

GLOBAL COOLING PLEDGE ASSEMBLY

SINGAPORE 15 - 18 SEPTEMBER 2026

Parallel Session: Beat the Heat Training

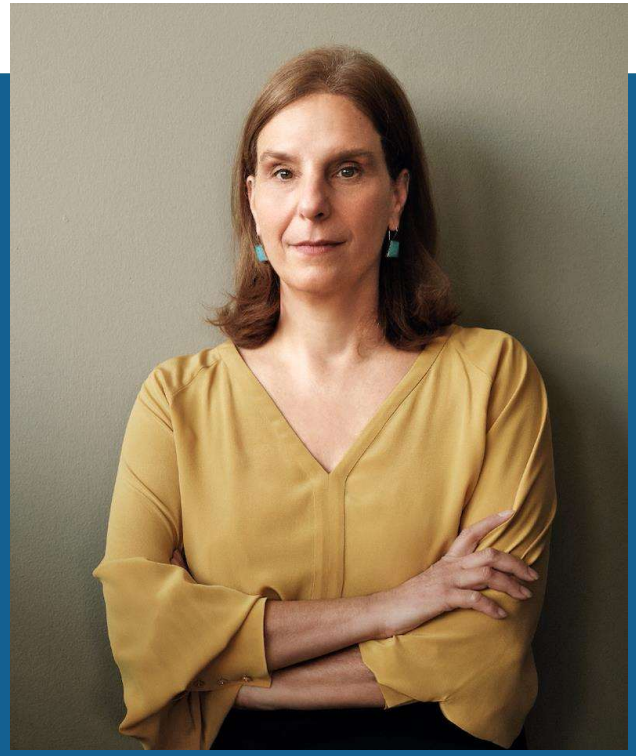
Session 1: Urban Heat Planning and Integration into Policy Frameworks

15:00-16:30, 15 September 2026

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BEAT THE HEAT

Facilitator

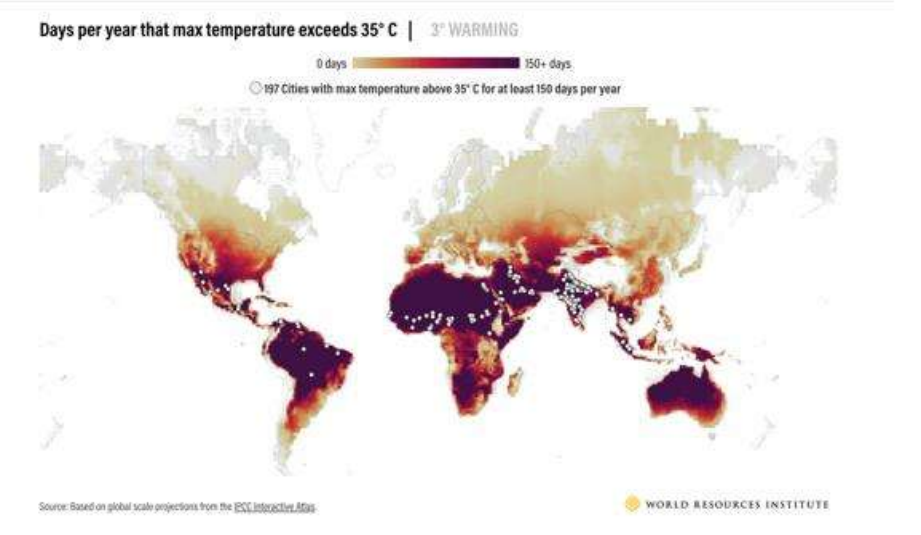


Dr. Eleni Myrivili

Global Chief Heat Officer,
Strategic Lead Beat the Heat,
UNEP

Extreme heat is a silent killer

The deadliest climate hazard → half a million deaths per year



July 2026: 2nd-warmest on record globally, +1.47°C vs pre-industrial; highest July sea surface temps ever recorded

3.79 billion people exposed to extreme heat if warming passes 2°C 41% of global population in 2050

US: 1,500+ daily heat records broken in June; Philadelphia/DC

France: 2,025 excess deaths in one June heatwave, hardest on 45+

India: by late April, 98 of world's 100 hottest cities were Indian; highs above 46°

Huge impacts on productivity → 2–3% productivity drop per degree above 20°C (ILO)

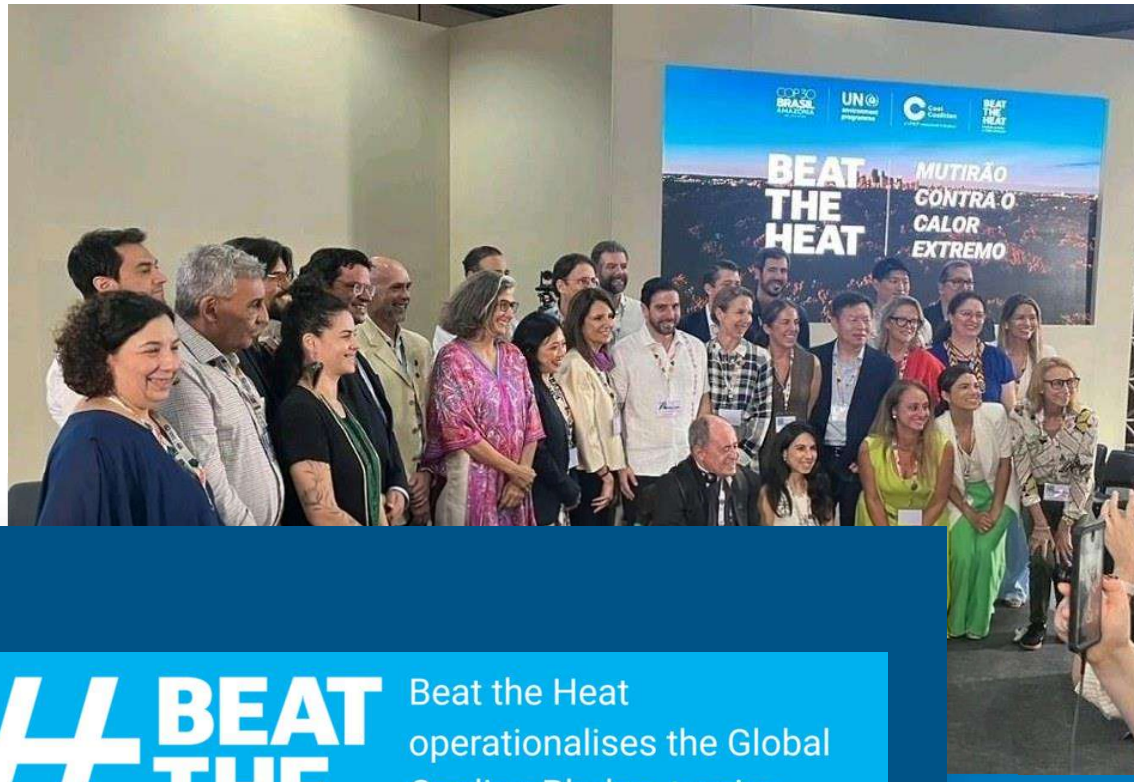
Strained power grids, transit; widespread outages

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Beat the Heat
A mutirão against extreme heat

A COP30 - UNEP Cool Coalition flagship implementation drive, launched in 2025,

Objective: accelerate local-level solutions for extreme heat and sustainable cooling.



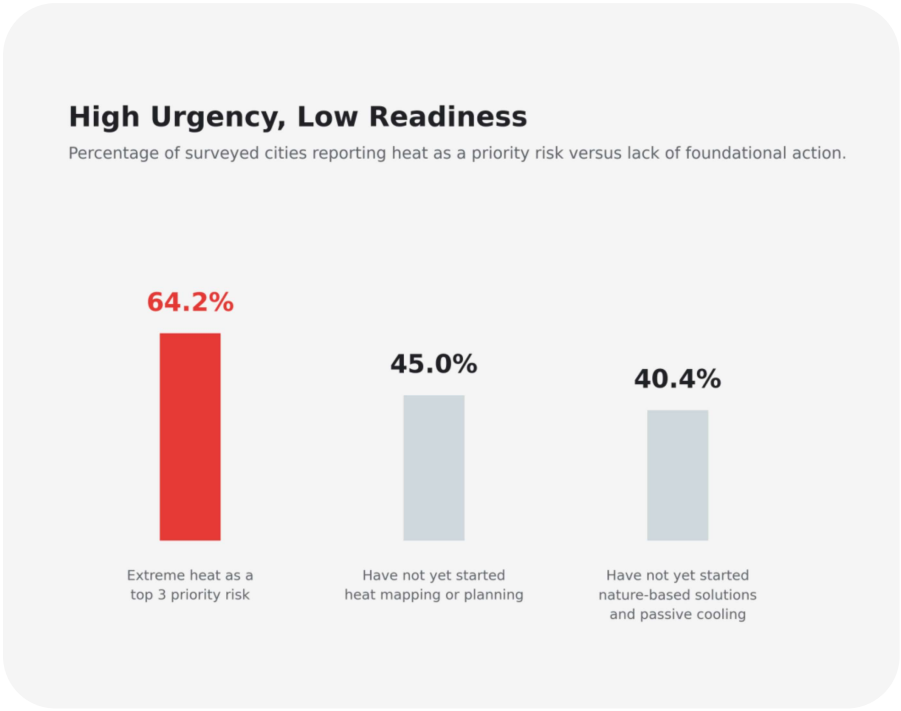
#BEAT THE HEAT

Beat the Heat operationalises the Global Cooling Pledge, turning commitments into scalable cooling action.

Survey results:

Cities already recognize extreme heat as a major risk, but most still lack the basic planning and data foundations needed to respond.

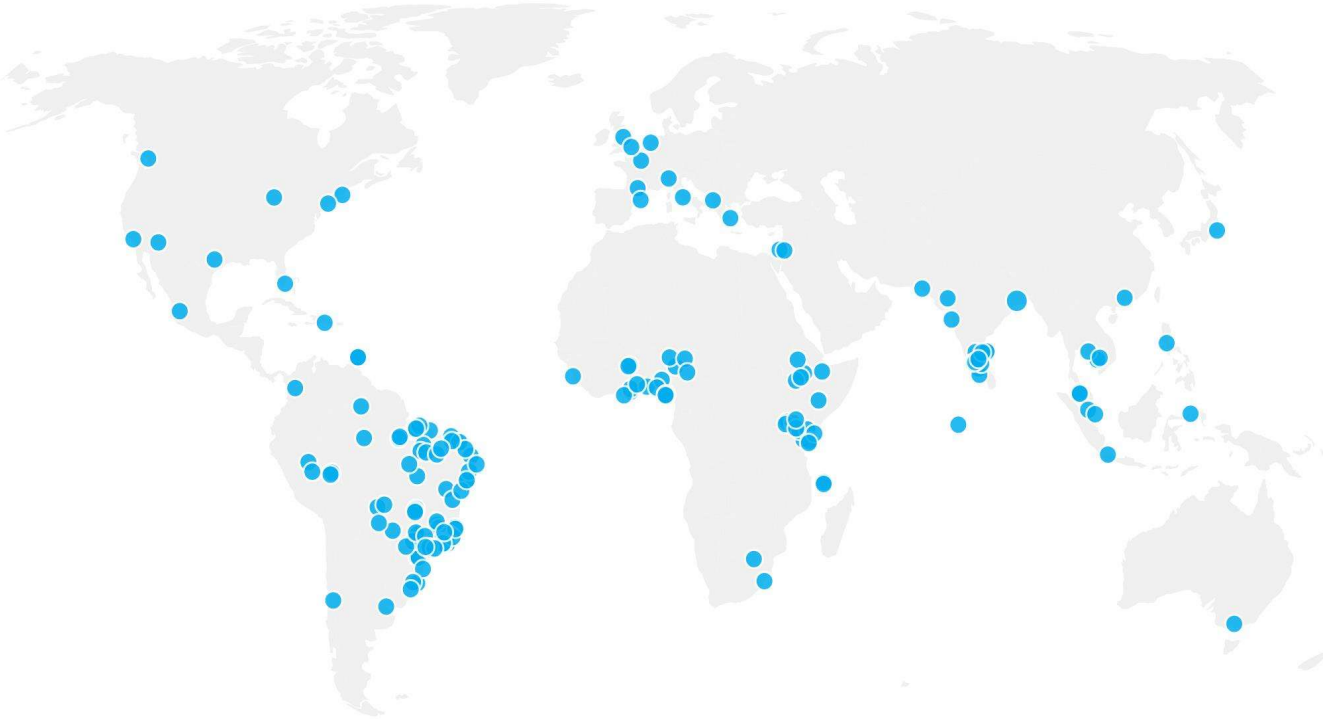
Survey conducted with Beat the Heat cities and states between February and June 2026.
About 150 respondents



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250+ Cities joining forces to **Beat the Heat**



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100+ Partners

Driving the mutirão



AIIB · ARUP · ADB · BNDES · C40 CITIES · climateworks FOUNDATION · CDRI

COUNT US IN · European Bank for Reconstruction and Development · esri · gef · GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY · Google · GEO GROUP ON EARTH OBSERVATIONS

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100+ Partners

Driving the Mutirão





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Beat the Heat focus areas*



Conduct urban heat assessments and prepare action plans — identify hotspots and integrate heat into urban and climate plans.



Implement nature-based and passive cooling solutions, including through building codes.



Procure low-GWP, high-efficiency cooling technologies for public buildings.

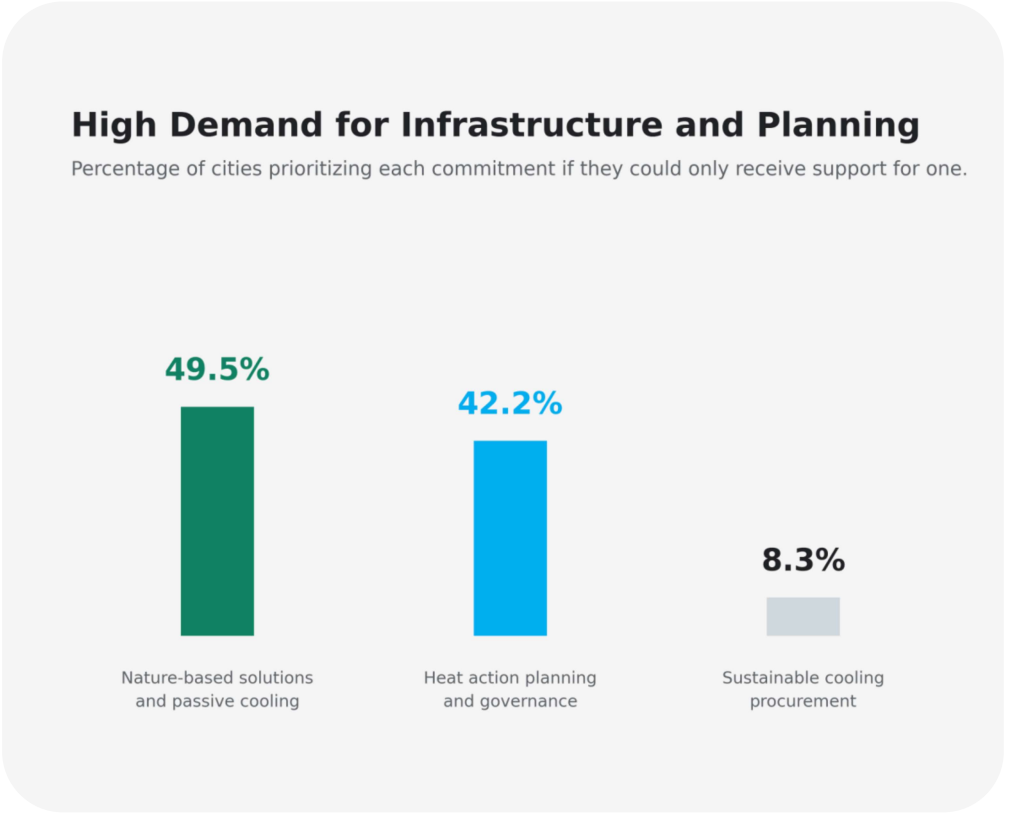
(* corresponding to the subnational commitments of the Global Cooling Pledge and two of the national commitments of the Global Cooling Pledge)

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Survey results:

Over 90% of cities are asking for foundational heat planning and nature-based solutions.

Cities recognize that to survive extreme heat, they must first establish core governance (Heat Action Plans) and deploy nature-based & passive cooling solutions.



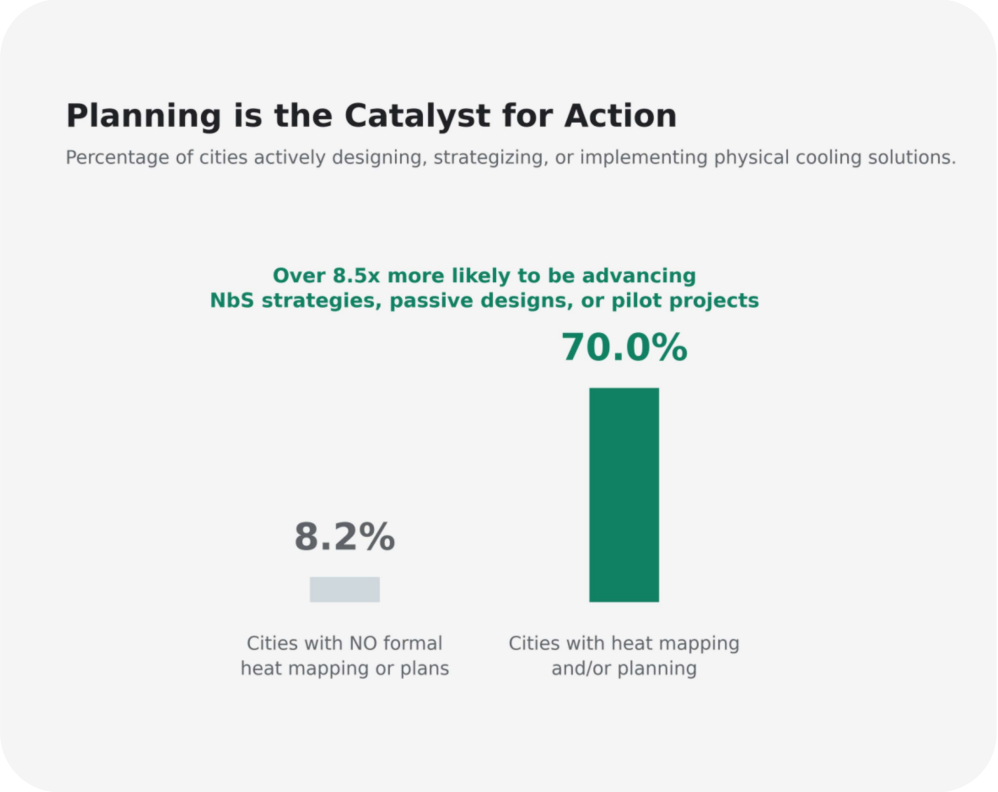
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Survey results:

Planning is a catalyst for action

Cities with heat mapping and planning are significantly more likely to move toward implementing cooling solutions.



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Agenda - Beat the Heat Training

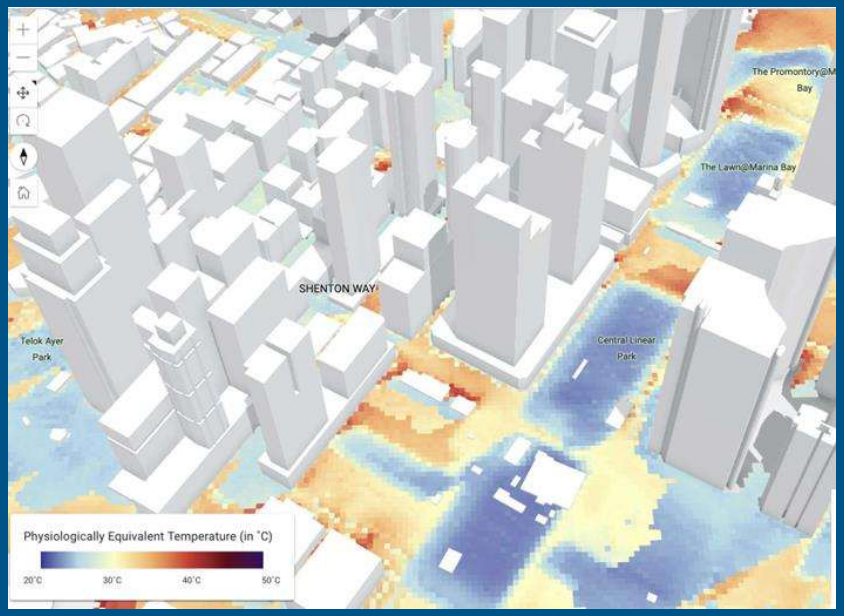
15 Sept 15:00-16:30	Session 1C. Urban Heat Planning and Integration into Policy Frameworks
15 Sept 17:00-18:15	Site Visit 1: BCA Braddell Campus *(or for registered partners: Heat Resilience & Performance Centre (HRPC))*
16 Sept 09:00-10:30	Session 2C. Implementing Nature-Based and Passive Cooling Solutions
16 Sept 11:00-12:30	Session 3C. Financing and implementing urban heat and cooling resilience
16 Sept 14:00-17:30	Site Visit 2: Punggol Digital District Site Visit 3: Sentosa Island



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Session 1C. Urban Heat Planning and Integration into Policy Frameworks



Singapore's Digital Twin

What this session looks at:

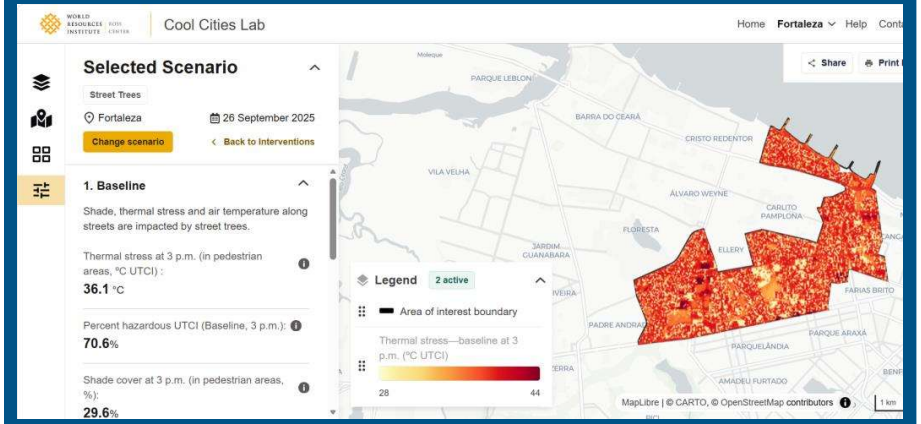
- How cities can integrate urban heat considerations into planning, strategies, and policy frameworks
- Some of the tools and data now available to identify heat hotspots and target interventions (satellite data, digital twins, heat-risk mapping: e.g. see Keep Cool Hub)
- Real examples of cities embedding heat into governance
- Explore how different contexts are addressing this issue

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Session 1C. Urban Heat Planning and Integration into Policy Frameworks

Key considerations from existing city experience

- Start with assessing the current situation
- Embed heat into existing planning and building codes, as much as possible not as a standalone document
- Prioritize the most exposed — outdoor workers, elderly residents, informal settlements
- Sequence solutions: passive and nature-based first, mechanical cooling as a complement to avoid maladaptation
- Assign clear ownership — someone has to act on the data, convene different stakeholders, and keep the plan current



WRI Cool Cities Lab

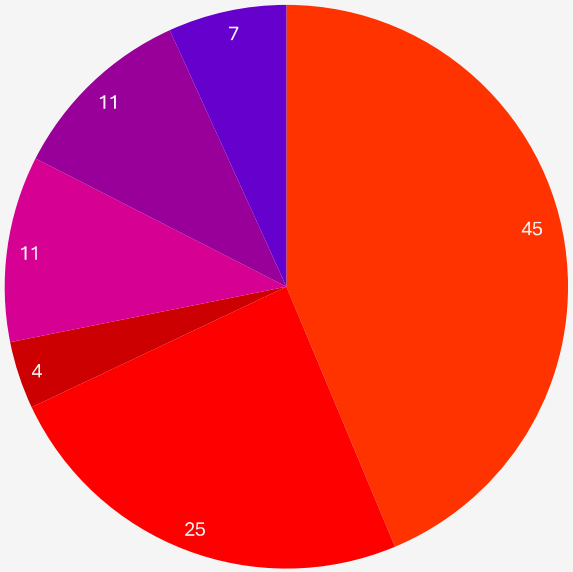
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Survey results:

Heat action planning

Only 7% of respondents have implemented or institutionalized heat actions.

44% have not yet started to plan for or implement heat actions



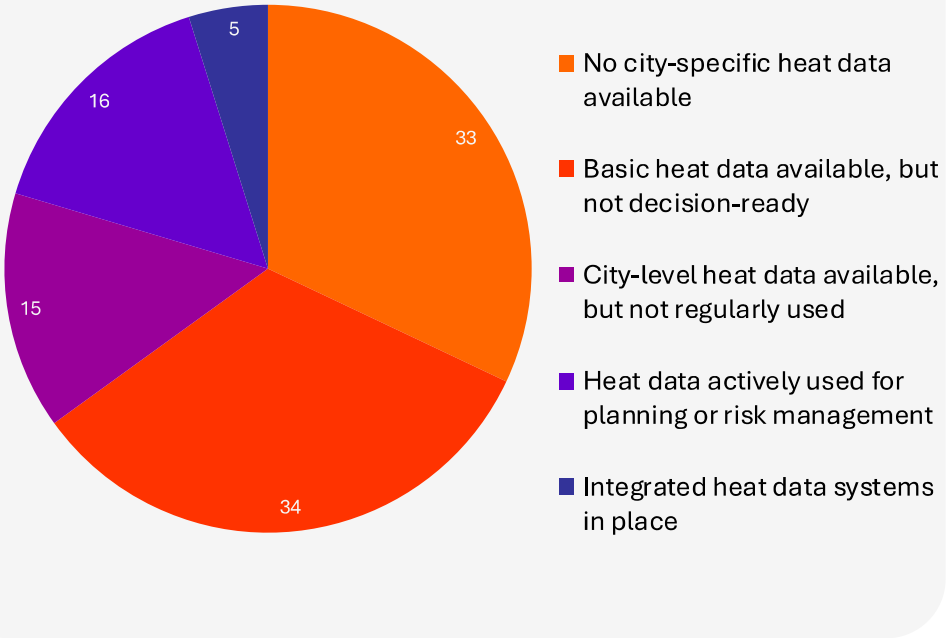
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Survey results:

Availability of heat-related data

65% of respondents do not have usable heat data available.

21% actively use the available data



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Extreme heat preparedness & Urban Heat Management Handbook



Shi Hui Phua

Urban Specialist, World Bank Group

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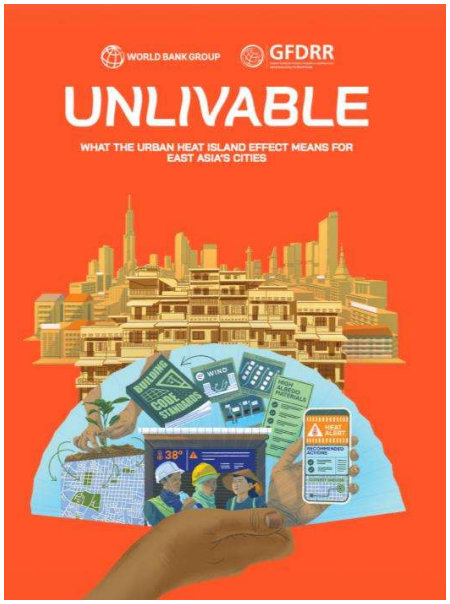
BEAT THE HEAT TRAINING

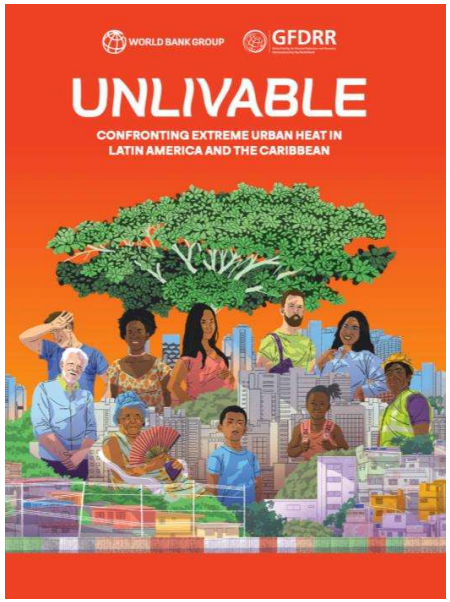
Extreme Heat Preparedness & Urban Heat Management Handbook

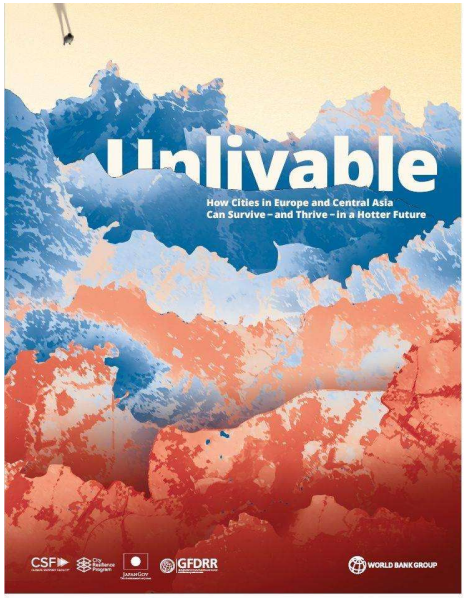
Phua Shi Hui
Urban Specialist, The World Bank Group

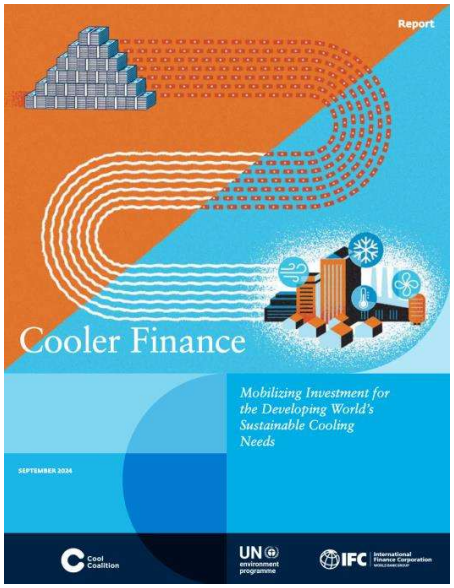
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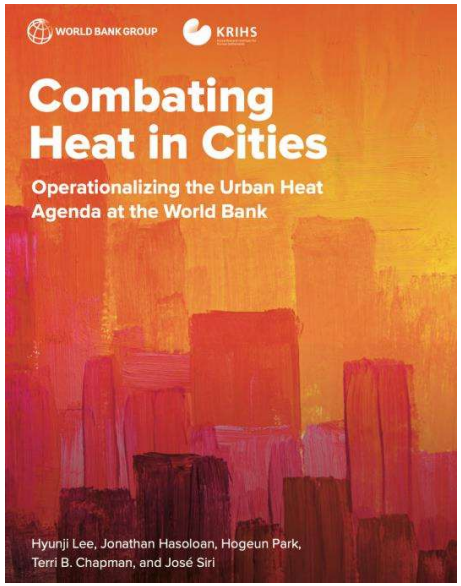


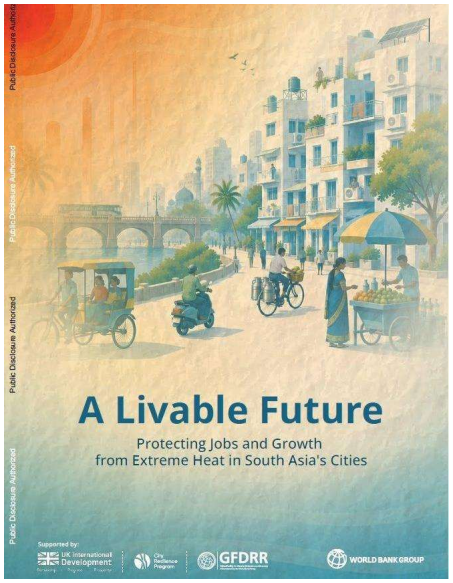


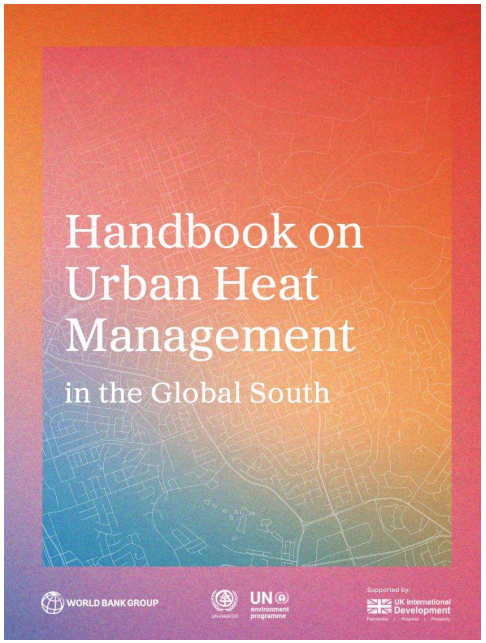






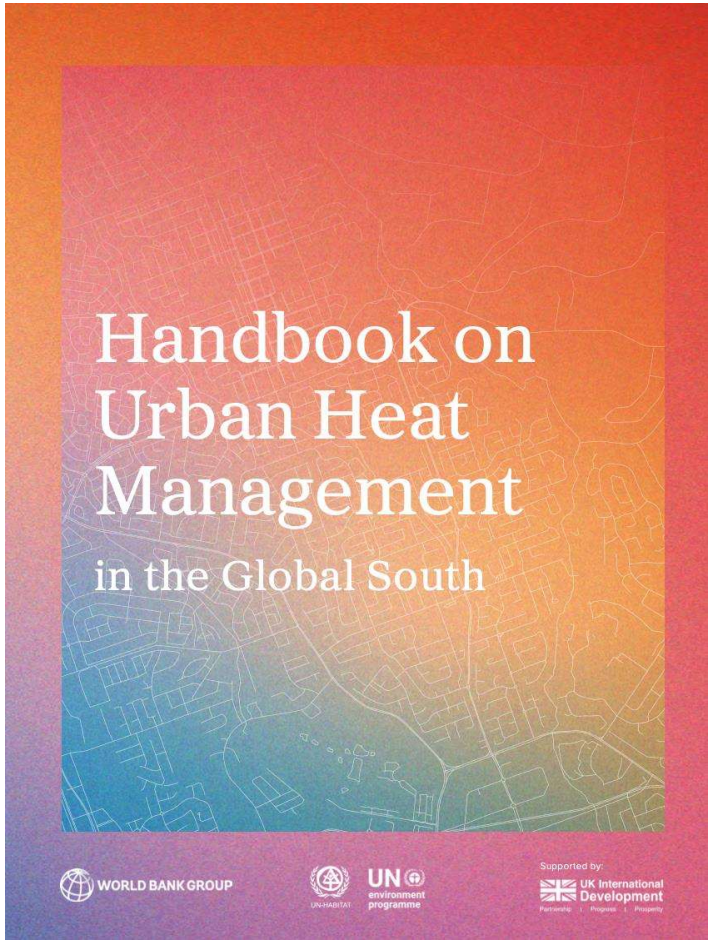


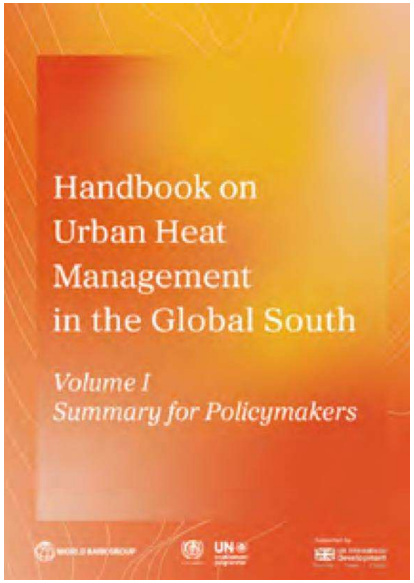




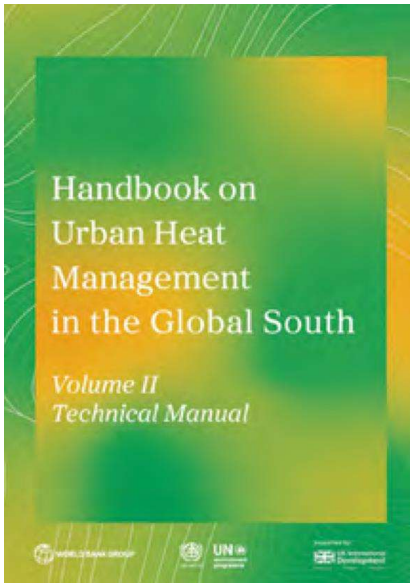
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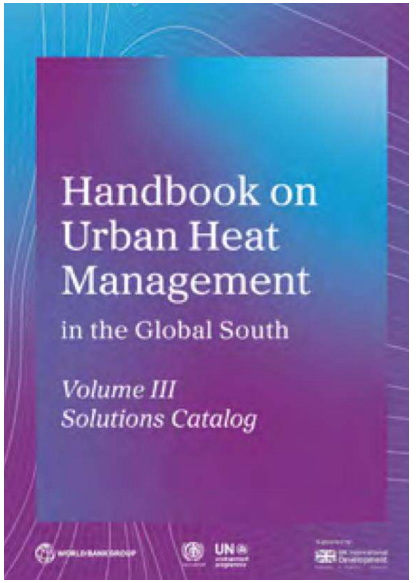




1. Summary for Policymakers



2. Technical Manual



3. Solutions Catalog

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Urban Heat Management Handbook

5 Principles

1. **Start now – if Needed, Start Small**
2. **Make the Journey Together**
3. **Establish Clear and Funded Mandates for Long-term Action**
4. **Tailor Heat Management to the City**
5. **Build on What Has Worked Well in the Past**



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Feels like over 52 deg C: Bangkok boils with heat index hitting 'extreme danger' level

Sign up now: Get insights on Asia's fast-moving developments



Bangkok's maximum heat index has exceeded 52 deg C and fallen into the "extreme danger" category. PHOTO: EPA

Bangkok heat index reaches 51.9 deg C, heightening heatstroke risk

Sign up now: Get insights on Asia's fast-moving developments



Bangkok set for region-topping temperatures in years to come: Study

Experts say the Thai capital must act now or face a much hotter future, with projections of up to 120 extreme heat days a year by 2050.



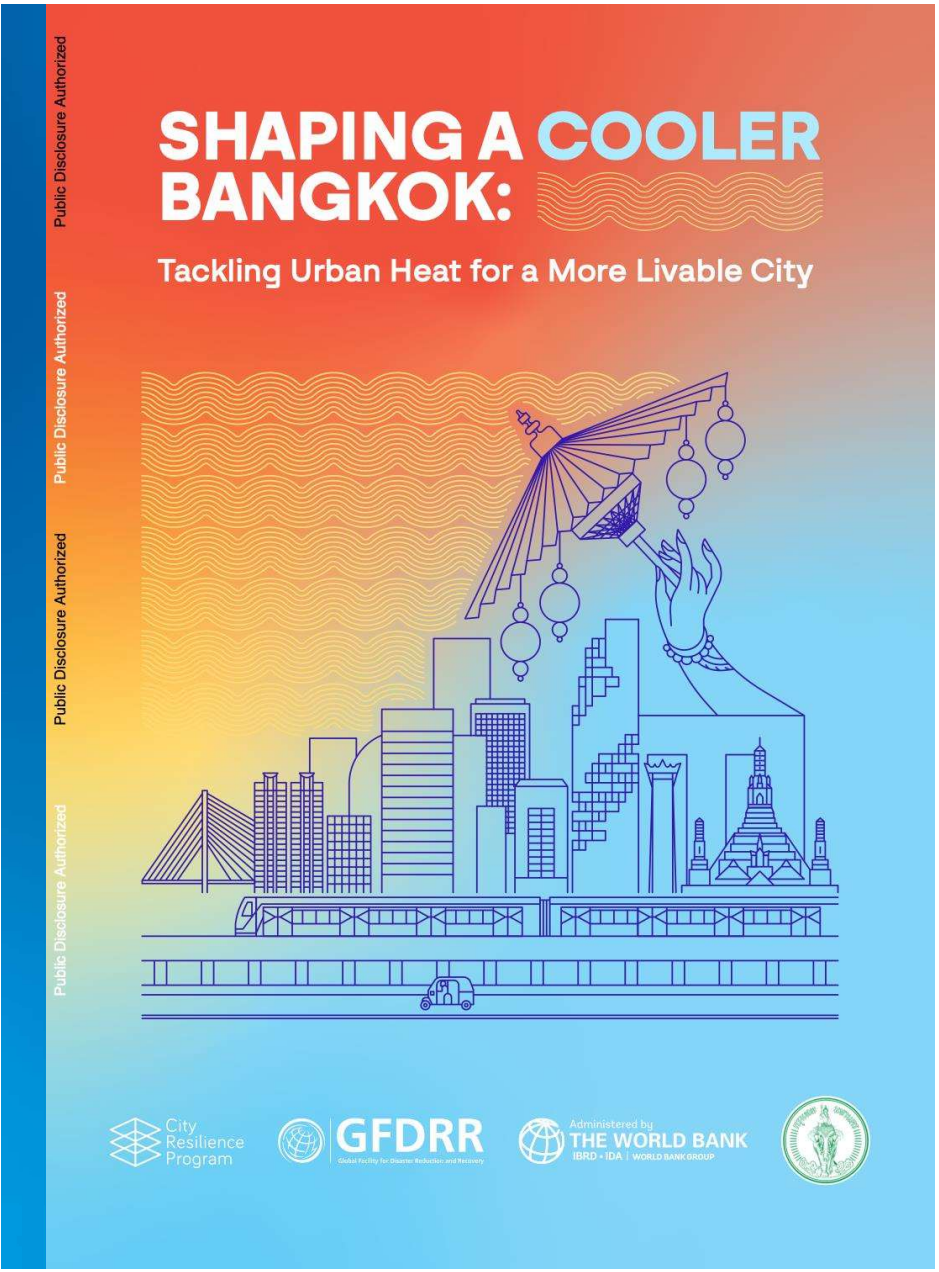
Bangkok has some 1.3 million outdoor workers who are exposed to rising heat. (Photo: CNA/Jarupat Karunyaprasit)

Jack Board

29 Apr 2026 06:00AM
(Updated: 29 Apr 2026 07:51AM)

+ Set CNA as your preferred source on Google

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Understanding urban heat in Bangkok

Measuring its impact on health, infrastructure & the economy

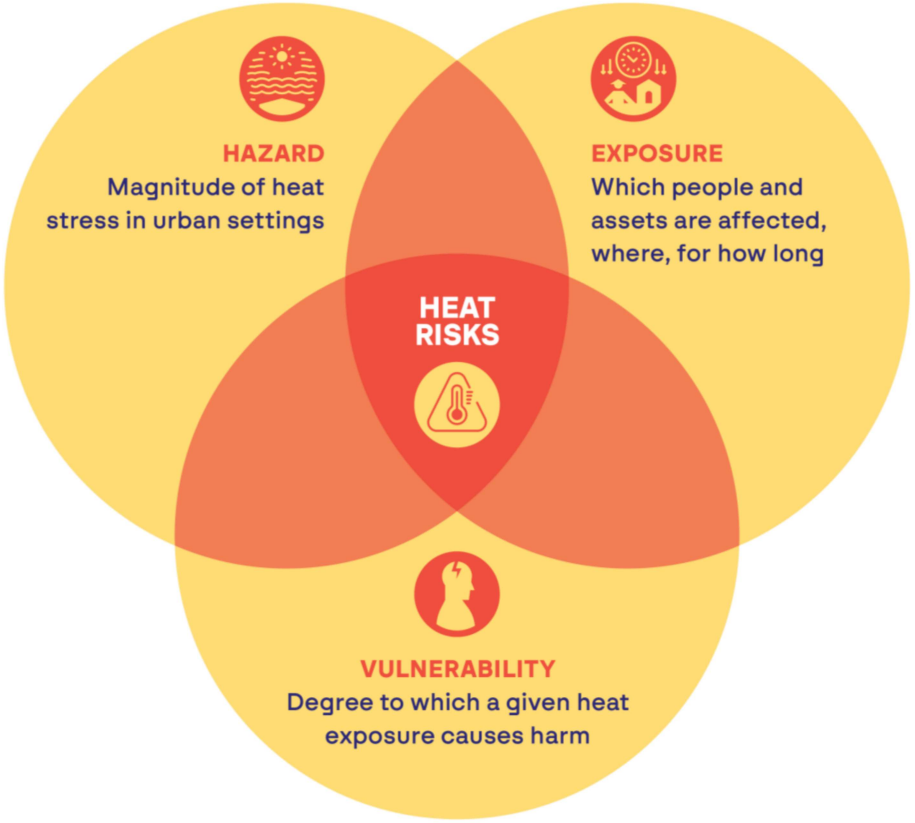
Identifying gaps for improving Bangkok's measure for heat management

Proposing strategic actions for better heat resilience

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Bangkok at risk:

- Hazard
- Vulnerability
- Exposure



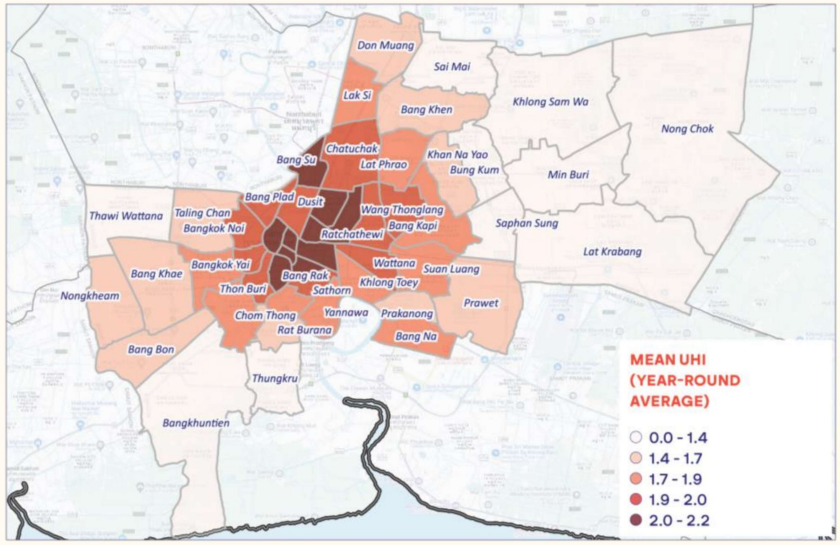
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strong UHI effect at ~2 °C

built-up areas

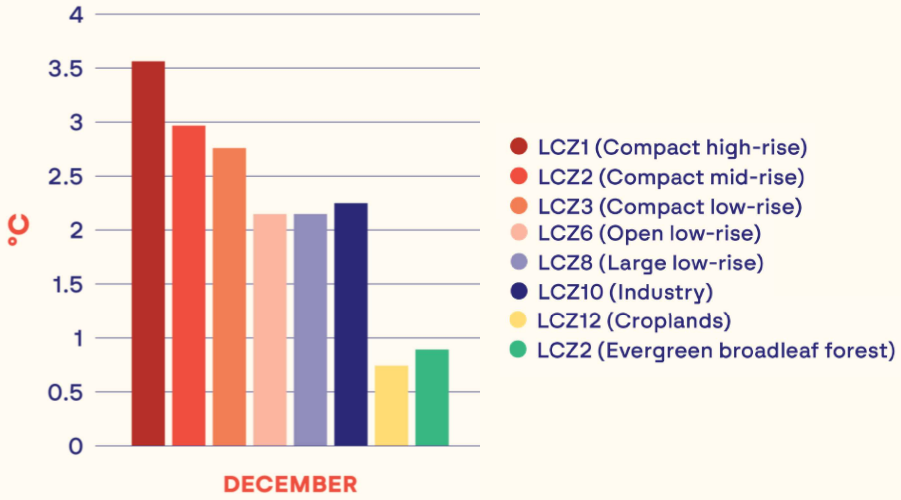
compact

Urban heat island intensity by district



Source: World Bank / National University of Singapore

Mean UHI intensity, December 2019



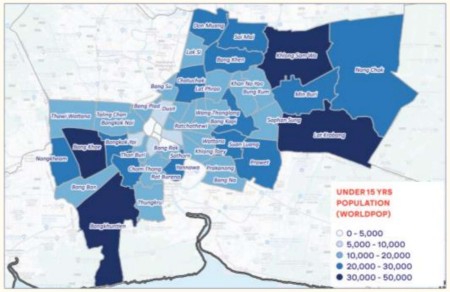
Source: World Bank / National University of Singapore

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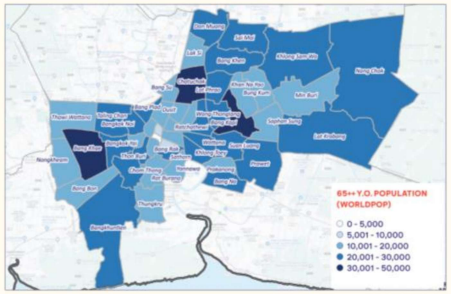
Bangkok's vulnerability to heat

Children & elderly population by district, Bangkok

Children (<15 years old)



Elderly (>65 years old)

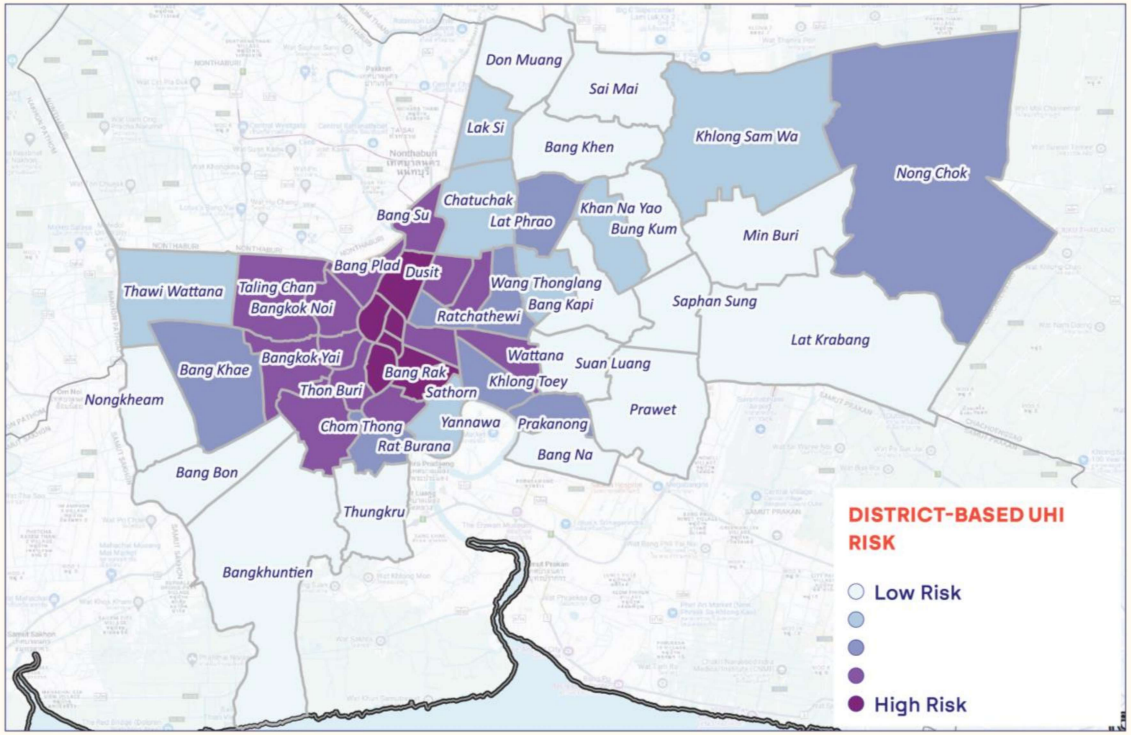


Source: WB staff calculation based on WorldPop (2024)

Who is most at risk?

Challenges ahead

Heat risk classification for districts of Bangkok



Source: World Bank

- Combining UHI level & vulnerable population density to map high-risk districts
- District with highest UHI risk for the elderly & children:

1°C increase



Health

2,300 lives lost



Productivity

~3.4%

THB 44 billion

annually



Energy

~THB 450 per month

THB 17 billion annually

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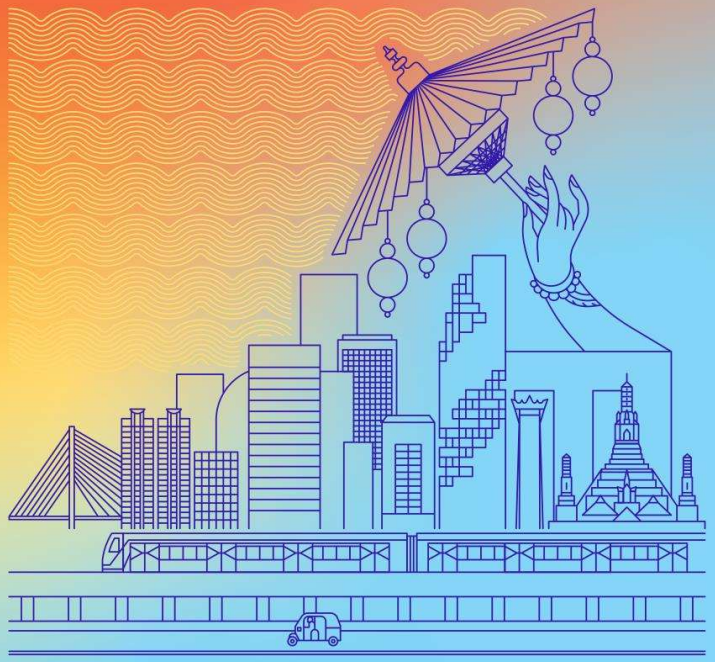
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	Place	People	Institution
Short-term	Targeting for heat "hotspots"	Engagement with at-risk communities	Coordination across departments
		Early warning coverage & accessibility	
		Cooling centers & hydration points	Regulations & policies
Long-term	Green & blue infrastructure expansion		Sustained governance & funding mechanisms
	Integration of heat resilience in planning & codes		

Public Disclosure Authorized
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SHAPING A COOLER BANGKOK:

Tackling Urban Heat for a More Livable City



City Resilience Program

GFDRR
Global Facility for Disaster Reduction and Recovery

Administered by THE WORLD BANK
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Find out more about our work ↓

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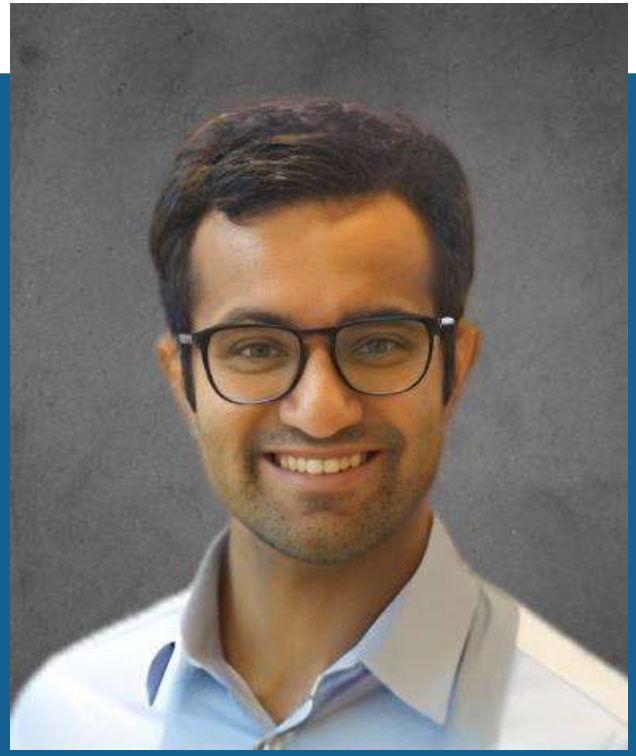


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Thank you.

Case study 1: Accessing data for planning through Google



Rajroshan Sawhney

Research & Applied AI Partnerships lead,
APAC, Google

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Google Research
Heat Resilience

Our Website

Scan to access interactive models, tools, and downloadable datasets.



Frontier & Applied AI Research Partnerships Lead, Google APAC

heat-resilience-contact@google.com

Supporting Action on Urban Extreme Heat

Heat Resilience is Part of Google's Broader Commitment to Applying Machine Learning to Urgent Global Challenges

Flood Forecasting



Forecasting & mitigating floods

Wildfires



Detecting & forecasting wildfires

Green Light



Reducing vehicle-based emissions & harms

Skai



Post-disaster damage assessment

Open Buildings



Mapping the African continent

Weather



Skillful weather forecasting for Africa and the Global South

Food Security



Forecasting food insecurity and Computer Vision for plant phenotyping

African Languages



Urban Warming is Accelerating, Creating an Urgent Humanitarian and Economic Crisis

Extreme heat is a silent killer. It is responsible for an estimated 0.5M deaths annually.

The impact is large and growing. 1.6B urban residents will face regular, extreme heat waves by 2050. Cities heat up at twice the global rate

Cities are ready to act. We see strong demand and willingness to adapt.



Google’s Goal is to Close the Data Gap to Support Cities Resilience to Heat

gps_off

Precise Data is Lacking

While active, long-term urban redesign (trees and reflective roofs) is highly desired, cities face significant hurdles in planning and execution because they lack hyper-local, parcel-level data to target high-return interventions

monetization_on

The Resource Barrier

Collecting actionable, neighborhood-level environmental data typically requires commissioning expensive municipal LiDAR flights and custom thermal surveys, which strains local public budgets

auto_awesome

Closing the Gap with Google AI

Scale: Fuses global machine learning models with high-resolution aerial and multispectral satellite pixels to automatically map urban structures, vegetation, and reflectivity

Democratization: Replaces high-cost custom monitoring with open, address-level spatial indicators—delivered as a free public good to empower every municipality, regardless of budget size

Supporting UNEP’s Vision for Global Cool Cities

public

Supporting the Global Cooling Pledge

Global Target: At COP28, UNEP's Cool Coalition launched the Global Cooling Pledge (signed by 70+ member states) to cut cooling-related emissions by 68% by 2050

Google's Role: Google Research provides hyper-local environmental data needed to deploy passive, zero-emission cooling solutions to support these critical subnational goals

wb_sunny

Aligning with "Beat the Heat"

Joint Collaboration: We partner to align our open-science datasets with UNEP’s Beat the Heat initiative

City Mobilization: The initiative mobilizes over 250+ cities and 100+ partners around nature-based cooling and climate-resilient urban design

We Currently Support Users Through 3 Primary Products



Tree Canopy

Provides data on urban tree cover

Helps cities understand current tree canopy coverage, identify planting opportunities, prioritize expansion in vulnerable communities, and track progress against urban forestry goals



Cool Roofs

High-resolution rooftop albedo (reflectivity) data.

Helps cities understand their current baseline albedo, identify and prioritize neighborhoods for cool roof interventions (often using equity filters), and monitor albedo changes over time to inform policy



ThermoKnob

Scenario modeling tool that allows users to estimate the potential land surface temperature reduction from cooling interventions (eg. "What is the cooling effect of increasing tree canopy by 15%?")

Decision-Making & Data Gaps

help_outline

Empirical Planning Questions

- *Where should we plant trees to maximize shade in highly exposed pedestrian corridors?*
- *Which commercial buildings have large, flat roofs that are prime candidates for cool roof coatings?*
- *How many degrees of land surface temperature reduction will we get for a given budget?*

insights

Dismantling the Analytical Bottleneck

Address-Level Precision: Google's tools resolve these questions by moving from coarse, regional heat estimates to address-level and neighborhood-level precision.

Quantitative Metrics: Provides the quantitative metrics needed to justify capital budgets and align stakeholders around concrete targets.

Tree Canopy

Proprietary machine learning models segment high-resolution aerial imagery to detect individual tree crowns, separating tree canopy from low-lying grass, shrubs, and structures.

What Planners Can Do with the Data

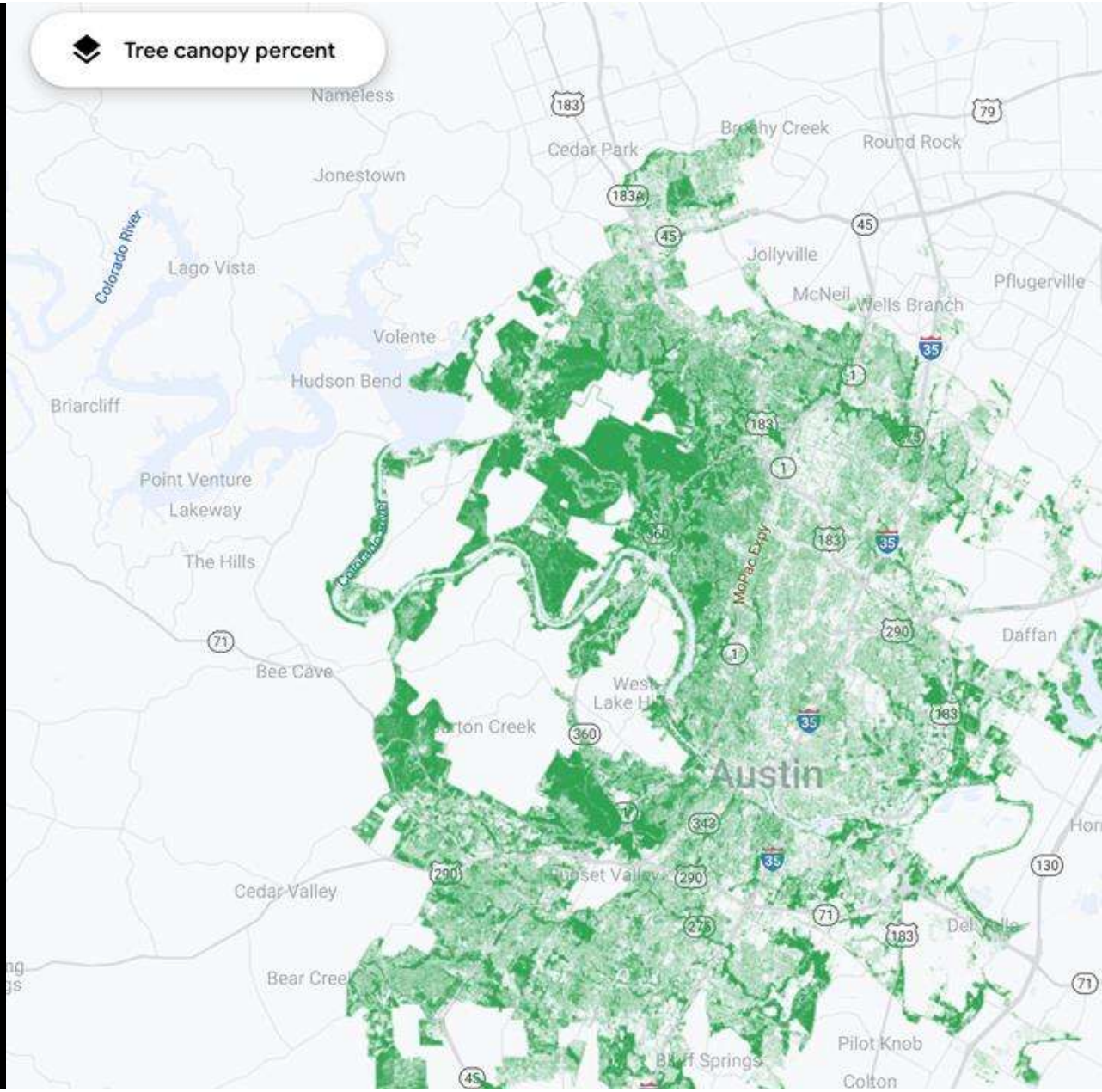
Map Coverage: Understand current tree canopy coverage aggregated at neighborhood and census block levels.

Identify Opportunities: Pinpoint non-forested, permeable ground and right-of-way spaces available for planting.

Prioritize Equity: Overlay canopy deficit maps with demographic filters to prioritize vulnerable neighborhoods.

Scale & Access

Available in **2,000+ cities**, directly in Environmental Insight Explorer (https://insights.sustainability.google/)



Cool Roofs

Estimated rooftop reflectivity in select cities, based on AI algorithms trained on high-resolution aerial imagery combined with satellite reflectivity measurements.

Why Cool Roofs

Roofs comprise 20% to 25% of the total surface area in typical cities. Conventional dark roofs absorb 85% to 95% of solar radiation, heating up to 150°F (65°C) or more.

Regional Impact

Models and observations suggest that local cooling of 1 °C or more is highly feasible if municipalities manage to significantly increase regional reflectivity (albedo).

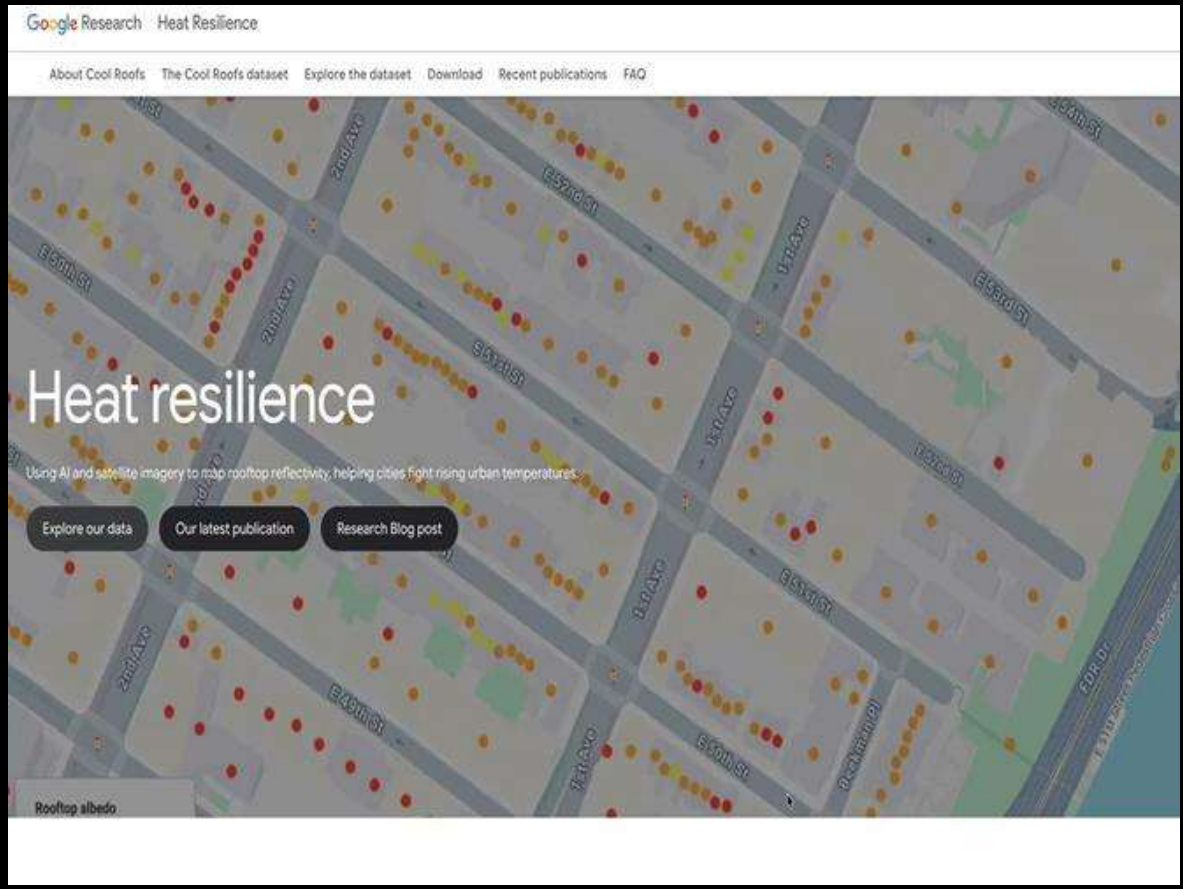
Google's Mission

Address the urban heat island effect by quantifying solar radiation management potential per building, integrating albedo management into natural roof resurfacing cycles.

50+ Cities



Cool Roofs



https://sites.research.google/gr/heat-resilience/

ThermoKnob

Overview

Estimating the temperature reduction potential of trees and cool roofs to empower decision makers.

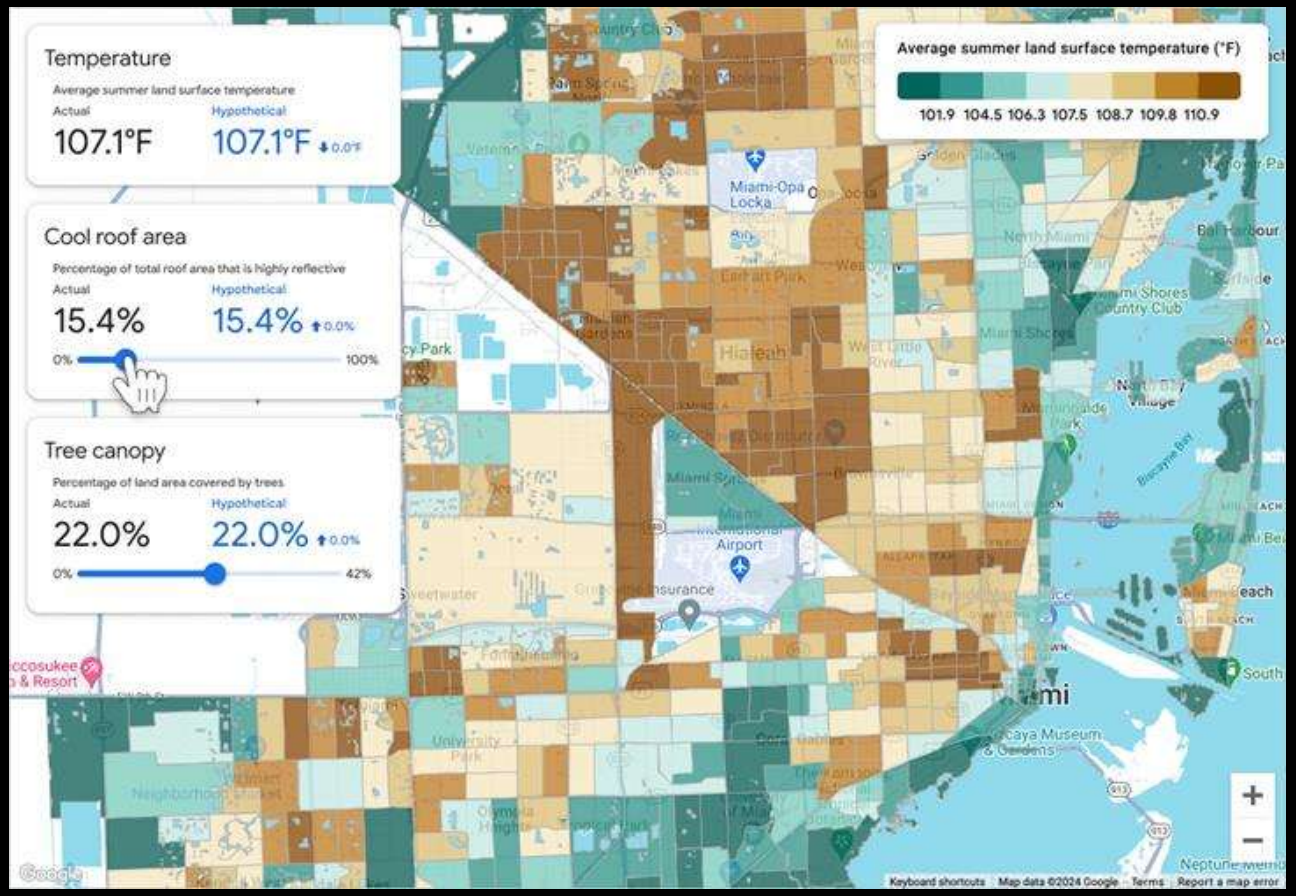
Planners cannot afford trial-and-error with million-dollar capital improvement budgets. ThermoKnob simulates physical thermal changes in advance.

Key Capabilities

- Interactive "What-If" Sliders
  Model tree canopy percentage and cool roof area changes instantly.
- Localized Temperature Simulations
  Predicts surface temperature drops in °F/°C at census tracts levels.

14
US Cities

Targeting global expansion scheduled for 2027



How to access our data

Cool Roofs

50+ Cities

sites.research.google/gr/heat-resilience/

- Interactive visualization
- Direct raw data download available

Google Earth

All US census tracts mapped and accessible

Tree Canopy

2000+ Cities

insights.sustainability.google/

Google Earth

- All US census tracts mapped
- Includes 18 other countries worldwide

ThermoKnob

14 US Cities (Pilot) + Hyderabad, India

Pilot Locations: Los Angeles, Phoenix, Austin, Miami-Dade, Baltimore, Boston, Boulder, Colorado Springs, Melbourne, Nashville, New York, San Antonio, Stockton, Tempe, Washington DC, Hyderabad

Case Study: Stockton, CA

1

The Challenge

Stockton's Office of Environment and Sustainability was developing a proposal for a new cool roof ordinance. To gain support, they needed compelling, visual data to demonstrate the potential benefits to city leadership and the community.

2

The Action

Using the Heat Resilience tool's temperature effect modelling, the planner modeled scenarios to quantify the local temperature reduction that could be achieved by increasing the number of cool roofs across the city

3

The Impact

The data and visualizations from the tool became the foundation of a formal ordinance proposal. This data-backed plan is now being used to advocate for a cool roof requirement in Stockton's Climate Action Plan (2024-2026)

"

I'm really heavily relying on the Heat Resilience Lab to showcase the visual data to back the policy.

Senior Management Assistant, Stockton's Office of Environment and Sustainability

Connect & Access Resources

Our Website

Scan to access interactive models, tools, and downloadable datasets.



Frontier & Applied AI Research Partnerships Lead, Google APAC

heat-resilience-contact@google.com

Case study 2: Athen's extreme heat services



Iphigenia Keramitsoglou

Research Director,
National Observatory of Athens (NOA)

GLOBAL extrema

For cities and citizens.
Transferable.

UN environment programme | Cool Coalition a UNEP-convened initiative

Ministry of Sustainability and the Environment SINGAPORE



GLOBAL extrema

Digital tools for City and Citizens

to tackle extreme temperatures towards Climate Resilience

A Global solution with City customizations

Complete solution

🔷 **Before the heat season**
Identify underserved neighbourhoods, analyse cooling-space accessibility and test intervention scenarios.

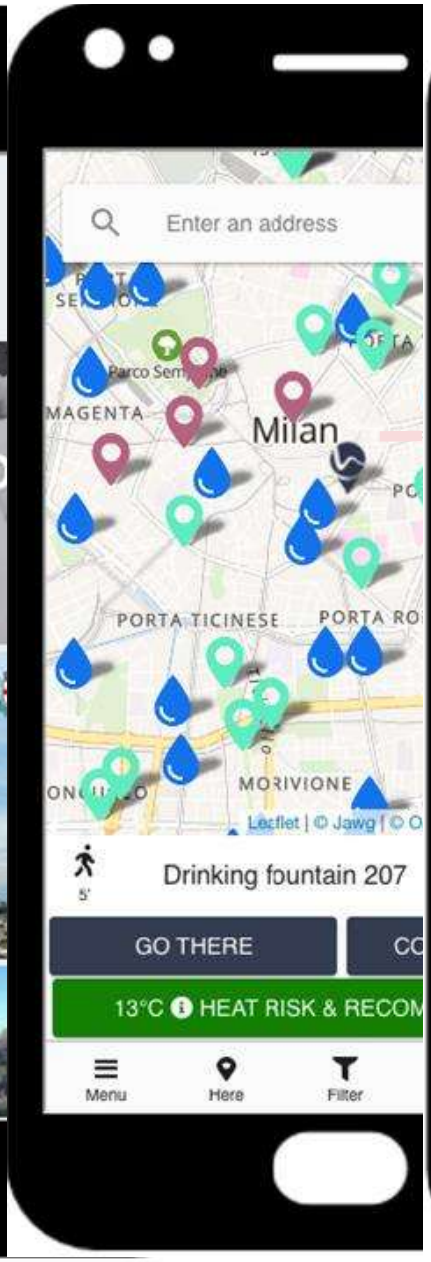
🔷 **During heatwaves**
Manage cooling spaces in real time, update operational status instantly and communicate directly with citizens and visitors via a dedicated mobile app.

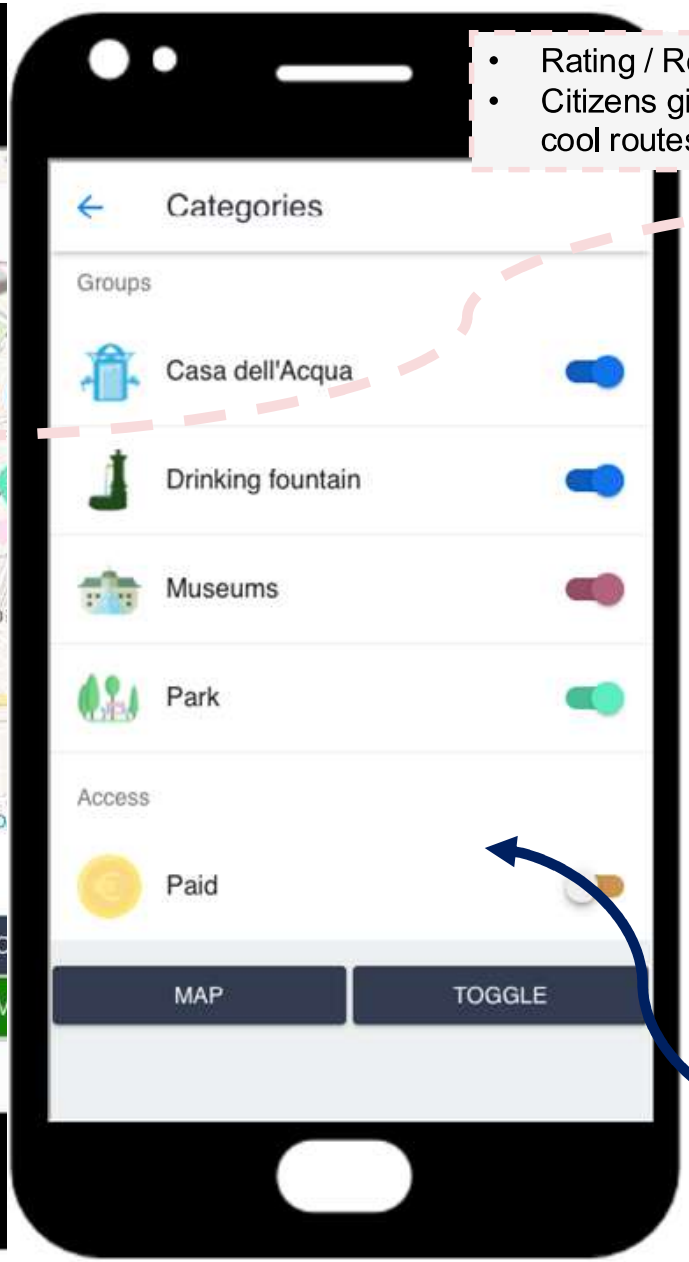
🔷 **After the heat season**
Understand how services were used, collect citizen feedback and make evidence-based decisions for future investments.

🔷 At the same time, **citizens and tourists** receive personalised heat-health information, access to cooling spaces, cool routes, protection features for vulnerable people and direct participation through feedback and reviews.



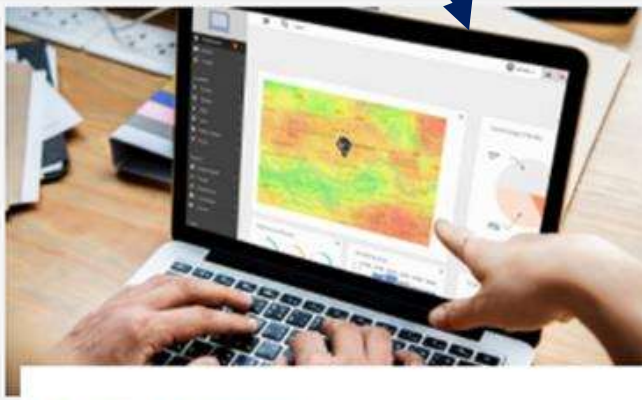






- Rating / Review of cooling spaces
- Citizens give cooling spaces and cool routes

CITY



City Dashboard

- Cooling spaces
- Drinking water spots
- Cool routes
- Heatwave categorization
- Add-ons (air quality, bicycles, customisations)
- Suggestions to protect

CITIZEN

UN environment programme | Cool Coalition | extrema GLOBAL


Climate Change ›
NHK ONE
メニュー
ログイン
NHKプラス
ニュース・防災
教育
医療・健康
福祉
ラジオ
NHKスペシャル
NHKスペシャル
地球超解析
2023 S
CLIMA
HEALTH
WORLD METEOROLOGICAL ORGANIZATION
AFD
BELMONT FORUM
「熱波は沈黙の殺人者」と語る地球観測研究者
00:12:21
SuperIR
2.0m ε:0.91 2026/07/17 16:58
アテネで都市生活に潜む熱リスクを検証
は、遠く離れた場所の変化が、日本の豪雨や暑さへと結びつく巨大な異変の連なり…。私たちの“今後”
を読み解く!(初回放送日 2026年8月23日(日))
シェアする
TWITTER: @

PORTFOLIO



EXTREMA Global Mobile App

Multilingual, city customised mobile app working seamlessly worldwide. It supports multiple profiles and special feautures.

Learn More



City Dashboard

Central management of Heatwave events. An information management tool is provided to the City officials for the management of the cooling spaces.

Learn More



Cool Routes

Provision of alternative walking routes in the city via the mobile app through shaded streets, via cooling spaces or drinking water spots.

Learn More



Bike Routing

Cyclists request to reach their destination safely, via designated bike lanes as much as possible. Provision of 3 routes: the shortest, coolest and via bike lanes. Add-on or separate software service.

Learn More



Planning and Analytics

Where is the vulnerable population? How hot is there? Are there enough cooling spaces for them? Where was the app mostly called from? Get an exhaustive report for your city .

Learn More



Rating and Review

Find out what citizens think about the cooling spaces that the City provides. Were they able to relief them from heat? Did they find it easily? Was the accommodation proper and as expected?

Learn More



Intra-urban temperature variability

Plan actions and services around the city based on high resolution map with hot spots based on summer temperatures from the last five summers.

Learn More



Air Quality

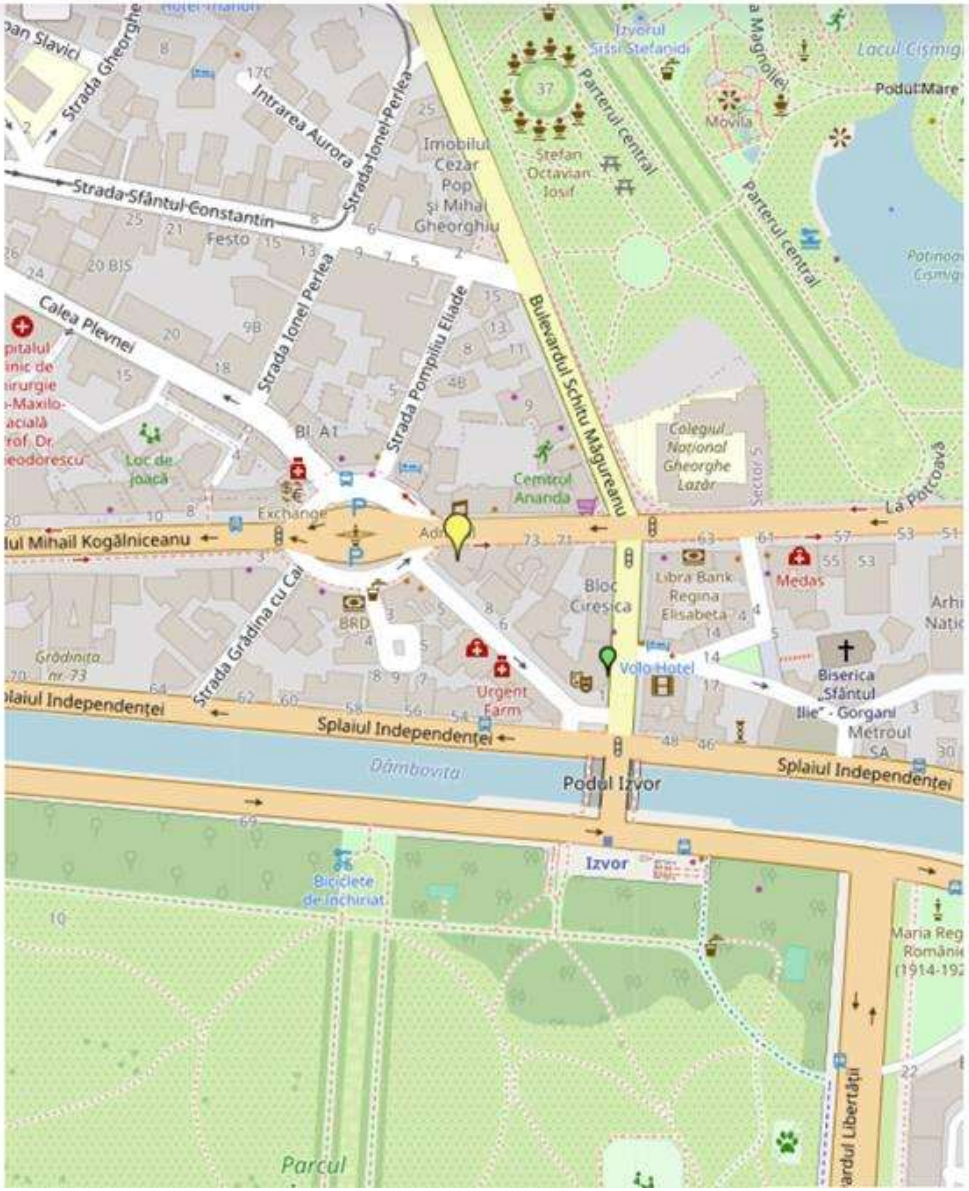
Mobile app add-on. Get the current air quality index for the city based on Copernicus Air Monitoring Service and get recommendations for your outdoor activities, safety measures.

Learn More

environment programme | Coalition a UNEP-convened initiative

Ministry of Sustainability and the Environment SINGAPORE

Management of Cooling Spaces



#	Status	Name	Type
1	Deleted		Administration
2		PMB	Administration
3		Cantina Socială GRIVIȚA	Social & Comm
4		Centrul de Zi pentru Persoane Vârstnice PERLA	Social & Comm
5		Centrul de zi pentru consiliere și sprijin pentru părinți și co	Social & Comm
6		Spălătoria Socială – Drumul Taberei	Social & Comm
7		Centrul integrat de Economie Circulară	Administration
8		Centrul - Bebe de București are Hăinuțe	Social & Comm
9		D.G.A.S.M.B.	Administration
10		Centrul de Informare și Sprijin pentru Femei	Social & Comm
11		Centrul Respiro pentru copiii cu dizabilități și familiile lor C	Social & Comm

1 2 3 4

Centrul - Bebe de București are Hăinuțe

Give Cooling Center Name

Social & Community Service | Day

Free

Give Cooling Center Type, Schedule and Access

Give Cooling Center Opening Hours ...

Give Cooling Center Opening Hours

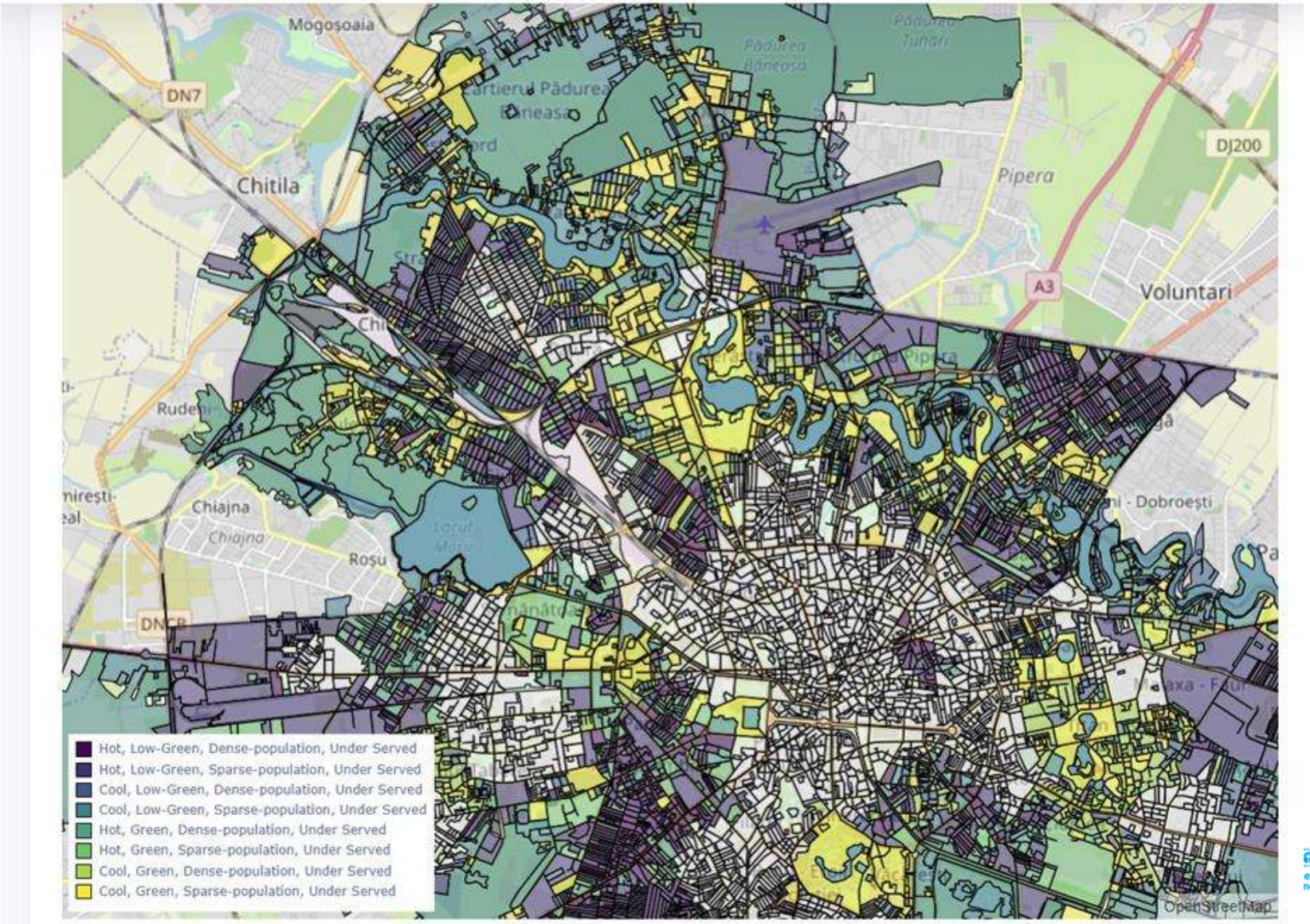
Search | Reverse | Copy

Select the Marker. Then Either Type an Address and Press Search or Move to a Location and Press Reverse

Update Record | Remove Record | Add New Location

Remove Current Location

Add New Coolspace



Underserved areas

1. Temperature
2. Trees
3. Population
4. Distance to Cooling Spaces

What-if SCENARIOS

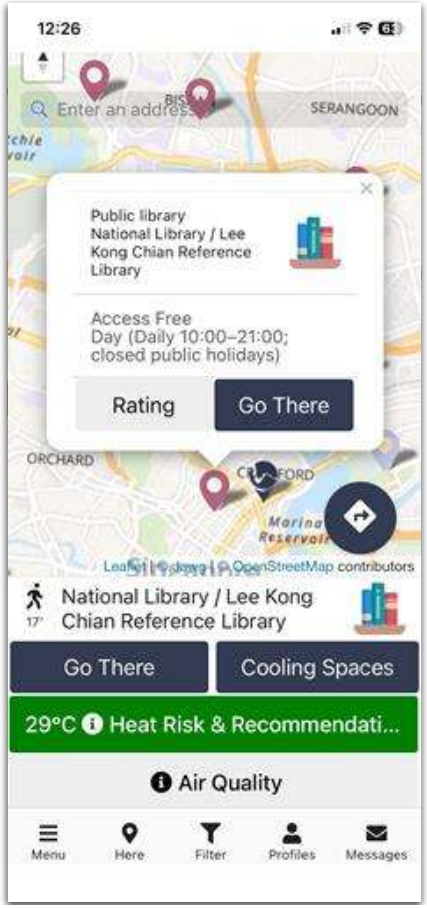
Cooling Spaces

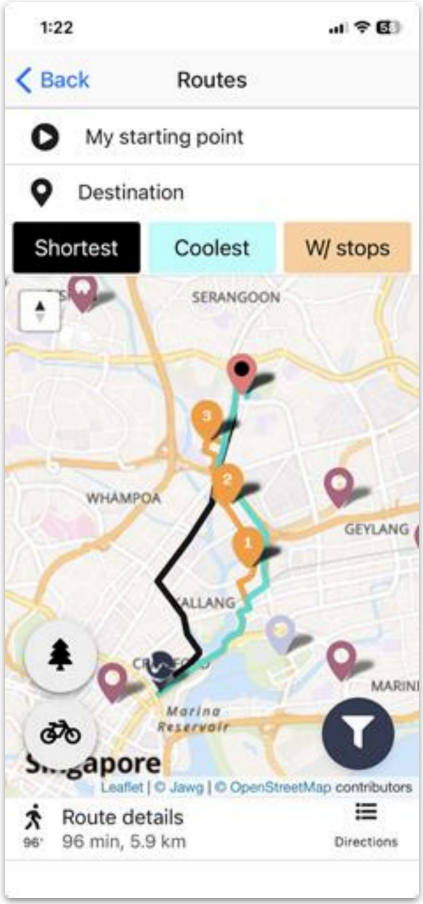
- Add
- Edit
- Remove

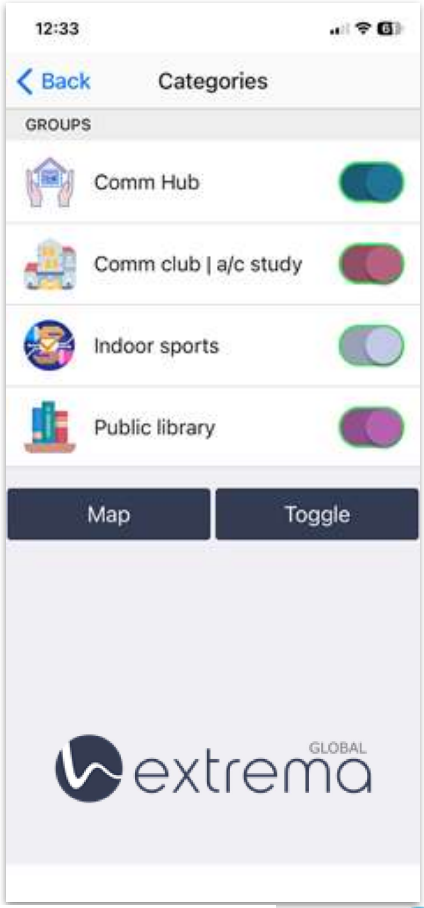
Singapore Demo

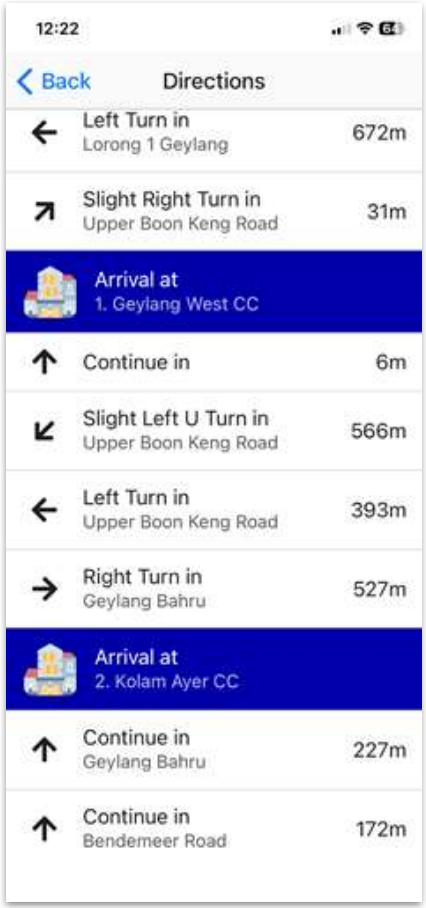
prepared for the Global Cooling Pledge Assembly 2026, 15–18 September 2026







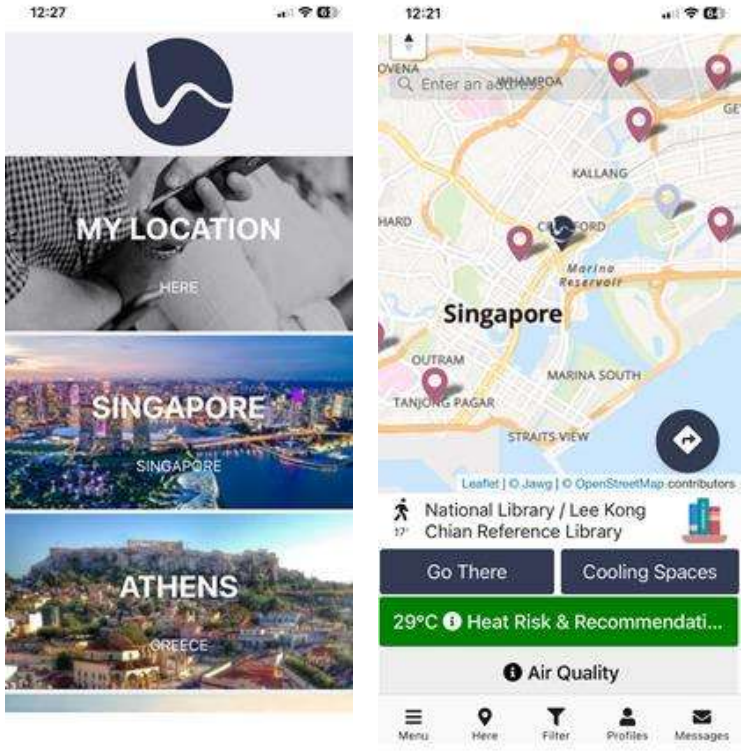




DISCLAIMER: The app provides indicative heat-health risk information and nearby cool places and cool routes via cooling spaces for demonstration purposes only in Singapore. The displayed locations are publicly accessible, air-conditioned facilities and are not currently officially activated cooling centres under Singapore's national heatwave response plan. Information may not reflect current conditions, opening hours or access restrictions. EXTREMA Global does not replace official warnings, public-health guidance or medical advice. Always follow instructions issued by Singapore authorities and seek professional assistance when necessary.

Demo

EXTREMA Global mobile app
SINGAPORE DEMO



Download on the App Store

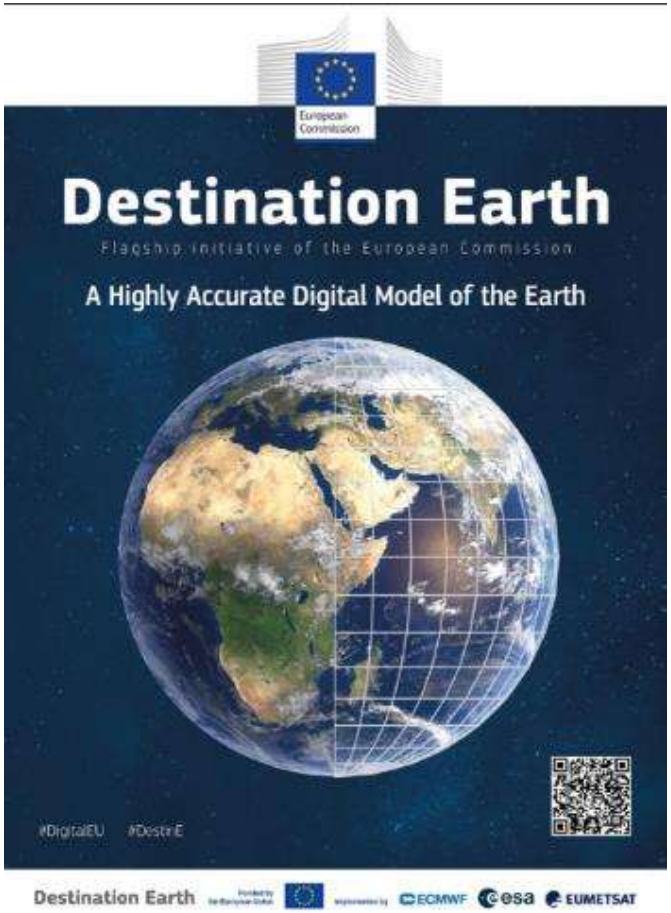
GET IT ON Google Play

https://www.extrema-global.com/

Private Link

extrema GLOBAL

ANNOUNCEMENT



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EXTREMA Global AAS

Advanced Application Service

Contract starts: October 1st, 2026

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esa

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Cool Coalition

Ministry of Sustainability and the Environment SINGAPORE

Case study 5: Cox's Bazar Urban Heat Action Plan



Tanvir Hasan Rezaul

Deputy Town Planner and Project Director,
Cox's Bazar Development Authority (CoxDA),
Bangladesh

UN environment programme | Cool Coalition a UNEP-convened initiative | Ministry of Sustainability and the Environment SINGAPORE

COX'S BAZAR: FROM HEAT ASSESSMENT TO LOCAL URBAN ACTION

Urban Heat Action Plan (UHAP) for Cox's Bazar

CoxDA experience with ESCAP-supported heat assessment, local planning and pilot implementation



SESSION 1C 15:00–16:30

Beat the Heat Training and Study Tour,
Singapore
15–16 September 2026

Presented by:

Md. Tanvir Hasan Rezaul

Deputy Town Planner and Project Director, Cox's Bazar District Master Plan Project

Cox's Bazar Development Authority (CoxDA)

Ministry of Housing and Public Works

Government of the People's Republic of Bangladesh

Cox’s Bazar: a growing coastal tourism hub

The local heat challenge reflects coastal geography, rapid urban growth and an economy that depends heavily on outdoor activity.

Geography and climate

- Bay of Bengal coastal setting
- Hot, humid tropical conditions

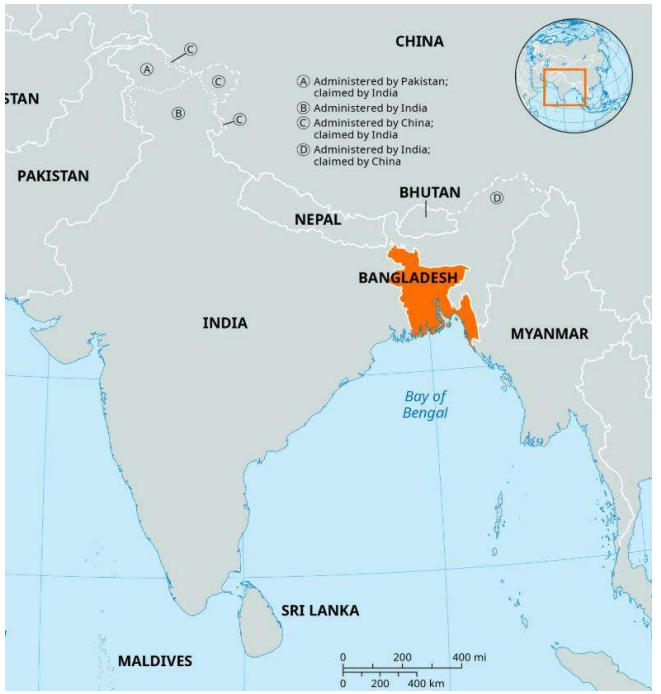
Economy and exposure

- Tourism, fisheries, dry-fish processing and salt production
- Rapid infrastructure growth
- Outdoor workers and seasonal visitors

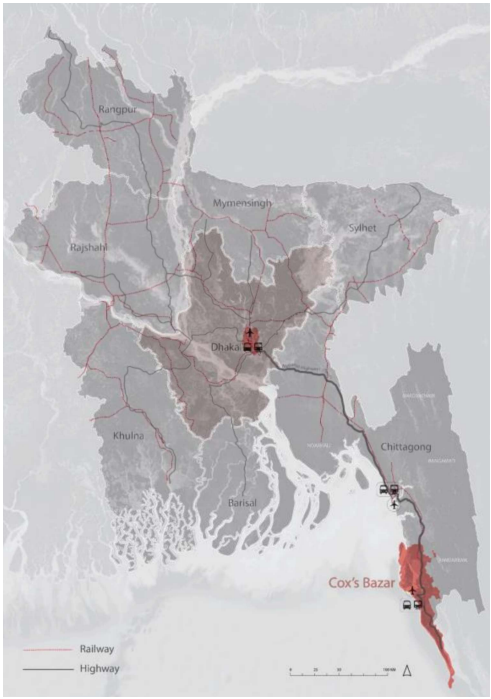
Priority groups

- Low-income and fragile-housing communities
- Older people, children and persons with disabilities
- Indigenous, displaced and host communities

Bangladesh in South Asia



Cox’s Bazar in Bangladesh



Source: Britannica

Heat assessment and evidence priorities

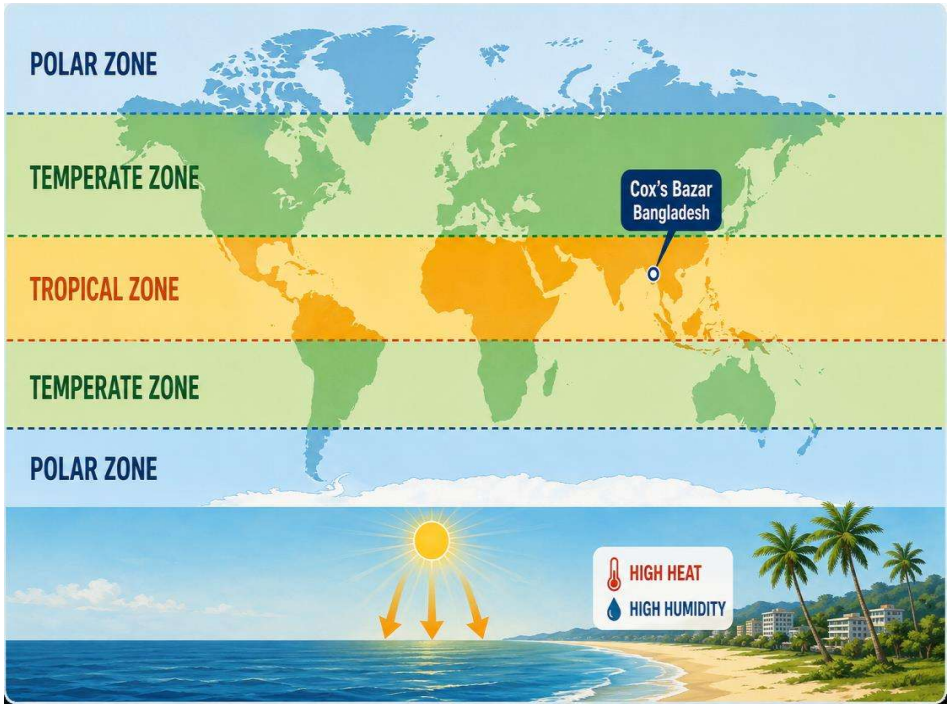
The assessment provides an initial evidence base. The draft UHAP proposes more detailed ward-level mapping and monitoring to target future action.

Humid coastal heat
At 33°C and 80% humidity, the Heat Index can reach approximately 48°C.

Livelihood exposure
Fishing, dry-fish processing, tourism, transport and construction involve prolonged outdoor work.

Evidence gap
No ward-level heat measurements currently exist. The UHAP proposes heat maps for 12 wards and 10 union areas.

Unequal vulnerability
Older people, children, persons with disabilities and low-income households face greater risk.



From heat assessment to a locally owned Urban Heat Action Plan

ESCAP and United Cities and Local Governments Asia-Pacific (UCLG-ASPAC) supported CoxDA and local partners to connect heat evidence with implementation priorities.

1

Technical assessment
Heat, vulnerability and institutional evidence

2

Stakeholder engagement
Local institutions, communities and occupational groups

3

Action planning
Eight intervention areas and phased priorities

4

Pilot preparation
Local preparedness, communication and cooling measures

Local ownership
CoxDA, the Pourashava, national counterparts, sector agencies and community groups have complementary roles in validation and future implementation.

Proposed heat alert and emergency response system

The draft UHAP proposes a locally calibrated system for endorsement, technical validation and operationalization.

Proposed Heat Index alert levels

- Yellow: Heat Index at least 40°C for two days
- Orange: Heat Index at least 45°C
- Red: Heat Index at least 50°C
- Provisional WBGT Red trigger: at least 33°C at monitored sites
- Technical validation and annual review required

Dissemination and protective action

- Daily temperature and humidity data from BMD
- Ward, union and mosque announcements
- Coast Guard VHF radio for fishing vessels
- BFDC Jetty and health-sector notifications
- Alerts activate cooling, health and worker protection

BMD data informs local alerts and protective action

Community preparedness and local implementation

Local institutions and communities connect the Urban Heat Action Plan with protective action during extreme heat.

Community response

- Use public spaces and existing facilities for shade, water and temporary cooling
- Prioritize workers and communities with high outdoor heat exposure

Capacity building

- Orient institutional focal points and Red Crescent volunteers
- Prepare simple guidance for cooling-station operation, first aid and referral

Heat communication

- Share clear heat-health messages through posters and local channels
- Reinforce hydration, shade, work-rest timing and signs of heat illness

LOCAL PREPAREDNESS

COMMUNITY RESPONSE → CAPACITY → COMMUNICATION

Pilot package under preparation

CoxDA is moving from planning toward early implementation with support from ESCAP and UCLG ASPAC.

Heat awareness
500 outdoor-grade posters

Cooling stations
Equipment for four educational institutions

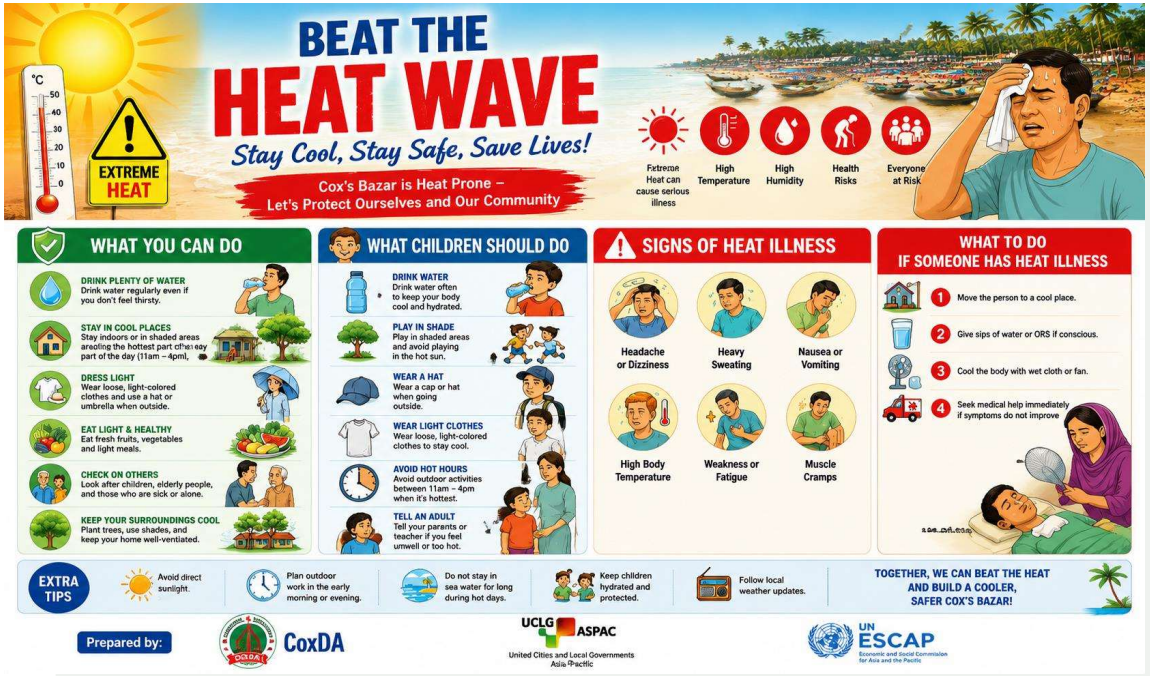
Dry-fish workers
Water filters and sun-protection hats or mathals

Public shade
One demonstration structure

Red Crescent support
Megaphones and emergency health kits

Pilot examples: heat awareness and cooling stations

Two complementary measures will support public communication and access to temporary cooling.



Illustrative poster design; final materials will be produced in Bangla





Possible sites include educational facilities that can provide water, fans, basic first aid and heat information.

Dry-fish worker protection

Targeted support for one of Cox’s Bazar’s major outdoor livelihood groups.





Nazirertek Dry-Fish Area (Shutki Polli)



INTERVENTION

Nazirertek dry-fish community

PURPOSE / SCOPE

50 water filters + 300 sun-protection hats / mathals

Public shade and Red Crescent support

The pilot combines a demonstration canopy with volunteer response equipment.



Illustrative design



PUBLIC SHADE

One demonstration canopy

RED CRESCENT SUPPORT

Megaphones and emergency health kits for volunteers

Next steps for institutionalizing heat resilience

The draft UHAP provides a proposed roadmap, subject to endorsement, institutional confirmation and available resources.

1 Endorse and integrate the UHAP

- Seek formal institutional endorsement
- Integrate heat priorities into the District Master Plan and DAP
- Translate priorities into development review, public-space standards and investment planning

2 Operationalize, learn and adapt

- Establish institutional roles and data-sharing arrangements
- Test the alert system and pilot measures
- Use monitoring and peer learning to refine effective approaches before wider scaling

ENDORSEMENT → IMPLEMENTATION → LEARNING → SCALE

Key takeaways

Cox's Bazar is building a locally grounded pathway from heat evidence to planning and early implementation.

1 Coastal humidity changes the risk	Heat Index can show physiological stress that dry-bulb temperature alone may understate.
2 Evidence must become more local	Ward-level mapping and monitoring can guide investment and alert calibration.
3 Institutions and communities shape the plan	Local government, sector agencies and community groups have complementary roles.
4 Pilots can test the wider system	Preparedness measures can generate lessons for implementation of the UHAP.

THANK YOU

