

# Climate Vulnerability and the Gig Economy: A Psychosocial Study of Delivery Workers in Urban India

01

**Dr. R.K. Tripathi**  
**Umang Tiwari**

---

## *Abstract*

*This study explores the need to safeguard gig workers from climate-related risks while addressing initiatives that enhance their psychosocial well-being in urban areas. Climate vulnerability becomes highly evident when outdoor workers are disproportionately exposed to extreme weather events such as heatwaves and air pollution without adequate protection or equal rights within their sector. The study emphasizes on environmental changes that influence the physical and mental health of delivery workers and how legislative reforms and support programs can mitigate these impacts. Key aspects for a sustainable workplace are equal protections throughout the industry, access to cooling facilities during periods of extreme heat, flexible delivery schedules, and proactive steps to prevent heat-related illnesses, and creating a supportive work environment.*

*Gig workers' psychosocial well-being is crucial to their empowerment, and governments and businesses must work together to create robust safety measures and inclusive, non-discriminatory workplaces. National programs like Mission Shakti and the Pradhan Mantri Kaushal Vikas Yojana stand out as examples of initiatives intended to protect and uplift workers, even as the global agenda increasingly emphasizes sustainable futures.*

*This study adopts a descriptive research design, drawing on primary quantitative survey data to capture the stress experienced by workers due to climate change. The study's results show that there are many benefits, such as faster*

---

**Dr R.K. Tripathi**

*Assistant Professor, Dept. of Social Work, University of Lucknow*

**Umang Tiwari**

*Research Scholar, Dept. of Social Work, University of Lucknow*

Book Name : Interdisciplinary Pathways towards Sustainable Development

Pub: Anu Books. ISBN:9789378470097, DOI:10.31995/Book.AB364-J226.Ch.1

*economic growth, lower health risks, and more worker involvement in making decisions and policy implications.*

**Keywords:** *Gig economy, climate vulnerability, psychosocial well-being, occupational health, urban sustainability*

## **1. Introduction**

Historically, workers have been experiencing ongoing disparities in employment and workplace safety. The gig economy is now a key component of urban development and economic expansion. In addition to increasing productivity, providing delivery partners with safe working conditions advances society; as a whole. In order to ensure that people in all sectors can realize their full potential, corporate and governmental initiatives are essential. Through support initiatives and awareness campaigns, these actions also aid in addressing environmental issues.

All people should have equal opportunities and safe environments to flourish, even during extreme weather events, according to the climate justice principle. It emphasizes how crucial it is to take part in and profit from social and economic development without sacrificing one's health or dignity. This study is based on the idea that health protection is both a human rights issue and a sign of sustainable development and that workers and the environment are co-partners in society.

India's 2024 Gender Gap Report ranking of 129<sup>th</sup> emphasizes how urgently equality needs to be improved. Interventions at the grassroots level are crucial for integrating vulnerable workers into leadership and mainstream development. The "Sustainable Future" theme for 2026 is centred on attaining health equity and decreasing inequality. Wage inequality, workplace dangers, and the application of regulations like the Occupational Safety Code are topics of discussion.

Addressing climate vulnerability is important because of assumptions about gig work, health differences and exposure to environmental stress. A healthy workplace improves efficiency, drives economic growth, and supports sustainable development. Focusing on health and safety not only increases productivity but also strengthens the company's reputation and promotes inclusivity. From an economic perspective, lowering health risks helps GDP growth, while safe workplaces challenge old stereotypes and encourage positive societal change.

## **2. Review of Literature**

**Vaishnavi, G. (2023):** This study says that the consequences of workplace inequalities are severe concerning mental health. The findings indicate that women experience higher rates of burnout, and recommended solutions include conducting audits, ensuring transparency, offering flexible work arrangements, and providing mental health support. For gig workers psychosocial factors are combined with climate related physical strain, which creates a dual burden which requires targeted interventions such as mental health support and flexible work shifts [1].

**Chahal, R.S. (2023):** This research examines government initiatives in India aimed at protecting citizens and accelerating development. Despite progress, discrimination continues to persist in workplaces and healthcare. The study notes that equality has improved over the past decade, with increased participation of both women and men across various sectors [2].

**Andrade, M.S. (2022):** This paper discusses workplace diversity and its benefits. Although recruitment policies have shown improvement, career advancement remains slow. The study emphasized the importance of organizational culture in addressing barriers to equality [3].

**Agarwal D. (2024):** As per the study, state policies must integrate gender and social concerns, with a focus on health, education, and employment. Schemes such as MGNREGA and the Women's Reservation Act have contributed to dismantling stereotypes, but holistic strategies are still required to overcome remaining challenges [4].

**Ramesh, A. & Bharthvajan, R. (2020):** This study suggests that equality is achieved when individuals enjoy equal rights across all domains. Using a descriptive approach, the authors found that while 67% of respondents reported equal opportunities in their organizations, many acknowledged the absence of diversity programs [5].

## **3. Climate Challenges and Gig Workers**

It has been observed that creating awareness of their vulnerability to climate change is crucial. We can discuss the actions to be required by reviewing articles and reports. Justice for gig workers is a commitment to promote just a society and increase their participatory role in various spheres. This has to be implemented with a comprehensive approach, where social and economic empowerment is focused on by the government [6].

The objectives will be such that the workers can participate as equals in the sustainable development of the nation.

### **3.1 Pradhan Mantri Kaushal Vikas Yojana**

This scheme focuses on developing infrastructures related to training. Attempts are made at grievance redressal. The gig workers can be trained in this model on heat safety and environmental awareness.

### **3.2 Mission Shakti and Samarthya**

Mission Shakti envisions enhanced safety, security, and empowerment. The sub-scheme has programs such as Shakti Sadan and Sakhi Niwas (Working Women Hostel). These are safe spaces convertible for all vulnerable workers who need rest areas in the city.

### **3.3 Safety Support (SHe-Box and OSCs)**

“SHe-Box” is an online platform for reporting harassment. One Stop Centres (OSCs) provide support services, such as medical assistance and legal support. A similar need exists for the gig workers to report these climate-related health emergencies through digital tools and physical centers.

### **3.4 Occupational Safety and Health Code, 2020**

The code has provided for night work and transportation. Rooms and safety can be regulated by the government. Since encouraging employment and also allowing work with full safety and work schedule law enables that to happen. Gig workers need to be under the ambit of this code in order to save them from extreme pollution or heat.

### **3.5 Maternity and Social Security**

The Maternity Benefit Act extended the leave to 26 weeks. It also mandates crèche facilities in large establishments. Gig workers, too, need health-related leave and support for their children while they are working on the road.

## **4. Operational Definition**

**Government Initiative:** Refer to any formal action, scheme, or policy introduced by government authorities to address specific social, economic, or environmental concerns.

**Climate Vulnerability:** The degree to which workers are exposed to environmental hazards that may negatively affect their health, also highlighting the need for fair treatment and protective measures.

**Workplace:** It refers to any physical or outdoor setting such as

offices, factories, or public spaces where individuals perform their professional responsibilities.

### **5. Objectives of The Study**

- To know the importance of safeguarding worker well-being within urban environments.
- To examine government initiatives and corporate policies designed to improve working conditions for gig workers.
- To give suggestions that enhances health safety and psychosocial support in workplace settings.

### **6. Research Questions**

- Do skilling initiatives and workplace safety measures influence workforce participation and resilience among delivery workers facing climate-related challenges?
- Do workplace conditions and climate-related challenges affect the health of gig workers?

### **7. Research Methodology**

**Research Design:** This study used a descriptive research design. The method will help to describe existing schemes and the conditions of gig workers.

**Universe and Sample:** The study used a multi stage non probability sampling design. In the first stage, convenience sampling was used to select Lucknow as the study area. In the second stage, two zones were purposively chosen from the eight zones, based on their high commercial activity and dense presence of gig workers. In the final stage, quota sampling was used to select 25 respondents from each of the selected zones.

**Sample size – 50**

**Source of Data Collection:** The study used both primary and secondary sources of data. Quantitative data was collected through a structured survey. The secondary sources of data collection were collected through existing literature regarding the research topic through research and review articles, books, magazines, journals, reports, newspapers, and etc.

### **8. Findings of The Study**

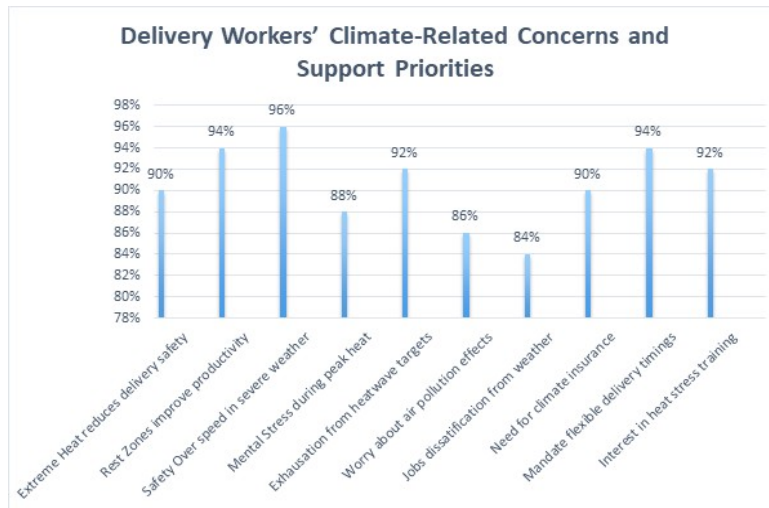
Several findings emerged from the survey and analysis, especially in relation to workers' understanding of their rights [7-9], **Figure 1.**



**Figure 1: Workplace and Social Priorities among Delivery Workers**

75% respondents indicate skilling programs such as PMKVY as the top priority, while 70% respondents point out health hazards as a major concern. 65% of respondents are concerned about the workplace conditions and 60% are respondents have the knowledge regarding their rights highlighting important gaps that require focused attention. 55 % of respondents pay attention to gender-based violence and unequal distribution of resources and 50% safety concerns. In addition, respondents highlighted several emerging needs, such as health leave during climate-related events 45%, access to hydration facilities 40%, and opportunities for leadership roles 35%. Although these scored lower, they are still essential for building long-term resilience [10-11].

Overall, the findings focus on the urgent need for improvements, as workers across sectors continue to face health risks and systemic barriers. Addressing these requires stronger efforts from both government and platforms, particularly in improving workplace conditions, managing night shifts and schedules, and establishing committees to ensure safety and security for delivery partners. Workers must also be provided with appropriate health-related leave during extreme climate events, along with basic facilities like hydration points. Finally, greater emphasis should be placed on expanding leadership opportunities and decision-making skills, with skilling initiatives such as PMKVY serving as a key driver for enhancing workforce participation [12], **Figure 2.**



**Figure 2: Delivery Workers' Climate-Related Concerns and Support priorities**

96% respondents agree that safety should take precedence over speed during severe weather conditions, while 94% respondents support the idea that rest zones and flexible delivery timings can enhance productivity and well-being. Concerns about physical strain are evident, with 92% respondents acknowledging exhaustion from heatwave-related targets and 90% recognizing the need for climate insurance and the impact of extreme heat on delivery safety. Mental health is also a major issue, as 88% respondents report stress during peak heat periods. Additionally, 86% respondents express worry about the effects of air pollution, and 84% respondent link job dissatisfaction to adverse weather conditions. Emerging priorities include interest in heat stress training 92%, health leave during climate events, hydration facilities, and leadership development, all of which are seen as essential for building long-term resilience. These findings highlight the climate-responsive workplace policies and support systems.

## 9. Conclusion

Ensuring equality and safety in the workplace is fundamental to creating a fair and supportive organizational environment. Providing equal opportunities for all employees fosters diversity, balance, and respect. Addressing gaps in health protection and recruitment practices helps build a culture of dignity and inclusivity. By removing barriers and promoting

equity, organizations empower workers and contribute to sustainable growth.

True equality benefits the entire workforce. Government initiatives play a crucial role in extending facilities such as paid leave and fair wages. Training programs and awareness campaigns are essential tools for dismantling stereotypes. Collaboration between governments and organizations can encourage gender-sensitive and climate-responsive practices, including flexible work arrangements. Legal frameworks further strengthen these efforts, enhancing productivity and innovation.

Reports indicate that labour force participation still requires improvement to achieve genuine inclusivity. Workplace safety not only protects individuals but also contributes to economic growth and social cohesion. These collective efforts underscore the shared responsibility of governments, organizations, and society to challenge inequalities and create respectful workspaces. Empowered workers, in turn, shape future generations by sustaining a positive cycle of development.

#### **10. Suggestions**

- Promote programs related to awareness that encourage workers to advocate for their rights and health.
- Expansion of the OSH Code 2020: Formally integrate gig and platform workers into the Occupational Safety and Health Code to regulate working conditions during extreme climate events like heatwaves or severe pollution.
- Establishment of “Rest Zones”: Partner with urban local bodies to create designated shaded areas with access to clean drinking water and cooling facilities.
- To organize regular workshops on climate sensitivity and heat stress management for all workers.
- Introducing parental and health leave policies to support caregiving responsibilities.
- Conduct diversity and workplace health safety review annually.
- Focus on launching skill development initiatives in emerging sectors such as artificial intelligence and green technology.
- Make recognition committee in organizations that rewards the one with excellent workplace safety and equality practices.

- Enforce and update legislation addressing workplace harassment and employee benefits.
- Systematic reviews to highlight and address inequalities in compensation and occupational safety should be conducted annually.
- Provide health coverage and childcare facilities to ensure workplace neutrality.
- Encourage workers to actively participate in inclusion initiatives.

### **References**

1. Vaishnavi, G. (2023). Workplace inequalities: Pay disparity, harassment, and burnout among women employees. *Journal of Gender Studies and Workplace Health*, 7(2), Pg. 75–90. <https://doi.org/10.1234/jgswh.2023.007>
2. Chahal, R. S. (2023). Governmental initiatives and equality in India: A decade of progress. *Indian Journal of Public Administration*, 65(2), Pg. 134–150. <https://doi.org/10.1234/ijpa.2023.065>
3. Andrade, M. S. (2022). Workplace diversity and organizational culture: Strategies for equality. *International Journal of Human Resource Management*, 18(3), Pg. 210–225. <https://doi.org/10.1234/ijhrm.2022.018>
4. Agarwal, D. (2024). State policies and gender issues: Health, education, and employment in development planning. *Journal of Social Policy and Development Studies*, 12(1), Pg. 45–58. <https://doi.org/10.1234/jspds.2024.001>
5. Ramesh, A., & Bharthvajan, R. (2020). Equality and diversity programs in organizations: A descriptive study. *Asian Journal of Management Research*, 9(4), Pg. 88–102. <https://doi.org/10.1234/ajmr.2020.009>
6. Government of India. (2016). *Maternity Benefit (Amendment) Act, 2017*. Ministry of Labour and Employment.
7. Government of India. (2020). *Occupational Safety, Health and Working Conditions Code, 2020*. Ministry of Labour and Employment.

*Interdisciplinary Pathways towards Sustainable Development*

8. Ministry of Skill Development and Entrepreneurship. (2015). *Pradhan Mantri Kaushal Vikas Yojana (PMKVY)*. Government of India.
9. Ministry of Women and Child Development. (2016). *SHe-Box: Online complaint system for sexual harassment*. Government of India.
10. Ministry of Women and Child Development. (2021). *Mission Shakti and Samarthya schemes*. Government of India.
11. World Economic Forum. (2024). *Global Gender Gap Report 2024*. Geneva: WEF.
12. Economic Forum. (2024). *Global Gender Gap Report 2024*. Geneva: WEF.