

Meaningful climate action

What does it look like and how can you achieve it?

Kamal Kapadia

Co-founder and Chief Learning Officer



Terra.do

Climate Change School and Community



Meaningful climate action

truth



courageous
action

Quick check-in

On a scale of 1-5, how do you feel?

1 = Very relaxed

5 = Very anxious



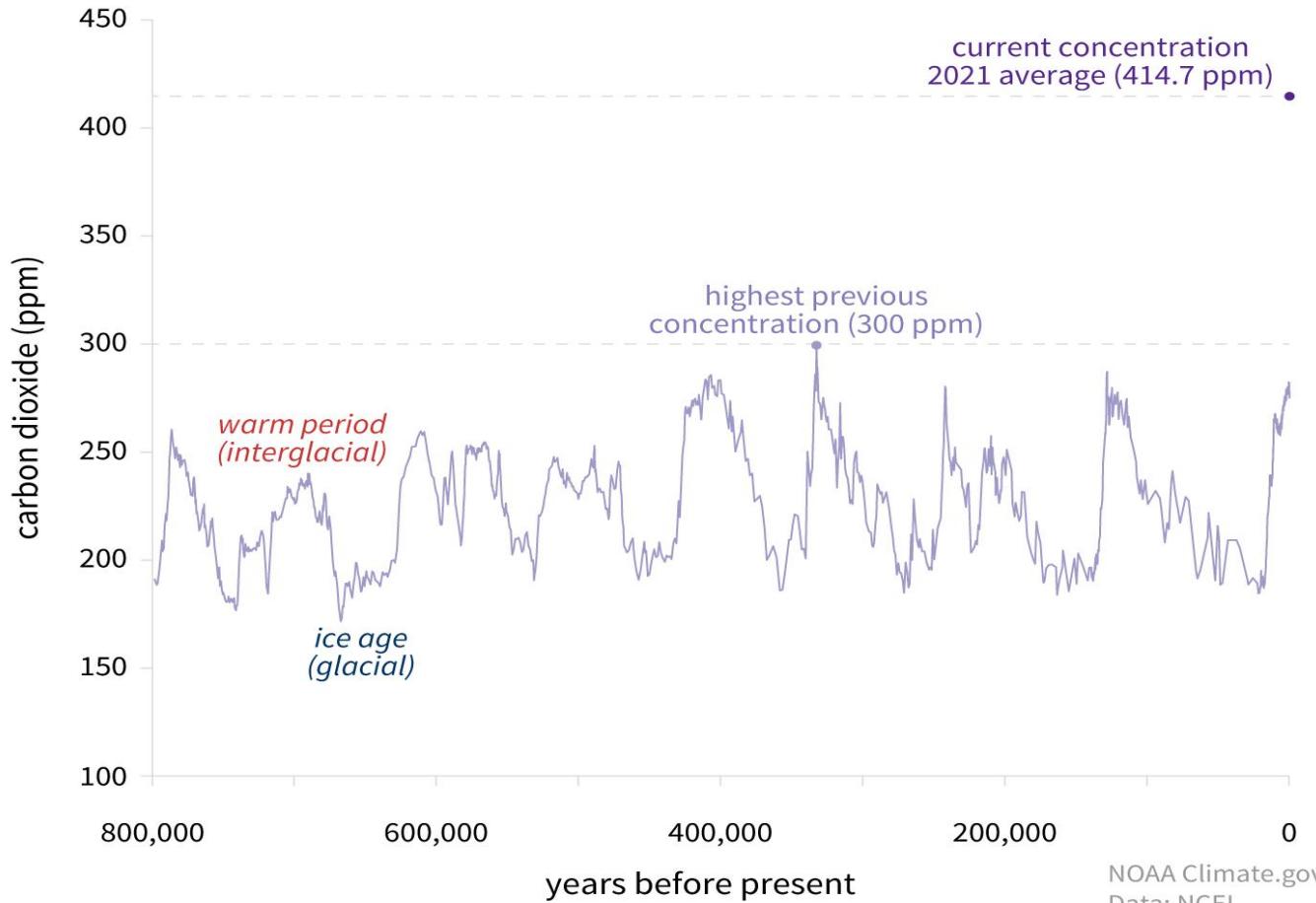
Meaningful climate action

truth



1. Climate change is real and we are the cause

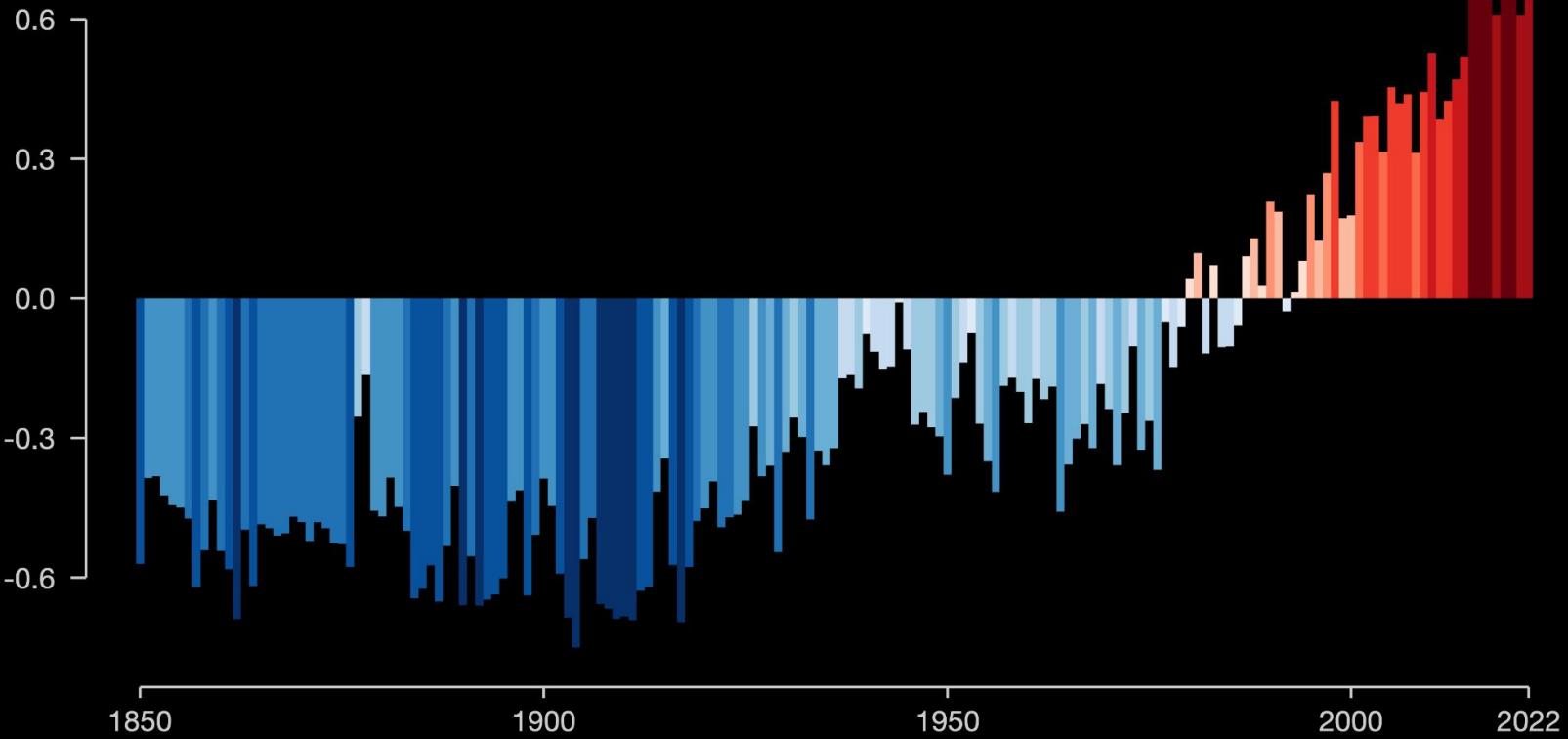
CARBON DIOXIDE OVER 800,000 YEARS



Source: [NOAA](#)

Global temperature change

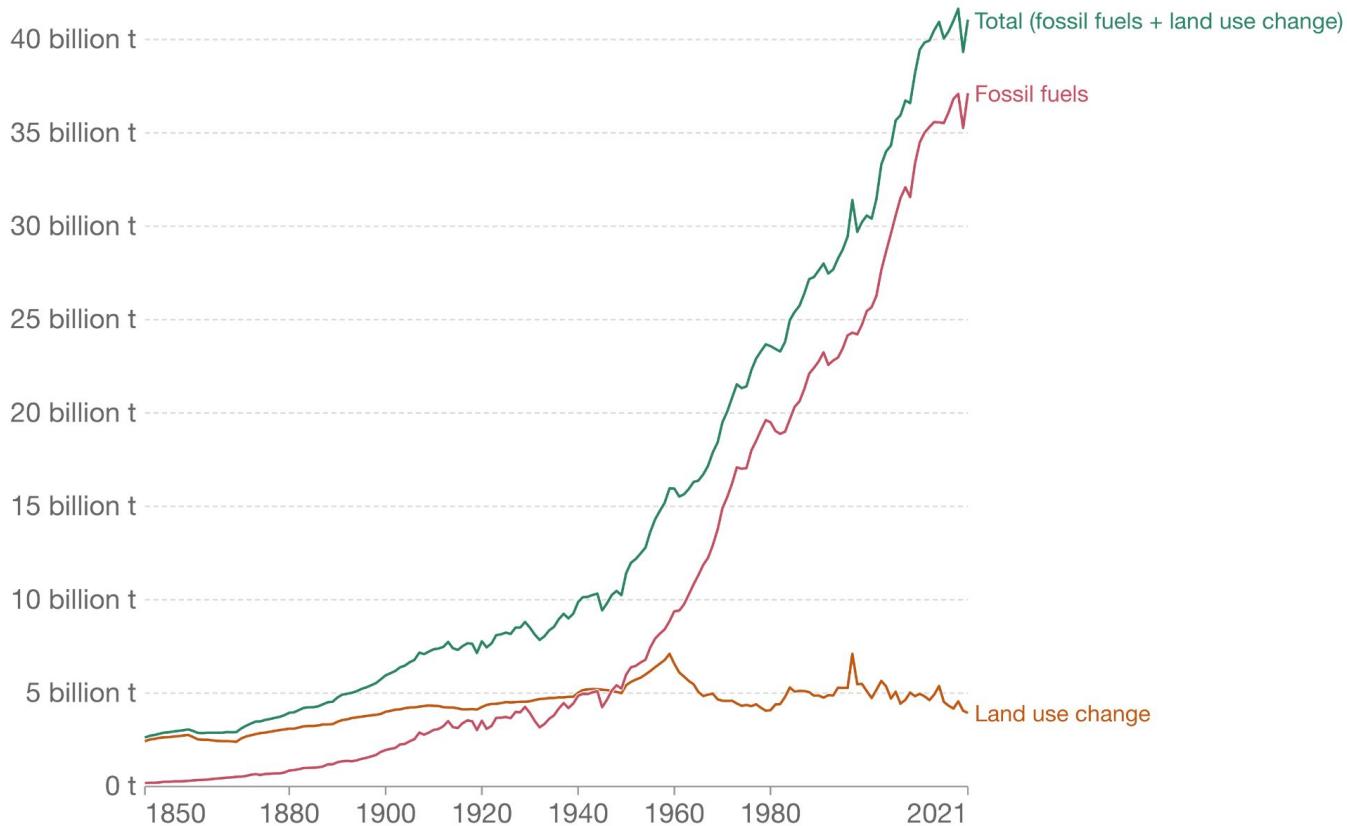
Relative to average of 1971-2000 [°C]



Source: [Show Your Stripes](#)

Global CO₂ emissions from fossil fuels and land use change, World

Our World
in Data



Source: Our World in Data based on the Global Carbon Project (2022)

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

2. Climate change is here and now



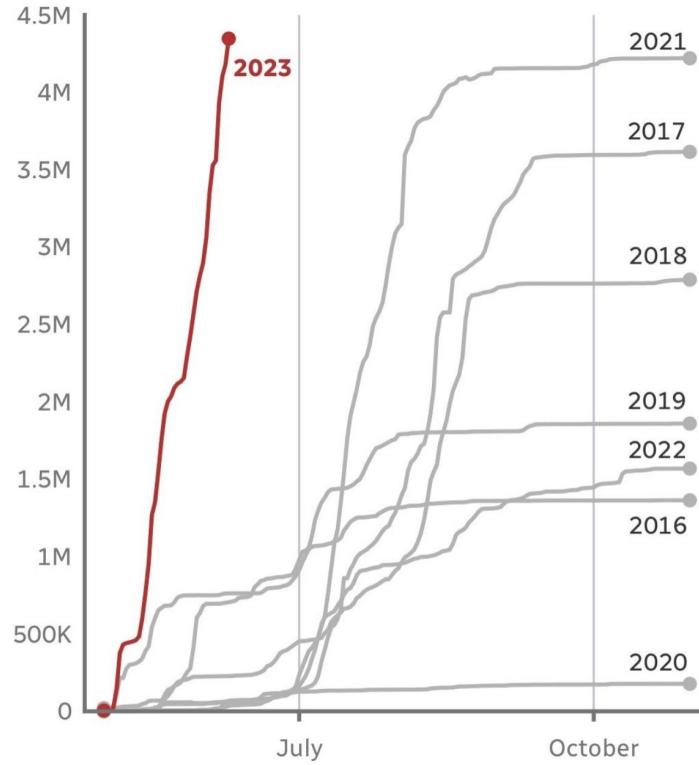
Source: [CNN](#)



Photographs by Clark Hodgin for The New Yorker

Source: [The New Yorker](#)

Estimated cumulative hectares burned in wildfires
from satellite detected hotspots in Canada



Updated on June 09, 2023

Source: Canadian Wildland Fire
Information System (Graeme Bruce/CBC)

Source: [CBC](#)



[Home](#) > [Extreme rainfall](#) > Heavy rainfall which led to severe flooding in Western Europe made more likely by climate change

Heavy rainfall which led to severe flooding in Western Europe made more likely by climate change

23 August, 2021

**EXTREME RAINFALL
EUROPE**

From the 12th to the 15th of July, heavy rainfall associated with cut-off low-pressure system "Bernd" led to severe flooding particularly in the German states North Rhine-Westphalia and Rhineland-Palatinate, as well as in Luxembourg, and along the river Meuse and some of its tributaries in Belgium and the Netherlands.

Full study

- Download the full study: Rapid attribution of heavy rainfall events leading to the severe flooding in Western Europe during July 2021, pdf (54 pages, 2.6 MB)

You may also be interested in...

- Limited net role for climate change in heavy spring rainfall in Emilia-Romagna
- The role of climate change in extreme rainfall associated with Cyclone Gabrielle

Choose Area:

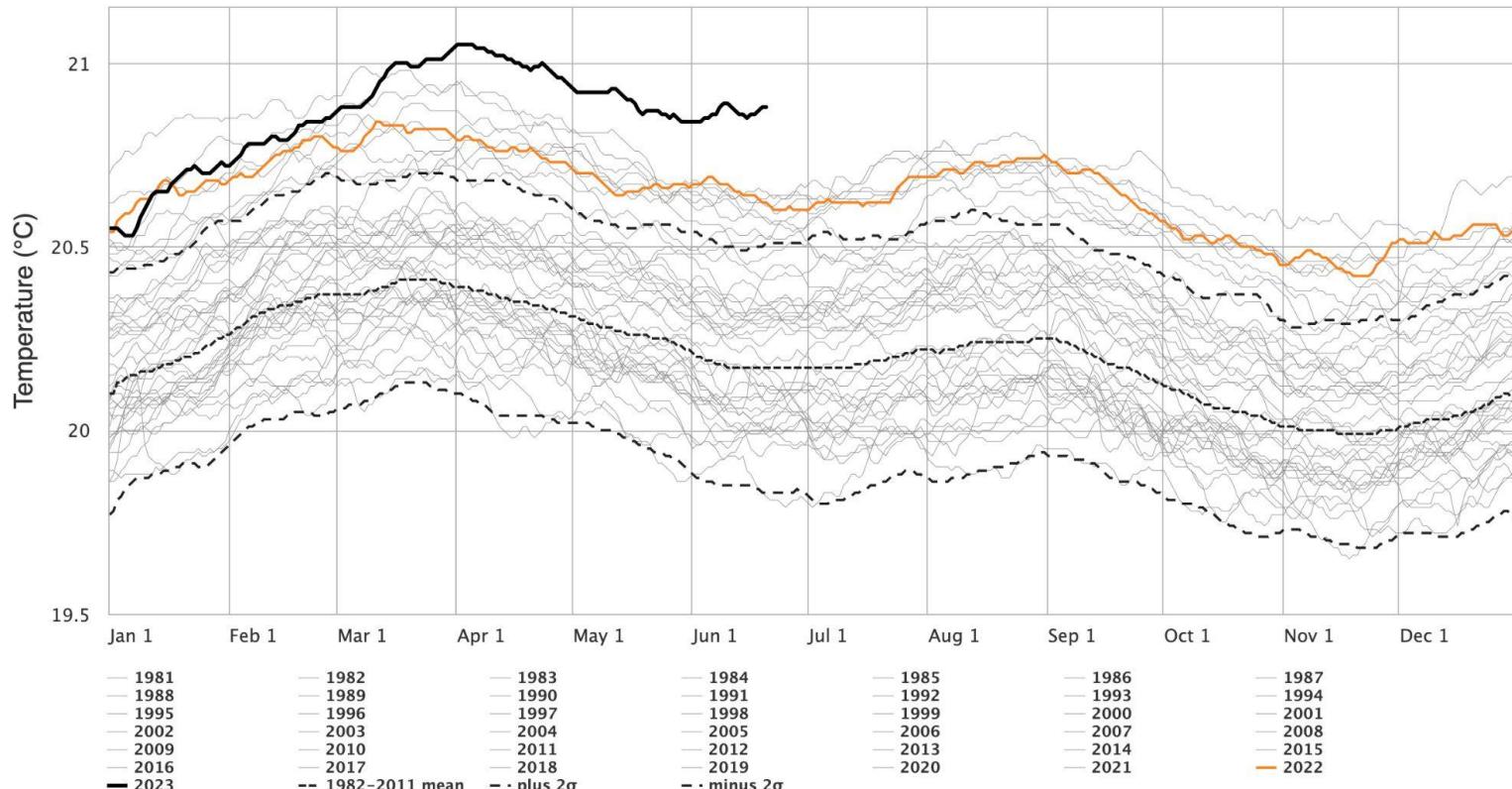
°C/F

World (60S-60N)

≡ Export Chart

SST World (60S-60N)

NOAA OISST V2.1 | ClimateReanalyzer.org, Climate Change Institute, University of Maine



THE GREAT CLIMATE MIGRATION

By Abraham Lustgarten | Photographs by Meredith Kohut

"As their land fails them, hundreds of millions of people from Central America to Sudan to the Mekong Delta will be forced to choose between flight or death. The result will almost certainly be the greatest wave of global migration the world has seen."



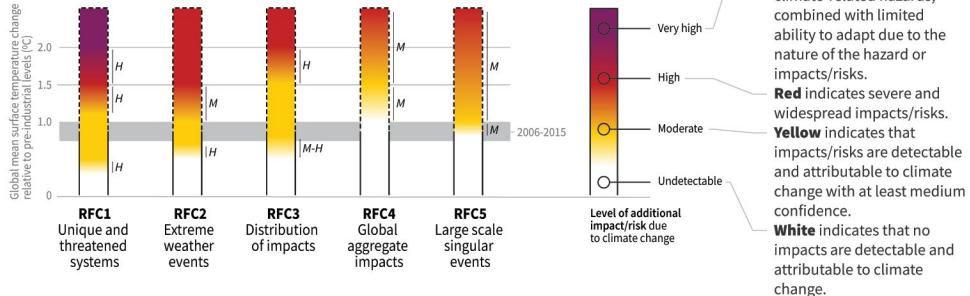
Source: [ProPublica and The New York Times Magazine](#)

**3. Exceeding 1.5° C of average global warming
is dangerous**

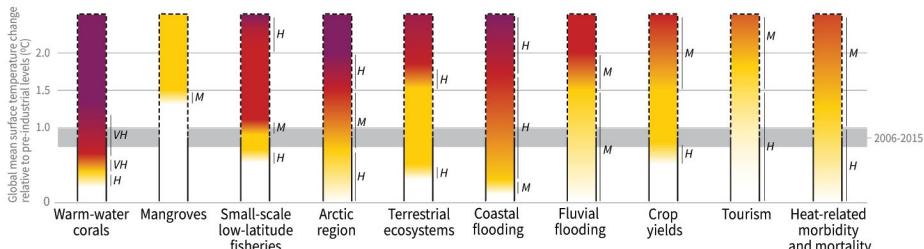
How the level of global warming affects impacts and/or risks associated with the Reasons for Concern (RFCs) and selected natural, managed and human systems

Five Reasons For Concern (RFCs) illustrate the impacts and risks of different levels of global warming for people, economies and ecosystems across sectors and regions.

Impacts and risks associated with the Reasons for Concern (RFCs)



Impacts and risks for selected natural, managed and human systems

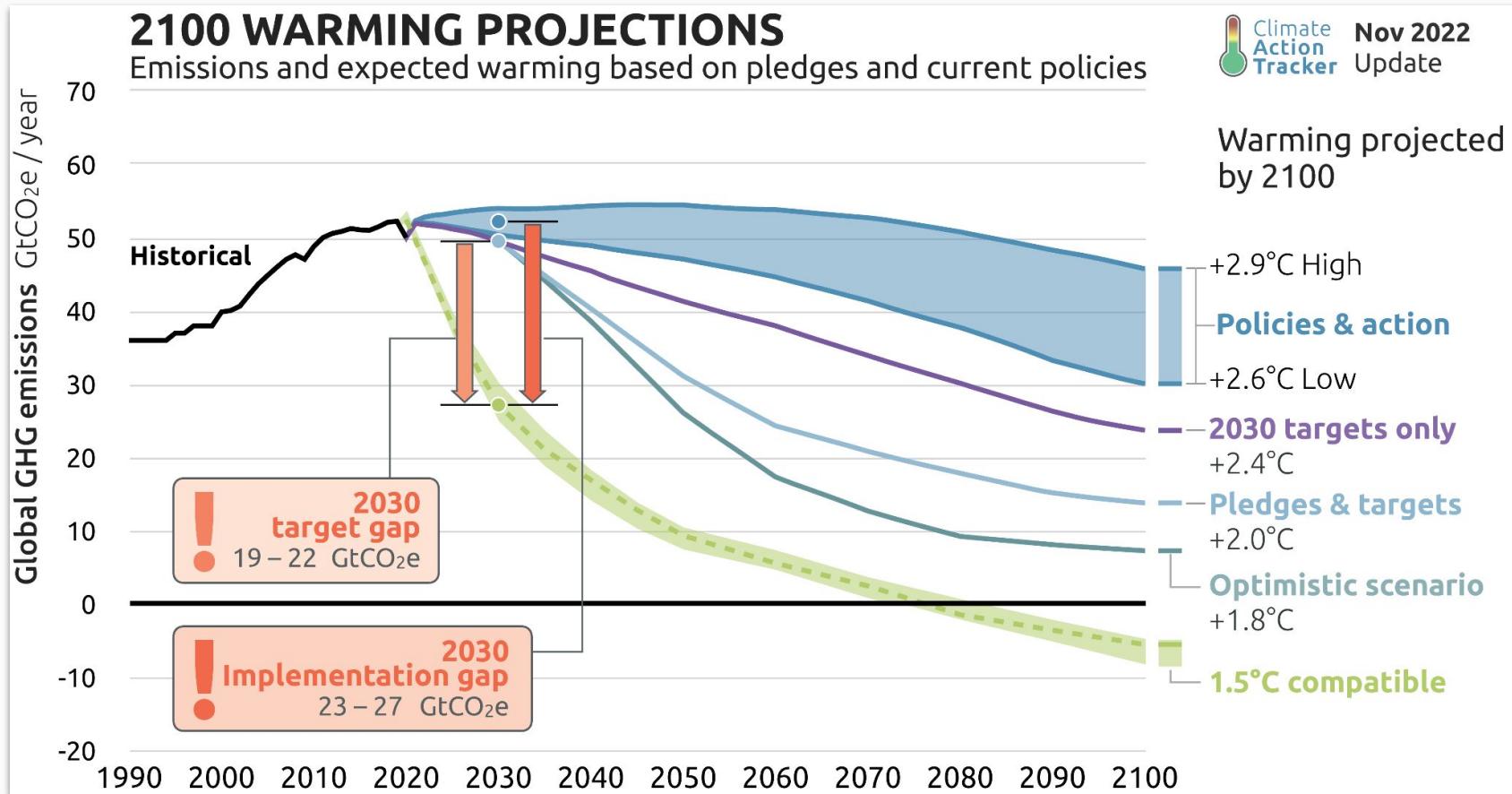


Confidence level for transition: L=Low, M=Medium, H=High and VH=Very high

Think of 1.5°C degrees not as an absolute line in the sand, but as a point on a continuum at which we begin to cross into multiple “danger zones.”

Graphic source. IPCC's special report on global warming of 1.5 C: [figure SPM 2](#)

We are headed for dangerous temp. ranges by 2100



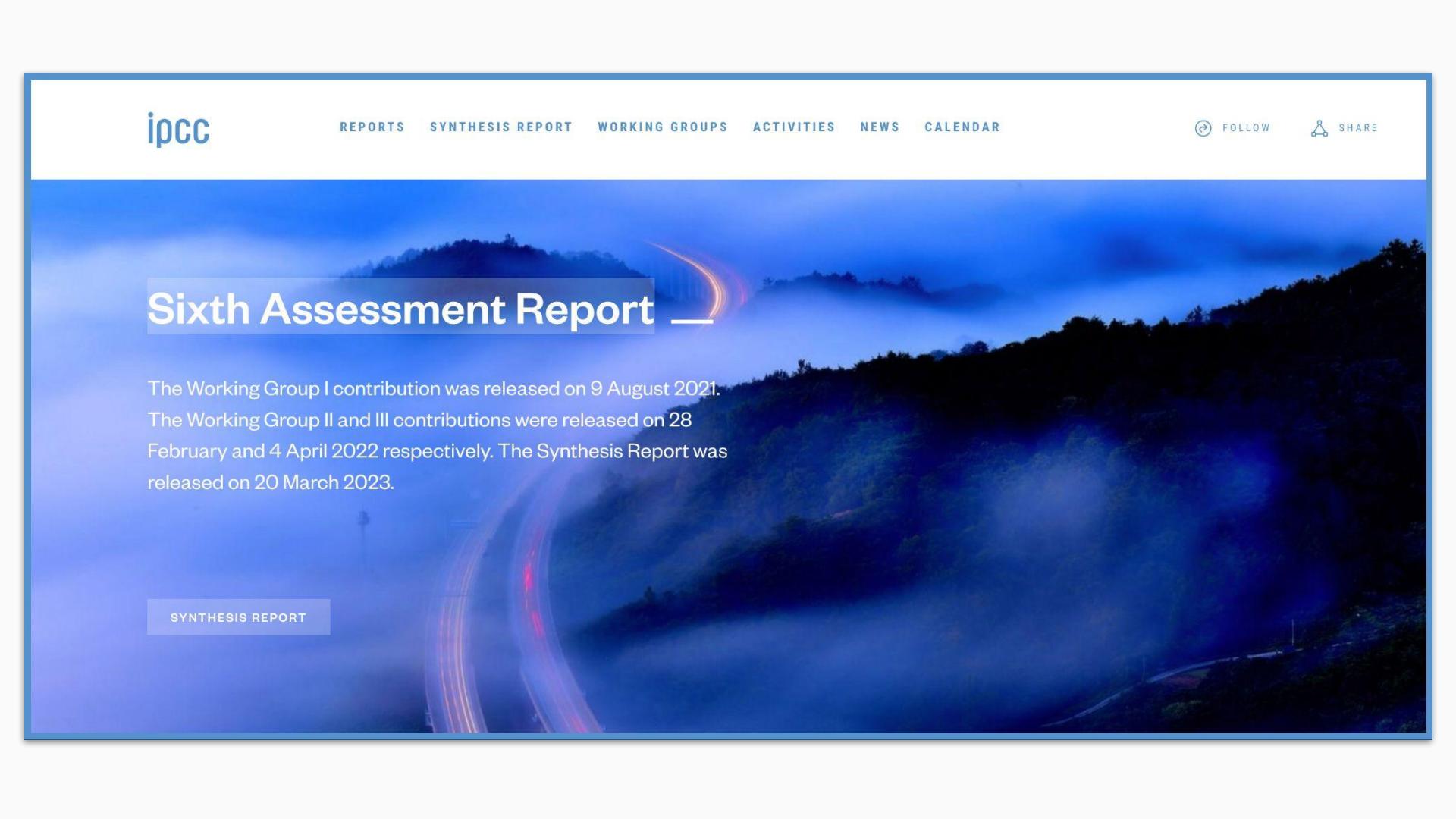
Sixth Assessment Report

The Working Group I contribution was released on 9 August 2021.

The Working Group II and III contributions were released on 28

February and 4 April 2022 respectively. The Synthesis Report was

released on 20 March 2023.

A wide-angle photograph of a winding road through a forested mountain range at dusk or night. The road curves from the bottom left towards the center, with long exposure light trails from cars creating bright, glowing streaks against the dark blue and purple tones of the sky and mist. The mountains are silhouetted against the light.
[SYNTHESIS REPORT](#)

Quick check-in

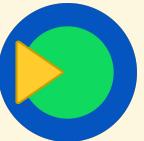
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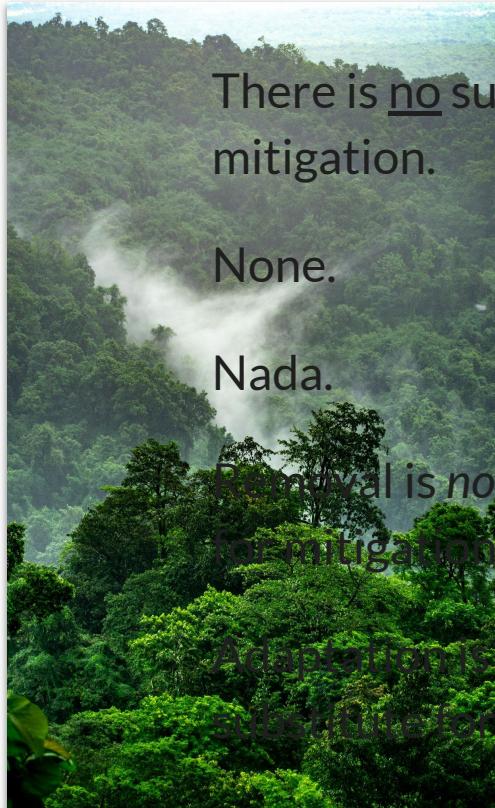


Truth, Part 2: Solutions

Mitigation



Removal



There is no substitute for mitigation.

None.

Nada.

Removal is not a substitute for mitigation.

Adaptation is not a substitute for mitigation.

Adaptation

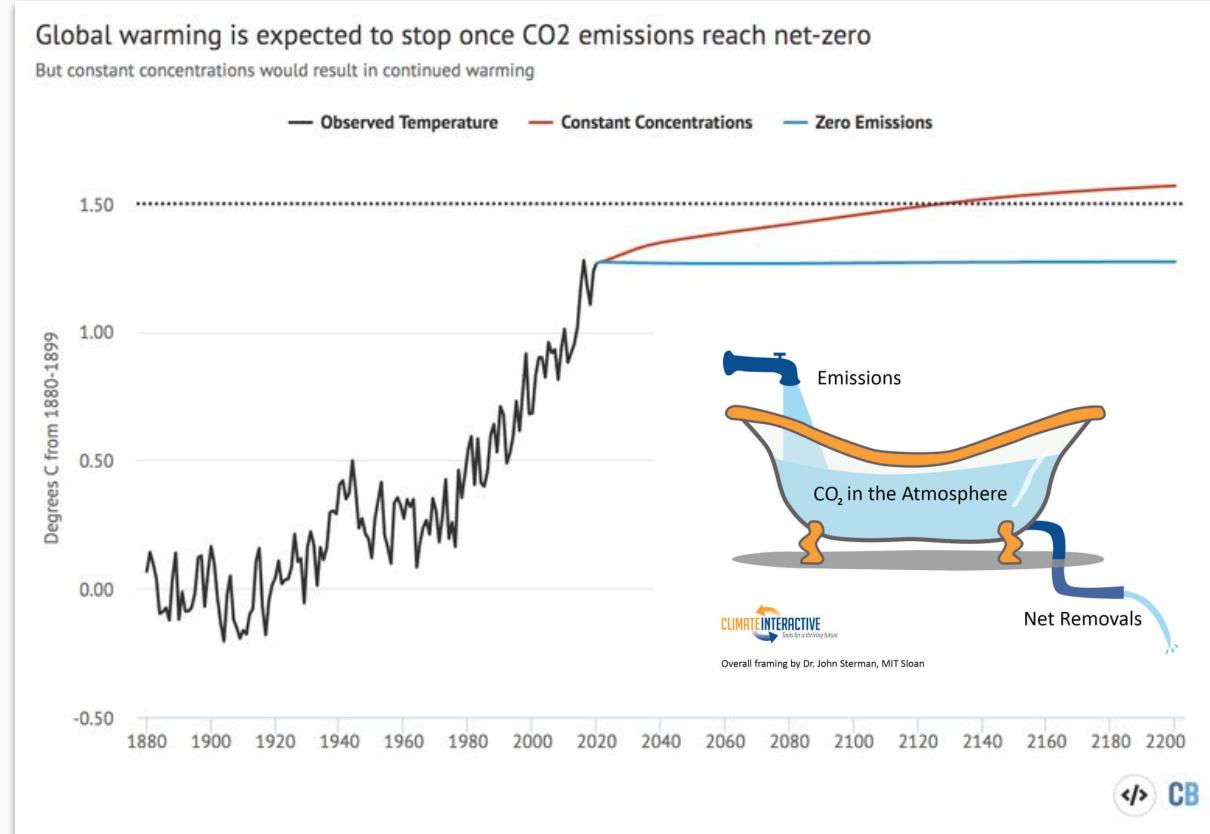


There is no substitute for rapid emissions reductions...

...and now is vastly preferable to later.

We have to get to zero or *net-zero emissions* globally to stop global warming.

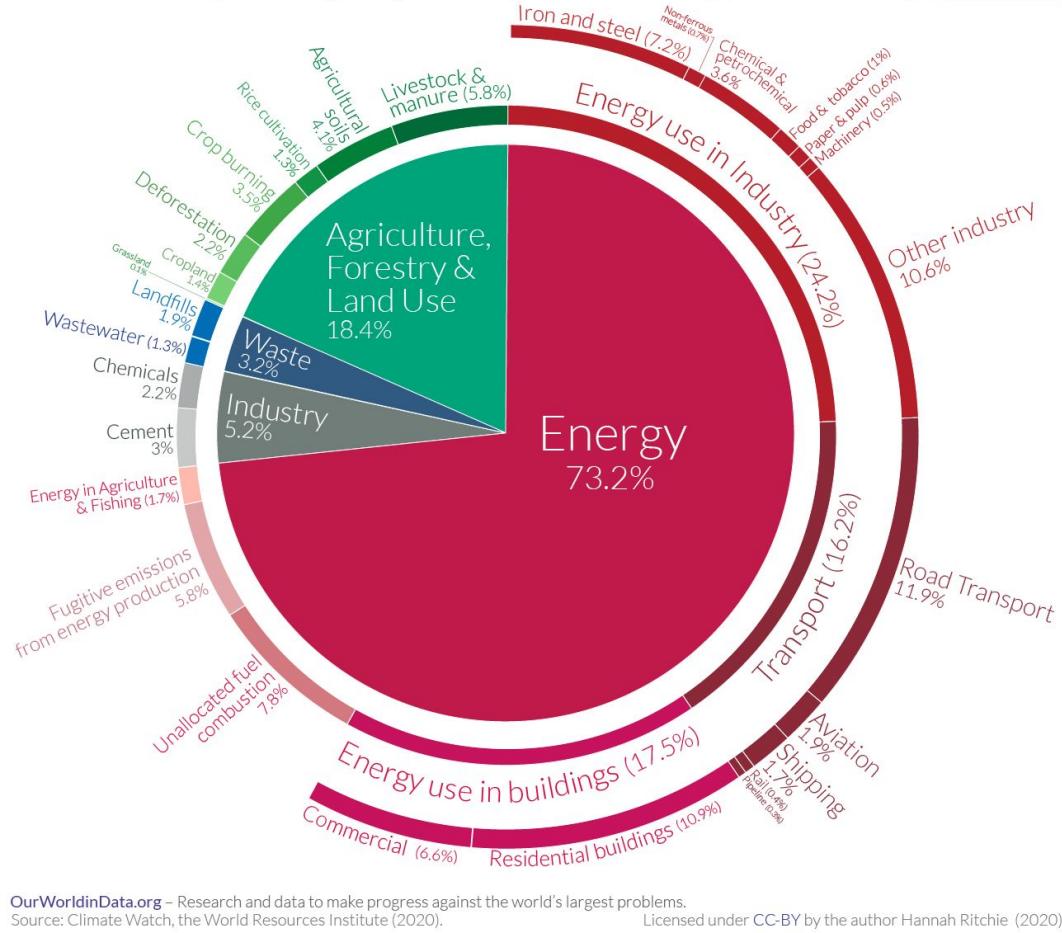
Net zero = eliminate almost all (>90%) emissions + remove the rest



Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.

Our World
in Data



We have all the solutions

CLIMATE SOLUTIONS BY SECTOR

Within each of these sectors are solutions to climate change with actions that can be taken today.



ELECTRICITY



OTHER ENERGY



FOOD, AGRICULTURE,
AND LAND USE



INDUSTRY



TRANSPORTATION



BUILDINGS



HEALTH AND EDUCATION



LAND SINKS



COASTAL AND OCEAN
SINKS



ENGINEERED SINKS



BIOMASS POWER



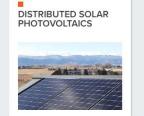
BUILDING AUTOMATION SYSTEMS



BUILDING RETROFITTING



CONCENTRATED
SOLAR POWER



DISTRIBUTED SOLAR
PHOTOVOLTAICS



DISTRICT HEATING



DYNAMIC GLASS



GEOTHERMAL POWER



GRID FLEXIBILITY



HIGH-EFFICIENCY HEAT
PUMPS



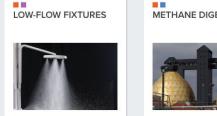
HIGH-PERFORMANCE
GLASS



INSULATION



LED LIGHTING



LOW-FLOW FIXTURES



METHANE DIGESTERS



MICRO WIND TURBINES



NET-ZERO BUILDINGS



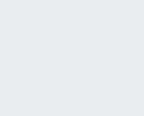
NUCLEAR POWER



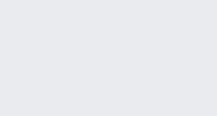
OCEAN POWER



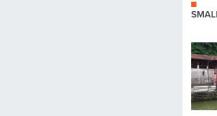
OFFSHORE WIND
TURBINES



SMALL HYDROPOWER



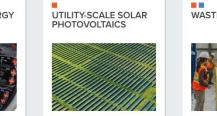
SMART THERMOSTATS



SOLAR HOT WATER



UTILITY-SCALE ENERGY
STORAGE



UTILITY-SCALE SOLAR
PHOTOVOLTAICS



WATER DISTRIBUTION
EFFICIENCY

Source. [Project Drawdown](#)

Solutions are not just about sectors



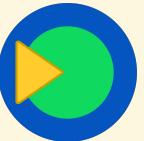
- Different mental models for thinking about solutions
- Cross-cutting levers are incredibly important:
 - politics & activism, policies, laws & regulation, finance, corporate sustainability, communications, education
- *Justice* is incredibly important
- “Multisolving” is a useful mental model (Elizabeth Sawin)

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Every job is a climate job



Climate change is remaking the global economy

Sector	% Global GDP	Source of disruption
Energy	11%	Renewables
Construction	11%	Building energy efficiency standards Sustainable material mandates
Transport	10%	Electric Vehicles Zero-carbon fuels
Industrials	10%	Circularity Carbon removal
Agriculture and land management	9%	Plant-based proteins Forestry and conservation Regenerative farming Need for resilience
Finance	9%	Physical asset risk ESG

From industry and finance...

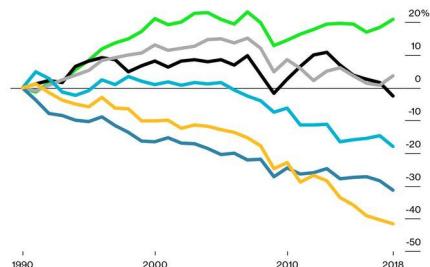


To entire economies...

Carbon Cuts

Change in greenhouse-gas emissions since 1990 among large economies

Canada ■ Japan ■ US ■ France ■ Germany ■ UK



Source: OECD

Bloomberg Green

The green economy faces large talent bottlenecks



Growth in demand for green skills
is outpacing the increase in supply

Between 2022 and 2023



+12.3% +22.4%

Share of green talent
in the workforce

Share of job postings requiring
at least one green skill

Source. [LinkedIn Global Green Skills Report 2023](#)



**Terra.do is the world's largest platform
upskilling talent for the green economy.**

Our Mission: Get 100M people to work directly on solving climate change by 2030.



Our learning for action model

For an individual to be inspired to action, they need to understand what needs to be done and know how to do it.

Knowledge acquisition & skills development

Communities of Practice

Connection with experts and practitioners both within the organisation and outside.

Emotional resilience

Helps sustain doing the work when personal or macro-economic obstacles and challenges of addressing climate change emerge.

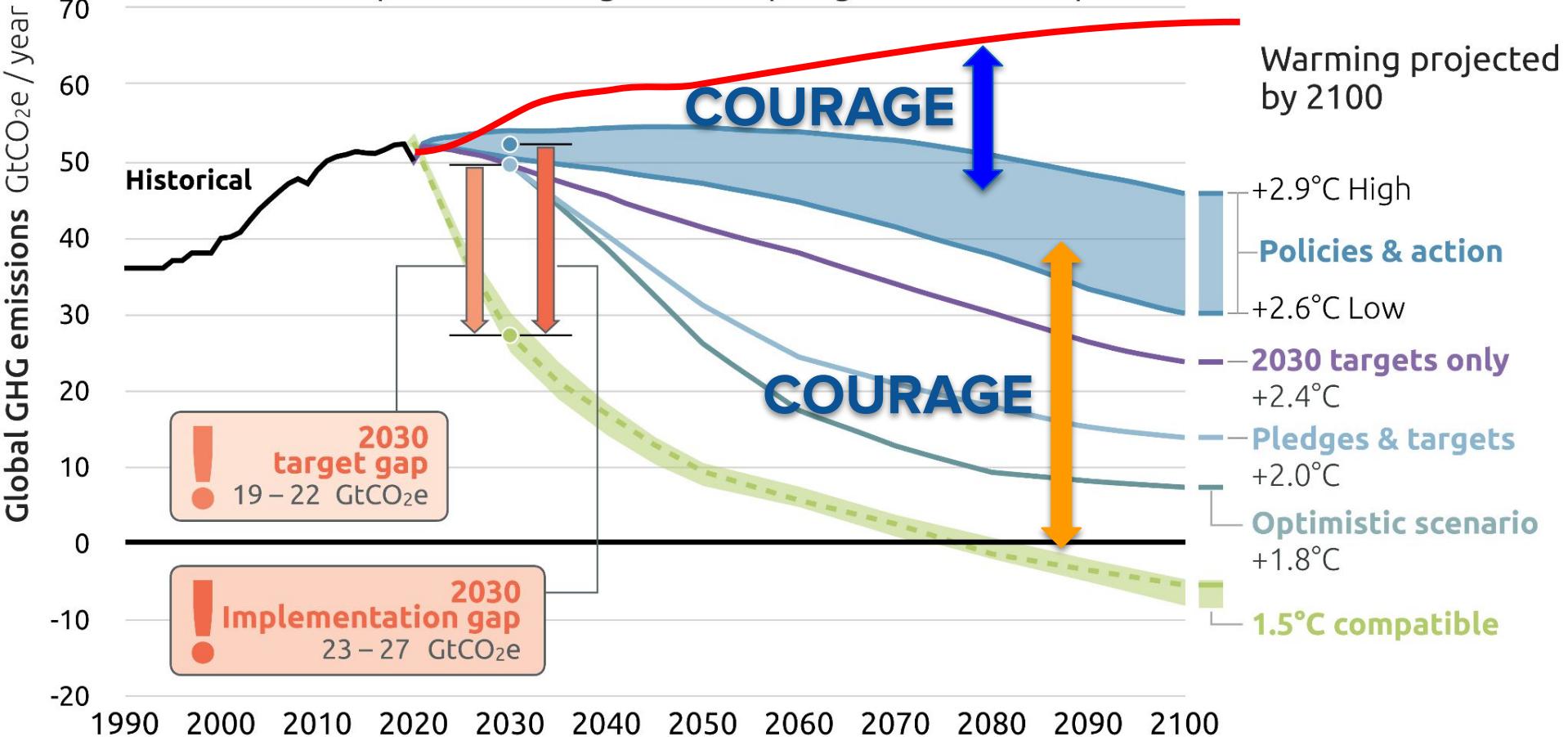
2100 WARMING PROJECTIONS

Emissions and expected warming based on pledges and current policies



Nov 2022

Update



Learning for Action

A global, online climate bootcamp for professionals

FLAGSHIP COURSE

Climate Change: Learning for Action

A deep dive into the full climate change landscape. Kickstart your journey with a 12-week climate education and solutions bootcamp, starting on Jul 24, 2023.

Applications close on **Jul 14, 2023**

[Apply now](#)

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McKinsey
& Company

andreessen.
horowitz

HSBC

Google

Meta

slack

Apple

amazon

NIKE

Unilever

The Economist

IDEO

BILL & MELINDA
GATES foundation

THE WORLD BANK

SUNRISE MOVEMENT

Dalberg

ReNew
POWER

香港紅十字會
HONG KONG RED CROSS
中國紅十字會 Branch of the Red Cross Society of China

HARVARD
UNIVERSITY

Stanford
University

Penn
UNIVERSITY OF PENNSYLVANIA

Berkeley
UNIVERSITY OF CALIFORNIA

UNIVERSITY OF
OXFORD

UNIVERSITY OF
CAMBRIDGE

15

Graduated cohorts

1500+

Graduates

9.3

Avg. course rating

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Action: What will your story be?

The year is 2045 and the world has successfully solved climate change. You are one of many heroes of this great transition and *your story* was inspiring to millions. You have been invited to share this story at a massive global Terra.do conference; Terra.do is now the world's leading online platform for climate action and learning, with 300 million subscribers globally.

What is one courageous act that will be part of your story?

- Go beyond your comfort zone and face one difficult truth about yourself, your organization, your sector (in the context of climate action)
- Not something you've already done but something you will do
- Use your imagination; think of courageous people you admire and their stories



Thank you!
terra.do