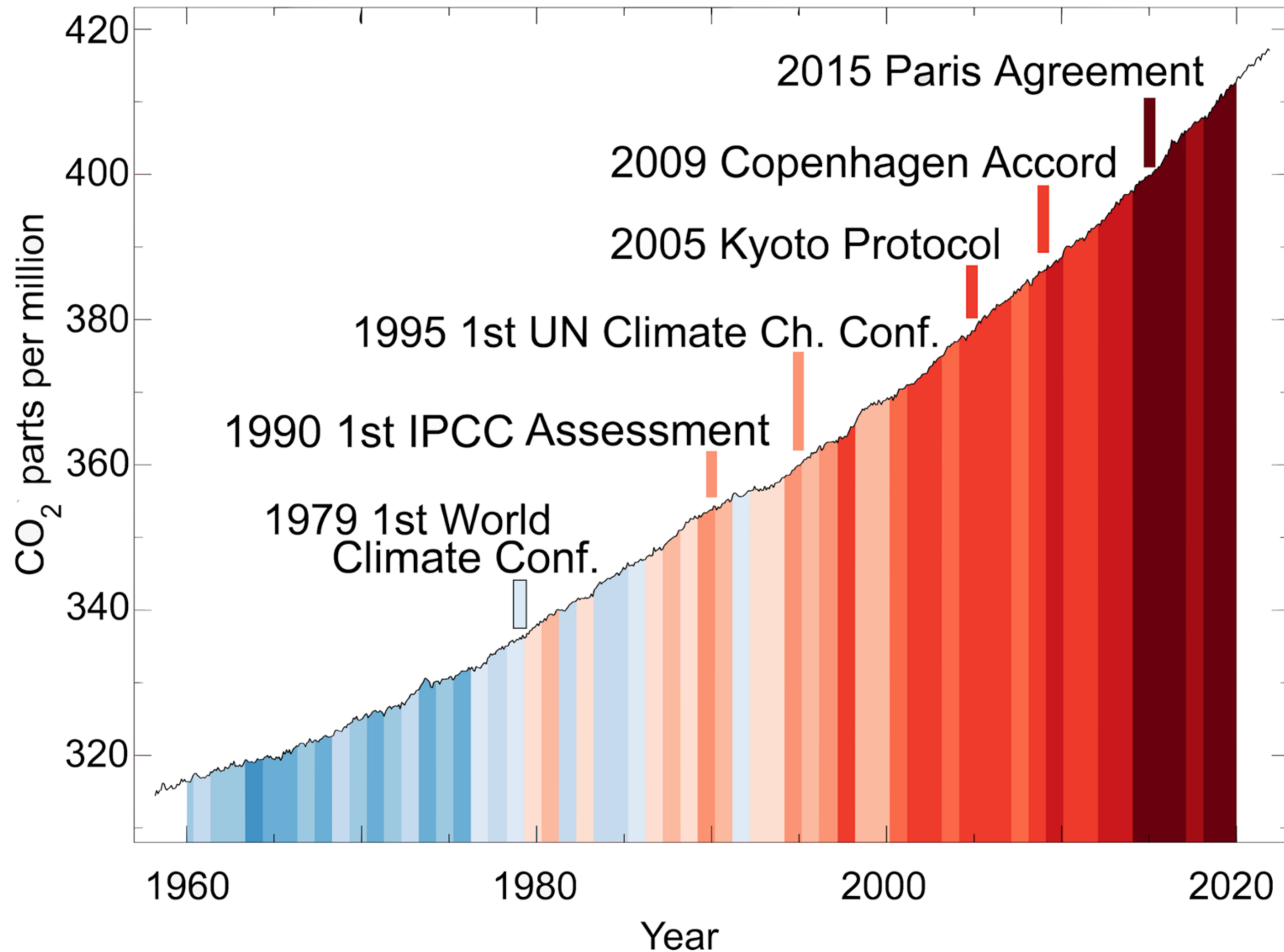


# CO<sub>2</sub> and global temperatures rise despite promises

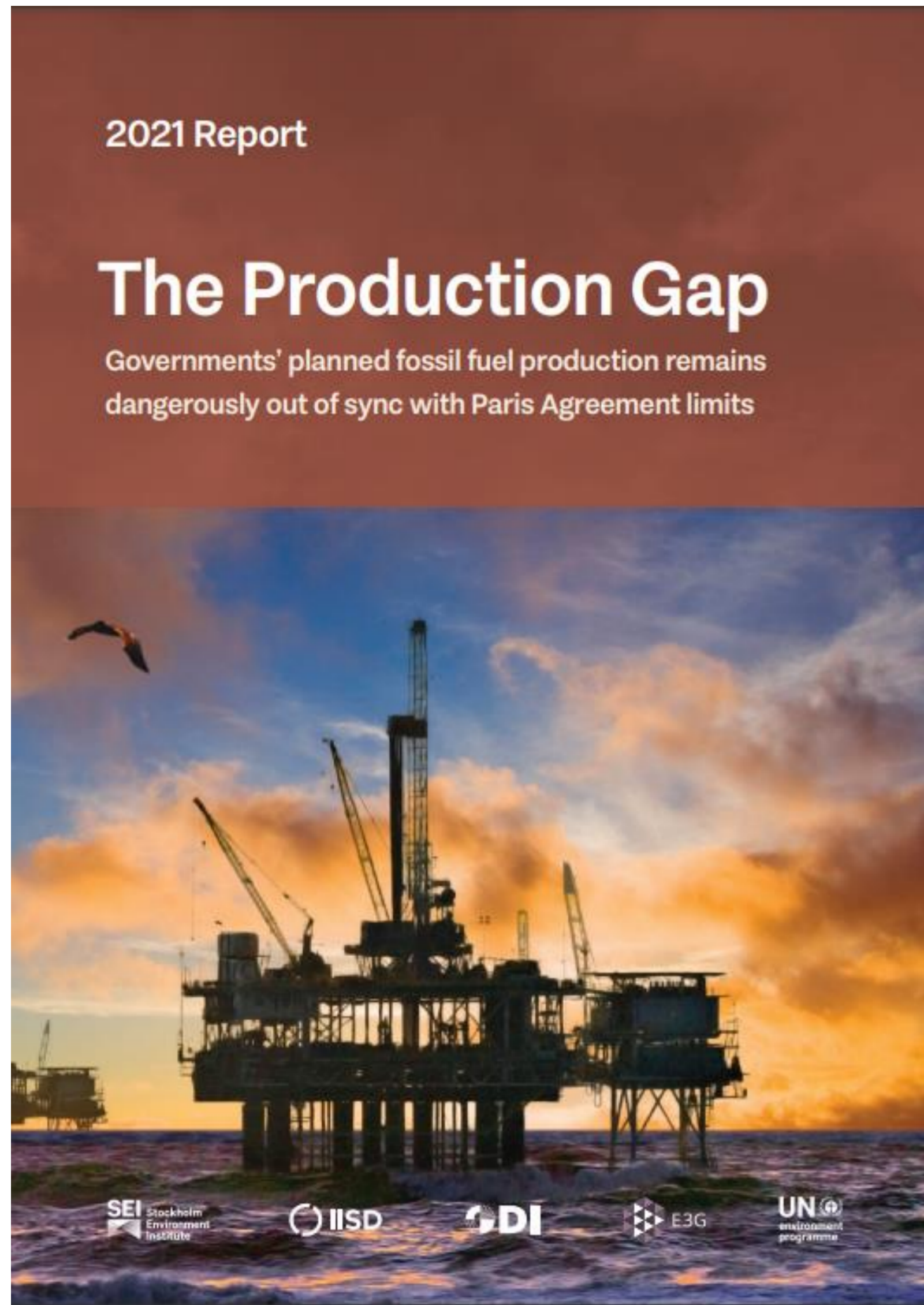


From Wikimedia Commons

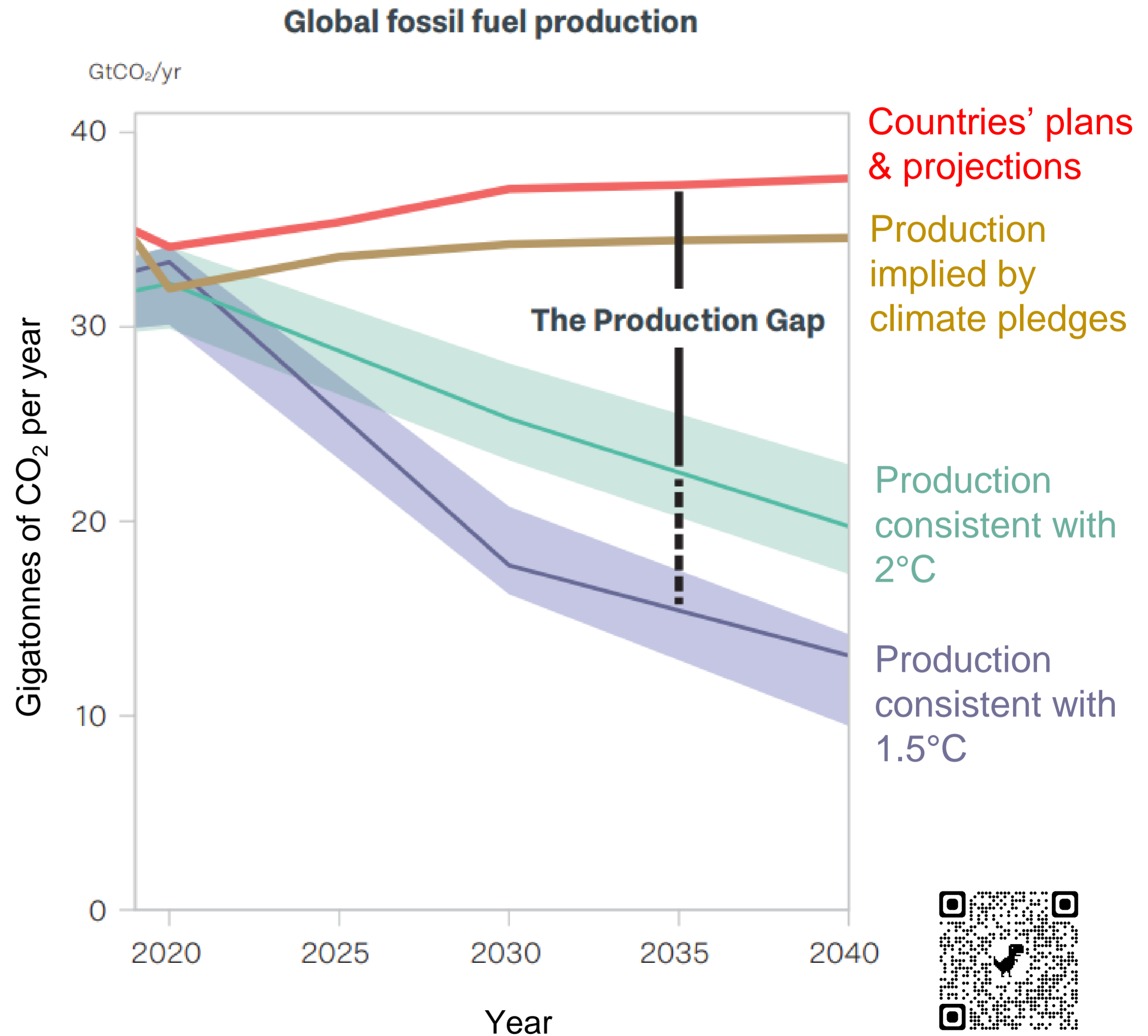
Attribution/reference:

@MuellerTadzio, @wiebkemarie, @MariusHasenheit, @sustentioEU

# Production exceeds promised reduction

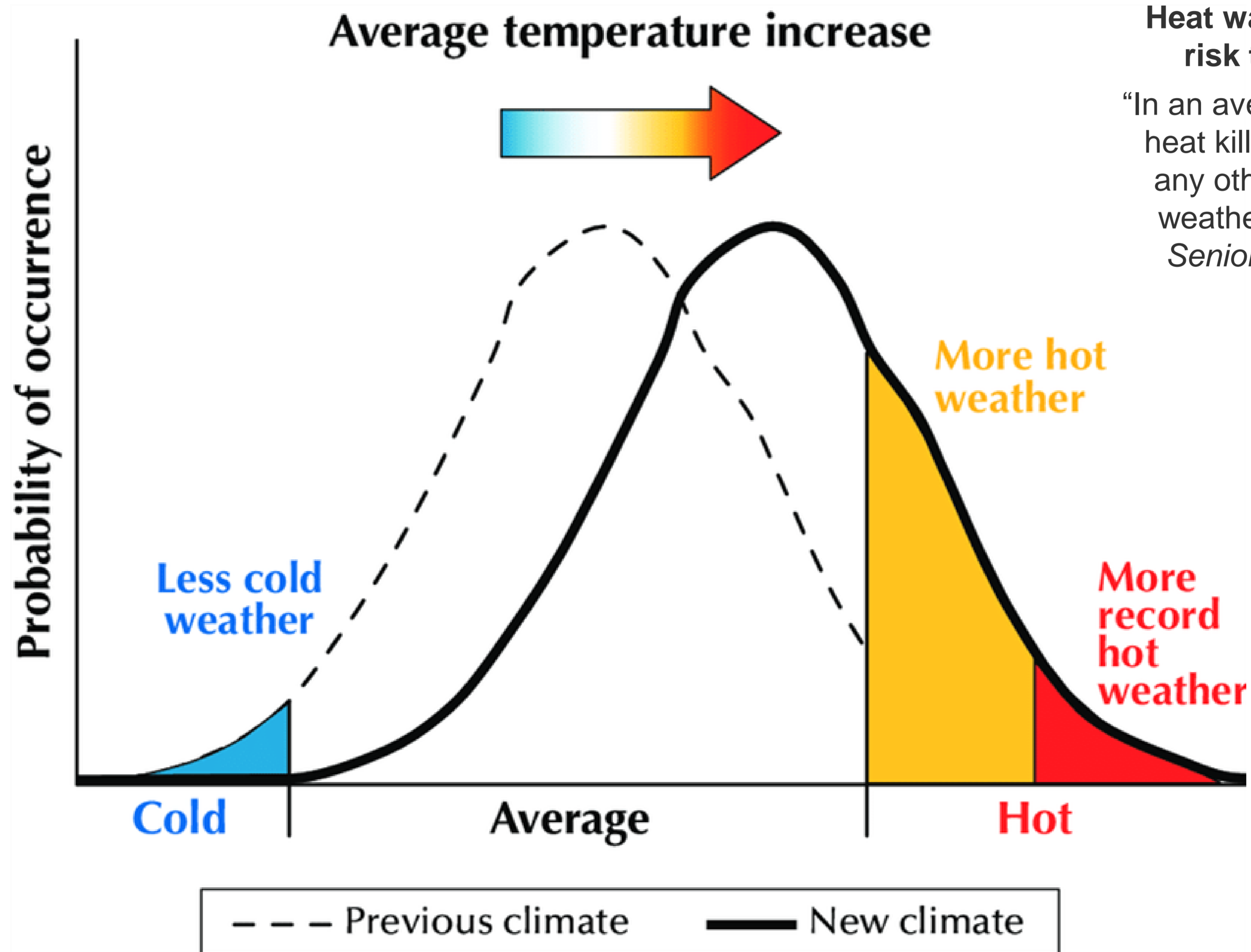


1 Gigatonne = 1,000,000,000 tonnes



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# Higher average temperatures make extreme hot weather more likely



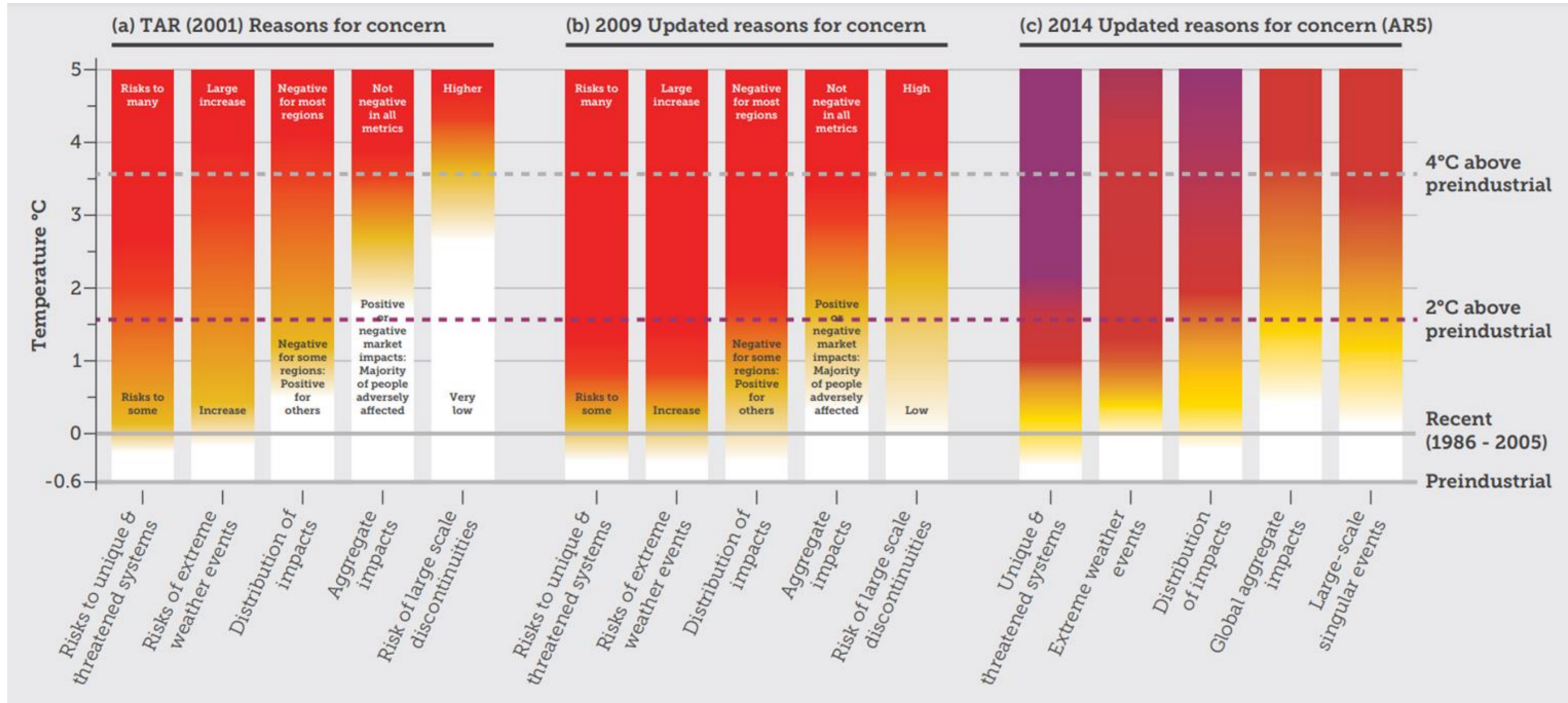
Heat waves pose a major risk to public health

“In an average year in the US, heat kills more people than any other type of extreme weather” *Kristina Dahl, Senior Climate Scientist*



Scan for explanation of models

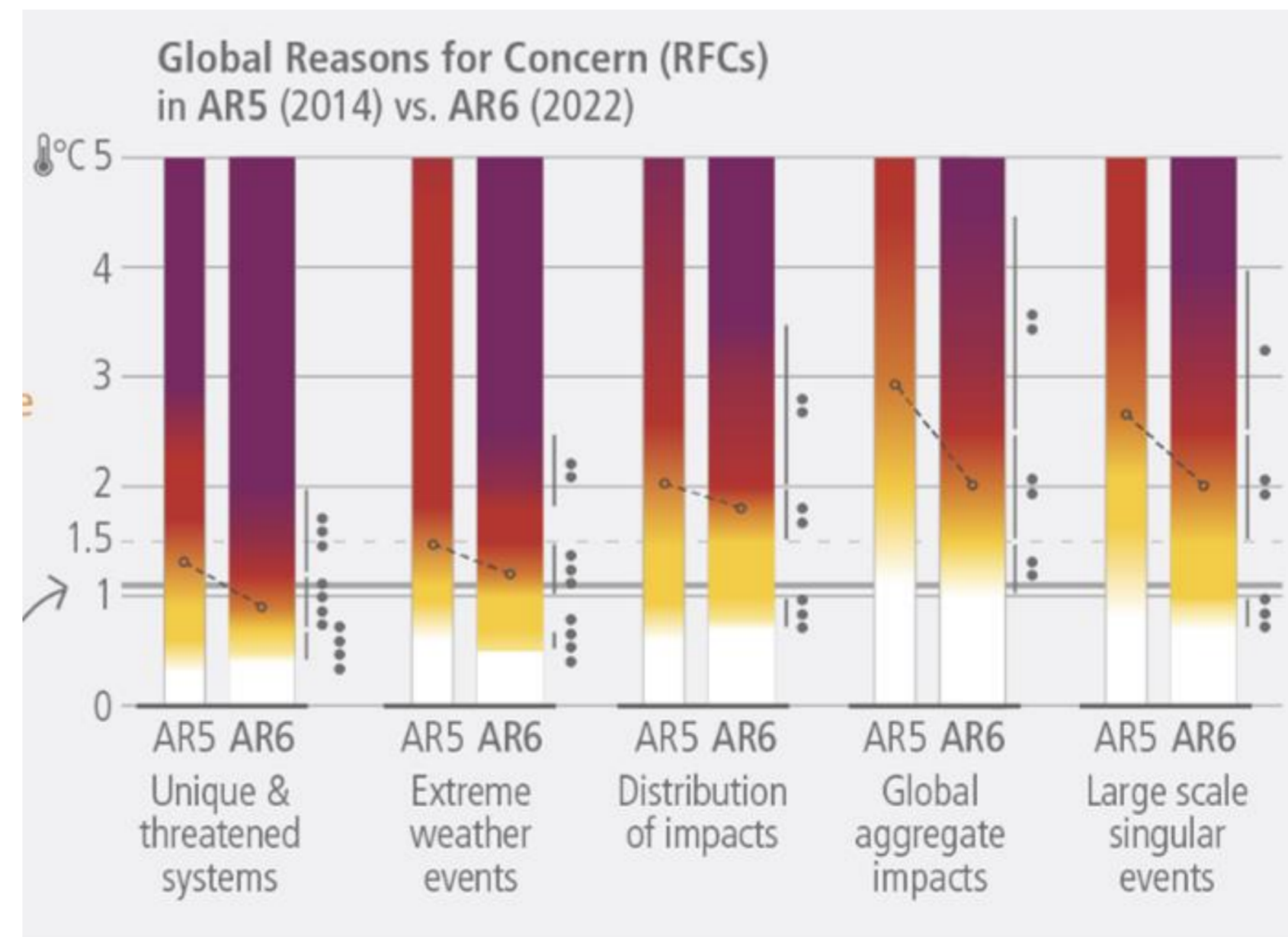
# Overall risks and impacts turn to high, faster than anticipated



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- Unique and threatened systems** Risks to ecological and human systems, such as coral reefs, the Arctic and its Indigenous People, mountain glaciers and biodiversity hotspots.
- Extreme weather events** Impacts to human health, livelihoods, assets and ecosystems from extreme weather events such as heatwaves, heavy rain, drought and associated wildfires, and coastal flooding.
- Distribution of impacts** Aggregated risks/impacts that disproportionately affect particular groups, such as vulnerable societies and socio-ecological systems, including disadvantaged people and communities in countries at all levels of development, due to uneven distribution of physical climate change hazards, exposure or vulnerability.
- Global aggregate impacts** Impacts to socio-ecological systems that can be aggregated globally into a single metric, such as monetary damages, lives affected, species lost or ecosystem degradation at a global scale.
- Large-scale singular events** Relatively large, abrupt and sometimes irreversible changes in systems caused by global warming, such as ice sheet disintegration or thermohaline circulation slowing and sometimes called tipping points or critical thresholds.



risk is the potential for adverse consequences

- Risk/impact**
- Very high
  - High
  - Moderate
  - Undetectable

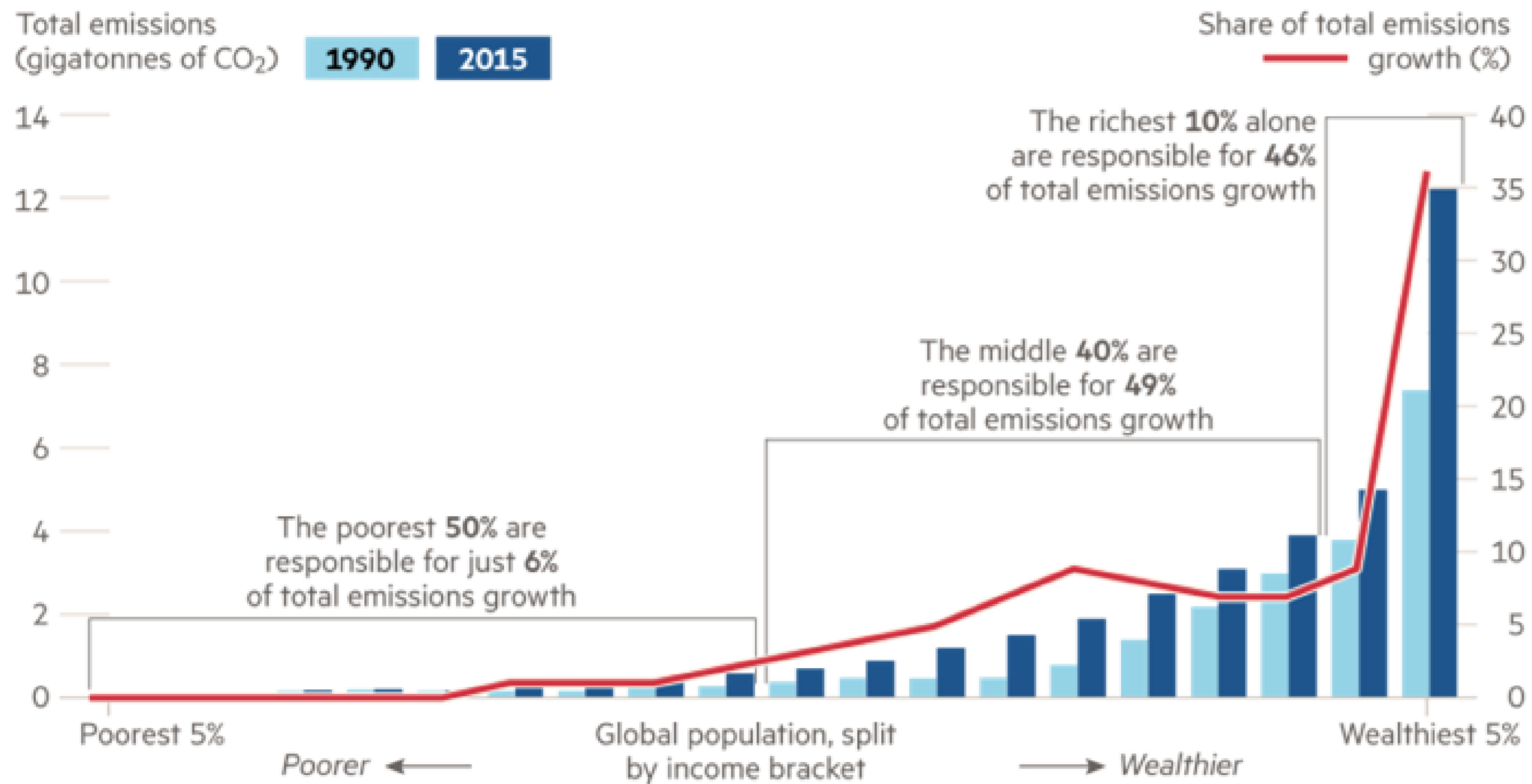
Transition range

Confidence level assigned to transition range

Low → Very high

midpoint of transition

# Consumption of richest 10% accounts for almost half of CO<sub>2</sub> emissions



## Who are the rich?

**Richest 10%**

Annual income of £27,500

**Richest 1%**

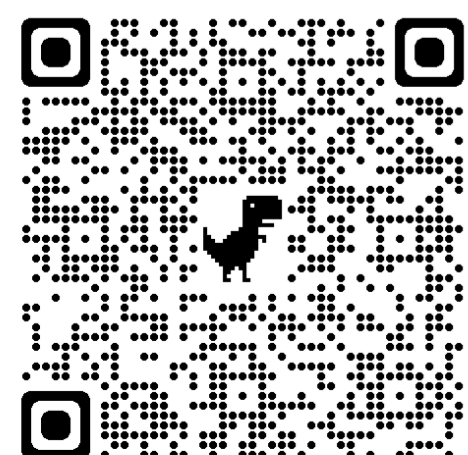
Annual income of £79,000

Source: Oxfam/Stockholm Environment Institute



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Visual journalism: Steven Bernard/@sdbernard and Chelsea Bruce-Lockhart/@C\_BruceLockhart  
Source: Oxfam  
© FT

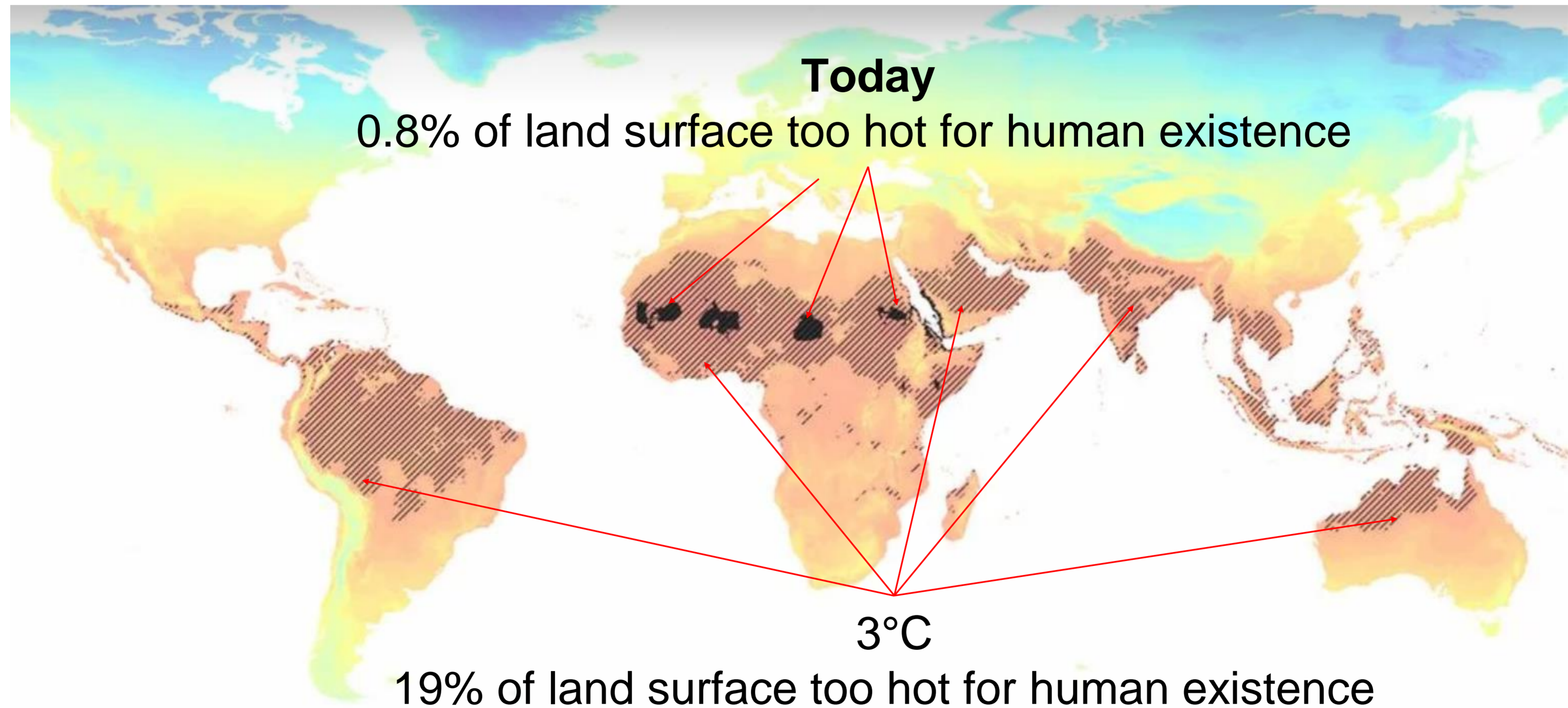


The City of London remains one of the largest global centres for financing fossil fuels, supporting at minimum 15% of potential global CO<sub>2</sub> emissions

Source: Carbon Tracker 2020

← Scan for report

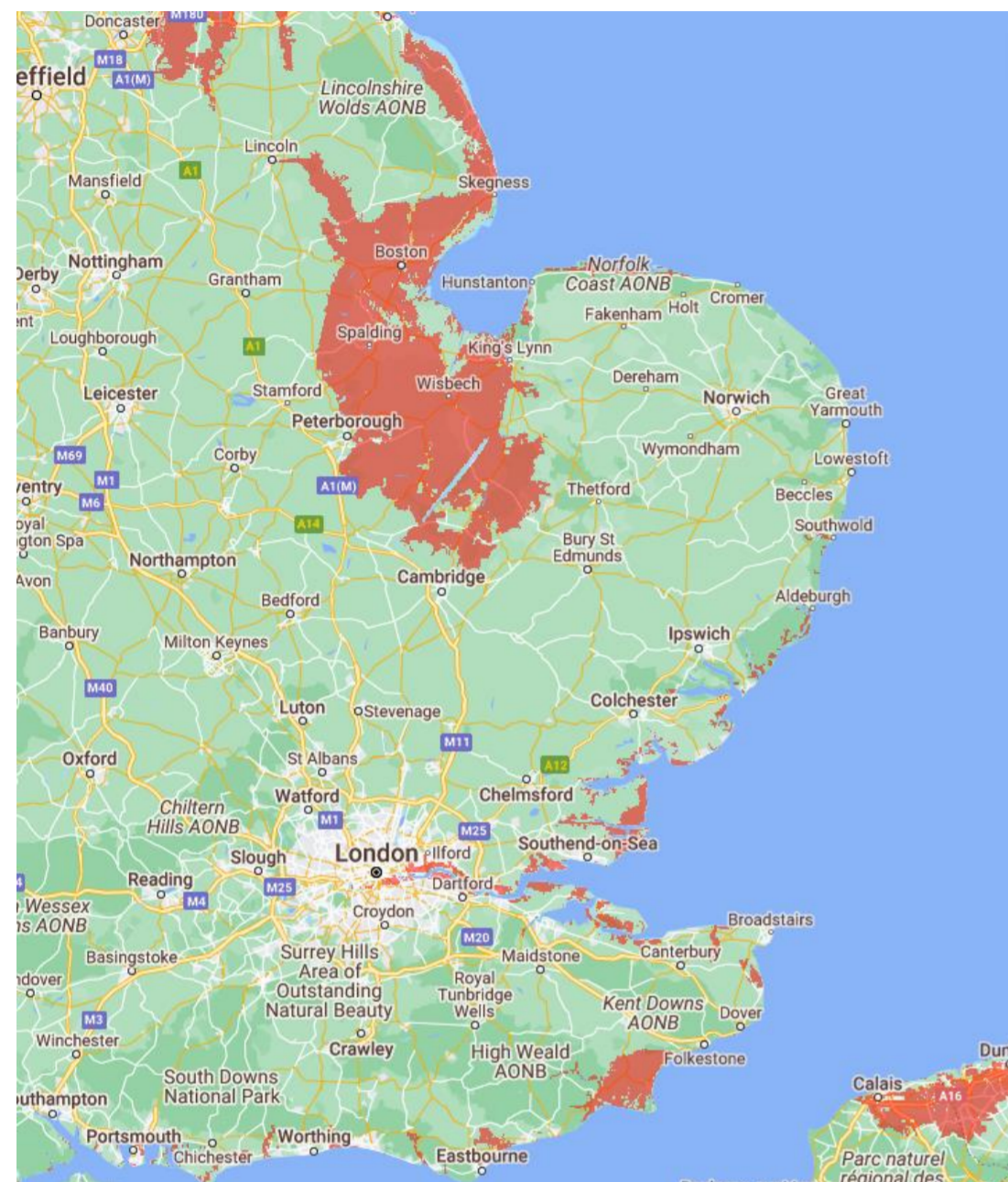
# 1 billion people displaced for every additional 1°C of global warming



Source: international research collaboration published in  
*The Proceedings of the National Academy of Sciences*  
← Scan for article

# Parts of the UK under water by 2050

NASA predicts sea level to rise up to a foot by 2050



Water level of 1.0 feet above the high tide line could be reached through combinations of sea level rise, tides, and storm surge.

Areas will face a choice either will need to be abandoned or upgrade their defences.



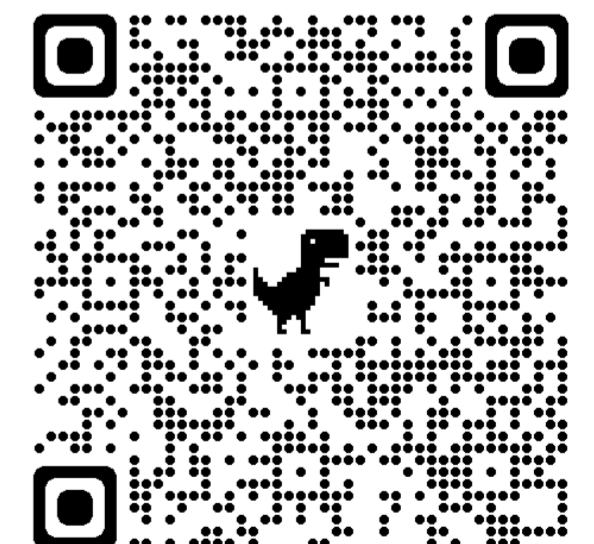
©Hull City Council

 Below water level with just 30 cm (1 foot) sea rise



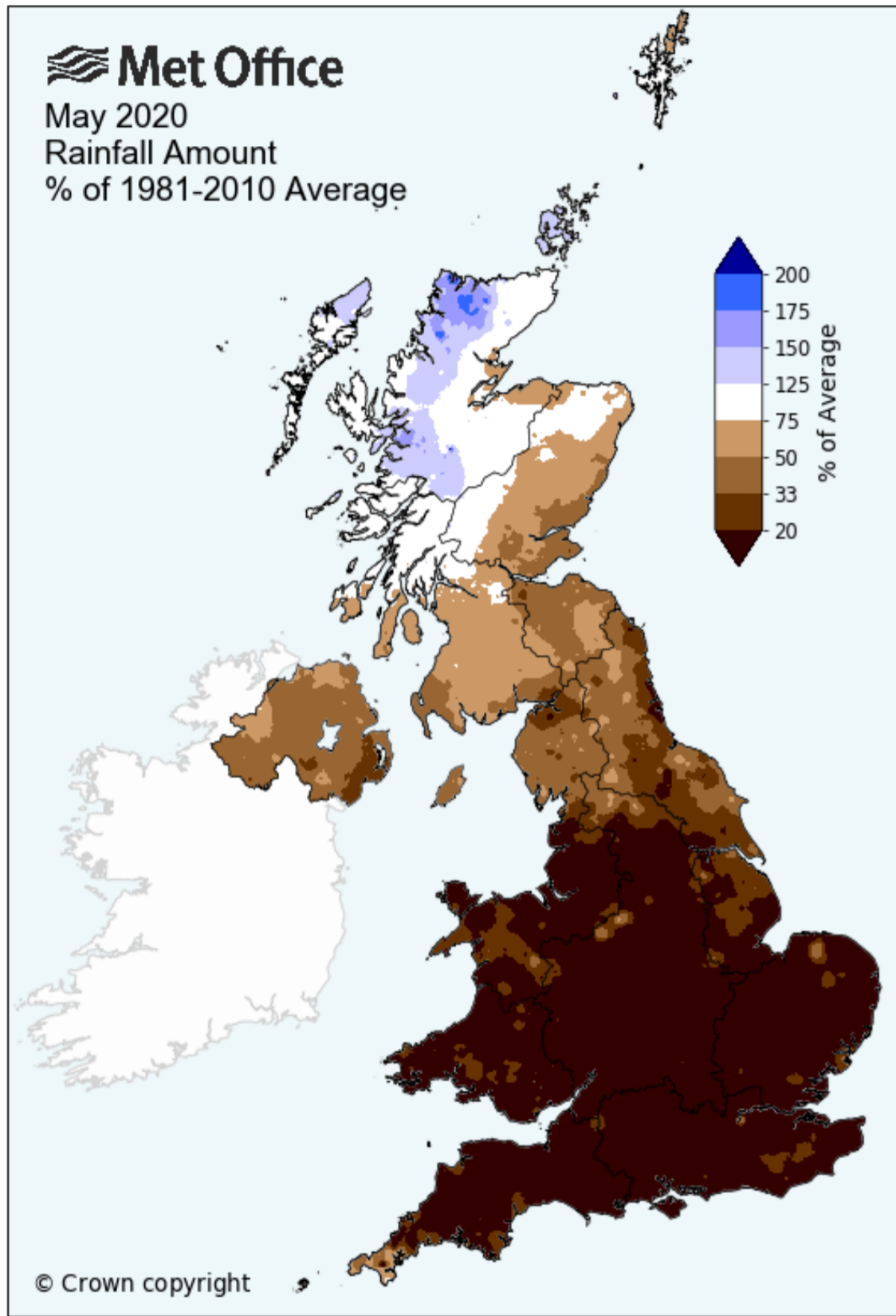
Almost half of London's commercial buildings are at risk from floods fueled by the climate crisis

Maps from [coastal.climatecentral.org](http://coastal.climatecentral.org)

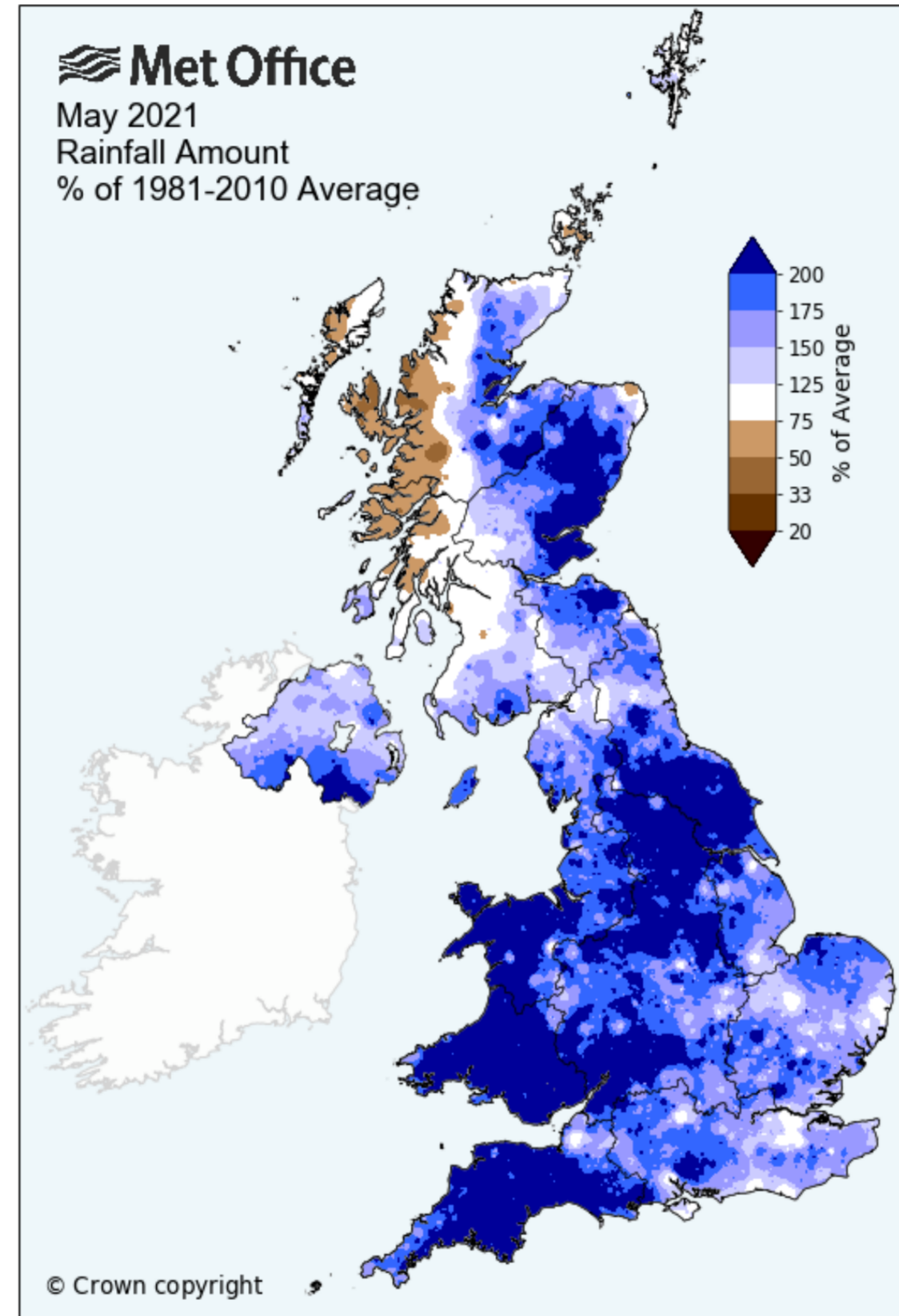


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# Unpredictable weather = unpredictable food supply



May 2020 becomes the sunniest calendar month on record



May 2021 Wales' wettest in 160 years



Scan for Met Office climate impacts research

**UK drought: Why we need to get used to wonky vegetables**  
18 August 2022 · Comments

Growers hope to avoid a third bad year but have already been hit by lockdown and a heatwave

UK potato farmers fear another washout for this year's crop

By Georgina Rannard  
BBC News Climate & Science

Fruit and vegetables on the shelves will be smaller and look different summer's hot and dry weather hits crops, experts say.

Drought will cause crop failures in Spain, farmers warn  
BY ASSOCIATED PRESS | MADRID  
PUBLISHED 5:57 AM ET APR. 13, 2023

UK sees significant drop in yield across all major crops  
29 October 2020 | by FarmingUK Team | Arable, News, NFU

FILE - View of the dry Sisu reservoir about 100 km (62 miles) north of Barcelona, Spain, March 20, 2023. The main Spanish farmers association on Thursday, April 13 says drought now affects 60% of the Spanish countryside and is causing "irreversible losses" to more than 3.5 million hectares of crops, with some regions writing off wheat and barley for this year entirely, the main Spanish farmers association says. (AP Photo/Emilia Morenatti, file)

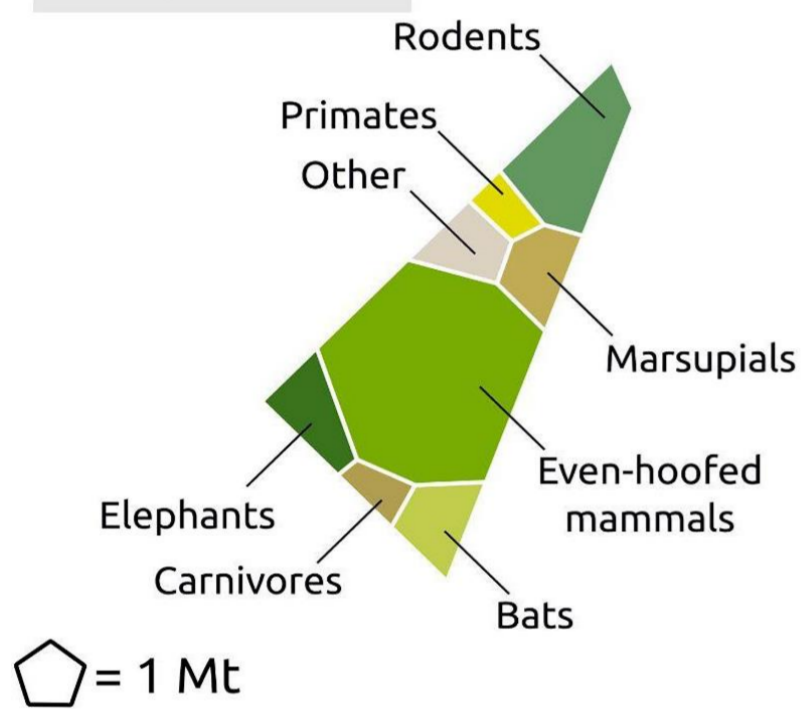


# Domestic species compete with wild mammals for Earth's resources

Earth's mammals  
by total biomass

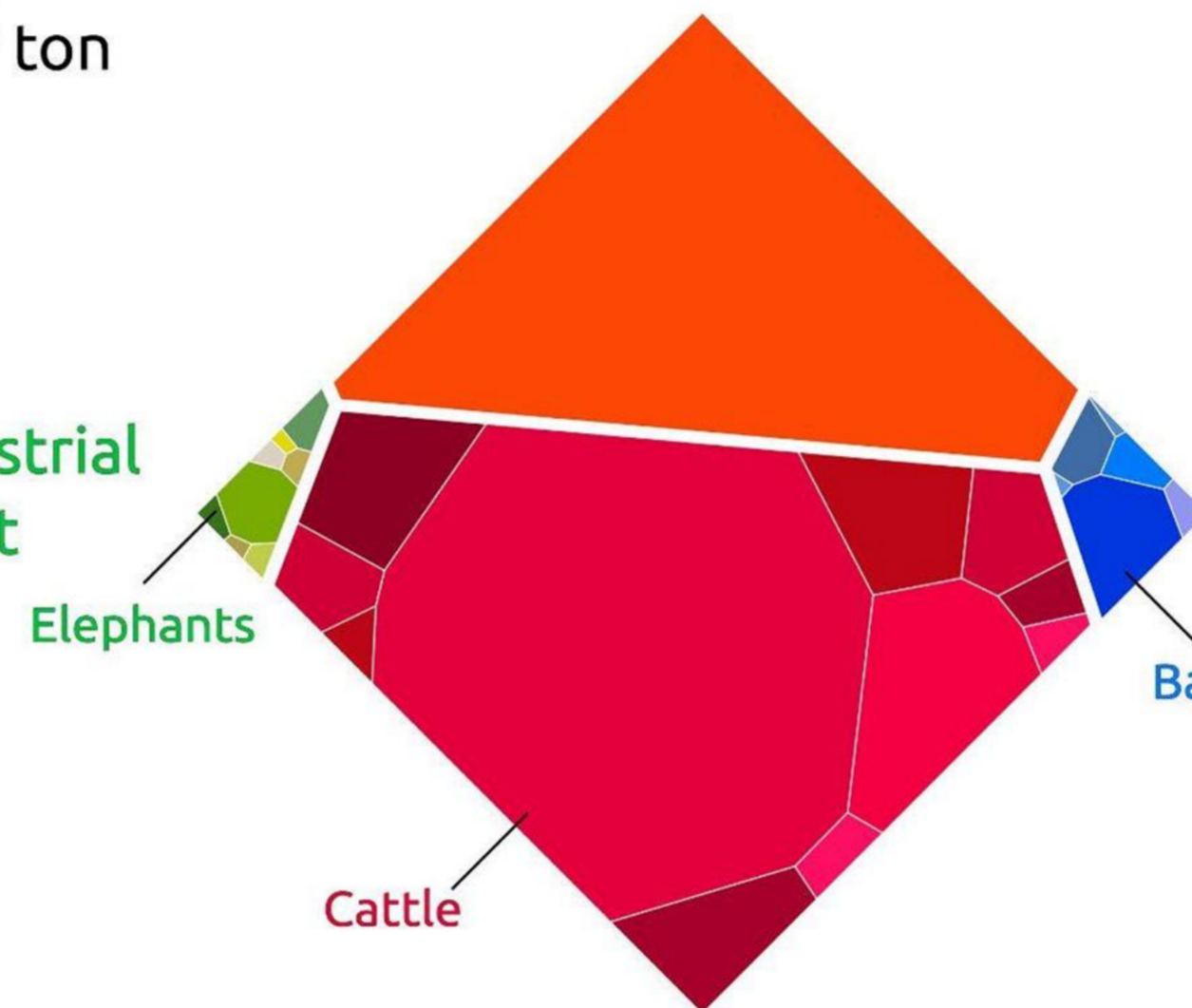
1 Mt = 10<sup>6</sup> ton

Wild Terrestrial  
zoom in



Wild Terrestrial  
≈20 Mt

Humans  
≈390 Mt



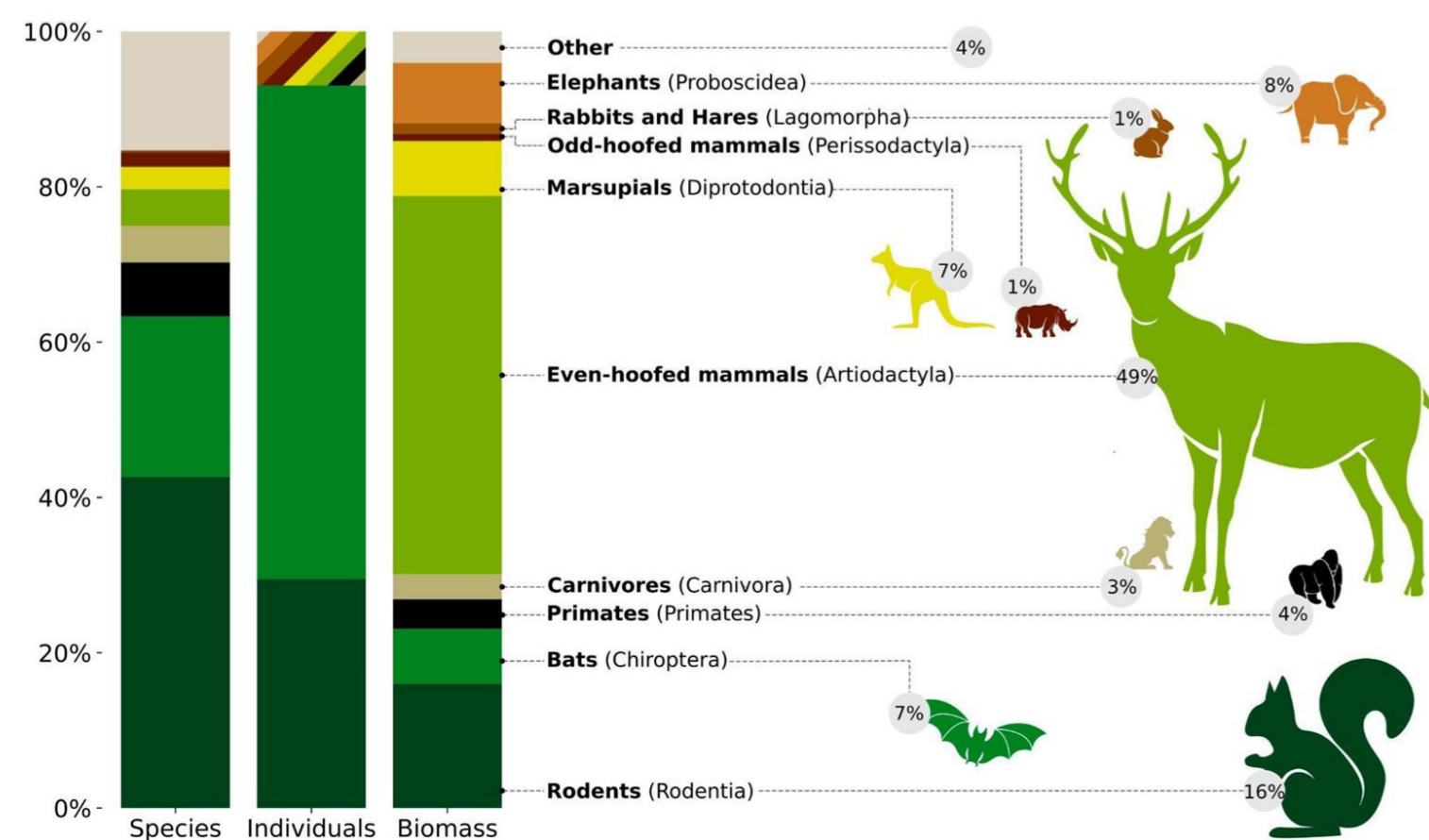
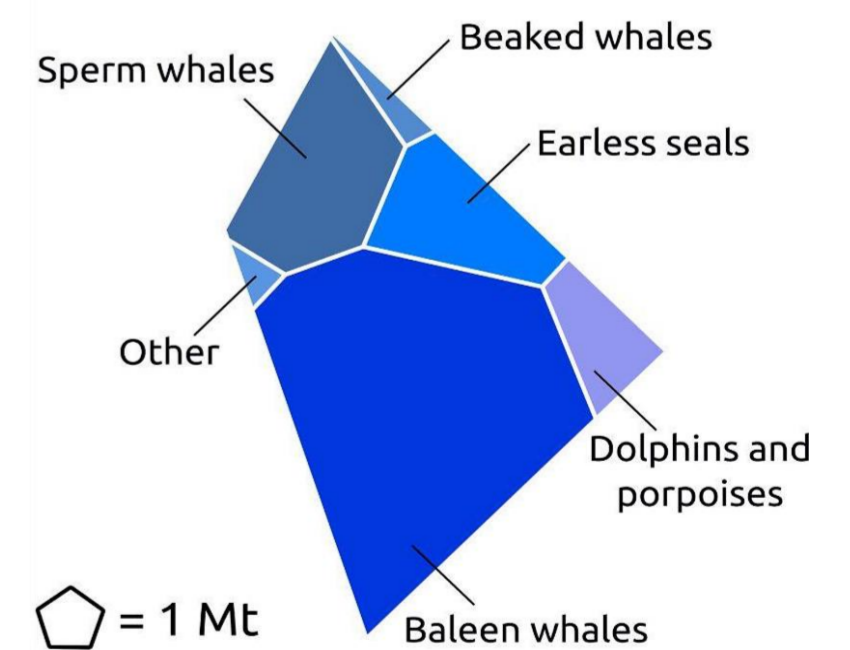
Wild Marine  
≈40 Mt

Baleen whales

Cattle

10 Mt

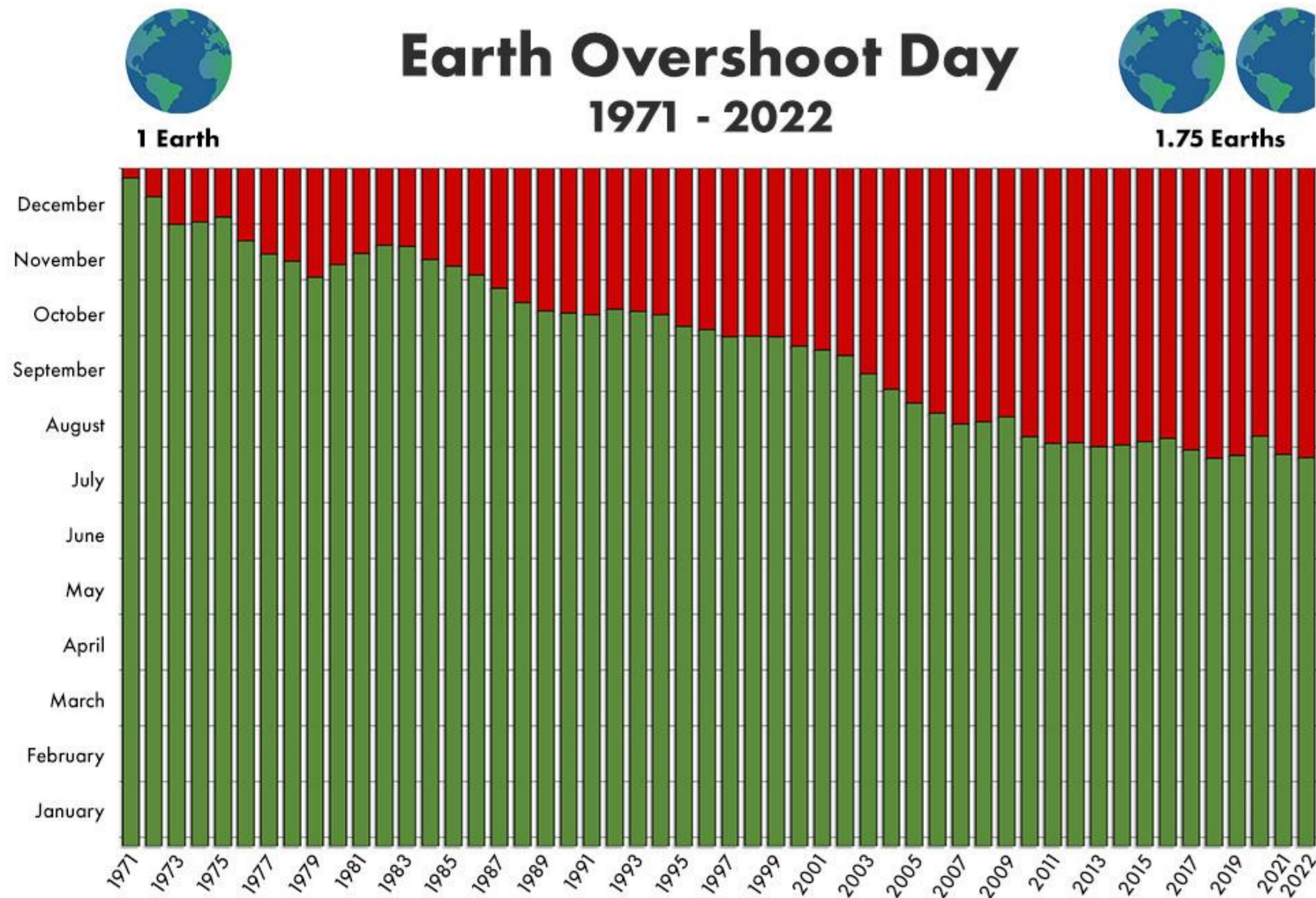
Wild Marine  
zoom in



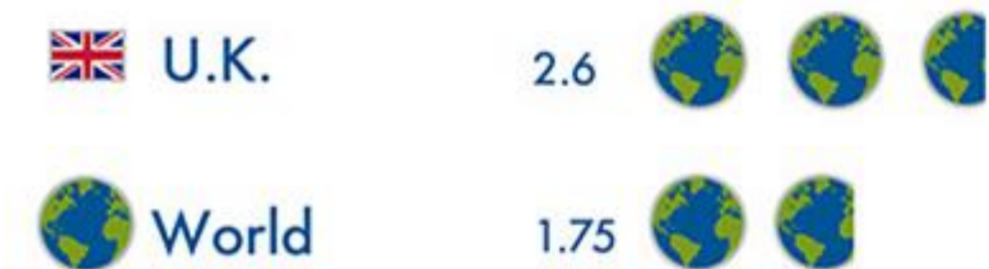
Source: Research published in *The Proceedings of the National Academy of Sciences*  
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# We are depleting our resources and Earth's capacity to regenerate at an alarming rate



How many Earths would we need if everyone lived like UK residents?



How many Earths does the UK need to meet its residents' demand on nature?



Why the world loves vending machines  
The long read Journal



Thursday  
14 April 2022  
£2.50  
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# The Guardian

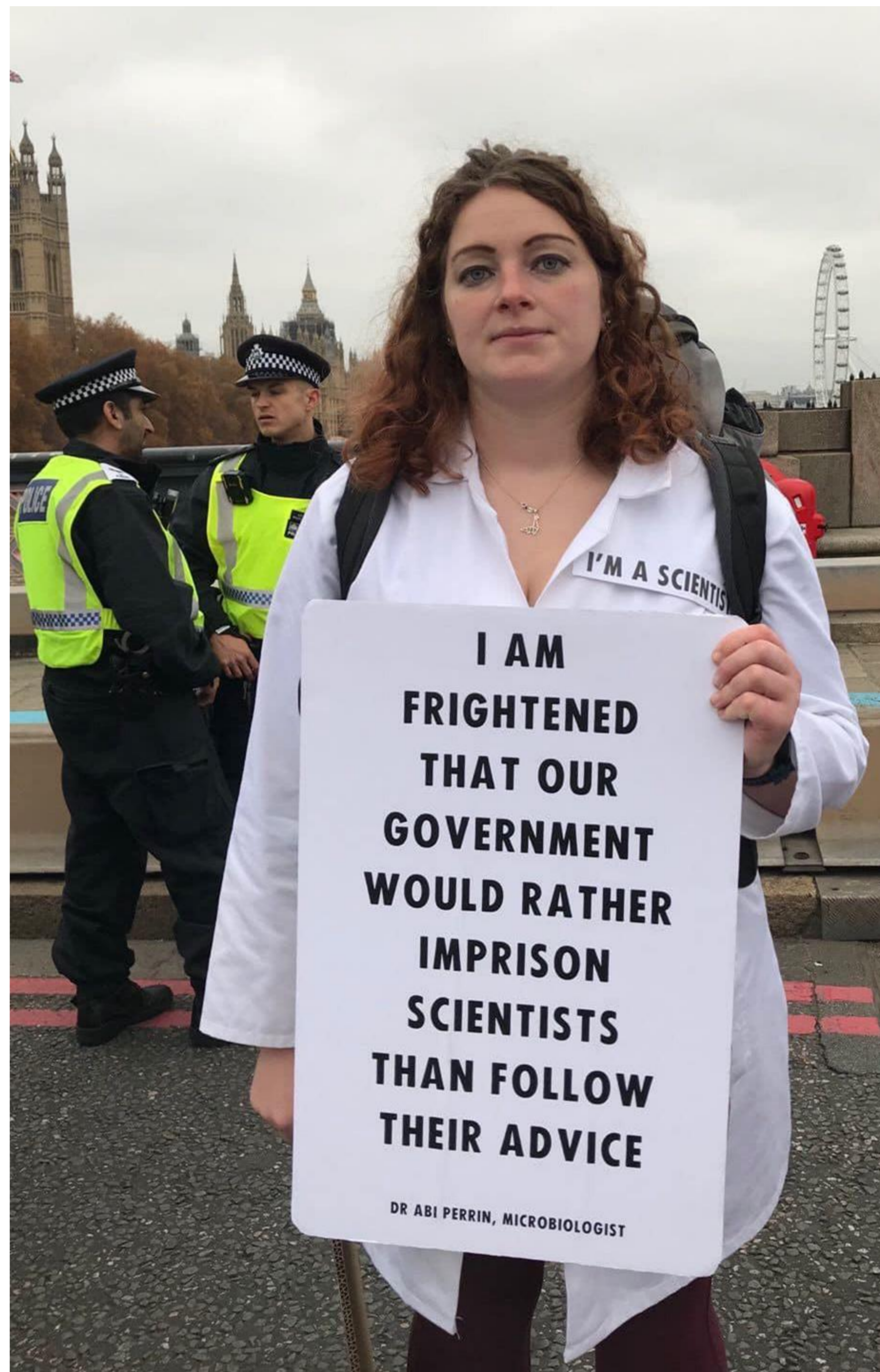
For 200 years  
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Global heating  
Glimmer of climate hope  
as protests hit Whitehall

News Page 7 →

PHOTOGRAPH: STEFAN ROUSSEAU/PA WIRE



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