

Eleven Warmest Years, One Persistent Gap

Global Heat Forum

WMO Secretary-General Prof. Celeste Saulo

Tuesday 6 October 2026 | Bangkok



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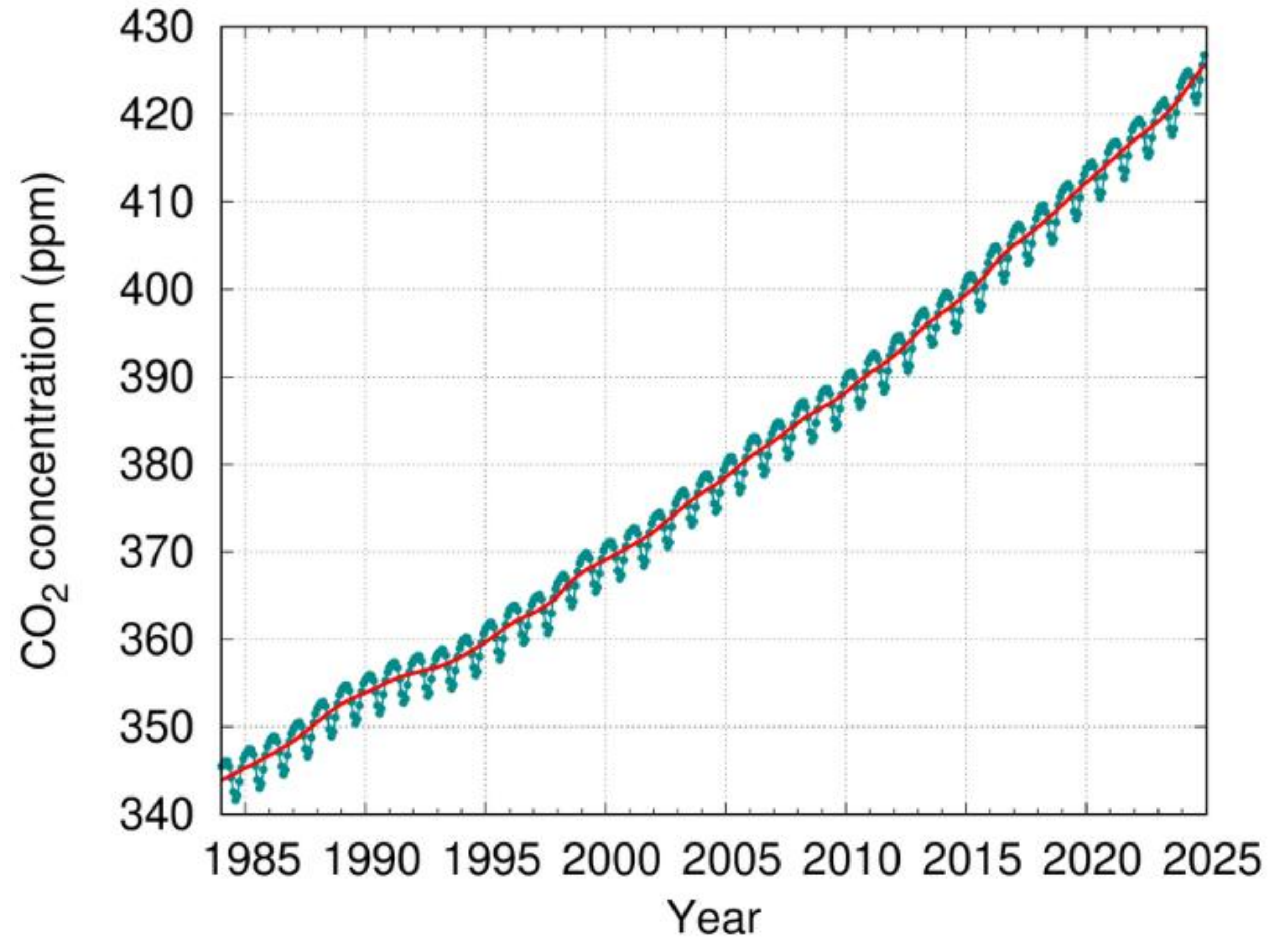
A cityscape of Bangkok, Thailand, on a hot and humid day. (Photo Illustration: [Peggy Anke](#) on Unsplash)

The warmest eleven years humanity has measured

Figure 2. Annual global mean temperature anomalies relative to a pre-industrial (1850–1900) baseline shown from 1850 to 2025

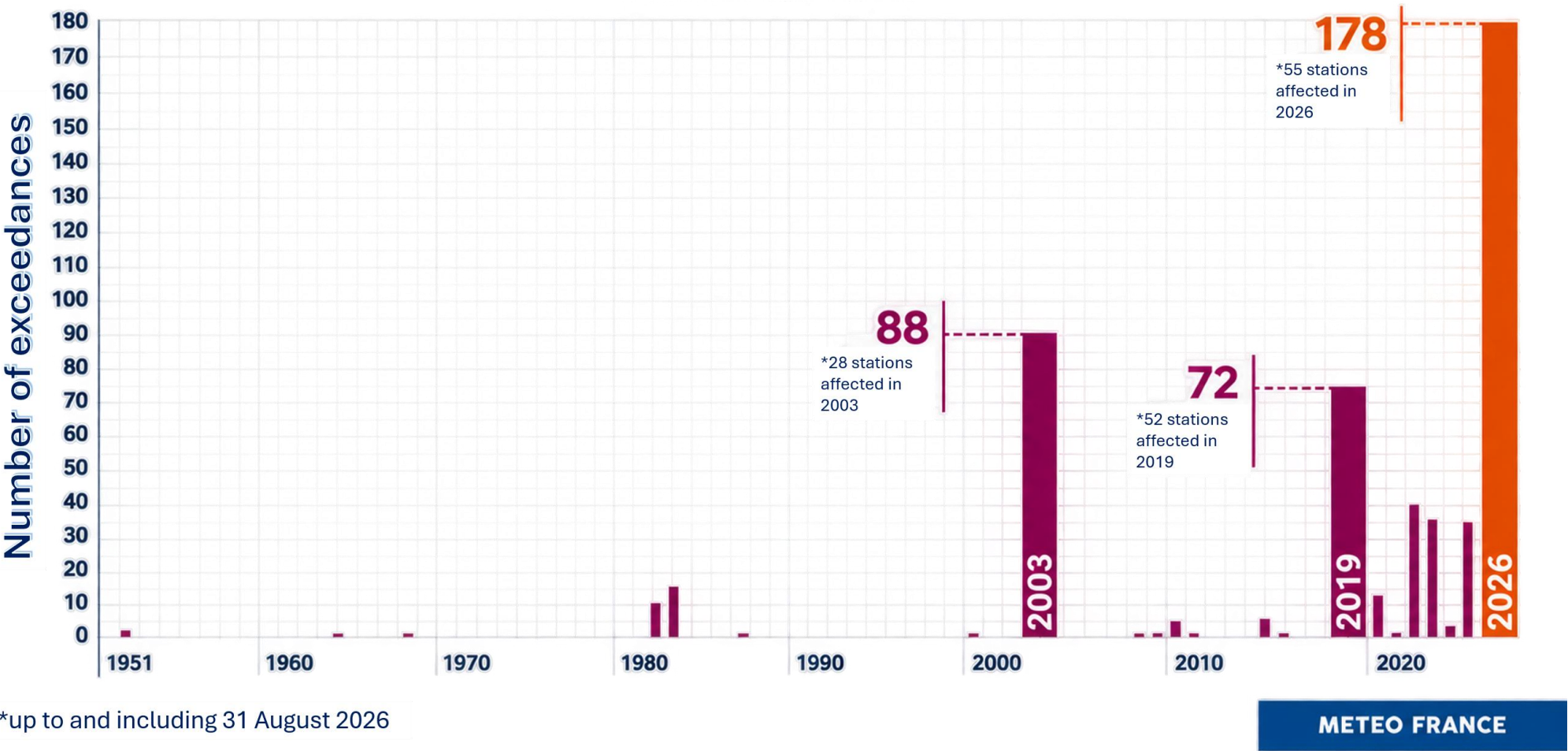
Source: Data are from the datasets indicated in the legend. For details see Datasets and methods.

**The driver is not
a mystery**



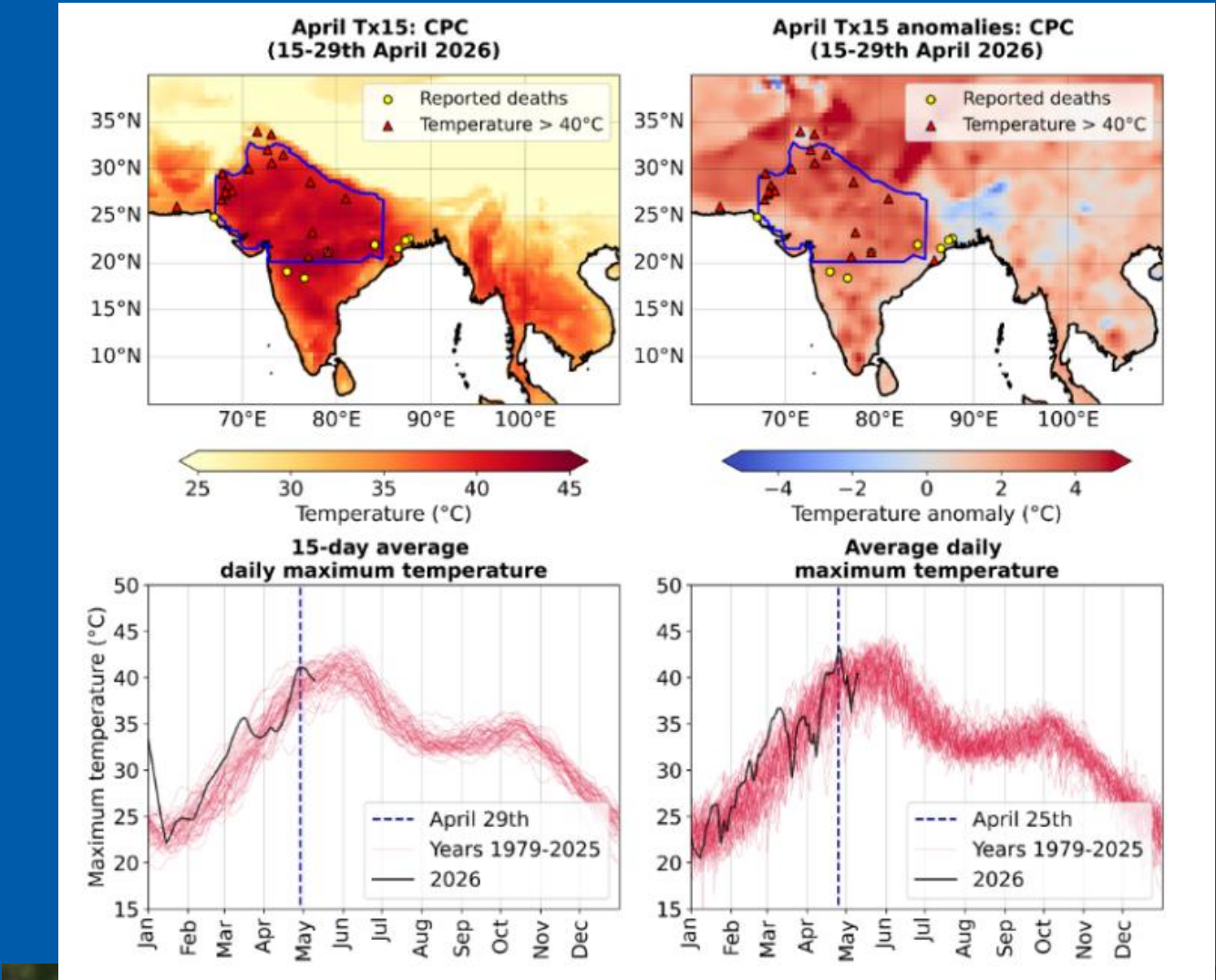
40°C THRESHOLD EXCEEDANCES FROM 1951 TO 2026*

Météo France main network (about 120 stations)



Source https://www.linkedin.com/posts/meteo-france_bilan-climatique-cet-%C3%A9t%C3%A9-2026-est-activity-750302086088312832-7vO7?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAZImBAB8ljxlO3HKrkiWKanLgVgKhmkLhM

The Future of Heat Is Already Being Written — and Suffered



People cover their heads and carry fans in Delhi during temperatures in excess of 40°C. Image: Flickr/InOldNews

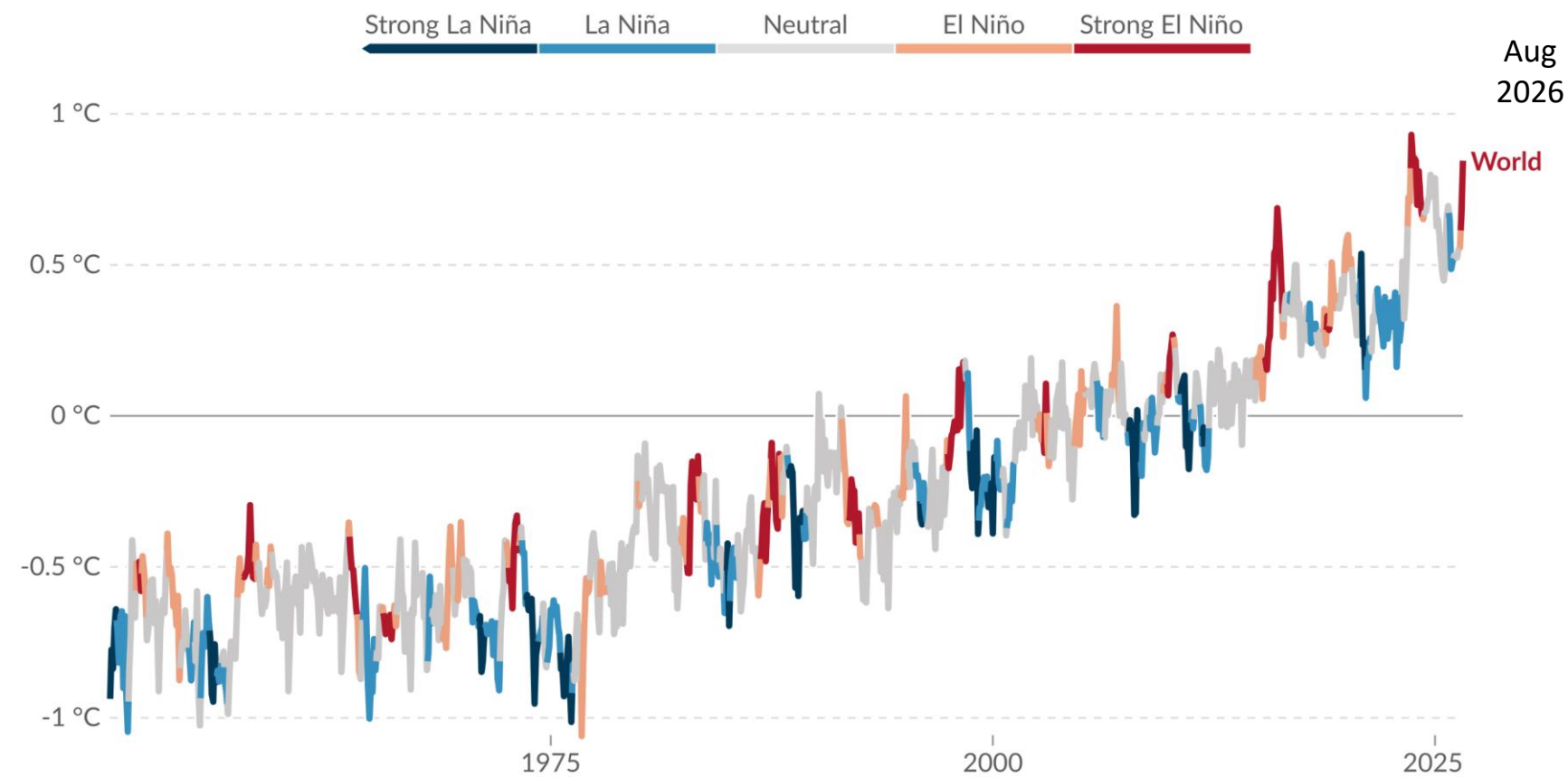
Source: <https://www.worldweatherattribution.org/climate-change-exposes-hundreds-of-millions-to-longer-and-deadlier-pre-monsoon-heat-in-south-asia/>

What comes next, and what this year's El Niño is actually doing

Global temperature anomalies by El Niño and La Niña conditions

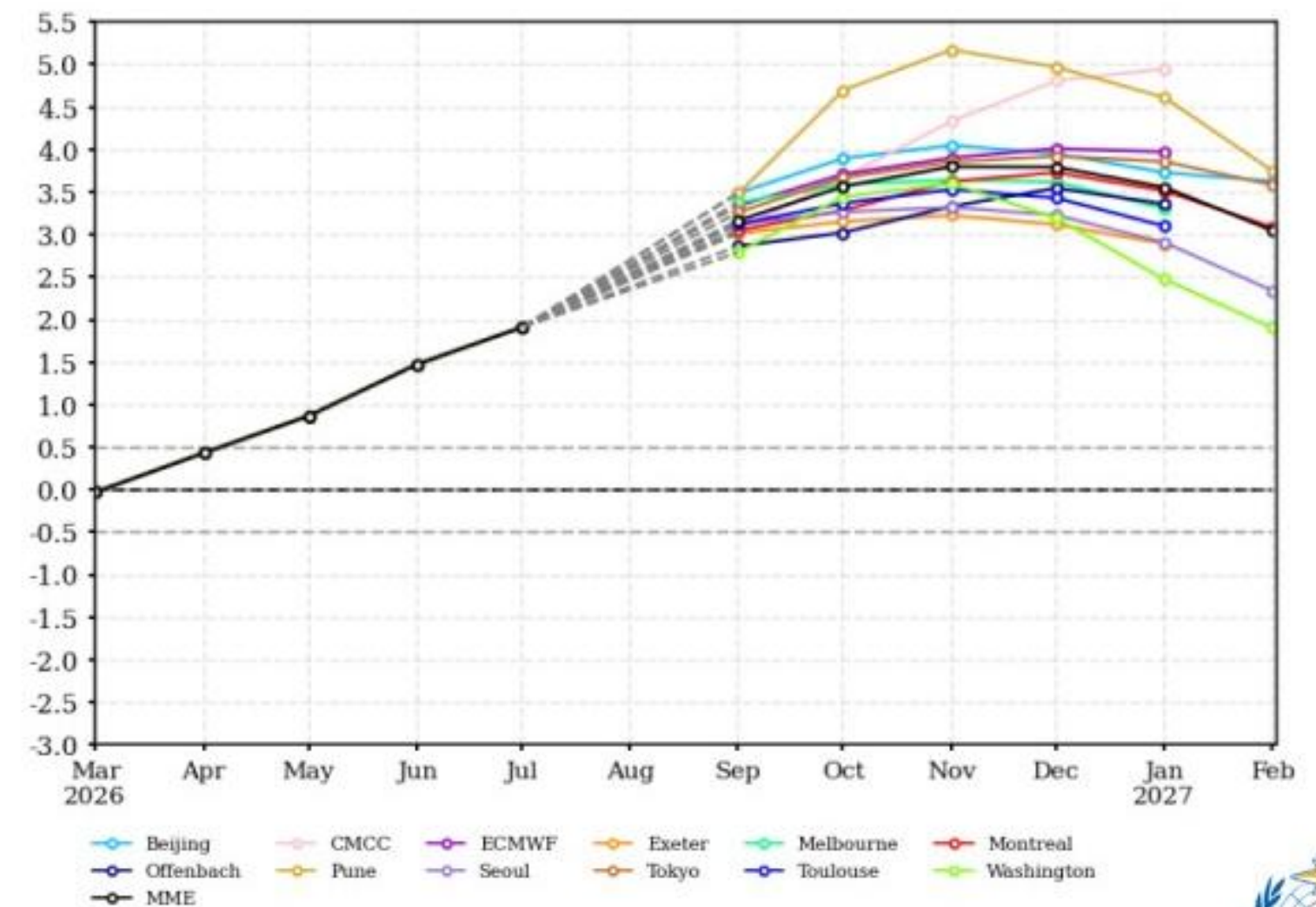
Our World in Data

The difference between a month's average land-sea surface temperature and the 1991–2020 average of the same month, measured in degrees Celsius. It is classified as El Niño¹ or La Niña² based on the Oceanic Niño Index, which tracks warming or cooling patterns in the central Pacific Ocean.



Data source: Contains modified Copernicus Climate Change Service information (2026); NOAA National Centers for Environmental Information (2026)

OurWorldinData.org/climate-change | CC BY



Forecast of Niño 3.4 SST anomalies from leading global producing centres for the central and eastern equatorial Pacific. Issued Aug 2026

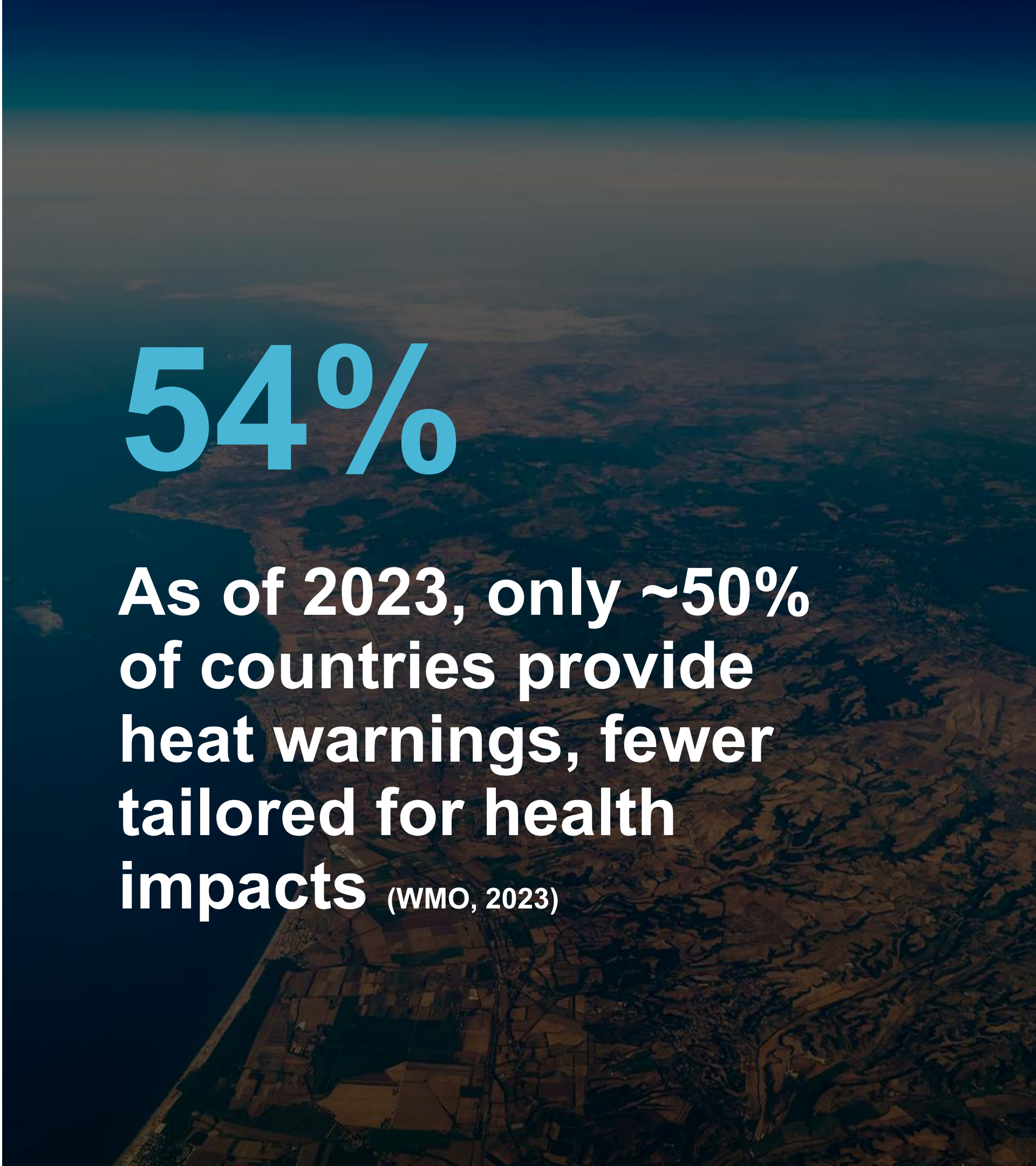


2.4b

**2.4 billion people,
70% global workforce
face workplace heat
risk at some point
every year** (ILO, 2024)



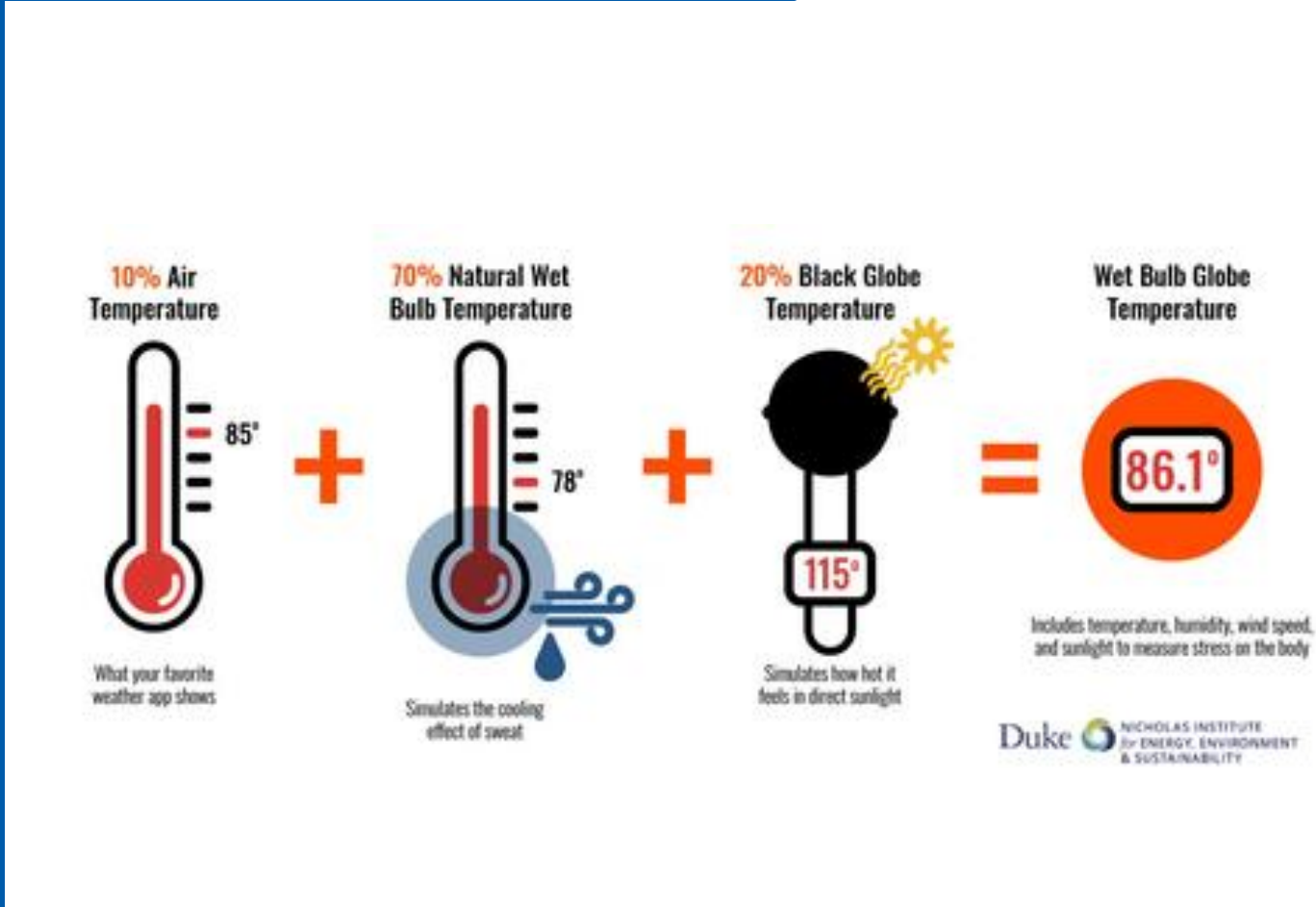
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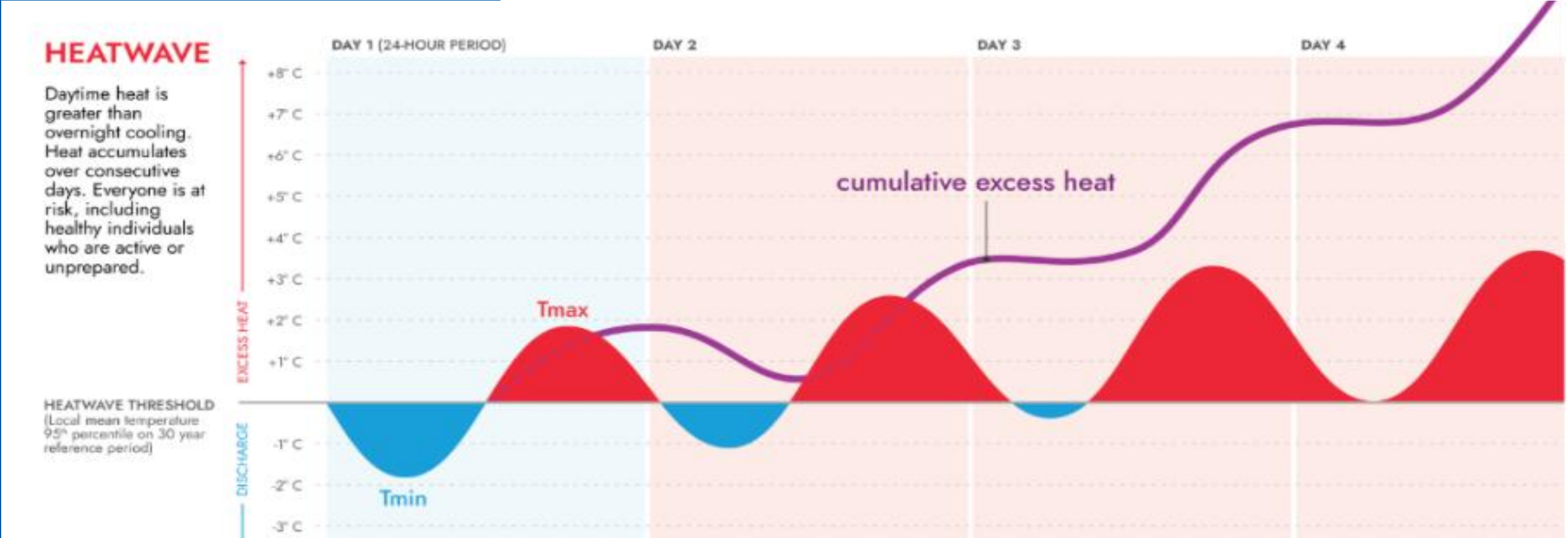
54%

**As of 2023, only ~50%
of countries provide
heat warnings, fewer
tailored for health
impacts** (WMO, 2023)

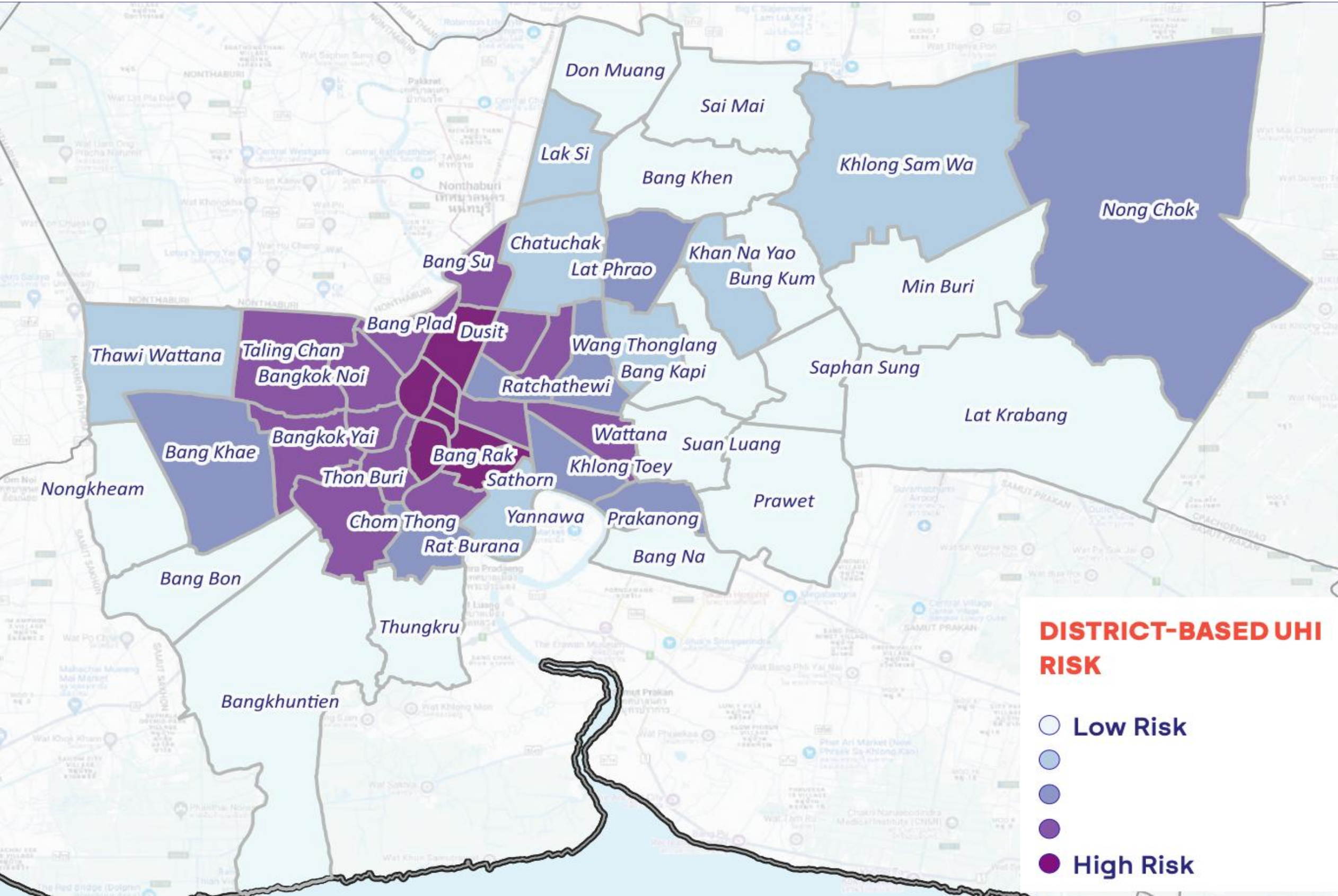
A multitude of heat indices, and why one warning size never fits all



Feature / Metric	Singapore (Standard Outdoor WBGT)	Hong Kong Heat Index (HKHI)
Mathematical Formula	$(0.7T_{nw} + 0.2T_g + 0.1T_d)$	$(0.80T_{nw} + 0.05T_g + 0.15T_d)$
Humidity Weight (T_{nw})	70% (Natural Wet Bulb)	80% (Natural Wet Bulb) – Highest priority
Radiant Heat / Solar Weight (T_g)	20% (Black Globe Temperature)	5% (Black Globe Temperature) – Minimally weighted
Ambient Air Temp Weight (T_d)	10% (Dry Bulb Temperature)	15% (Dry Bulb Temperature)
Core Scientific Basis	Biophysical human heat balance and sweat evaporation limits.	Correlation with historical local hospitalization and emergency admission rates.



Cities keep and release heat after dark

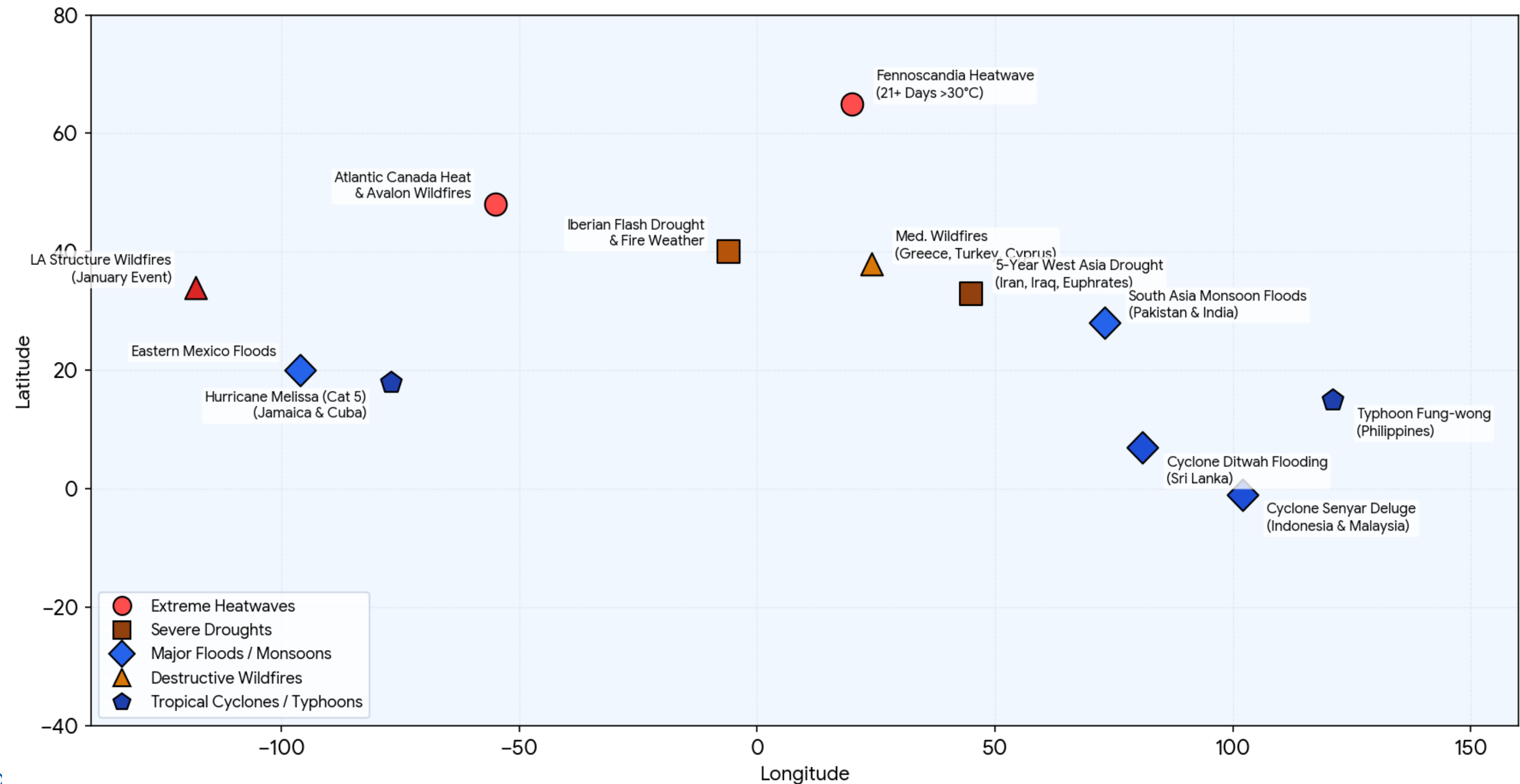


Heat risk classification for Bangkok districts.

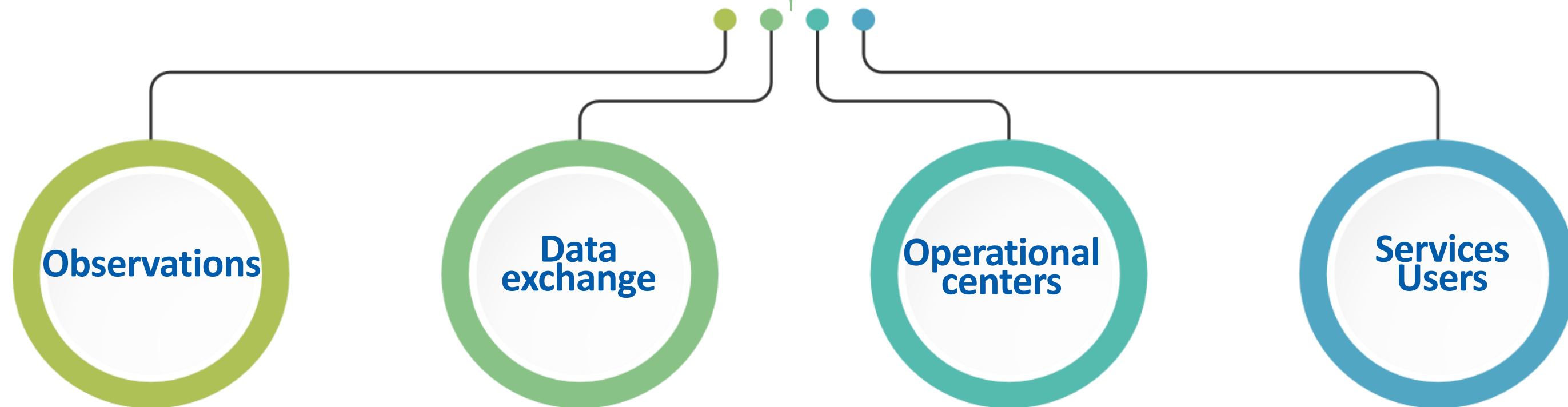
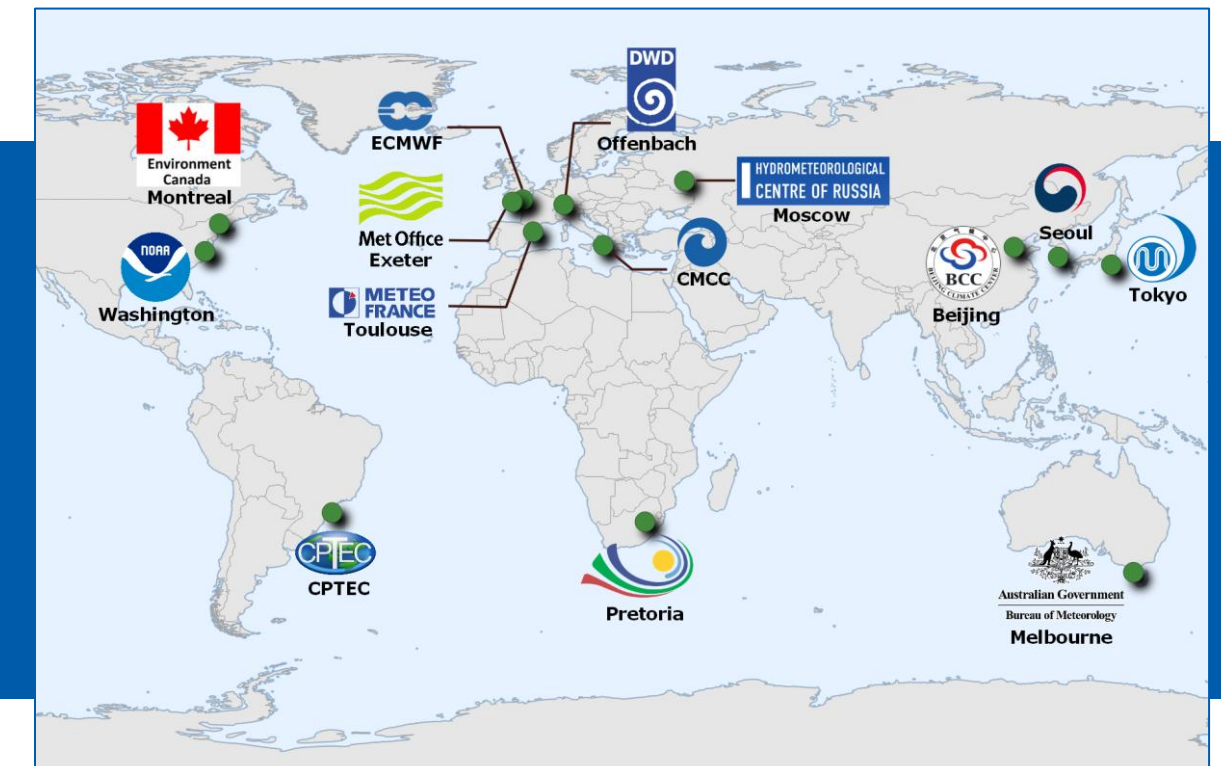
Note: The map presents a heat risk index for districts of Bangkok. The index is calculated as a weighted average of Urban Heat Island intensity together with density of vulnerable population groups (elderly and young children). Source: World Bank staff calculations.

When hazards arrive together

WMO Supplement: Key Concurrent Climate Extremes (2025)



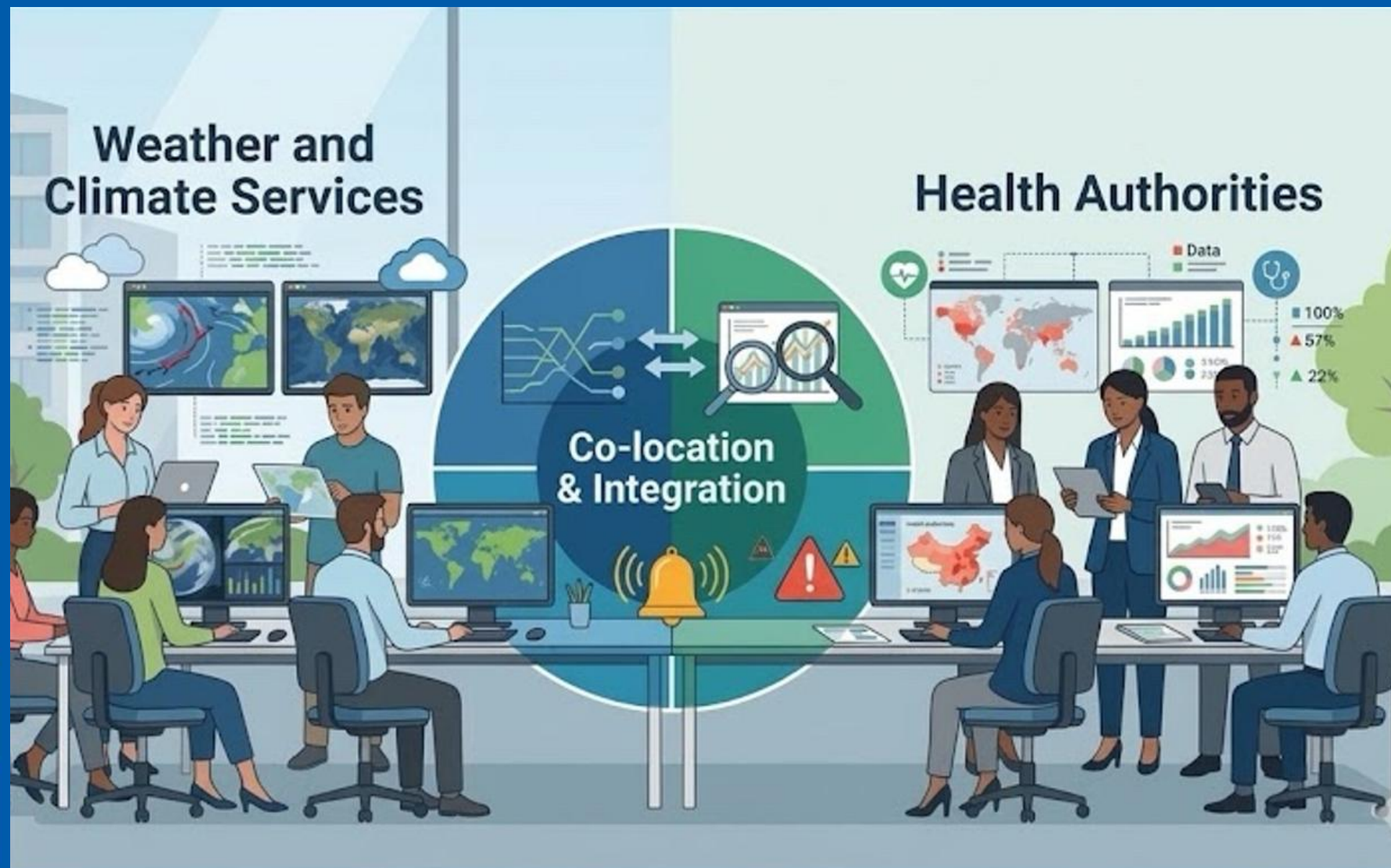
The invisible infrastructure



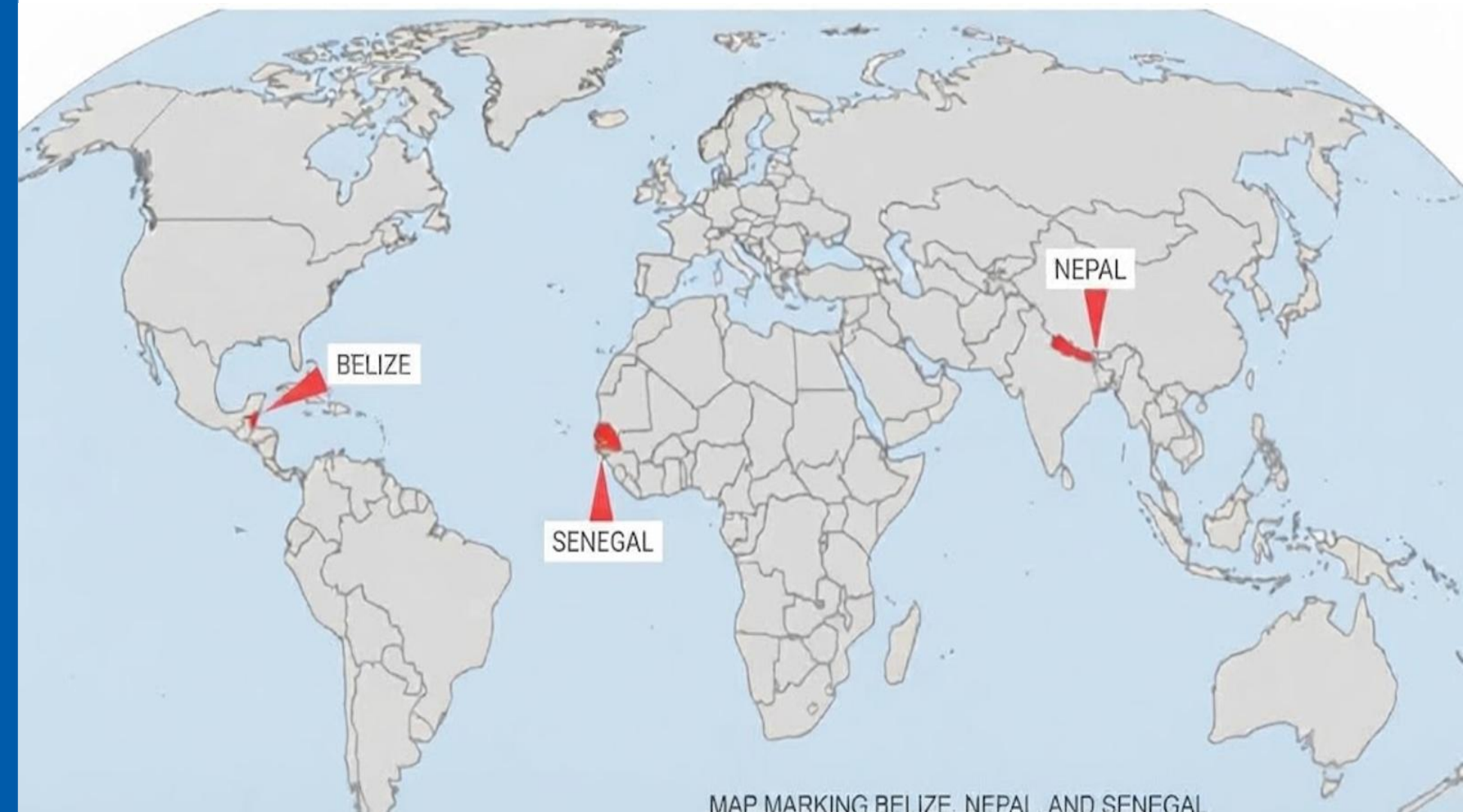
Behind every forecast, every climate assessment, every early warning, there is a collective architecture. No single institution produces a forecast. The architecture does.

Science, Service, Governance — Together

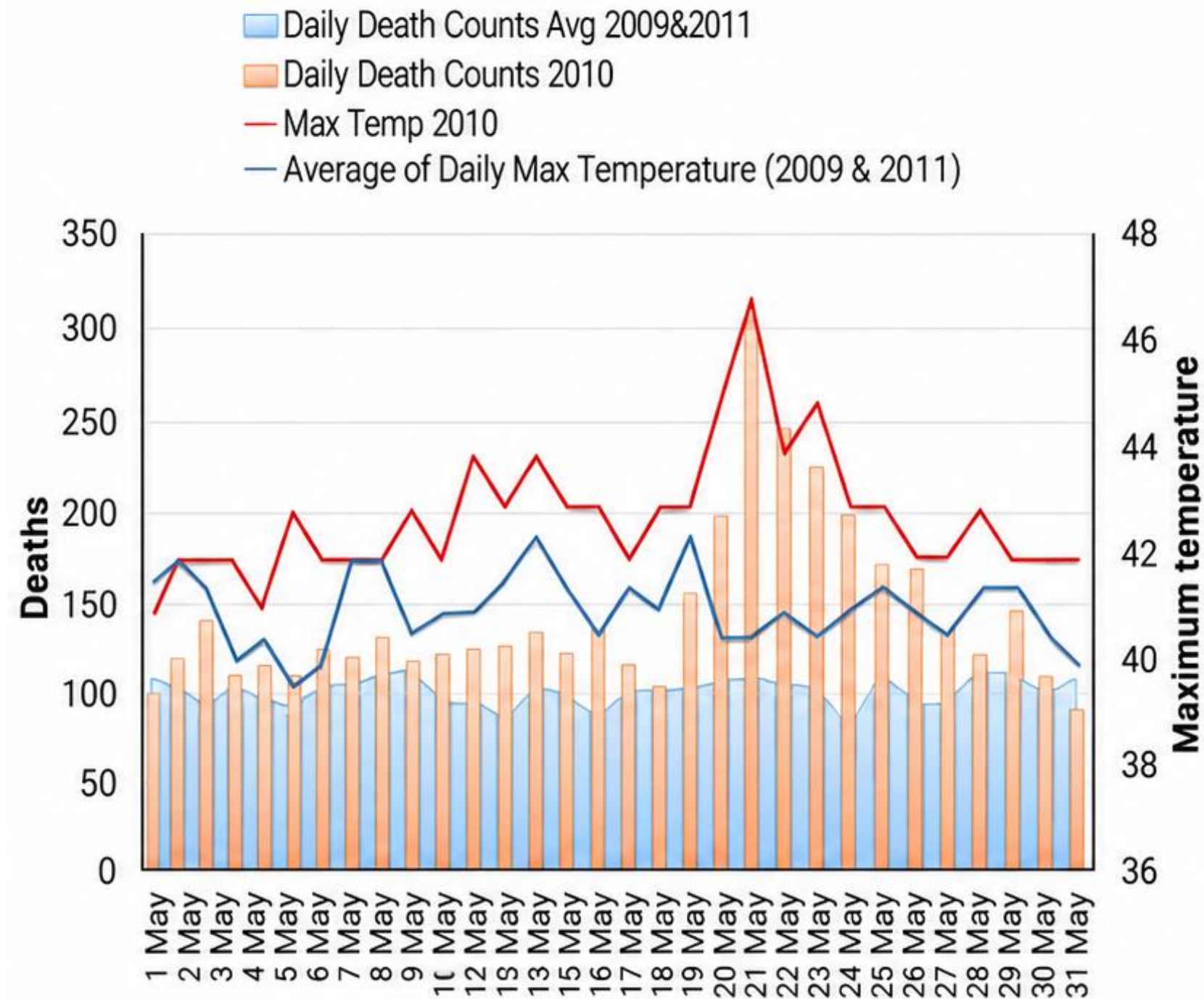
Climate and Health Desks



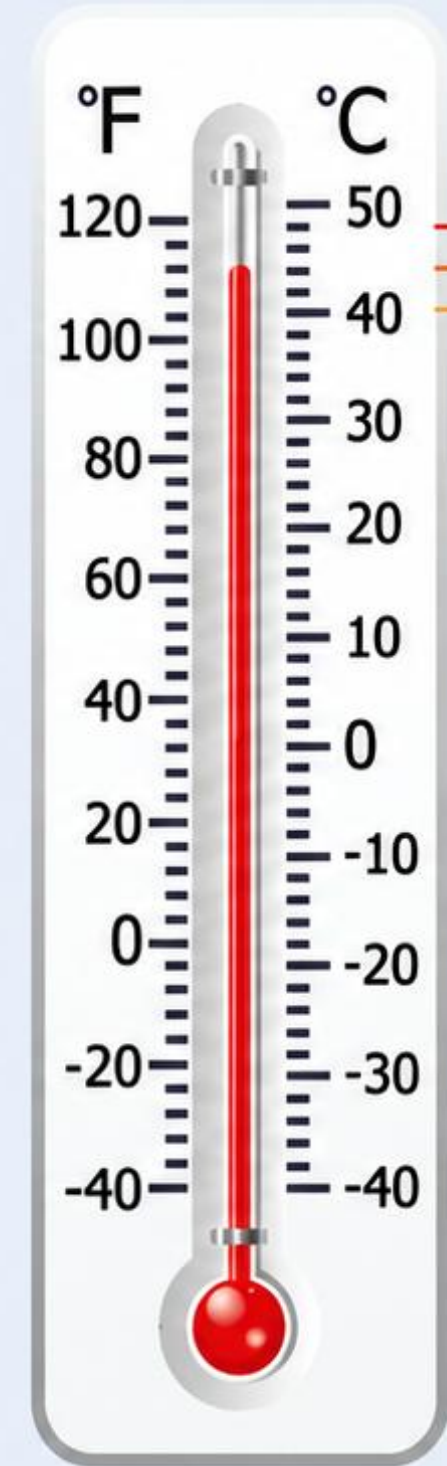
Heat Governance Pilot Countries



Proof heat warnings and plans work



DAILY MAXIMUM TEMPERATURE



AHMEDABAD, A MAJOR INDIAN CITY, HAS AVOIDED MORE THAN **1,100 DEATHS ANNUALLY** SINCE THE CITY IMPLEMENTED SOUTH ASIA'S FIRST-EVER HEAT ACTION PLAN IN 2013.

TEMPERATURE THRESHOLD

- $\geq 45^{\circ}\text{C}$: 600+ deaths avoided
- 43–44.9°C: 300+ deaths avoided
- 41–42.9°C: 200+ deaths avoided



Since 2013, 23 states and over 100 cities and districts across India are developing and implementing life-saving heat action plans.

Authors: Jeremy J Hess, Sathish LM, Kim Knowlton, Shubhayu Saha, Priya Dutta, Parthasarathi Ganguly, Abhiyanti Tiwari, Anjali Jaiswal, Perry Sheffield, Jayanta Sarkar, SC Bhan, Amit Begda, Tejas Shah, Bhavin Solanki, and Dileep Mavalankar

Hess JJ, et al. 2018. Building resilience to climate change: pilot evaluation of the impact of India's first Heat Action Plan on all-cause mortality. *Journal of Environmental and Public Health*, vol. 2018. Article ID 7073598 (6 pp.). <https://doi.org/10.1155/2018/7073598>.

Thank you.



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