**Climate Issue: Heat in the Global South**
Climate change and urbanization contribute to higher temperatures. In the Global South, heat can be deadly.

- 90% of the world's urban population growth is anticipated to occur in the Global South
- Many growing cities in the Global South have large informal settlements, also known as slums
- Over 1.1 billion people live in informal settlements - this is expected to triple in the next 30 years
- Residents have limited means to escape heat
- Extreme heat can cause illness and death.

Cities need cost-effective cooling solutions that can be deployed en masse to protect these citizens.

**Informal Settlements: Extreme Vulnerability to Heat**

**BUILDING STRUCTURES**
- Building materials such as scrap metal, wood and single layer brick walls absorb heat from the sun, which heats up homes and the surrounds
- Homes may not have access to electricity, and are unable to power fans or air conditioning
- Many homes are small and shared by many people, which increases temperatures.

**LOCATION**
- Many settlements are in tropical climates. High humidity and high temperatures make it difficult for the human body to cool down
- Dense housing clusters and a lack of trees exacerbates urban heat
- Many people cannot travel to cooler locations during heatwaves.

**ECONOMIC MEANS**
- Residents often can’t afford to cool their homes, as running air conditioning or fans is economically prohibitive
- Among financially stressed residents - heat may not be the first economic priority.

**Cool Roofs: An Effective Solution**
The science shows that cool roofs are very effective at cooling homes in informal settlements.

**Cool Roof: What Is It?**
- A cool roof is a roof that has been painted with white, reflective paint
- When sun hits a cool roof, the white paint reflects the sun’s energy back to the atmosphere
- This means the building absorbs less heat, resulting in a cooler home.

Cool roofs can reduce annual heat stress exposure by up to 91%.

**Benefits of a Cool Roof**
- Cool roofs are low-cost compared to other cooling techniques
- Cool roofs can be self-administered
- Cool roofs cool immediately
- Cool roofs are very effective at reducing heat stress