

Cool Infrastructures

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Cool Infrastructures is a three year research project that aims to enhance our understanding of the social and technical infrastructures for cooling in contexts of urban poverty across South Asia, Southeast Asia and Sub Saharan Africa. The project is led by the University of Edinburgh and the international [research team](#) comprises scholars from Pakistan, India, Indonesia, Singapore and Cameroon. At the Rachel Carson Centre, Elsbeth Oppermann's role is in addressing the third research question below.

Rising temperatures in rapidly growing cities make access to the infrastructures for cooling a global challenge. The UN's 'Cooling for All' coalition estimates that 1.1 billion people worldwide have little or no access to cooling to protect them against extreme heat. Those defined as most at risk include an estimated 630 million people across South Asia, South East Asia and Sub Saharan Africa who live in poor quality housing on low incomes, with limited, intermittent or insecure access to electricity, water and transportation infrastructures, and few if any electrical cooling appliances.

Cool Infrastructures was developed to fill specific gaps in evidence and data on access to cooling across cities in India, Pakistan, Cameroon and Indonesia. The research design is organised around three main research questions, each anchored in theoretical debates and bodies of academic scholarship:

- 1) How is exposure to heat and access to cooling are shaped by various inequalities and gender among marginalized residents and how does this shape the experience of heat?
- 2) What configurations of systems, materials, technologies and knowledge constitute cooling in 'off grid' cities?
- 3) What thermal practices shape heat management in the off-grid city? Specifically, this question examines - how everyday life exposes people to heat or gives them the means to avoid it, and what skills and knowledges people deploy to modulate exertion and exposure and access cooling technologies, materials and spaces.

Covid-19 and Heat in the Off-Grid-City

The Cool Infrastructures team has also completed a rapid, large scale data collection exercise across five cities in India, Pakistan, Cameroon and Indonesia. The exercise was intended to produce critical information about the impacts vulnerable urban populations as a result of the nexus of pandemic response measures and extreme heat, particularly over the summer of 2020. The database will soon be publicly available via the Cool Infrastructures website and the University of Edinburgh data repository.

For more detail on the *Cool Infrastructures* and *Covid-19 and Heat Nexus* project, please see [here](#).