What is the highest level of education you have completed?

☐ Uneducated

- ☐ Primary
- ☐ High School or equivalent
- ☐ Some college
- ☐ Bachelor's Degree
- ☐ Master's Degree

1.11 Category of Small Business

Fresh Product Seller

- ☐ Vegetable Seller
- ☐ Fruit Seller
- ☐ Flower Seller
- ☐ Plants and Seeds Seller
- ☐ Other

Food and Beverage Seller

- ☐ Snacks Seller
- ☐ Tea & Beverages Stall
- ☐ Pan & Tobacco Seller
- ☐ Street Food Seller
- ☐ Juice Vendor

General Goods Seller

- ☐ Cutlery & Household Items Seller
- ☐ Mobile Accessories Seller
- ☐ Incense & Worship Materials Seller
- ☐ Cleaning Products Seller
- ☐ Milk & Dairy Products Seller
- ☐ Daily Grocery Seller

Garment Seller

- ☐ Ladies wear seller
- ☐ Men's wear seller
- ☐ Children wear seller
- ☐ Hosiery Clothing Seller
- ☐ Second-hand Clothing Seller

Skilled Professionals

- ☐ Cobbler (Shoemaker & Repairer)
- ☐ Cycle & Vehicle Repair Worker
- ☐ Gas Appliance Repair Worker
- ☐ Watch Repair & Sales
- ☐ Rubber Stamp Maker
- ☐ Tailoring & Sewing

Artisans

- ☐ Bamboo & Cane Basket Maker

☐ Coir Toy & Product Maker
☐ Wood & Stone Sculptor
☐ Clay & Mud Pottery Maker
☐ Ornamental Artisan
☐ Metal Artisans
☐ Handicraft Embroidery (Chikankari)

Animal Husbandry

☐ Cattle Rearing
☐ Goat/Sheep/Pig Farming
☐ Poultry farming
☐ Cattle feed seller

1.12 How many years have you been working in this Small business?

☐ By birth/ Inherited business
☐ Less than 1 years
☐ 1-5 years
☐ 5-10 years
☐ More than 10 years

2. Heat and Food and Nutrition Security during 2025 extreme heat

2.1 Have you experienced delays, spoilage, or loss of perishable food items due to heat-related disruptions in transportation, storage, or supply delivery during the 2025 extreme heat?

☐ Yes ☐ No

If yes, please describe the type and frequency of these disruptions.

_____

2.2 Did you face difficulty storing perishable goods (like vegetables, dairy, etc.) during the 2025 extreme heat?

☐ Yes ☐ No ☐ Not Applicable

2.3 What supply chain issues did you face due to extreme heat during the 2025 heat?

☐ Increased procurement costs due to high perishability while transport
☐ Increased costs due to high storage charges at cold storage
☐ Reduced supply of raw materials due to limited availability
☐ I don't face any issues
☐ Any other

2.4 Did you experience a decline in your customer base or sales solely due to extreme heat in 2025?

☐ Yes, significantly ☐ Yes, moderately ☐ Yes, slightly ☐ No

What is your usual monthly income? (Quantity)

_____

Have sales changed in the summer months in 2025?

☐ Yes, significantly ☐ Yes, moderately ☐ Yes, slightly ☐ No

How much has revenue/profit suffered? (Quantity)

_____

2.8 During the 2025 extreme heat, did you or your family reduce the number of meals you ate per day?

☐ Yes, regularly ☐ Yes, sometimes ☐ No

2.9 Did the 2025 extreme heat affect the freshness of perishable food items (e.g., vegetables, milk, meat)?

☐ Yes, a lot ☐ Somewhat ☐ No

2.10 Did you find it harder to afford nutritious food (like fruits, vegetables, dairy) during the 2025 extreme heat?

☐ Yes ☐ No

2.11 Did you have to change your family's diet because of rising temperatures in 2025 (e.g., eat fewer hot meals, rely on dry snacks)?

☐ Yes ☐ No ☐ Not sure

2.12 Did anyone in your household experience health problems (e.g., dehydration, weakness) due to poor nutrition during the 2025 heatwave?

☐ Yes ☐ No

2.13 How did the cost of food commodities change during the 2025 heatwave?

☐ No change in cost
☐ Slight increase: Costs rose by up to 10%
☐ Moderate increase: Costs rose by 11% to 25%
☐ Large increase: Costs rose by 26% to 50%
☐ Severe increase: Costs more than doubled

3. Energy and Water Supply Vulnerabilities during 2025 extreme heat

3.1 During the 2025 extreme heat, did you face power cuts or electricity shortages?

☐ Yes, regularly ☐ Sometimes ☐ Rarely ☐ Never

3.2 Did power cuts during the 2025 extreme heat affect your ability to run your business or household?

☐ Yes, major impact ☐ Some impact ☐ No impact ☐ Not applicable

3.3 Did your electricity bill increase during the 2025 extreme heat due to the use of fans, coolers, or refrigerators?

☐ Yes, significantly ☐ Slightly ☐ No ☐ Not applicable

3.4 How did your household's energy costs for cooling compare to non-heatwave periods during 2025?

☐ About the same cost
☐ Slightly higher (up to 10% more)

☐ Moderately higher (11% to 25% more)

☐ Significantly higher (26% to 50% more)

☐ Doubled or more (over 50% more)

3.5 Did you have access to clean drinking water at your business or home during the 2025 heatwave?

☐ Always ☐ Sometimes ☐ Rarely ☐ Not at all

3.6 Has the availability of water for daily use (washing, cooking, etc.) reduced during the 2025 extreme heat?

☐ Yes ☐ No ☐ Not sure

If Yes, how much has it reduced?

☐ Slightly reduced (less than 25%)

☐ Moderately reduced (25%–50%)

☐ Significantly reduced (more than 50%)

☐ Completely unavailable at times

3.7 How much more did you spend on water during the 2025 extreme heat compared to normal months?

☐ No additional cost ☐ Up to 10% more ☐ 11% to 25% more ☐ 26% to 50% more ☐ Over 50% more

4. Public Awareness and Behavioural Response during 2025 extreme heat

4.1 Have you heard of the term "heatwave" or "extreme heat"?

☐ Yes ☐ No ☐ Not sure

4.2 Do you know the health risks associated with extreme heat (e.g., dehydration, heatstroke, fatigue)?

☐ Yes, very well ☐ Somewhat ☐ No

4.3 From where do you usually get information about heat and weather conditions? (Select all that apply)

☐ Mobile phone (SMS alerts, WhatsApp, apps)

☐ TV/Radio

☐ Newspaper

☐ Family/Friends

☐ Local government or health workers

☐ I don’t get any information

4.4 Do you know what steps to take to protect yourself and your family during extreme heat?

☐ Yes ☐ No ☐ Somewhat

4.5 What changes do you make in your daily routine during extreme heat? (Select all that apply)

☐ Start work earlier

☐ Take longer/more frequent breaks

☐ Reduce working hours

☐ Close business early

☐ No changes

4.6 Do you use any methods to keep yourself cool during extreme heat? (Select all that apply)

☐ Drink more water
☐ Drinking cold drink (buttermilk Coconut water, Lemon water etc.)
☐ Use fans/coolers
☐ Stay in shaded areas
☐ Wear light cotton clothes
☐ Use wet cloth on head/neck
☐ Wear protective outfits (cap, dupatta, wet mask, sunglasses etc.)
☐ Take frequent baths
☐ Other, specify it.
☐ No specific method

4.7 Have you made any changes to your home of business setup to cope with heat (e.g., roof covering)?

☐ Installing electric appliance – Ac/ Cooler/ Additional fans, exhaust fan
☐ Structure adjustments – Installing shade, white wash
☐ Traditional adjustment - Use umbrella, tarpaulin sheet, green net

4.8 During extremely hot days, do you reduce your outdoor movement or stay indoors more?

☐ Yes
☐ No
☐ Not possible due to work

4.9 What do you use for cooling in summer? (Select all that apply)

☐ Fan ☐ Cooler ☐ Air Conditioner ☐ No cooling device ☐ Other:

4.10 Are you part of any community group or network that shares advice or helps during heatwaves?

☐ Yes ☐ No

5. Nature-based solution

5.1 Have you made any changes in your business environment using natural elements (e.g., plants, trees, water features) to reduce heat?

☐ Yes ☐ No ☐ Planning to

5.2 Do you use any of the following nature-based methods to stay cool or protect your products? (Select all that apply)

☐ Shade from trees or vines
☐ Roof garden or green roofing
☐ Use of natural materials (e.g., bamboo, jute, clay) for stalls
☐ Storing goods underground or in earthen pots
☐ Other, specify it.
☐ None

5.3 Have you seen other businesses in your area using natural methods to manage heat or improve their work environment?

☐ Yes ☐ No ☐ Not sure

5.4 What challenges stop you from using nature-based solutions in your business? (Select all that apply)

☐ Lack of space ☐ Lack of knowledge ☐ No financial support ☐ No time/priority ☐ Other:

6. Practices and Project implemented by various stakeholders

6.1 Are you aware of any steps taken by the local municipal corporation to reduce the impact of extreme heat in your area?

☐ Yes ☐ No ☐ Not sure

If yes, please describe:

_____

6.2 Have any NGOs or civil society groups conducted awareness activities, training, or distributed materials (like caps, water bottles, ORS) to help during extreme heat?

☐ Yes ☐ No ☐ Not sure

If yes, which NGO/group and what did they do?

_____

6.3 Have any public spaces (e.g., bus stops, markets, garden) been improved by the government or community to offer more shade during summer?

☐ Yes ☐ No ☐ Not sure

If yes, what was done and where?

_____

6.4 Have any public spaces (e.g., bus stops, markets, garden) been improved by the government or community to provide drinking water during summer?

☐ Yes ☐ No ☐ Not sure

If yes, what was done and where?

_____

6.5 Have you or your business benefited from any project, scheme, or support related to heat preparedness (e.g., water booths, cooler grants, street vendor shade schemes)?

☐ Yes ☐ No

If yes, what type of support?

_____

6.6 What kind of support from government, NGOs, or others would help you better cope with extreme heat?

☐ Tree plantation near business/home

- ☐ Shade structures in markets
- ☐ Free water booths or tankers
- ☐ Cooling stations or resting points
- ☐ Heatwave early warning messages
- ☐ Health camps and ORS distribution
- ☐ Other:

7. Demand on extreme heat early warning and its accessibility

7.1 Have you received any extreme heat alert or early warning in the 2025 extreme heat?

☐ Yes ☐ No

If yes, from where?

☐ Government ☐ NGO ☐ TV/Radio ☐ Social Media ☐ Family or friends

7.2 Do you feel the current way of receiving heat warnings (if any) is:

- ☐ Easy to understand and use
- ☐ Difficult to understand
- ☐ Infrequent or unreliable
- ☐ Not available at all

7.3 Would you like to receive advance warning about extreme heat or heatwaves?

☐ Yes ☐ No ☐ Not sure

7.4 What is the best way for you to receive early heat warnings? (Select all that apply)

- ☐ SMS on mobile phone
- ☐ WhatsApp message
- ☐ Voice call or recorded message
- ☐ Loudspeaker or public announcement
- ☐ Radio/TV
- ☐ Poster/flyer in market or community space
- ☐ Other:

7.5 In which language and format would you prefer to receive extreme heat warnings?

- ☐ Local language (specify)
- ☐ Local language text message
- ☐ Local language Audio message
- ☐ Local language Visual/graphic message
- ☐ Combination of above

8. Impact on Mental Health during 2025 extreme heat

8.1 During the 2025 extreme heat, did you notice changes in your mental health, such as increased stress, anxiety, or sadness while running your business?

☐ Yes ☐ No

If yes, please explain:

_____

8.2 How safe do you feel while working during heat waves or hot monsoon days?

☐ Very safe ☐ Somewhat safe ☐ Neutral ☐ Unsafe ☐ Very unsafe ☐ Prefer not to say

8.3 Do you ever feel pressure to keep working during dangerous heat, even if you feel unwell?

☐ Yes, always ☐ Somewhat ☐ A little bit ☐ No ☐ Not sure ☐ Prefer not to say ☐ Other:

8.4 Have extreme heat conditions ever caused you to feel overwhelmed or helpless in managing your business?

☐ Never ☐ Sometimes ☐ Often ☐ Always

8.5 Do you experience sleep disturbances during heatwaves that affect your ability to work or make business decisions?

☐ Yes ☐ No ☐ Sometimes

8.6 Do you feel anxious about losing customers or income during extreme heat days?

☐ Yes ☐ No ☐ Sometimes

8.7 Have you felt physically unwell (e.g., dizziness, rapid heartbeat) during extreme heat that triggered anxiety about your work?

☐ Yes ☐ No

If yes, please describe:

_____

8.8 Do you worry about the safety or health of your workers or family members due to high temperatures at your workplace?

☐ Yes ☐ No ☐ Sometimes

Do you feel sad, hopeless, or irritable more frequently during extreme heat?

☐ Not at all ☐ A little ☐ A lot ☐ All the time

8.10 Has extreme heat made you feel isolated or alone in managing your business?

☐ Yes ☐ No ☐ Not sure

8.11 Do you feel that extreme heat has affected your mental well-being more than your physical health?

☐ Yes ☐ No ☐ Both equally ☐ Not sure

9. Business Displacement due to extreme heat

9.1 Have you ever temporarily closed or relocated your business due to extreme heat or other environmental conditions?

_____

9.2 Have you considered migration (permanently or seasonally) due to worsening heat conditions?

_____

9.3 If yes, what are the main reasons? Select All that apply:

☐ Health concerns ☐ Financial losses ☐ Housing losses ☐ Supply losses

9.4 Did your family originally move to this city for work or economic reasons?

☐ Yes, one or more generations ago
☐ Yes, recently (in the past 5–10 years)
☐ No
☐ Not sure
☐ Other:

9.5 Do you feel a responsibility to continue the business because of your family's history, expectations, or needs?

☐ Yes, very much ☐ Somewhat ☐ A little bit ☐ Not really

GPS Location

_____