CLIMATE CHANGE SIMPLY EXPLAINED

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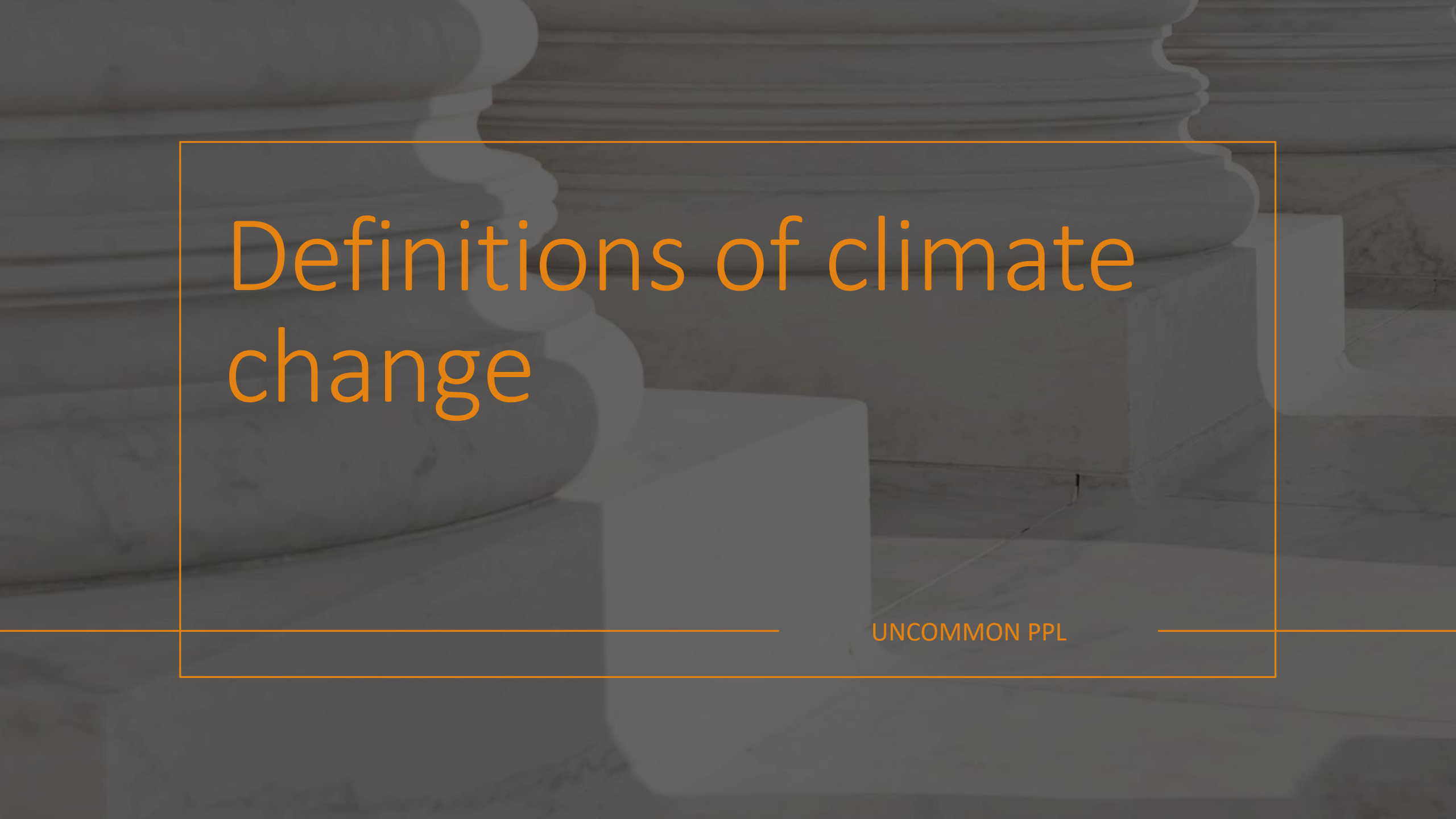
WHAT IS CLIMATE CHANGE?

CLIMATE CHANGE REFERS TO THE LONG-TERM SHIFTS IN TEMPERATURE AND WEATHER PATTERNS GLOBALLY, WHILE THESE PATTERNS CAN HAPPEN NATURALLY, THE CURRENT CHANGES WE ARE SEEING ARE LARGELY DRIVEN BY HUMAN ACTIVITY.



Definitions of climate change

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NASA:
“Climate change describes a change in the average conditions, such as temperature and rainfall, in a region over a long period of time.”
👉 NASA Climate Glossary

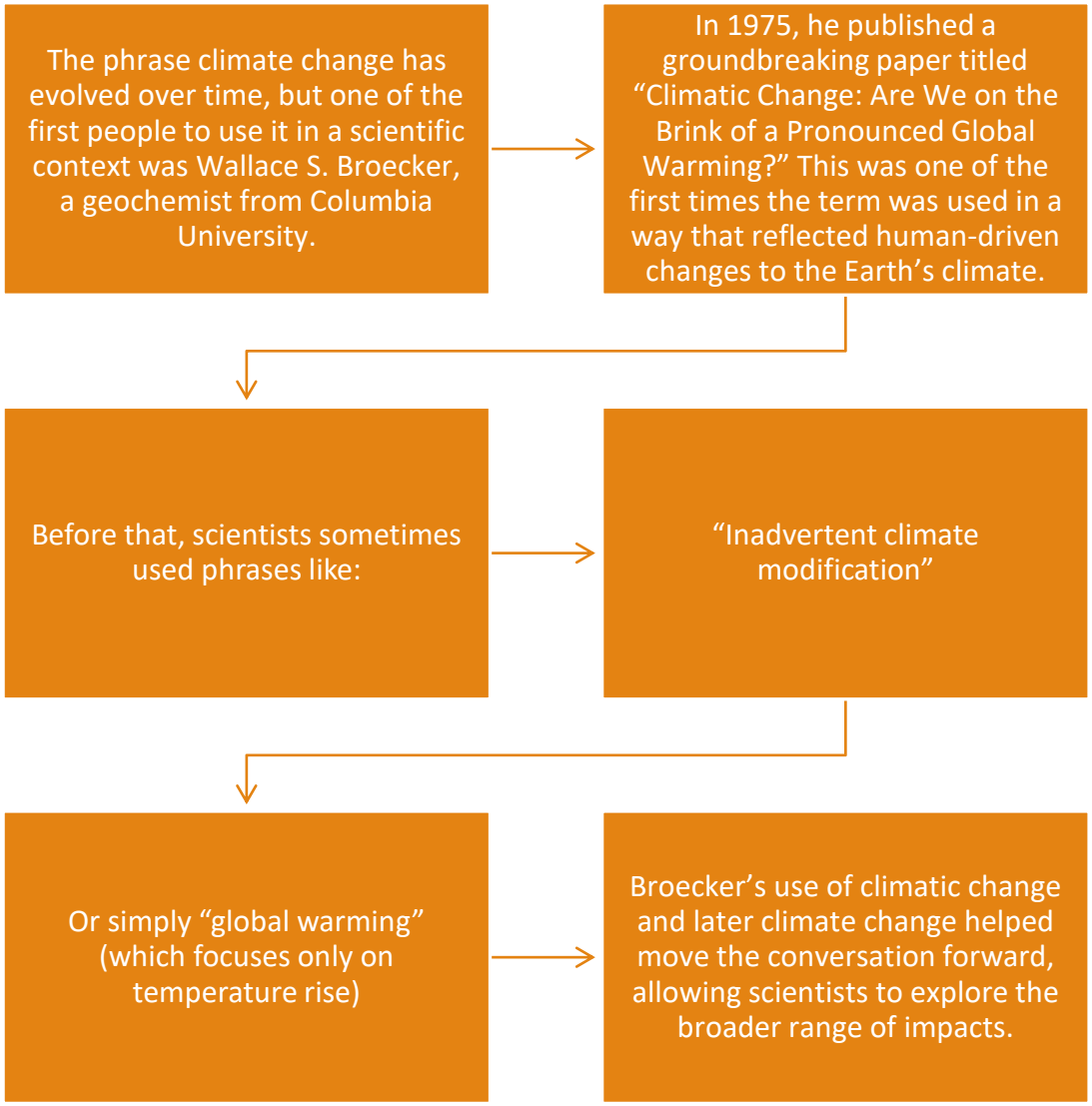
United Nations (UN):
“Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the 1800s, human activities have been the main driver.”
👉 UN Climate Page

IPCC (Intergovernmental Panel on Climate Change):
“Climate change refers to a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer.”

Who Coined the Term “Climate Change”?

https://gpm.nasa.gov/education/articles/whats-name-global-warming-vs-climate-change

But today, we’re no longer talking about climate change we’re facing a climate crisis



Scientifically correct term ‘Climate Change’ is no longer socially realistic, we are in a Climate Crisis.

In May 2019, *The Guardian* announced that it was changing the language used around environmental issues. The key difference is that it will no longer use the term ‘climate change’, instead referring to the ‘climate crisis’. This followed the UN’s secretary general António Guterres use of the term in a speech in September 2018.

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HTTPS://WWW.SCIENCEFOCUS.COM/NEWS/CLIMATE-CHANGE-SHOULD-WE-CHANGE-THE-TERMINOLOGY

TIMELINE

Start of Climate Change: Began during the Industrial Revolution in the late 1700s and early 1800s.

Major Change: Humans started burning large amounts of fossil fuels coal, oil, and gas.

Impact: This released greenhouse gases like carbon dioxide into the atmosphere.

Initial Effects: The Earth began warming slowly, but the signs were there.

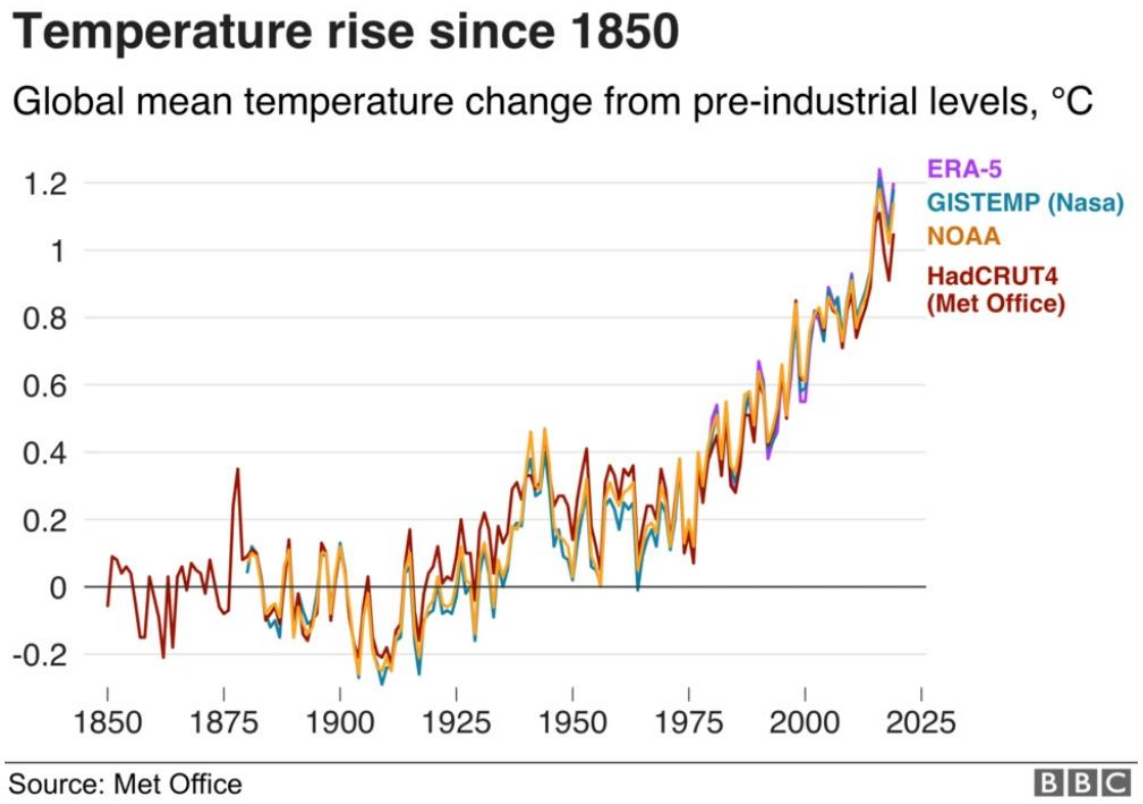
Current Situation: Scientists all agree that climate change is a serious problem.

Rate of Warming: Today, the planet is heating up much faster than in the past natural cycles.

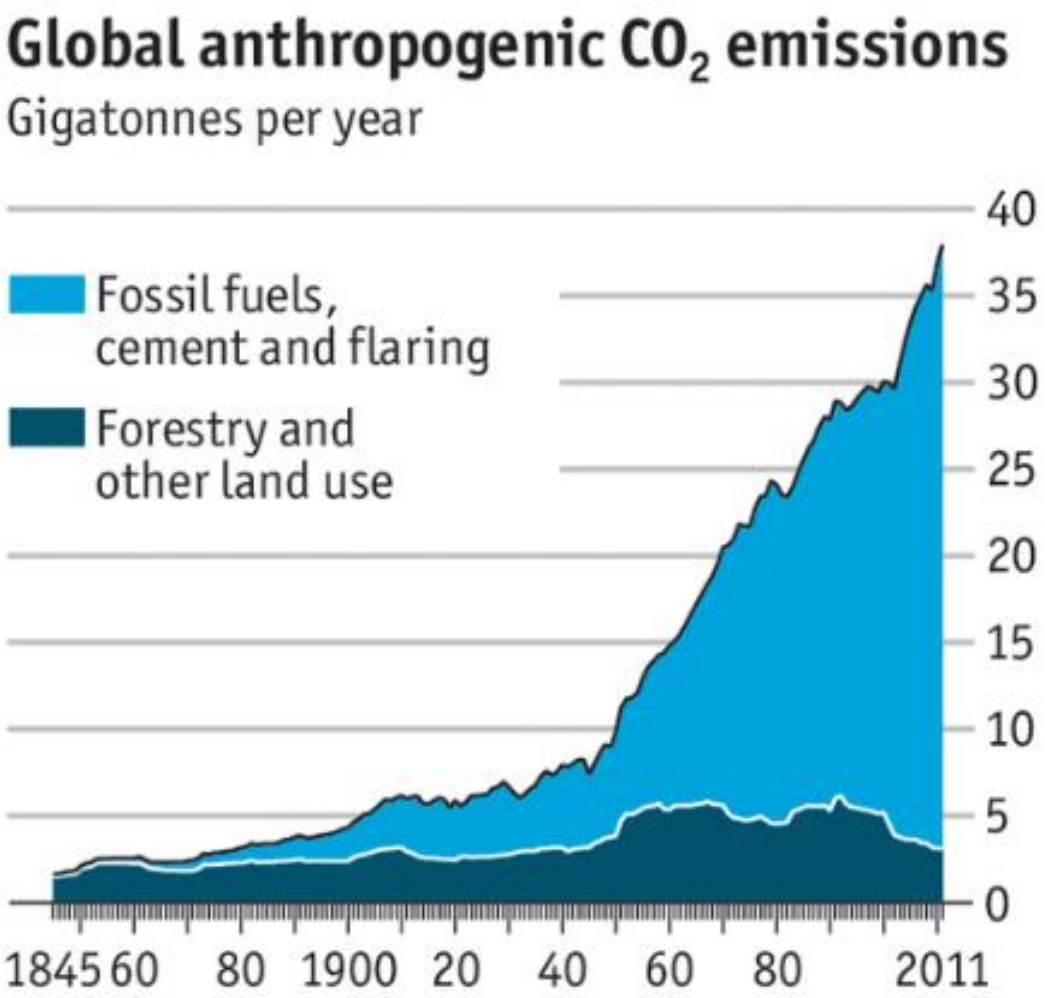
Evidence: Charts show rising temperatures and greenhouse gases, more rapid in recent decades.

Why it Matters: The accelerated warming causes extreme weather, rising sea levels, and damage to ecosystems.

RISING GLOBAL TEMPERATURES



HTTPS://WWW.BBC.CO.UK/NEWS/SCIENCE-ENVIRONMENT-51111176



THE CAUSE OF RISING GLOBAL TEMPERATURES

What are fossils fuels

Fossil fuels are natural resources formed from the remains of ancient plants and animals that have been subjected to heat and pressure over millions of years. They are primarily used for energy production and include the following main types:

Names of Major Fossil Fuels:

Coal, Oil, And Gas

These are the three main types used globally, but there are other, less common fossil fuels like peat and shale oil.

How They Contribute to Climate Change:

Burning fossil fuels releases carbon dioxide (CO_2) and other greenhouse gases into the atmosphere.

These gases trap heat, leading to global warming.

Number One Contributor: Burning fossil fuels for energy and transportation is the biggest source of greenhouse gas emissions.

HTTPS://EC.EUROPA.EU/EUROSTAT/STATISTICS-EXPLAINED/INDEX.PHP?TITLE=GLOSSARY:FOSSIL_FUEL

Burning Fossil Fuels & Greenhouse Effect

When We Burn Fossil Fuels, they release CO_2, a significant greenhouse gas.

What Are Greenhouse Gases? Gases like carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) that trap heat in the Earth's atmosphere.

What Is the Greenhouse Effect? This is a natural process where greenhouse gases trap heat, keeping the Earth warm enough to support life. The greenhouse gases keep our planet warm by preventing some of the heat from escaping into space.

Why Is This a Problem? Because of increased greenhouse gases, more heat is being trapped than ever before

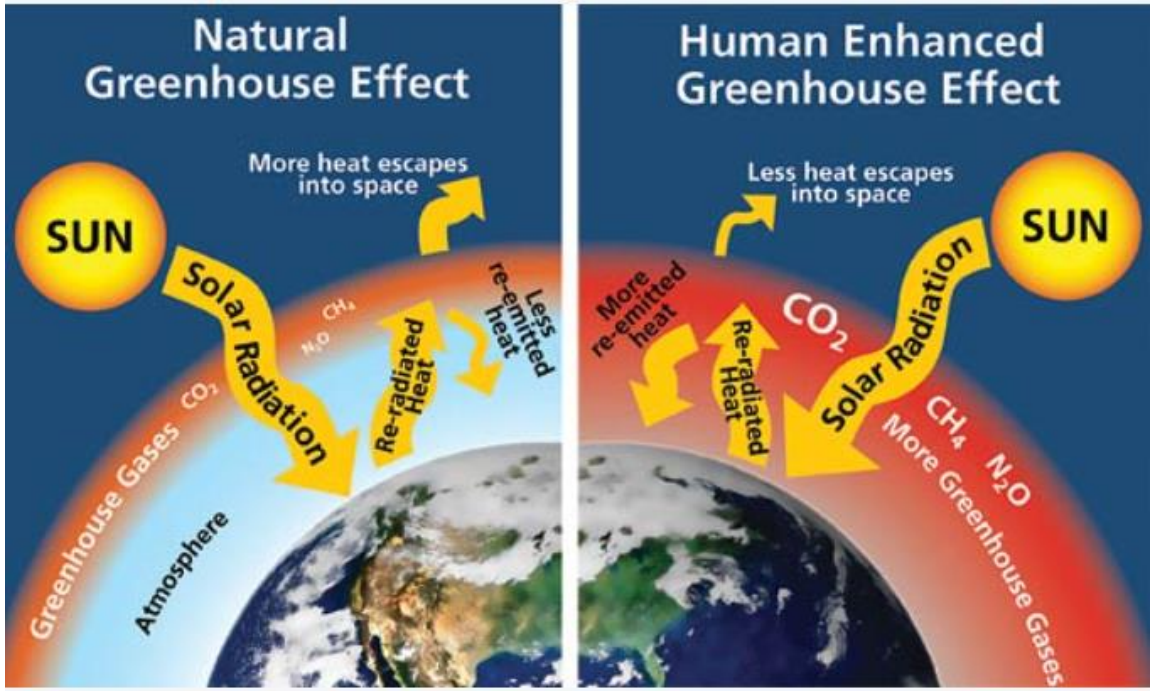
This causes the Earth's temperature to rise, leading to global warming.

How Long Do These Gases Stay in the Atmosphere? CO_2 can remain for hundreds to thousands of years

If We Don't Act Now: The invisible blanket around Earth will get thicker and thicker. The planet will get hotter and hotter.

This results in more extreme weather, rising sea levels, and ecosystem harm.

The Greenhouse Effect



Explained Left - Regular levels of carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) are created by normal life processes, trapping some of the sun's heat and preventing the planet from freezing.

Right - The rampant emission of CO2 from burning fossil fuels traps excess heat and results in an increase in the average temperature of our planet. The solution is to reduce human activities that emit heat-trapping gases.

Will Elder, NPS

HTTPS://NPS.GOV/GOGA/LEARN/NATURE/CLIMATE-CHANGE-CAUSES.HTM

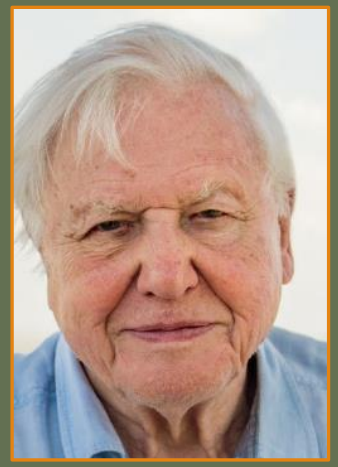
Famous Climate Activists

Greta Thunberg (Sweden)

Started the Fridays for Future movement at age 15. Known for powerful speeches at the UN and holding world leaders accountable.

Sir David Attenborough (UK)

Broadcaster and natural historian who has spent decades educating the public on nature and climate through documentaries like Planet Earth and A Life on Our Planet.



Vanessa Nakate (Uganda)

Founder of the Rise Up Movement, she campaigns for climate justice and highlights how the Global South is impacted by climate breakdown

Al Gore (USA)

Former U.S. Vice President and founder of The Climate Reality Project. Known for his documentary An Inconvenient Truth, which helped bring climate change into public discourse.

What The Legend Sir David Attenborough says...

Climate Change

The Facts with Sir David Attenborough

https://www.youtube.com/watch?v=EOctIuyVfnA

I was sceptical about climate change. I was cautious about crying wolf. I am always cautious about crying wolf. I think conservationists have to be careful in saying things are catastrophic when, in fact, they are less than catastrophic.

https://www.independent.co.uk/climate-change/news/attenborough-climate-change-is-the-major-challenge-facing-the-world-479459.html

Sir David Attenborough is known for his powerful nature documentaries like Planet Earth and A Life on Our Planet.

In the 1990s and early 2000s, he admitted he was sceptical about climate change.

He didn't deny it, but was cautious about making claims that weren't fully backed by science at the time.

In a 2019 interview, he said:

"I was sceptical about climate change. I mean, I'm not a scientist. I was cautious about passing on facts that weren't yet confirmed. But now, the evidence is overwhelming."

As climate data and scientific research became clearer, Attenborough changed his stance.

He now describes climate change as a crisis, warning of the damage being done to ecosystems and future generations.

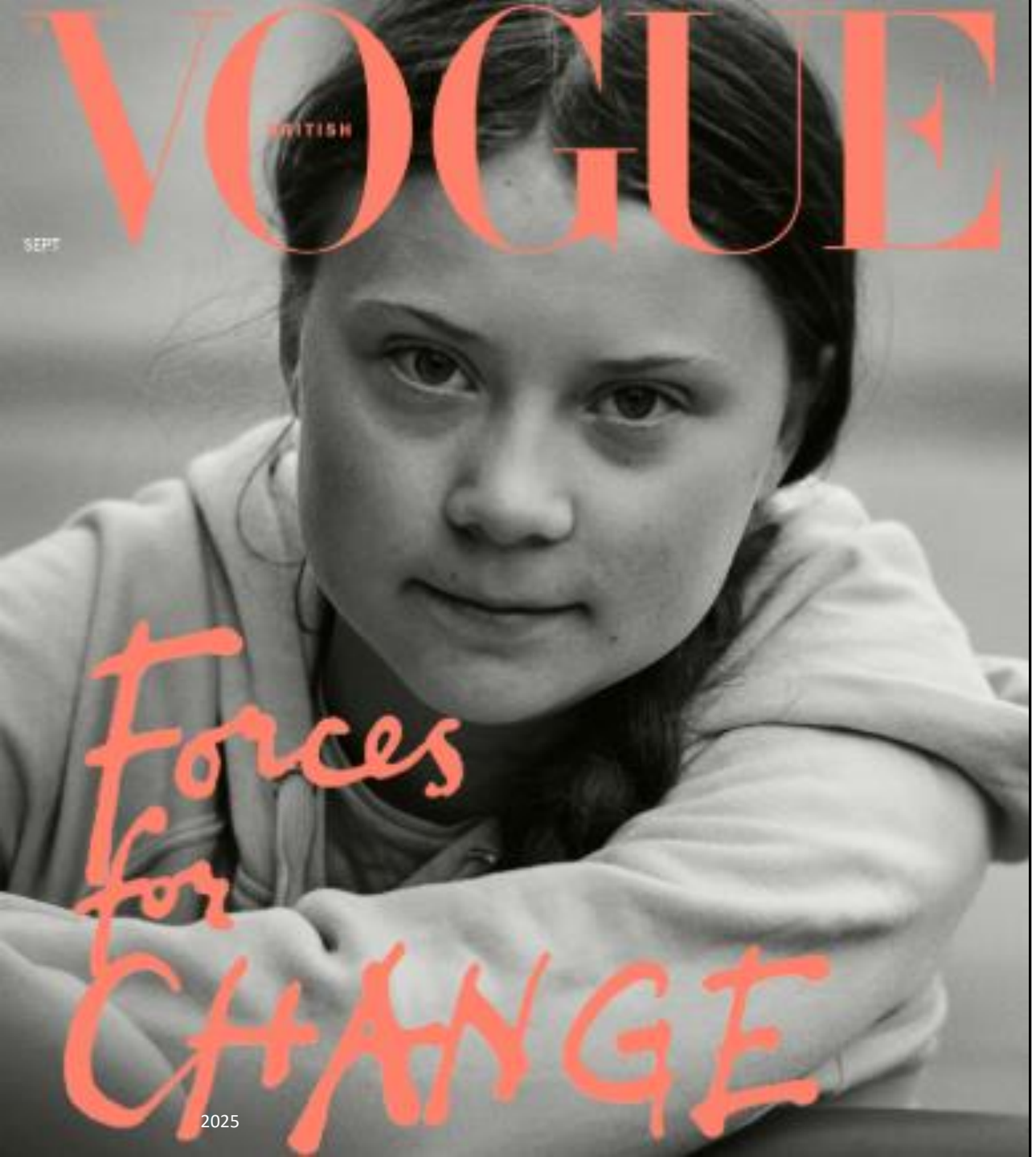
In his documentary A Life on Our Planet (2020), he stated:

"The moment of crisis has come. We can no longer afford to look away."

Today, he is one of the most influential climate advocates, using his platform to call for urgent global action.

His journey shows that:

- It's okay to rethink your views when the facts change.
- What matters is the willingness to learn and act.
- Everyone can play a part, no matter when they start.



"Adults keep saying we owe it to the young people, to give them hope, but I don't want your hope. I don't want you to be hopeful. I want you to panic. I want you to feel the fear I feel every day.
I want you to act. I want you to act as you would in a crisis. I want you to act as if the house is on fire, because it is."

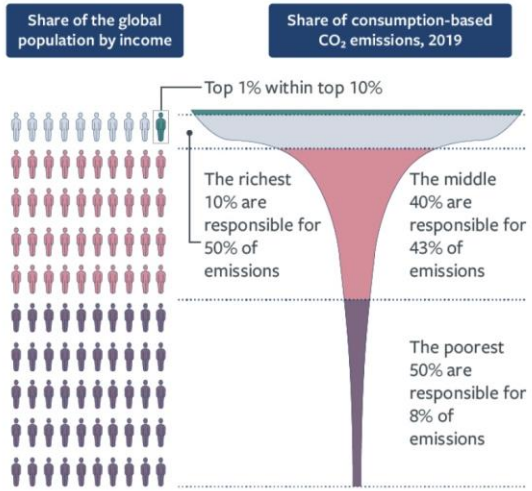
(Greta Thunberg, Swedish Climate Activist)(Isaac Cordal, 'The Political Campaign' (familiar on SM as 'Politicians discussing global warming'), sculpture, Berlin).

GRETA THUNBERG

Global Emissions Who are the most significant contributors to climate change?

The richest people are the biggest emitters

To understand the full scope of this issue, let's examine the following graph:



Adapted from Khalfan et al. (2023).

Climate Crisis Snapshot

50°C Heatwaves (2022–2023)
Over 1 billion people affected, 90,000+ deaths in Europe
Source
Canada’s Wildfires (2023)
Entire towns destroyed in hours
Source
East Africa’s Mega-Drought (Ongoing)
23 million+ face hunger today; 250,000+ deaths in 2004
Source
Warming So Far:
Global temps up 1.2–1.5°C due to human emissions
Source
What’s Next?
The future depends on how much more we emit.
More CO_2 = more disasters.

Countries That Are Sinking Because of Climate Change, And Why It Matters

Climate change isn’t just about hotter summers or stronger storms,for some countries, it’s literally reshaping the land beneath their feet. Across the globe, rising sea levels, melting ice caps, and sinking land are putting entire communities, cities, and even nations at risk of disappearing.

Here is a real-time example where the impact is already being felt:

Indonesia – Jakarta Is Sinking

Jakarta, Indonesia’s capital, is one of the fastest-sinking cities in the world. Over-extraction of groundwater, combined with rising sea levels caused by climate change, is making life in the city increasingly dangerous.

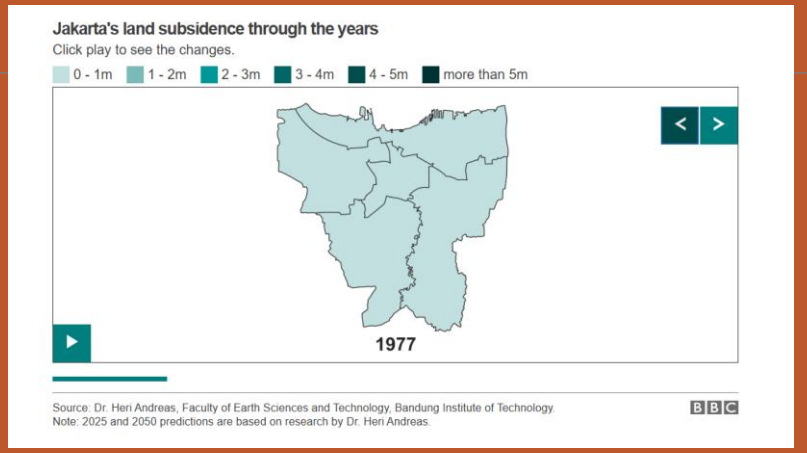
💧 40% of the city is already below sea level, and it’s estimated that a third of Jakarta could be underwater by 2050.

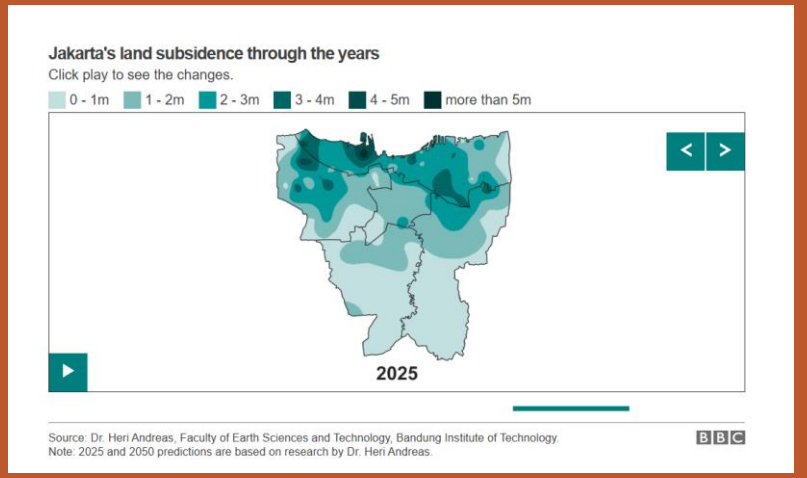
In fact, the threat is so serious that the Indonesian government has made the decision to move the capital to a new city called Nusantara, being built on Borneo Island, making it one of the first national capitals ever to be relocated due to climate and environmental concerns.

HTTPS://NEWS.CLIMATE.COLUMBIA.EDU/2023/08/03/FLOODING-IN-JAKARTA-A-CALL-TO-INCREASE-CLIMATE-CHANGE-AWARENESS/

Jakarta

Jakarta's land subsidence through the years





HTTPS://WWW.BBC.CO.UK/NEWS/WORLD-ASIA-44636934

What is Climate Injustice
Understanding Climate Injustice

To truly understand the climate crisis, we need to recognise it's not just an environmental issue, it's also about inequality and injustice.

Global North vs Global South (Simplified) (socio-political, not strictly geographical sense)

Global North:

Includes rich, industrialised countries like the US, UK, Canada, Germany, Australia, etc. These nations are responsible for the majority of emissions, due to long histories of fossil fuel use and industrialisation.

Global South:

Includes lower-income countries across Africa, Asia, and Latin America. These nations suffer the worst effects of climate change, yet contribute very little to the problem.

Climate injustice refers to the unequal impacts of climate change, where wealthy countries (Global North) contribute the most to greenhouse gas emissions, while poorer countries (Global South) suffer the worst effects. This inequality is exacerbated by the lack of resources in poorer nations to adapt or recover from climate-related disasters.

‘Social inequality and environmental injustice will undoubtedly be the drivers of continuous conflict for many years to come, as the most dispossessed and marginalized of the world’s population suffer the brunt of food shortages, undrinkable water, climate-induced migration and general hardship in their day-to-day lives. Women will suffer more than men, people of colour more than the non-indigenous and the non-migrant, the young and the elderly more than the adult, and the infirm and disabled of all ages [more than the able and fit].’

(White, 2012: p2)

Check These Short Videos Out To Learn More About Climate Injustice

What is Climate Justice?	A clear breakdown of why climate change hits the most vulnerable the hardest. 👉 Watch here (Global Landscapes Forum)
Why Climate Justice Matters	A human-centered look at global inequality in the climate crisis. 👉 Watch here (The Solutions Project)
Climate Justice Social Justice	How racism, poverty, and marginalisation intersect with environmental collapse. 👉 Watch here (GLF Event Highlight)

Laws and Agreements That Cover Climate Change & the SDGs

The Paris Agreement (2015)

Legally binding international treaty under the United Nations Framework Convention on Climate Change (UNFCCC).

Its goal is to limit global warming to well below 2°C, ideally 1.5°C, compared to pre-industrial levels.

Countries submit Nationally Determined Contributions (NDCs), their own climate action plans.

More on the Paris Agreement

Laws and Agreements That Cover Climate Change & the SDGs

The UN Sustainable Development Goals (SDGs)

Adopted in 2015 as part of the 2030 Agenda for Sustainable Development.

SDG 13 is specifically about climate action, but climate change links to many other goals like:

- SDG 7: Affordable and Clean Energy
- SDG 11: Sustainable Cities and Communities
- SDG 12: Responsible Consumption and Production
- SDG 14 & 15: Life Below Water and Life on Land
- 🔗 UN SDGs Overview

Laws and Agreements That Cover Climate Change & the SDGs

UK Climate Change Act (2008)

First country in the world to pass a legally binding climate law.

Requires the UK to reduce greenhouse gas emissions by 100% of 1990 levels by 2050 (net zero).

Sets out carbon budgets, reviewed every five years.

🔗 UK Government: Climate Change Act

What Is Net Zero?

Net zero means putting no more greenhouse gases into the air than we take out.

It doesn't mean we stop all emissions, it means we reduce them as much as we can, and balance the rest by doing things that help remove carbon from the air (like planting trees or using clean technology).

Think of it like this:

If you add carbon to the atmosphere, you also need to take the same amount out, so it balances to zero.

https://www.youtube.com/watch?v=XKM7W4KtSjQ

Examples of national targets:

UK: Legally committed to net zero by 2050

EU: Net zero by 2050

United States: Net zero by 2050

China: Net zero by 2060

India: Net zero by 2070

How We Can Reach Net Zero:

Use clean energy like wind and solar

Drive less and walk, cycle or take public transport

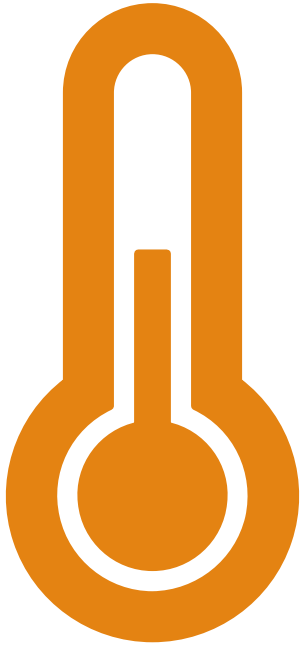
Waste less food and buy less fast fashion

Plant trees and protect forests

Support green jobs and climate-friendly choices

Why It Matters:

Getting to net zero by 2050 is the best way to stop the worst effects of climate change, like floods, fires, and food shortages.



HTTPS://WWW.NATIONALGRID.COM/STORIES/ENERGY-EXPLAINED/WHAT-IS-NET-ZERO

More People In Europe Die from Heat-Related Causes Than Gun Violence in America, But We Rarely Talk About It

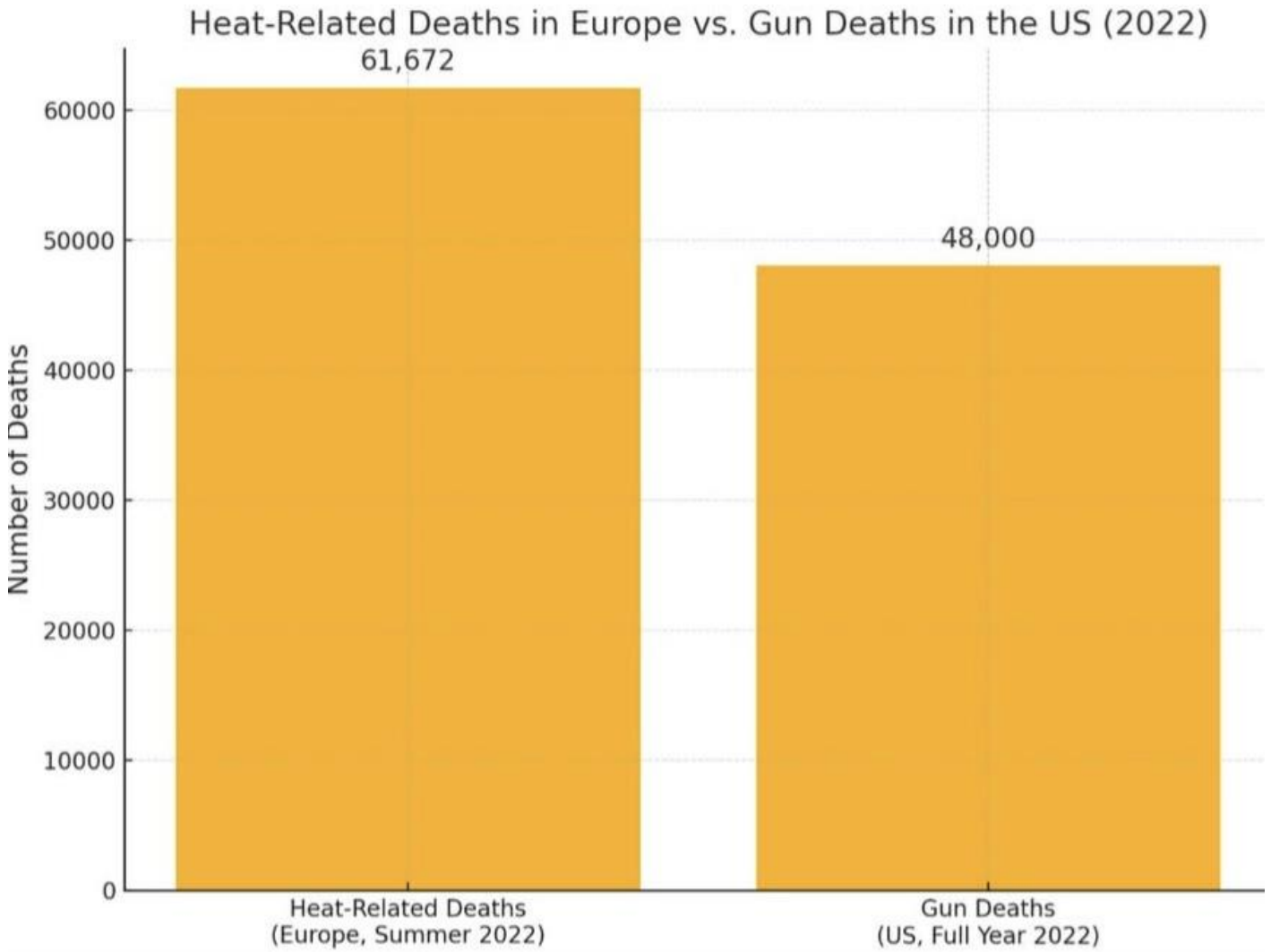
In the European Region, the World Health Organisation (WHO) estimates that up to 175,000 people die each year from heat-related causes. (WHO) In Europe alone in the summer of 2022, an estimated 61 672 heat-related excess deaths occurred

More conservative estimates from the European Environment Agency (EEA) and Nature studies still report 50,000–60,000 deaths annually.

In the United States, gun-related deaths total around 48,000 per year, including suicides (CDC data).

Heat Kills More Europeans Than Gun Deaths In America

https://www.youtube.com/watch?v=1t7hcKKXQ1s


Heat-Related Deaths in Europe vs. Gun Deaths in the US (2022)
61,672
48,000
Number of Deaths
60000
50000
40000
30000
20000
10000
0
Heat-Related Deaths
(Europe, Summer 2022)
Gun Deaths
(US, Full Year 2022)

✅ The good news?

Everyone can take action; you have the power to make small changes that matter.

What You Can Do to Help Tackle Climate Change

🚆 Take trains instead of planes

Trains emit 80–90% less CO_2 per passenger kilometer than flights, and even less than cars—e.g., national rail ≈ 35 g CO_2/km vs flights ≈ 246 g CO_2/km .

FR France bans short-haul flights

Any route replaceable by a ≤ 2.5-hour train (like Paris–Lyon, Nantes, Bordeaux) has been banned to cut aviation emissions ().

👕 Avoid ultra-fast fashion

France is fining and banning ads for brands like Shein/Temu—up to €5–10 per item or 50% of the retail price to curb overconsumption.

🧿 Eat local produce

Cutting “air-miles” reduces transport emissions and supports nearby farmers.

What You Can Do to Help Tackle Climate Change

🍓 Eat seasonal foods

Foods in season require less energy for production, storage, and transportation.

🥩 Eat less meat & dairy

Livestock accounts for ~14–15% of global emissions. Cutting back even a few meals a week makes a major difference.

♻️ Reduce, reuse, recycle, compost

Recycling could cut 5–6 Gt CO_2 by 2050. Using the “5 R’s” (Refuse, Reduce, Reuse, Repair, Recycle) is even more effective.

💡 Save energy at home

Switch to LED bulbs, they use ~75–80% less energy, last 15–25 × longer, and avoid harmful chemicals. Also, unplug appliances when not in use, and insulate your home.

✅ Quick Action Checklist

🚄 Train > Plane

✈️ Support short-haul flight bans

👕 Skip ultra-fast fashion

🍓 Eat local & seasonal

🥕 Cut down meat & dairy

♻️ Adopt the 5 R’s

💡 Use LED & save electricity

📣 Advocate for change

2025

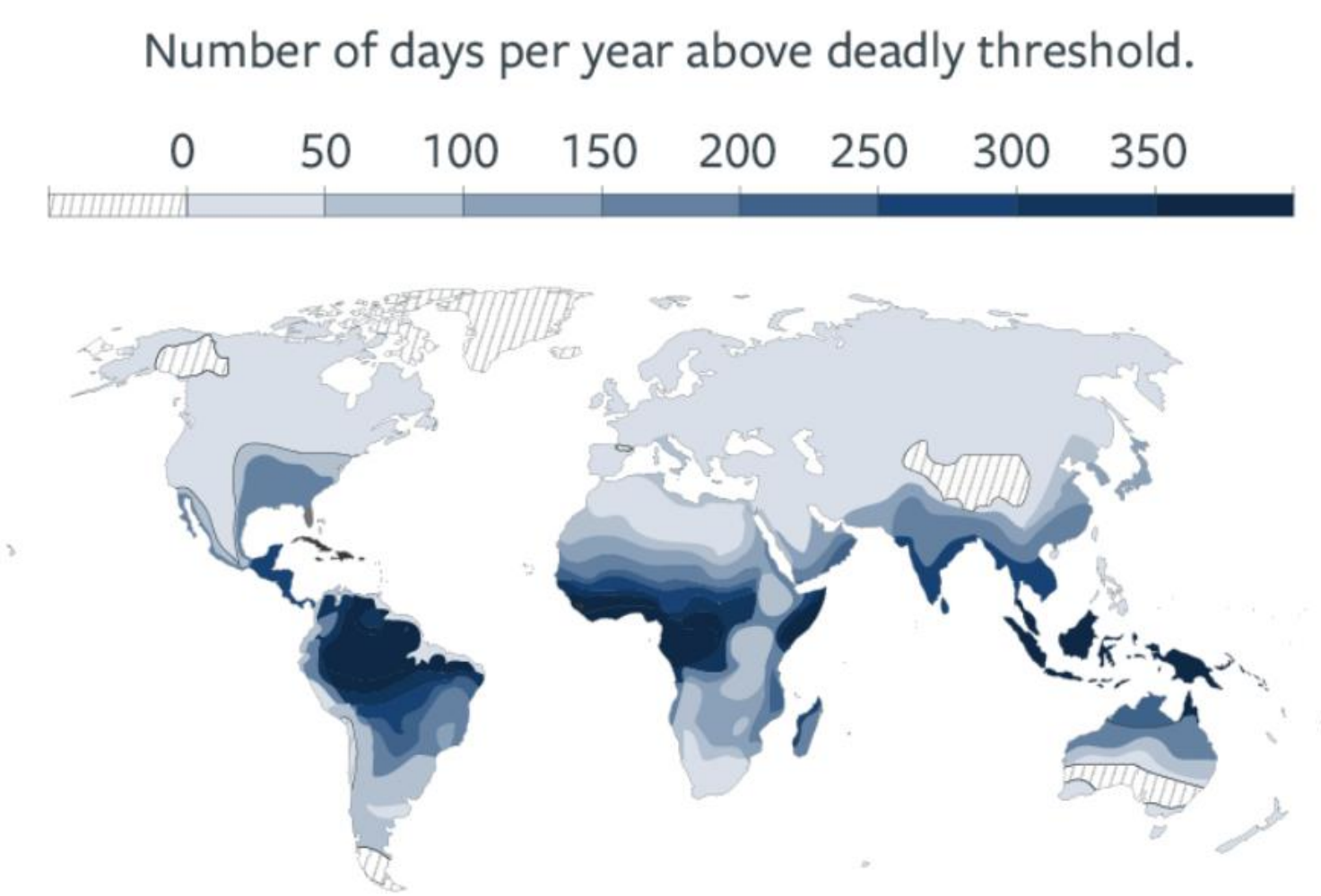
And Remember, If We Don’t Act, Now...

Rising temperatures and sea levels could make many places uninhabitable.

By 2050, 140 million to 1.2 billion people may be displaced (Rigaud et al., 2018; Institute for Economics & Peace, 2024).

Without action, some regions could face deadly heat over 200 days a year (Mora et al., 2017).

If We Don’t Act Now: Deadly Heat for 200+ Days a Year



Adapted from Mora et al. (2017).

🌱 Want to Know Your Impact?	Not sure how your daily choices affect the planet? 🔗 Try this Carbon Footprint Calculator 👉 Check your environmental impact and see where you can make simple changes that matter. https://footprint.wwf.org.uk/
📊 Take the Climate Solutions Quiz	From Project Drawdown, this short quiz shows you which climate solutions have the biggest impact and which ones might surprise you. https://edition.cnn.com/interactive/2019/04/specials/climate-change-solutions-quiz/
🕹️ Can You Reach Net Zero by 2050?	🎮 Play the Climate Challenge Game See if you can save the planet from the worst effects of climate change by making the right choices. 💡 It's fun, eye-opening, and may just shift how you see your role in the climate fight. https://ig.ft.com/climate-game/

THANK YOU

I've kept this overview simple and easy to follow so you get the basics, that way when you see it on the news, you'll know exactly what they're talking about.

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www.uncommonppl.com