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CAMBRIDGE

CISL Cambridge Institute
for Sustainability
Leadership



The background of the slide features a photograph of several hippopotamuses resting in a body of water. The water is a vibrant blue, and the hippos' heads and backs are visible above the surface. The background is a lush, green, out-of-focus landscape. A white, flowing line graphic starts from the bottom left, curves upwards and to the right, and then downwards again, partially enclosing the central text area.

The Business & Sustainability Programme Africa

Day 1

16 March 2025
Naivasha, Kenya



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Session 1.0: Opening & Context Setting

Professor Richard Calland

Director: CISL Africa | Director: Board Programmes, CISL





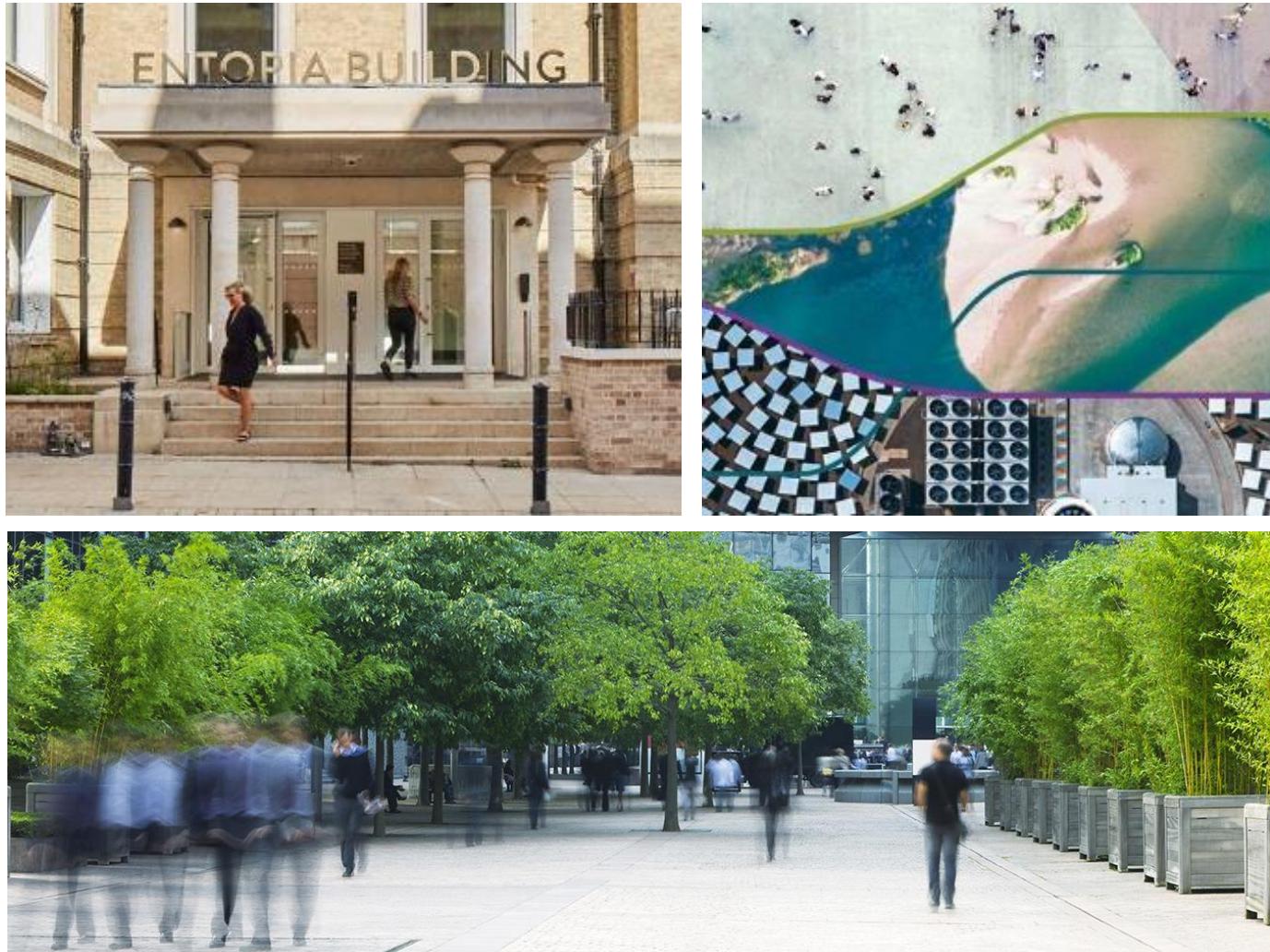
Introduction to CISL

Who we are and why we exist

Introduction to CISL: Who we are

We are an impact-led institute within the University of Cambridge that **activates leadership globally for people, nature and climate**. Through our global network and hubs in Cambridge, Cape Town and Brussels, we work with leaders and innovators across business, finance and government to accelerate action for a sustainable future.

Trusted since 1988 for our rigour and pioneering commitment to learning and collaboration, **we create safe spaces to challenge and support those with the power to act**.





Developing leadership and solutions for a sustainable economy



Foresight

Developing pioneering ideas, research and resources for better decision-making and system design



Education

Empowering individuals and organisations to lead change at scale



Convening

Building transformative alliances across business, finance, and policy



Innovation

Catalysing entrepreneurial leadership to accelerate solutions to global challenges

Accelerating a sustainable transition for *people, nature* and *climate*

Network

Our global network of over 40,000 leaders and innovators takes individual, collaborative and collective action to accelerate transformation for sustainable societies and economies.

His Majesty King Charles III is [Royal Founding Patron](#) and inspired and supported many of our initiatives.

Offices:

Cambridge, Cape Town and Brussels

Who we work with and why

To build business leadership for system change, accelerating transformation of real economy sectors and places and shifting finance to unlock a more sustainable economy, so as to transform economies so that they deliver for people, nature and climate.

We work with hundreds of organisations and thousands of individual leaders every year to help them catalyse and lead change at pace and scale by using their influence and reach for impact.



CISL AFRICA PROGRAMME OBJECTIVES

To cultivate the **leadership capability** to access and deploy the finance required for a **just and sustainable economic transition** in Africa; and

To generate a powerful cross-sector **alliance** to confront and overcome any political economy barriers by building, maintaining or disrupting the **institutions** needed to **govern** the transition.

A just and sustainable economic transition

“It’s the economy, stupid!”

“We need to transition from an extractive, exploitative, exclusive and excessive economic model to one that is regenerative, reciprocal, representative and restrained”

- Dr Gary Kendall, CISL Senior Associate & Head of Climate Implementation and Strategy, NatWest Bank, UK, formerly with Nedbank’s sustainability strategy team in Johannesburg.

CISL AFRICA CORE TEAM



CISL Africa Advisory Group:

[Dr Mao Amis](#), CEO, African Centre for a Green Economy

[Ylva Lindberg](#), Executive Vice President, Strategy & Communication, Norfund

[Prof. Carlos Lopes](#), Professor, Nelson Mandela School of Public Governance at the University of Cape Town; Visiting Professor at Sciences Po, Associate Fellow at Chatham House

[Nompilo Morafo](#), Chief Sustainability and Corporate Affairs Officer, MTN Group

[Dr. Melanie Müller](#), Senior Associate: Africa & Middle East, SWP - German Institute for International & Security Affairs

[Dr. Nomfundo Ngwenya](#), Executive Director representing South Africa, Eswatini and Lesotho, African Development Bank

[Victoria Puxley](#), Founder, Puxley ESG, Nairobi

[Theo Sibiya](#), Partner & Managing Director: Africa, Kearney

[Wandile Sihlobo](#), Chief Economist, Agricultural Business Chamber of South Africa

[Prof. Imraan Valodia](#), Pro Vice Chancellor: Climate, Sustainability and Inequality, University of the Witwatersrand, Johannesburg

[Akhona Xotyeni](#), Sustainable Cities Programmes Officer, Embassy of Denmark in South Africa



African Fellows & Senior Associates

Fellows

- Elspeth Donovan (education)
- Malcolm Gray (finance)
- Susan Njoroge (education)
- Khanyi Mlambo (leadership)
- Stefan Raubenheimer (strategy)
- Anton Cartwright (innovation & development economics)
- Dr Gary Kendall (business action)
- Prof Mark Swilling (systems change)

Senior Associates

- Dr Yvonne Maingey-Muriuki (climate change)
- Dr Irene Amoke (biodiversity)
- Susan Maingi (government relations)
- Thabani Mlilo (critical minerals),
- Irshaad Kathrada (green industrialisation)
- Prof Themba Maseko (governance)
- Aimee Girdwood (law and sustainability)
- Jonathon Hanks (corporate sustainability strategy & reporting)
- Mary-Jane Morifi (corporate affairs)
- Yvette Nowell (social investment)
- Prof Edgar Pieterse (urbanisation)
- Len Verwey (public finance)
- Tshidi Ramogase (corporate affairs and sustainability),
- Rongrong Huo (private finance)
- Khumo Shongwe (customised corporate leadership).



THE CONTEXT & CISL WORLDVIEW: TWO BIG INFLEXION POINTS

Geo-politics & "ESG"

02

The Context Always Matters

But now, in addition, it matters because **The Context is Existential**

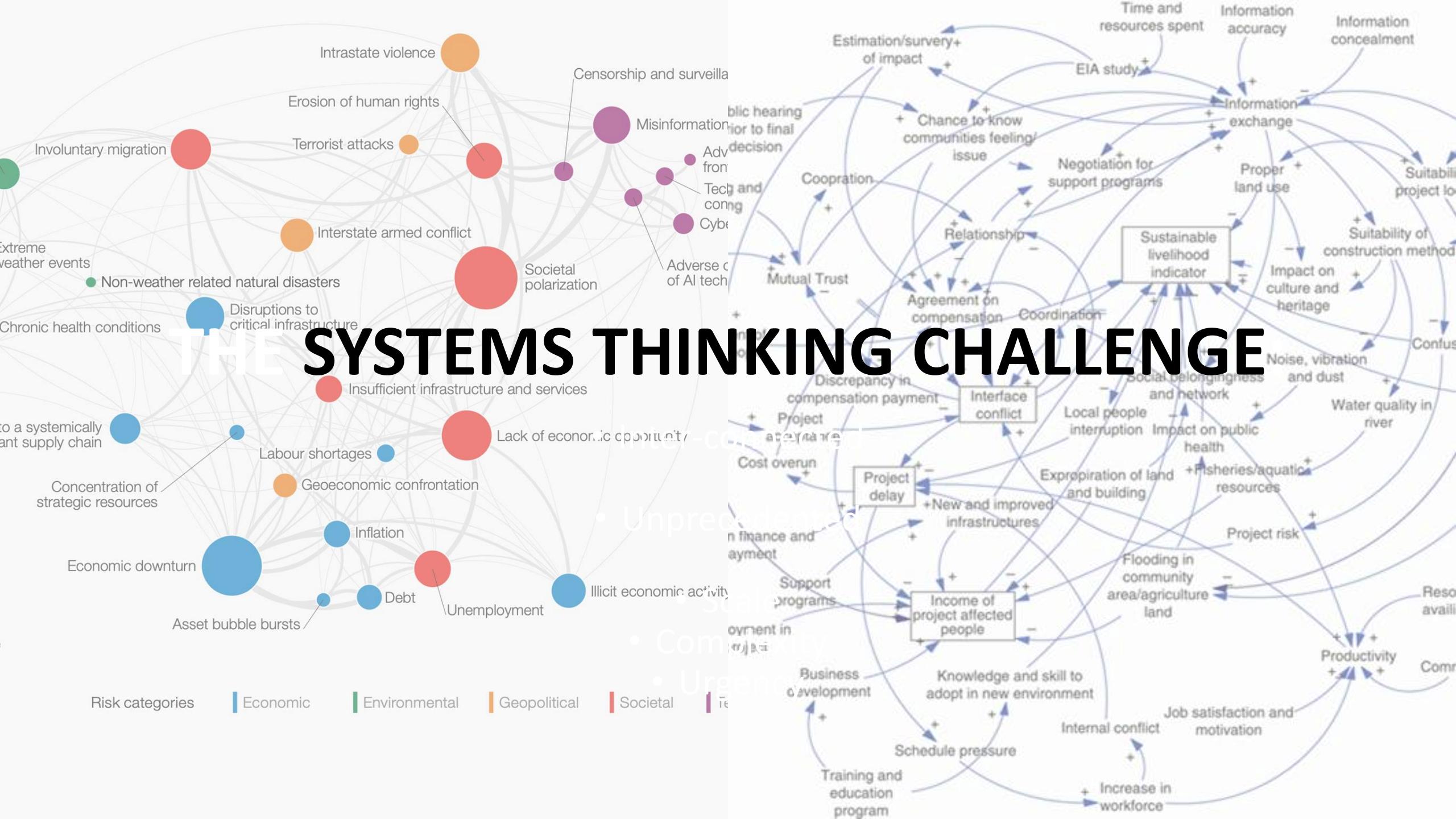
The context demands of us that we ask **profound questions**, such as:

- Why are we doing what we're doing?
- And for how much longer can we continue to do what we are doing?

**Navigating a complex context is a leadership primary task , especially
in an age of Misinformation & Disinformation.**



SYSTEMS THINKING CHALLENGE





Global Risks Report 2025



Global risks ranked by severity

Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period.

Short term (2 years)

1 st	Misinformation and disinformation
2 nd	Extreme weather events
3 rd	State-based armed conflict
4 th	Societal polarization
5 th	Cyber espionage and warfare
6 th	Pollution
7 th	Inequality
8 th	Involuntary migration or displacement
9 th	Geoeconomic confrontation
10 th	Erosion of human rights and/or civic freedoms

Long term (10 years)

1 st	Extreme weather events
2 nd	Biodiversity loss and ecosystem collapse
3 rd	Critical change to Earth systems
4 th	Natural resource shortages
5 th	Misinformation and disinformation
6 th	Adverse outcomes of AI technologies
7 th	Inequality
8 th	Societal polarization
9 th	Cyber espionage and warfare
10 th	Pollution

Risk categories

● Economic ● Environmental ● Geopolitical ● Societal ● Technological

Source: World Economic Forum, Global Risks Perception Survey 2024-2025

The Global Rise of Fascism

From Snyder's book 'On Tyranny':

10

Believe in truth.

To abandon facts is to abandon freedom. If nothing is true, then no one can criticize power, because there is no basis upon which to do so. If nothing is true, then all is spectacle. The biggest wallet pays for the most blinding lights.



5

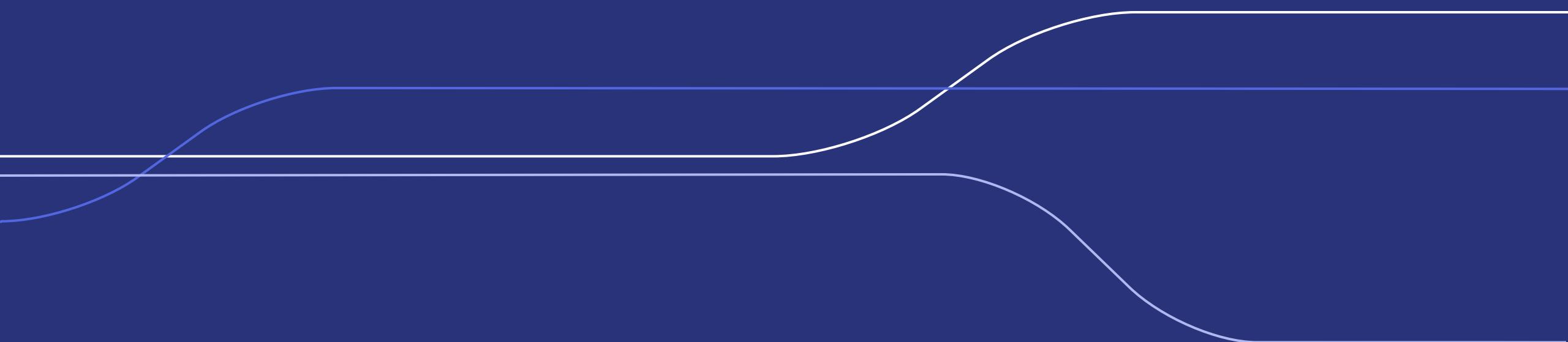
Remember professional ethics.

When political leaders set a negative example, professional commitments to just practice become more important. It is hard to subvert a rule-of-law state without lawyers, or to hold show trials without judges. Authoritarians need obedient civil servants, and concentration camp directors seek businessmen interested in cheap labor.

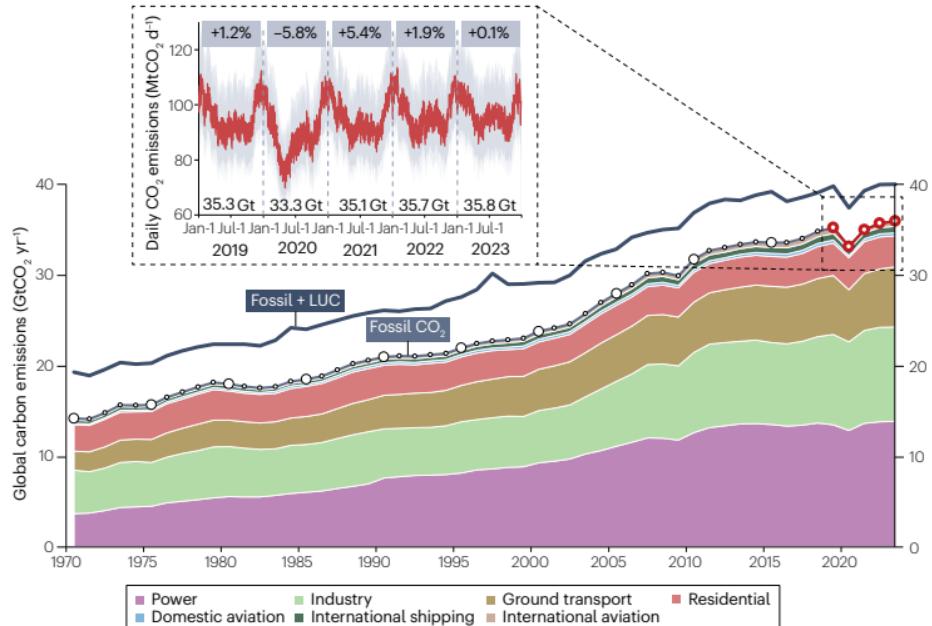


Second Inflection Point:

Qua Vadis 'ESG'?



WE ARE NOT WINNING...AND ESG IS DOING MORE HARM THAN GOOD



Despite decades of corporate commitments and innovation, and the massive flow of capital into clean technologies, the crisis is deepening not alleviating. The problems are growing faster than the solutions. The trends on climate, nature and inequality continue to head in the wrong direction.

Lindsay Hooper, CISL CEO

<https://www.ft.com/content/47b334a9-69eb-4cd0-af22-6ad0b92c0ef6>

'In 2023, global annual emissions reached an all-time high of 35.8 Gt CO₂'

'Given dwindling carbon budgets to constrain warming to 1.5 °C [...] the absence of a clear downward trend in emissions is troubling.'

'The window of opportunity to meet the most ambitious international climate goals is rapidly closing.'

CISL WORLDVIEW: SHIFT TO ‘COMPETITIVE SUSTAINABILITY’

- You can't do business on a dead planet
- Economic transition is inevitable - the question is what shape it will take
- Markets remain the best route to deliver change at scale – but they aren't yet designed to do so
- Lobby aggressively for market shifts & appropriate regulation
- Build social engagement and buy in for transition
- Prepare to compete and win on superior sustainability performance.



<https://www.cisl.cam.ac.uk/news/blog/esg-dead-long-live-esg>

It is in leading business's interest for governments to:

- ban egregious practices; and
- price in environmental impacts

to remove the tension between sustainability and profitability.

A wide-angle landscape photograph of a river, likely the Drakensberg River, flowing through a deep, green valley. The river forms a prominent S-shape. The surrounding terrain is composed of rugged, layered mountains with a mix of green vegetation and exposed reddish-brown rock. The sky is a clear blue with a few wispy white clouds.

The leadership agenda for business must now be focused on strong action to urgently accelerate economy-wide change and to prepare their organisation for that change.

WE NEED A REVOLUTION



In order to secure our future and to prosper, we need to evolve our economic model. Having been engaged in these issues since I suppose 1968, when I made my first speech on the environment, and having talked to countless experts across the globe over those decades, I have come to realise that it is not a lack of capital that is holding us back, but rather the way in which we deploy it. Therefore, to move forward, we need nothing short of a paradigm shift, one that inspires action at revolutionary levels and pace.

King Charles III – Davos, 2020

OPTIMISM VERSUS REALISM

Optimism is radical. It is the hard choice, the brave choice. And it is, it seems to me, most needed now, in the face of despair—just as a car is most useful when you have a distance to close. Otherwise, it is a large, unmovable object parked in the garage. These days, the safest way for someone to appear intelligent is being skeptical by default. We seem sophisticated when we say “we don’t believe” and disingenuous when we say “we do.” History and fable have both proven that nothing is ever entirely lost. David can take Goliath. A beach in Normandy can turn the tide of war. Bravery can topple the powerful. These facts are often seen as exceptional, but they are not. Every day, we all become the balance of our choices—choices between love and fear, belief or despair. No hope is ever too small.

- Guillermo del Toro



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Thank you

Please contact us for further information

richard.calland@cisl.cam.ac.uk

www.cisl.cam.ac.uk

| [@cisl_Cambridge](https://twitter.com/cisl_Cambridge)



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Naivasha, Kenya



Session 1.1: Welcome and Roadmap: the context for business and sustainability

Susan Njoroge

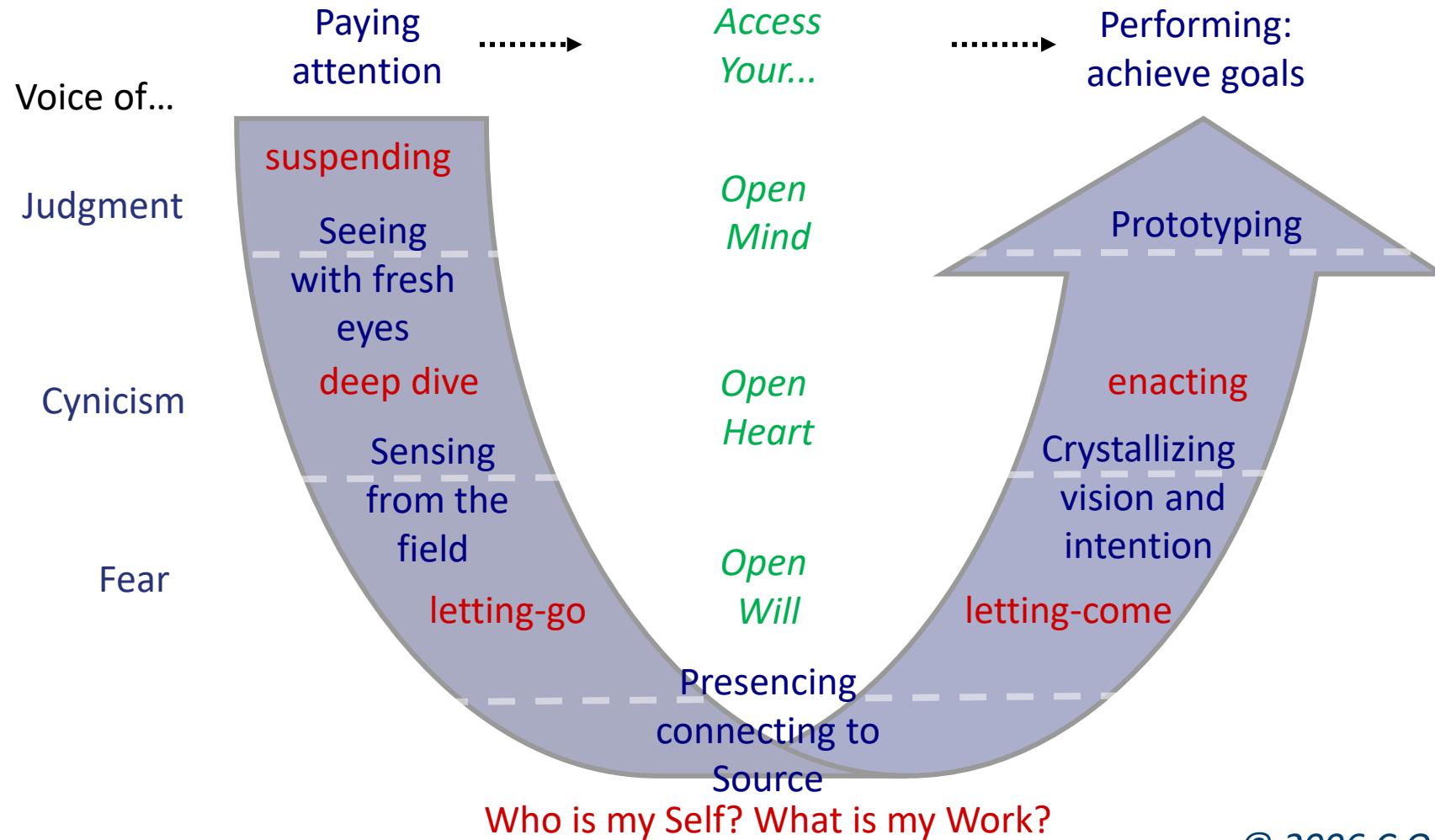
CISL Fellow | Managing Director, Responsible Business
Consulting | Programme Director of BSP Africa

Seminar Guidelines

- **Chatham House Rule**
- **Wear your name tag**
- **Please read the essential pre-reading for each session**
- **All sessions are compulsory**
- **We will start on time and end on time**
- **Avoid using your devices during the seminar**
- **Evaluate and reflect daily**
- **All slides and materials made available**
- **Keep an open mind: Listen, reflect, reframe and regenerate your thinking**

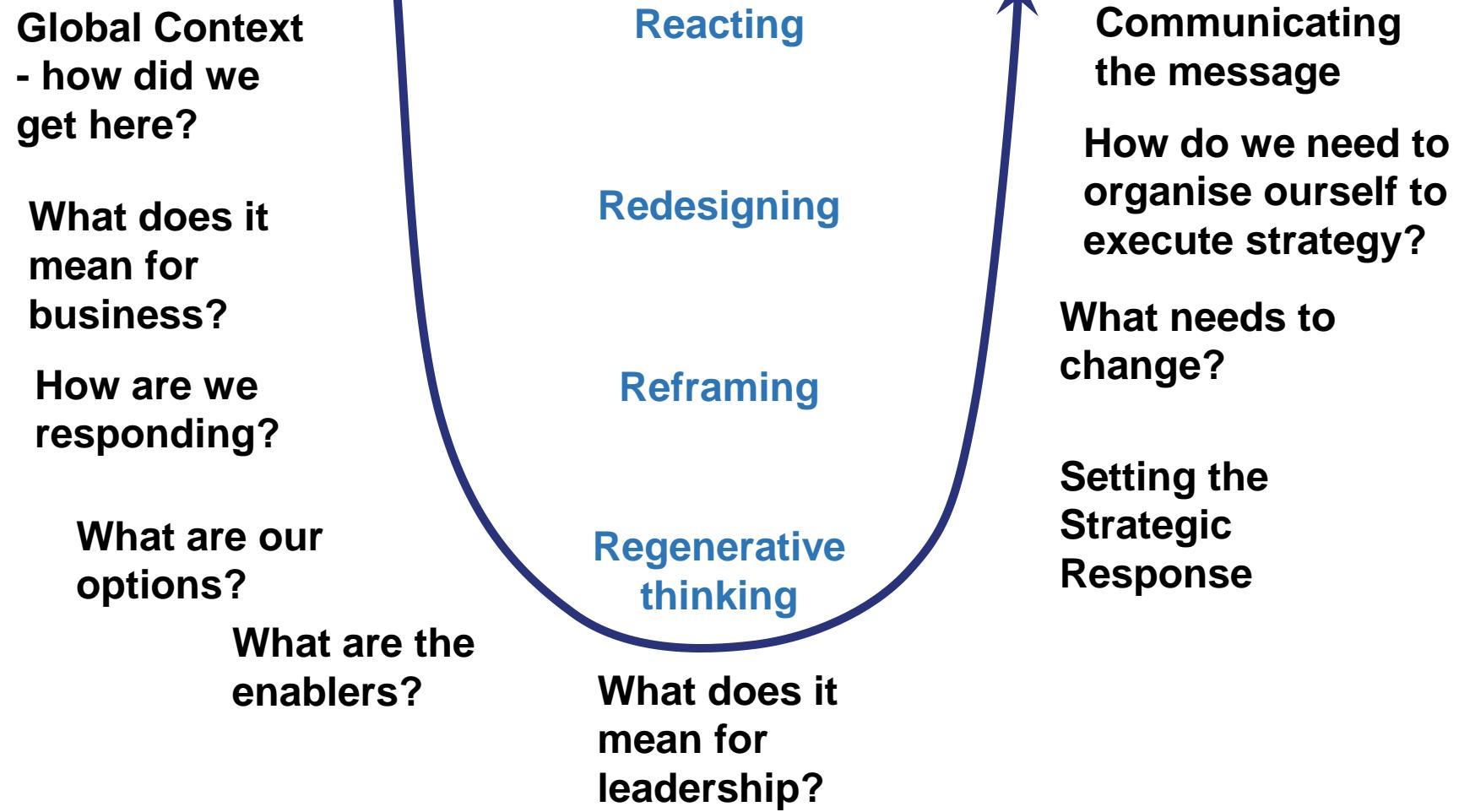


Theory U – Otto Scharmer



© 2006 C.O. Scharmer

The Learning Journey



Harnessing Diversity

- **Diversity of role, organisation, geography, expertise, priorities**
- **Bring your context, questions and ideas forward**
- **Be proactive in engaging with peers with diverse experience**
- **If you are expert in a topic being covered:**
 - **Be open to new insights**
 - **Listen to how others are responding**
 - **Engage and test your thinking**
- **...but 'quieten your cleverness' - allow peers to reach their own conclusions**



Meet Your Faculty Team



Prof Richard Calland

CISL Fellow | Director, CISL Board Programmes | Chair of BSP Africa



Susan Njoroge

CISL Fellow | Managing Director, Responsible Business Consulting | Programme Director of BSP Africa



Pat Dwyer

Senior Associate, CISL and Founder of The Purpose Business (TPB)



Stefan Raubenheimer

Fellow, CISL and Director, Raubenheimer Climate Consulting



Sibusiso Nkomo

Programme Manager, CISL Africa Programme



Malcom Gray

Senior Associate, CISL and Partner and Chief Financial Officer ERM Libryo

BSP Africa Microsite



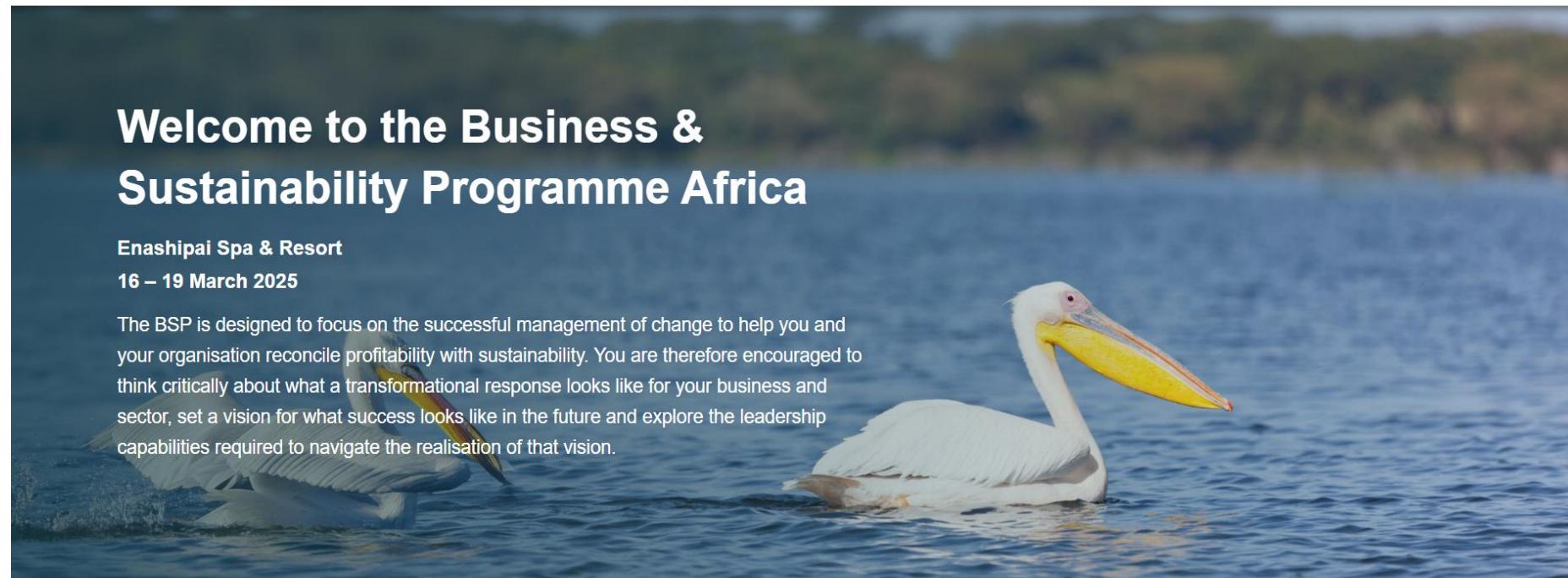
[Home](#) [Programme Team](#) [Delegates](#) [Programme Information](#) [Venue & Logistics](#)

Welcome to the Business & Sustainability Programme Africa

Enashipai Spa & Resort

16 – 19 March 2025

The BSP is designed to focus on the successful management of change to help you and your organisation reconcile profitability with sustainability. You are therefore encouraged to think critically about what a transformational response looks like for your business and sector, set a vision for what success looks like in the future and explore the leadership capabilities required to navigate the realisation of that vision.





Take Time to Reflect

*The quality of everything
human beings do – everything
– depends on the quality of
thinking we do first.*

TIME
TO
THINK

LISTENING TO IGNITE
THE HUMAN MIND



"Do not be fooled by the simplicity of this process.
It will unleash the power of your whole organization."

British Telecom

NANCY KLINE

Syndicate Groups

GROUP 1	GROUP 2	GROUP 3
Faculty: Malcolm Gray	Faculty: Patricia Dwyer	Faculty: Stef Raubenheimer
Adrienne Francesca , Sustainability Manager Raffles Group, Mauritius	Dr. Akinwale Aboyade , Acting Regional Head for Africa, Global Energy Alliance for People and Planet, South Africa/UK	Prof Barend Erasmus Dean, Faculty of Natural & Agricultural Sciences, University of Pretoria, South Africa
William Nyaoke , Regional Director, East Africa, Norfund, Kenya	Mimi Mavuti , Head of Business Communication & Sustainability, BAT Sub-Saharan Africa Area, South Africa	Yvonne Namukonda , Director of Finance, Tanzania Institute of Bankers Tanzania
Abiola Oshunniyi , Chief Responsibility Officer, ParallelPoint Consult, Nigeria	Carol Misiko , Group Sustainability, Risk & Compliance Executive, Old Mutual, Kenya	Antje Hargarter , Head of School, Studio Education, South Africa
Saad Banzi , Registrar, Tanzania Institute of Bankers, Tanzania	Sandy Okoth , Technical Specialist, Green Capital Markets, FSD Africa Kenya	Damane Hlalele , Director Planning and Advisory Business, ARUP South Africa
Pauline Abiola-Oshunniyi , DiBadili Institute, Executive Director, Kenya	Bezait Amare Teklemariam , Sustainability/ESG professional, Ethiopia	Thabisile Phumo , Executive Vice President Stakeholder Relations, Sibanye- Stillwater, South Africa



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Day 1 – Sun 16th March

**Business & Sustainability
Programme**

16 – 19 March, Naivasha , Kenya

Day 1 - Agenda

Timings	Agenda
15.00 – 16.00	Delegate arrival and registration - refreshments available
16.00– 16.30	1.0 Opening and context setting
16.30 – 16.50	1.1 Welcome and roadmap: the context for business and sustainability
16.50 – 17.50	1.2 Forces Shaping the world : global inter-connectivity and poly-crisis
17.50 – 18.50	1.3 Evening syndicate groups – getting to know your peers and their context
18.50 – 19.00	Break
19.00 – 19.50	1.4 What has nature ever done for us? The case for climate stability and healthy ecosystems
19.50 – 21.00	Dinner



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The background of the slide features a close-up photograph of several hippopotamus heads above the water's surface. The water is a vibrant blue, and the hippo's skin is textured and dark. A white, flowing line graphic starts from the bottom left, curves upwards and to the right, and then downwards again, partially enclosing the central text area.

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Session 1.2: Forces shaping the world: global inter-connectivity and poly-crisis

Malcom Gray

Senior Associate, CISL and Partner and Chief Financial Officer
ERM Libryo

*'Prediction is very difficult,
especially about the future.'*

Niels Bohr, Danish physicist (1885 - 1962)



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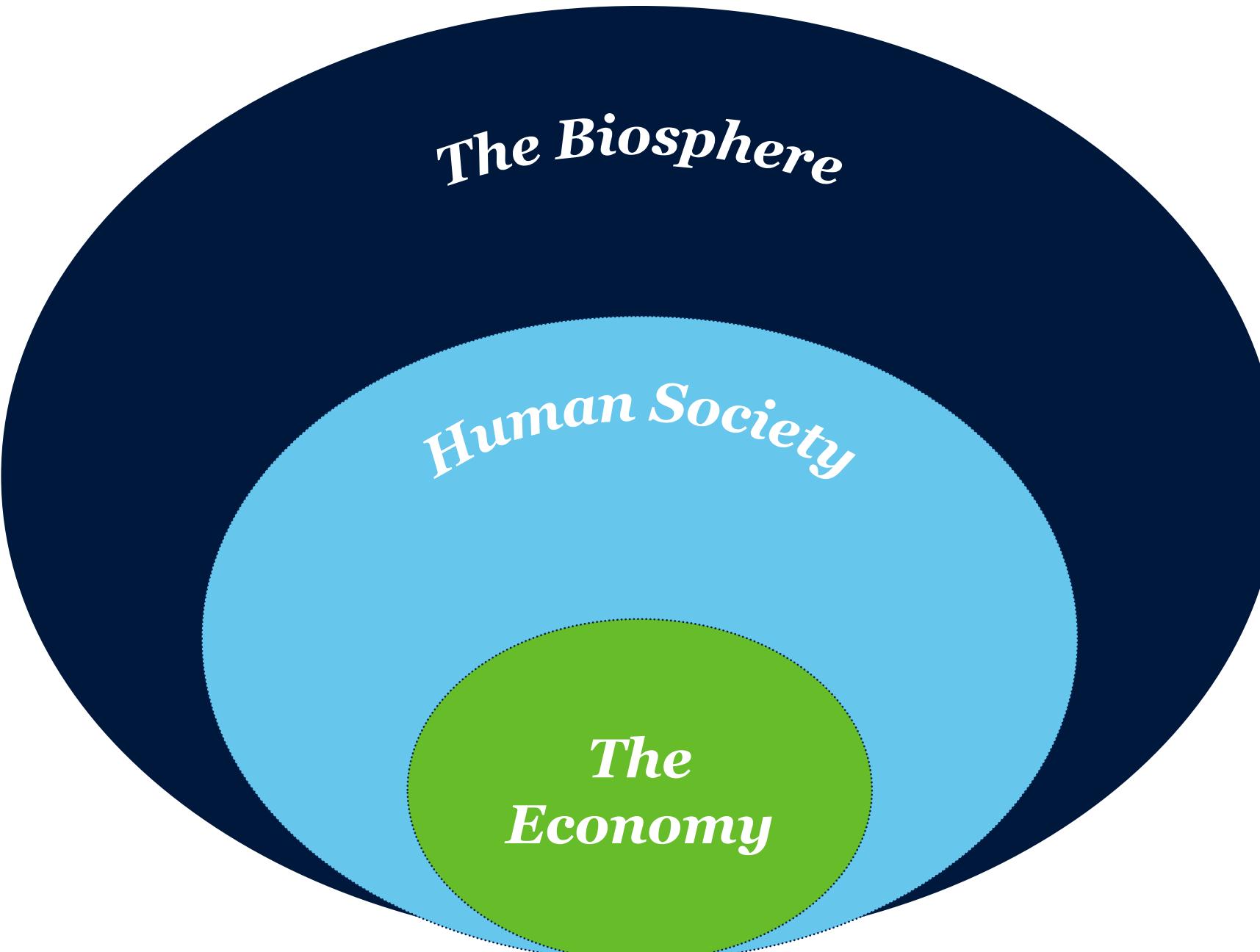
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Forces shaping the world : global inter-connectivity and poly-crisis - The uncomfortable truth

Malcolm Gray
16 March 2025





The Biosphere

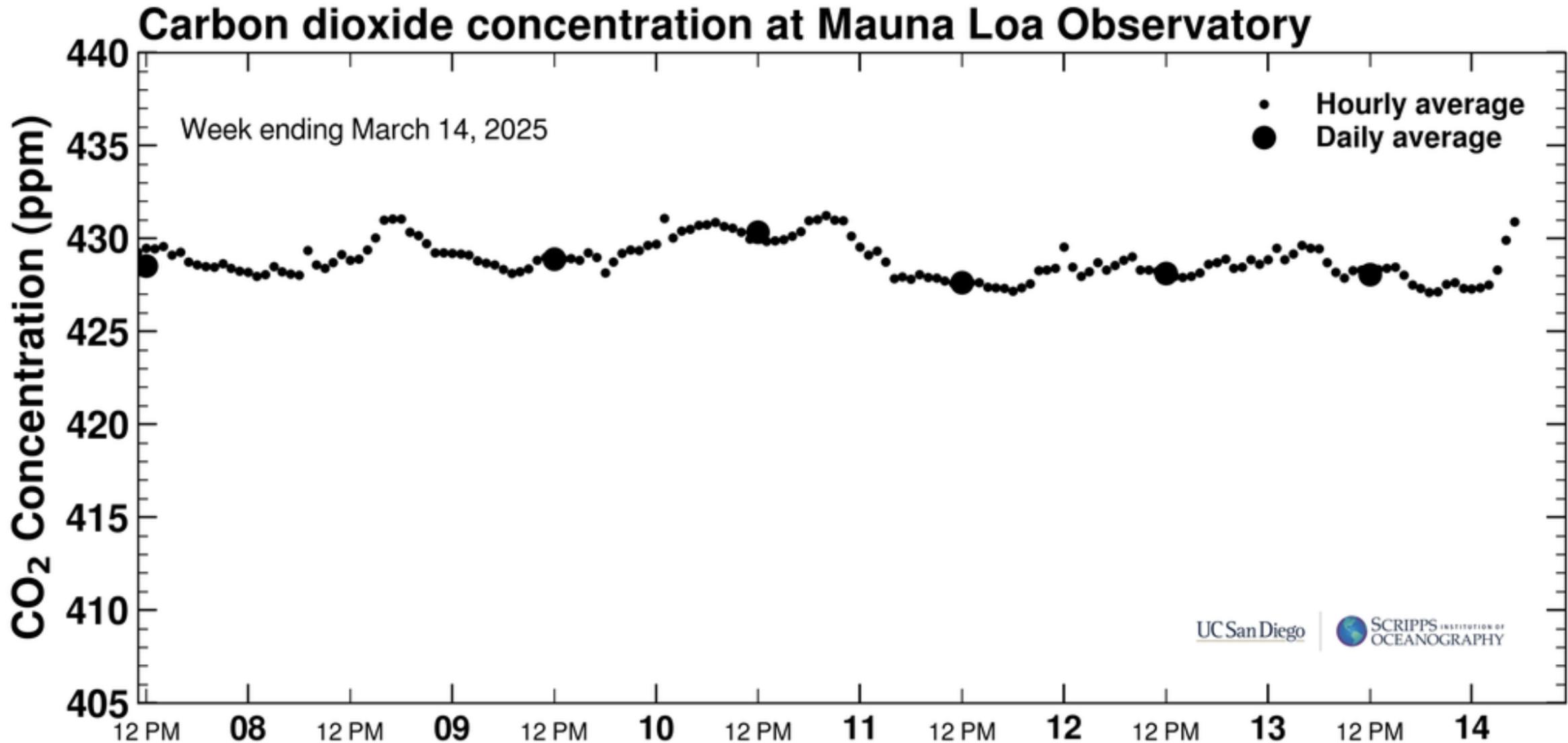
Human Society

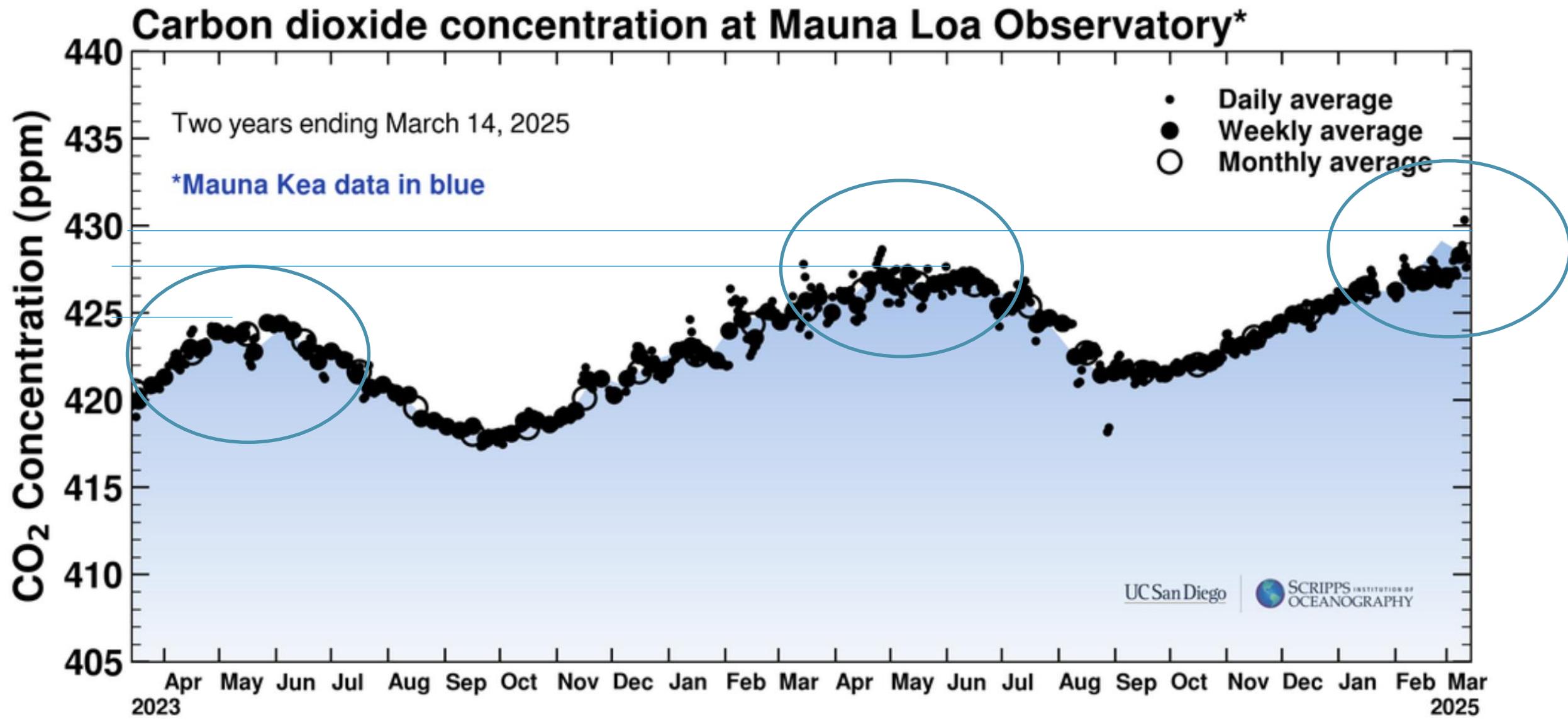
*The
Economy*

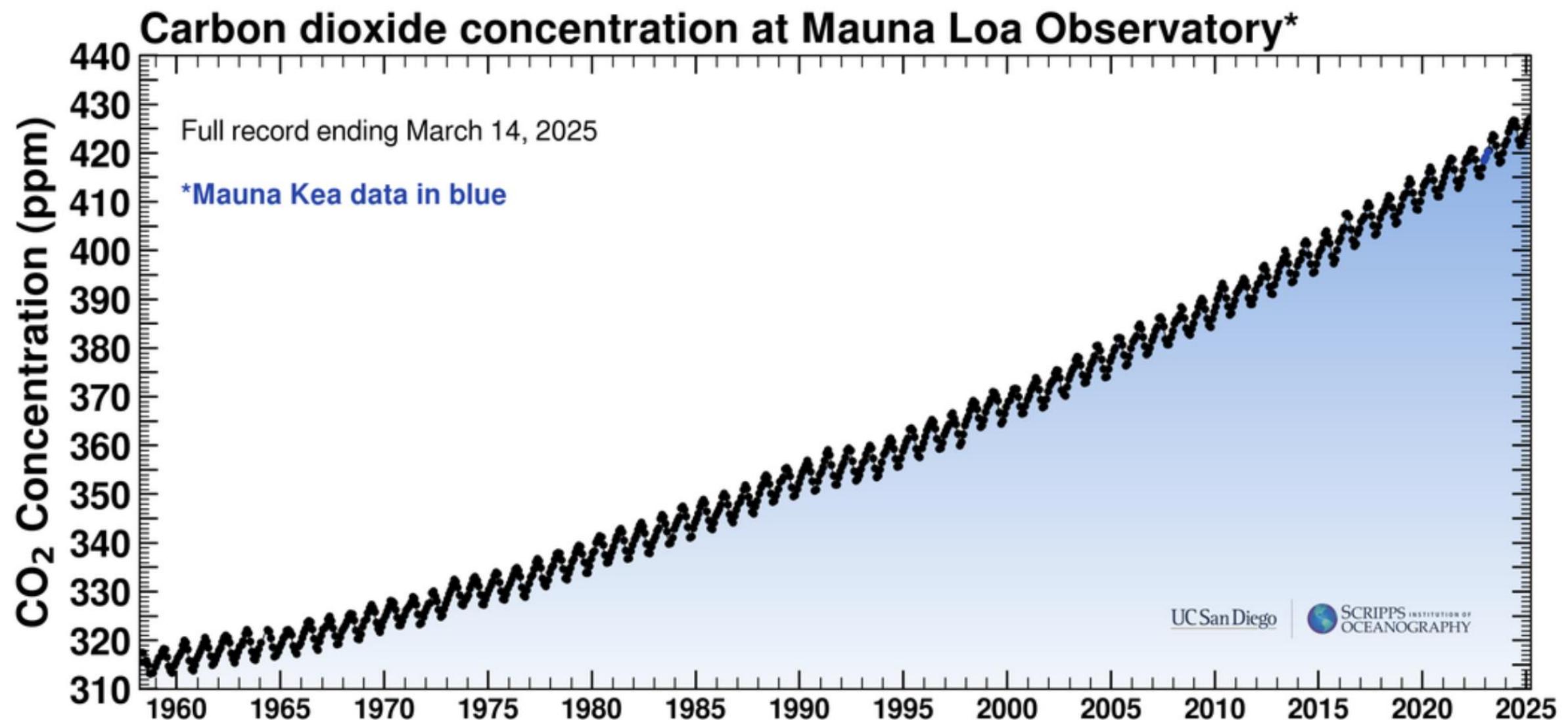
The uncomfortable truth....

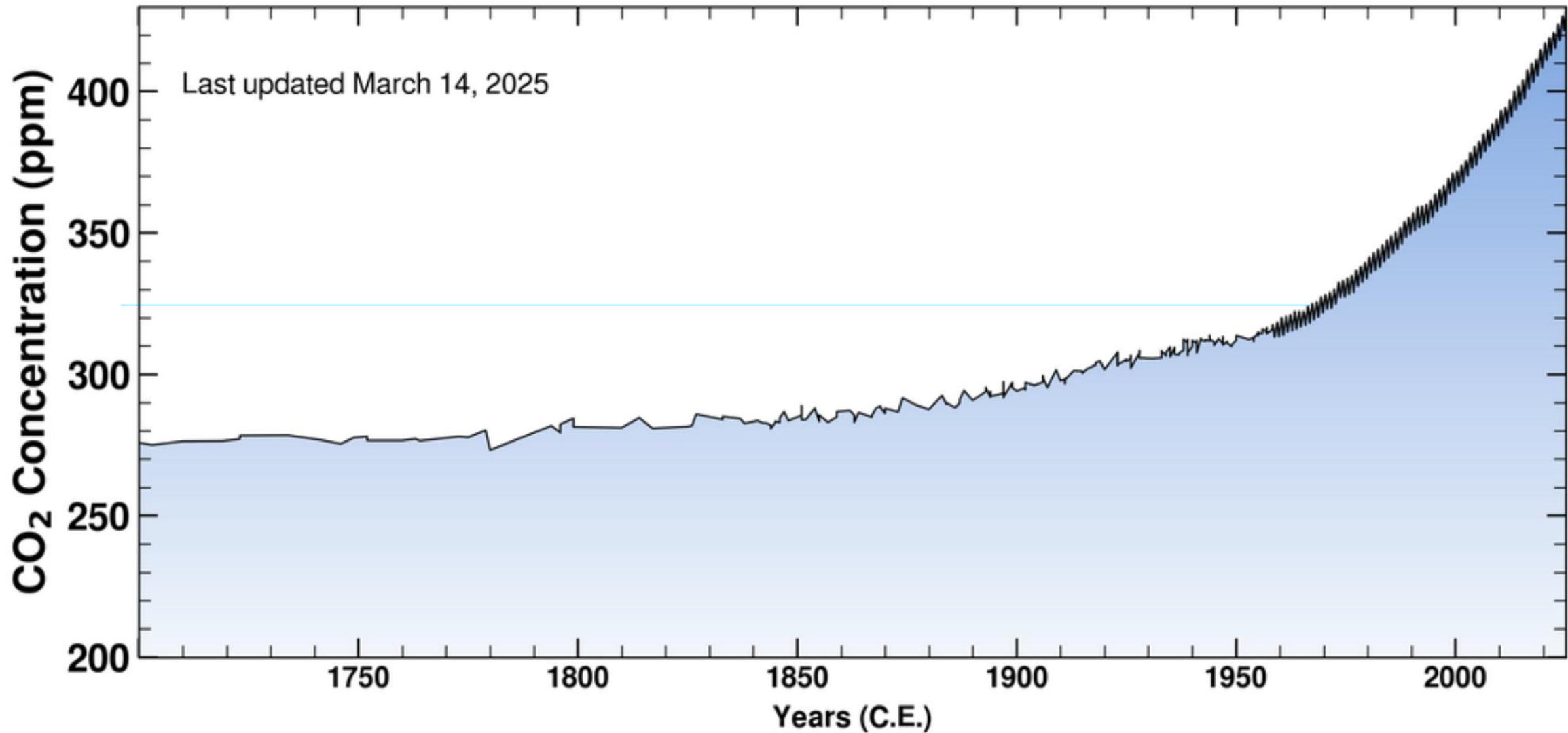


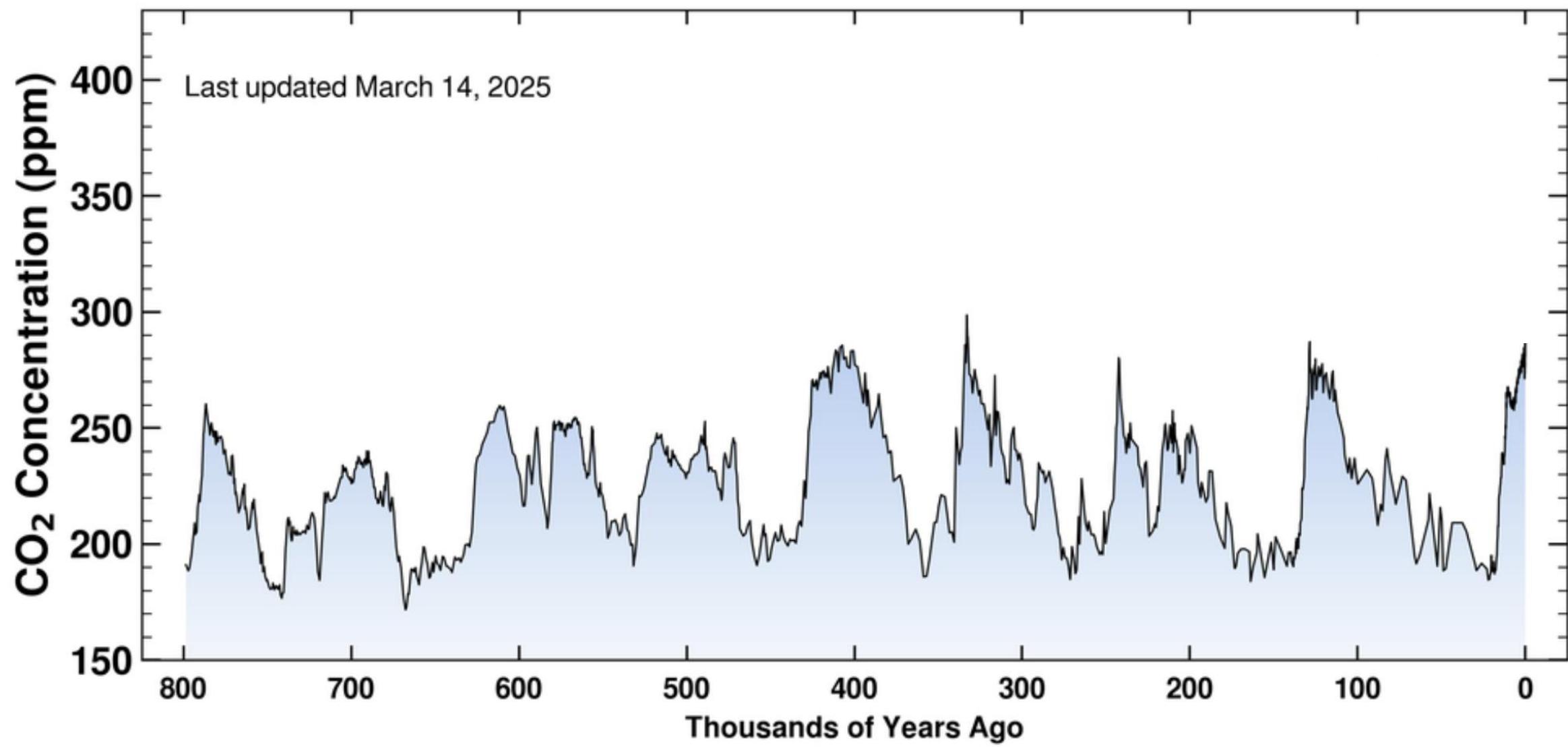










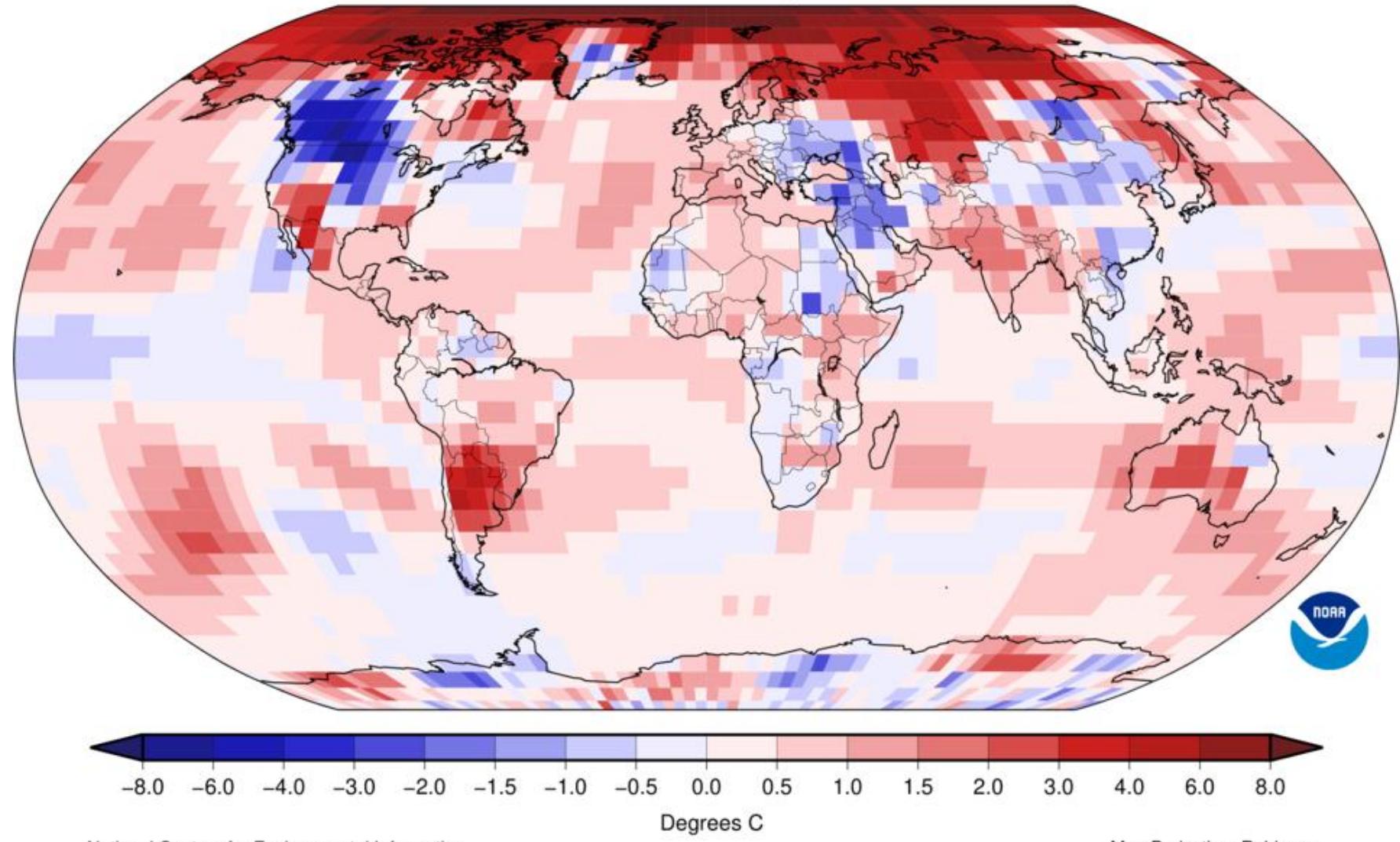


It's getting hotter!

“.. global surface temperature was 1.26°C (2.27°F) above the 20th-century average of 12.1°C (53.8°F), making it the third warmest February on record. This is 0.15°C (0.27°F) below the previous record set in 2024 and marked the 46th-consecutive February (since 1980) with temperatures at least nominally above the 20th-century average.”

Land & Ocean Temperature Departure from Average Feb 2025
(with respect to a 1991-2020 base period)

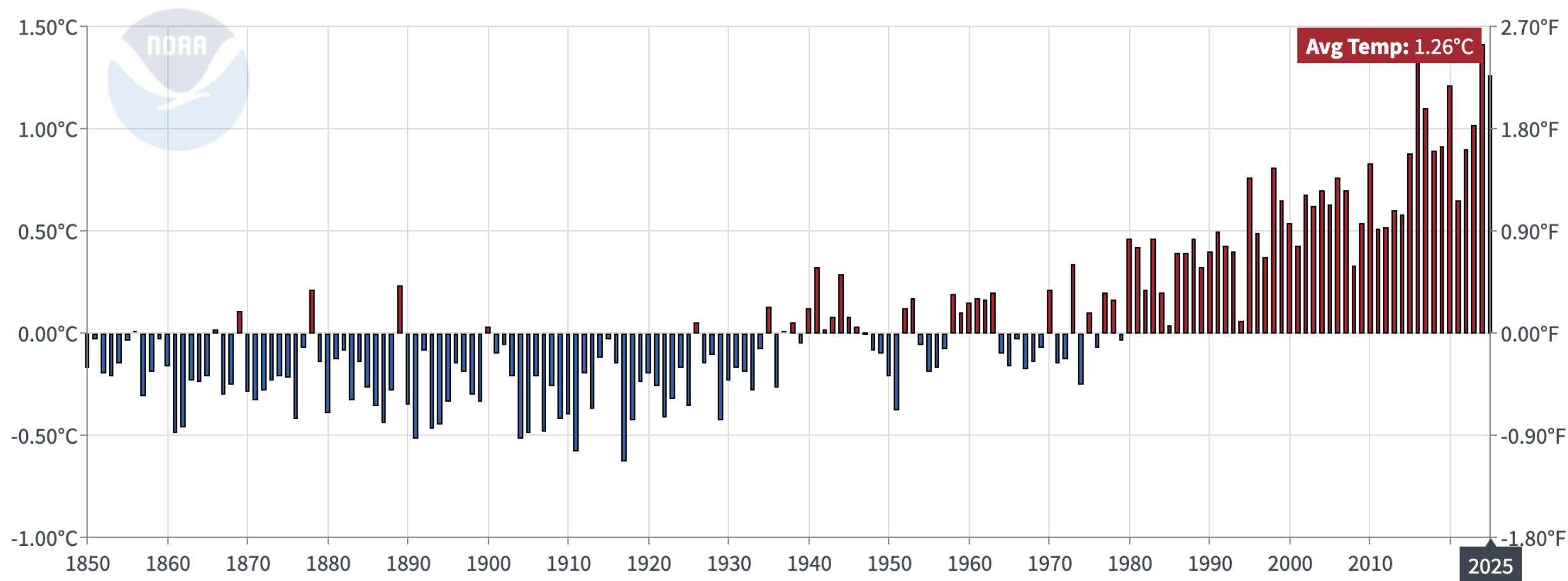
Data Source: NOAAGlobalTemp v6.0.0-20250306



Warming Oceans

Global Land and Ocean Average Temperature Anomalies

February



 SEPTEMBER 23, 2024 Editors' notes

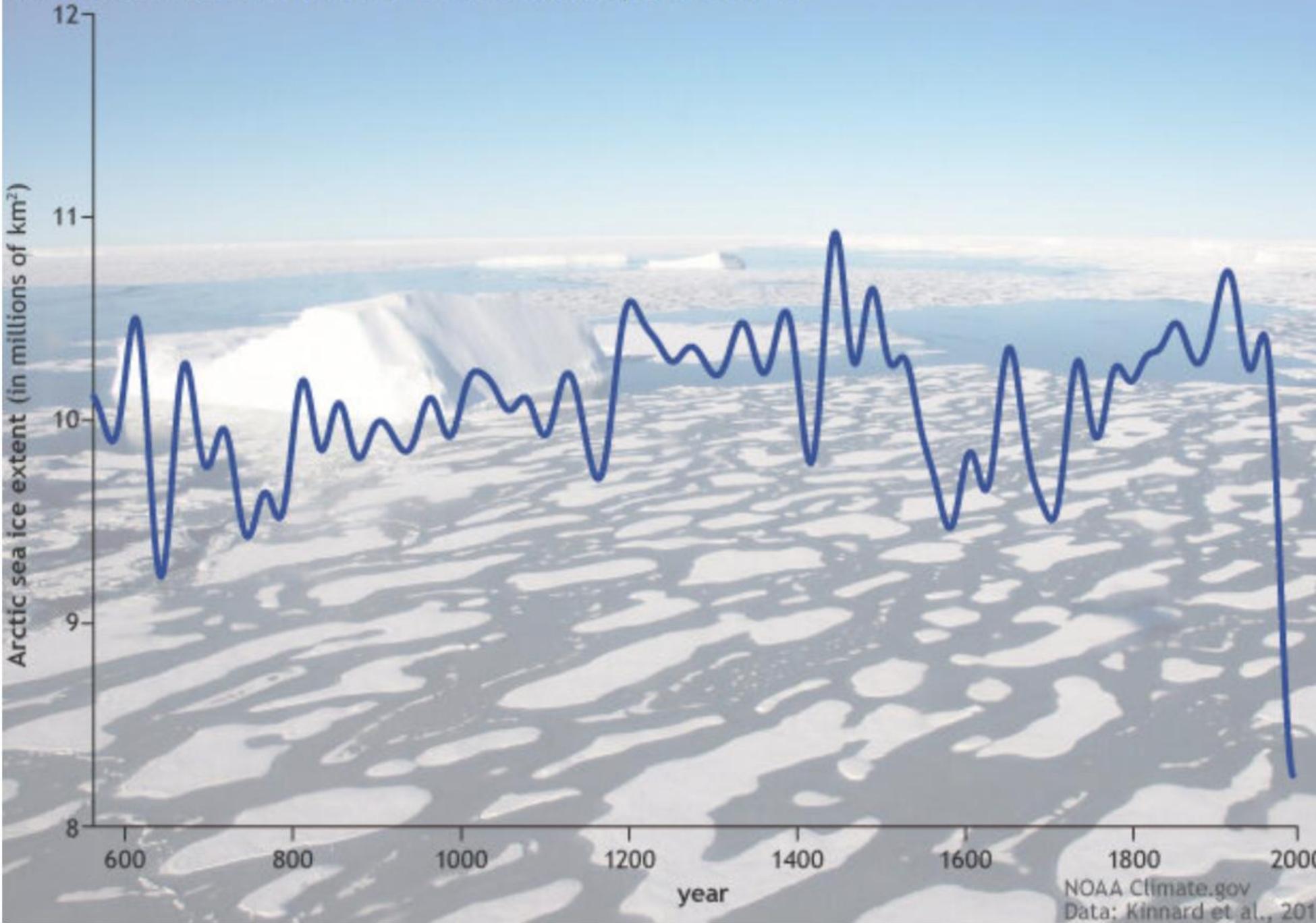
World's oceans near critical acidification level: Report



Acidic waters damage corals, shellfish and the phytoplankton that feeds numer...

The world's oceans are close to becoming too acidic to properly sustain marine life or help stabilize the climate, a new report said on Monday.

ARCTIC SEA ICE EXTENT OVER THE LAST 1,500 YEARS

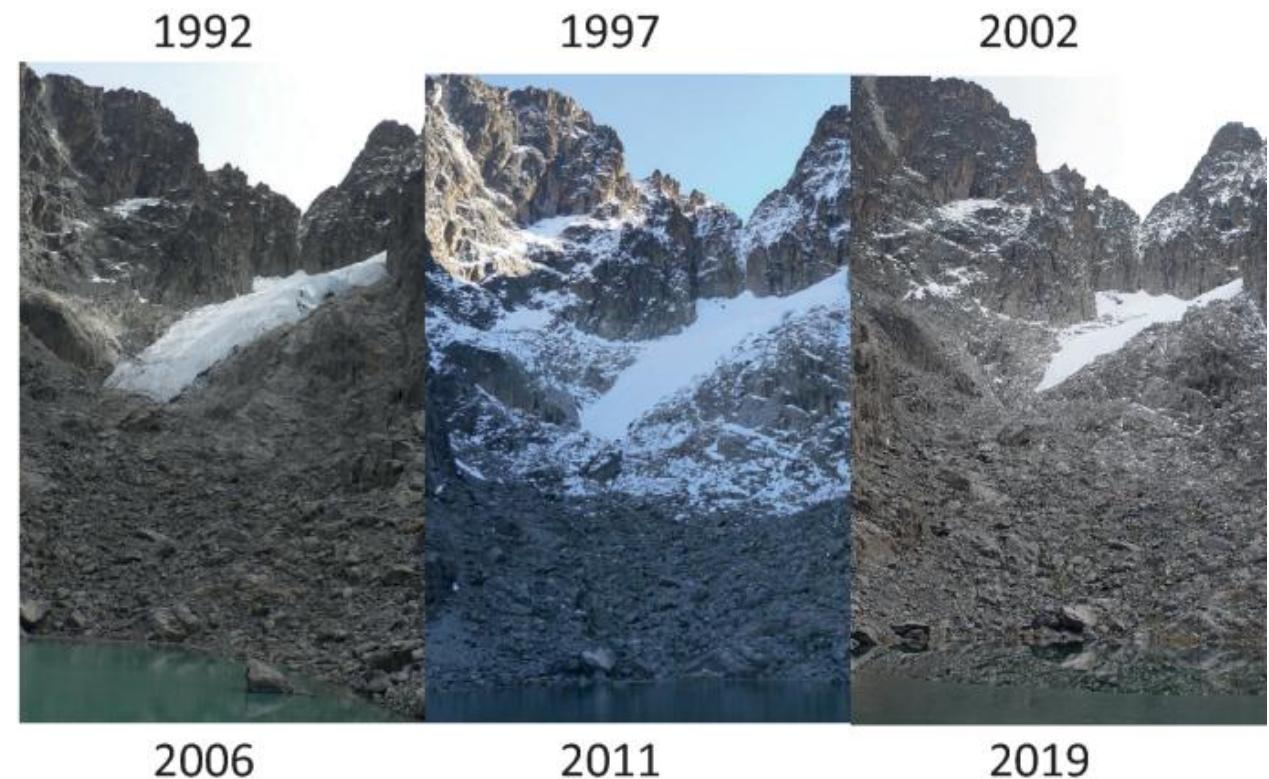


“Taken from the 2017 issue of NOAA’s Arctic Report Card, scientists report on a body of paleoclimate research that shows that the extent and rate of sea ice decline in the Arctic is unprecedented over at least the past 1,500 years”

Geoecology I: Retreating Glaciers, Plant Succession on Mount Kenya Due to Climate Change

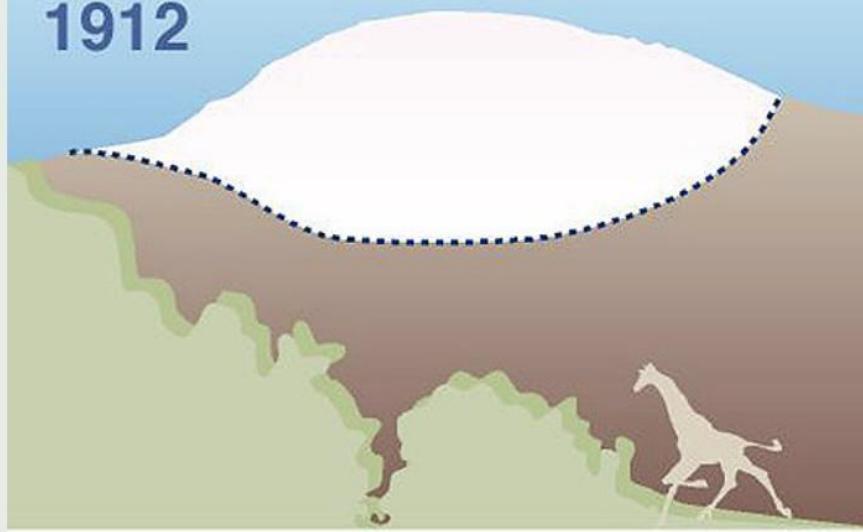
•19 March 2022

“Tyndall Glacier on Mount Kenya has retreated notably in recent years due to warming atmosphere, i.e., climate change. It was evinced that the fronts of four pioneering plant species have migrated uphill following the retreating glacier. Specifically, the front of *Senecio keniophytum*, the first to appear in areas exposed by glacier disappearance, migrated a speed similar to that of the glacial retreat.”



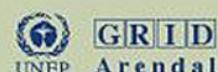
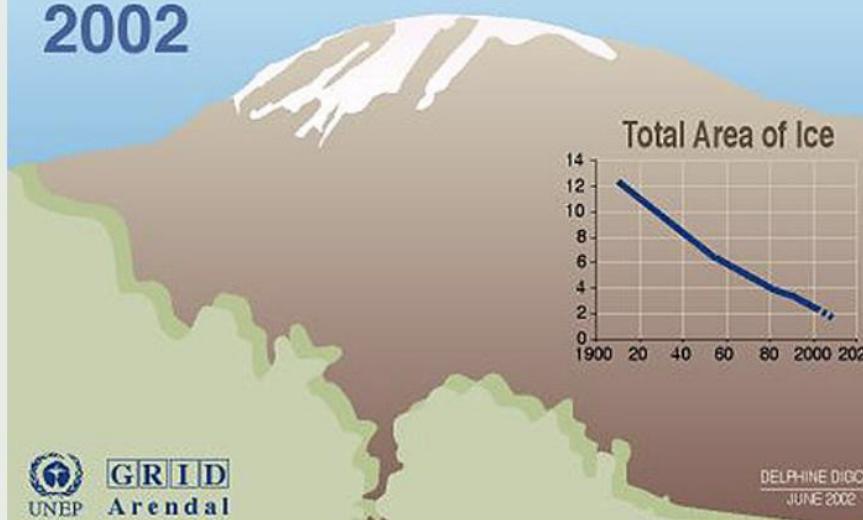
The Melting Snows of Kilimanjaro

1912



Glaciers
ice --- Estimated line

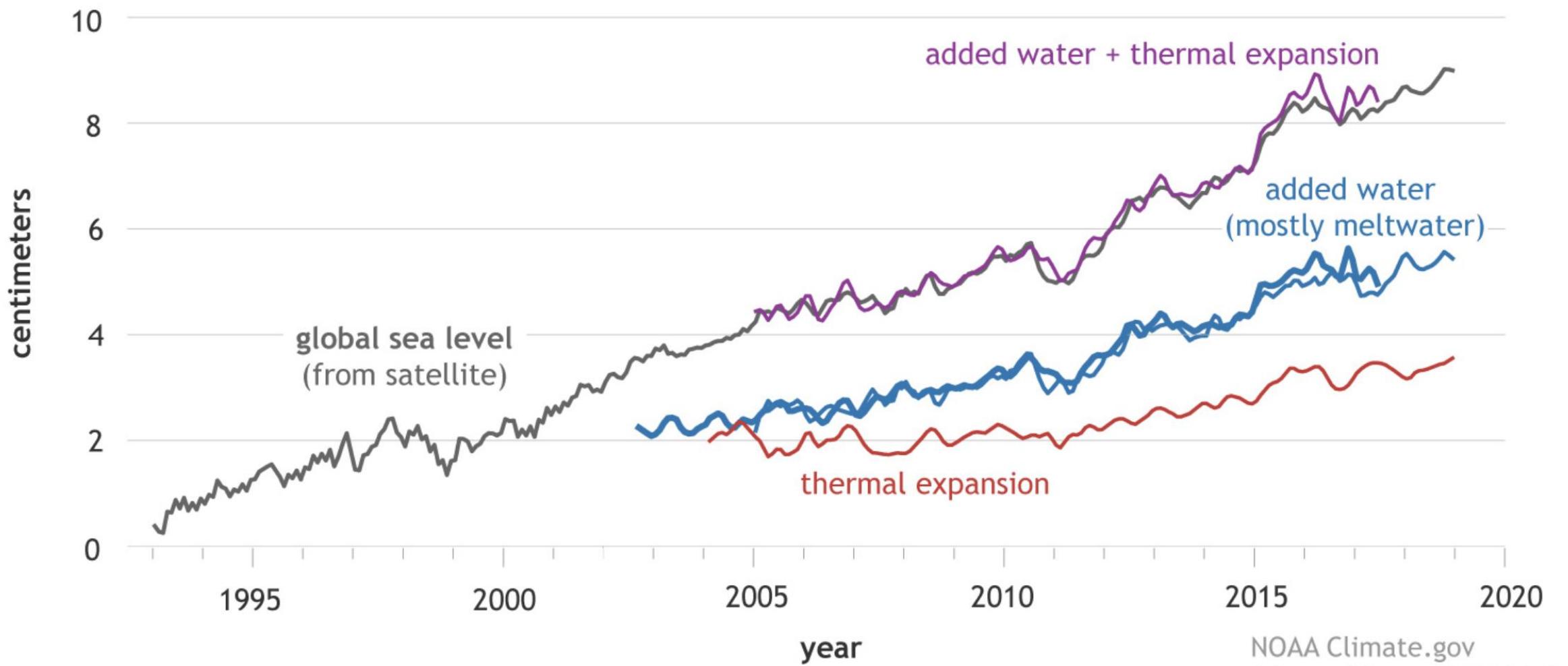
2002



DELPHINE DIGOUT
JUNE 2002

Sources: Meeting of the American Association for the Advancement of Science (AAAS),
February 2001 ; Earthobservatory.nasa.gov.

Contributors to global sea sea level rise (1993-2018)





MAXAR

Aug 30

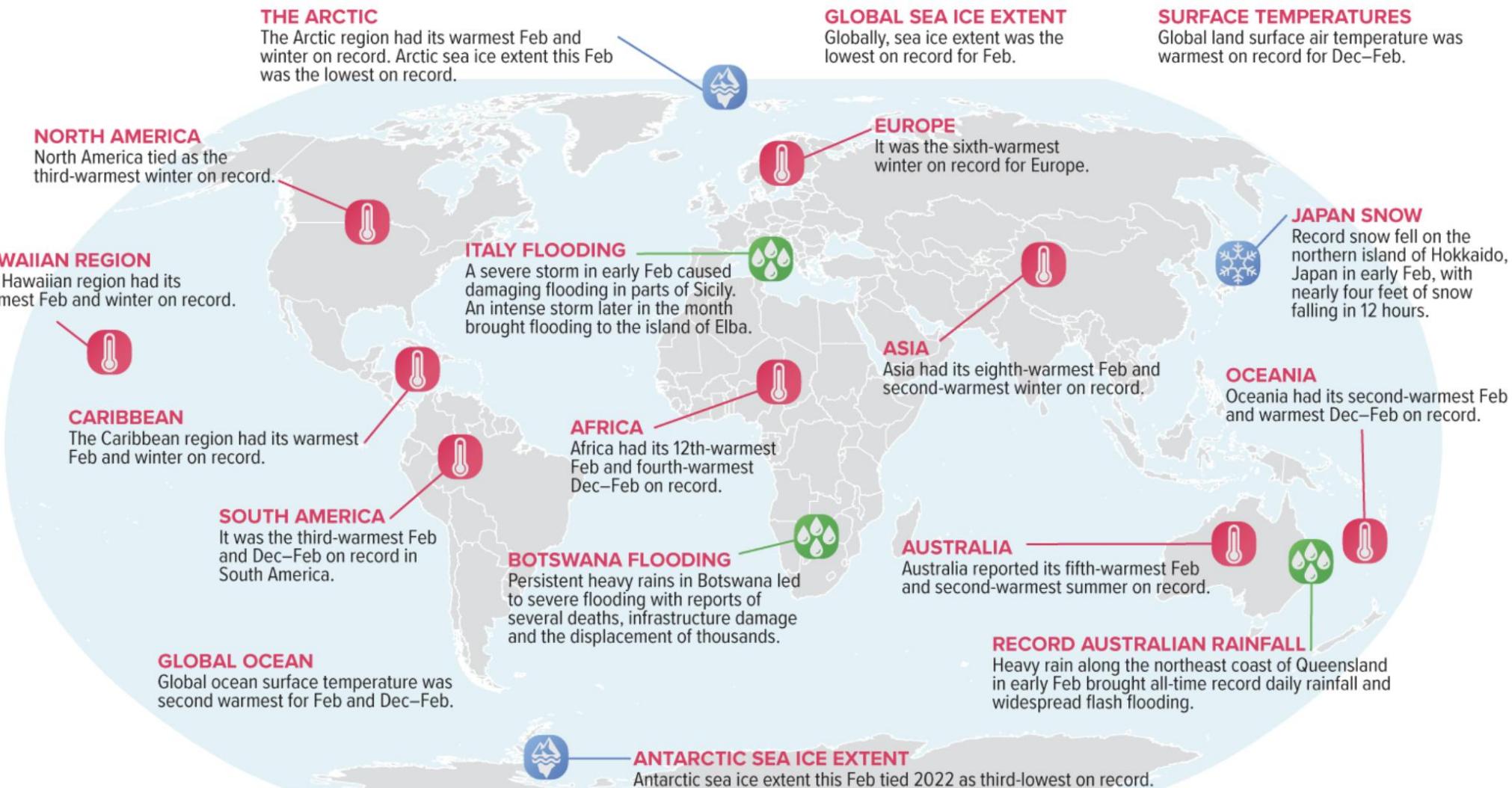
100 metres

Selected Significant Climate Anomalies and Events: February 2025



GLOBAL AVERAGE TEMPERATURE

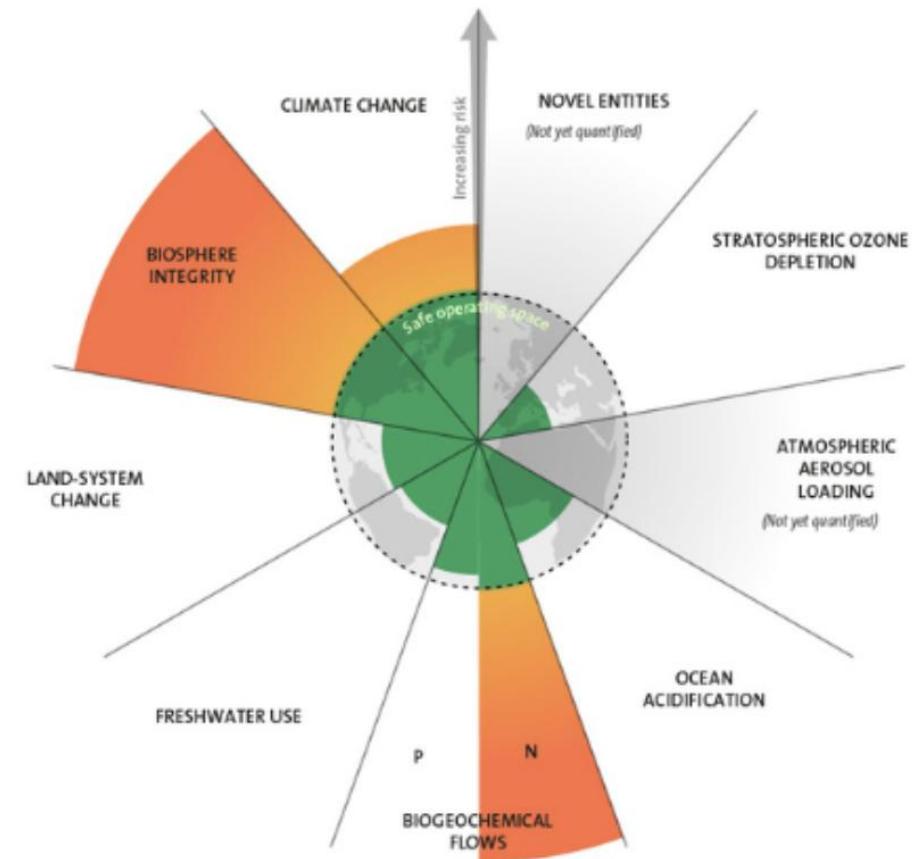
Feb 2025 average global surface temperature ranked third-warmest for Feb and second-warmest for Dec–Feb since global records began in 1850.



2009

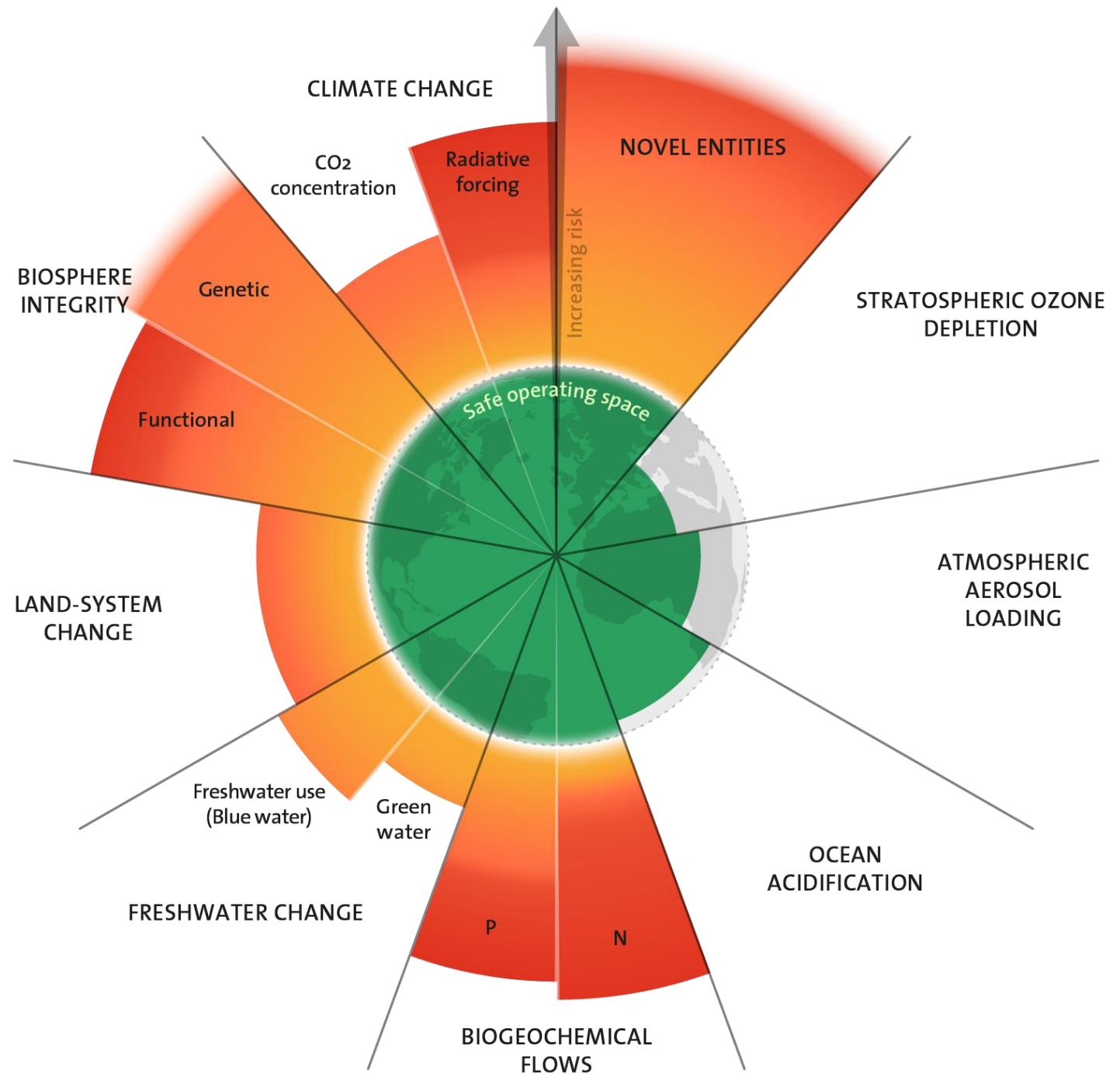
Planetary Boundaries

- What are planetary boundaries?
- Work first pioneered by Johan Rockström (and 28 International Scientists) in 2009 at the Stockholm Resilience Centre
- Focuses on 9 Planetary Boundaries - critical processes which together maintain a stable and resilient Earth and sets safe limits for human pressure on each
 - <https://www.stockholmresilience.org/research/planetary-boundaries.html>



7 boundaries assessed,
3 crossed

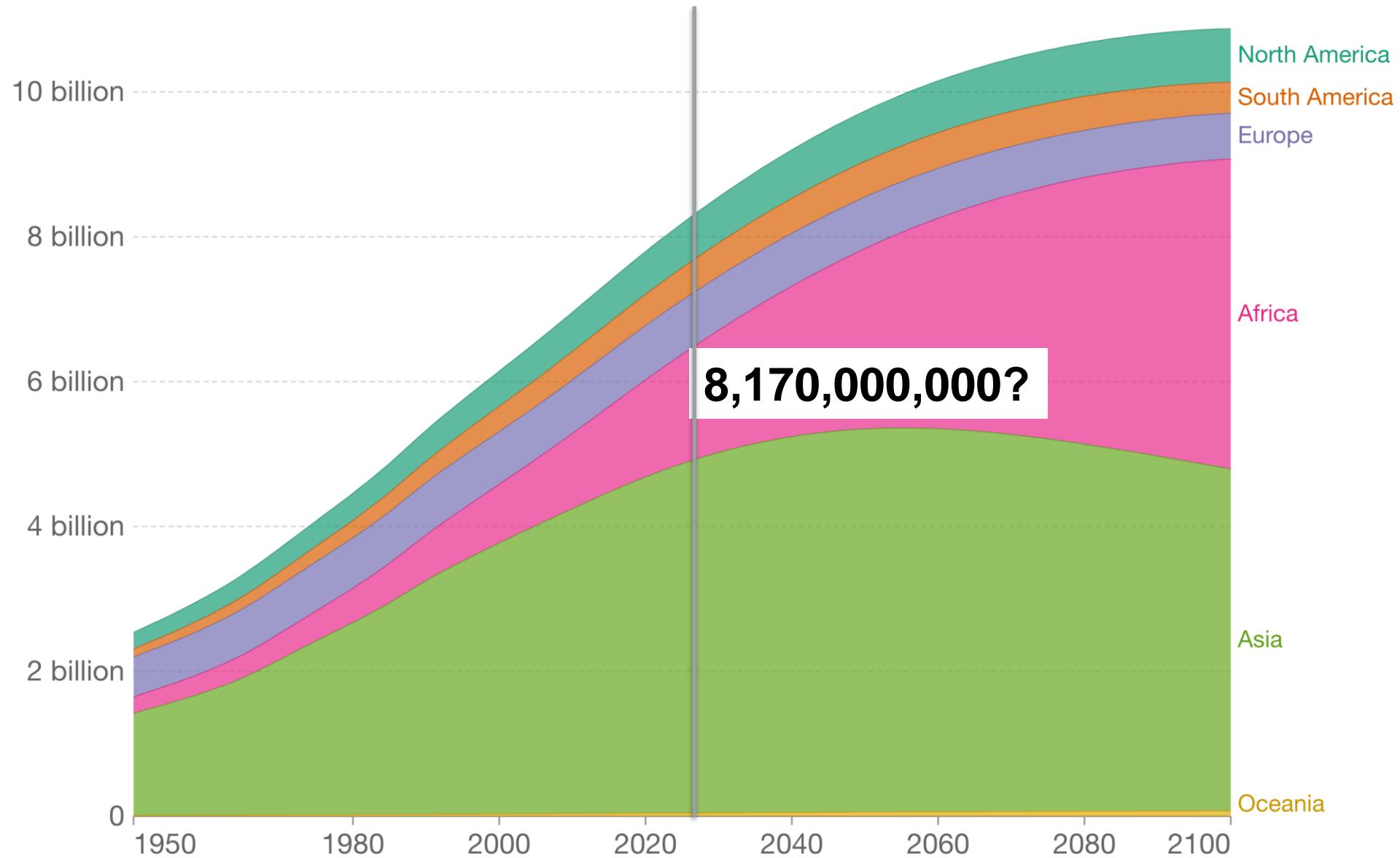
2023





World population by region

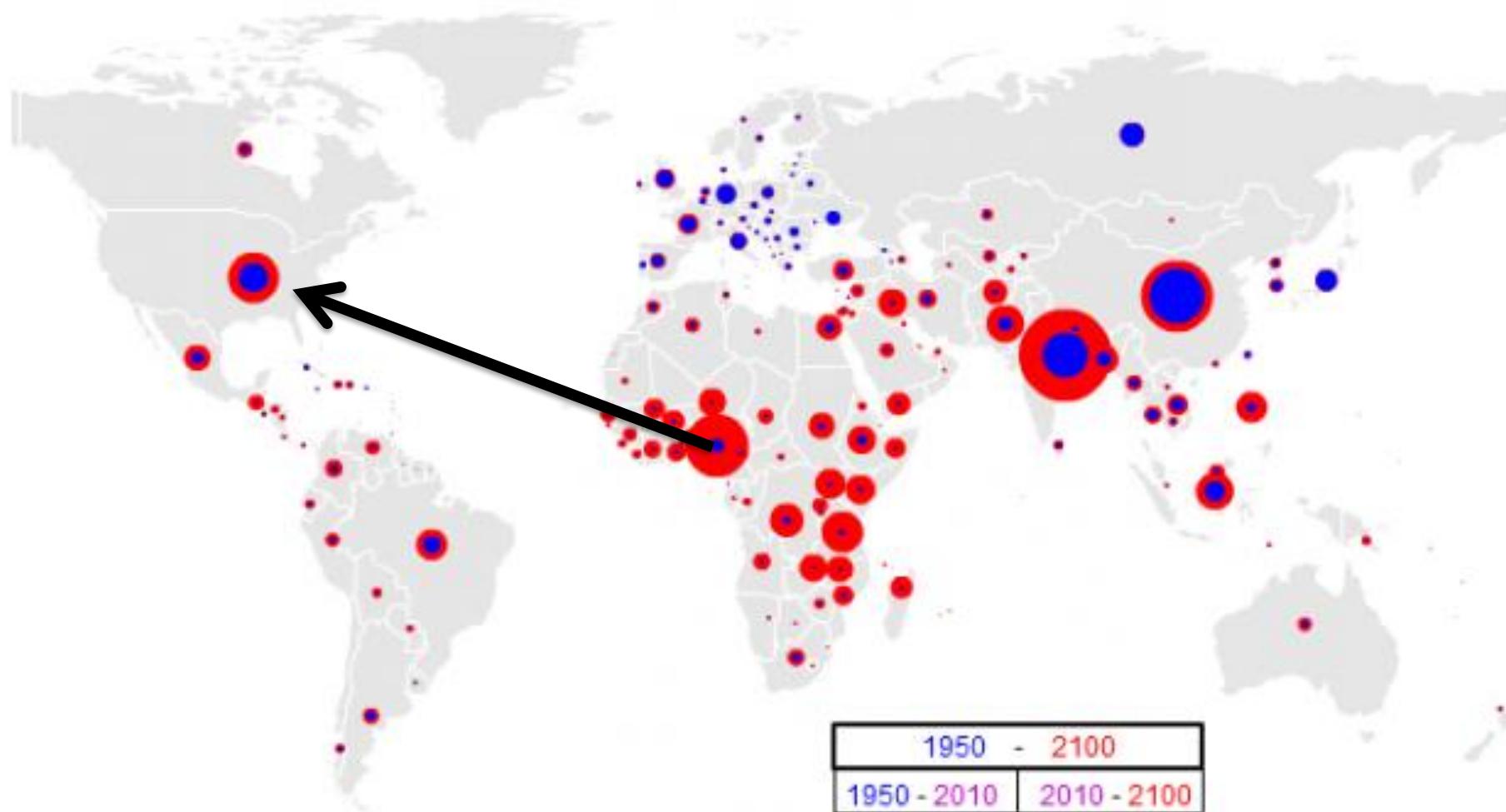
Projected population to 2100 is based on the UN's medium population scenario.



Country population past, present, future

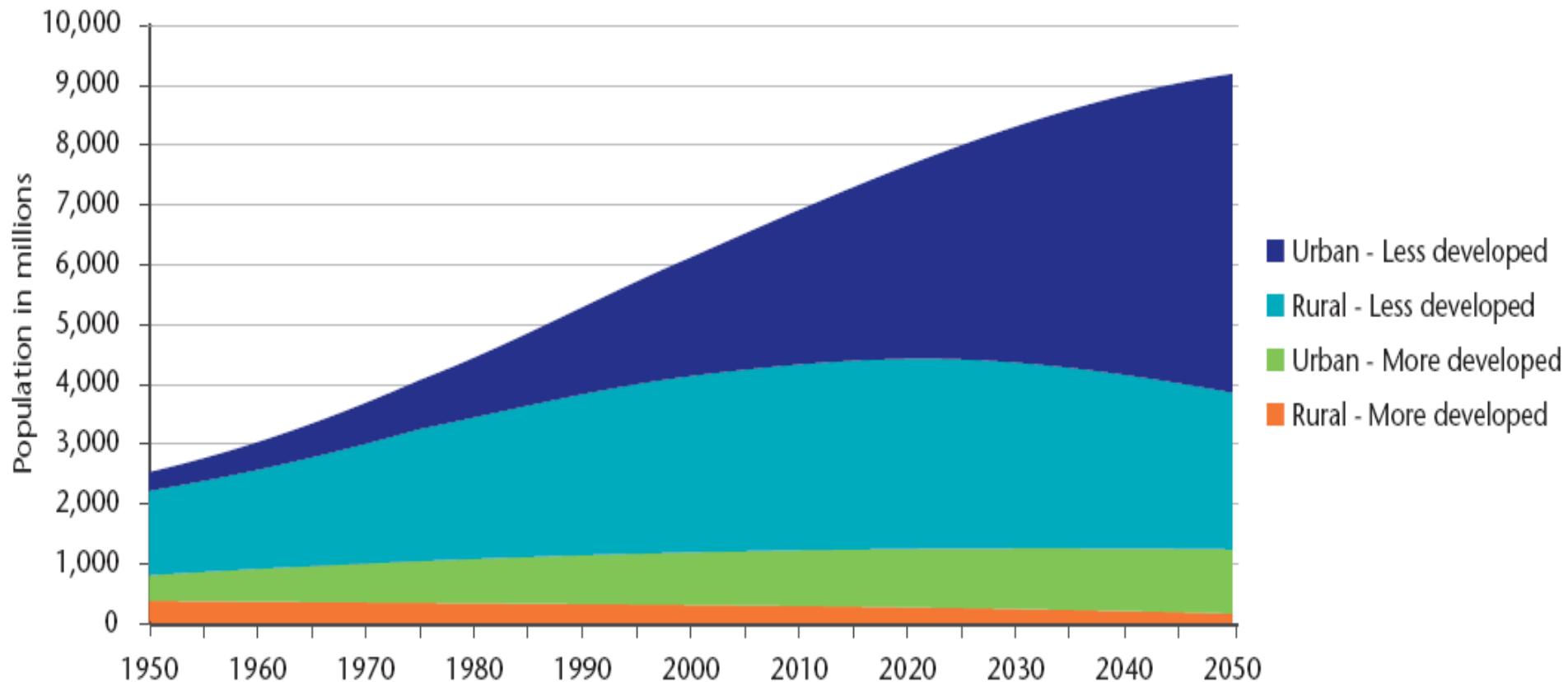
This interactive visualisation depicts dramatic population changes, based on data released by the [UN Department of Economic and Social Affairs/Population Division](#) for 1950-2010 and a projection for 2100.

click on countries to select, click again to deselect:



The world population is increasingly urban

Global population by type of area and by region – 1950-2050



Source: UN Population Division, *World Population Prospects: The 2008 Revision*, 2008

What proportion of the expected 2.5 billion net increase in global population are expected to live in cities in developing countries?

1. 17%
2. 38%
3. 79%
4. 100%









JUST
8 BILLIONAIRES OWN THE SAME
WEALTH AS THE POOREST
3.6 BILLION PEOPLE

(SO FEW THEY'D FIT IN THIS GOLF BUGGY)



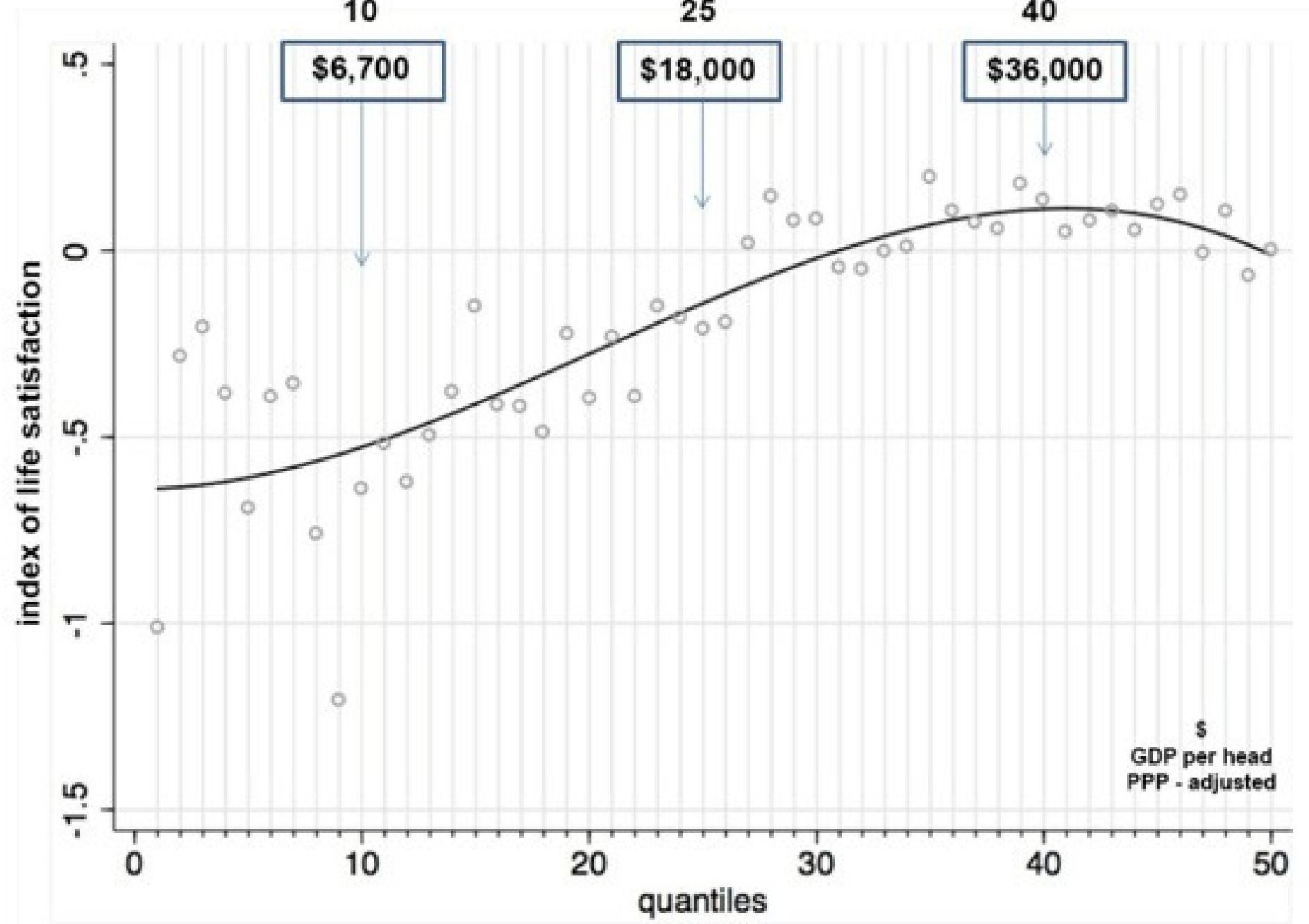
DEMAND AN ECONOMY THAT WORKS
FOR EVERYONE, NOT JUST THE FEW

EVENITUP.ORG

**EVEN
IT UP**



OXFAM

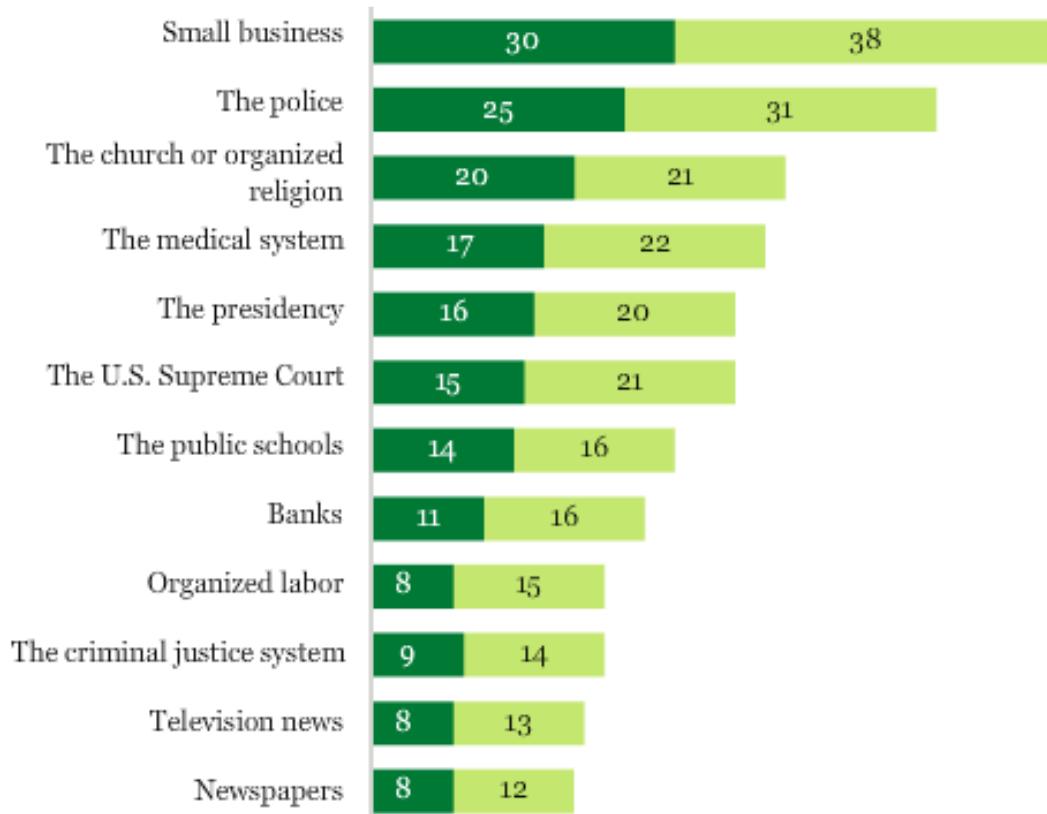


TRUST

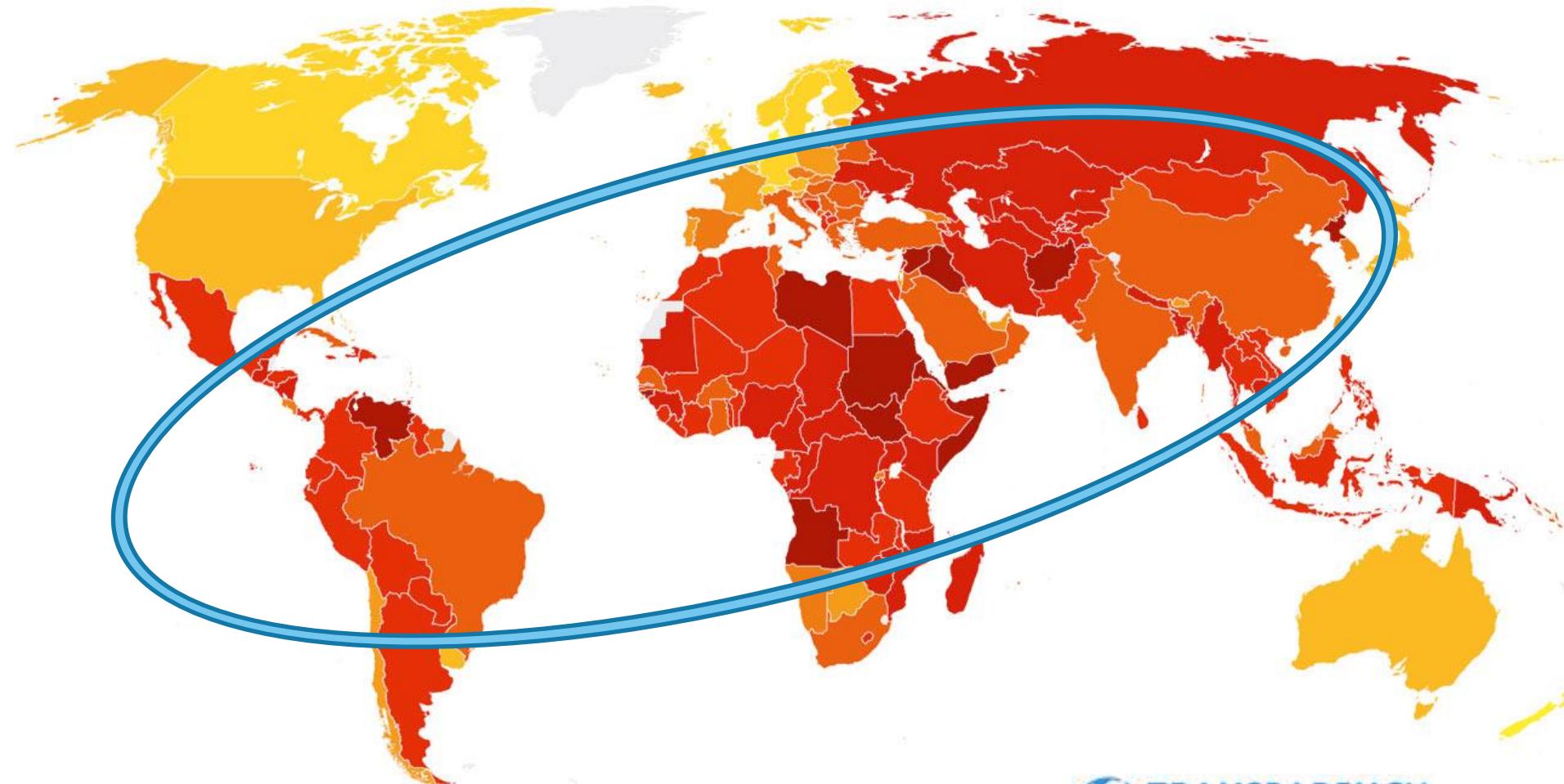
I am going to read you a list of institutions in American society. Please tell me how much confidence you, yourself, have in each one -- a great deal, quite a lot, some or very little?

June 1-5, 2016

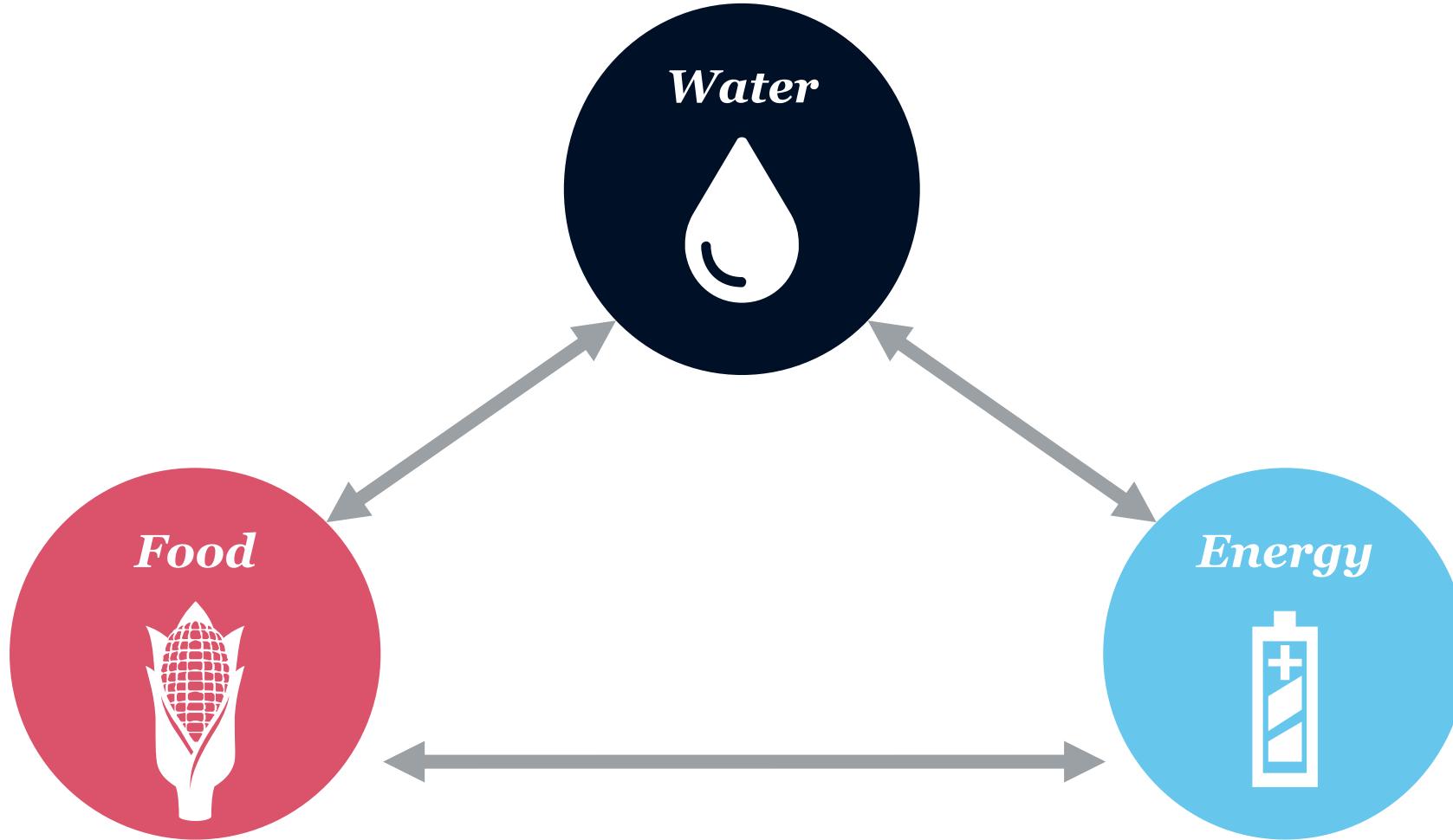
■ % Great deal ■ % Quite a lot



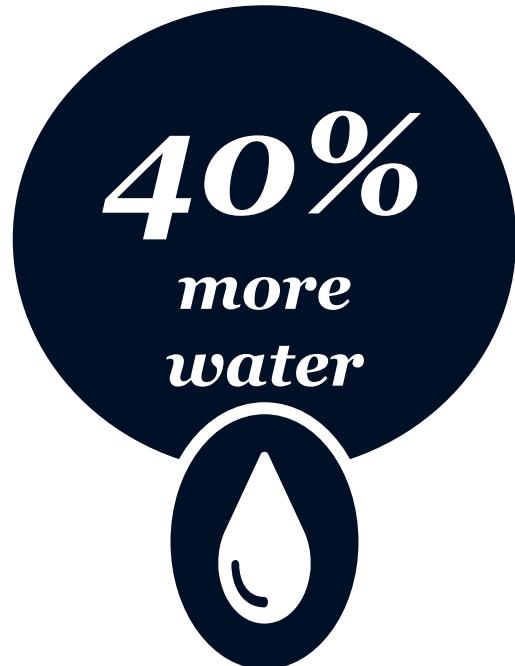
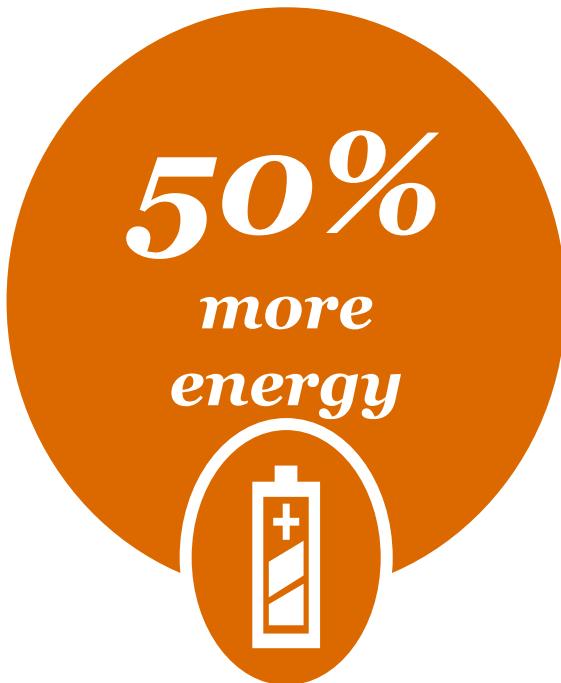
CORRUPTION PERCEPTIONS



The Food-Water-Energy Nexus



With a population of 8.3 billion people by 2030,
we'll need...

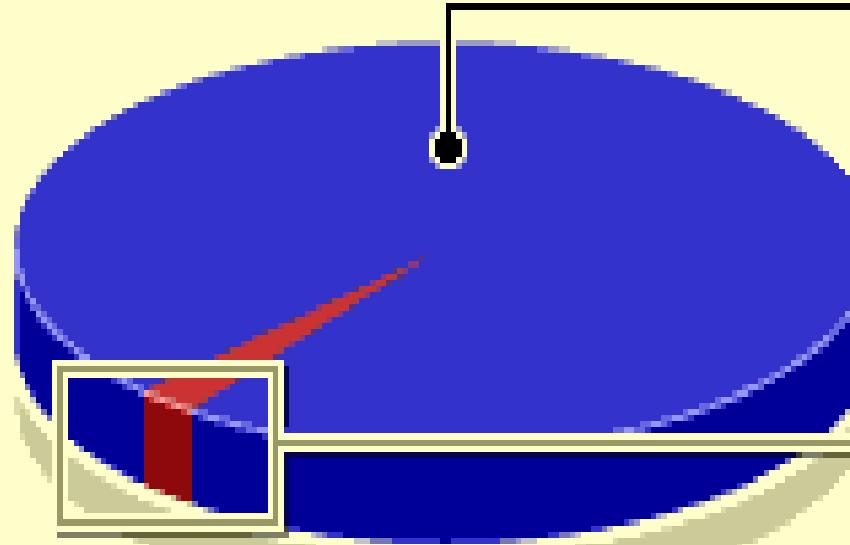


Source: OECD; Dan Hammer, Center for Global Development

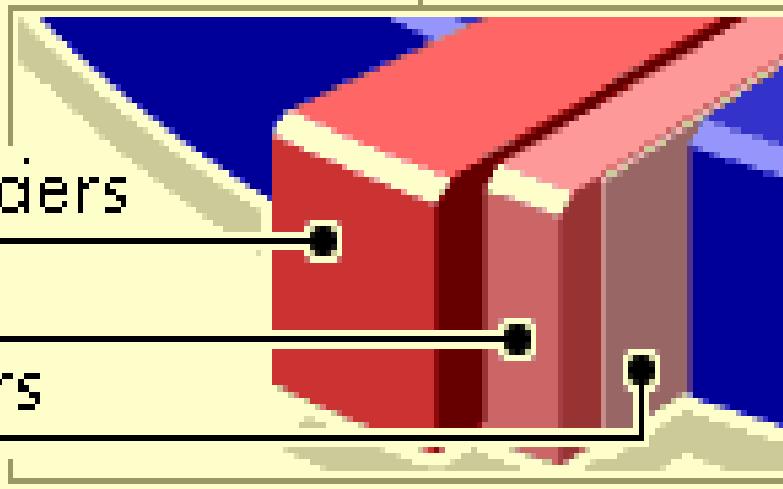


The world's water

saltwater: 97.5%



freshwater: 2.5%

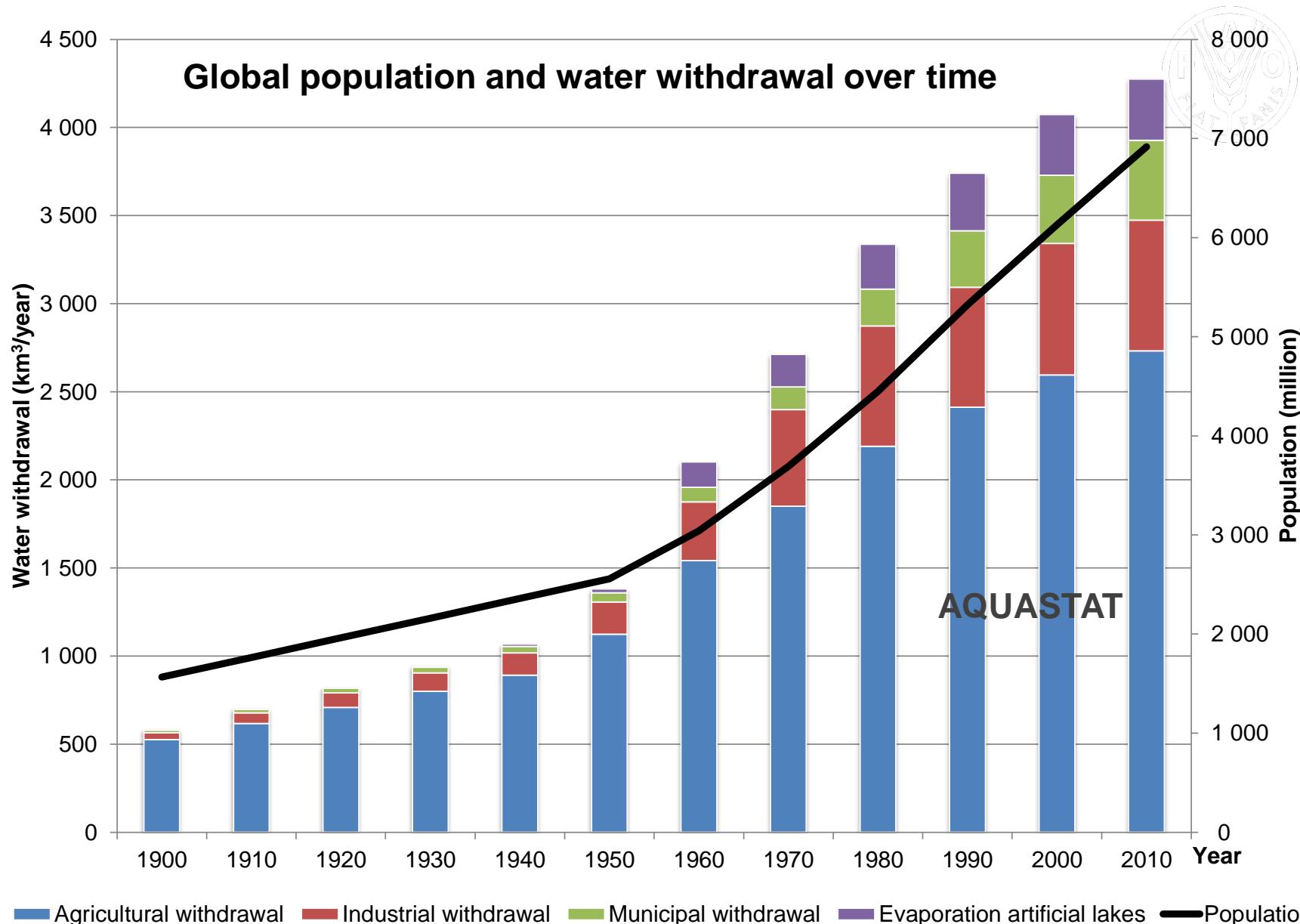


68.9% - locked in glaciers

30.8% - groundwater

0.3% - lakes and rivers

SOURCE : UNEP



**It took 969 gallons
of water to produce
this meal**



850.2 gallons
8-ounce steak

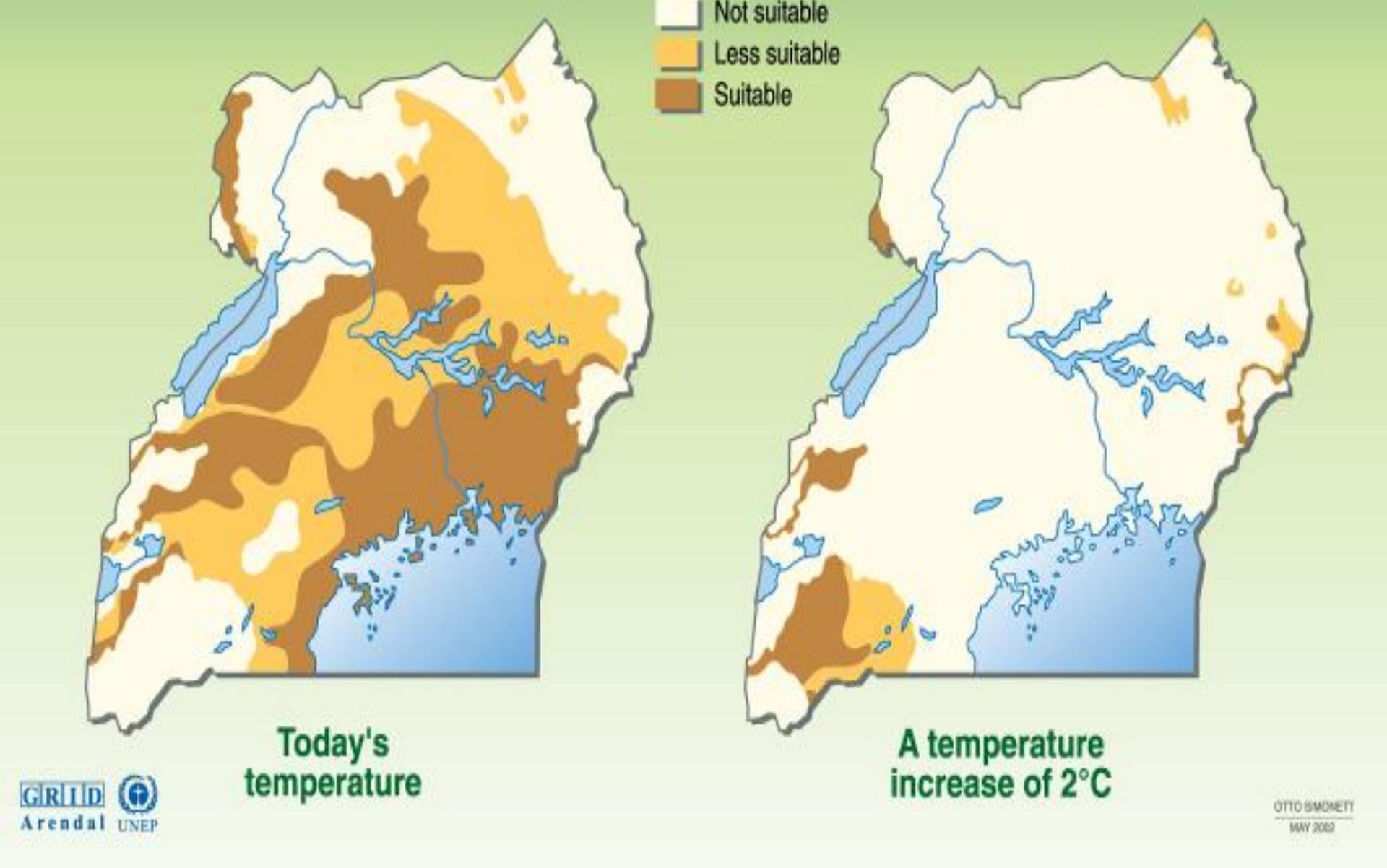
97.6 gallons
8 ounces of rice

13.9 gallons
4 ounces of wine

6.8 gallons
8 ounces of lettuce

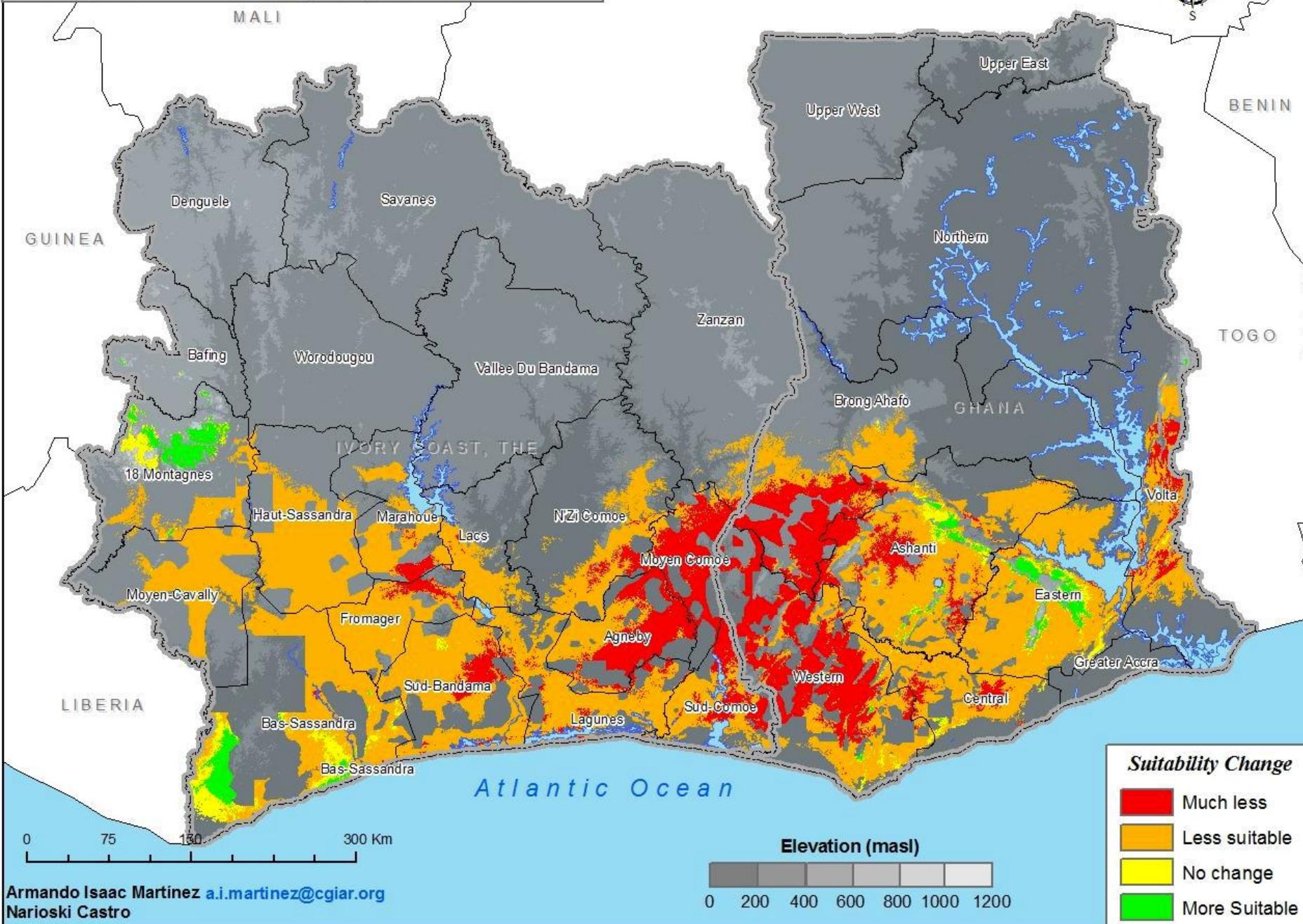


Impact of temperature rise on robusta coffee in Uganda



Suitability Change for Cocoa Growing-Regions in 2050.

BURKINA FASO



Armando Isaac Martinez a.i.martinez@cgiar.org
Narioski Castro

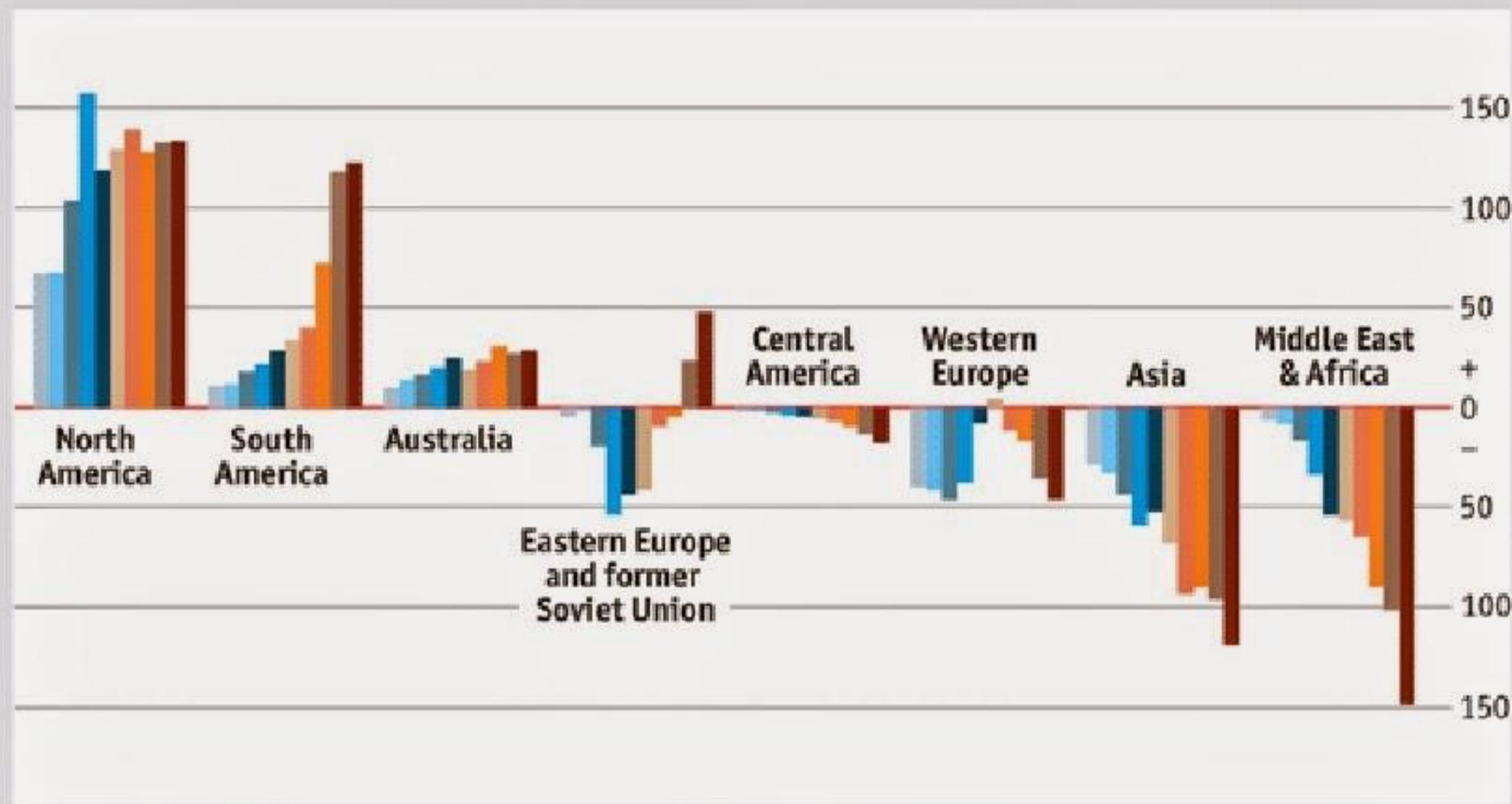
To meet the increasing demand
from a growing population we
will need to produce more food
in the next 40 years than has
been produced in the previous
? years.

Jason Clay, Senior Vice President WWF

Food* surpluses and deficits

Net intra-regional trade, tonnes, m

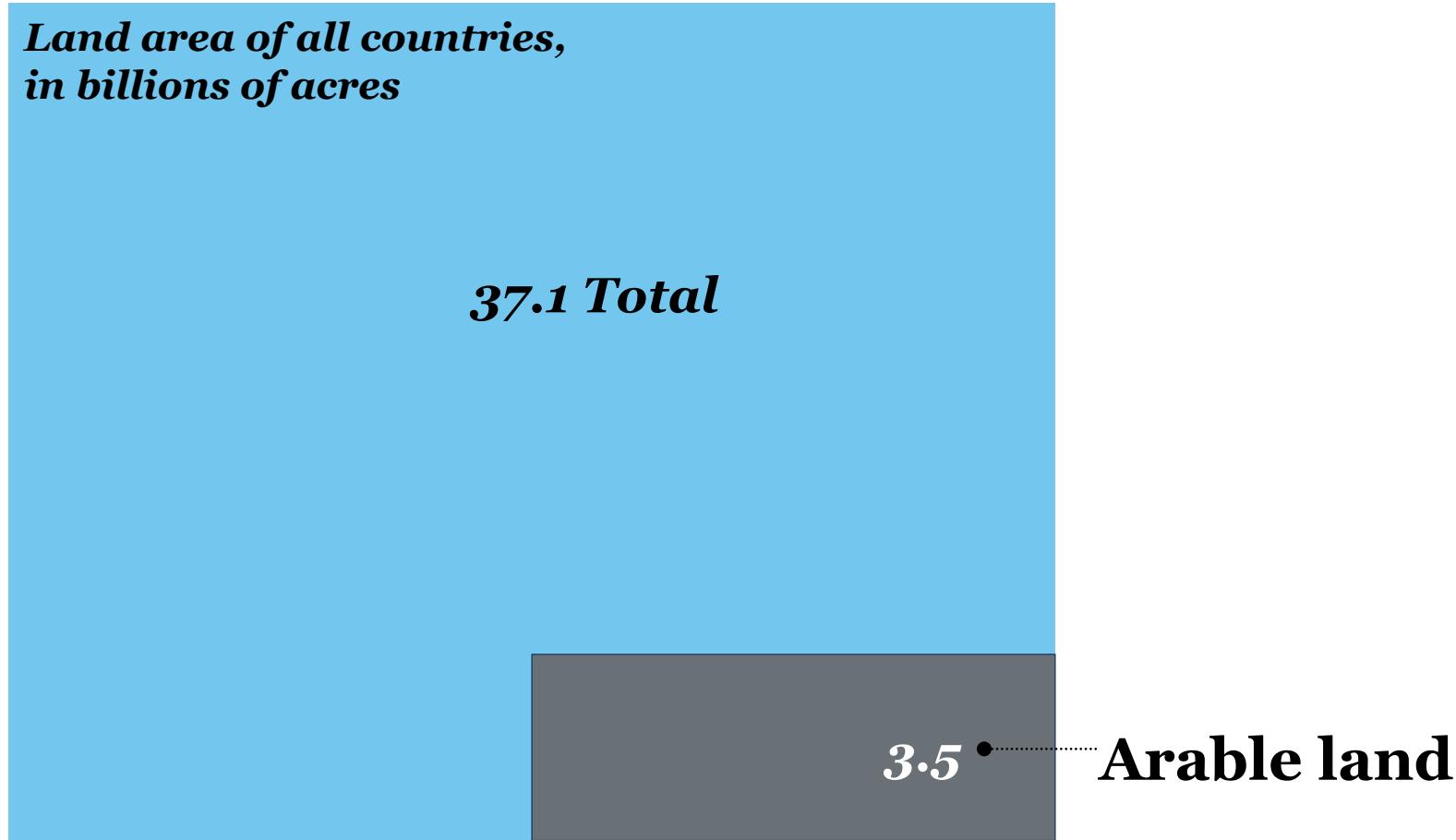
1965 1970 1975 1980 1985
1990 1995 2000 2005 2010



Source: Cargill

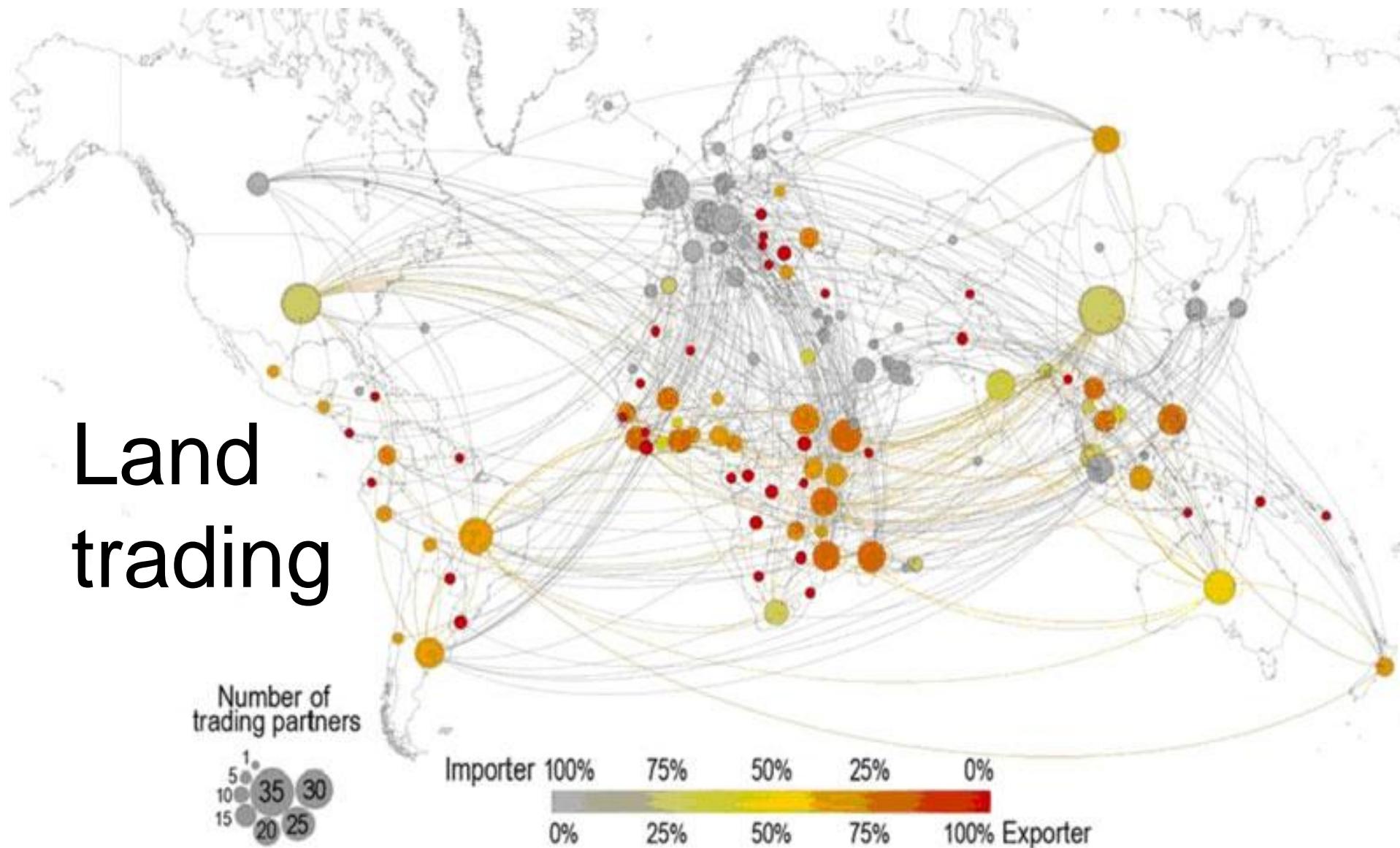
*Cereals, rice, oilseeds, meals, oils and feed equivalent of meat

There is less suitable land than you think



Source: Center for Sustainability and the Global Environment, University of Wisconsin

Land trading



2025



Unipolar vs Multipolar World

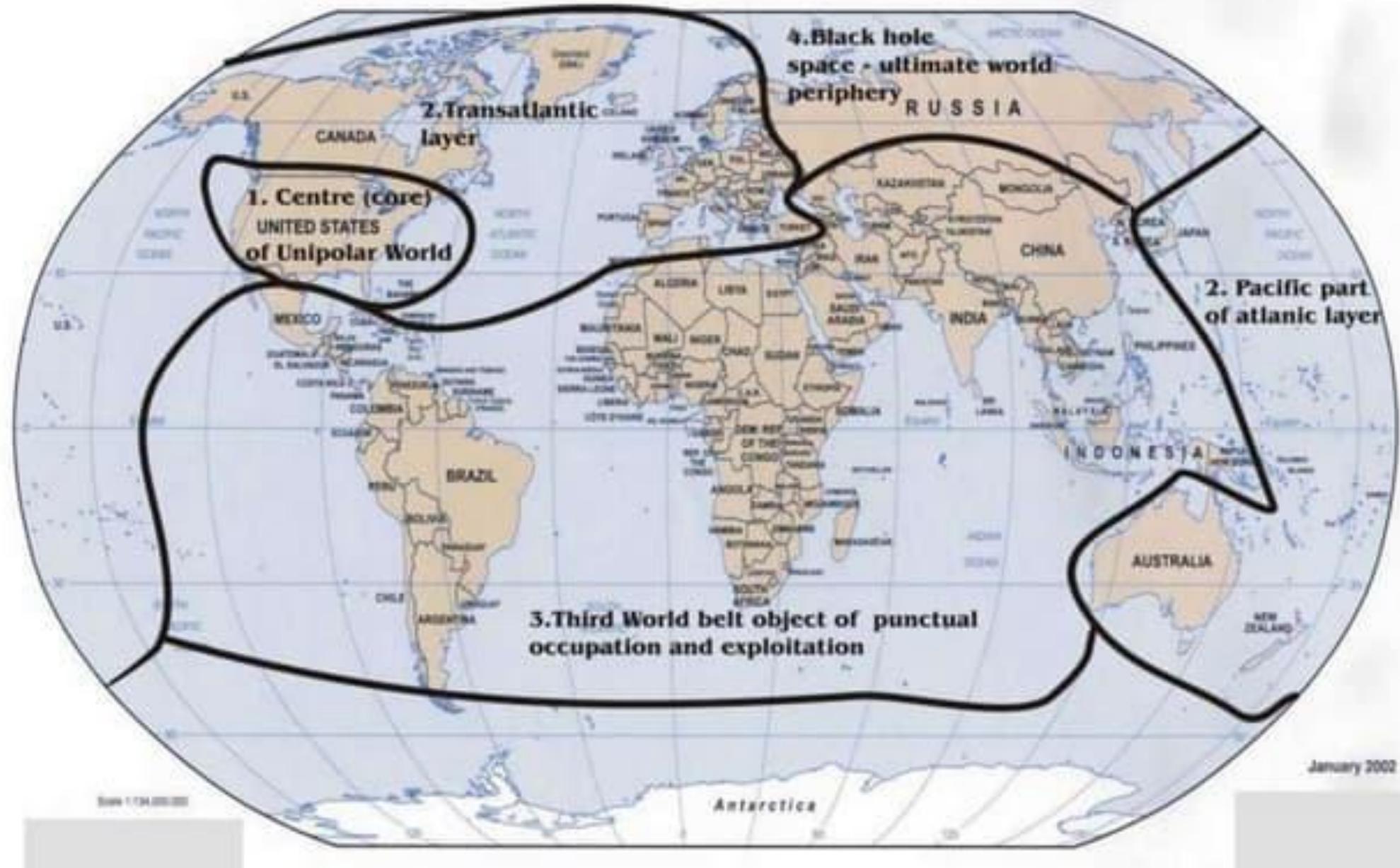


Fig1

G7 and BRICS countries' share of global GDP

PURCHASING POWER PARITY

■ G7 ■ BRICS

44.9%



16.9%



1995

SOURCE: IMF World Economic Outlook

Notes: 2

ESG: Dead or Alive?



Global risks ranked by severity

Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period.

Short term (2 years)



1

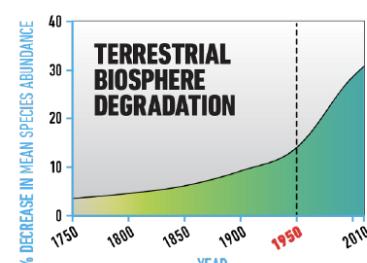
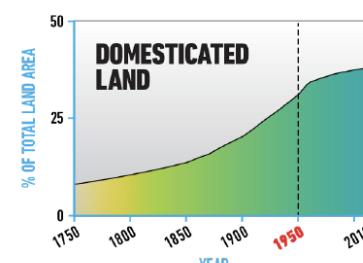
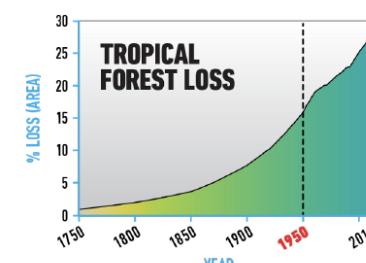
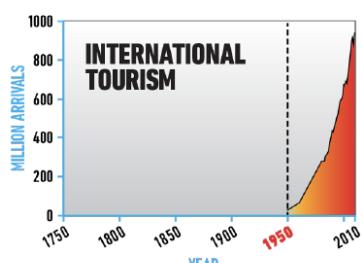
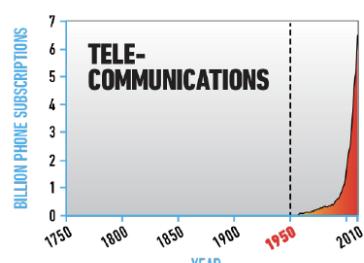
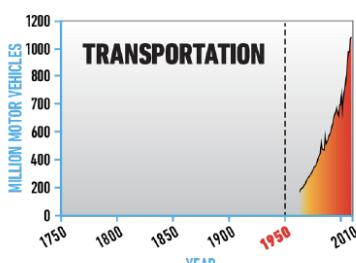
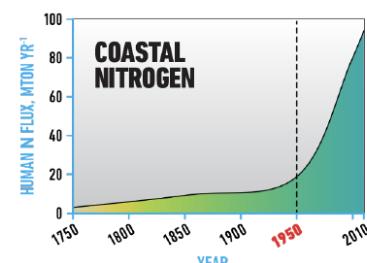
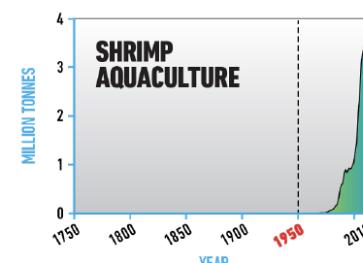
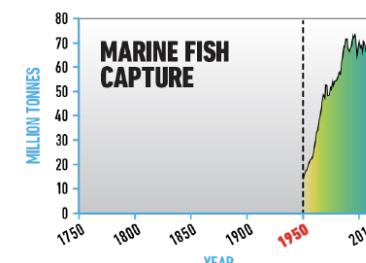
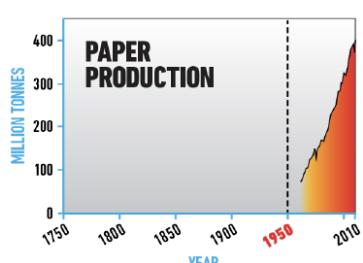
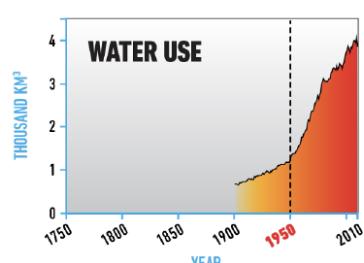
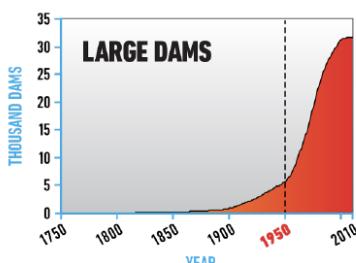
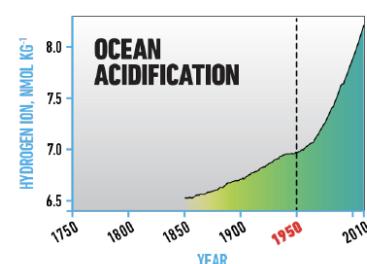
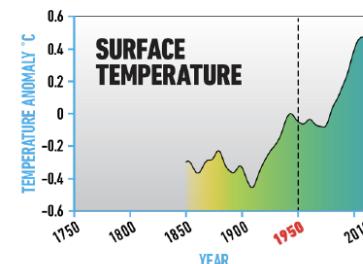
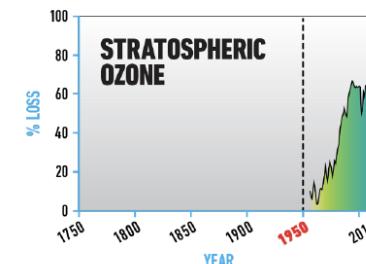
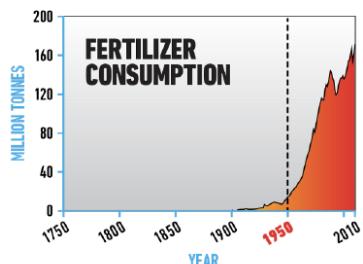
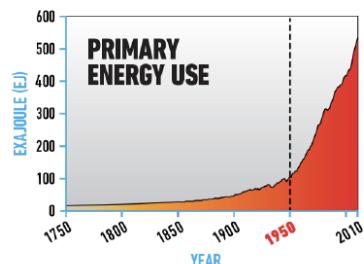
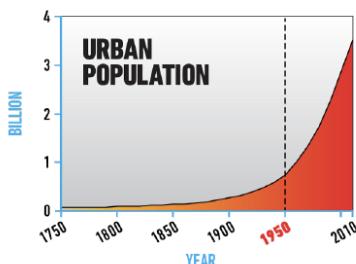
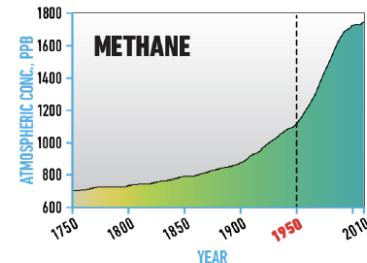
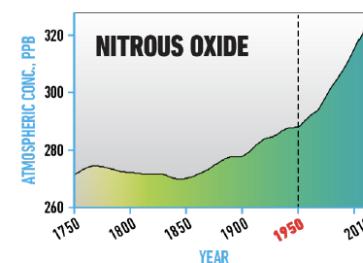
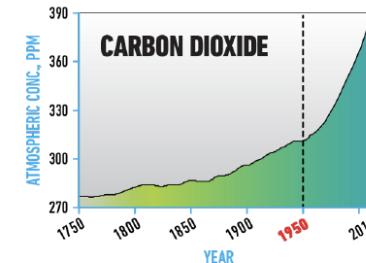
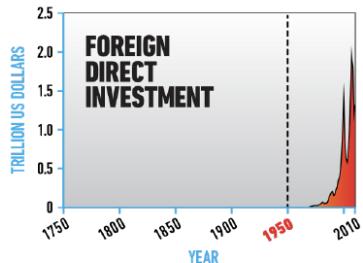
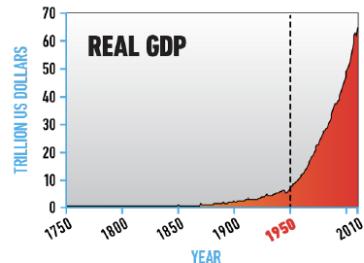
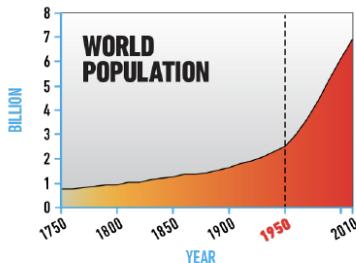
Risk categories 

Source: World Economic Forum, Global Risks Perception Survey 2024-2025

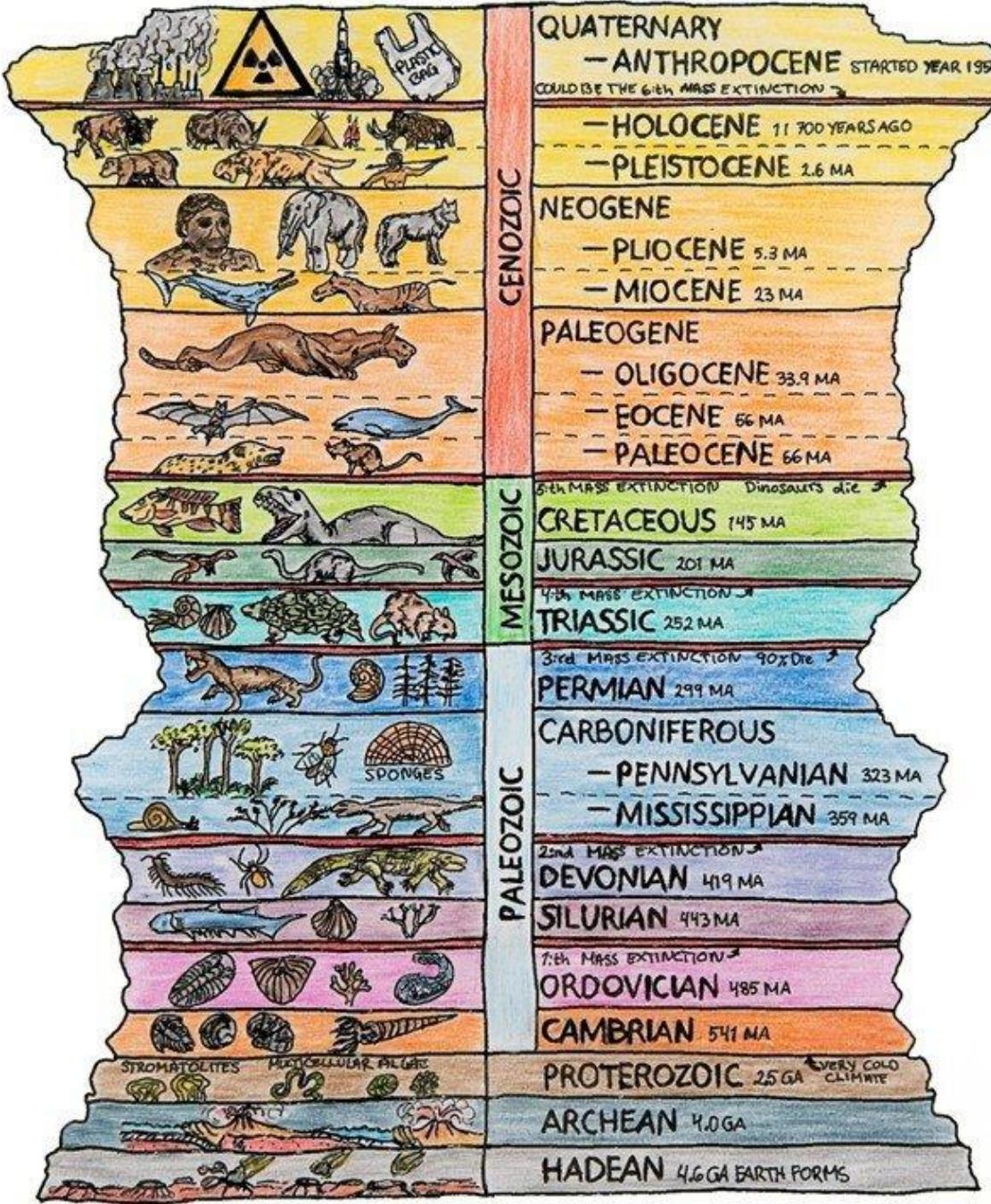
Global risks landscape: an interconnections map



THE GREAT ACCELERATION



The Anthropocene Circa 1950



Ecological footprint
(hectares per person per year)

'Very high human development'

12

EU-28 Member State

10

The big debate - “Sustainability”

8

6

4

2

0

Human Development Index

South Africa

China

Brazil

Russia

Japan

USA

World biocapacity

Ecological deficit

Sustainability

India

Indonesia

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"The world has enough for everyone's need, but not enough for everyone's greed."

Gandhi



**HOT, ~~FLAT~~
and
CROWDED**



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for Sustainability
Leadership



Forces shaping the world : global inter-connectivity and poly-crisis - The uncomfortable truth

**Malcolm Gray
16 March 2025**



**HOT, FLAT,
and
CROWDED**

Ecosystem Services: the service that nature provides us



Provisioning services

All tangible material and outputs from ecosystems that can be traded or consumed, such as food, materials and energy sources, both biotic (blue) and abiotic (yellow).



Regulating services

Ecosystem outputs that are not consumed, but that control or modify biotic or abiotic conditions in the environment.

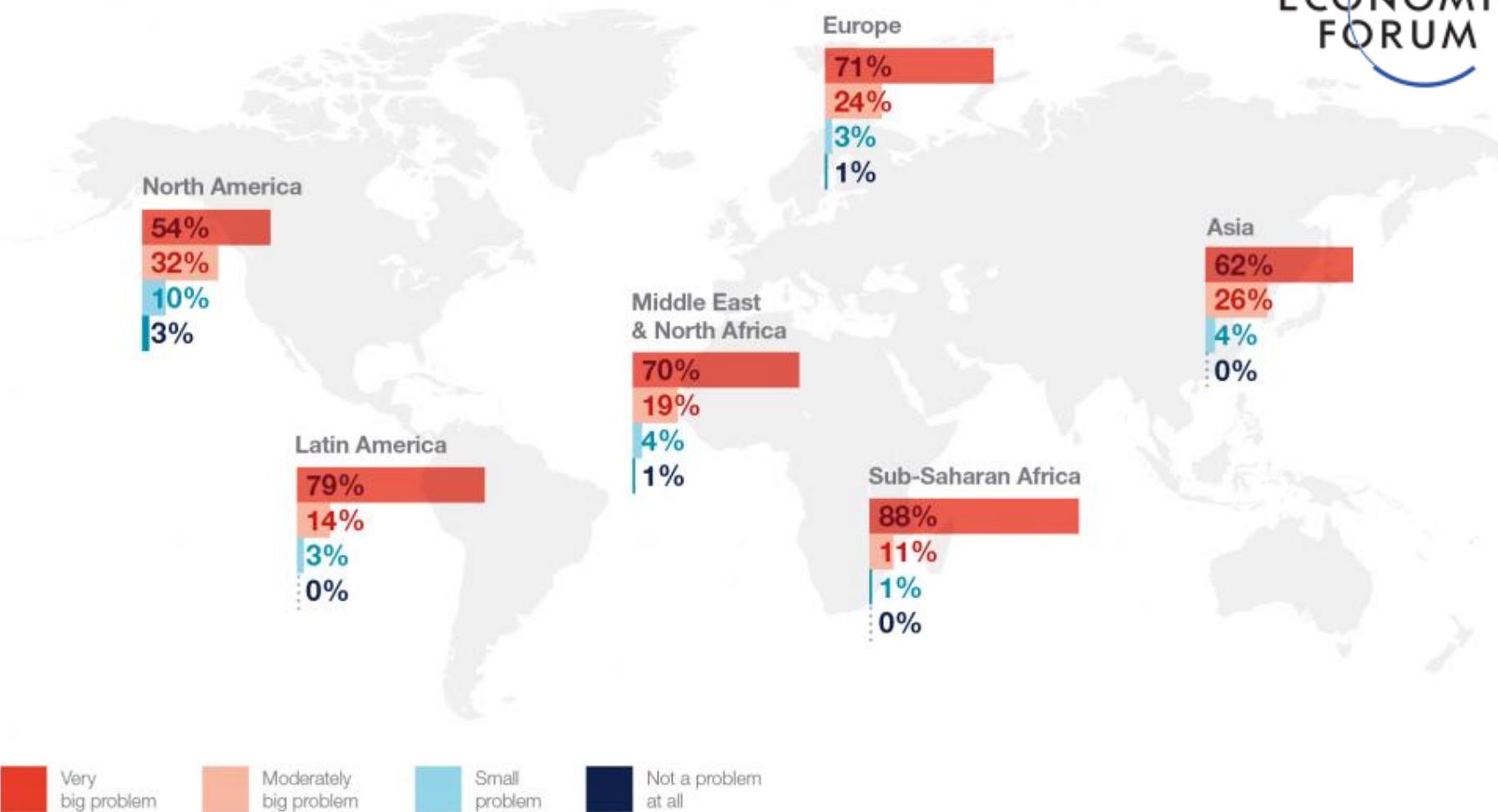


Cultural services

All non-material ecosystem outputs that have symbolic, cultural or intellectual significance.



How great a problem does a lack of **employment opportunities** pose in your country?



Source: Pew Research Center Global Attitudes Project, 2014

Great Barrier Reef hit by sixth mass bleaching event, leading coral scientist says

Prof Terry Hughes says he believes bleaching is under way as the Australian government conducts monitoring flights over 2,300km reef

● [Get our free news app; get our morning email briefing](#)

**Graham Readfearn in
Brisbane**

✉ @readfearn

Thu 17 Mar 2022 02.47 GMT



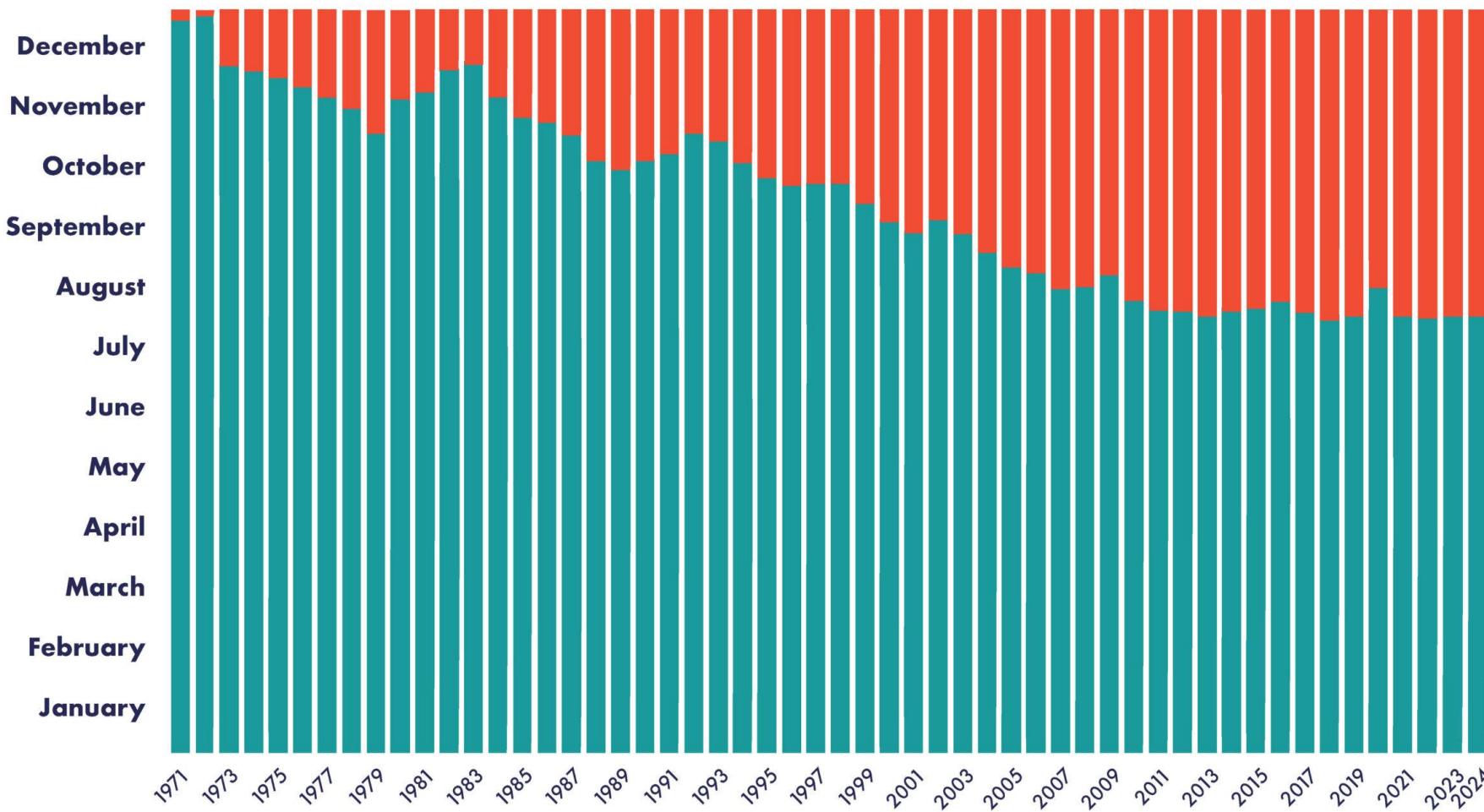
● **Coral bleaching on the northern section of the Great Barrier Reef in 2017, which scientists believe was caused by heat stress due to warmer waters as a result of climate change. Photograph: Brett Monroe Garner/Getty Images**

One of the world's leading coral scientists claims a sixth mass bleaching event is unfolding across the [Great Barrier Reef](#), with official monitoring flights now under way all along the Queensland coastline.



EarthOvershoot Day

1971 - 2024



EARTH
OVERSHOOT
DAY



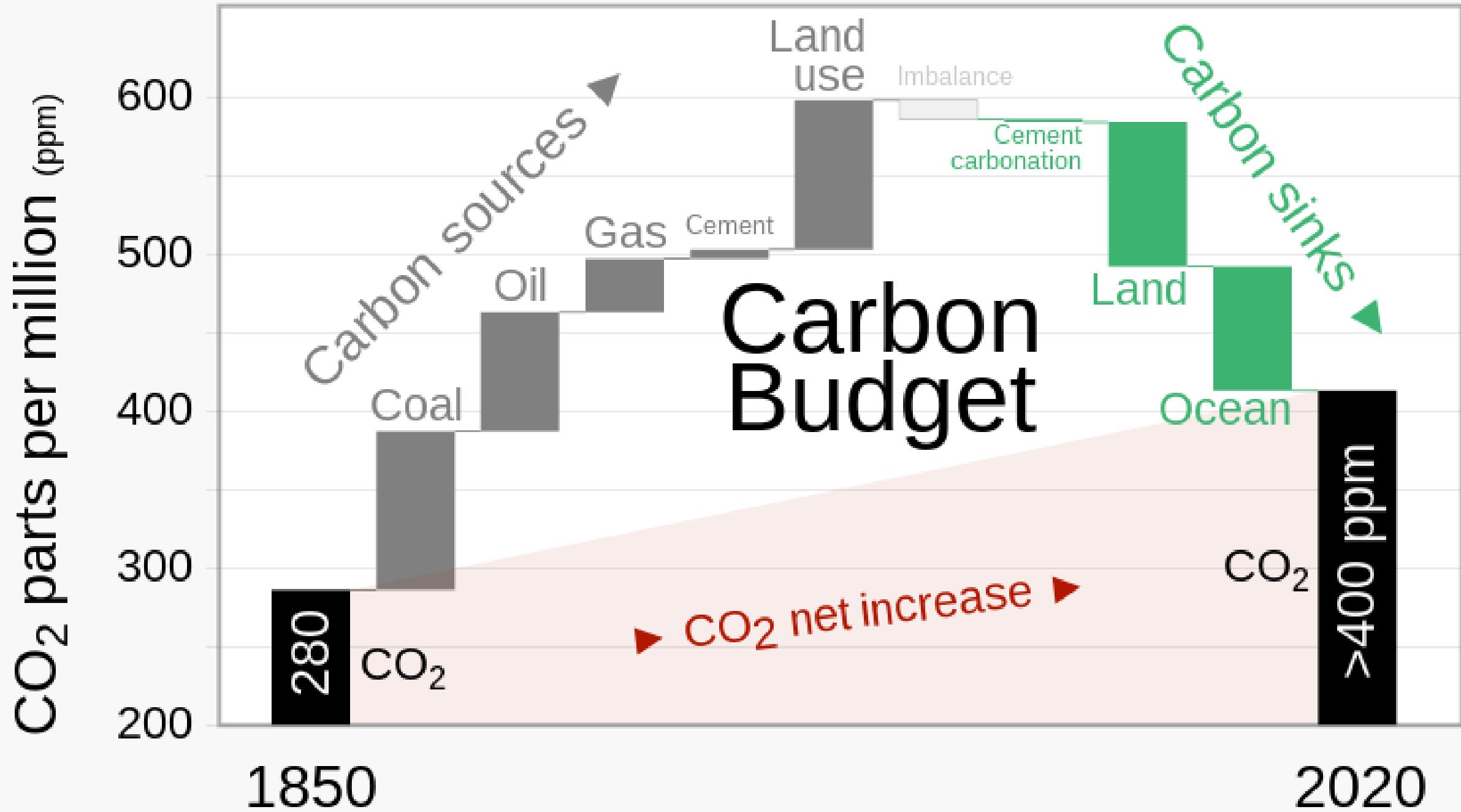
Based on National Footprint and Biocapacity Accounts 2023 Edition



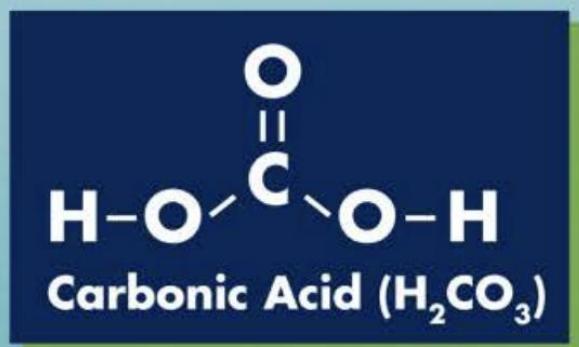
Earth
Overshoot
Day 2024

2024
1 August

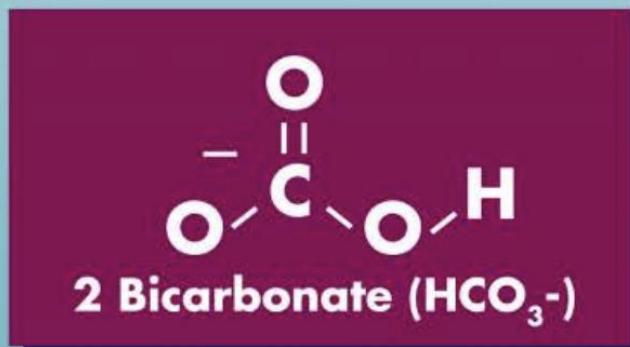
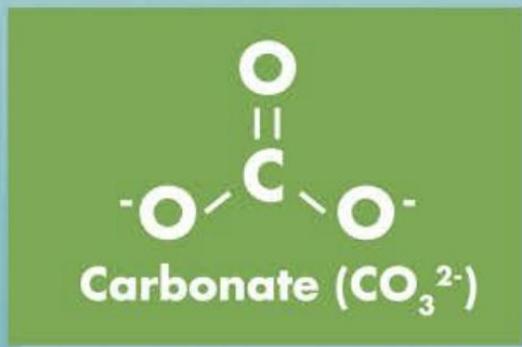




Carbonic acid “steals” carbonate needed by some marine organisms for their shells.



+



coral



clams



urchins

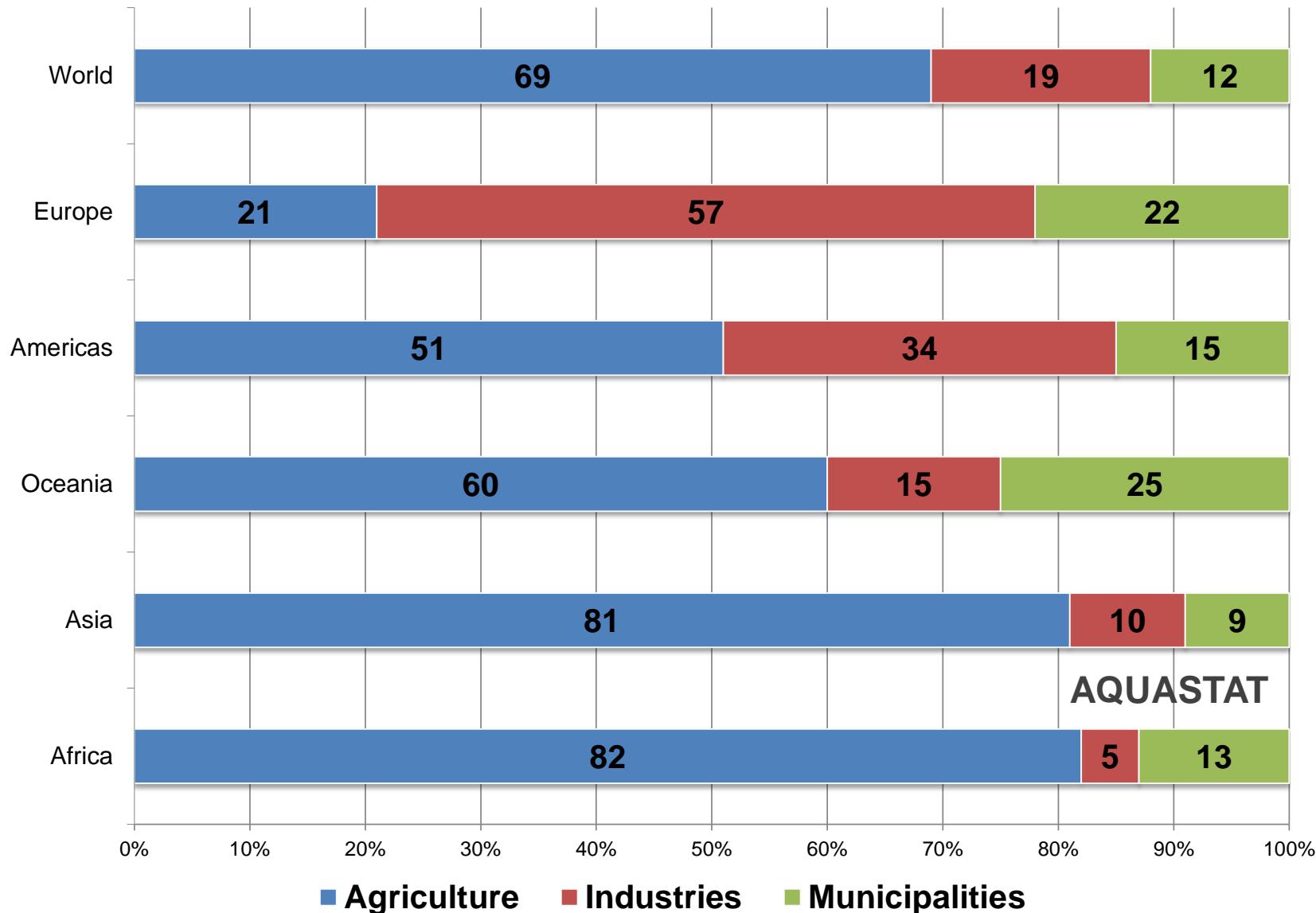


mussels



The shells of some marine organisms are made up of calcium carbonate (CaCO_3).

Water withdrawal ratios by continent





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Leadership



The background of the slide features a photograph of several hippopotamuses resting in a body of water. The water is a vibrant blue, and the hippos' heads and backs are visible above the surface. The background is a lush, green, out-of-focus landscape. A white, flowing line graphic starts from the bottom left, curves upwards and to the right, and then downwards again, partially enclosing the central text area.

The Business & Sustainability Programme Africa

Day 1

16 March 2025
Naivasha, Kenya



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Evening syndicate groups

Getting to know your peers and their context



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for Sustainability
Leadership



Session 1.4: What has nature ever done for us? The case for climate stability and healthy ecosystems

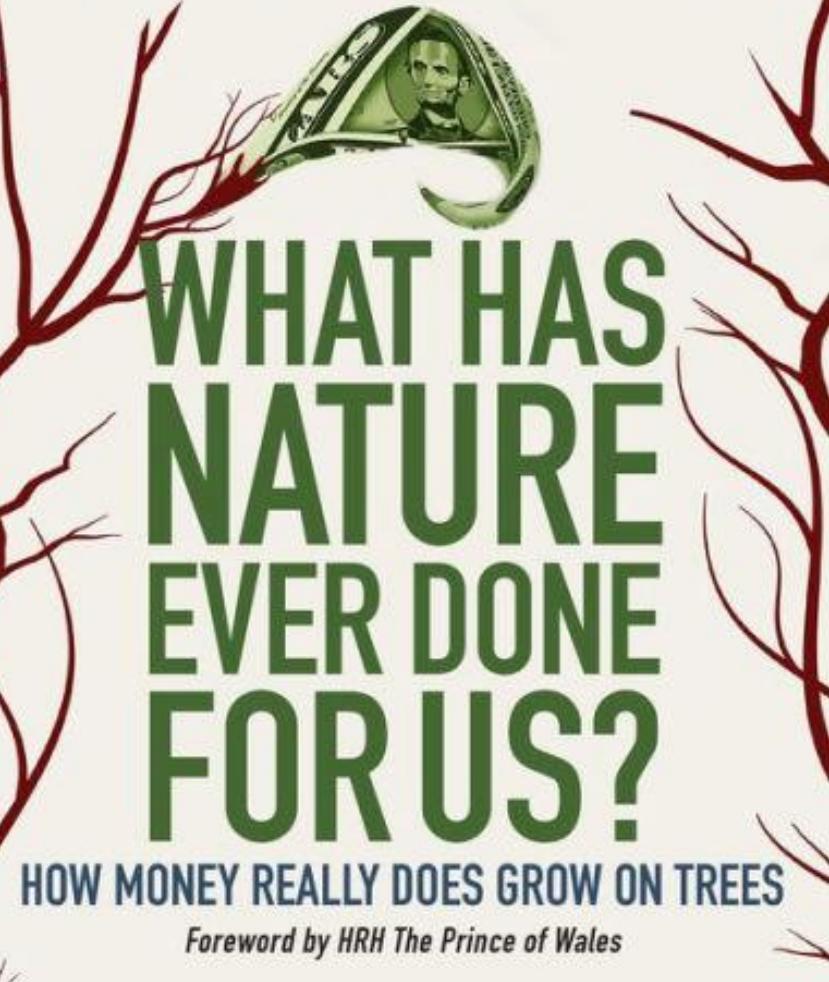
Dr Irene Amoek

CISL Senior Associate, Independent Consultant | Founder &
Director, ConserveAbility Pathways Ltd |
Strategic Advisor, Kenya Wildlife Trust

TONY JUNIPER

"This extraordinary book tells a powerful story that all people need to understand. Humanity needs nature to thrive. It will open your eyes to unseen connections that shape our lives and determine our wellbeing."

PETER SELIGMANN, CHAIRMAN AND CEO, CONSERVATION INTERNATIONAL



"Nature provides the ecosystem services that underlie our economies"

'Everyone should read this book.'

George Monbiot

Tony Juniper



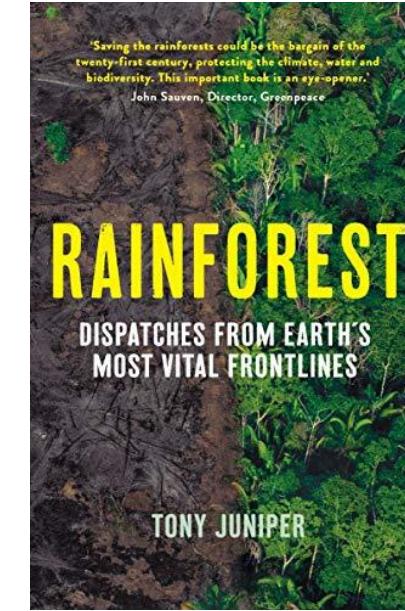
Just Earth

HOW A FAIRER WORLD
WILL SAVE THE PLANET

BLOOMSBURY

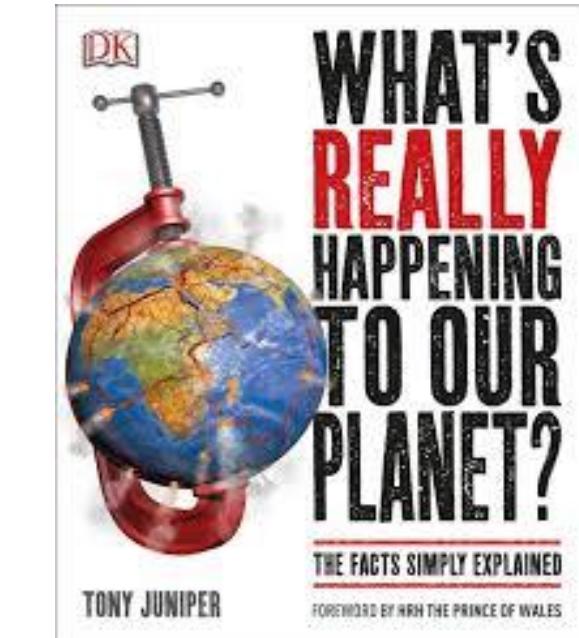
"We can't fight the climate and nature crises without addressing the ever-widening gaps between rich and poor, the powerful and the weak."

(Published: March 2025)



'Saving the rainforests could be the bargain of the twenty-first century, protecting the climate, water and biodiversity. This important book is an eye-opener.'

John Sauven, Director, Greenpeace



<https://tonyjuniper.com/>

Question Time

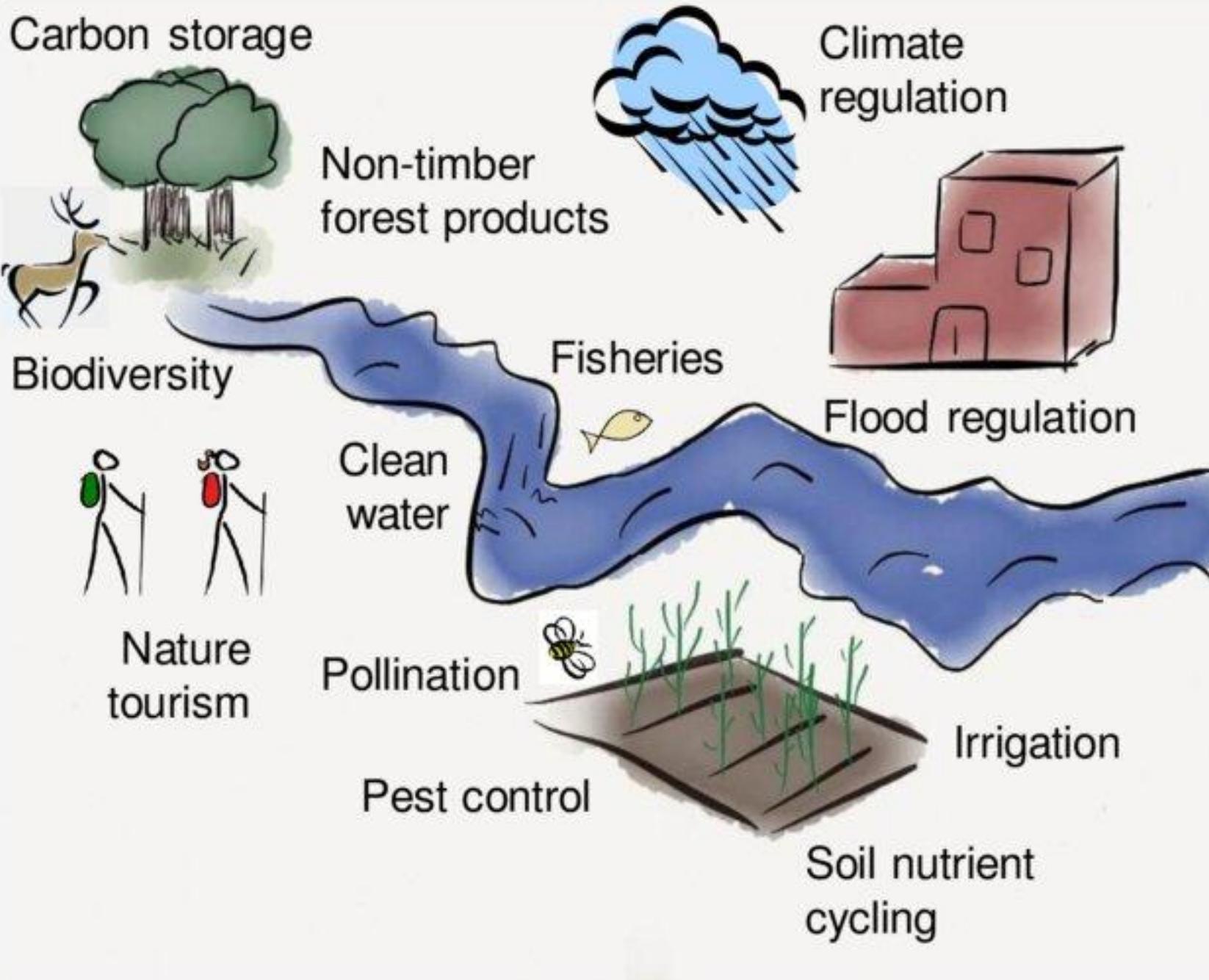
**What has Nature done for you ,
your business/ organisation?**



Nature is more than Climate: Beyond Climate Change

- Biodiversity Loss
- Water Scarcity & Pollution
- Soil Degradation & Food Security
- Ocean Acidification & Marine Decline
- Public Health Threats
- Resource Conflicts & Instability
- Plastic & Chemical Pollution
- Urbanization & Habitat Fragmentation
- Loss of Indigenous Knowledge





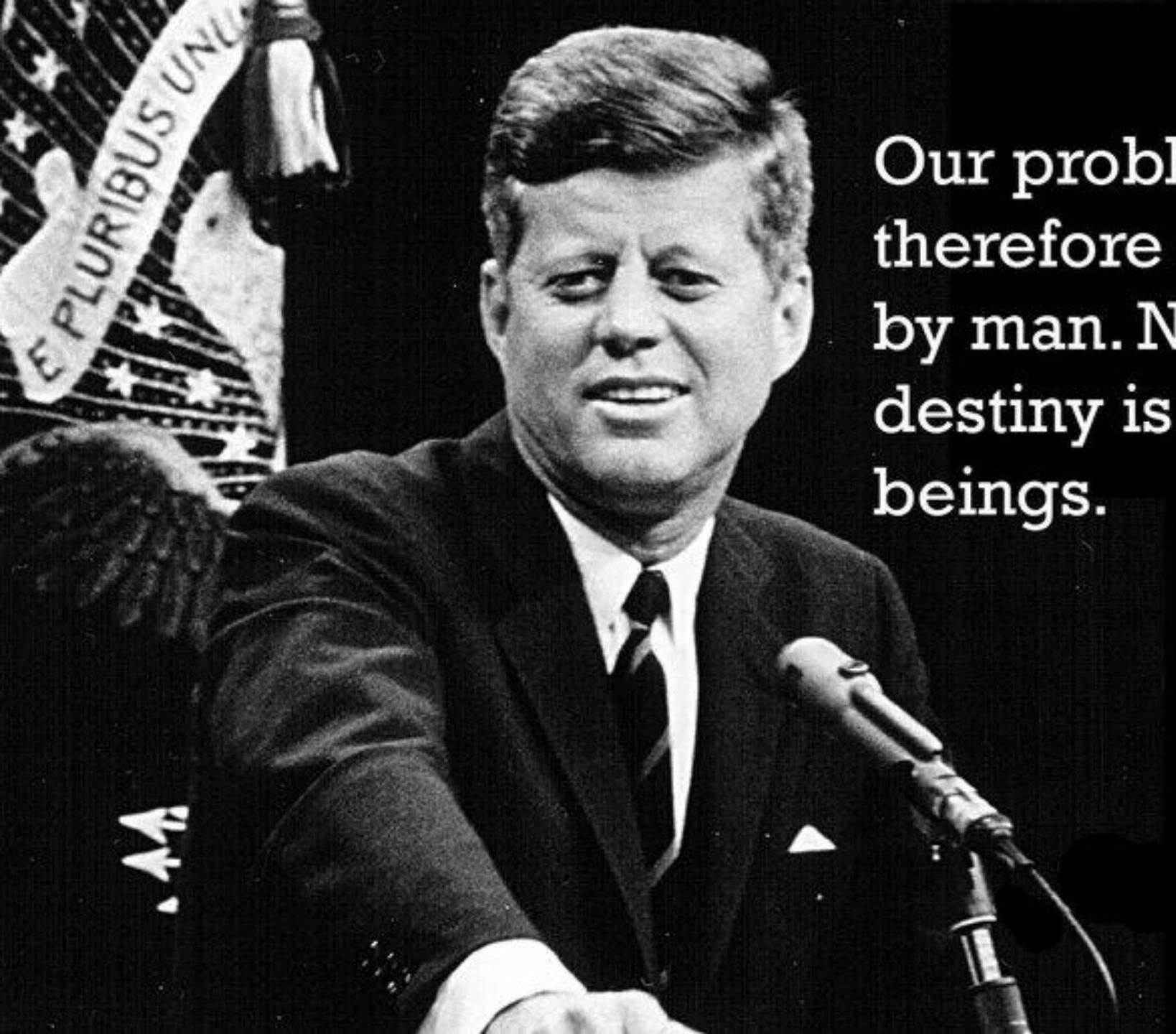
How Nature supports us

Nature's hidden work



What happens when we take Nature for granted

(An aerial view of a deforested zone in "Ñembi Guasu" conservation area, Bolivia: Marcelo Perez del Carpio / Climate Visuals Countdown)



Our problems are man-made,
therefore they may be solved
by man. No problem of human
destiny is beyond human
beings.

- June 10, 1963

New highway cuts through Amazon forest



A new four-lane highway cutting through tens of thousands of acres of protected Amazon rainforest is being built for the COP30 climate summit in the Brazilian city of Belém (BBC, March 2025)

“I used to think the top environmental problems were biodiversity loss, ecosystem collapse and climate change....But I was wrong, the top environmental problems are selfishness, greed and apathy.”

– Gus Speth (Lawyer and former Administrator of the United Nations Development Programme)



The hidden cost of ignoring Nature

(The bill we are all paying)



Have you ever thought about the value of the air you breathe?

Nature's contributions to our lives are overlooked because they are freely available or at a very low cost, until they are not....



Conservation is an Investment, Not a Cost

!! IGNORING NATURE IS AN ECONOMIC AND SECURITY CRISIS !!

The Economic Value of

Nature vs. Global GDP

\$105T
Global GDP
2023

Annual Value of Nature
\$179T

\$18T
Products
Food, timber, & medicines

\$18T
Healthy Habitats

\$107T
Regulating
Keeping soils healthy, air and water pure, climate in check, and diseases at bay

Did you know?
75% of global food crops rely on pollinators such as bees.
Source: World Economic Forum

Learn more about

PRESERVING NATURE'S VALUE

Nature provides ecosystem services 1.7x greater in value than global GDP.

Source: Boston Consulting Group, World Bank Group. | All figures in 2023 U.S. dollars. Nature values have been updated to 2023 figures, from the source's 2019 estimates, using U.S. CPI inflation.

Question Time

**What has Nature done for you and
your business / organisation?**





How can we achieve a Nature-Positive Future? A Call To Action

The big WHY



Wangari Maathai

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The environment and the economy are really both two sides of the same coin. If we cannot sustain the environment, we cannot sustain ourselves.



Without proper management tools, companies are putting excessive **pressures on nature** through their operations and supply chains.

Science-based targets for nature take direct aim at these pressures with measurable, time-bound, and location-based goals.



Guided by the targets, companies take actions that contribute to **nature positive outcomes** so nature, people and business can thrive.

Translating Nature-Positive goals into Action

- Many organisations recognise the need for nature-positive action but struggle with implementation
- Spending on sustainability reporting exceeds spending on sustainability innovation by 43%*
..... diminished returns!

* IBM Institute for Business Value Report, Beyond Checking the Box, Feb 27,2024

Question Time



Final Reflection
What can you do for Nature?

What is your little thing?

It's the **little things** citizens do that will make the difference.
My little thing is planting trees.

Wangari Maathai



#mylittlething #whatsyours

Credit: Brigitte Lacombe



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Leadership



The background of the slide features a close-up photograph of several hippopotamus heads above the water's surface. The water is a vibrant blue, and the hippo's skin is textured and dark. A white, flowing line graphic starts from the bottom left, curves upwards and to the right, and then downwards again, partially enclosing the text area.

The Business & Sustainability Programme Africa

Day 1

16 March 2025
Naivasha, Kenya