WIEGO
Women in Informal Employment: Globalizing and Organizing

WIEGO Policy Brief Nº 34
January 2026

Working in the Heat: Street Vendors and Climate Justice in Delhi, India

Shalini Sinha, Aravind Unni, Rituraj Pegu and Marcela Valdivia

In Delhi's Lotus Temple Market, street vendor Shanti works daily in extreme heat to support her family. This highlights why climate-just access to water, sanitation and heat protection is essential for vendors. Photo credit: Ruhani Kaur

Key Points

Delhi is highly vulnerable to climate change impacts, with heat stress an escalating challenge. This policy brief presents the major findings from action research exploring the livelihood impacts of heat on street vendors in Delhi. The research included surveys, mapping of market infrastructure, key informant interviews and policy analysis. Surveys were carried out with street vendors across Delhi before and after the height of the 2025 summer heat.

1. **Heat impacts on work, health and debt:** Survey research following the 2025 heatwave revealed widespread impacts on vendors' livelihoods. The vast majority (96%) experienced drops in customer numbers and had reduced their working hours due to extreme heat (90%). Many (72%) lost stock to heat damage. Most vendors or their family members required medical care for heat-related illness. The financial strain was evident as borrowing nearly doubled, with women taking on more debt than men.

2. **Acute infrastructure deficits:** The mapping of market infrastructure revealed severe deficiencies across vendor worksites. None had municipal water access, and toilet facilities were either absent or inadequate. Where there were toilet facilities, most required payment and very few were designated for women. Survey data confirmed the mapping's findings, with most vendors reporting no access to water, toilets or shelter at their worksites. These infrastructure gaps pose serious health risks for both vendors and the public under normal conditions, and become critical during heatwaves.

3. **Harsh treatment by municipal officials:** Both before and after the height of the heat, street vendors faced harassment and evictions from municipal officials, with both increasing sharply during periods of extreme heat. In the second round of surveys, 65% reported harassment and 43% were evicted.

4. **Limited early warning systems and access to social protection:** Street vendors had limited access to early warning systems, with less than a third receiving timely weather warnings even during the height of the heat. While seven out of ten respondents across both survey rounds reported having ration cards, the benefits they received through the cards were limited and insufficient for coping with climate-related disruptions.

5. **Policy priorities:** The research demonstrates the urgent need to implement the 2014 Street Vendor Act in Delhi, and to shift governance away from punitive approaches where harassment and evictions are prevalent and intensified during heatwaves. Water points, toilets and shade/shelter have always been important for public health and trader livelihoods, but the need to deliver these essential services is now critical. This research spotlights the gaps in social protection and climate adaptation responses, and recommends better targeting of existing schemes and the introduction of new initiatives.

Introduction

Climate Risk Index data places India among the countries most affected by the human and economic toll of extreme weather (Adil et al. 2025). The summer of 2024 was the hottest on record, with large parts of the country enduring prolonged heatwaves that pushed temperatures well above 45°C. Such events are no longer anomalies but recurring realities (Sajwan 2025; Indian Meteorological Department 2024). This policy brief aims to contribute to and update a growing body of evidence on the impact of heat on workers in informal employment (Ghosh 2024; Jenkins and Kalsi 2024; StreetNet International and Oxfam 2024). Estimates suggest that, in Delhi's urban areas, over 80% of all employment is in the informal economy (Raveendran and Vanek 2020: 3). With no cushion, such as personal savings or social protections, these workers are especially vulnerable in times of crisis (WIEGO 2022).

Street vending is among the most visible segments of the informal economy. In India, it is an important source of employment, with estimates suggesting street vendors comprise 16.5 million workers and 3.1% of total employment nationally. In Delhi, street vending makes up 8.9% of total employment (Reynoso and Vanek 2024: 3). Vendors provide affordable goods and services, contributing to food security and supporting local suppliers and small industries. Despite low individual incomes, cumulatively they contribute to local economies and the tax base. Street vendors operate with minimal infrastructure and do not rely on the same energy-intensive, large scale heating, cooling and lighting systems as many formal, commercial establishments. Fruit and vegetable vendors often source their goods directly from local suppliers and sell them with minimal packaging. Cooked food vendors prepare food in small batches on demand, resulting in low food waste. For all of these reasons and more, street vendors typically have a small carbon footprint.

This research was conducted with Janpahal and the Self Employed Women's Association (SEWA) Delhi. Janpahal, founded in 2005, supports street vendor and gig worker collectives, with 17,000 members in Delhi. SEWA Delhi, which began organizing women vendors in 1999, now has over 100,000 members across the city, including street vendors, home-based workers and domestic workers. Both organizations are prioritizing strengthening their members' climate resilience. The research is part of a broader project that examines how home-based workers, street vendors and waste pickers experience extreme heat, flooding and other climate shocks, and how they adapt individually and collectively. The project seeks to enhance workers' coping strategies while building worker movements' capacity for policy advocacy at local and national levels.

In Delhi, between 25 March and 9 April 2025, before the summer heat, the WIEGO Delhi team and partners surveyed 519 street vendors across 17 markets.[1] In June 2025, Delhi recorded temperatures exceeding 46°C and a real-feel peak of 48.9°C on 9 June, leading the Indian Meteorological Department to issue an orange alert (The Hindu 2025). To assess the impacts of the summer heat, the same vending sites were revisited between 8 and 18 July 2025 with 494 street vendors completing the survey. Comparisons between round 1 and round 2 of the survey reflect aggregate patterns and changes between the two rounds rather than tracking specific individuals – a cohort analysis.[2]

During the first survey round, to supplement survey data, the WIEGO Delhi team and partners undertook infrastructure mapping of 17 vending locations. This involved an audit of toilets, water, shade/shelter and electricity, along with visual assessments of site condition and design. Site visits included direct observation, spatial and photographic documentation, and discussions with vendor leaders. In addition, 5 key informant interviews were carried out with climate experts, labour activists and urban practitioners to understand wider urban and climate policy issues.

[1] For the survey component of this project, WIEGO partnered with &Wider, which specializes in direct worker engagement using mobile-phone-based surveys.

[2] Since there is no census data for all street vendors in Delhi and thus no sampling frame, the findings are indicative rather than representative. Given the partnership with organizations, the sample is biased to organized vendors.

This brief examines street vending and climate policy in India, then uses National Sample Survey Organisation 2022/2023 data and two rounds of mobile-phone surveys to describe Delhi's street vending sector. Drawing on infrastructure mapping from 17 market sites, it analyzes heat impacts on vendors, including specific pathways and current support measures, before concluding with evidence-based recommendations for integrating vendor needs into climate resilience strategies and urban governance frameworks.

The Street Vending and Climate Policy Context

To locate this study, key policy instruments at the national, state and local levels were reviewed to assess how they address the vulnerabilities faced by street vendors. **Table 1** reflects the main findings.

Table 1: Overview of relevant policies and plans

Policy/framework	Lead agency	Priority focus areas	Criteria for vulnerability	Livelihood lens/worker relevance
Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014	Ministry of Housing Urban Affairs (MoHUA), state urban local bodies (ULBs) via Town Vending Committees (TVCs)	Recognition of vending as livelihood; vending zones, protection from eviction; provision of civic amenities	Law for street vendors' welfare and regulation	Legal recognition of vending, but weak implementation in Delhi: TVCs formation and convenings irregular, zones not notified, surveys incomplete; heat protection (shade, water, rest spaces) absent from vending zone planning
PM SVANidhi scheme	MoHUA, ULBs via TVCs	Financial inclusion of vendors with support for loans and digital inclusion, recently broadened to social security facilitation	Financial vulnerability, no climate-specific vulnerabilities identified or addressed	Addresses financial vulnerability but ignores climate impacts
Labour policies and welfare schemes	Ministry of Labour and Employment, and state labour departments	Factory safety, compliance, formal-sector welfare funds	Mostly designed for formal/ registered workforce	Workers in informal employment largely excluded; no workplace safety/adaptation measures for street vendors
National Disaster Management Authority (NDMA) Guidelines on Heatwaves (2019)	NDMA, Ministry of Home Affairs	Early warning systems, public outreach, cooling centres, health preparedness	Broadly mentions elderly, children, vulnerable groups	Workers in informal employment including street vendors noted only in passing; no specific worker strategies; no institutionalized protection at worksites
Delhi Heat Action Plans	Delhi State Disaster Management Authority (SDMA), government of NCT Delhi	Public health response: hospitals, schools, vulnerable populations	Focus on age- and health-related risks (older people, children)	Workers in informal employment not specifically addressed; street vendors not integrated into planning or adaptation strategies
Urban development and climate action frameworks (city-level)	ULBs, MoHUA	Infrastructure, transport, green cover, energy targets	No explicit vulnerability criteria	Workplace adaptation missing; everyday urban work environments overlooked

Street vendor and labour policies at national and state levels

The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 is a policy instrument specifically designed to protect vendors (Government of India 2014). The Act recognizes vending as a legitimate livelihood, mandating participatory decision-making bodies with vendor representation through Town Vending Committees (TVCs), vending zones and protection from arbitrary eviction. It also requires urban authorities to provide basic civic amenities in vending areas. Even with its progressive provisions, the Act does not include any specific measures for heat protection – such as shaded structures, drinking water and rest spaces.

Despite these omissions in the law, strong TVCs could potentially push for climate-related protection for vendors locally, but more than 10 years after the Act's passing they have not yet done so in any meaningful way. Implementation of the Act has been weak, especially in Delhi, where the street vendor survey it requires is incomplete and vending zones have not yet been fully notified. As a result, vendors still face routine evictions. Many TVCs have yet to be formed and where they do exist have not been able to secure gains related to heat protections.

The other national policy aimed specifically at supporting vendors is the Prime Minister's Street Vendors' Atmanirbhar Nidhi (PMSVANidhi) scheme, which was launched in 2020 to support vendors during the COVID-19 pandemic through access to micro-credit. More recently, the scheme has provided support to access social security benefits. While promoting financial inclusion among vendors, the scheme does not identify or address climate-specific vulnerabilities or integrate climate resilience or adaptation needs.

Finally, workers in informal employment are not a policy priority for the national Ministry of Labour and Employment and state labour departments, which primarily focus on compliance, workplace safety at factory sites and welfare funds for formal or registered workers (Unni and Sinha 2024).

Climate policies at national and state levels

While climate policies at the state and national levels increasingly address climate resilience, they rarely consider urban workers in informal employment. Also, where they do address heat risk, implementation is inconsistent. For example, the National Disaster Management Authority (NDMA) has recognized heatwaves as a national disaster risk, but not notified it as a national disaster, which would enable financial support for affected areas (Sinha 2024).

Heat Action Plans are policy roadmaps that lay out how governments should prepare for, and respond to, extreme heat events. In 2019, the NDMA issued revised guidelines for Heat Action Plans, urging states and cities to prepare early warning systems, public outreach, cooling centres and health preparedness (NDMA 2019).These guidelines broadly focus on health-related risks for older people and children. The risk for workers in informal employment is mentioned briefly, but without accompanying strategies for institutionalized protection at worksites. Since the publication of the guidelines, worker federations across Delhi have successfully influenced the agency to include a guideline for states that includes more detail on inclusive and long-term actions needed to protect urban workers in informal employment (Unni and Sinha 2025). Specifically, collectives and unions of workers in informal employment presented evidence and recommendations to the NDMA, which proved more receptive than many state agencies; thus enabling worker-centred, rights-based measures to be embedded in a revised national advisory. The resulting NDMA advisory represents a major shift: it formally recognizes workers in informal employment as a high-risk group in heat-action planning and directs governments to map the incidence of informal employment, adjust work timings and ensure access to water, shade and rest spaces. The advisory suggests insurance and compensation for heat-related illness or wage loss. It also stresses gender-responsive measures and the provision of long-term infrastructure such as cool zones and shaded vending areas. Worker groups directly influenced this shift by presenting solid data-backed reports that highlighted income loss and unsafe working

conditions, and participating in consultations and informal discussions that helped move the policy from a generic public-health approach to a rights-based, worker-centred framework.

Despite this national policy-level success, implementation gaps persist. Following the 2019 NDMA guidelines, Delhi's State Disaster Management Authority (SDMA) has developed many of its own Heat Action Plans, but they also largely focus on public health – targeting hospitals, schools and vulnerable groups such as older people – and have no concrete strategies to protect the livelihoods of workers in informal employment (Delhi Disaster Management Authority 2025). This reveals a critical gap between national policy frameworks and state-level implementation.

Urban development policies and climate action frameworks at the local level

Finally, urban development and climate action policies in India rarely address the intersection of urban informal employment and climate risks. City-level climate action strategies remain nascent and typically focus on sectoral goals – such as improving energy efficiency, promoting renewable energy and expanding low-emission transport systems – rather than on workplace adaptation measures for vulnerable workers.

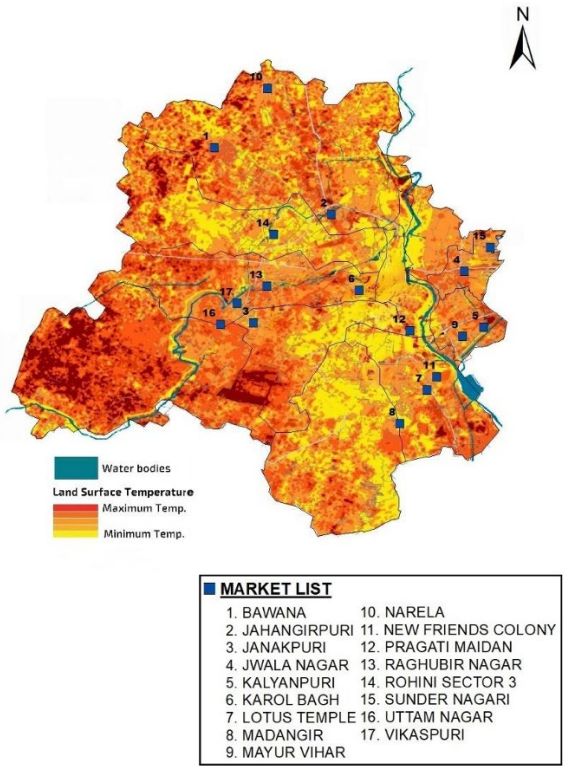
These frameworks also lack explicit vulnerability criteria that capture the specific risks faced by workers in the informal economy. While vulnerability is often assessed in terms of physical infrastructure or climate exposure, there is little consideration of the socio-economic dimensions of vulnerability, such as lack of social protection, insecure livelihoods, dependence on weather-sensitive work and limited access to public services.

This analysis reveals a fragmented policy landscape and weak implementation where potentially protective measures, like the NDMA guidelines, do exist. Where vendor-specific legislation protects livelihoods but ignores climate stress, climate-related frameworks and plans largely overlook livelihoods. This disconnect leaves millions of street vendors exposed to escalating heat stress and climate hazards without institutional support.

Street Vending in Delhi

An estimated 652,000 street vendors trade across Delhi (Reynoso and Vanek 2024: 3). **Figure 1** shows the 17 market areas where the research was conducted. They are spread across the North, South, East and West districts of Delhi. The map uses June 2023 heat data to show the land surface temperature data for Delhi. Market areas tend to be located in areas with the most elevated surface temperature. Survey locations were selected based on the presence of active markets, partners' operational areas, and zones experiencing high heat exposure. Efforts were also made to select markets that were representative of the wider area.

Figure 1: Location of survey sites mapped onto land surface temperature data, Delhi, June 2023



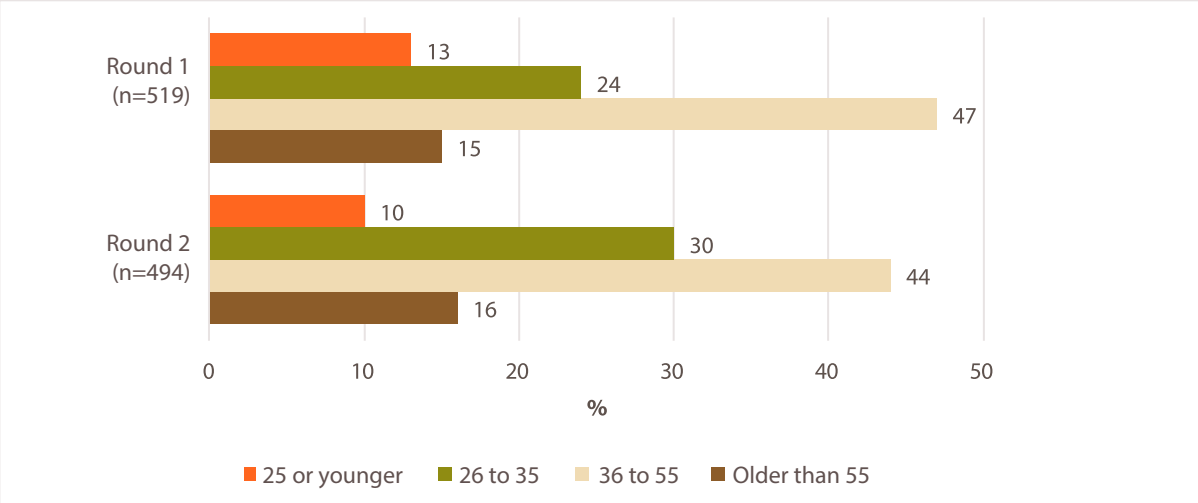
Source: United States Geological Survey, 10 June 2023

Gender and age

Unlike many other contexts, across India and in Delhi there are more men working as vendors than women. Women represented 36% of respondents in Round 1 research, rising to 41% in Round 2.[3] Women are therefore slightly underrepresented in both survey rounds compared to the National Sample Survey Organisation (NSSO) data.

As shown in **Figure 2**, the age distribution of surveyed vendors remained broadly similar across rounds, with most respondents in the 36-55 age group (47% in Round 1 and 44% in Round 2), followed by those aged 26 to 35. Younger vendors (25 or under) and older vendors (over 55) form smaller proportions of the sample (less than 20% in both rounds). This age distribution suggests that street vending is primarily a livelihood for adults in their prime working age. The gender distribution is also fairly consistent across age groups, with differences between women and men generally within five percentage points. This is consistent with NSSO data, with 77% of vendors in Delhi aged 25 to 54, although our sample shows less age variation between women and men.[4]

Figure 2: Age distribution



Mobility and goods sold

Street vendors are broadly categorized as stationary or mobile. Stationary vendors operate from fixed locations such as pavements, markets or roadside stalls, relying on consistent foot traffic and established customer bases. Mobile vendors move through markets and streets using handcarts, bicycles, or sometimes on foot, reaching customers directly and adjusting routes based on demand and time of day. While both groups work under informal conditions, stationary vendors are more exposed to eviction and legal action, whereas mobile vendors face heightened economic and physical insecurity as they navigate unpredictable working conditions.

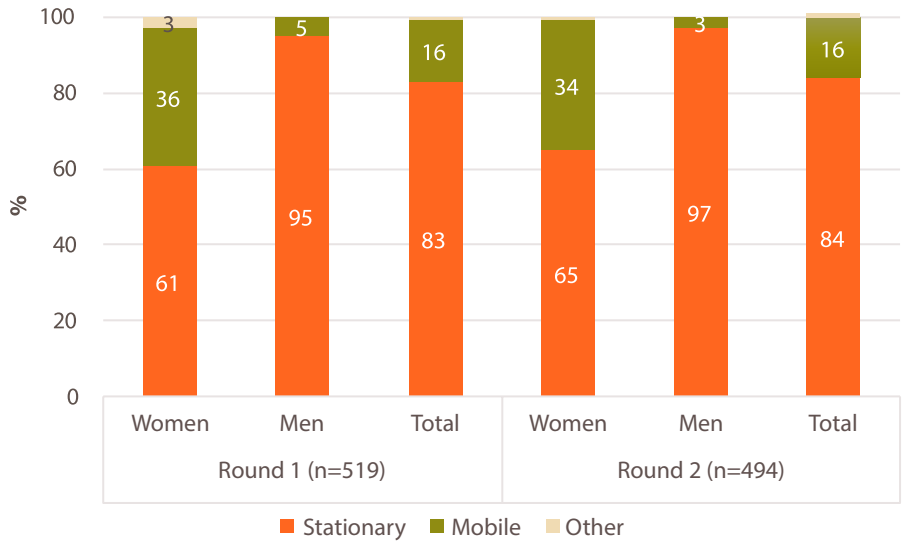
In the survey, most respondents were stationary vendors (83-84% across both rounds), while 16% were mobile (**Figure 3**). This distribution reflects ground-level realities, where fixed-location vending dominates because of spatial familiarity, customer retention and relative stability.[5] In this sample, men are overrepresented within the stationary category, while women were seven times more likely to be mobile vendors.

[3] Proportions of women do vary by market area. Due to working through SEWA Delhi, in three locations – Sunder Nagari, Raghubir Nagar, and Jahangirpuri – all respondents were women.

[4] There are wider gender variations in the NSSO data, particularly within the working-age group, with women overrepresented in the 25-35 age bracket and then dropping by more than half in the 35-54 bracket, suggesting higher childcare constraints as compared to men.

[5] Mobile vendors were intentionally included in the sample, as they are often overlooked in policy frameworks. Those trading in weekly markets and seasonal traders, however, are likely underrepresented in this sample.

Figure 3: Type of vendor by gender



Street vendors sell a wide variety of products and services. Food vendors sell both fresh produce and cooked meals, catering to daily consumption needs. Non-food vendors deal in goods such as clothing, household items, toys and accessories, providing affordable essentials for low- and middle-income households. A smaller group of vendors are engaged in services, including activities like shoe repair, tailoring, key-cutting and other street-based services that meet localized and immediate needs.

Surveyed vendors are roughly equally divided between food and non-food vendors, with less than 15% engaged in services across both rounds (**Figure 4**).[6] Men are more likely to sell food, generally a more lucrative activity (56% in Round 1 and 52% in Round 2), whereas women are overrepresented in the non-food and services categories. Comparing the two rounds, there is a shift from food to non-food vending, and the decline in services across genders suggests adjustments in work patterns as a response to heat stress and reduced mobility.

Figure 4: Goods sold by gender

[6] The sample included an overrepresentation of SEWA Delhi members trading in recycled clothing. Therefore, the distribution of goods sold may not fully represent the diversity of the vending landscape in Delhi.

Household structure, costs and consumption

The majority of vendors interviewed had dependants – approximately half of the sample across rounds reported between three to five dependants, while four in every ten reported more than six.

Respondents were asked whether, in the last month, their household earned enough to cover basic needs, such as housing, food, water and energy and whether their family had eaten fewer fresh vegetables, milk or pulses. While the majority (75% in Round 1 and 78% in Round 2) said their income had covered their household's basic needs in the past month, six in ten (63% in Round 1 and 58% in Round 2) said their family had eaten fewer fresh vegetables, milk and pulses in the same period.

This suggests that, despite meeting fixed costs like housing or utilities, many households may be compromising on nutritional requirements and essentials – pointing to economic precarity that could worsen during periods of extreme heat. The data may also be interpreted as indicating rising costs of daily needs such as basic foods (Kalasa 2025).

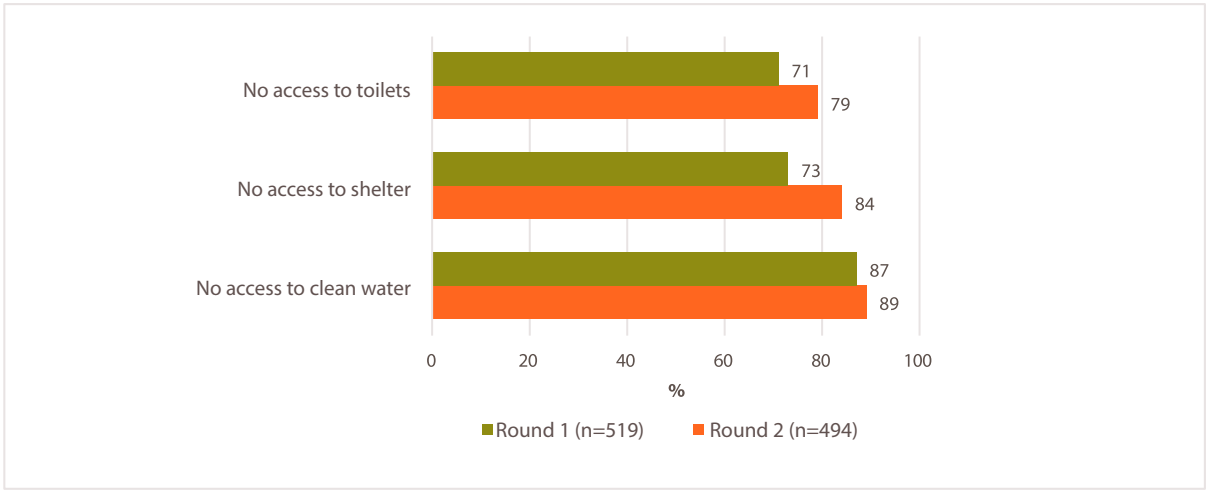
Access to Toilets, Water and Shelter

Complementing the infrastructure mapping, vendors were asked whether they had access to toilets, clean water and shade at their place of work. Findings show that more than 70% of vendors lacked access to these basic amenities and that access worsened during the heat period across all three dimensions, most notably for shade (**Figure 5**). This suggests that heat exacerbates existing infrastructural gaps.

Despite progress under the Swachh Bharat Mission,[7] 71% and 79% of vendors in Rounds 1 and 2, respectively, reported having no access to toilets. This indicates that, while national programmes may have expanded sanitation coverage overall, those trading in public space have largely been excluded.

Access to water was even more limited. The vast majority (89%) of vendors reported no access to free, clean water while working. The lack of water is especially concerning for food vendors, who need it not only for personal consumption but also to prepare their food safely. Having to purchase water imposes additional financial burdens on vendors. In 2019, the government launched the Jal Jeevan Mission, which aims to provide every household with functional water connections. However, the research findings suggest that insufficient attention has been paid to water points in vending areas.

Figure 5: Access to basic infrastructure at place of work



[7] Launched in 2014, the Swachh Bharat Mission is the Government of India's national sanitation campaign aimed at eliminating open defecation, improving solid waste management, and promoting cleaner, healthier communities across the country.

Figure 6: Access to basic infrastructure by gender

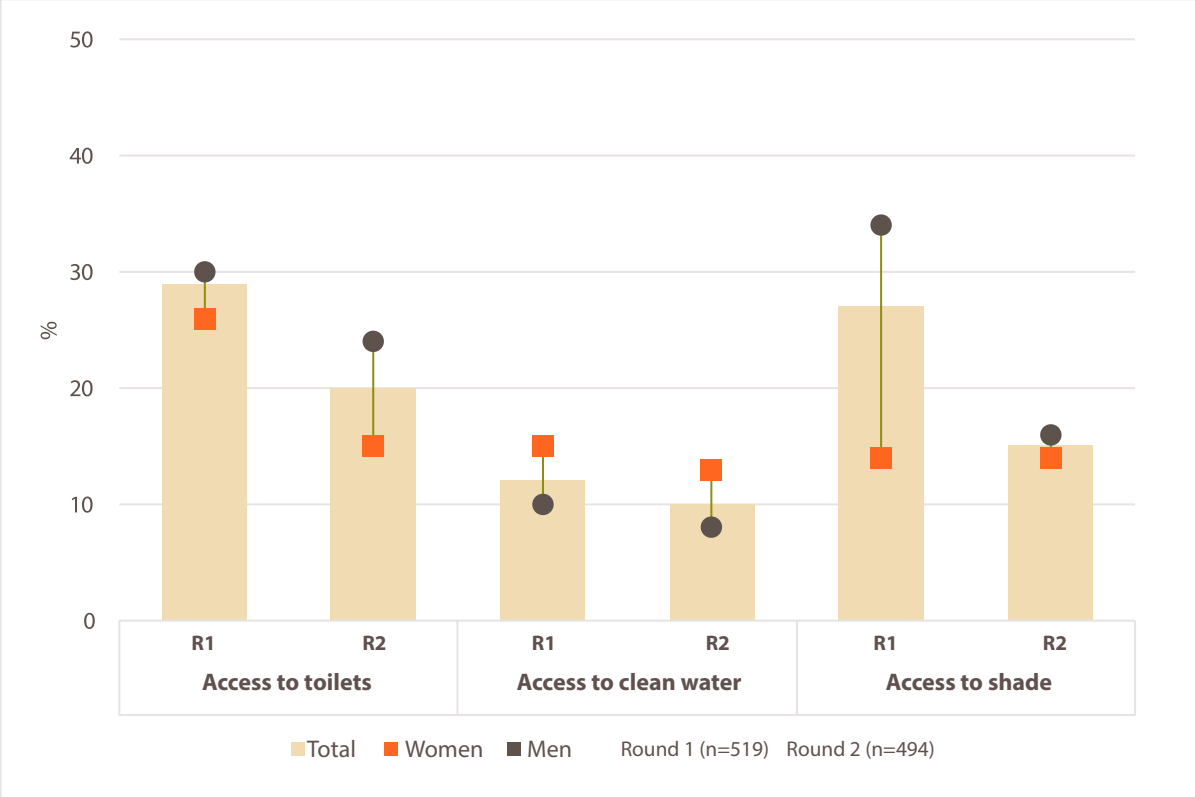


Figure 6 reflects gender differences in access. Women vendors reported lower access to toilets and shade. The difference in shade access between women and men is especially pronounced –approaching 20 percentage points – likely reflecting men's predominance as stationary vendors. However, during Round 2, overall access to shade declines sharply for both women and men, narrowing the gender gap. Access to clean water remained uniformly low across women and men vendors and survey rounds.

Together with the infrastructure mapping, these findings highlight persistent challenges around access, functionality and maintenance of basic infrastructure, particularly for those working in public space in general and women in particular, and point to the exclusion of vending sites in programme design.

Impact of Heat

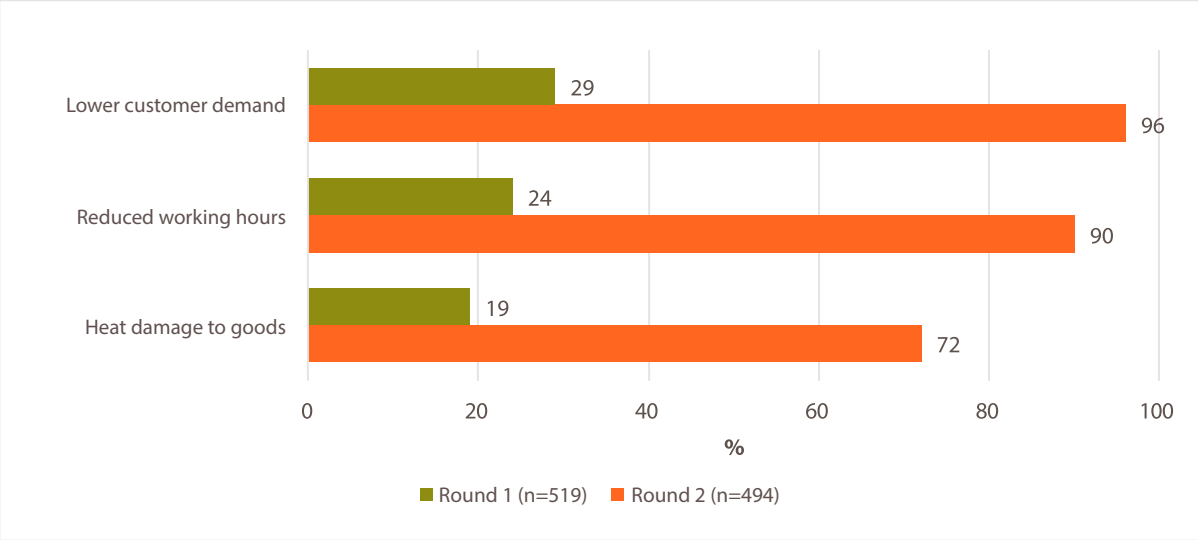
Impact on hours worked, demand and stock loss

Heat affects vendors' work through several channels, including their ability to work, customer demand and damage to goods. In Round 2, an overwhelming majority (96%) of vendors reported fewer customers due to heat – a trend consistent across genders and types of goods sold, underscoring how consumer behaviour is shaped by temperature extremes.

A significant majority (90%) also reduced their working hours, while 72% faced heat-related damage to goods. Damage rates were higher for food vendors (94%), compared to non-food (57%) and service vendors (41%). The lack of shade worsened these impacts, with vendors without shade reporting greater reductions in working hours.

These multiple pathways of impact are particularly concerning given that many vendors already struggle to earn enough to meet basic household needs. This makes them even more vulnerable to income losses driven by heat.

Figure 7: Impacts of heat on demand, work hours and damage to stock

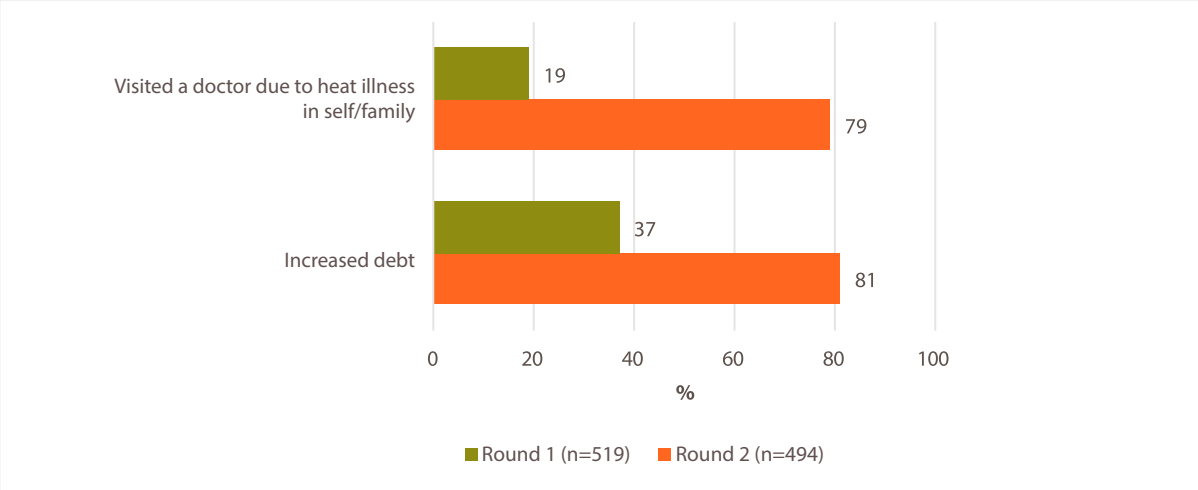


Impact on health and debt

Survey findings also reveal increased health problems and debt levels among vendors (**Figure 8**). In Round 2, 79% of vendors reported seeking medical attention for heat-related illness – for themselves or a family member – a near four-fold increase from Round 1.

While nearly 40% of respondents in Round 1 reported an increase in debt, this more than doubled in Round 2. Although debt increases for both women and men vendors, it rises at higher rates for women (+50 p.p. versus +40 p.p. among men). This underscores how heatwaves intensify financial vulnerability, forcing vendors to take on debt to cope with reduced earnings, higher operational costs (such as water, shade and electricity) and mounting household expenses.

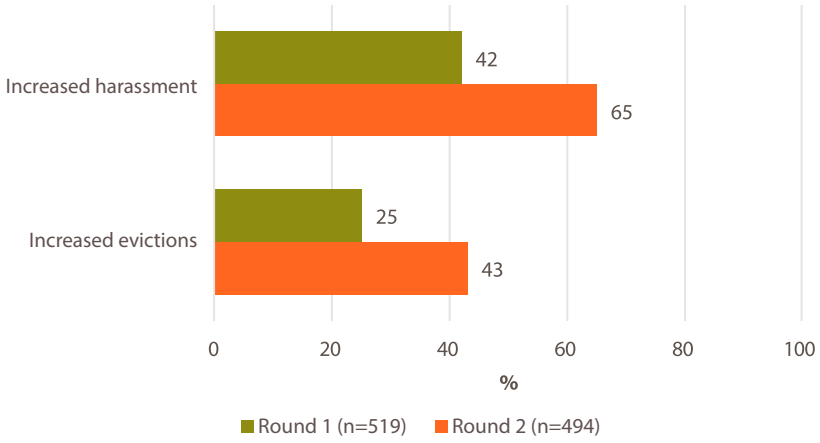
Figure 8: Share of vendors borrowing due to heat-related income losses



Harassment and Evictions

Survey data suggest that street vendors across Delhi are subjected to high levels of harassment and evictions (**Figure 9**). In Round 1, more than 40% of respondents reported they had been harassed by the police and municipal authorities, and one in every four had experienced an eviction. Evictions are particularly devastating for vendors, who lose their trading spots and stock, compounding their financial vulnerability.

Figure 9: Experiences of evictions and harassment

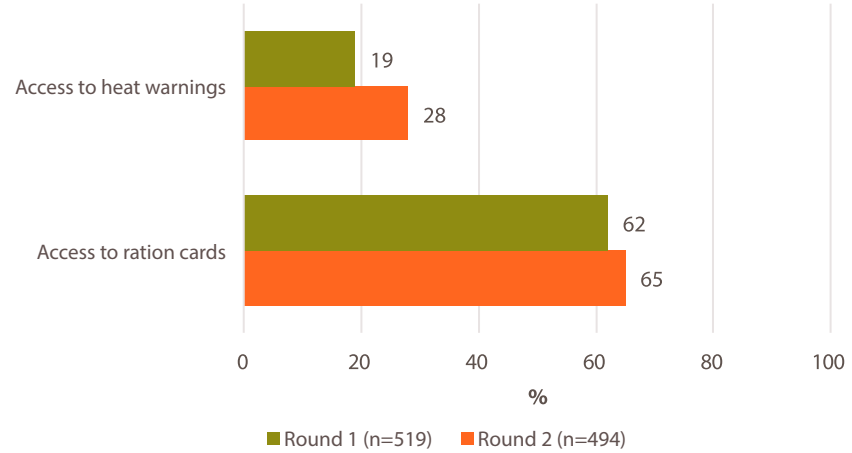


The findings suggest that – rather than reducing pressures on street vendors when they are already experiencing heat-related hardships – municipal officials are doubling down on harassment and evictions. In Round 2, reports of harassment increased sharply to 65% and the number of evictions nearly doubled between survey rounds. Traders in three areas reported particularly high eviction rates – Jahangirpuri (92%), Mayur Vihar (70%) and Narela (67%). Male vendors faced higher rates of harassment (+9 p.p.) and evictions (+10 p.p.), likely reflecting their greater visibility given their overrepresentation within stationary vendors.

Access to Heat Warnings and Social Protection

Early warning systems help workers anticipate and respond to heatwaves before they escalate into crises. Less than a third of the sample across the two rounds reported receiving timely heat warnings, but coverage does seem to increase during periods of extreme heat. Likely due to SEWA's support, women vendors report higher access as compared to men (+3 and +20 p.p. in Rounds 1 and 2, respectively). India's current heat early warnings are not in local languages, are poorly disseminated and report only air temperature rather than heat index or wet-bulb measures that capture real risk.

Figure 10: Access to ration cards and heat warnings



Finally, respondents were asked whether they had a ration card. The card is a key document under the public distribution system, entitling households to subsidized food grains and essential commodities under the 2013 National Food Security Act. Beyond food access, it also functions as a widely recognized proof of residence and socio-economic status and often serves as an entry point to other welfare schemes. For workers in informal employment, holding a ration card indicates an important marker of access to social security. Nearly seven in ten street vendors reported holding a ration card across both rounds, with higher rates of access reported by women vendors. This is likely due to SEWA's work facilitating women's access to social protection and strengthening their linkages to welfare schemes.

While survey data reveals the scale and characteristics of Delhi's street vending workforce, understanding vendors' climate vulnerability requires examining the physical environments in which they work. The following section presents findings from infrastructure mapping conducted at 17 market sites across Delhi. The mapping documents the built environment conditions – including shade coverage, ventilation, surface materials and cooling infrastructure – that shape vendors' daily exposure to extreme heat.

Infrastructure Mapping of Vending Sites

The infrastructure mapping exercise across the survey sites, which WIEGO's Delhi team conducted to supplement survey data, focused on each site's overall condition, access to water, electricity, sanitation and shade, as well as its formalization status. Through site visits, photographic and spatial documentation, and discussions with vendor representatives, the mapping captured the quality and availability of essential infrastructure and the overall design and usability of vending spaces. The findings are summarized in **Table 2**.

Table 2: Infrastructure mapping and assessment of street vending sites

No	Market	Market details	Vending site condition	Access to water	Access to toilets / sanitation	Shade	Electricity
1	Bawana JJ Colony	JJ Colony settlement, mass vending, North-West Delhi	Open drains, mass vending, insecure	Informal purchases, high costs	No proper sanitation facilities	Few trees, tarpaulin used	Poor informal access, costly
2	Jahangirpuri Market	Large hub, crowded roadside vending, North Delhi	Congested roadside, insecure vending	Unreliable purchased water only	No women's toilets available	Few trees, tarpaulin used	No supply, costly alternatives
3	Janakpuri District Centre	Commercial hub, mobile and stationary, West Delhi	Mobile heavy, insecure roadside	Limited purchased water, costly	No dedicated toilets available, limited access	Few shaded carts, insecure	Inconsistent supply, battery lamps
4	Jwala Nagar Market	Local bazaar, evening vending dominant, East Delhi	Roadside vending, waterlogging risk	Purchased water, daily burden	Dysfunctional toilets, unsafe access	Umbrellas, makeshift tarpaulin	No supply, unsafe lamps
5	Kalyanpuri Market Cluster	Congested roadside market, semi-permanent stalls, East Delhi	Semi-permanent stalls, poor infrastructure	Minimal piped, costly purchased	Dilapidated toilets, unsafe access	No trees, tarpaulin only	Battery lamps, costly, informal
6	Karol Bagh Market	Busy commercial centre, dense vending site, Central Delhi	Overcrowded commercial roads, insecure	Purchased water, insufficient supply	Pay-use toilets, unsafe	Umbrellas, poor protection	Battery lamps, unsafe, costly

7	Lotus Temple	Temple roadside market, informal vending, South Delhi	Footpaths, unstable carts, insecure	Purchased only, unreliable supply	Minimal toilets, unsafe, costly	Umbrellas, costly, unstable	Shared electricity, costly, unsafe
8	Madangir Vendors Market	Residential roadside market, insecure stalls, South Delhi	Roadside plots, poor amenities	Vendors bring water, informal	Dirty, sometimes not available	Some semi-permanent shade	Sporadic supply, unsafe access
9	Mayur Vihar Market Cluster	Footpath market, informal vending cluster, East Delhi	Informal footpaths, insecure, cramped	Purchased water only	Few toilets, poor hygiene	Park walls, tarpaulin used	No supply, battery lamps
10	Narela Market	Peripheral settlement roadside market, North Delhi	Peripheral roadside vending, insecure	No taps, costly purchased	No toilets, open defecation	Some shade, tarpaulins, poor tree cover	Battery lamps, unreliable, costly
11	New Friends Colony Community Centre	Community hall area, mixed vending types, South Delhi	Inside hall, limited structure	Few taps, poor availability	One toilet, poor condition	Tree cover, umbrellas banned	Temporary meters, poor reliability
12	Raghubir Nagar	Slum clusters, vendors selling on open streets/ pavements, West Delhi	Open, crowded roadside markets	No taps, purchased water, costly	One toilet, poorly maintained, with a ₹5–10 user fee.	One section has partial cover	One site has electricity, other sites without access
13	Pragati Maidan Metro	Metro station area, high footfall, Central Delhi	Sparse setups, harassment risk	Purchased water, costly, irregular	Metro toilets, unsafe, costly	Tarpaulin only, poor cover	No supply, informal access
14	Rohini Sector 3	Residential area, temple-edge vending, North-West Delhi	Wall shade, drainage poor	Bulk purchased, poor quality	No toilets, unsafe conditions	Makeshift shade, poor cover	Temporary connections, unsafe lamps
15	Sunder Nagari	Resettlement sites, slum clusters with basic services, East Delhi	Roadside, broken footpaths, flooding from overflowing drains during rains	No water at site, water from home	No toilets, return home for use in urgency	No shade, temporary umbrellas or cloth covers used	No electricity, shut shops by evening
16	Uttam Nagar Market	Metro roadside, fully mobile vendors, West Delhi	Metro congestion, unstable vending	Carried or bought, costly	Nearby toilets unusable, costly	Tarpaulins, poor protection	No electricity, costly lamps
17	Vikaspuri Market	Footpath vending cluster, eviction-prone, West Delhi	Footpaths, insecure, eviction threat	Limited supply, costly purchased	Men-only, distant facilities	Partial tree cover only	Informal connections, costly lamps

Legend
- Absence
- Partial Presence / Under Development

Of the 17 markets studied, 14 are located along footpaths, roads and roadsides, reflecting the dominant pattern of vending in public spaces with high foot traffic. In two markets, vending occurs partly inside formal commercial spaces, while only one explicitly designates plots for vending, offering vendors semi-permanent structures and shared facilities. Beyond roads and footpaths, vendors often occupy park edges, areas under metro stations, near walls or adjacent to public buildings. Critically, all 17 markets operate on informally occupied public land and 14 lack formal recognition as vending zones under the Street Vendors Act.[8] This leaves vendors vulnerable to eviction, harassment and denial of basic services.

The markets where vendors work are poorly serviced and largely unregulated, with vendors working in narrow passages, alongside drains, or on bare ground with minimal weather protection. Cooking is often done using open flames on carts or temporary setups. Some semi-permanent stalls exist in long-established areas, but insecurity dominates. Vendors have adapted with creativity – through mobile carts, makeshift shade or improvised storage – yet remain exposed to constant risks, conflicts and neglect.

Access to Water

None of the 17 markets surveyed had municipal water points. Vendors are compelled to buy or carry water, adding daily costs and disrupting work routines. Spending on water varies significantly. In Mayur Vihar and Uttam Nagar, fruit and vegetable vendors reported spending around INR50 per day on water. Prepared-food vendors, who require water for cooking and cleaning, spend more than INR100 daily, with higher costs in high-footfall markets like Pragati Maidan Metro, Janakpuri, Vikaspuri and Jahangirpuri. Some vendors reportedly spend as much as INR300 per day on water, over INR6,000 monthly. This high expenditure contrasts sharply with the cheap rates the state government charges Delhi residents for water.[9]

Access to Toilets

Access to toilets was also limited. Three markets – Madangir, Rohini Sec 3 and Narela – lack public toilets entirely, resulting in open defecation. Twelve markets have pay-and-use facilities, but conditions are poor and fees are high – ranging from INR2–10 per use, or up to INR40 for a shower. Women's access is restricted. Only four markets – Pragati Maidan Metro, Bawana JJ Colony and Karol Bagh – offer some usable facilities for women, possibly due to proximity to Delhi Metro stations, though these too are often expensive, unsafe or poorly maintained. As noted, the Swachh Bharat Mission commits the state to construct household and community toilets and mandates that toilets and sanitation be free. The findings suggest that this should be extended to vending sites without delay.

Access to Shade and Shelter

Infrastructure mapping shows that 10 of the 17 markets have some form of shade – self-installed tarpaulin, umbrellas or wooden frameworks – while the remaining markets lack any shelter. Semi-permanent arrangements exist in Narela and Madangir, while natural shade helps in Rohini, Janakpuri, New Friends Colony and Vikaspuri. Tree cover helps street vendors, who reinforced its importance in interviews. Municipal restrictions on umbrellas and tarpaulins, ostensibly for regulatory order, prevent vendors from creating basic shade and thus transform governance decisions into direct drivers of heat vulnerability.

Access to Electricity

Electricity access is similarly scarce and predominantly informal. Only 6 out of 17 sites have some form of formal meters and temporary connections for electricity. Most rely on battery lamps, rented power, or illegal hookups facilitated by middlemen. Costs vary, with vendors reporting that battery lamps cost INR20–50 daily; informal connections cost INR30–50 daily or 300–400 monthly. Shared meters, such as at Lotus Temple

[8] The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 mandates the creation of vending zones by urban local bodies, in consultation with Town Vending Committees. The zones are intended to designate specific public spaces where vendors can operate legally, with access to basic civic amenities and protection from arbitrary eviction.

[9] In Delhi, households receive 600 free litres of water per day, with subsidized tariffs charged for consumption beyond this limit.

market, can push costs above INR1,000 monthly per vendor. It was also reported that vendors with formal connections are paying commercial charges for usage.[10] Electricity use is largely limited to lighting, which is essential for evening vending. Lack of reliable electricity restricts business hours, safety and opportunities to expand operations. During heatwaves, the absence of formal electricity connections prevents vendors from accessing fans or refrigeration, leaving them exposed to direct heat and accelerating spoilage of perishable goods.

The mapping reveals that the precarity of street vendors' livelihoods is reinforced by the absence of basic services. Extreme heat exacerbates this vulnerability, as coping and adaptation become more costly and detrimental to both health and income. With almost no infrastructural support – a gap that no existing policy framework currently addresses – street vendors are left to bear the compounded burden of infrastructural neglect and climate stress.

Conclusion and Recommendations

These findings reveal how existing structural inequalities have created the conditions for heat to become a crisis for street vendors in Delhi. In their context of insufficient infrastructure, evictions and harassment, age and gender inequalities, and social protection gaps, vendors' intense vulnerability is amplified by extreme heat and its associated impacts on earnings.

Infrastructure deficits fundamentally shape vendors' vulnerability to heat. The vast majority of vendors operate without any form of shade, leaving both themselves and their goods exposed to extreme temperatures. Water scarcity and prohibitive costs compound this exposure. The absence of toilets forces unsafe coping practices and contributes to ill health. The lack of sanitation is particularly acute for women vendors, who already face restricted access to facilities. Without adequate infrastructure, the escalating severity of heat drives down working hours and customer demand, and increases spoilage, which together causes a drop in earnings. This triple impact – reduced hours, fewer customers and stock damage – translates into direct financial erosion for vendors already operating on thin margins.

Rather than enabling resilience and adaptation, governance practices compound vendors' vulnerability and income losses during heatwaves. Vendors reported a dramatic increase in harassment and nearly half of vendors also reported eviction or confiscation of goods. This adds immediate financial strain while pushing vendors into more insecure or unshaded spaces.

Social protection coverage remains patchy and insufficient to address heat-related vulnerabilities. While nearly seven in ten vendors hold ration cards, which can provide access to subsidized food and other welfare schemes, many remain excluded. And while the benefits provided through ration cards are valuable, they are limited in scope and do not address climate-specific needs such as income loss during heatwaves, medical costs for heat-related illness, or the increased operational expenses vendors face. Access to early warning systems is limited: less than a third of vendors receive timely heat warnings, despite modest improvements during peak heat periods. India's current heat warnings are not available in local languages, are poorly disseminated, and report only air temperature rather than heat index or wet-bulb measures that capture real physiological risk. This combination of incomplete social protection and inadequate early warning systems leaves vendors largely unprotected against climate hazards.

In the absence of an adequate social safety net, vendors use borrowing as a key coping mechanism. Men's greater reliance on credit compared to women suggests gendered differences in access to borrowing channels, leaving women potentially more exposed to shocks. While most vendors reported meeting household essentials like rent and utilities, this is achieved by sacrificing nutritional

[10] Under the Delhi Government subsidy scheme, residential consumers receive 200 units of electricity free per month. Beyond this, tariffs are slab-based and increase progressively for higher consumption, with fixed charges based on connected load. Commercial rates are far higher and charged for commercial establishments.

intake, with families reducing consumption of vegetables and milk. Such strategies reveal a fragile adaptation system: vendors prioritize fixed obligations to maintain livelihoods and housing stability, but at the cost of long-term health and resilience.

Age and gender introduce additional layers of vulnerability. Older vendors are more likely to report insufficient income and reduced food intake, reflecting increased pressures such as medical costs and reduced physical capacity for long working hours in heat. Gender further stratifies vulnerability within the sector. Men dominate both stationary and food vending, the latter being more lucrative, while women are disproportionately concentrated in mobile vending and service activities that yield lower incomes. This leaves women – who are already burdened with restricted access to loans and greater care responsibilities at home – with fewer resources to buffer climate shocks.

In sum, the findings from this research reveal how extreme heat intersects with existing structural vulnerabilities to compound crises for Delhi's street vendors, especially for older vendors and women. Rather than isolated challenges, vendors face a web of precarity, shaped by inadequate infrastructure, hostile governance, limited social protection and gender inequalities, which are dramatically intensified by heat stress. The research shows that, despite India's recognition of street vending as a legitimate livelihood under the Street Vendors Act and growing recognition of climate risks, there are policy and implementation gaps at the intersection of these two domains that leave street vendors unprotected.

Prioritize urban infrastructure and inclusive governance

Street vendors urgently need improved access to basic infrastructure, particularly water, sanitation, shade and shelter. These are essential for vendors and public health under normal conditions but become critical during heatwaves. In the immediate term, cities should deploy public toilets near high-traffic vending sites and include street vendors in urban water access programmes like the Jal Jeevan Mission.

Infrastructure gaps also reflect broader urban planning failures that render street vendors invisible in public space design. For example, most vendors rely on makeshift solutions, such as plastic sheets or umbrellas for shade, which not only fail to provide protection but also invite penalties, harassment and evictions by authorities. Inclusive urban policy frameworks need to align to the Street Vendors Act and recognize street vendors as legitimate stakeholders in city economies with rights to reliable, subsidized infrastructure. Shade must be treated as a basic entitlement and integrated into vending site design and local regulations.

Alongside this recognition, cities should establish climate-resilient vending hubs that integrate cooling, shade, storage, solar energy, rainwater harvesting and resting spaces, next to modular shelters and weather-resilient kiosks. Shade with tree cover should be complemented with street vending site designs involving built structures, ensuring that vending zones are embedded in broader urban and heat adaptation strategies.

For this to be sustainable, protection from harassment and eviction is essential, requiring strengthened town vending committees, effective grievance redressal and accountability of municipal and police authorities. Also, vendors should be involved as stakeholders and partners in the implementation of these measures. For example, vendor associations could be partners in the roll-out of localized, multilingual early warning systems delivered through SMS, WhatsApp and radio. Vendor associations must be empowered to co-design infrastructure, climate strategies and grievance systems. To this end, greater policy convergence is needed by linking the Street Vendors Act, Heat Action Plans, State-City Climate Action Plans and urban planning policies.

Strengthen social security coverage and stabilize incomes

Even adequate infrastructure tailored to protect street vendors against heat is not enough to protect them during the most extreme weather. Vendors also need their incomes secured during climate shocks through the expansion of social protection. Recent portability reforms under One Nation One Ration Card have reinforced its role as the core entitlement document for mobile and vulnerable populations. Universalizing ration card coverage and continuing to expand the portability of entitlements would increase vendors' access to basic food and nutrition.

Ration card access should be complemented with direct income support or heat-linked compensation during extreme weather events. Expanding public distribution system entitlements based on heat impacts, establishing subsidized meal schemes near vending clusters and designing targeted packages for women and older vendors could address the nutritional compromises that vendors currently face.

In addition, to tackle growing debt and financial insecurity, vendors need access to affordable credit and risk-sharing mechanisms. This includes government-backed emergency credit lines during crises, expansion of affordable finance and integration of climate-linked credit products into existing schemes. The PMSVANidhi scheme, now focused primarily on financial access, could be expanded to address these broader protection gaps, creating an integrated framework that links financial inclusion with comprehensive social security.

Complementary interventions – such as temporary relief packages, affordable cooling and storage solutions – can further reduce stock losses and stabilize incomes during heatwaves.

Address overlapping vulnerabilities

Policy responses must also account for gender- and age-based factors that increase risk among vendors. Critical for women vendors is access to sanitary facilities, childcare and lighting in vending zones. Because of unequal access to borrowing, financial inclusion measures (including low-interest loans and direct support through PMSVANidhi), should be tailored for women vendors, alongside efforts to promote their entry into higher-earning vending sectors through training and equipment subsidies. Similarly, age-sensitive interventions are needed, including increasing access to healthcare and pension schemes.

References

Adil, Lina, David Eckstein, Vera Künzel and Laura Schäfer. 2025. *Climate Risk Index 2025. Germanwatch e.V.*, February. Available at: https://www.germanwatch.org/sites/default/files/2025-02/Climate%20Risk%20Index%202025.pdf

Alfers, Laura, Christy Braham, Marty Chen, Erofili Grapsa, Jenna Harvey, Ghida Ismail, Ana Carolina Ogando, Sarah Orleans Reed, Sally Roever, Mike Rogan, Shalini Sinha, Caroline Skinner and Marcela Valdivia. 2022. *COVID-19 and Informal Work in 11 Cities: Recovery Pathways Amidst Continued Crisis*. WIEGO Working Paper No. 43 Available at: https://www.wiego.org/wp-content/uploads/2022/06/WIEGO_Working%20Paper%20No%2043.pdf

Delhi Disaster Management Authority (DDMA). 2025. *Heat Action Plan – Delhi*. Available at: https://ddma.delhi.gov.in/sites/default/files/ddma/generic_multiple_files/hap_delhi_21.4.25_3.pdf

Ghosh, Manoranjan. 2024. *Heat Havoc: Investigating the Impact on Street Vendors 2024. Greenpeace India and National Hawkers Federation*. Available at: https://www.greenpeace.org/static/planet4-india-stateless/2024/06/09966a5b-heat-havoc_website_use.pdf

Government of India, 2014. *The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014*. Available at: https://www.indiacode.nic.in/bitstream/123456789/20336/1/street_vendors_%28protection_of_livelihood_and_regulation_of_street_vending%29_act%2C_2014.pdf

Jenkins, Olivia and Kavita Kalsi. 2024. *Informal Women Workers on the Frontline of the Climate Crisis: Insights from over 1,100 Women Working in India's Informal Sector. Self-Employed Women's Association Bharat and Social Development Direct*. Available at: https://www.sddirect.org.uk/sites/default/files/2025-04/Informal%20Women%20Workers%20On%20The%20Frontline%20Of%20The%20Climate%20Crisis%20Report.pdf.

Kalasa, Soumya. 2025. *Rs 200 For Dal? The Pulse Of The Problem, Decoded*. News 18. Available at: https://www.news18.com/explainers/200-for-dal-the-pulse-of-the-problem-decoded-ws-l-9420146.html

National Disaster Management Authority (NDMA). 2025. *Advisory for Protecting Informal Workers during Heatwave*. Available at: https://ndma.gov.in/sites/default/files/PDF/Reports/NDMA_Advisory_for_Protecting_Informal_Workers_during_Heatwave.pdf

Raveendran, Govindan. 2024. *Informal Workers in India: An Updated Statistical Profile*. Available at: https://www.wiego.org/advocacy-worker-education-resources/tables-employment-informal-employment-and-groups-informal-workers-based-india-periodic/

Reynoso, Tomás Ramírez and Joann Vanek. 2024. *Street Vendors and Market Traders in 12 Countries: A Statistical Profile*. WIEGO Statistical Brief No. 40. WIEGO. Available at: https://www.wiego.org/wp-content/uploads/2024/11/wiego-statistics-brief-no-40.pdf

Sajwan, Raju. 2025. *"Finally, India Also Confirms 2024 as Its Hottest Year Ever Recorded." Down to Earth*. Available at: https://www.downtoearth.org.in/climate-change/finally-india-also-confirms-2024-as-its-hottest-year-ever-recorded

Sareen, Rajneesh and Mitashi Singh. 2025 *"No Time and Money to Cool: Delhi's Vulnerable Seek Priority Relief from Rising Heat." Down to Earth*. Available at: https://www.downtoearth.org.in/climate-change/no-time-and-money-to-cool-delhis-vulnerable-seek-priority-relief-from-rising-heat

Sinha, Amitabh. 2024. *Why Heatwaves Have Not Been Included as a Notified Disaster in the Disaster Management Act*. Available at: https://indianexpress.com/article/explained/heatwaves-notified-disaster-9386059/

Sinha, Shalini and Rituraj Pegu. 2024. *"What the Scorching Summer Does to Delhi's Informal Workers." The Wire*. Available at: https://thewire.in/rights/delhi-informal-workers-labourers-heatwave-summer

StreetNet International and Oxfam. 2024. *Weathering the Change: How Street Vendors Are Shaping Their Future in the Face of Climate Challenges in ASEAN*. Available at: https://streetnet.org.za/document/weathering-the-change-how-street-vendors-are-shaping-their-future-in-the-face-of-climate-challenges-in-asean/

The Hindu. 2025. *Delhi Temperature Shoots to 49 °C; Orange Alert Issued Amid Heatwave*. Available at: https://www.thehindu.com/news/cities/Delhi/delhi-temperature-shoots-to-49c-orange-alert-issued-amid-heatwave/article69677297.ece

Unni, Aravind and Shalini Sinha. 2025. *NDMA's Progressive Advisory Will Protect Informal Workers from the Scorching Heat*. Indian Express. Available at: https://indianexpress.com/article/opinion/columns/ndmas-progressive-advisory-will-protect-informal-workers-from-the-scorching-heat-10090291/

Unni, Aravind and Shalini Sinha. 2024. *It Is Time to Protect India's Workers from the Heat*. The Hindu. Available at: https://www.thehindu.com/opinion/lead/it-is-time-to-protect-indias-workers-from-the-heat/article69558234.ece

WIEGO. 2022. *COVID-19 Crisis and the Informal Economy in Delhi, India: Continued Economic Impact and Uneven Recovery*. WIEGO. Available at: https://www.wiego.org/wp-content/uploads/2022/03/R2DelhiCity_Report.pdf

About the Authors

Shalini Sinha is Home-Based Work Sector Specialist and Asia Strategy Lead at WIEGO. For over two decades, Shalini's work has shown that building gender-friendly and equitable cities needs to reflect the needs of the working poor, with particular attention paid to informal livelihoods that are sustained in public spaces in cities. In her recent work, Shalini examines the impact of climate change on workers in informal employment and advocates for an inclusive and resilient city for the poor. She can be contacted at shalini.sinha@wiego.org.

Aravind Unni is an urban practitioner, researcher and activist with 15 years of experience working at the intersection of urbanization, informality and social justice in India. Rooted in field practice and critical scholarship, his work advances equitable planning, democratic urban governance and solidarities across India and the Global South. He can be contacted at aravindunni.urban@gmail.com.

Rituraj Pegu is the Research and Coordination Officer for WIEGO's Climate Justice and the Urban Informal Economy project in Delhi. He works closely with worker organizations and community groups to ensure their priorities and lived experiences inform conversations on socio-spatial justice. He can be contacted at rituraj.pegu@wiego.org.

Marcela Valdivia manages WIEGO's Climate Justice and the Urban Informal Economy project. She leads city-level documentation, policy and data analysis and co-develops participatory research methods. Her work focuses on linking local research on informality with broader policy debates to strengthen advocacy efforts at the global level. She can be contacted at marcela.valdivia@wiego.org.

Acknowledgements

This research forms part of the Climate Justice and the Urban Informal Economy: Understanding Impacts and Strengthening Resilience project, co-financed by Canada's International Development Research Centre. Research is also being conducted across Bangkok, Thailand, and six cities in Brazil. We are grateful to the principal investigator on the project, Caroline Skinner, for her oversight of content and implementation. Caroline and Jenna Harvey made comprehensive edits and suggestions for this publication. We also gratefully acknowledge the staff and members of SEWA Delhi and Janpahal, without whom this research would not have been possible.

About WIEGO

WIEGO
Women in Informal Employment: Globalizing and Organizing

Women in Informal Employment: Globalizing and Organizing (WIEGO) is a global network focused on empowering the working poor, especially women, in the informal economy to secure their livelihoods. We believe all workers should have equal economic opportunities, rights, protection and voice. WIEGO promotes change by improving statistics and expanding knowledge on the informal economy, building networks and capacity among informal worker organizations and, jointly with the networks and organizations, influencing local, national and international policies.

Visit www.wiego.org