University of Nottingham Rights Lab

Recommendations for Worker Welfare: Brick Manufacturing Responses to Climate Change for Workers

September 2024[i]

Drawing on a series of ongoing analyses and discussions with former kiln workers in India and their lived experience of exploitation in the kilns and climate change, we have developed a series of recommendations to support workers, and advise kiln owners, policymakers and civil society organisations (CSOs) to ensure workers are supported and have access to support as they are increasingly affected by climate change. Our recommendations for improved worker welfare are grounded in research based on global climate models, current recommendations in the literature, and lived experience; and focus on four key climate hazards for workers 1) heat, 2) lack of access to water, 3) heavy rainfall, and 4) air pollution.

The recommendations in this briefing are specific to how kiln workers themselves, can respond to climate change impacts on worker welfare.

This briefing is part of a four-part series; the other briefings for the series include those for kiln owners, policymakers, and CSOs.

Climate Change: An Industry Issue

Climate change has an impact on the environment and conditions workers face. These impacts will vary from place to place, but they are often felt most by vulnerable workers.

India is increasingly experiencing periods of extreme heat, drought, flooding, and air pollution.

In this briefing, a series of recommendations are provided to workers to support individual worker action against four primary climate-related concerns. These concerns are:

- **Heat Stress:** extreme heat exposure can lead to heat stress in populations, combining air temperature, humidity, and air pressure to provide an indication of the effects on human health.
- **Water Stress:** demand on water availability is compared against the amount that is available; when demand exceeds supply this leads to water stress, leading to potential shortages and difficulties for communities and ecosystems.
- **Precipitation:** referring to rainfall levels, both increased (which can lead to flood events) and decreased (which can lead to drought).
- **Air Pollution:** emissions of particulate matter of 2.5nm in diameter (PM2.5) from the combustion of materials are monitored as they can increase the risks of adverse health outcomes through poor air quality.

These adverse climate impacts can lead to varied health outcomes (e.g., lung and heart issues, dehydration, long-term illnesses, and even death), and cause shifts in the number of hours worked, and income made by workers and their families.

Efforts to support workers should be a combined effort by the kiln owners, the local, state and national government, and through the support of CSOs.

Here we outline the key recommendations workers can engage in to respond to climate change in the brick kiln industry.

Responding to Heat Stress[ii]

- Avoid going into the sun – including strenuous activities outside – such as manual labour between 12 and 3pm.
- If you must work outside you should drink sufficient water (even when not feeling thirsty) or drinks such as lassi, torani, lemon water etc.
- Use a hat or umbrella for shade when you are outside. Wear lightweight, light-coloured, loose and cotton clothing where possible. As well as protective shoes or chappels and eyewear in the bright sun and high temperatures.
- Use a damp cloth on your head, neck, face, and limbs when you are overheated. Damp clothing and bathing in cool water can also help.
- Wearing a wet GumCha over the head can lower the body temperature during extreme temperatures.
- Shelter in a shaded area where you can and keep your residence cool by covering openings during the day when temperatures are highest.
- Change of working hours (including working at night) should be considered. However, the cost of access to electricity for lighting should not be placed on the worker.

Responding to Water Stress[iii]

- If anti-salinification and water treatment kits are unavailable for clean drinking water, water should be boiled prior to drinking where it may be contaminated.
- Workers should have access to appropriate levels of potable drinking water throughout the day to ensure wellbeing, reduce mental health impacts, and reduces tiredness.

Responding to Precipitation[iv]

- Workers should follow evacuation guidance and shelter in a safe location where possible during periods of extreme rainfall and flooding.

Responding to Air Pollution[v]

- During periods of high levels of pollution people with pre-existing heart and lung conditions, children and the elderly should reduce or limit physical activity outdoors.
- If you require medication for a lung condition (e.g., asthma inhaler) you should take this more frequently as needed.
- Prevent additional sources of air pollution when indoors, this includes avoiding the use of combustible materials, such as wood burning stoves, candles, and smoking tobacco or other products.
- Keep rooms inside homes as clean as possible using wet mops to reduce the presence of dust and particles in the air.
- Wearing a wet GumCha over the nose and mouth can reduce the amount of air pollutants entering the airways during periods of high pollution.

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[ii] Heat Stress recommendations from National Disaster Management Authority (NDMA) Government of India (2024). Heat wave: Do's & Don'ts (Accessed 25 June 2024); WHO (2024). Water, sanitation and hygiene (WASH): World Health Organization (Accessed 28 August 2024); OHCHR. (2024). The human right to adequate housing: UN Human Rights Office of the High Commissioner (Accessed 28 August 2024); and suggestions from a Research Advisory Group with Lived Experience in India (July 2024) and feedback from partners (August 2024).

[iii] Tricoles, R. (2022). The Emotional Weight of Water Stress (Accessed 25 June 2024); WHO (2024). Water, sanitation and hygiene (WASH): World Health Organization (Accessed 28 August 2024); The human right to adequate housing: UN Human Rights Office of the High Commissioner (Accessed 28 August 2024); and suggestions from a Research Advisory Group with Lived Experience in India (July 2024) and feedback from partners (August 2024).

[iv] Caritas India (2017). Northeast flood response: How the relief work started (Accessed 24 June 2024); India CARE. (2009). INDIA CARE relief workers reach flood affected families (Accessed 24 June 2024); Reuters. (2018). India wins praise for 'exemplary' flood relief as community pitches in (Accessed 24 June 2024); World Health Organization. (2024). Safety during monsoon and floods (Accessed 24 June 2024); WHO. (2024). Water, sanitation and hygiene (WASH): World Health Organization (Accessed 28 August 2024); OHCHR. (2024). The human right to adequate housing: UN Human Rights Office of the High Commissioner (Accessed 28 August 2024); and suggestions from a Research Advisory Group with Lived Experience in India (July 2024) and feedback from partners (August 2024).

[v] World Health Organization (2019). What to do when there is an air pollution alert (Accessed 25 June 2024); Leeds City Council. (2024). Protect yourself from air pollution: Clean Air Leeds (Accessed 25 June 2024); CCAC. (2020). Improving worker skills to transform India's brick sector: UNEP (Accessed 28 August 2024); and suggestions from a Research Advisory Group with Lived Experience in India (July 2024) and feedback from partners (August 2024).