

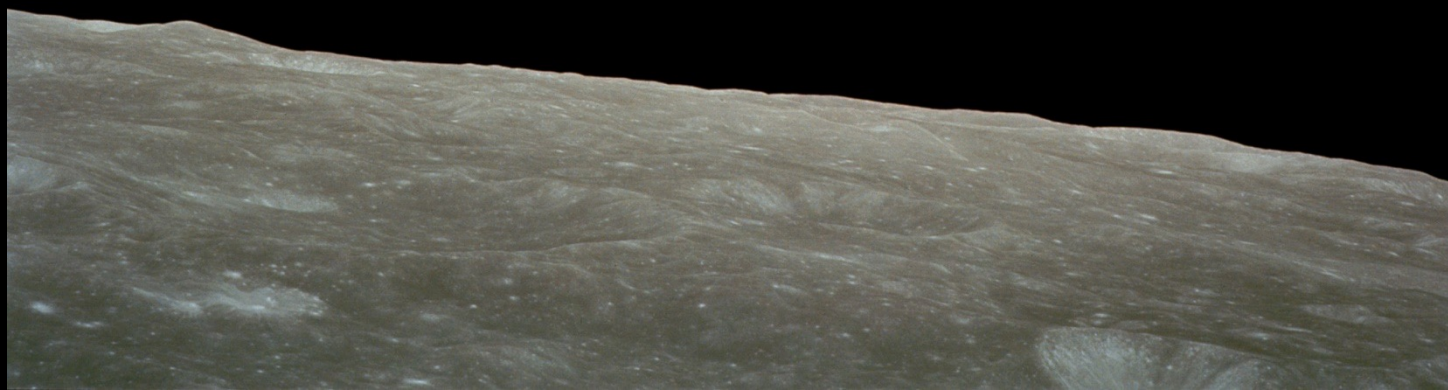
Sustainability as a Core Value and Strategic Imperative, Auburn University and Beyond



LWLM
Annual Meeting
February 18,
2024
Mike Kensler




AUBURN UNIVERSITY
OFFICE OF SUSTAINABILITY



A close-up photograph of a tiger's face, showing its eyes, nose, and whiskers. The tiger has orange fur with black stripes. Two semi-transparent orange text boxes are overlaid on the image. The top box contains the title, and the bottom box contains a list of topics.

Sustainability as a Strategic Imperative

What it is
Why it matters
Remaking the future
Auburn's efforts

 Photo by Digimist - Creative Commons Attribution-NonCommercial License <https://www.flickr.com/photos/30898814@N03>

Created with Haiku Deck



AUBURN
SUSTAINABILITY

A close-up photograph of a tiger's face, showing its eyes, nose, and whiskers. The tiger has orange fur with black stripes. The image is used as a background for the slide.

Sustainability

 Photo by Dgimist - Creative Commons Attribution-NonCommercial License (https://creativecommons.org/licenses/by-nc/4.0/) 10898814@N03 Created with Hailuo AI

What it is



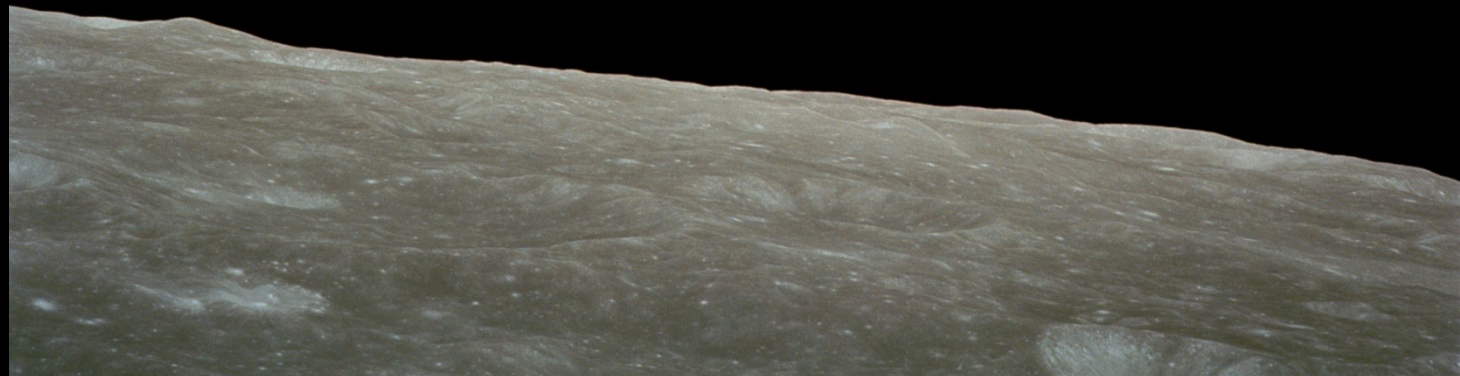
Sustainability

An Ethic

A Worldview

An Approach

Tools and Processes



Sustainability: Based on Core Human Values:

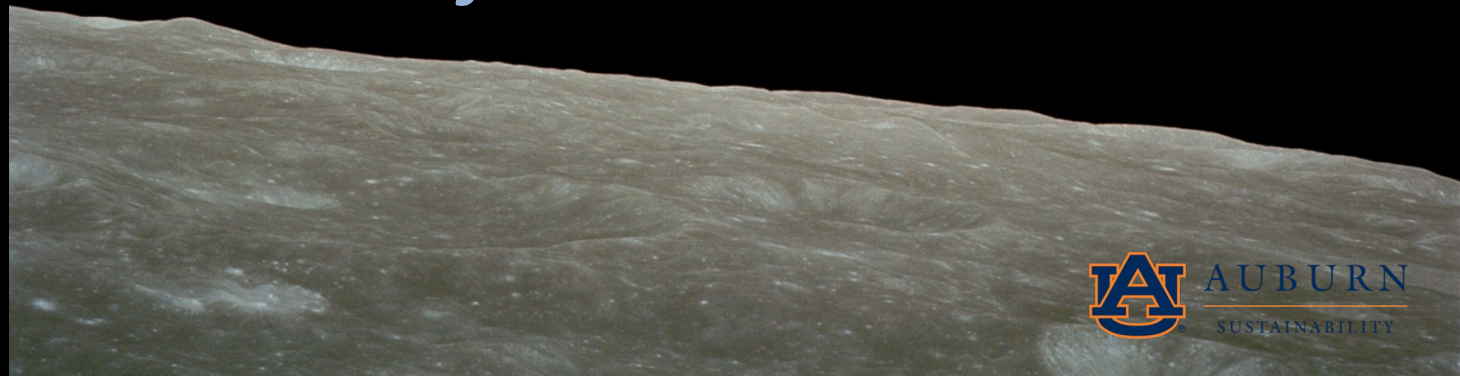
The 4 questions

How am I showing up today?

Am I bringing out the best in others?

How am I treating the world around me?

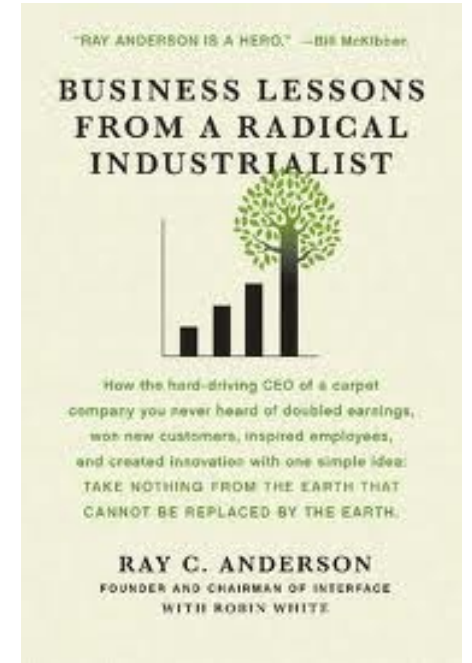
What am I leaving for those who come after me?



Interface®

“At the end of the day, the role of business is to generate prosperity and a better quality of life for everyone...”

we should never operate at the expense of the earth or societies or future generations.”



Ray Anderson
Founder and CEO, Interface

Sustainability

Meeting human needs now and in the future

in a fair, just, and equitable way

while protecting and maintaining healthy
ecosystems in perpetuity.

Sustainability Compass

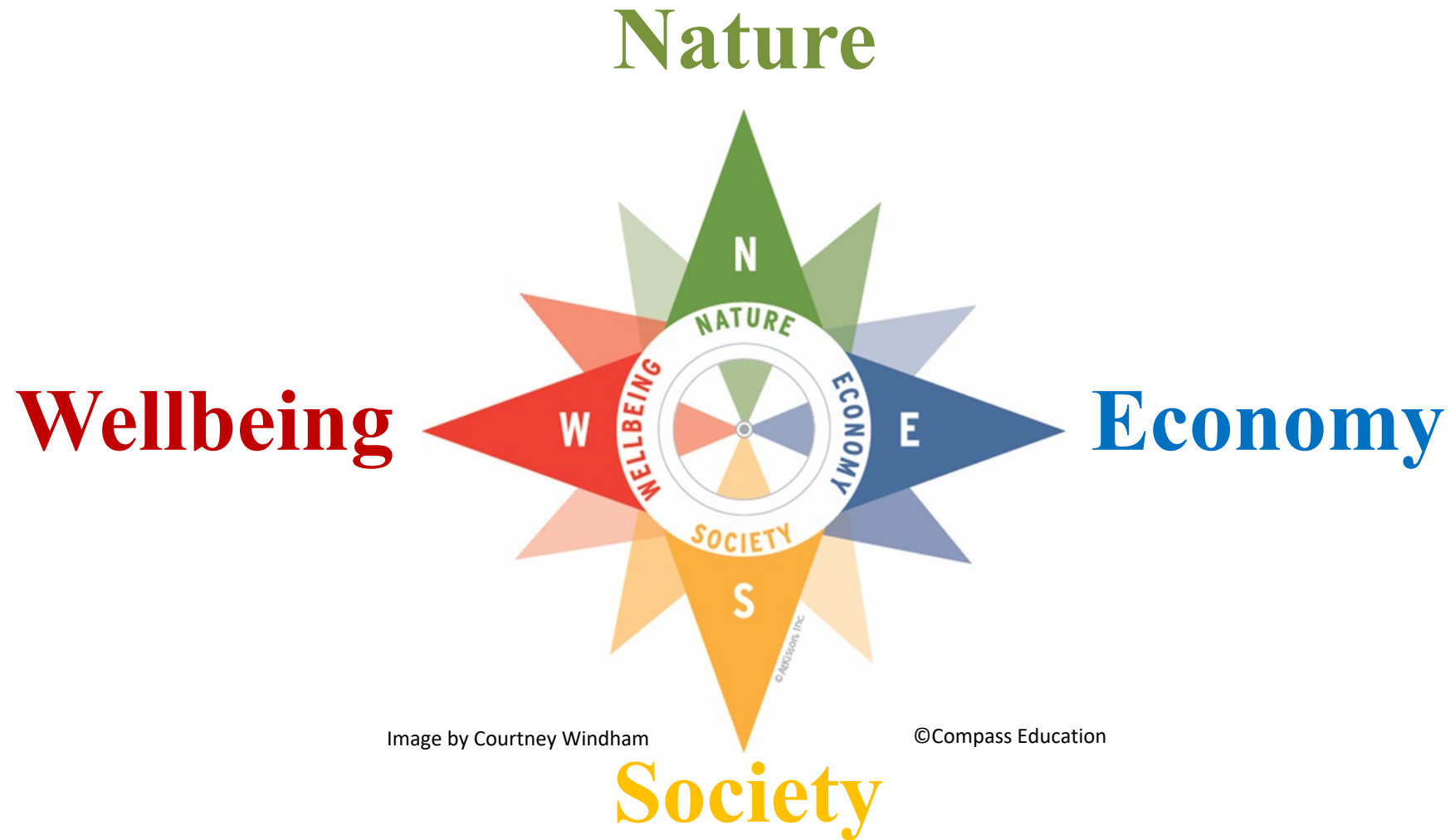


Image by Courtney Windham

©Compass Education

Sustainability Compass

Conditions for a Flourishing World

Live in accord with the laws of **Nature**

Maintain a prosperous **Economy** that is viable, fair, and inclusive

Cultivate a **Society** of connectedness, inclusion, caring, equity, and engagement

Ensure conditions that create physical, mental, emotional and spiritual **Wellbeing**.



N



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S



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A close-up photograph of a tiger's face, showing its eyes, nose, and whiskers. The tiger has orange fur with black stripes. The image is used as a background for the slide.

Sustainability

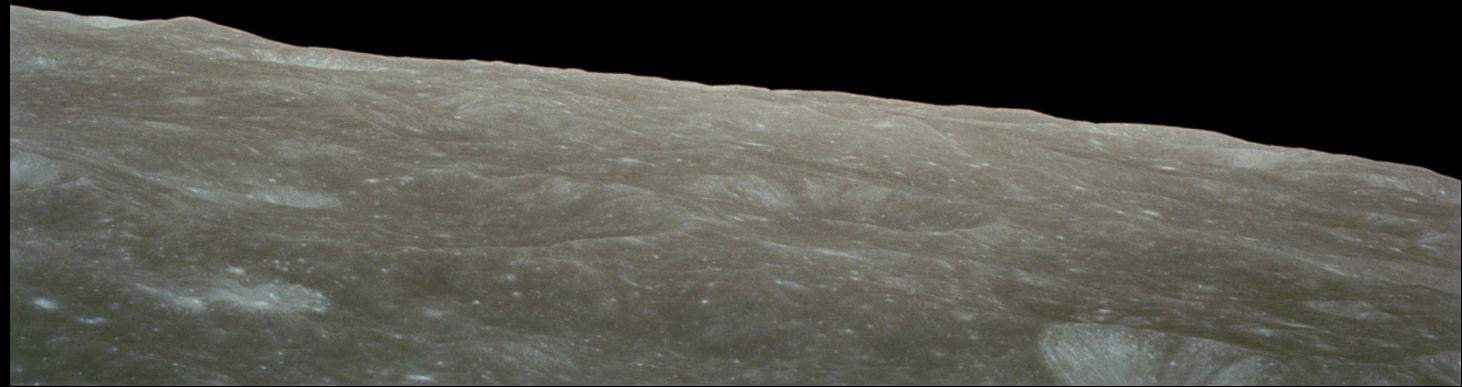
Why it matters

Sustainability:

2 standpoints

➤ **Current Reality**

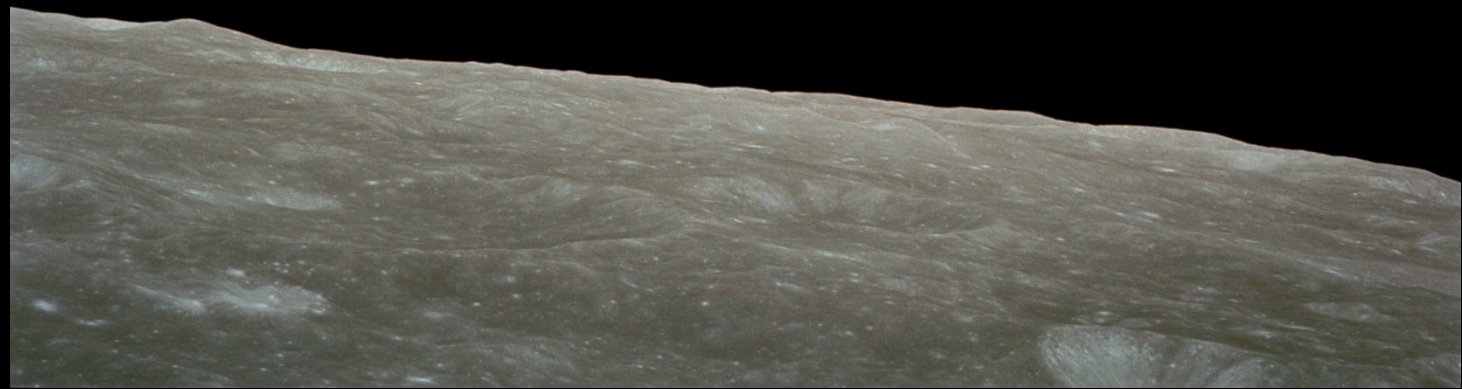
➤ **Our Desired Future**



***“Sustainability
is a response to
a planetary
emergency.”***

**Mitch Thomashow,
Former president, Unity College**

Current Reality



CATASTROPHIC WILDERNESS LOSS SINCE THE 1990's

Six Environmental Crises

1. Global Warming
2. Biodiversity and Habitat Loss
3. Soil Loss and Degradation
4. Water Scarcity
5. Chemical Pollution
6. Resource Depletion

Globally important wilderness areas are strongholds for biodiversity, regulating local climates, and for supporting the world's most politically and economically marginalized communities. They are disappearing rapidly, with an area twice the size of Alaska lost in two decades. Only 23% of the Earth's land surface contains wilderness and some biomes have almost none left.



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

Watson et al., Catastrophic Declines in Wilderness Areas Undermine Global
Environment Targets, Current Biology (2016), <http://dx.doi.org/10.1016/j.cub.2016.08.049>



Post Carbon Institute



The “planetary emergency” Impact on Society

Six Social Crises

1. Poverty
2. Inequality
3. Racism and other Discrimination
4. Antisocial Responses to Scarcity
5. Authoritarianism
6. Impact of Technological Change

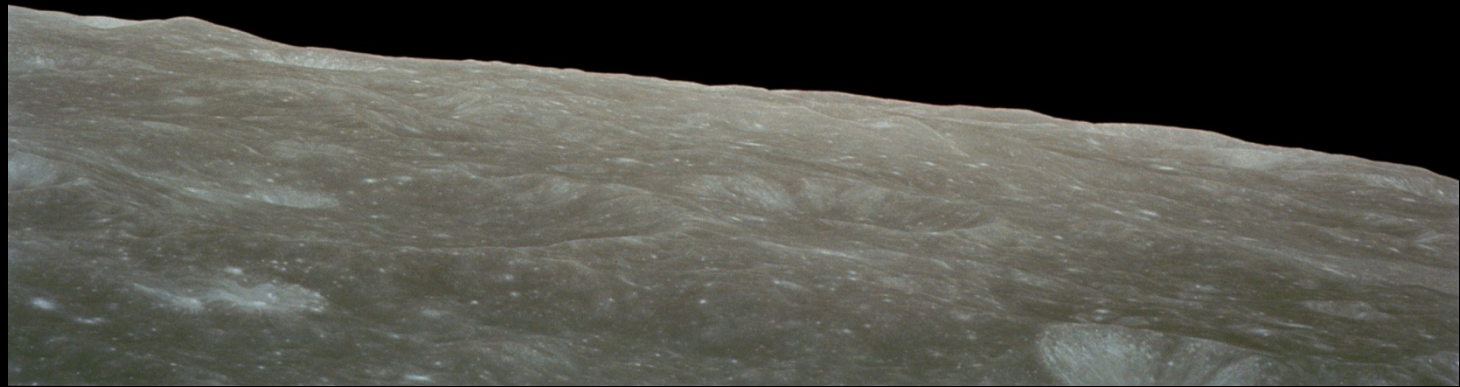
Post Carbon Institute

Sustainability:

2 standpoints

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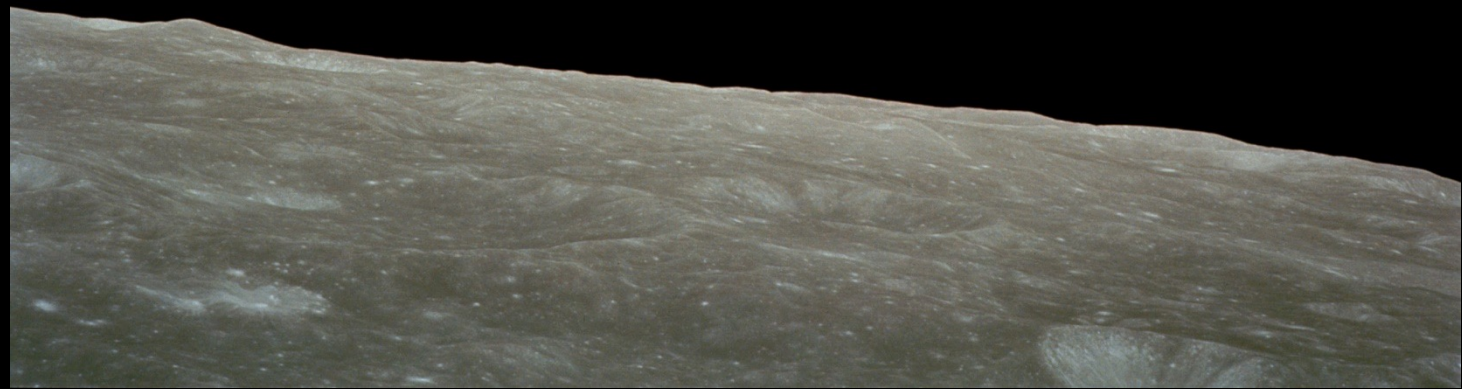
➤ **Our Desired Future**



*“The many crises facing us should be seen ... not as threats, but as **chances to remake the future so it serves all beings.**”*

Amory Lovins

Our Desired Future



The “planetary emergency” and Ecological Carrying Capacity

The size of the population that can be supported indefinitely by the available resources and services of an ecosystem.

Living within the limits depends on 3 factors:

1. The amount of resources available,
2. The size of the population, and
3. The amount each individual consumes.



Sustainable Measures

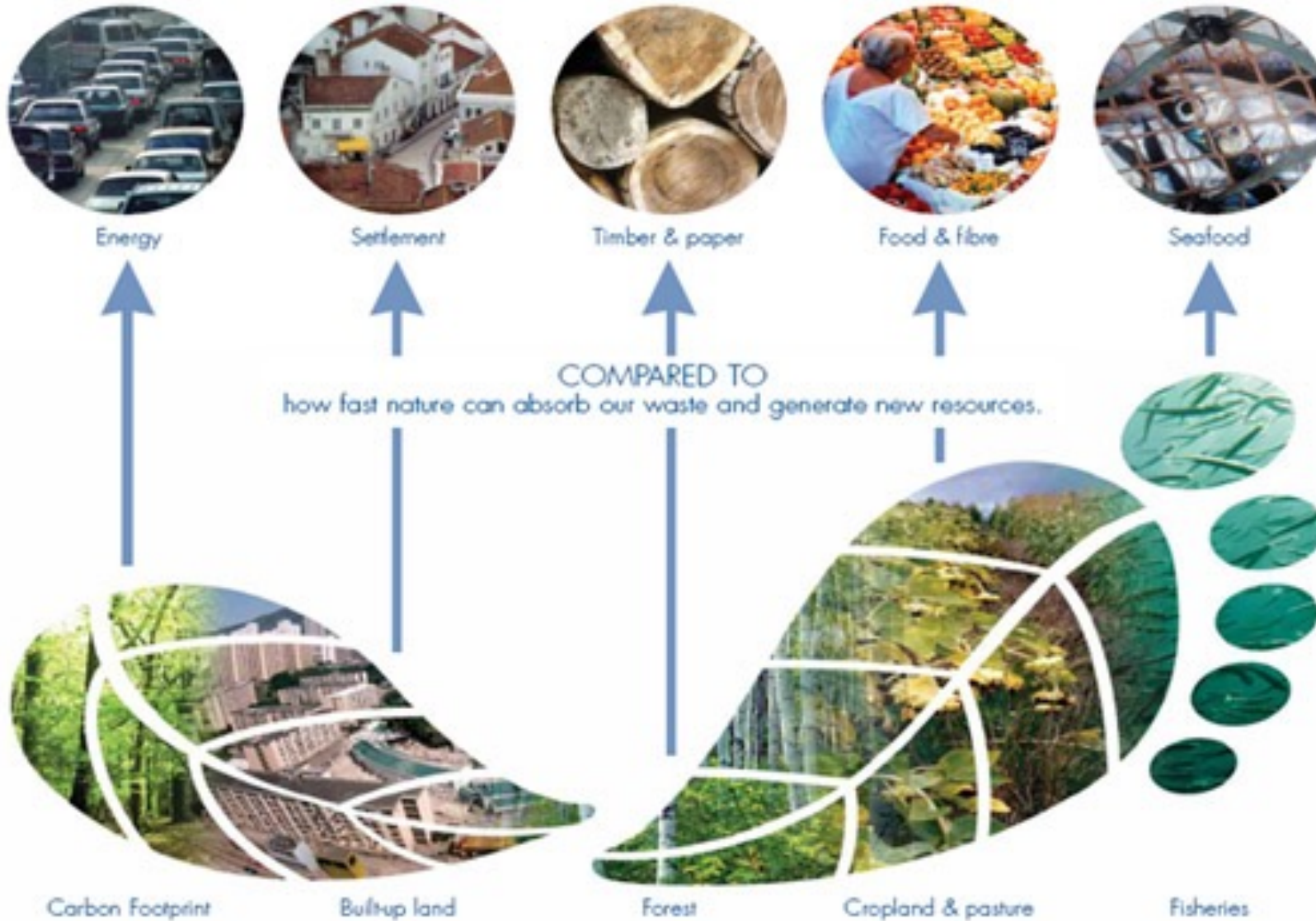


Our attitudes and behaviors
toward each other and the world around us.

The Ecological Footprint

MEASURES

how fast we consume resources and generate waste

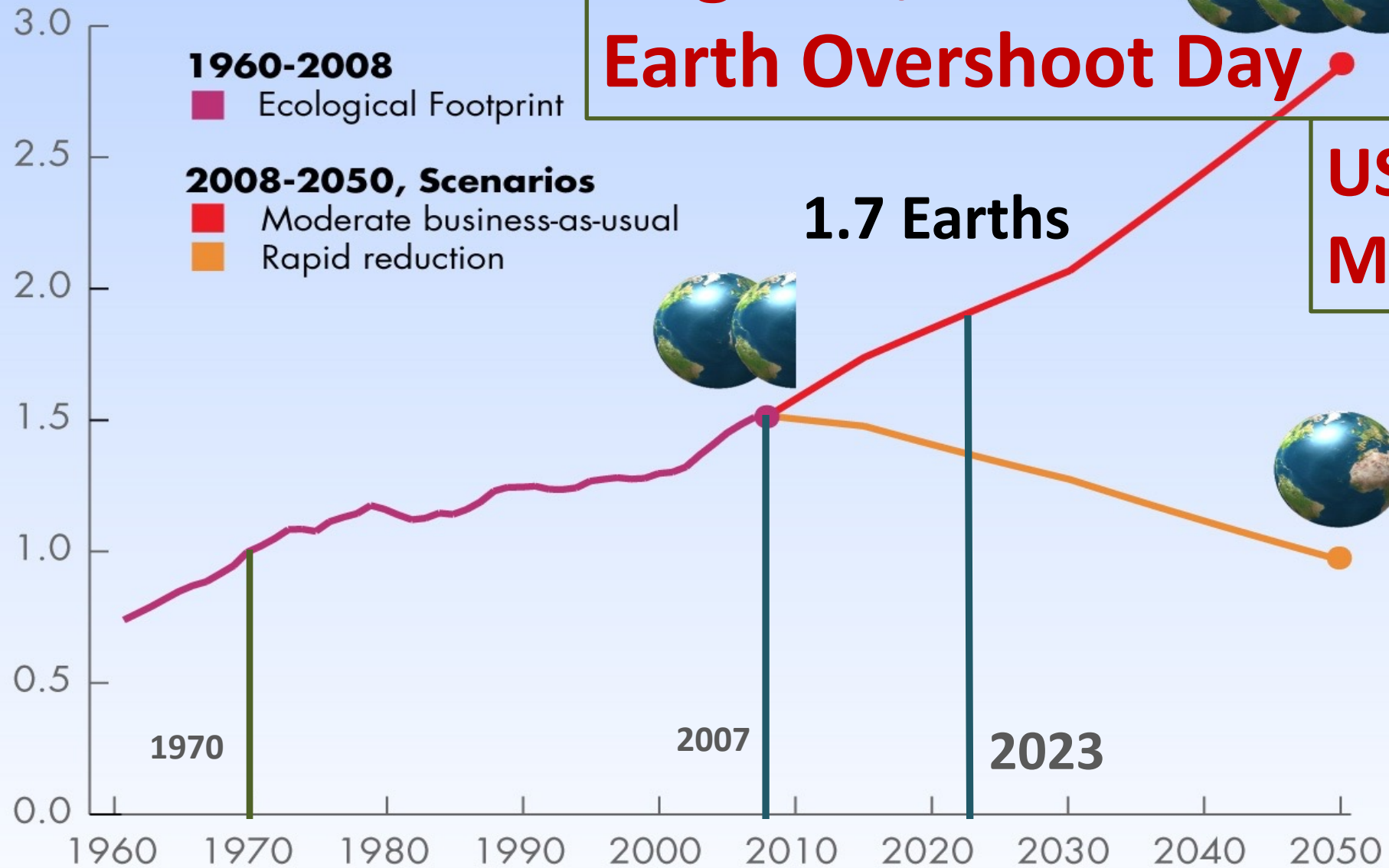


August 2, 2023



Earth Overshoot Day

USA:
March 13



y-axis: number of planet earths, x-axis: years

<https://www.footprintnetwork.org>

CATASTROPHIC WILDERNESS LOSS SINCE THE 1990's

Six Environmental Crises

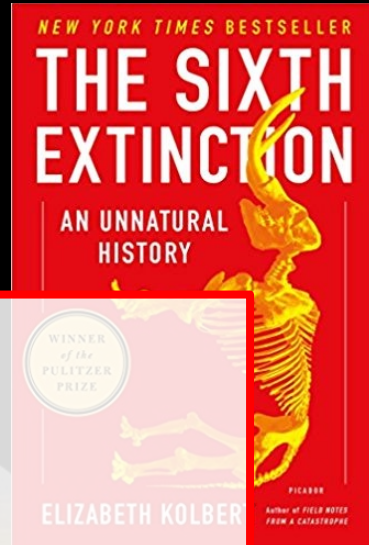
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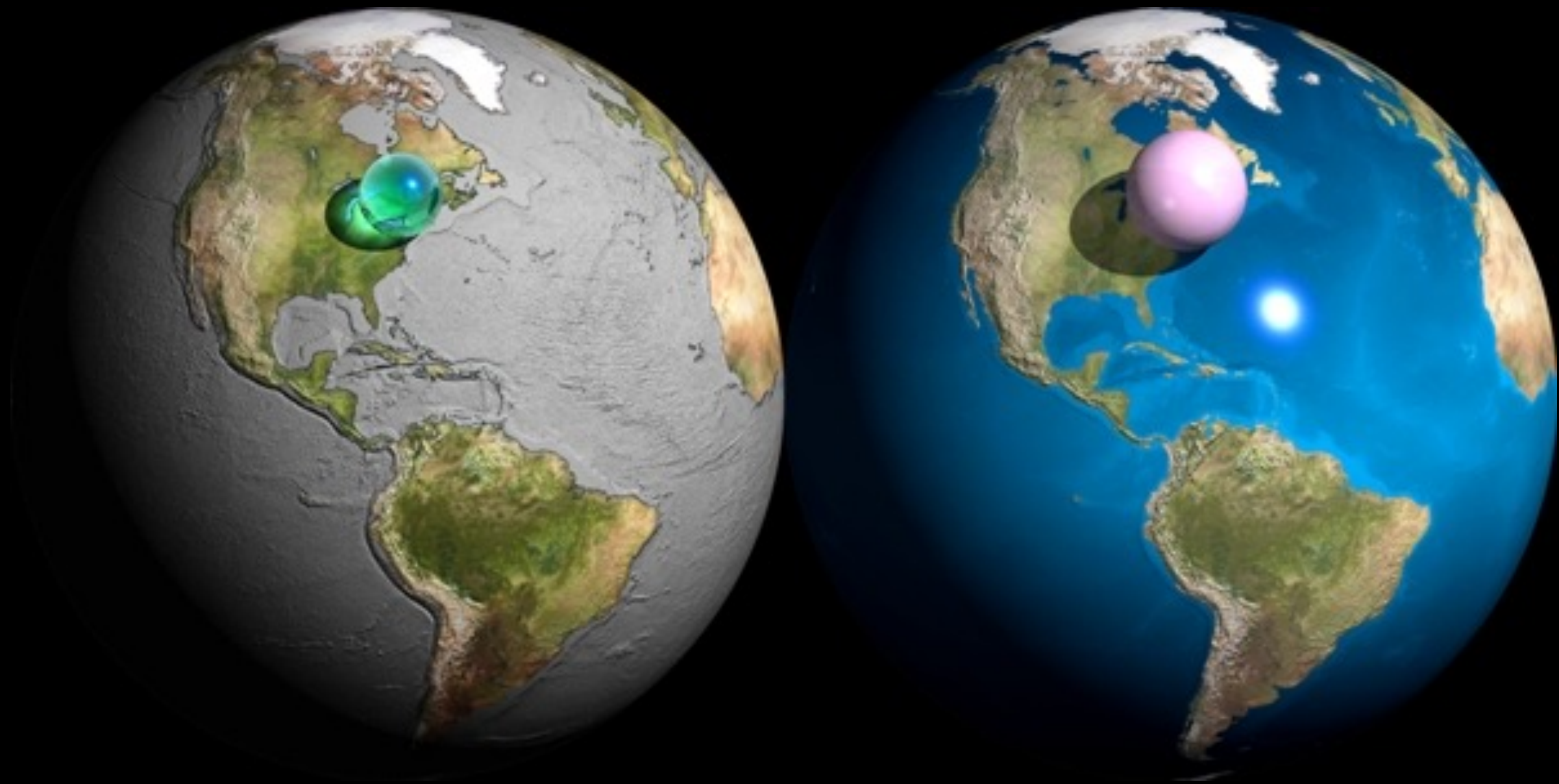


THE UNIVERSITY
OF QUEENSLAND
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Watson et al., Catastrophic Declines in Wilderness Areas Undermine Global
Environment Targets, Current Biology (2016), <http://dx.doi.org/10.1016/j.cub.2016.08.049>



Post Carbon Institute



Global Warming & Climate Change in 12 Words

Scientists agree (>99%).

It's happening.

It's bad.

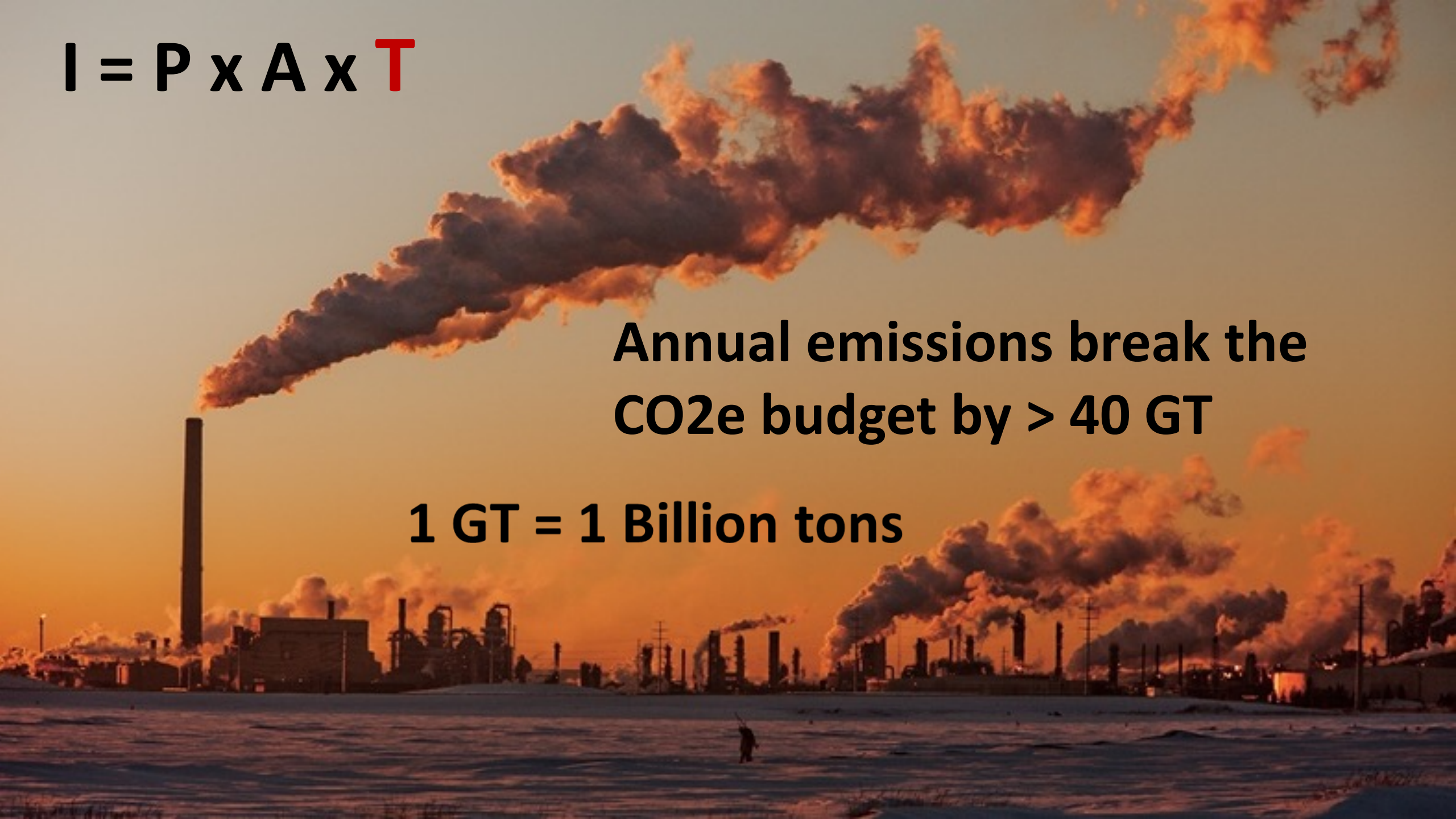
It's us.

We can fix it.

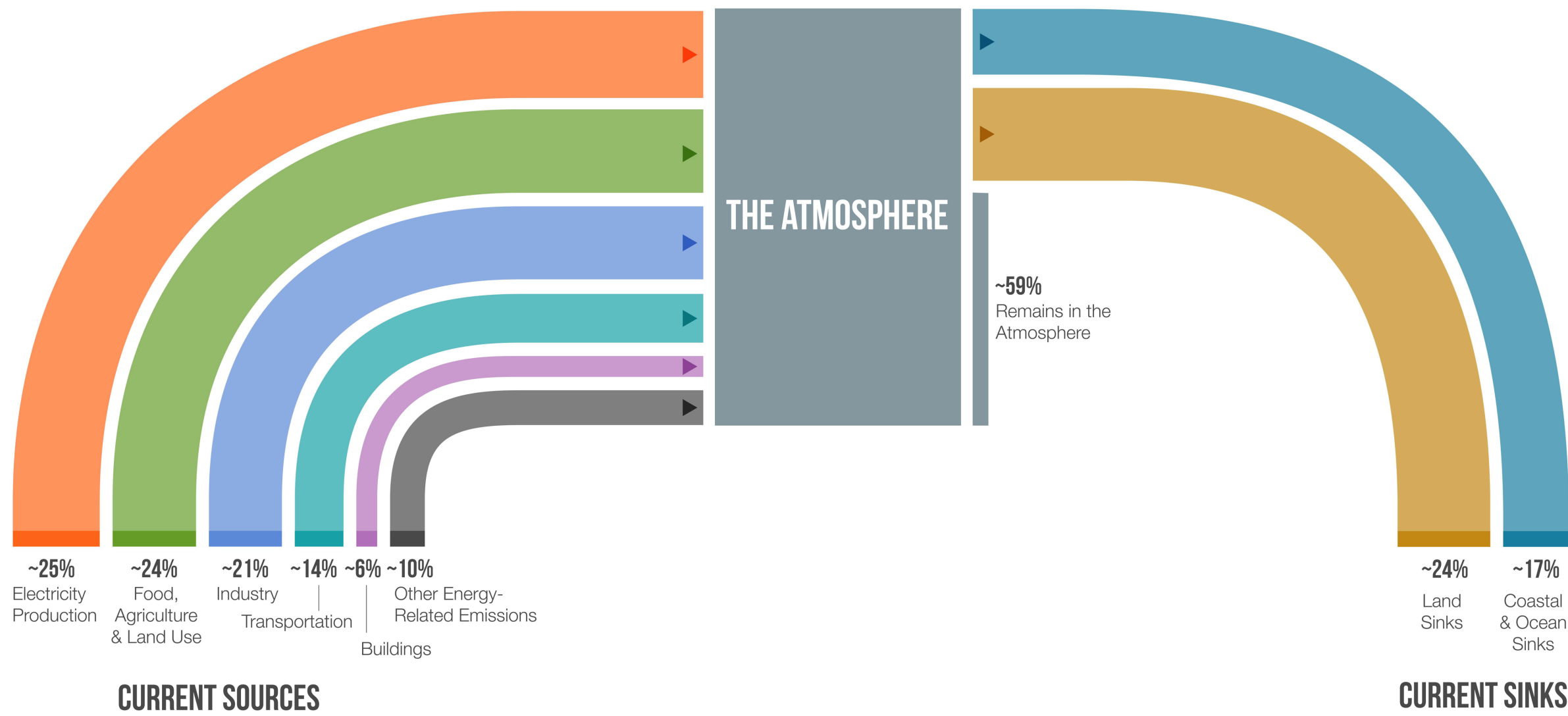
$$I = P \times A \times T$$

**Annual emissions break the
CO2e budget by > 40 GT**

1 GT = 1 Billion tons



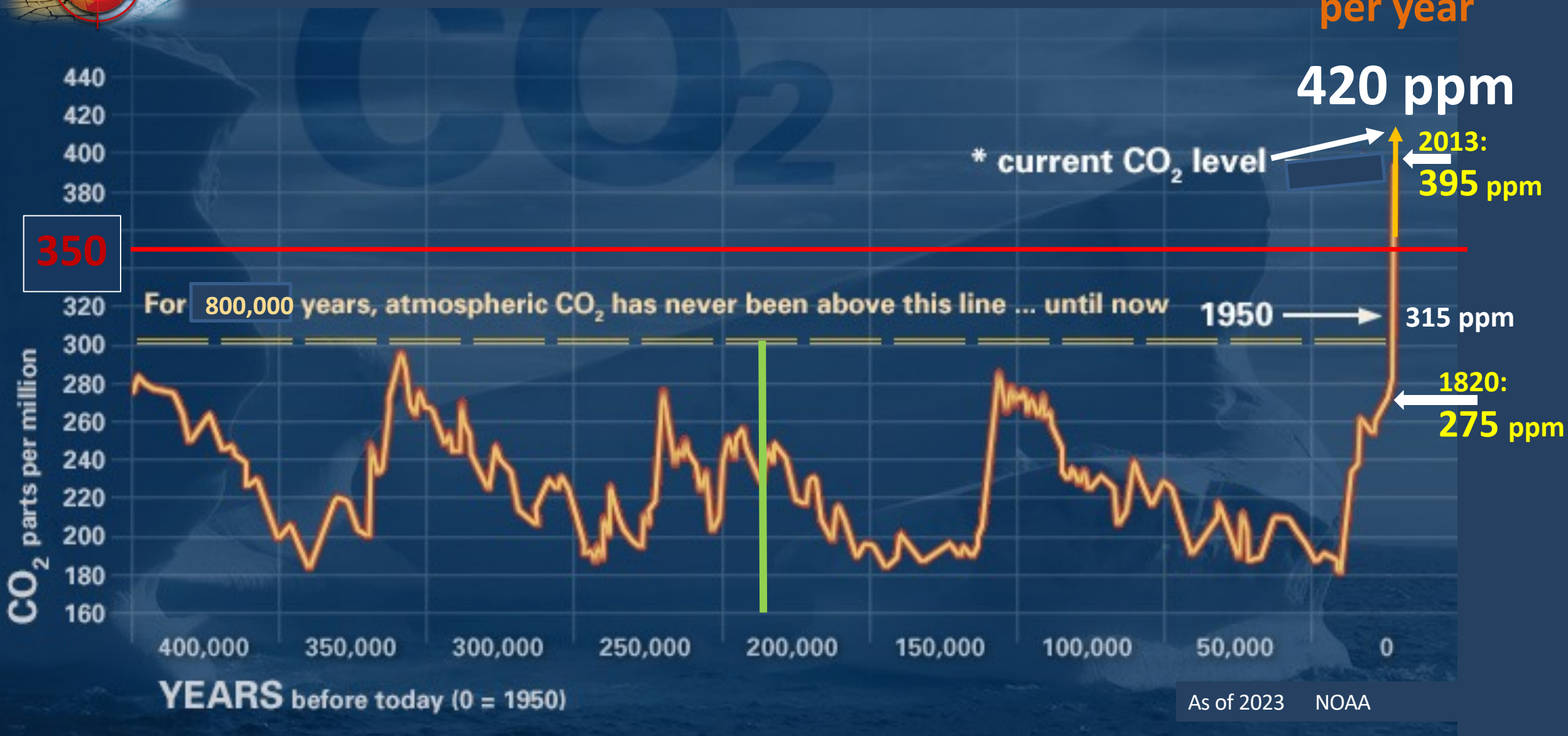
EMISSIONS SOURCES & NATURAL SINKS





Carbon Dioxide levels in the Atmosphere

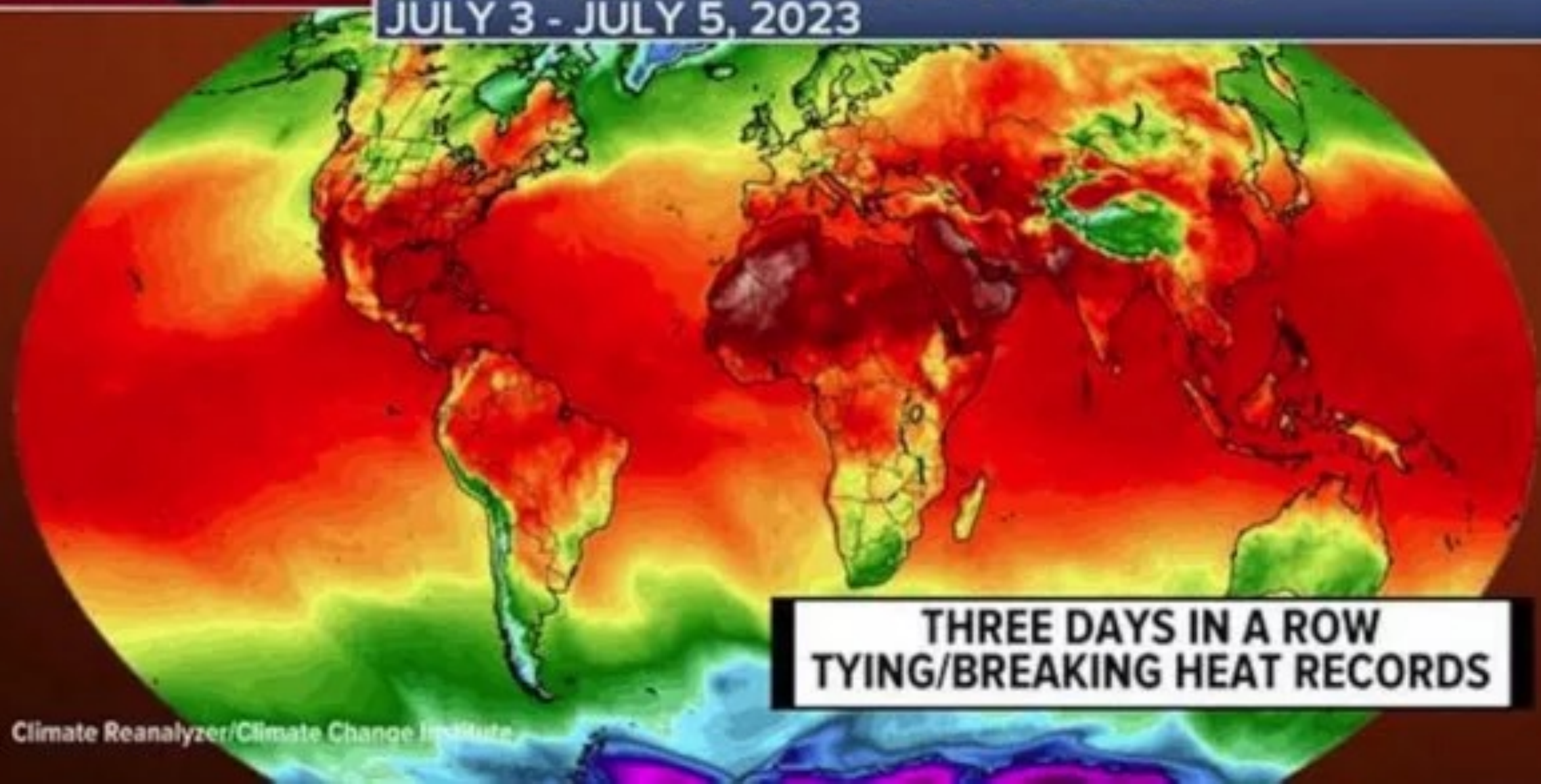
> 2 ppm ↑
per year



abc NEWS

EARTH'S HOTTEST DAYS

JULY 3 - JULY 5, 2023



**THREE DAYS IN A ROW
TYING/BREAKING HEAT RECORDS**

Climate Reanalyzer/Climate Change Institute

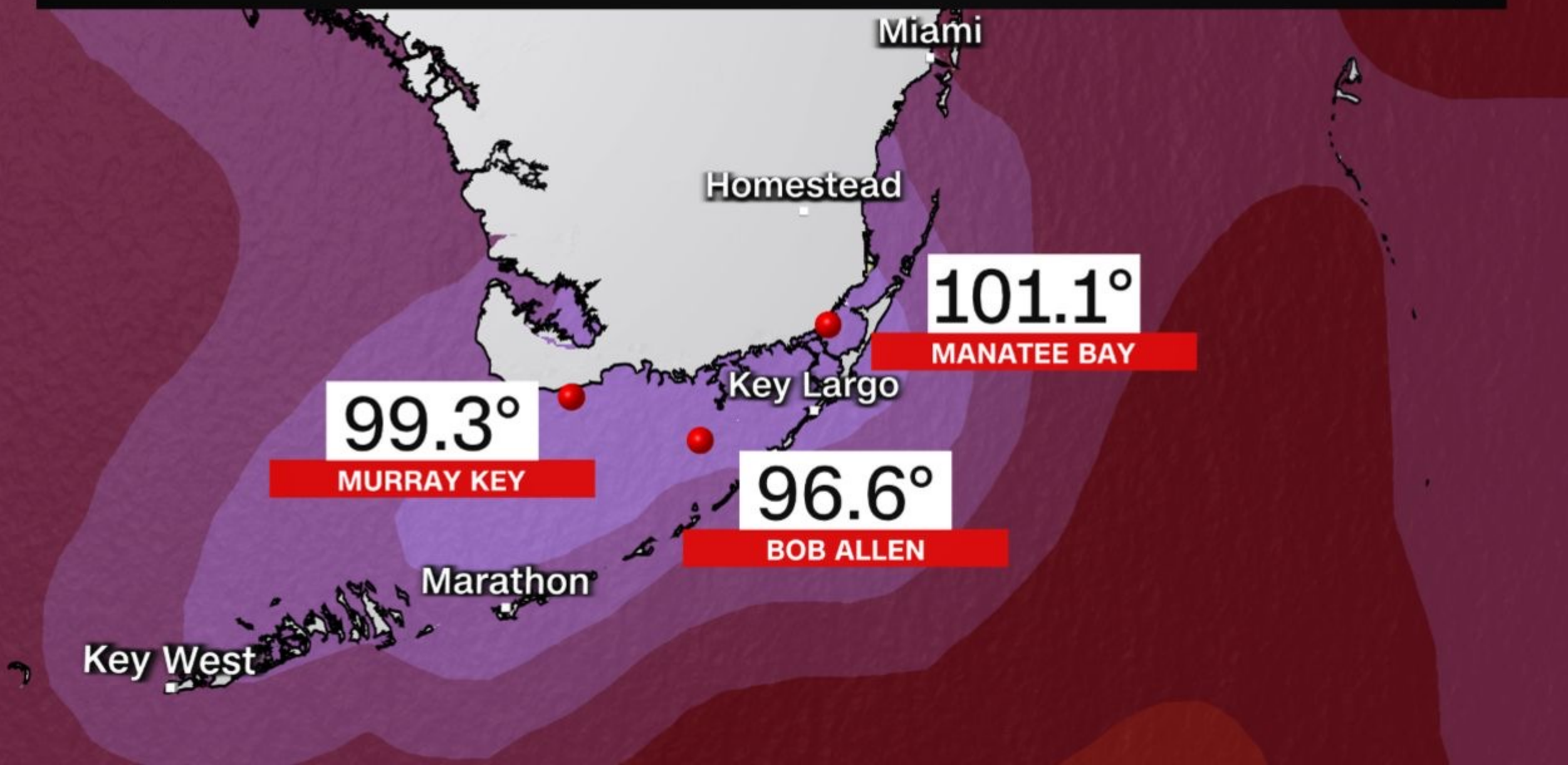


Weather

OBSERVED WATER TEMPERATURES

MONDAY, JULY 24

NATIONAL DATA BUOY CENTER (°F)







Gilroy, CA. January 2023

Montpelier VT July 11, 2023



TIME

August 14, 2023

"The Boiling Point: Extreme heat is endangering America's workers and its economy"

YOU AREN'T RESPONSIBLE FOR THE CLIMATE CRISIS, BUT YOU CAN BE PART OF THE SOLUTION.

Share this with a friend and
download the Commons app at our
link in bio for tips and tools for
sustainable living.

Personal
actions

Policy
advocacy

Elections

SOURCES: REUTERS, GLOBAL DATA, STATISTA, APPLE 2021 ENVIRONMENTAL
PROGRESS REPORT, AMAZON 2021 SUSTAINABILITY REPORT, TIME, BLACKROCK 2022
GHG EMISSIONS REPORT, SUSTAINABILITY AT VANGUARD, 2022 FIDELITY
SUSTAINABILITY PROGRESS REPORT, IMPAAKT.



SHARE



The “planetary emergency” Impact on Society

Six Social Crises

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2. Inequality
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4. Antisocial Responses to Scarcity
5. Authoritarianism
6. Impact of Technological Change

Post Carbon Institute

Social Crises and the Economy



What is the purpose of the Economy?

How do we measure its success?

Purpose of the Economy?



“Our enormously productive economy... demands that we make consumption our way of life, that we convert the buying and selling and use of goods into rituals, that we seek our spiritual satisfaction, our ego satisfaction, in consumption... we need things consumed, burned up, replaced and discarded at an ever-accelerating rate.”

Retailing analyst Victor Lebow, **1946**

Purpose of the Economy?

Gross Domestic Product GDP

**The American economy's “ultimate purpose”
is “to produce more consumer goods.”**

Chairman, Council of Economic Advisors to President Eisenhower, 1953





“GDP is not a measure of the overall standard of living or well-being of a country. ...[I]t does not capture things that may be deemed important to general well-being.”

- Environmental damage/regeneration efforts
- Distribution of wealth in a society
- Life expectancy
- Literacy

GDP/Economic Growth?

“Growth is one of the stupidest purposes ever invented by any culture; we’ve got to have an enough. We should always ask growth of what, and why, and for whom, and who pays the cost, and how long can it last, and what’s the cost to the planet, and how much is enough?”

Donella Meadows at the University of Michigan, 1999

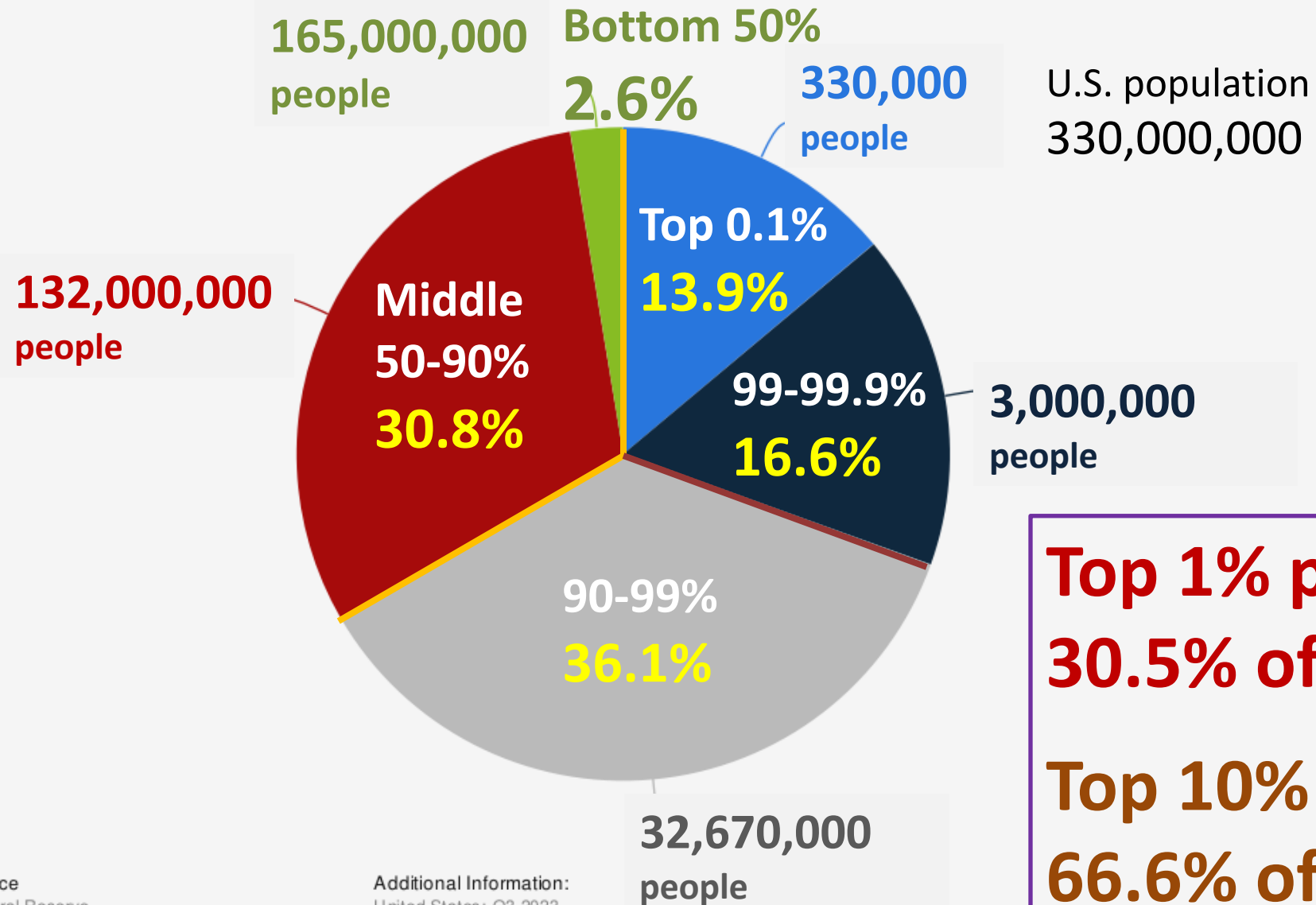
Social Crises and Wealth Distribution in the U.S.



Six Social Crises

- 1. Poverty**
- 2. Inequality**
- 3. Racism and other Discrimination**
- 4. Antisocial Responses to Scarcity**
- 5. Authoritarianism**
- 6. Impact of Technological Change**

Wealth Distribution in the United States



Source
Federal Reserve
© Statista 2023

Additional Information:
United States; Q3 2023

FAST COMPANY

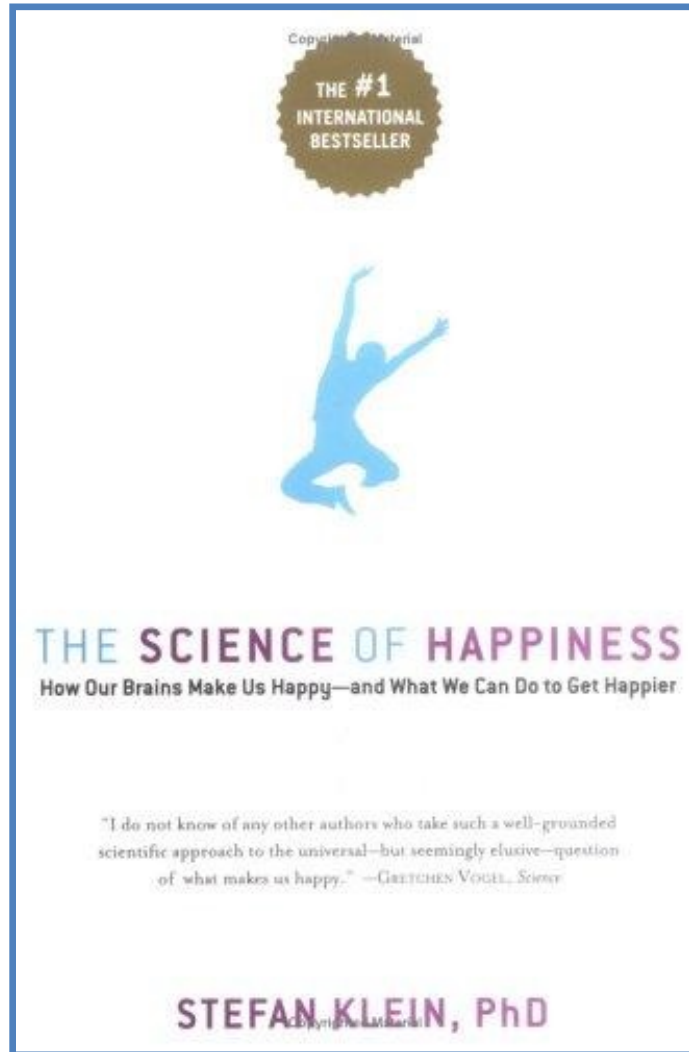
09-14-20

'We were shocked:' RAND study uncovers massive income shift to the top 1%

The median worker should be making as much as \$102,000 annually—if some **\$2.5 trillion** wasn't being “reverse distributed” every year away from the working class.



[Image: Bet_Noire/iStock; kvsan/iStock; [rawpixel](#)]



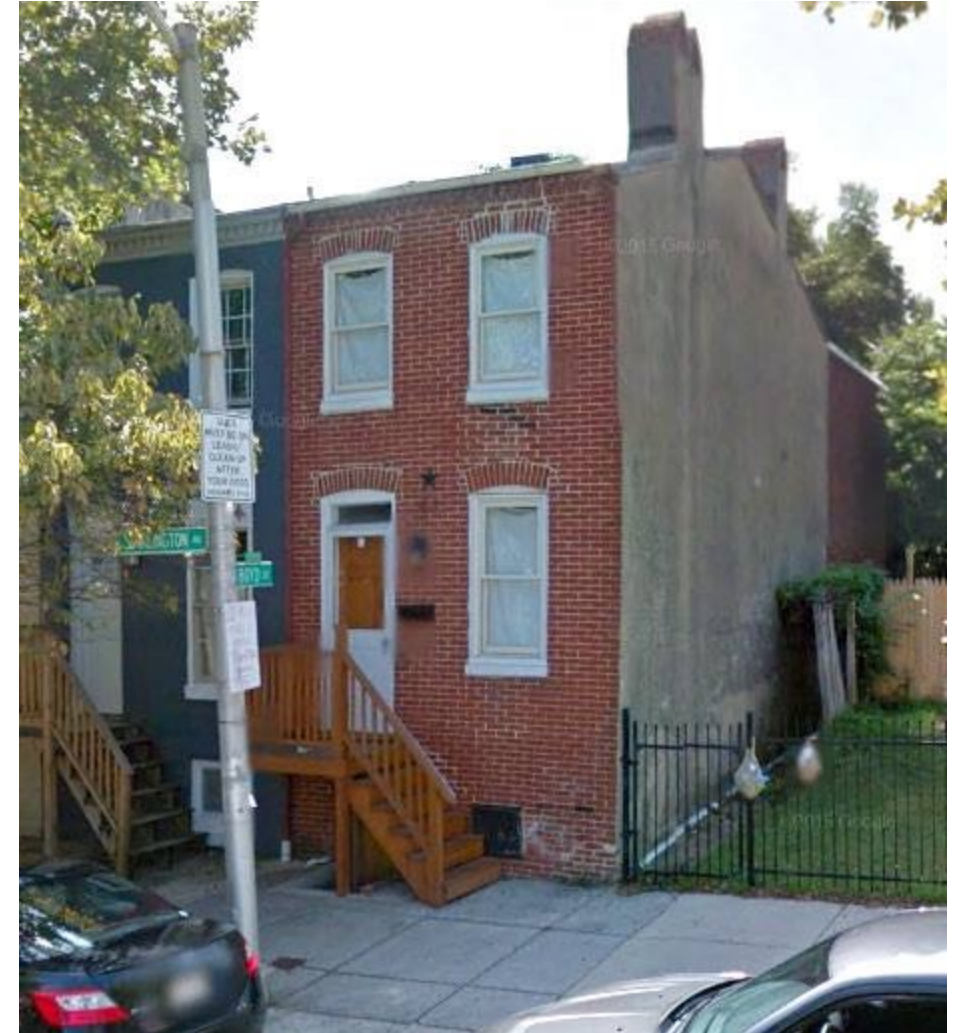
Wealth Distribution and Wellbeing

“Citizens of states with large gaps in income level die at a younger age, primarily because of the stress caused by stark social contrasts.”

“ Above a certain income level, the increase in satisfaction brought by wealth is minimal, but the distribution of wealth in society is of enormous significance.”

“Only six miles separate the Baltimore neighborhoods of Roland Park and Hollins Market. [B]ut there is a 20-year difference in the average life expectancy.”

Jonathan Bagger, Interim Provost, Johns Hopkins University,
Baltimore, Maryland





“We can have democracy in this country, or we may have great wealth concentrated in the hands of a few, but we can’t have both.”

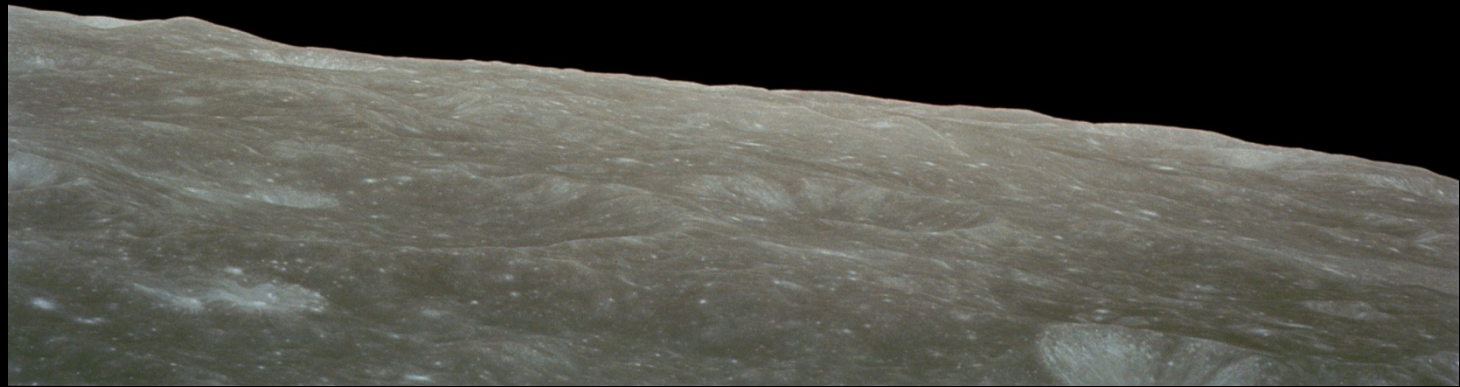
Supreme Court Justice Louis Brandeis

Sustainability:

2 standpoints

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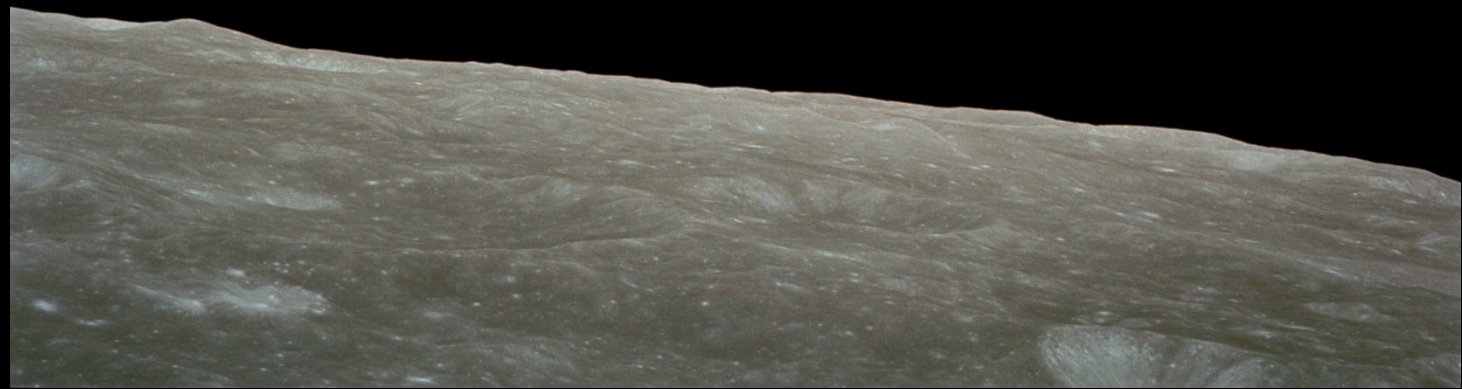
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Amory Lovins

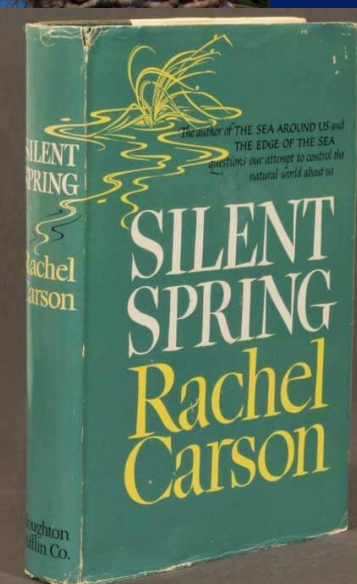
Our Desired Future





Future

NEXT EXIT ↗



Examples: Creating a positive future



A close-up photograph of a tiger's face, showing its eyes, nose, and whiskers. The tiger has orange fur with black stripes. The image is used as a background for the presentation.

Sustainability



Remaking the future



Photo by Digimist - Creative Commons Attribution-NonCommercial License <https://www.flickr.com/photos/30898814@N03>

Created with Haiku Deck

**“The major problems in the world
are the result of the difference
between how nature works
and the way people think.”**

Gregory Bateson



“...a new type of thinking is essential if mankind is to survive and move toward higher levels.”

Albert Einstein



“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”

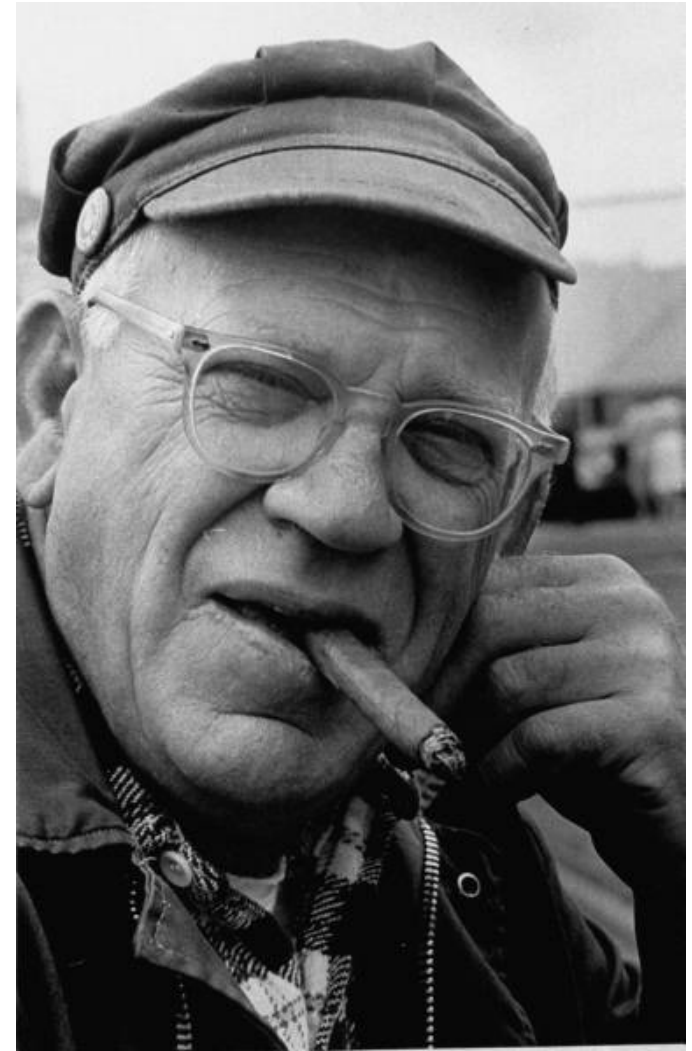


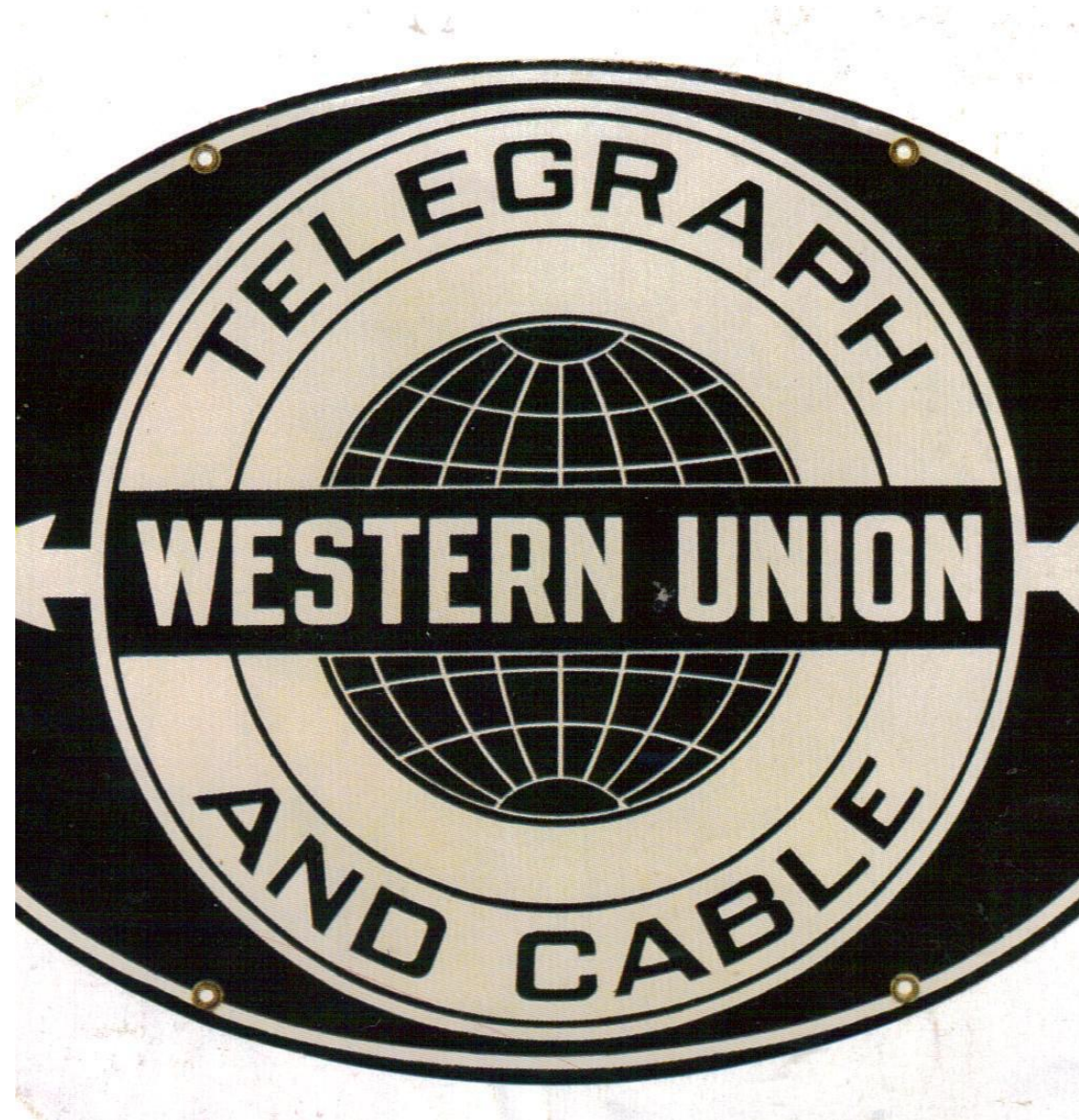
Alvin Toffler



“In times of change,
learners inherit the Earth,
while the learned find
themselves beautifully
equipped to live in a world
that no longer exists.”

Eric Hoffer









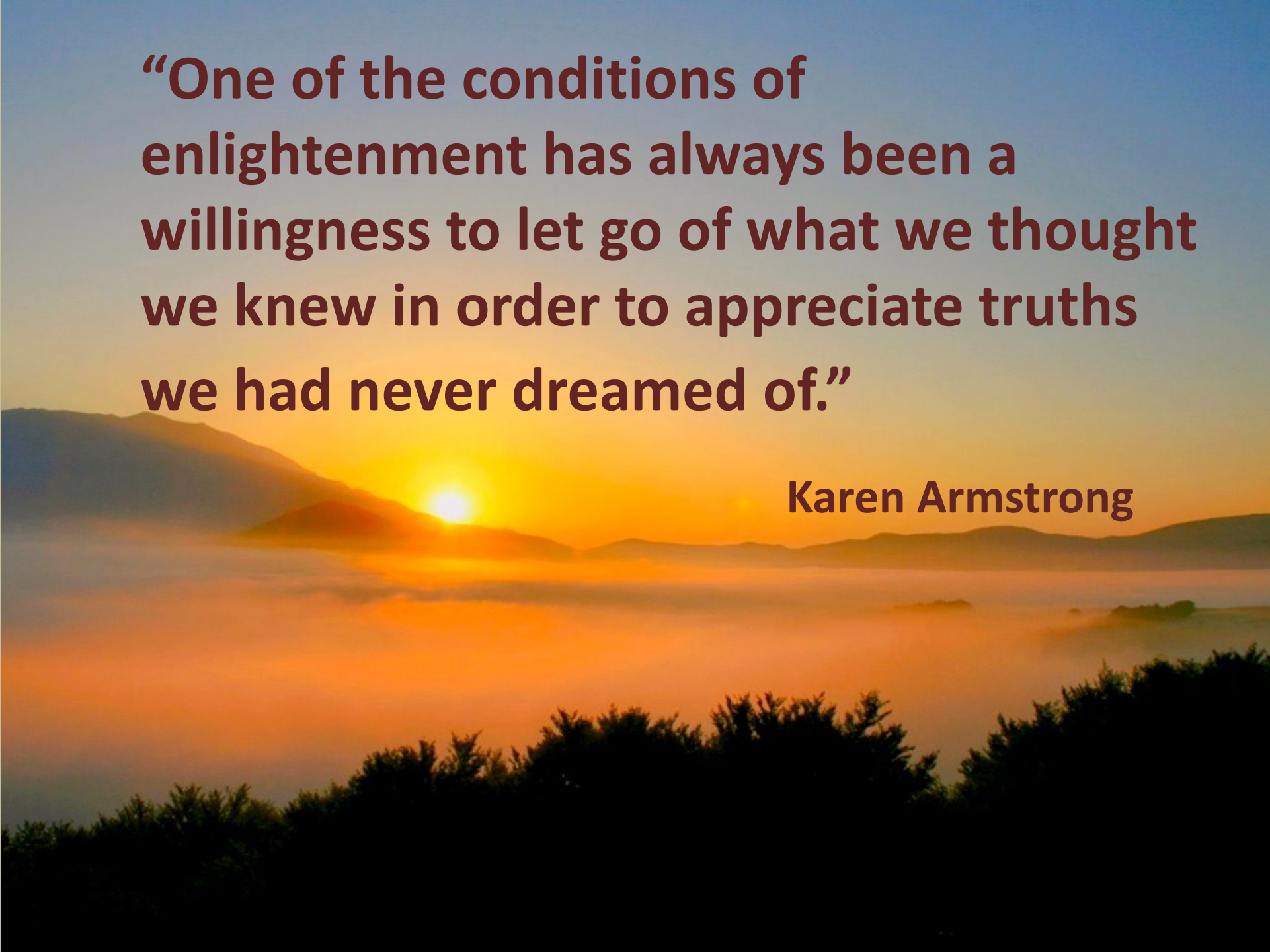
“Cellular phones will absolutely not replace local wire systems.”

Martin Cooper, co-inventor of the first handheld mobile phone, 1981.



“One of the conditions of enlightenment has always been a willingness to let go of what we thought we knew in order to appreciate truths we had never dreamed of.”

Karen Armstrong



EGO



ECO



Remake the Future: The Economy and Wellbeing of Life on Earth



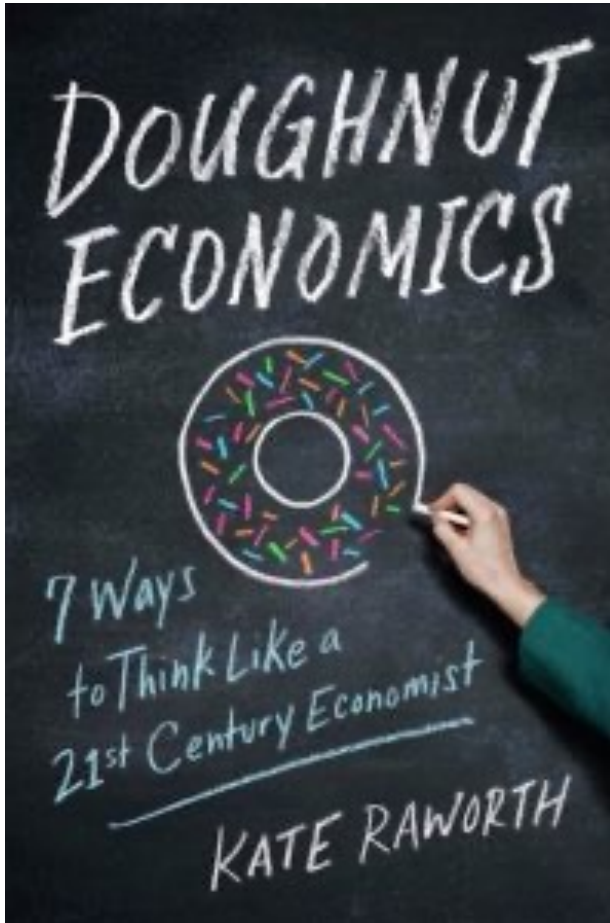
Ecology

“Economics as management of our home in a way that increases its value to all members over time.”

Economics

Herman Daly

What is the purpose of the economy?

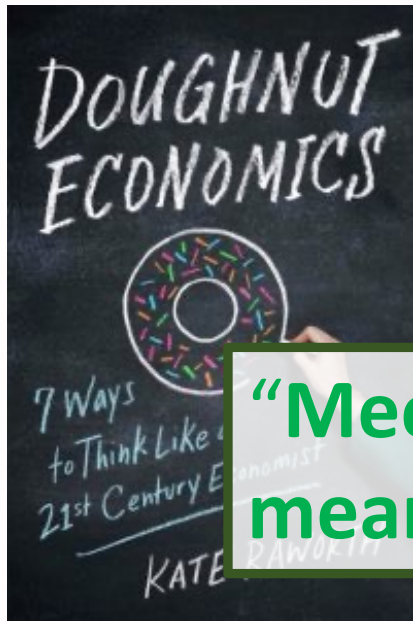


“Instead of economies that need to grow, whether or not they make us thrive, we need economies that make us thrive, whether or not they grow.”

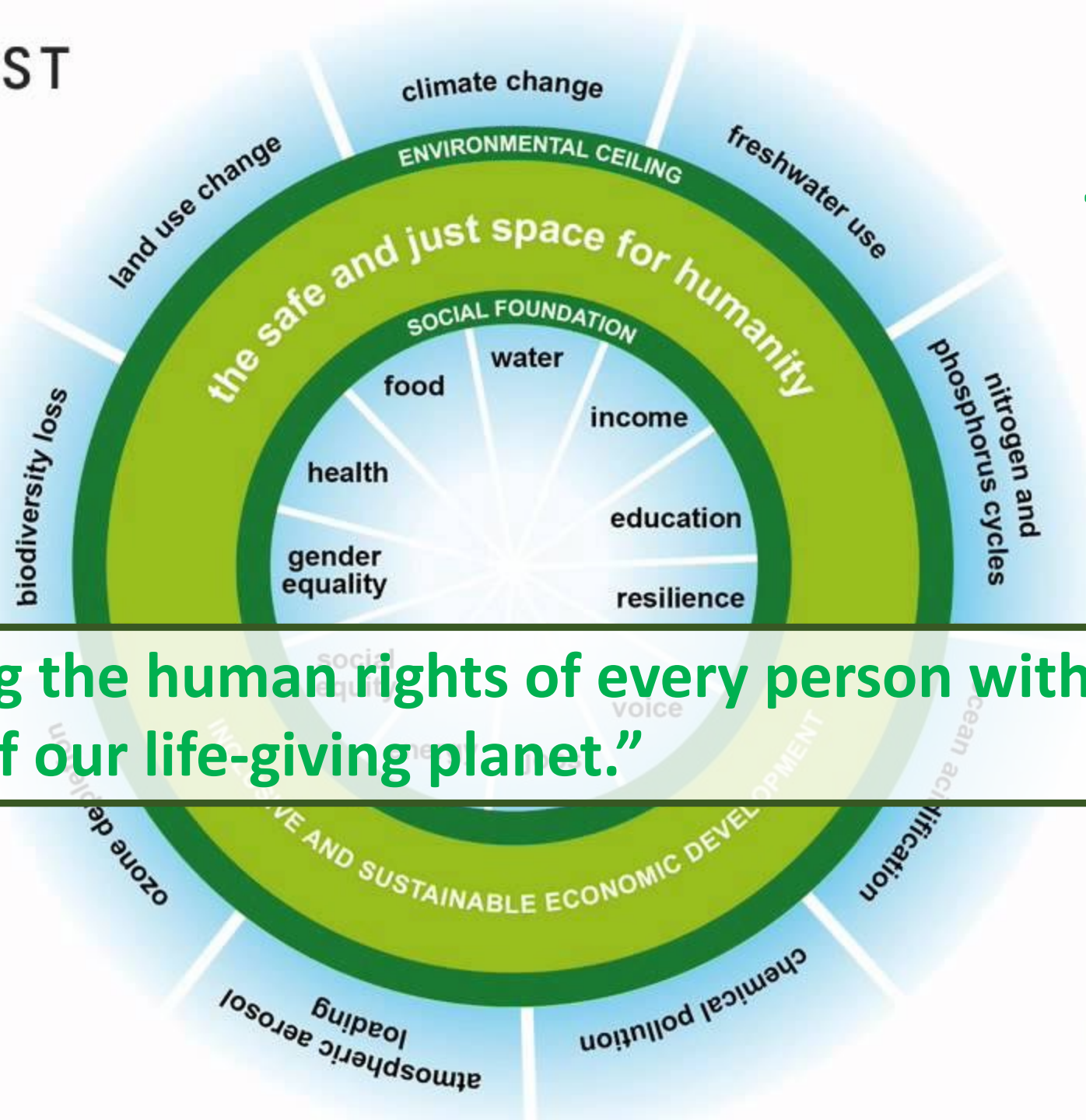
Kate Raworth

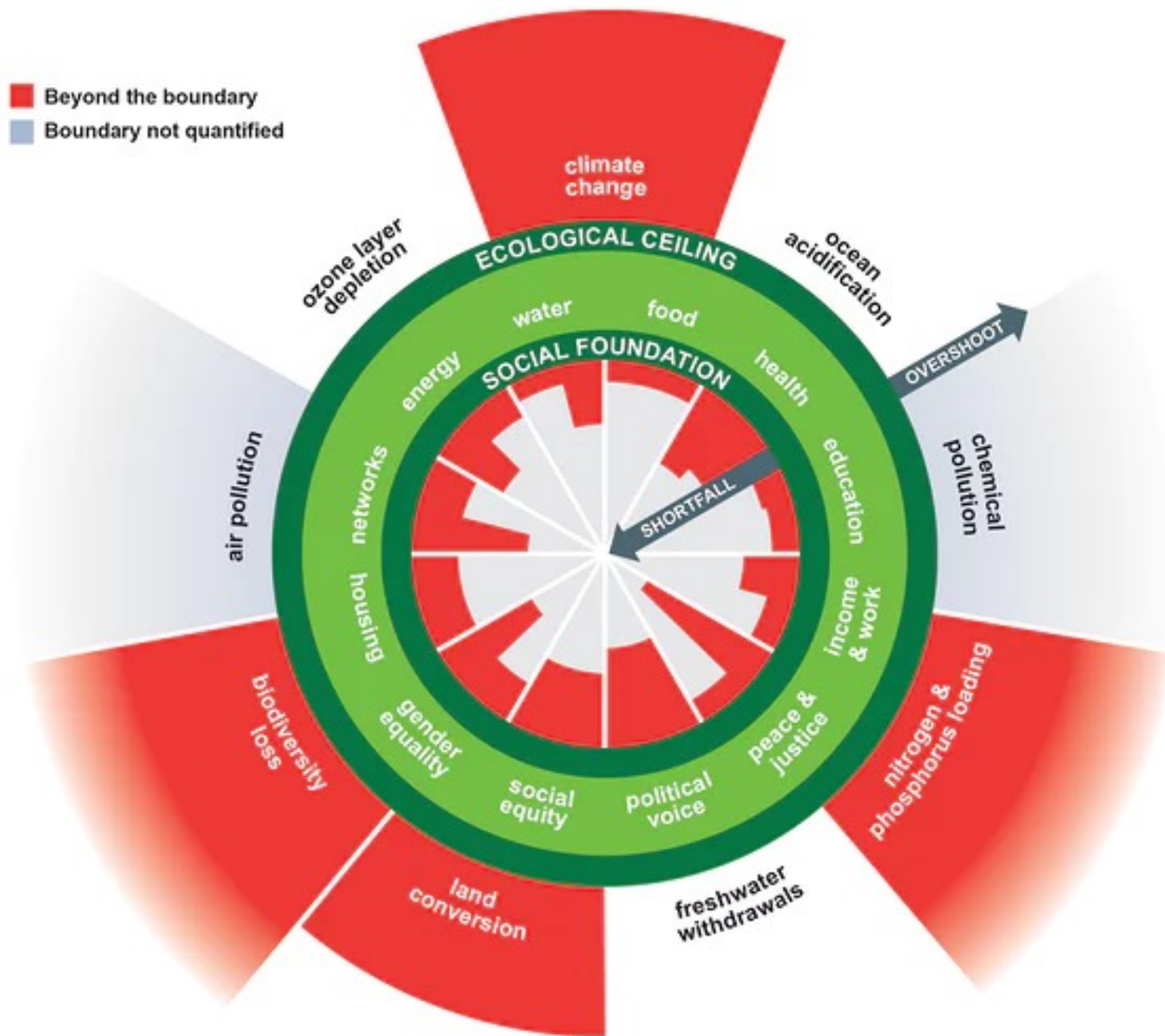
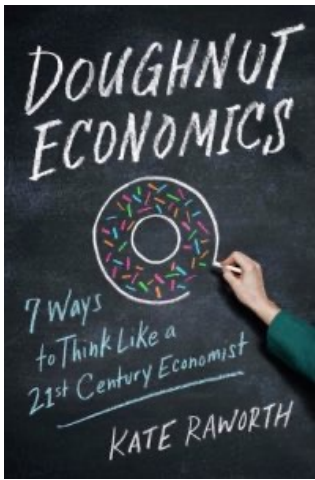
A SAFE AND JUST SPACE FOR HUMANITY

Economics for the 21st Century



“Meeting the human rights of every person within the means of our life-giving planet.”





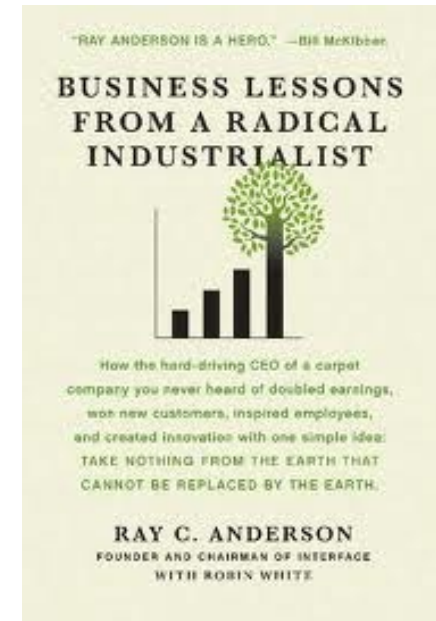
*“...chances
to remake
the future
so it serves
all beings.”*

This model ‘allows us to see the state in which we now find ourselves’. Source: Kate Raworth and Christian Guthrie/The Lancet Planetary Health

“We need nothing short of a vast, ethically driven redesign of our industrial system”

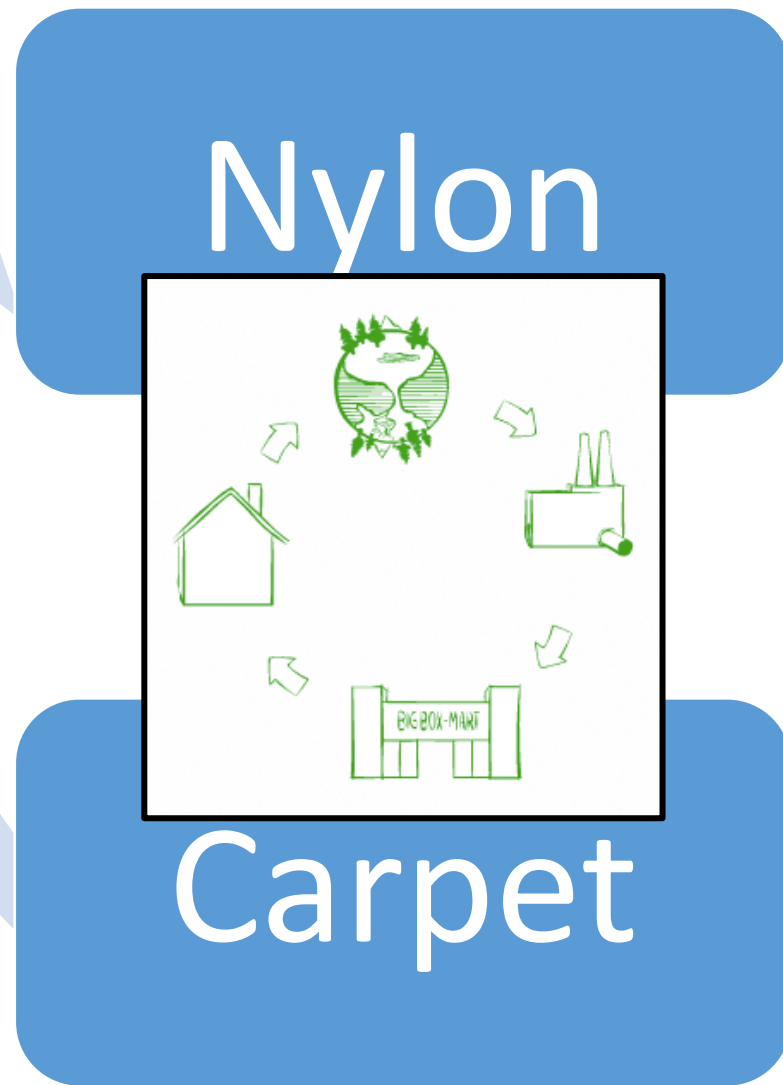
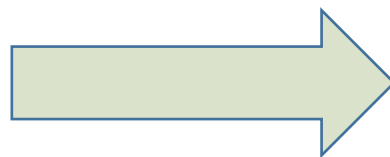
“The tradeoffs we are told we must make between financial success and environmental success are just plain false.”

Ray Anderson

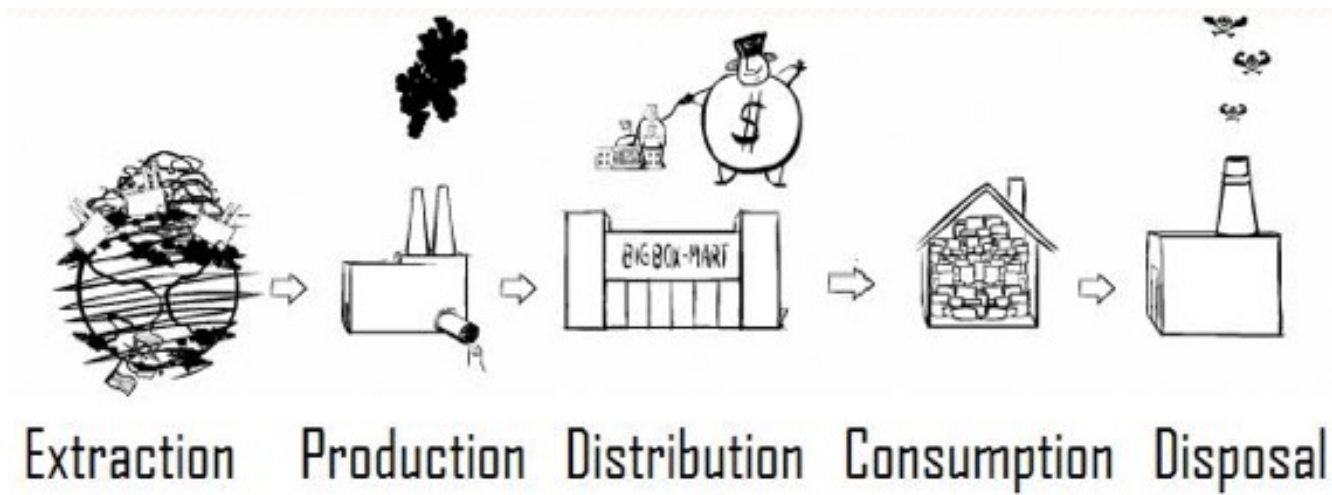




Interface®



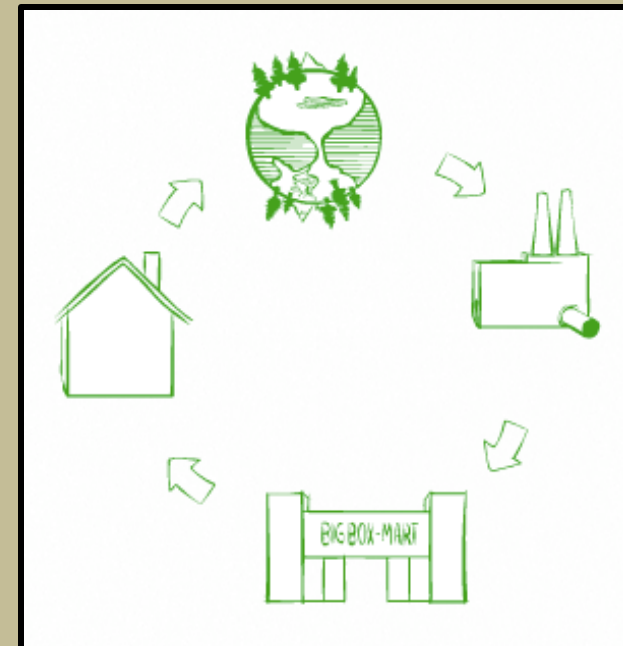
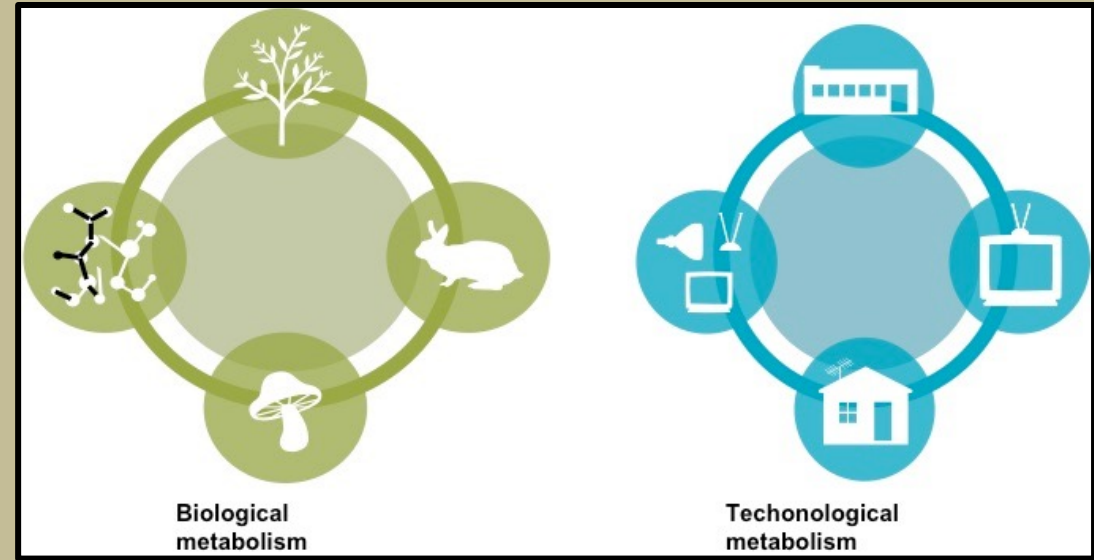
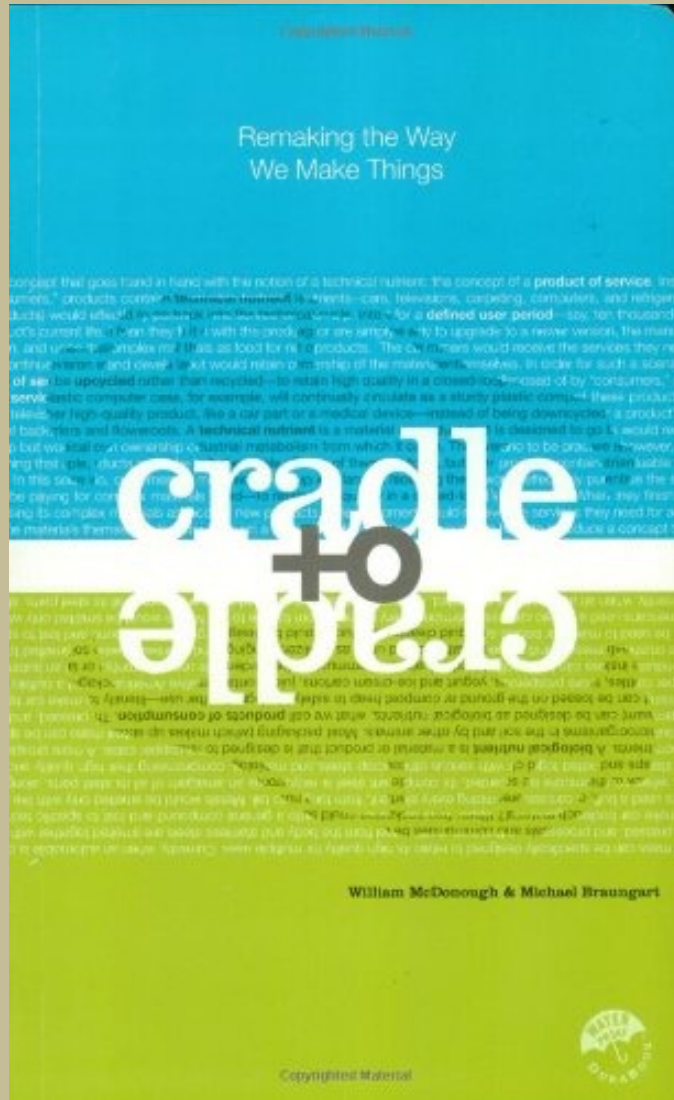
From a **Linear Economy** to **a Circular Economy**



Waste = Food



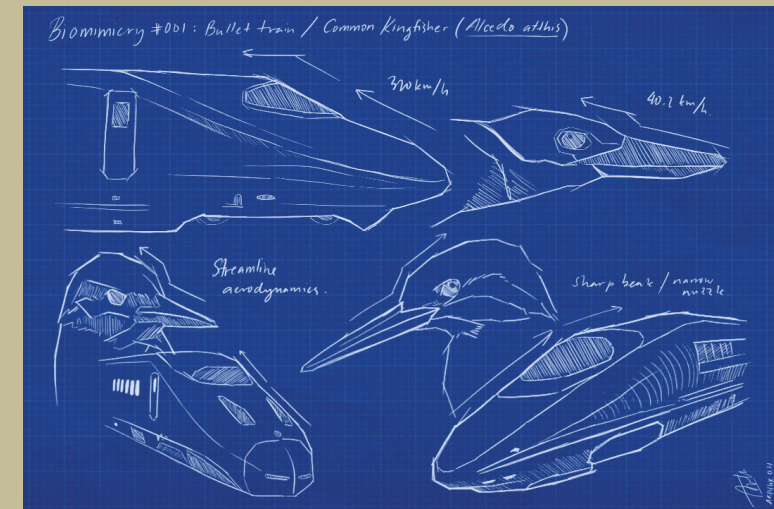
www.storyofstuff.org



The Science of Biomimicry

3 major components:

- Nature as Model
- Nature as Measure
- Nature as Mentor



<https://biomimicry.org>

<https://onbeing.org/programs/janine-benyus-biomimicry-an-operating-manual-for-earthlings/>

Remake the Future: Reversing Global Warming and Climate Change



DRAWDOWN

**THE MOST COMPREHENSIVE
PLAN EVER PROPOSED TO
REVERSE GLOBAL WARMING
EDITED BY PAUL HAWKEN**

www.drawdown.org





“We see global warming not as an inevitability but as an invitation to build, innovate, and effect change, a pathway that awakens creativity, compassion, and genius.”

Paul Hawken

DRAWDOWN



CLIMATE SOLUTIONS 101

PRESENTED BY PROJECT DRAWDOWN

WATCH THE TRAILER

www.drawdown.org

Climate solutions by sector

- ELECTRICITY & OTHER ENERGY
- FOOD, AGRICULTURE, & LAND USE
- INDUSTRY
- BUILDINGS
- HEALTH & EDUCATION
- TRANSPORTATION
- LAND SINKS
- COASTAL AND OCEAN SINKS
- ENGINEERED SINKS

GEOTHERMAL

#18

RANK BY 2050

16.6 GT

REDUCED CO₂

(\$155B)\$1.02T

NET COST

NET SAVINGS

GEOTHERMAL

#18

RANK BY 2050

16.6 GT

REDUCED CO₂

(\$155B)\$1.02T

NET COST

NET SAVINGS

GEO THERMAL

#18

RANK BY 2050

16.6 GT

REDUCED CO₂

(\$155B)

NET COST

\$1.02T

NET SAVINGS

GEO THERMAL

#18

RANK BY 2050


16.6 GT

REDUCED CO₂

(\$155B) \$1.02T

NET COST

NET SAVINGS



**“Eat food, not too
much, mostly plants.”**

Michael Pollan

PLANT-RICH DIET

#4

RANK BY 2050

66.11 GT

REDUCED CO₂



40%

**REDUCED
FOOD WASTE**

#3

RANK BY 2050

70.53 GT

REDUCED CO2

A white bear is lying on a lush, moss-covered forest floor, holding a red berry in its mouth. The forest is dense with tall, moss-covered trees and vibrant green ferns. The scene is illuminated by soft, dappled sunlight filtering through the canopy.

FOREST PROTECTION

#38

RANK BY 2050

6.2 GT

REDUCED CO₂

896.2 GT

CO₂ PROTECTED



HIGH-SPEED RAIL

#66

RANK BY 2050

1.52 GT

REDUCED CO₂

\$1.04T

NET COST

\$368.1B

NET SAVINGS

INDIGENOUS PEOPLE'S LAND MANAGEMENT

#39

RANK BY 2050

6.19 GT

REDUCED CO₂

849.3 GT

CO₂ PROTECTED

ROOFTOP SOLAR

#10

RANK BY 2050

24.6 GT

REDUCED CO₂

\$453B

NET COST

\$3.46T

NET SAVINGS

A woman wearing a green and gold patterned sari and a green headscarf is sitting on the floor, cooking on a black clean cookstove. She is using a wooden rolling pin to flatten dough on a metal plate. The stove is built into a brick wall, and a pot is hanging on it. The background is a rustic brick wall.

CLEAN COOKSTOVES

#21

RANK BY 2050

15.81 GT

REDUCED CO₂

\$72.1B

NET COST

\$166.2B

NET SAVINGS

A young girl stands in the center of a classroom, smiling and holding a book. She is wearing a tan sweater and an orange and white checkered skirt. In the foreground, the backs of several other students are visible as they sit at wooden desks. The background is a dark chalkboard.

EDUCATING GIRLS

#6

RANK BY 2050

59.60 GT

REDUCED CO2



FAMILY PLANNING

#7

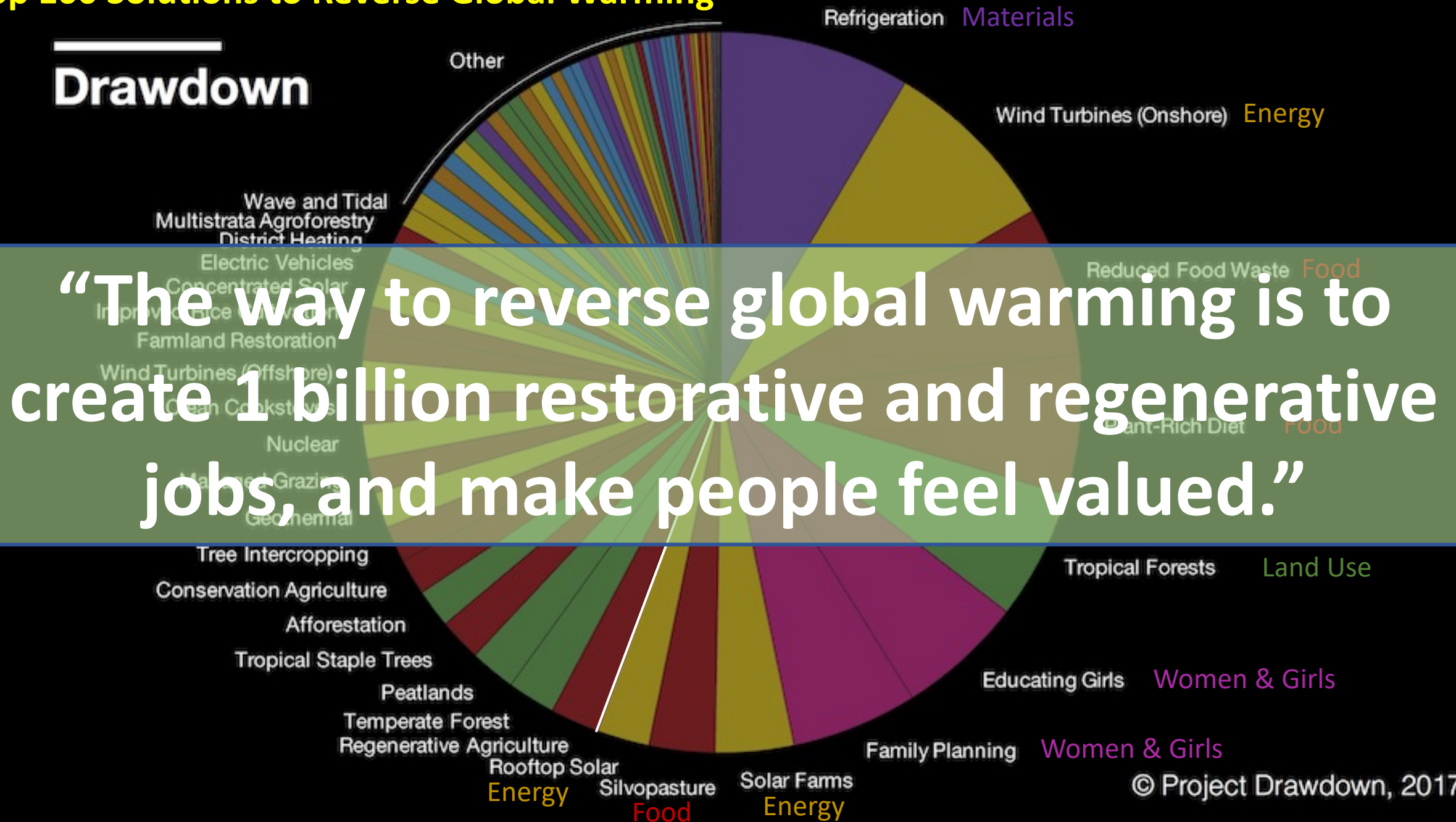
RANK BY 2050

59.6 GT

REDUCED CO₂

Top 100 Solutions to Reverse Global Warming

Drawdown



An underwater photograph showing a dense kelp forest with many small, silvery fish swimming through the water. The scene is bathed in a greenish-blue light, suggesting a deep or shaded underwater environment.

Reforesting the ocean

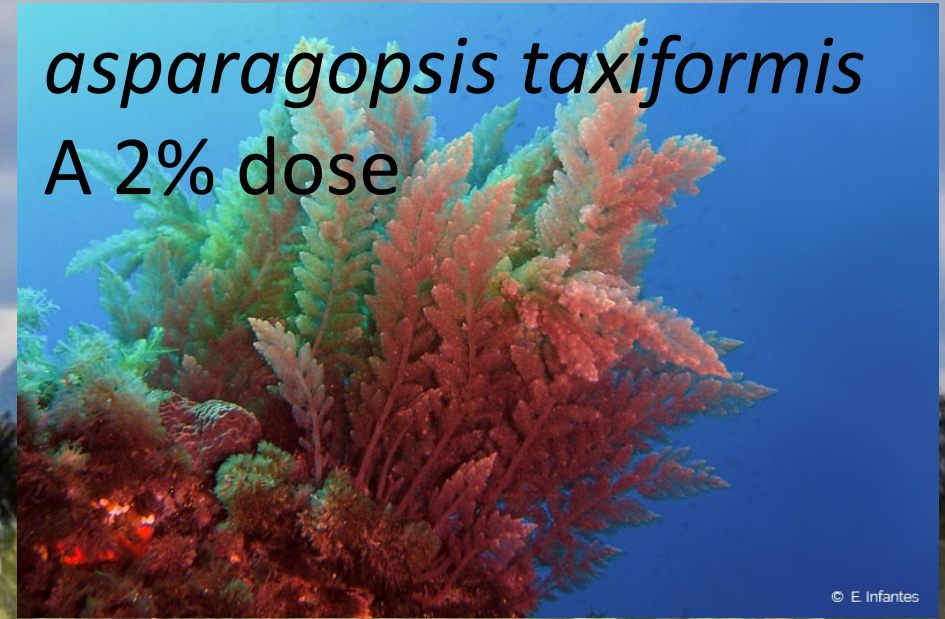
Floating kelp forests could provide food, feed, fertilizer, fiber, and biofuels to most of the world.

Estimates are the economic return would exceed \$10 trillion.

**MARINE
PERMACULTURE**

Cattle: 25% of world methane production

asparagopsis taxiformis
A 2% dose



**A COW WALKS
ONTO A BEACH**

BUILDING WITH WOOD

“Wood is taking over from steel and concrete as the architectural wonder material of the 21st century, with architects praising its sustainability, quality, and speed of construction.”

Amy Frearson, Architect

DRAWDOWN

Sustainability Speaker Series



**Project Drawdown Executive
Director Dr. Jonathan Foley**

March 18 2024

7:00 p.m.

Langdon Hall

Auburn University

www.drawdown.org

The Surprisingly Low Price Tag on Preventing Climate Disaster

TIME



By [Yuval Noah Harari](#)
January 18, 2022

<https://time.com/6132395/two-percent-climate-solution/>

Illustration by Aldo Crusher for TIME



2%
of the
global GDP
pie



Global GDP
\$100 T

2% =
\$2 T



WW II

36 %

of US GDP



**2008
Financial
Crisis
3.5 %
of US GDP**

**Global
stimulus
response to
COVID**

**14 %
Of global
GDP**





7 %
of global
GDP
in subsidies
to the fossil
fuel industry
\$7 Trillion

- **Collect taxes**
- **Redirect % of military budgets**
- **Eliminate food waste**
- **Slash subsidies**



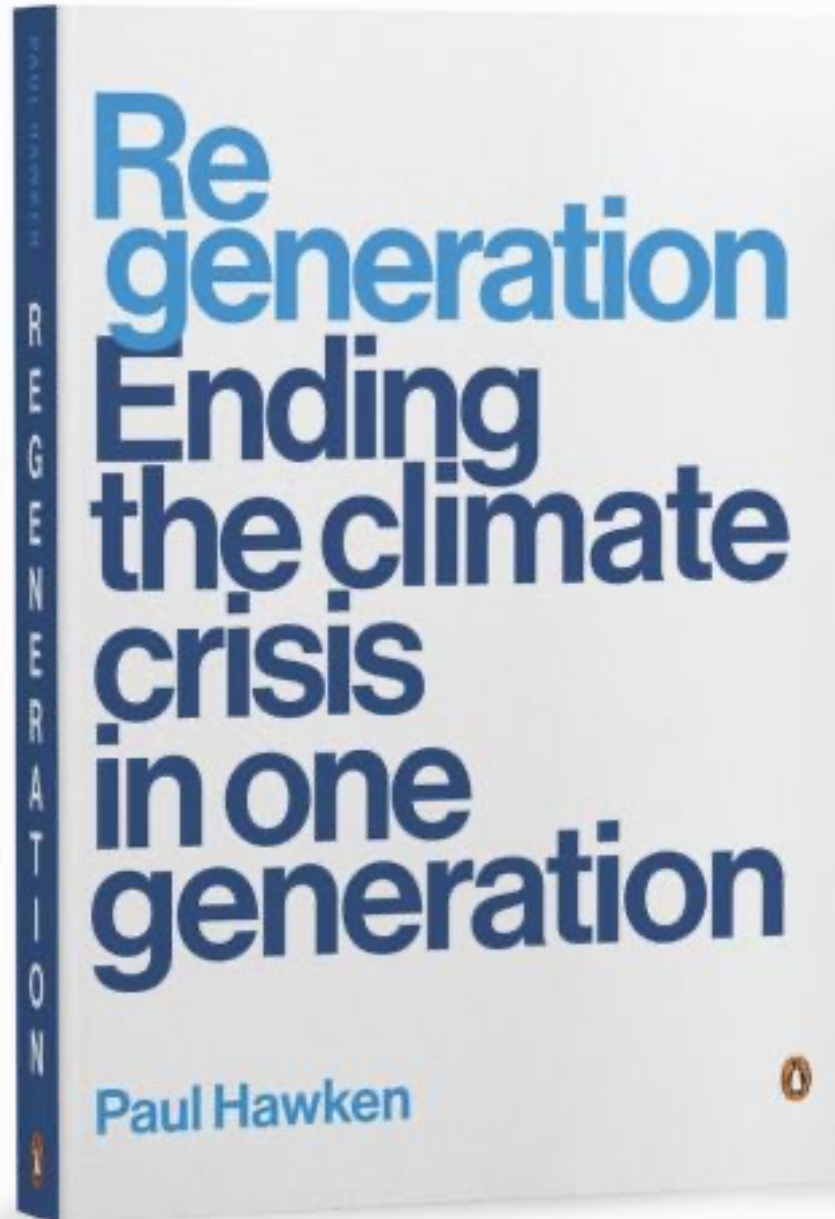
A green protest sign with handwritten text in black marker. The sign is held up by a wooden stick. The background is a blurred crowd of people at a protest.

Lets Invest
in Wind
& Solar!

Alabama:

#9

#50

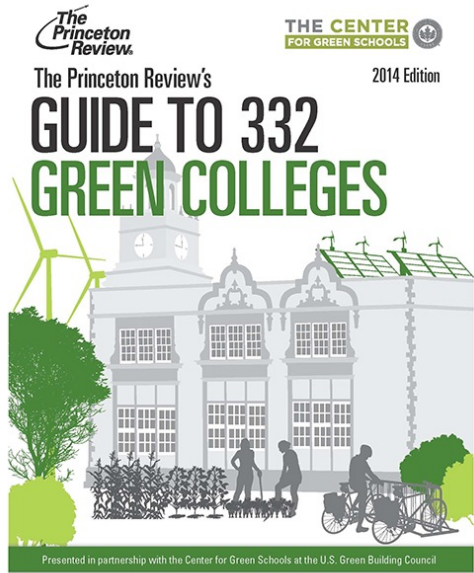


“Reversing the climate crisis is **an outcome**. Regenerating human health, security, and wellbeing, the living world, and justice is **the purpose**.”

A close-up photograph of a tiger's face, showing its eyes, nose, and whiskers. The tiger has orange fur with black stripes. The image is used as a background for the slide.

Sustainability

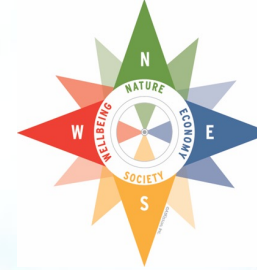
At Auburn University



Auburn University



Auburn has made significant commitments to sustainability



- Sustainability Policy
- American College and University Presidents Climate Commitment
- University Strategic Plans 2008-2012, 2019-2024
- Campus Master Plan
- Campus Landscape Master Plan
- Energy Reduction Strategy
- Office of Sustainability
- Academic Sustainability Program
- **LEED-certified Buildings Commitment**
- Tiger Dining
- Parking & Transportation Services
- Fair Labor Code for Licensees

LEED Buildings at Auburn University



↑ 26%
HIGHER
COGNITIVE
FUNCTION
SCORES

SICK BUILDING SYMPTOMS

↓ 30%
FEWER
and better environmental perceptions



thecogfxstudy.com



Developed in collaboration with **TROLLBÄCK+COMPANY** | TheGlobalGoals@trollback.com | +1.212.529.1010
For queries on usage, contact: dpicampaigns@un.org

AUBURN UNIVERSITY AND THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS OF 2019 - 2021

Published December 2022



Academic Sustainability Program

[Home](#)[Sustainability Studies Minor](#)[People](#)[Research](#)[Resources](#)

Home

"Sustainability is not just about caring for the environment, it's also about caring for the society around you."

— Laine Harrington '21, Environmental Science

Recent Events:



Student Spotlights:



Director's Note:

The Academic Sustainability Program has had a busy year. We've added dozens of [courses](#) to the redesigned minor in Sustainability Studies, toward which a record-shattering 128 students are currently working. Students in the [Capstone course](#) produced outstanding [student work](#) that drew on their expertise in forestry, landscape architecture, history, marketing, and more. Our new [faculty directory](#) provided a valuable resource and a record of the immense range of expertise across campus. On Earth Day, we launched our new [research symposia series](#), which will provide an interdisciplinary platform for researchers to share that expertise and to showcase the

AUBURN



TIGERS

- Local producers
- Organic
- Food systems focus
- Fresh From the Plains
- Community Garden
- Partnerships with College of Ag and Fisheries



Campus as Living Learning Laboratory





AMERICAN COLLEGE & UNIVERSITY
PRESIDENTS' CLIMATE COMMITMENT



**Auburn University
Climate Action Plan**

Version 1.0



Student Groups

- AU Habitat for Humanity
- Alabama Arise
- Engineers Without Borders
- Permaculture Tigers
- Campus Kitchen Project
- Crop, Soil, & Environmental Sciences Club
- US Green Building Council Student Chapter
- Auburn for Water
- International Justice Mission
- Center for Leadership and Ethics
- Community and Civic Engagement Club
- Society for Conservation Biology
- Sustainable Designers Organization
- Diversity and Tolerance Organization
- Environmental Design Student Organization
- Society for Natural Resources
- Organic Garden Club



A photograph of the Auburn University campus. In the foreground, a brick wall with a central stone plaque reads "AUBURN UNIVERSITY" and "ESTABLISHED 1856". Behind the wall, a large red brick building with a prominent clock tower and arched windows is visible, surrounded by lush green trees under a blue sky with scattered clouds.

What's next for Auburn University?

Composting





Transportation: Campus fleet



Auburn's greatest opportunity for impact

Solar Energy

Purchased electricity

*The Stuttgart Solar Energy Center
(Photo: Entergy Arkansas)*

“There are no scientific or technical obstacles to protecting our world and the precious life it supports. It all depends on what we truly value, and that we can summon the will to act.”

Neil deGrasse Tyson



Change Agent

The title "Change Agent" is rendered in a large, bold, white, distressed font against a black background. The letters have a rough, splattered texture. Three white silhouettes of figures are integrated with the text: one figure is climbing the left side of the letter 'C', another figure is climbing the vertical stroke of the letter 'e' in "Change", and a third figure is climbing the top of the letter 't' in "Agent".

The Story of Change

$$\boxed{\text{Lightbulb}} + \boxed{\text{WE}} + \boxed{\text{ACTION!}} = \text{CHANGE}$$



“... I refuse to sit around being angry and anxious all the time. I am not going to be a dead woman walking. I am staying hopeful and energized. Why? Because I can. How? I choose to be.”

Gina McCarthy


ALL WE CAN SAVE

Truth, Courage,
and Solutions for the
Climate Crisis

Edited by Ayana Elizabeth Johnson
& Katharine K. Wilkinson



Pinterest



“What we do now is dream. From a foundation of science and community, we must imagine the future we want to live in, and the future we want to pass on, and every day do something to reel the dream closer to reality.”

**Ayana Johnson & Katharine Wilkinson,
*All We Can Save***



AUBURN

SUSTAINABILITY

