



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

September 2024ⁱ

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 policymakers, 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 workers, kiln owners, 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 policymakers to support their workers 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 for how policymakers can engage in to respond to climate change in the brick kiln industry.

Responding to Heat Stressⁱⁱ

- Regulations on working hours during periods of extreme heat and guidance should be generated at the government level for workers and employers.
- Periods of high temperatures sometimes mean owners do not attend the kiln sites; this means it is an ideal time for labour inspectors to gain direct access workers and assess their working conditions (particularly in relation to environmental regulations, and bonded labour laws). Government staff should follow the guidance above for workers and ensure they undertake appropriate risk assessments prior to engaging in such activities during extreme heat.
- Policymakers should ensure that adequate WASH facilities and housing are considered within inspections of kiln facilities and standardised requirements are made to ensure these standards are met and upheld.
- Green financing to support the Just Transition against climate change should be prioritised and supported by financial institutions.

Responding to Water Stressⁱⁱⁱ

- Control of water extraction through permitted system for well development.
- Encourage alternative collection of water from precipitation from 'grey' water sources to use within the production of bricks (e.g., collecting wastewater from other industries, rain barrels) rather than other water sources.
- Investment into water harvesting systems for regions facing drought-like conditions, salination of water supplies, and drops in the water table should receive prioritised funding for development, before being rolled out nationally.
- Regulations should be strengthened to limit pesticide usage and leaching into water supplies that are used for drinking and could cause additional illnesses.
- Loss of water access and those who only have access to polluted water supplies, and compensation should be provided to individuals impacted if there is a failure to respond to the risks and a lack of access to potable water continues.
- Policymakers should ensure that adequate WASH facilities and housing are considered within inspections of kiln facilities and standardised requirements are made to ensure these standards are met and upheld.
- Green financing to support the Just Transition against climate change should be prioritised and supported by financial institutions.

Responding to Precipitation^{iv}

- Access to unconditional cash transfers – paid directly to affect households into their bank accounts to support recovery from flooding events.
- Provisions of safe shelter during periods of flooding and whilst flood water recedes.
- Enforcement of building regulations for the establishment and development of activities on the floodplains of major rivers where they are currently prohibited.
- Establishment of early warning flood systems across all regions – including sending alerts to workers and families across the likely impacted regions. Through smartphone alerts, and radios. Kiln owners should alert all workers who may not have access to such phones where they are based on site.
- Policymakers should ensure that adequate WASH facilities and housing are considered within inspections of kiln facilities and standardised requirements are made to ensure these standards are met and upheld.
- Green financing to support the Just Transition against climate change should be prioritised and supported by financial institutions.

Responding to Air Pollution^v

- Enforcement of environmental compliance with current environmental regulations to limit emissions from brick kilns – including changing structures from FCBTK to Zig-Zag configurations.
- Continued lack of response to air pollution should lead to compensation for individuals impacted if there is a failure to respond to the risks and a lack of access to clean air.
- Regulating the volume of emissions and kiln can produce and introducing the mandatory usage of filters within chimneys on all forms of brick manufacturing kiln technologies.
- Enhance and promote national and state-wide schemes for green financing, including those that promote improvements to infrastructure, including brick kilns.
- Green financing to support the Just Transition against climate change should be prioritised and supported by financial institutions.

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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).