

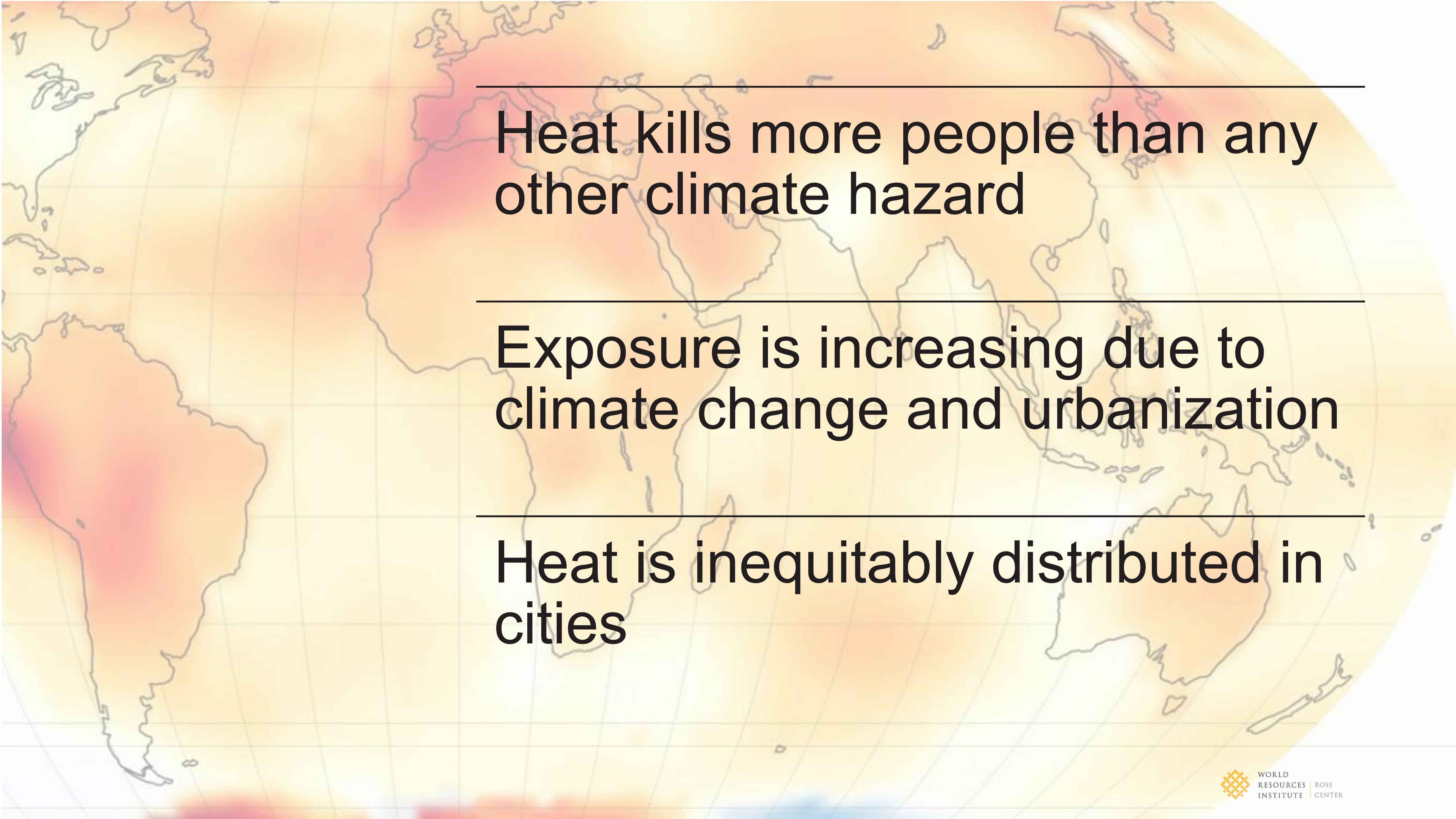
AN INTRODUCTION TO COOL CITIES LAB: A PLATFORM FOR CITIES TO ASSESS HEAT RISKS AND PRIORITIZE COOLING SOLUTIONS

GPSC City Academy, Samarkand

02 June 2026



WORLD
RESOURCES
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A world map with a color-coded overlay representing heat hazard. The colors range from light yellow to dark red, indicating increasing levels of heat hazard. The map shows that the highest hazard areas are concentrated in the tropics and subtropics, particularly in South America, Africa, and parts of Asia and Australia. The text is overlaid on the right side of the map.

Heat kills more people than any other climate hazard

Exposure is increasing due to climate change and urbanization

Heat is inequitably distributed in cities



Urban infrastructure is a key cooling solution

Heat-resilient infrastructure strengthens urban resilience by reducing the contribution of the built-environment to heat and decreasing exposure.

Source: [WRI — Urban Heat Effect Solutions](#)

46% of urban heat decisionmakers do not have sufficient access to heat-related data

COOL CITIES LAB
coolcities.wri.org

Closing the Information-to- Action Disconnect

Relevance

Problem- and user-centered design

Scalability

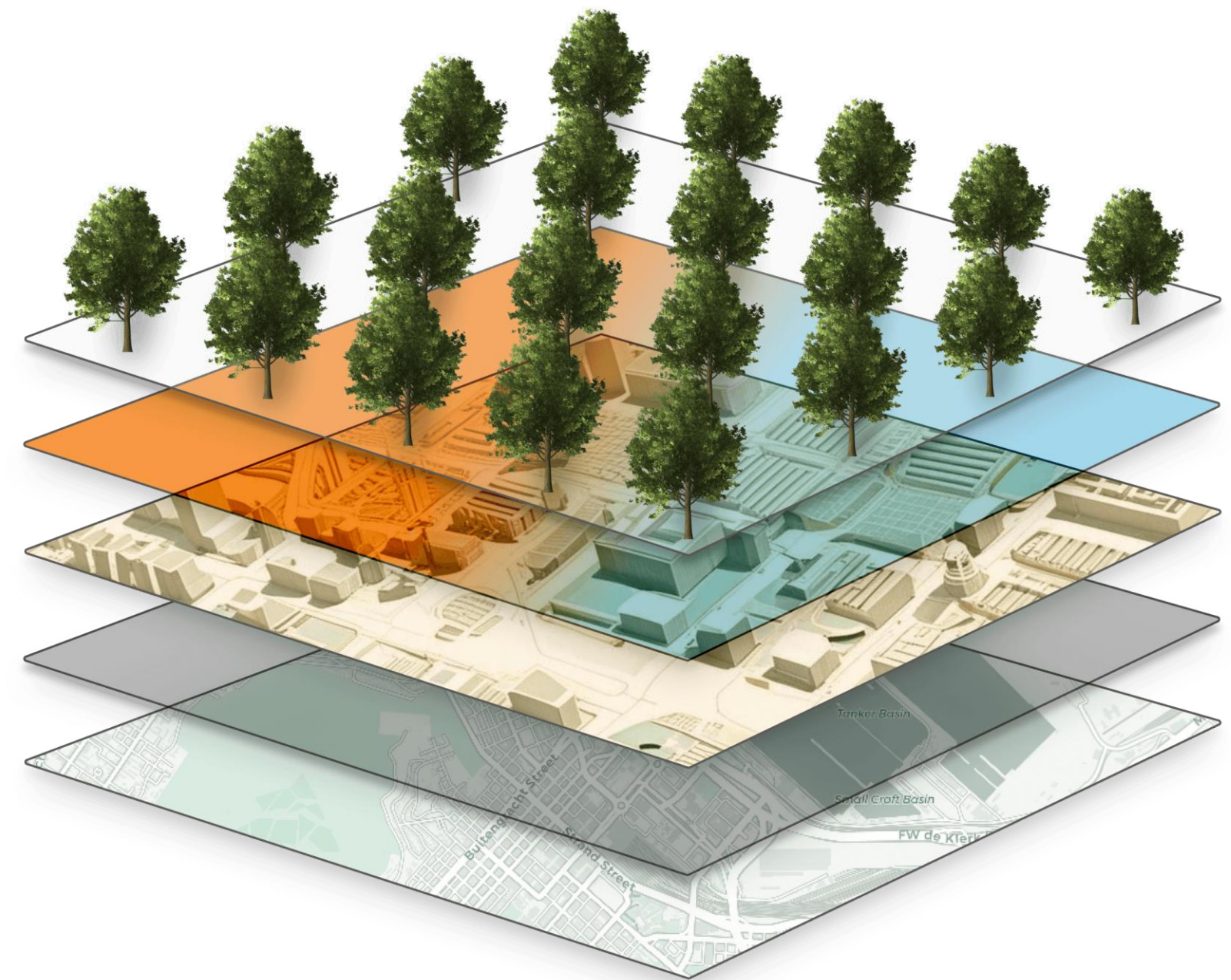
Globally transferable, locally customizable

Accessibility

Open data and open-source software

Spatial Resolution

Human-scale, street-level insights



Co-Create Solutions With Users

Effective heat action tools must reflect real-world decision-making. We engaged communities directly through a range of participatory methods.



In-Person Workshops

Collaborative sessions with local stakeholders to surface real needs



Surveys

Structured data collection on decision-making and information gaps



User Testing

Hands-on feedback on tool concepts and interface design



Data Feedback

Iterative refinement based on community input and local context

COOL CITIES LAB

use cases

Explore baseline data

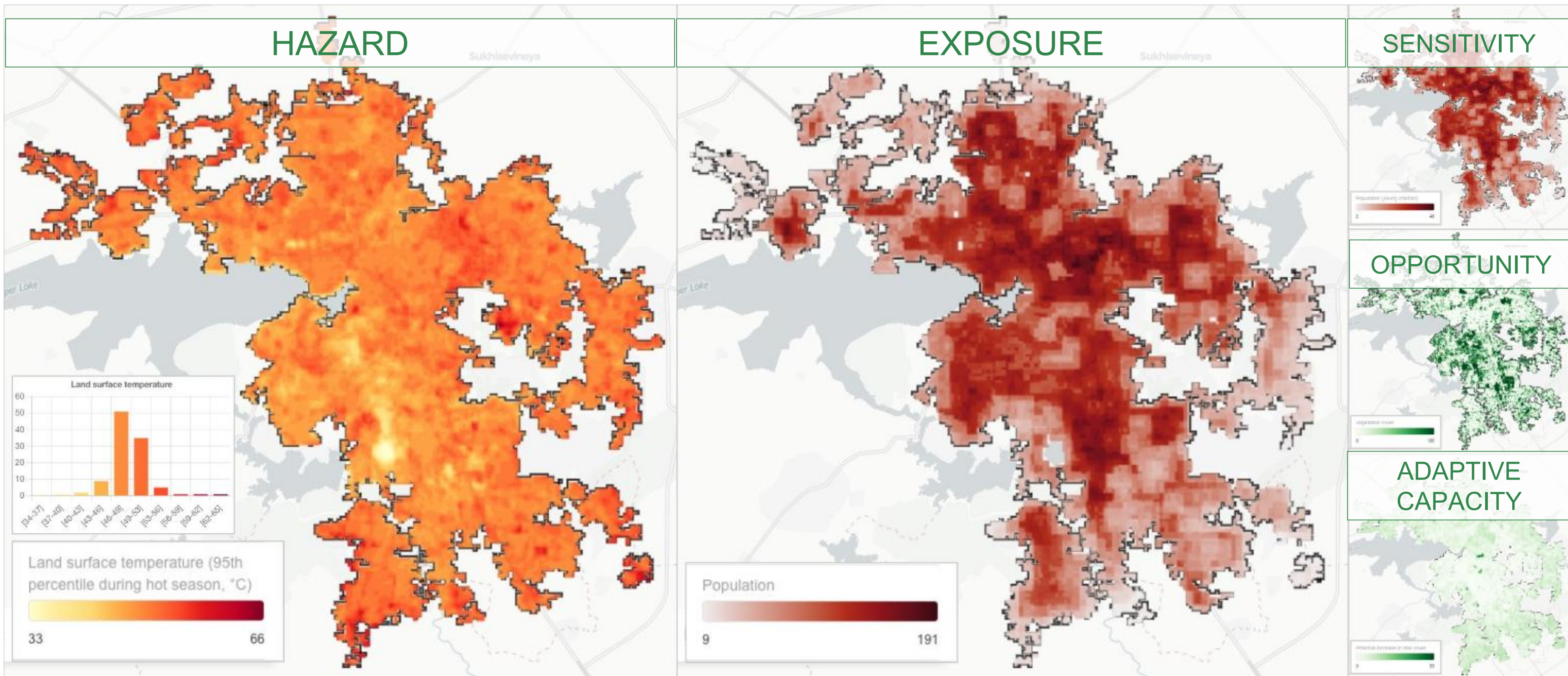
Map priority areas for heat action

Assess hyper-local heat resilience

Model scenarios and estimate cooling potential



Explore baseline data

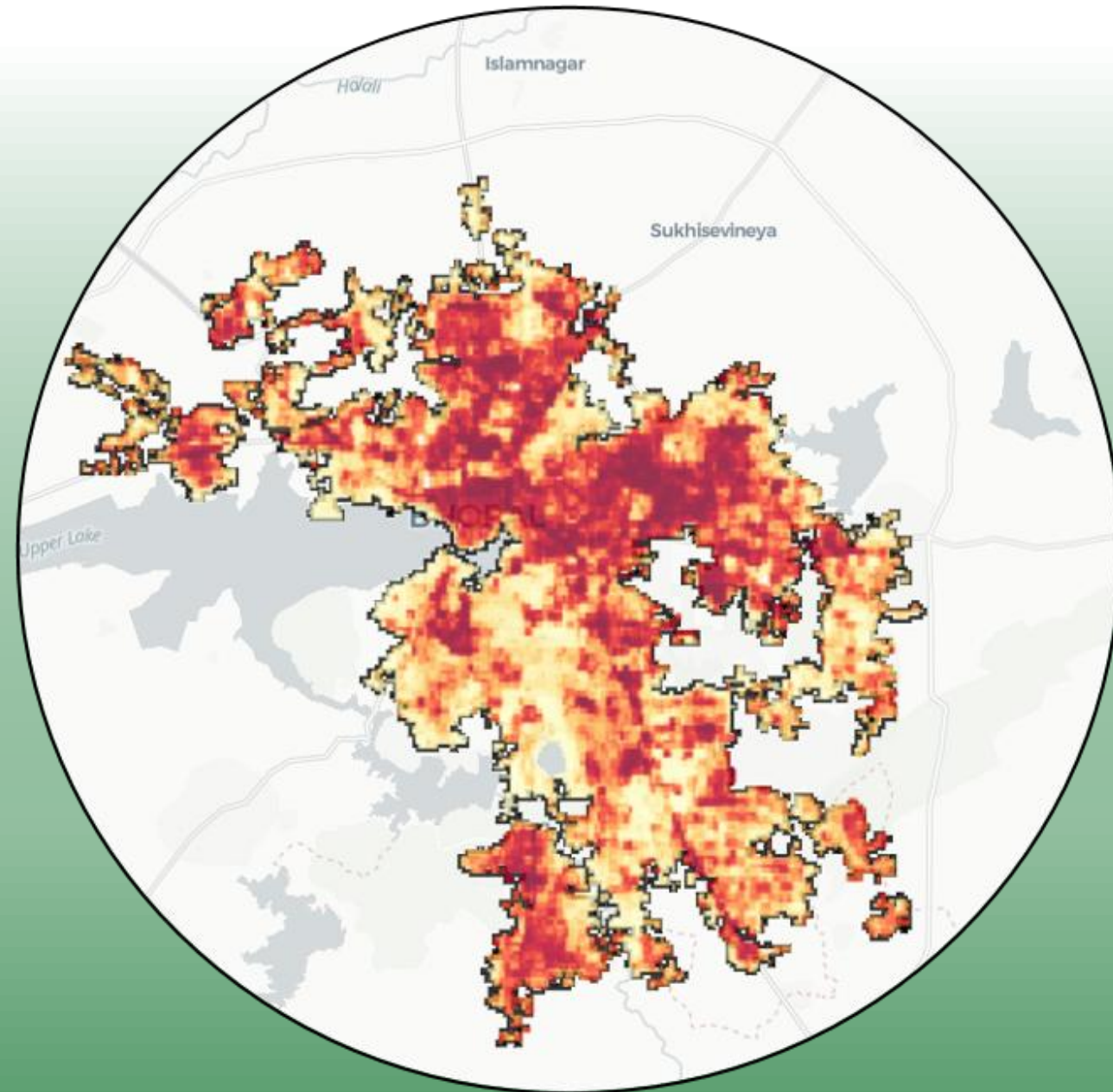


Heat Risk Index



1

100

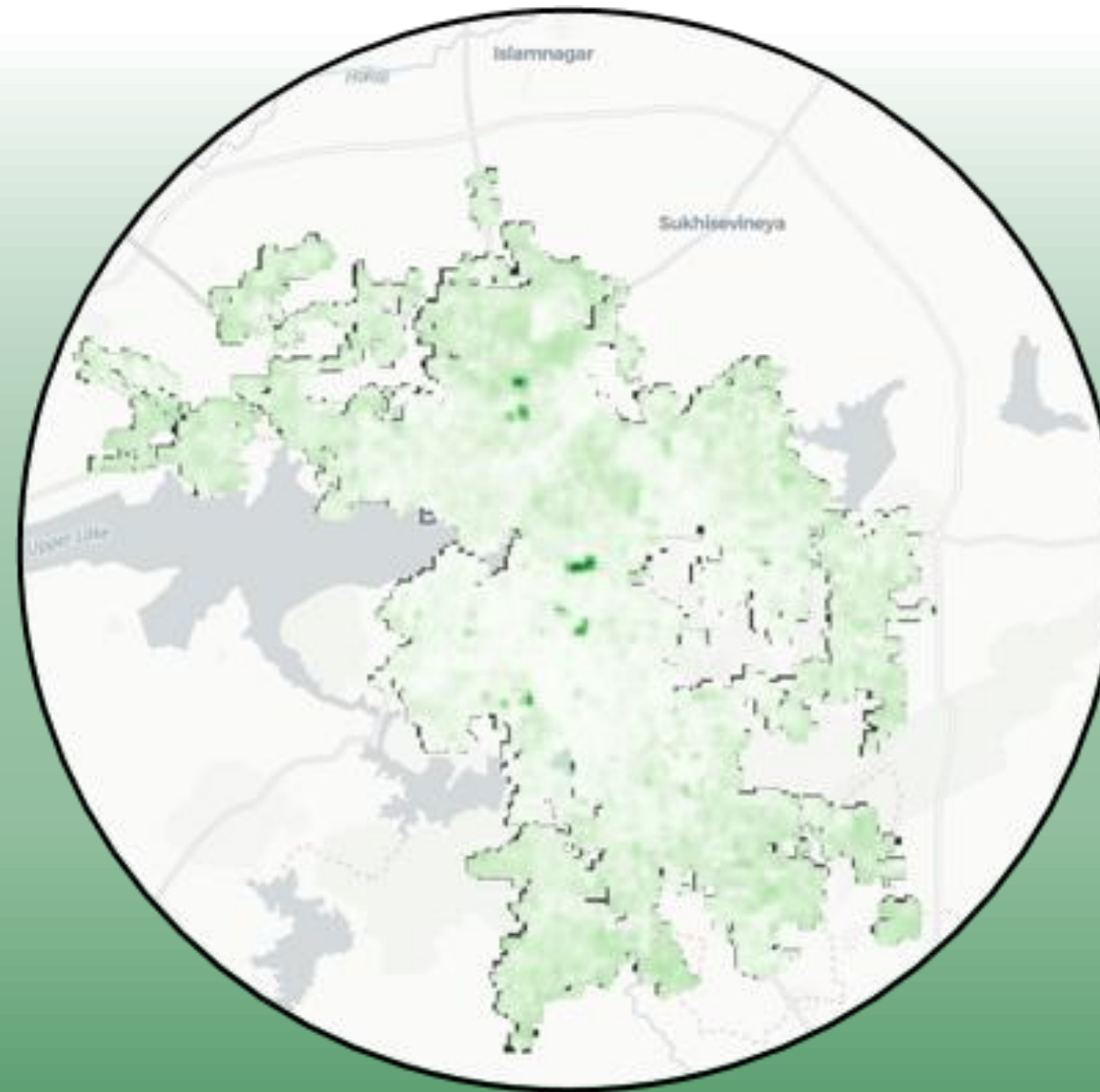


Potential increase in tree cover



0

59

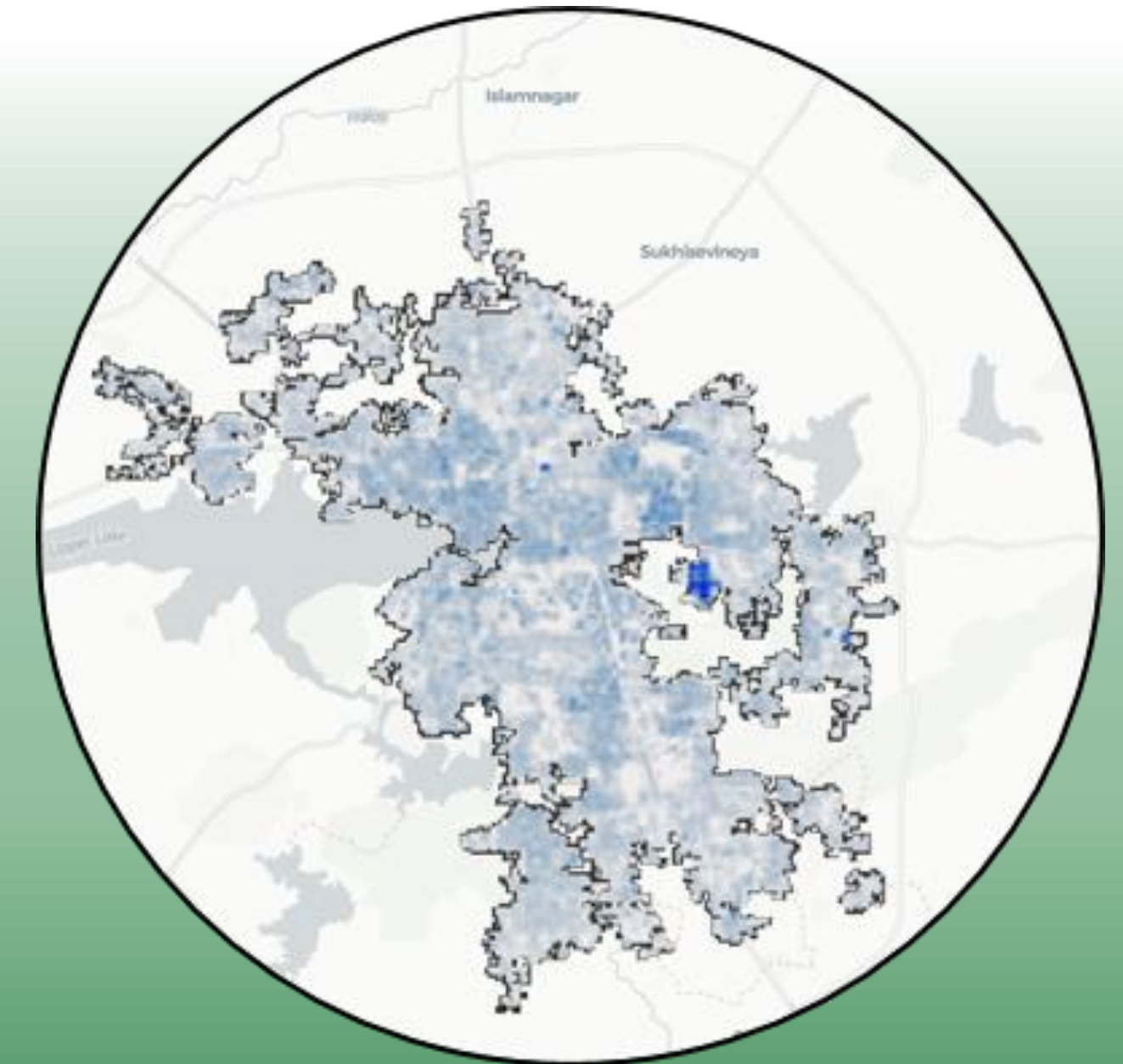


Potential increase in roof albedo



0

44



**Map priority areas
for heat action**

1. Baseline

Shade, thermal stress and air temperature along streets are impacted by street trees.

Thermal stress at 3 p.m. (in pedestrian areas, °C UTCI) : **45.9 °C**

Shade cover at 3 p.m. (in pedestrian areas, %) : **24.7%**

Tree cover (in pedestrian areas, %) : **8.1%**

Thermal stress—baseline at 3 p.m. (°C UTCI)

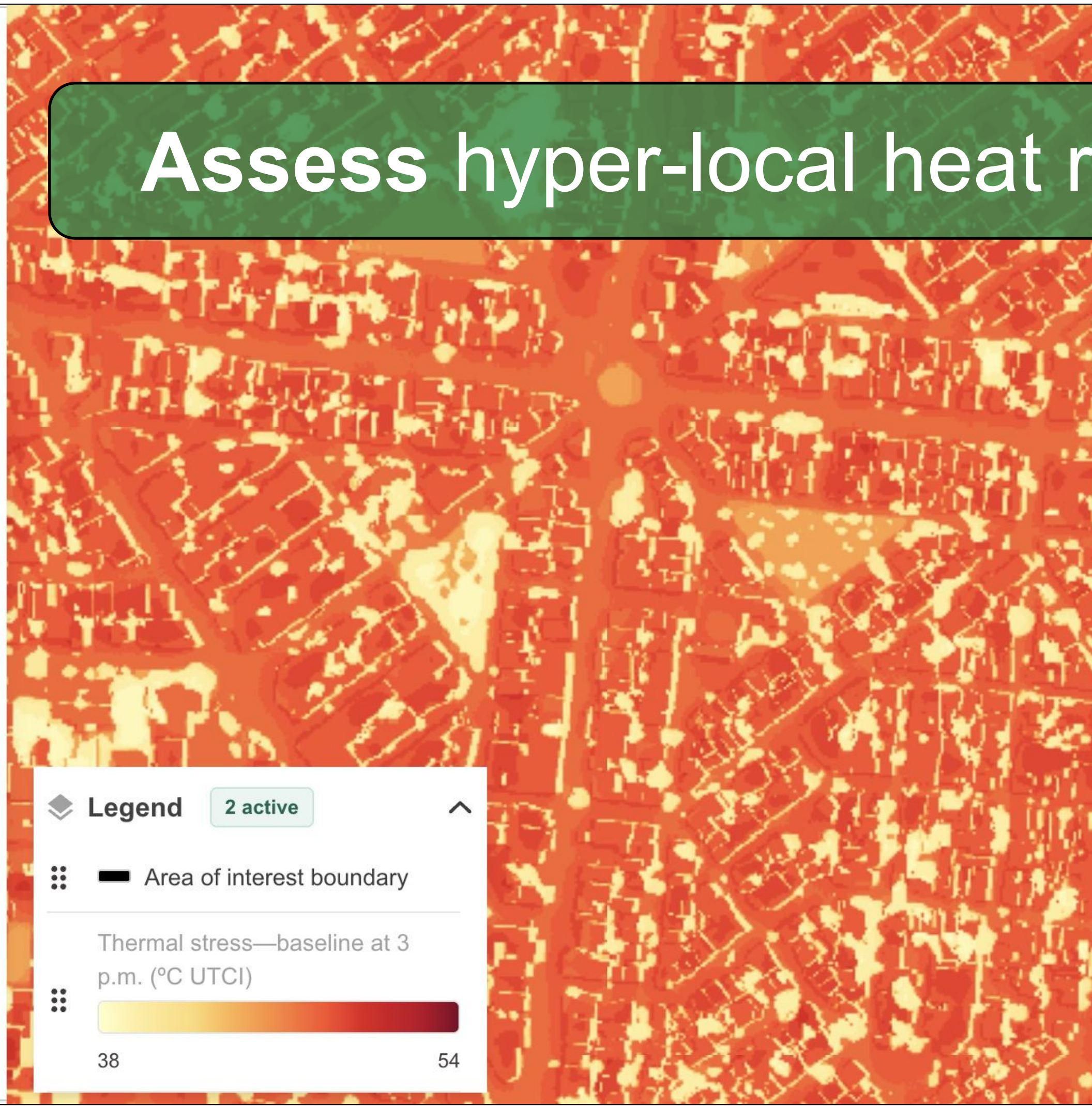
LESS LAYERS

Shade cover—baseline at 3 p.m.

Tree cover—baseline

Thermal stress—baseline at 3 p.m. (categories, in outdoor areas)

Assess hyper-local heat resilience



Legend 2 active

- Area of interest boundary
- Thermal stress—baseline at 3 p.m. (°C UTCI)

38 54

2. Action

Increase tree cover along streets to match the levels found on the city's most tree-lined streets (90th percentile pedestrian area tree cover).

Tree cover — change (in pedestrian areas, %):

+9.1% (from 6.4 → to 15.5)

Tree count—change (#):

+3,683 trees

3. Impact

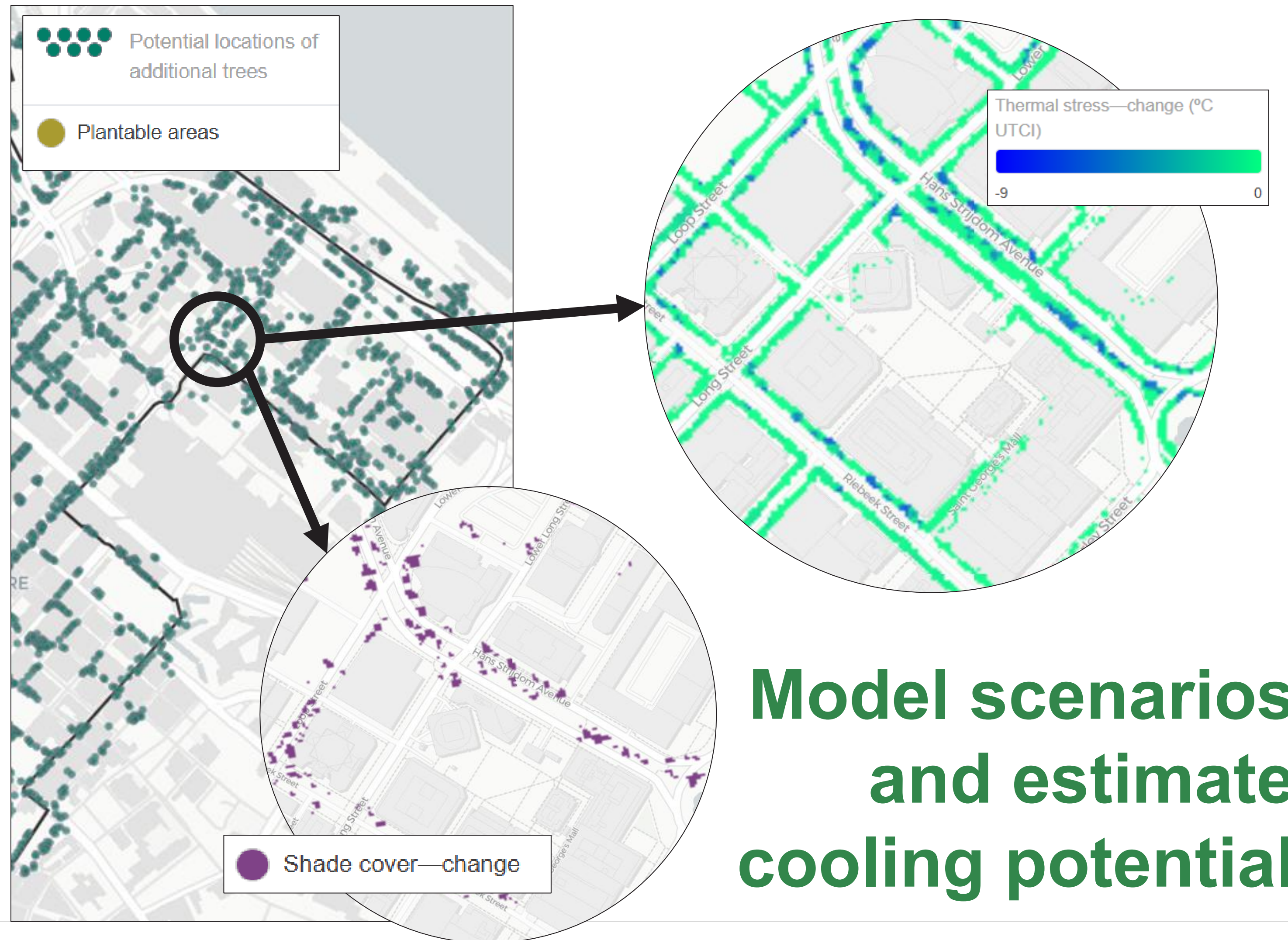
Increased tree cover decreases thermal stress for people by increasing shaded areas and cools the air through evapotranspiration. On public streets, trees can provide cool corridors for pedestrians and for people traveling by active modes or public transportation.

Thermal stress — change at 3 p.m. (in pedestrian areas, °C UTCI):

-0.5 °C

Shade cover — change at 3 p.m. (in pedestrian areas, %):

+0.1%



Cool Cities Lab Video Demo

The screenshot shows a web browser window with multiple tabs for 'Cool Cities'. The address bar shows 'coolcities.wri.org'. The website header includes the 'WORLD RESOURCES INSTITUTE ROSS CENTER' logo and 'Cool Cities Lab' text, with navigation links for 'Home', 'Cities', 'Help', and 'Contact us'. The main content area features the heading 'Explore cooling solutions for your city' and the instruction 'Select a city to quantify heat risks and map cooling opportunities.' Below this is a 'Select a city' dropdown menu. A world map is displayed with several location pins. A text box asks 'Don't see your city on the map?' and explains that the team is working to expand the number of cities available, with a 'Request your city' button. The footer contains the 'WORLD RESOURCES INSTITUTE' logo, links for 'Data and Methods', 'Privacy Policy', 'Cookie Preferences', and 'Terms of Service', and a copyright notice '©World Resources Institute 2026'.

Join the Cool Cities Lab community

Explore the tool, share how your city could use the data, stay updated, and help shape what comes next.



Use Cool Cities Lab

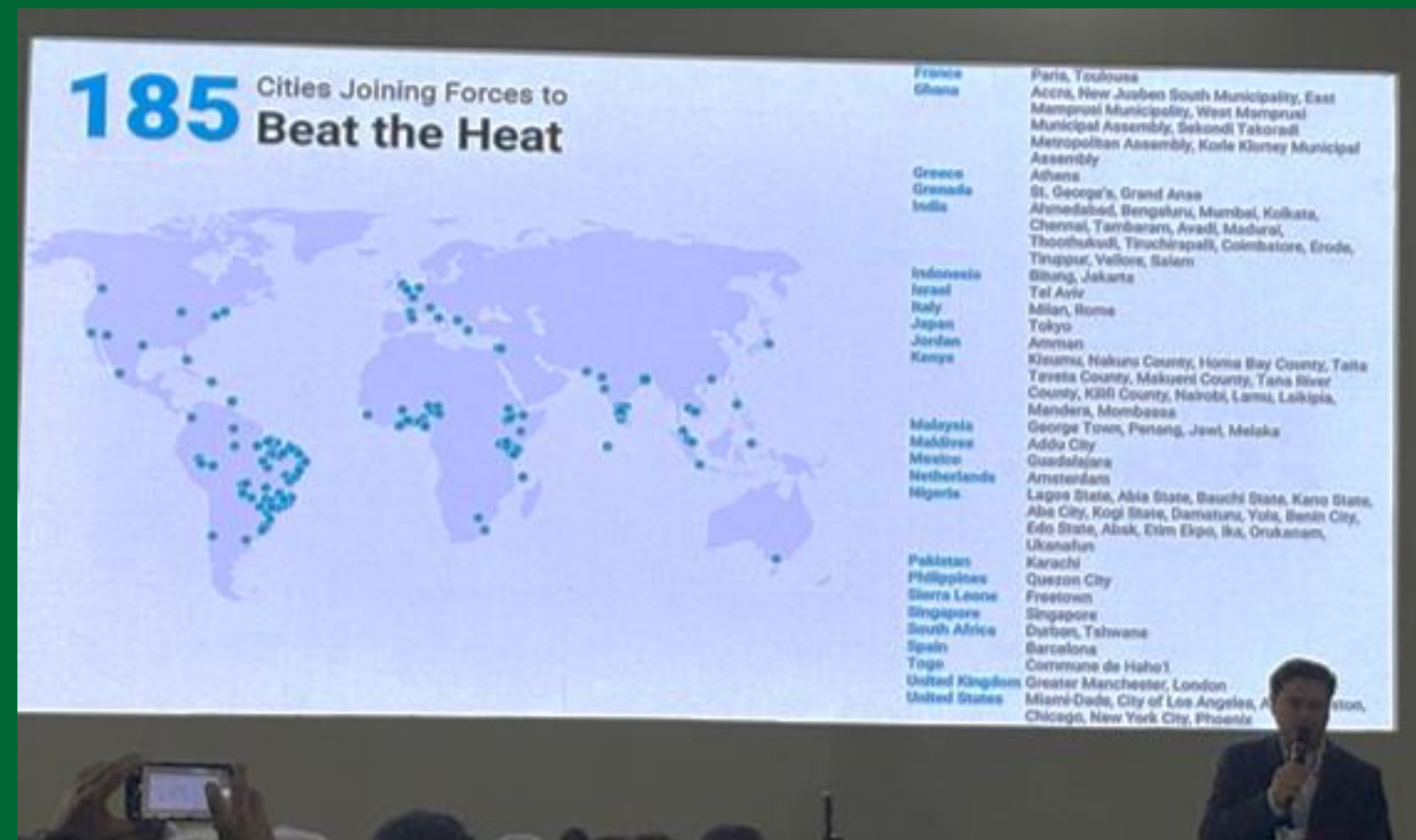
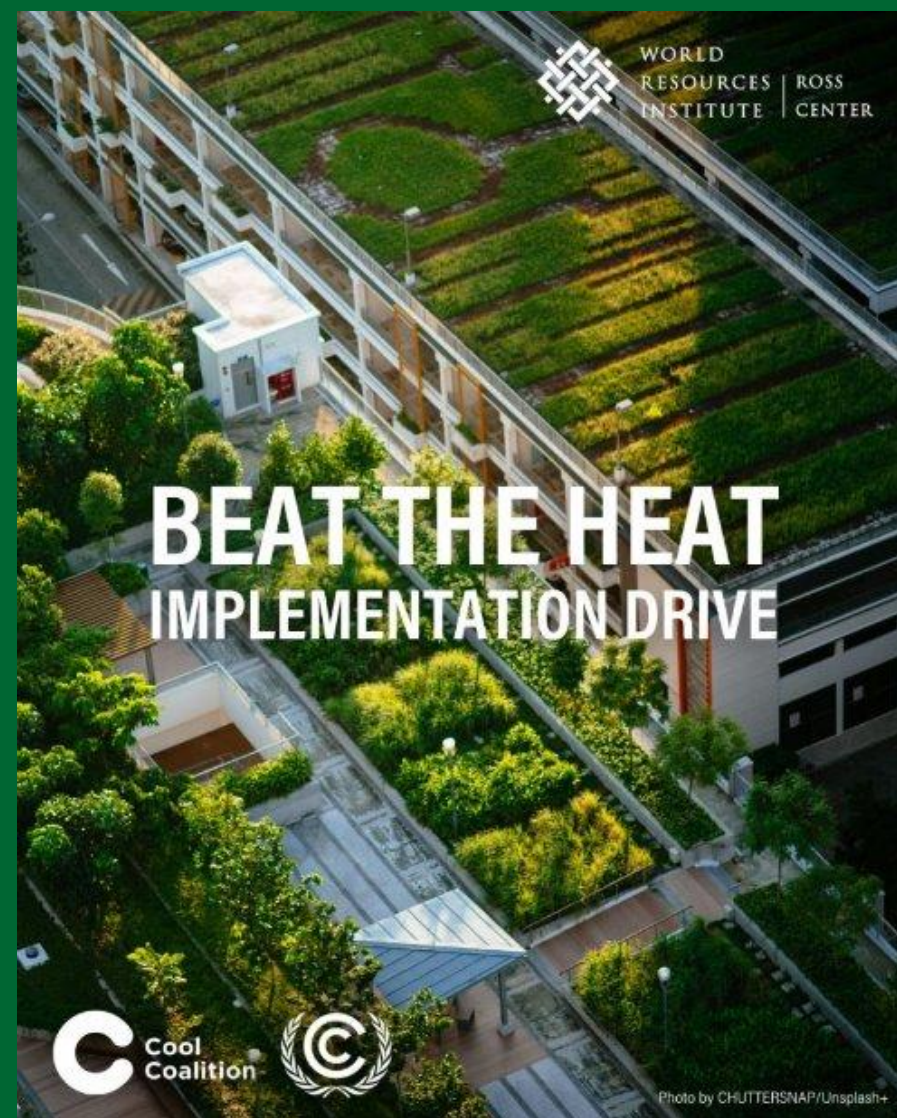


Sign-up for updates

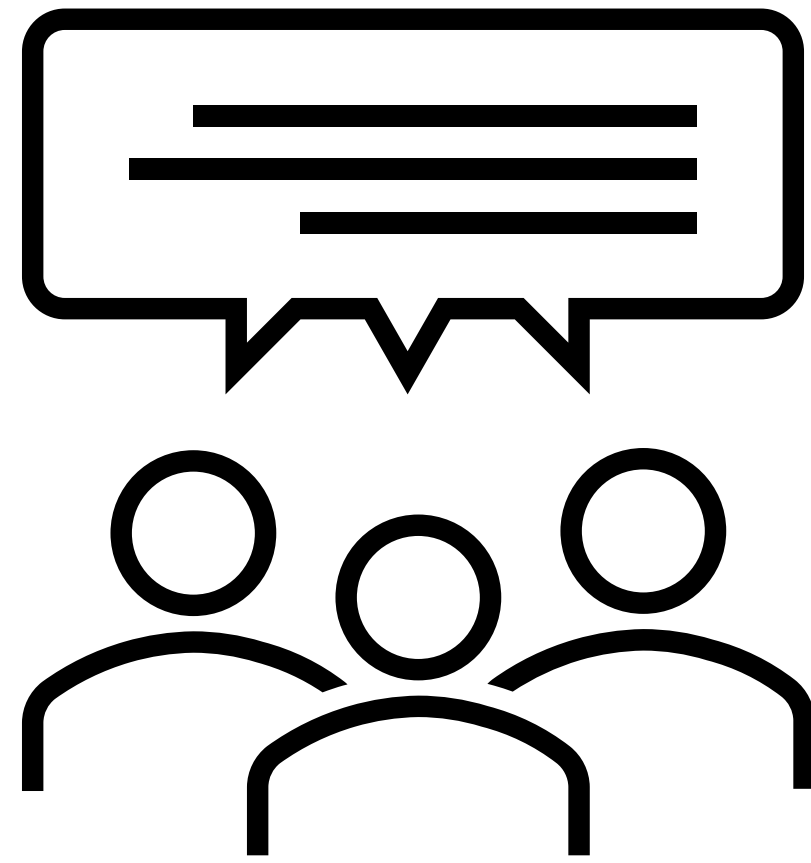
Contact us: citiesdata@wri.org

“Beat the Heat” in Cities Global Initiative

- Launched at COP30, by UNEP Cool Coalition and COP30 Presidency
- >240 cities
- >80 technical and funding partners
- Any city can join: <https://coolcoalition.org/pilot-projects/beat-the-heat-in-cities/>



Questions?



Thank You

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wri.org/cities



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thecityfix.org