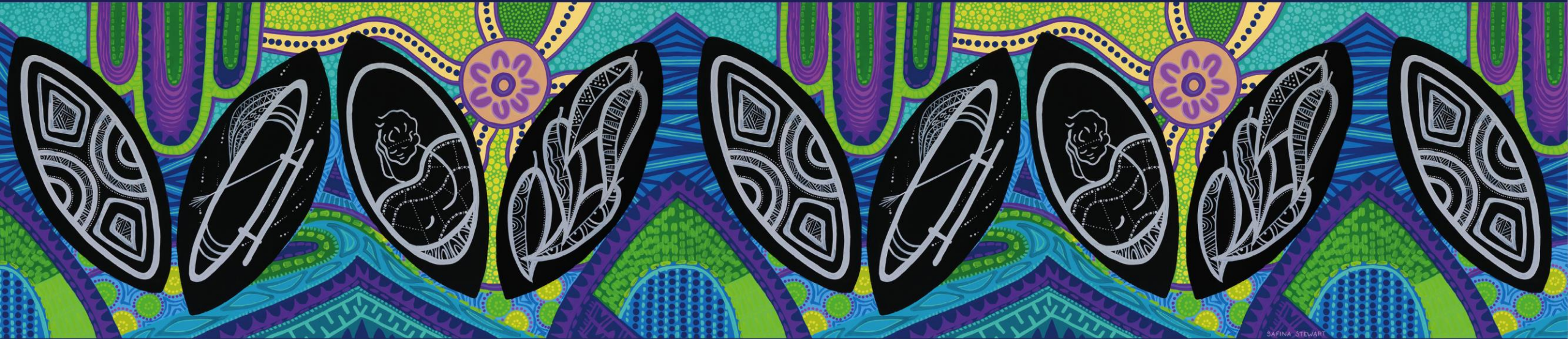




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Disaster Risk Reduction

Brisbane, Queensland, Australia 19–22 September 2022



SAFINA STEWART



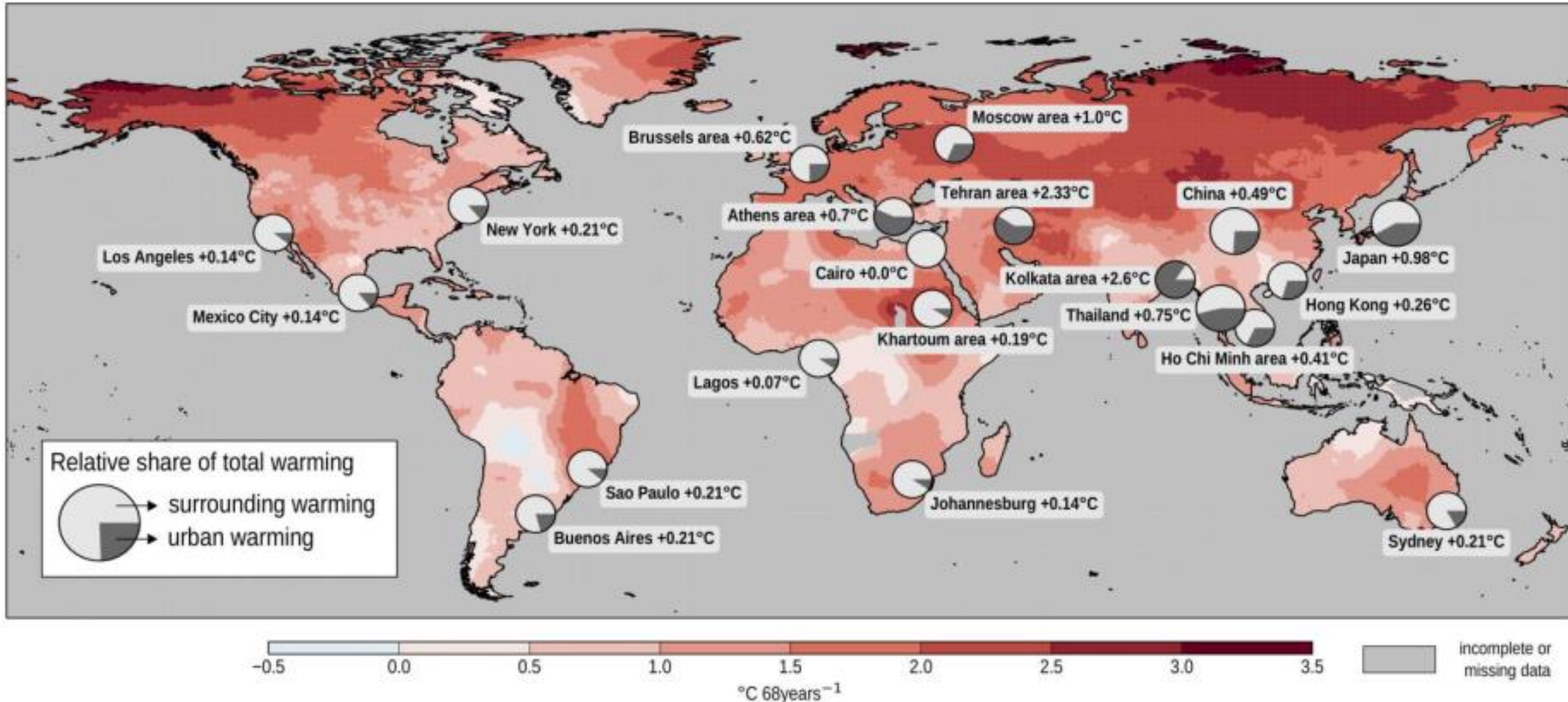
Scaling Community Innovations

innovation

Simple way of doing things better



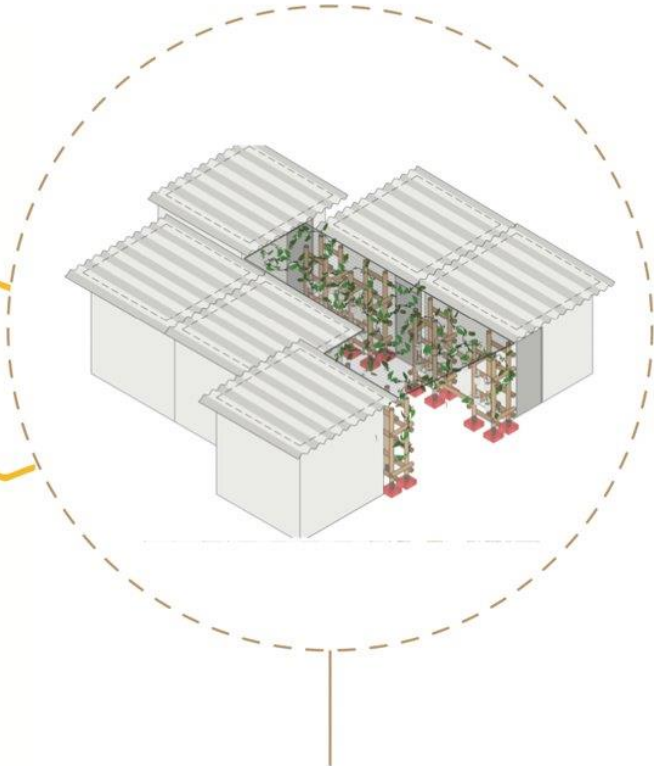
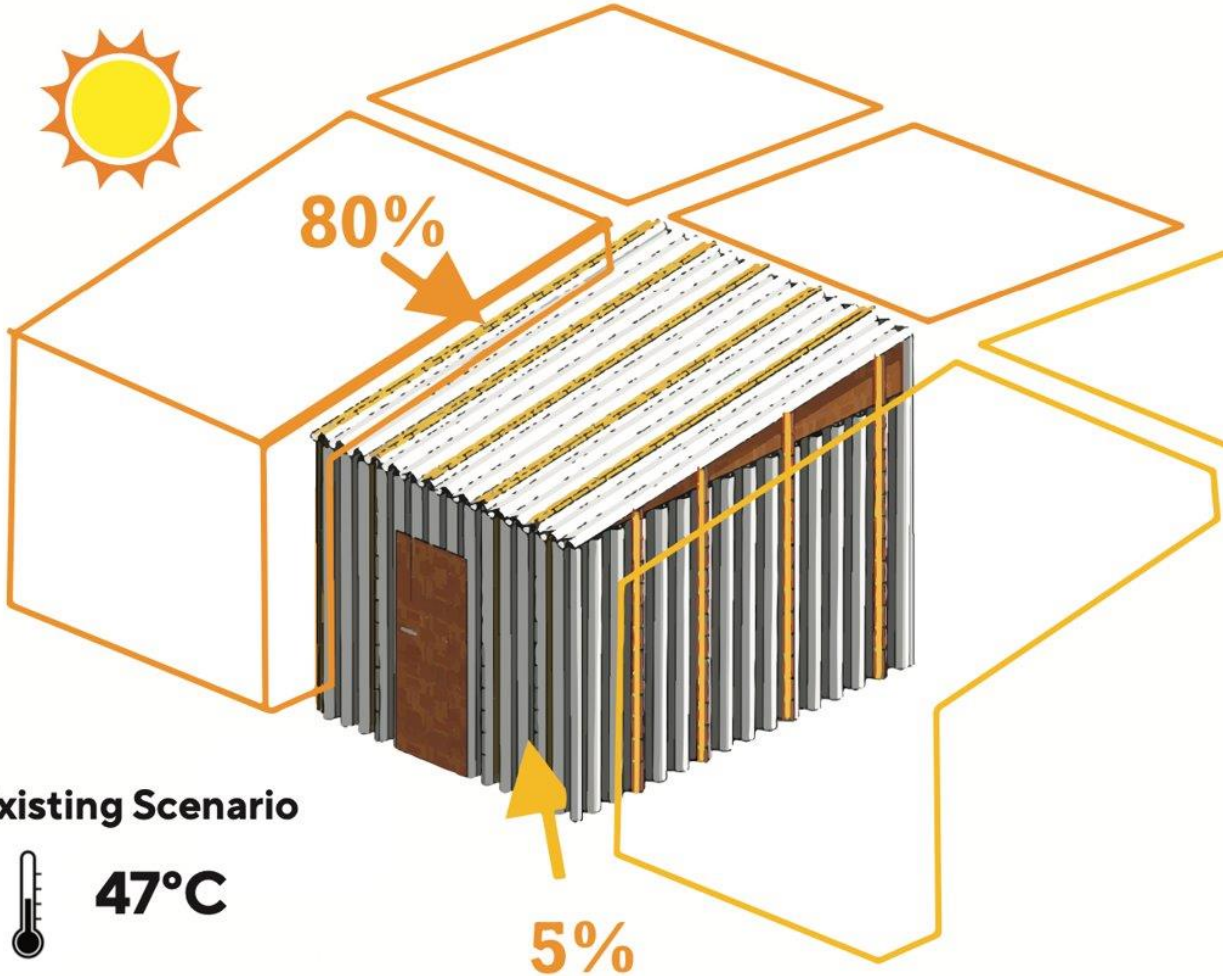
Trends in global (near) surface air temperature for cities (1950-2018)



Source: IPCC AR6 regional factsheet



Problem of Indoor Heat



Existing Scenario

 **47°C**

 **1-10min**
to get completely
destroyed by fire

Ideal Scenario

Temperature **33°C**
At least holds
fire upto **1 hour**



The answers are right there



Low cost, replicable and
affordable solutions





SEEK. SUPPORT. SCALE





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How do we scale?



1. Transference of Ideas







2. Enablement and Incubation



#BeatTheHeat Champions 2022 Heat Reduction Solutions



Cooling at source

In summers, water stored in overhead tanks get heated up. Our champion Vanshika. She came up with the idea after seeing the thermocol ice boxes that are used to keep drinks cool in stores

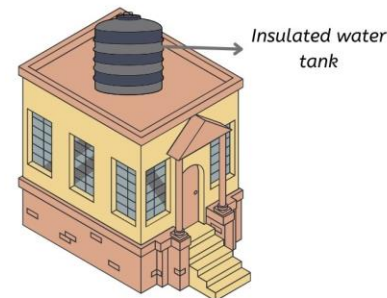
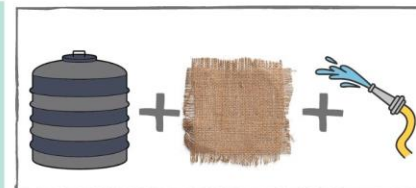


Thermocol ice box used for storing cold drinks

Vanshika's solution

- The water tank would be covered with jute bags
- The jute bags will then be dampened with water
- Finally sheets of thermocol or cardboard would be used as an external covering to prevent evaporation.

By covering the tank in this manner would prevent the water in the tank from heating up.



HUMANITARIAN INNOVATION LAB

Call for Innovations

- 01 **Water Scarcity and Flooding in Urban and Peri-urban Areas**
- 02 **Extreme Climatic Events of Heat Waves and Cold Waves**
- 03 **Inclusive Response During Emergencies in India**



Humanitarian
innovation fund

elrha



INDIA
HUMANITARIAN
HUB

START
NETWORK



ADRRN TOKYO
INNOVATION HUB



URMUL

Common Facility
Centres for
Pastoralists



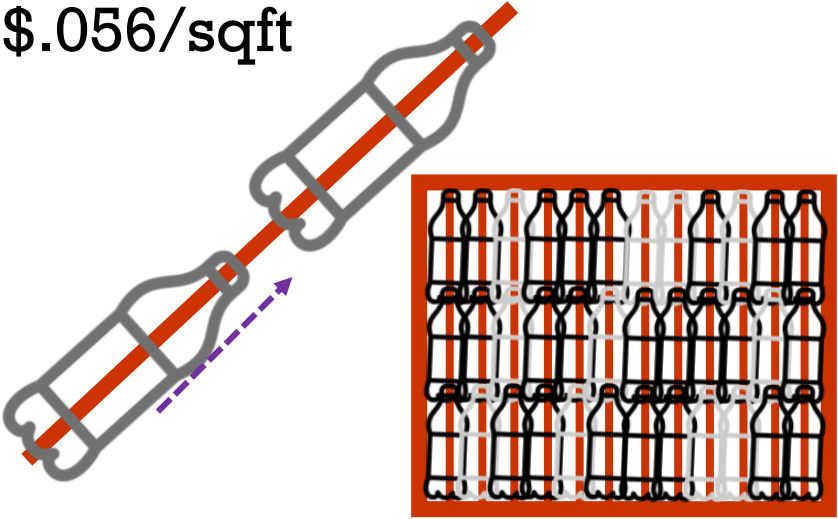
DIGHIR GANGULY

Sunderbans Shelter
Project



3. Technology for Scaling

\$.056/sqft



15.6°C

A large blue arrow points downwards from the text, indicating a temperature decrease.

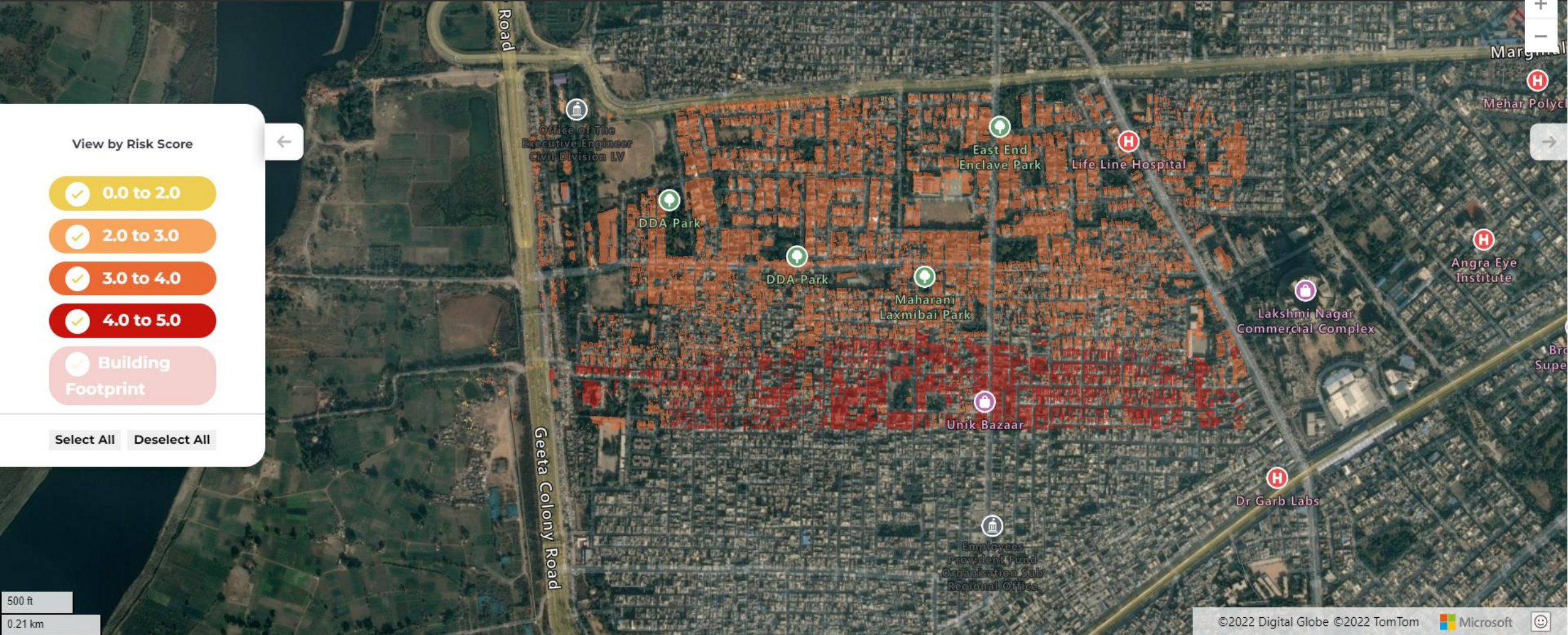


Sunny Lives

AI based disaster Impact Model

AOI ADVISORY

Region : NCT Of Delhi | Hazard : Heatwave | AOI : Preet Vihar |



View by Risk Score

- 0.0 to 2.0
- 2.0 to 3.0
- 3.0 to 4.0
- 4.0 to 5.0
- Building Footprint

Select All Deselect All







4. Advocacy for Systems Change

HEATWAVE ACTION

HOUSE OWNERS' GUIDE TO ALTERNATE ROOF COOLING SOLUTIONS



National Disaster Management Authority

Cool Roof

Bamboo, Thatch & Palm Leaves Roof Screen

Bamboo, Thatch & Palm leaves are locally available across India and can be installed as a secondary roof screen thereby reducing the heating effect.

CLIMATIC ZONE



BUILDING TYPOLOGY



SKILL SET



- Materials are readily available.
- High insulating capacity, maintains comfortable indoor temperature.
- Light weight.
- Comparatively expensive to hard materials.
- Ridge is the weakest point of thatch roof.
- Prone to fire risk.



- Medium to High
- 6 - 8 Months
- = Rs 100/sqft



Step 1
Clean the roof surface to remove dust and particles



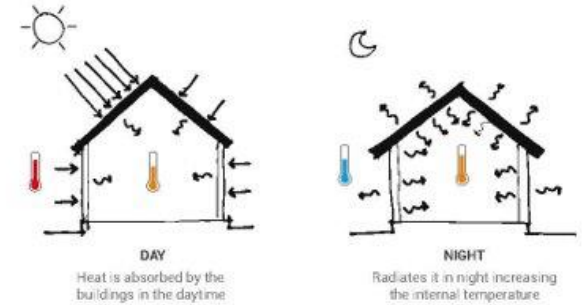
Step 2
Fix the bamboo frame on to the roof



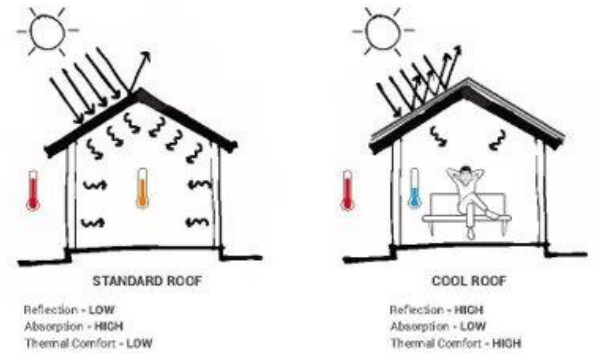
Step 3
Lay the thatch/leaves on the frame and tie with rope

Alternate Roof Cooling Solutions: The Working

Roof contributes up to 70% of the heat gain of a building during high temperatures. Solar radiation striking a surface is either reflected, absorbed, or transmitted.



Cool Roofs through use of reflective materials and techniques, help in reducing heat absorption and improving overall thermal comfort of the building.





Co-creating Solutions

Brad Smith
President, Microsoft

Anshu Sharma
Co-founder, SEEDS



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Scaling: Where from here?

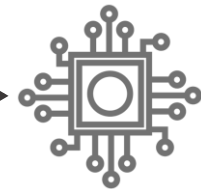
Scaling Innovations



Transference of Ideas



Enablement and Incubation



Technology for Scaling



Advocacy for Systems Change

The challenges that remain for working at scale are:

1. Flexible Financing
2. Enabling Policy Environments
3. Partnerships – Market, Society & Governments





Thank You

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