

Population Resilience in the Face of Climate Challenges



Turning around to those (vulnerable) communities and asking that they become resilient in the face of these incredible structural inequalities ... it is simply removing the responsibility from where it rightfully belongs.

- Siobhan McDonnell, a legal anthropologist and senior lecturer at the Australian National University.



THE INACTIVISTS HAVE SOUGHT TO HIJACK ACTUAL CLIMATE progress by promoting “solutions” (natural gas, carbon capture, geoengineering) that aren’t real solutions at all. Part of their strategy is using soothing words and terms—“bridge fuels,” “clean coal,” “adaptation,” “resilience”—that convey the illusion of action but, in context, are empty promises.

- Mann, Michael E.. The New Climate War: The Fight to Take Back Our Planet



Creator: Nick Humphries

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Ingredients

SUGAR, ENRICHED FLOUR (WHEAT FLOUR, NIACIN, REDUCED IRON, THIAMINE MONONITRATE, RIBOFLAVIN, FOLIC ACID), INVERT SUGAR, CORN SYRUP, WATER, COCOA (PROCESSED WITH ALKALI), NONFAT DRY MILK, GELATIN, GLYCERINE, SOY LECITHIN, CORNSTARCH, AMMONIUM BICARBONATE, CHOCOLATE, BAKING SODA, BAKING POWDER (SODIUM ACID PYROPHOSPHATE, SODIUM BICARBONATE, CORN STARCH, MONOCALCIUM PHOSPHATE), SALT.

Food, Fashion & Fantastical Thinking





<https://commons.wikimedia.org/wiki/File:Baguette.jpg> Credit: Lionel Allorge



Author <https://www.flickr.com/photos/184594136@N08/50408999768/>
Alabama Extension

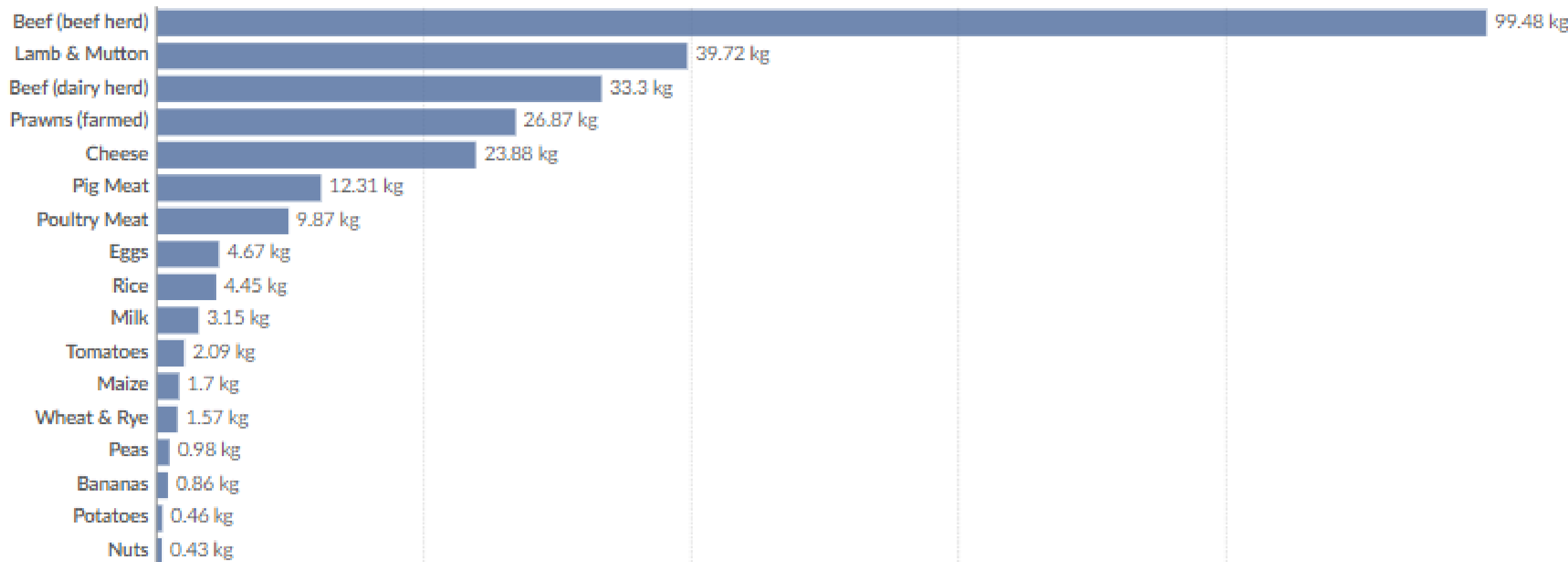


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Dr. Satish Upalkar

Greenhouse gas emissions per kilogram of food product

Greenhouse gas emissions are measured in kilograms of carbon dioxide-equivalents. This means non-CO₂ gases are weighted by the amount of warming they cause over a 100-year timescale.

Table Chart



Data source: Poore and Nemecek (2018) - [Learn more about this data](#)

OurWorldInData.org/environmental-impacts-of-food | CC BY

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“In two centuries, the human labor to produce a kilogram of American wheat was reduced from 10 minutes to less than two seconds.”

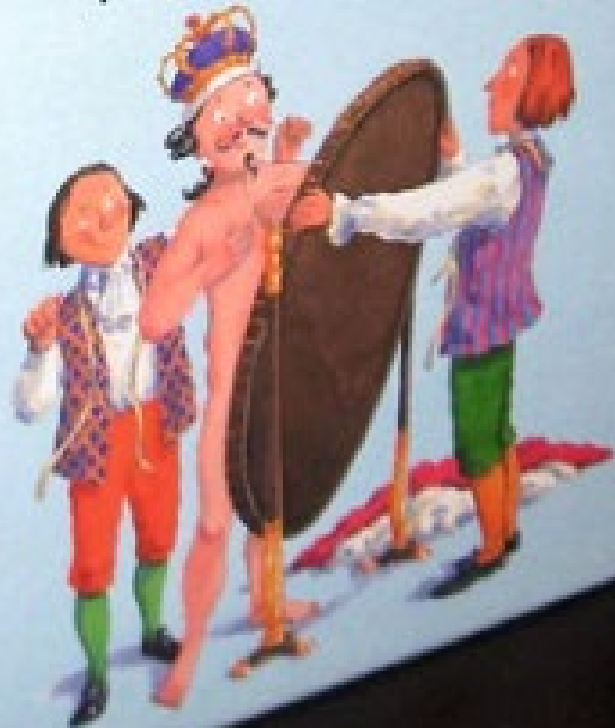
- Vaclav.Smil, How the World Really Works





Hans Christian Andersen

The Emperor's New Clothes





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EARTH IN THE BALANCE

ECOLOGY AND THE HUMAN SPIRIT

AL GORE

Author of *An Inconvenient Truth*



A NEW YORK TIMES BESTSELLER

REVISED AND UPDATED

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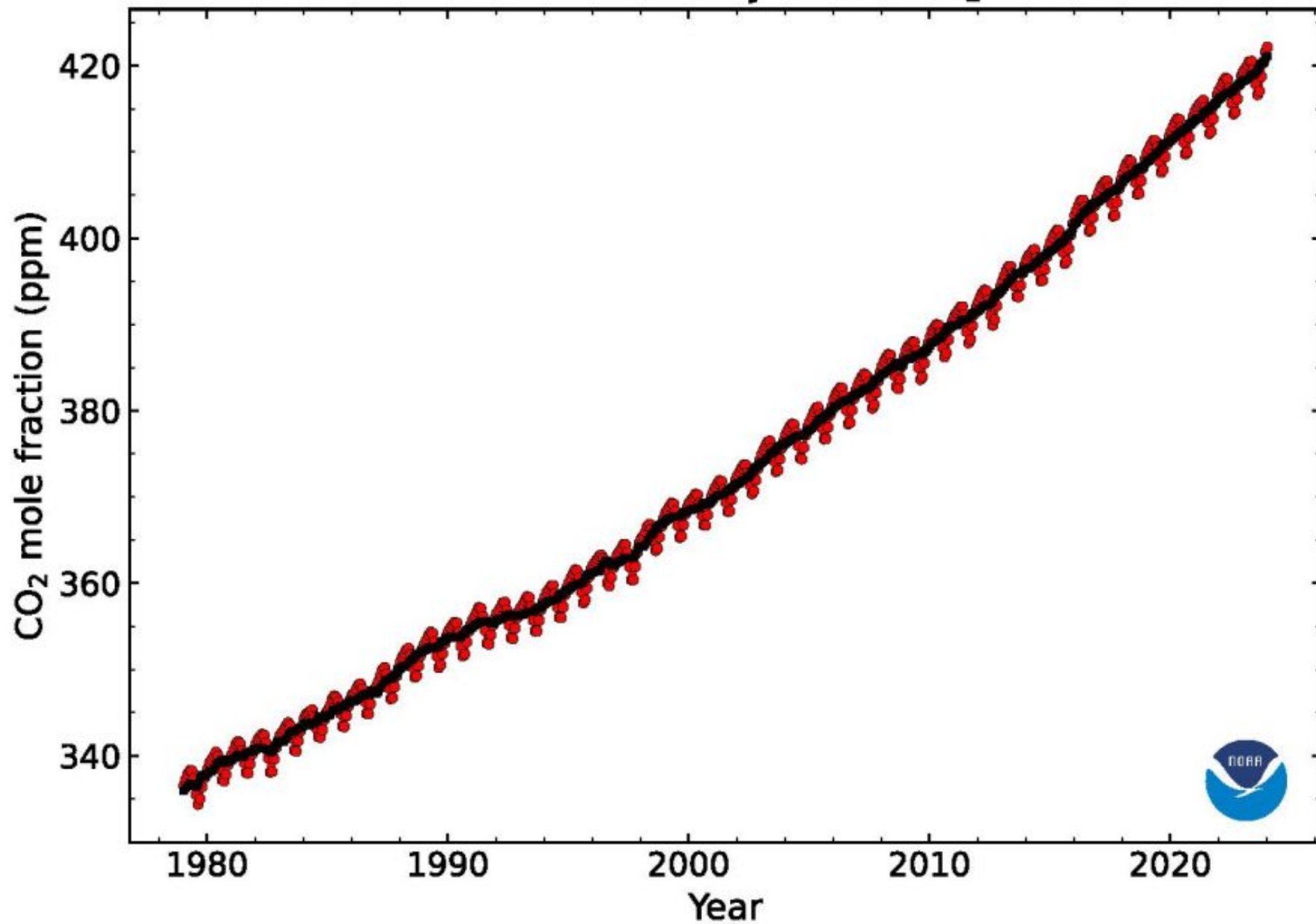


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Global Monthly Mean CO₂



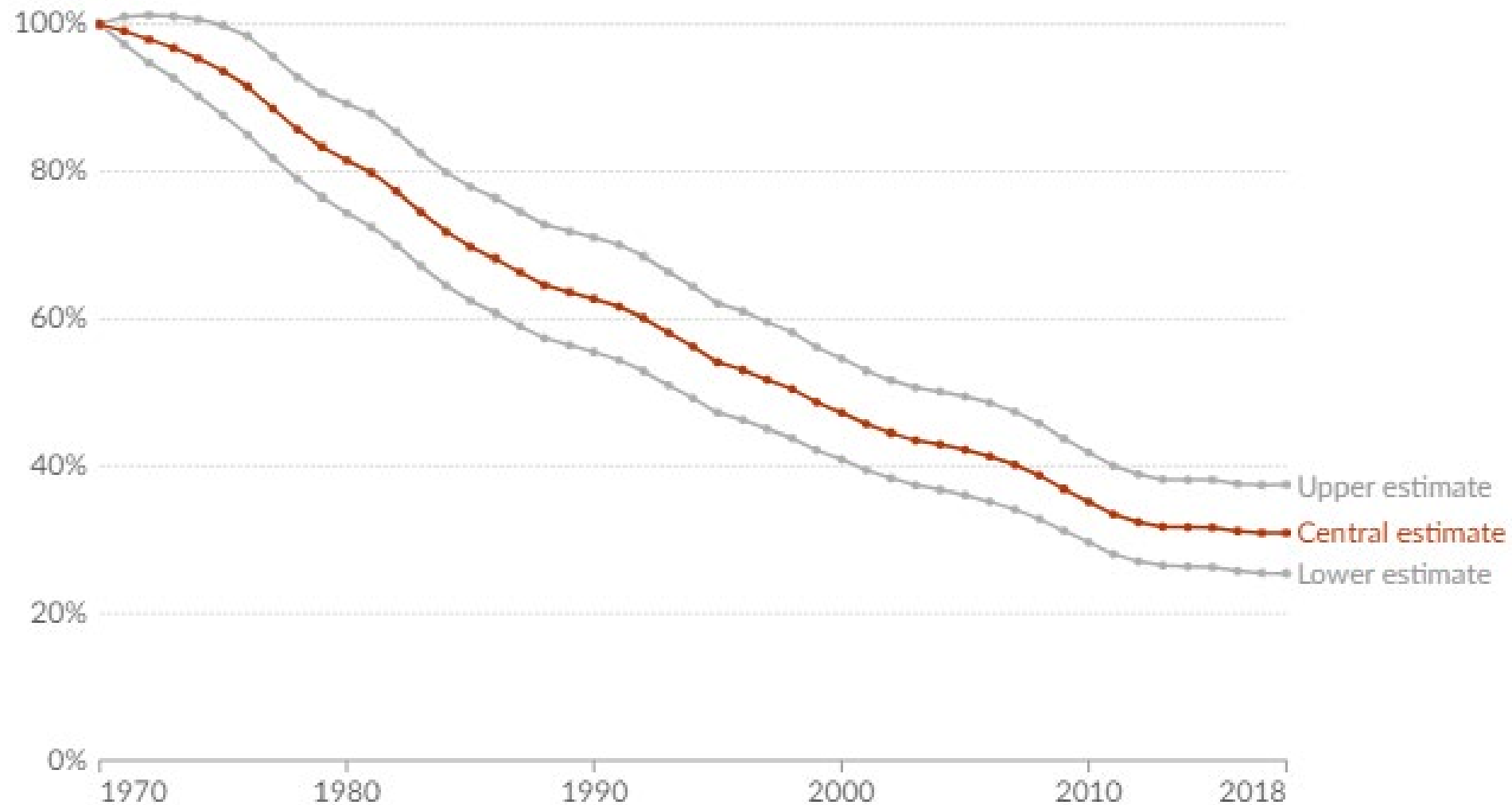
2024-April-05

The Living Planet Index (LPI) measures the average decline in monitored wildlife populations. The index value measures the change in abundance in 31,821 populations across 5,230 species relative to the year 1970 (i.e. 1970 = 100%).

Table Chart

Change region/group

Settings



1970



<https://ourworldindata.org/biodiversity>



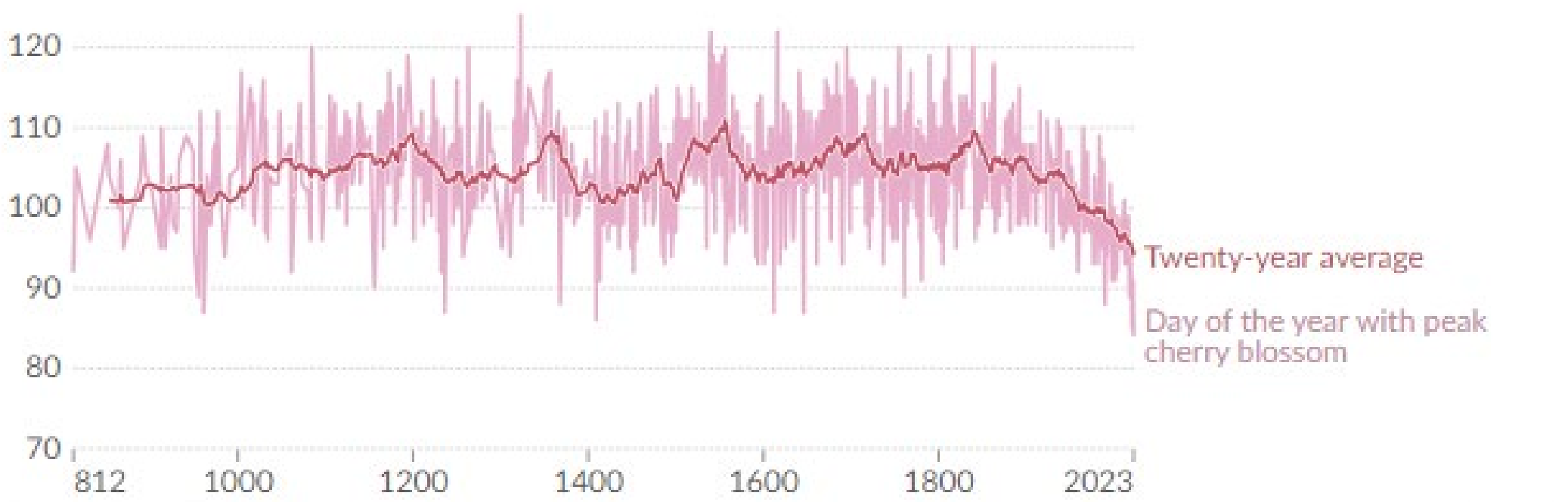
2018

Day of the year with peak cherry tree blossom in Kyoto, Japan

The vertical axis shows the date of peak blossom, expressed as the number of days since 1st January. The timing of the peak cherry blossom is influenced by spring temperatures. Higher temperatures due to climate change have caused the peak blossom to gradually move earlier in the year since the early 20th century.

Table Chart

Settings



812 2023

Data source: Yasuyuki Aono (2021; 2024) - [Learn more about this data](#)

OurWorldInData.org/biodiversity | CC BY

Note: The 20-year average is calculated when there are at least five years with data in the 20-year window.

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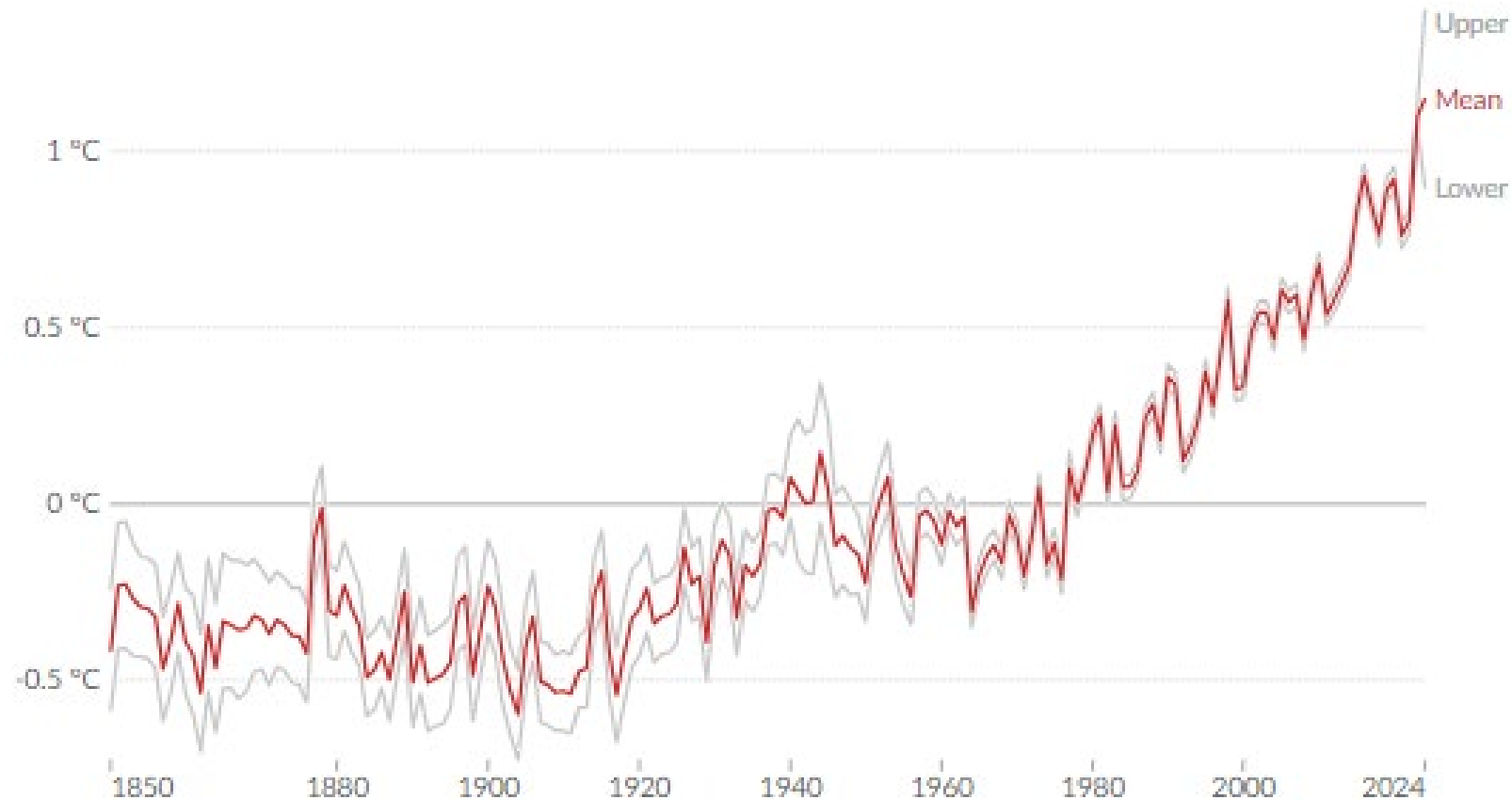
Average temperature anomaly, Global

Global average land-sea temperature anomaly relative to the 1961-1990 average temperature.

Table Chart

Change region

Settings



1850 2024

Data source: Met Office Hadley Centre (2023) - [Learn more about this data](#)

Note: The gray lines represent the upper and lower bounds of the 95% confidence intervals.

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

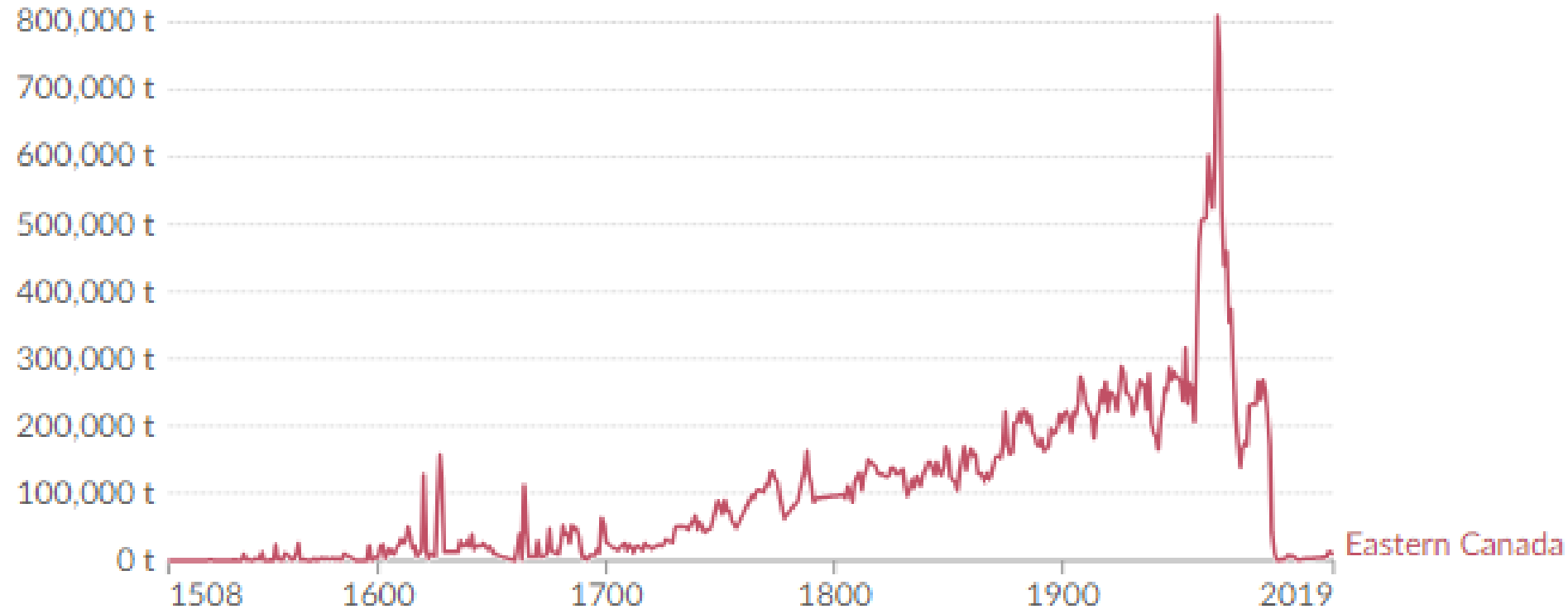


Five centuries of cod catches in Eastern Canada

Estimates of North Atlantic cod (*Gadus morhua*) catch off Newfoundland and Labrador, Eastern Canada.

Table Chart

Settings



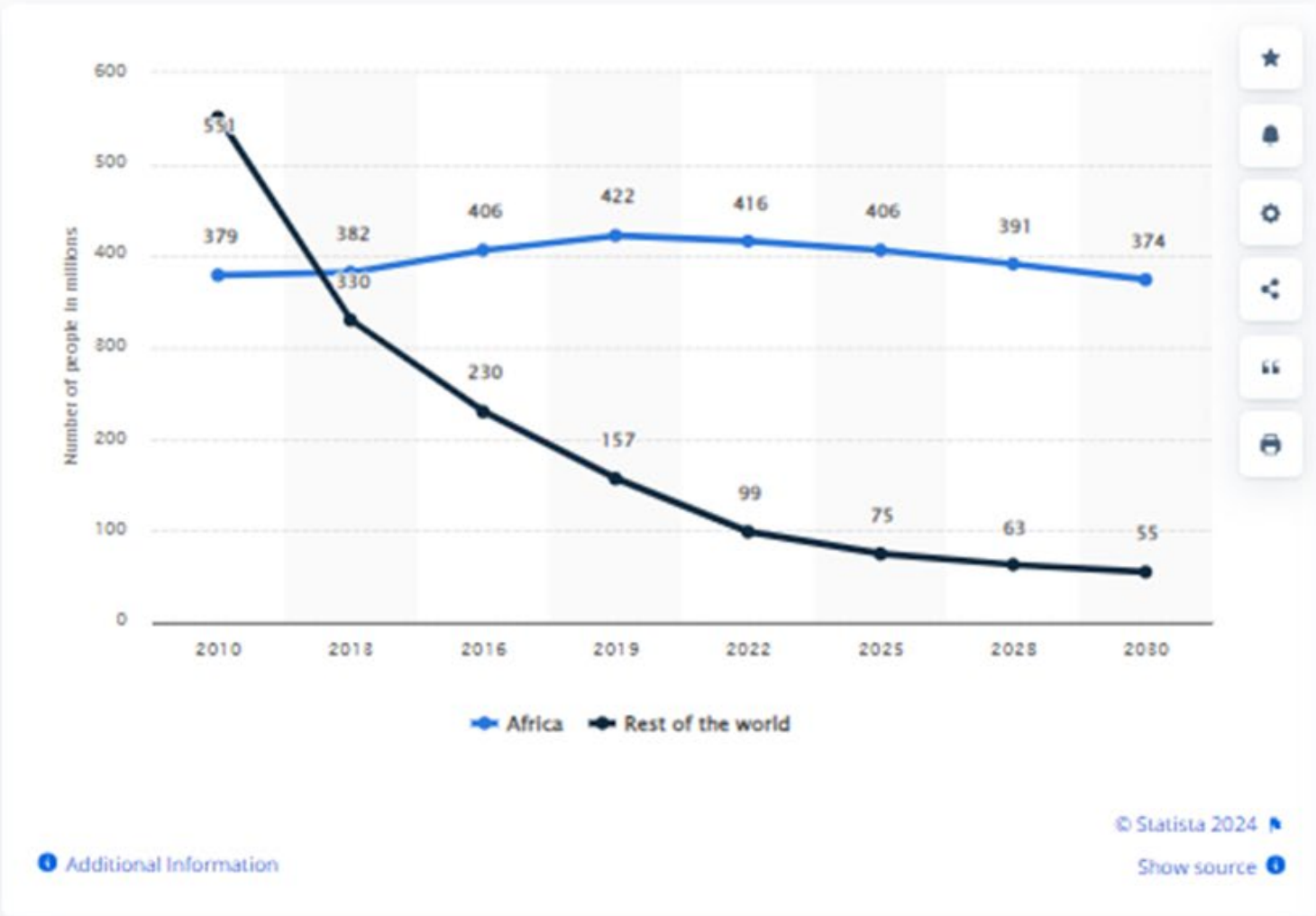
1508 2019

Data source: Schjins et al. (2021). Five centuries of cod catches in Eastern Canada. - [Learn more about this data](#)

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Number of people living in extreme poverty in Africa from 2010 to 2030, compared to the rest of the world

(in millions)



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Sources

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Release date

December 2018

Region

Africa

Survey time period

2010 to 2030*

Supplementary notes

* Projected figures from 2019.

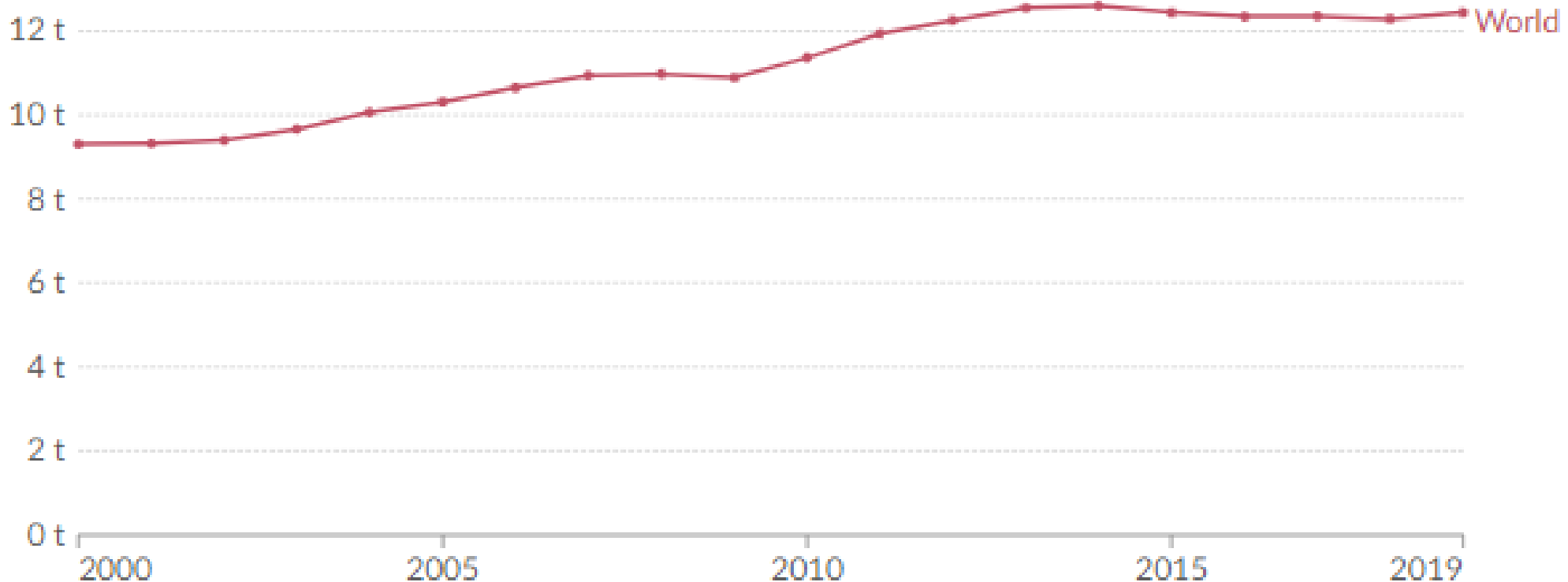
Citation formats

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Material footprint per capita, 2000 to 2019

Material footprint is the quantity of material needed to meet a country's material demand. It is material production, adjusted for trade. The total material footprint is the sum of the material footprint for biomass, fossil fuels, metal ores, and non-metal ores, given in tonnes per year.

Table Chart

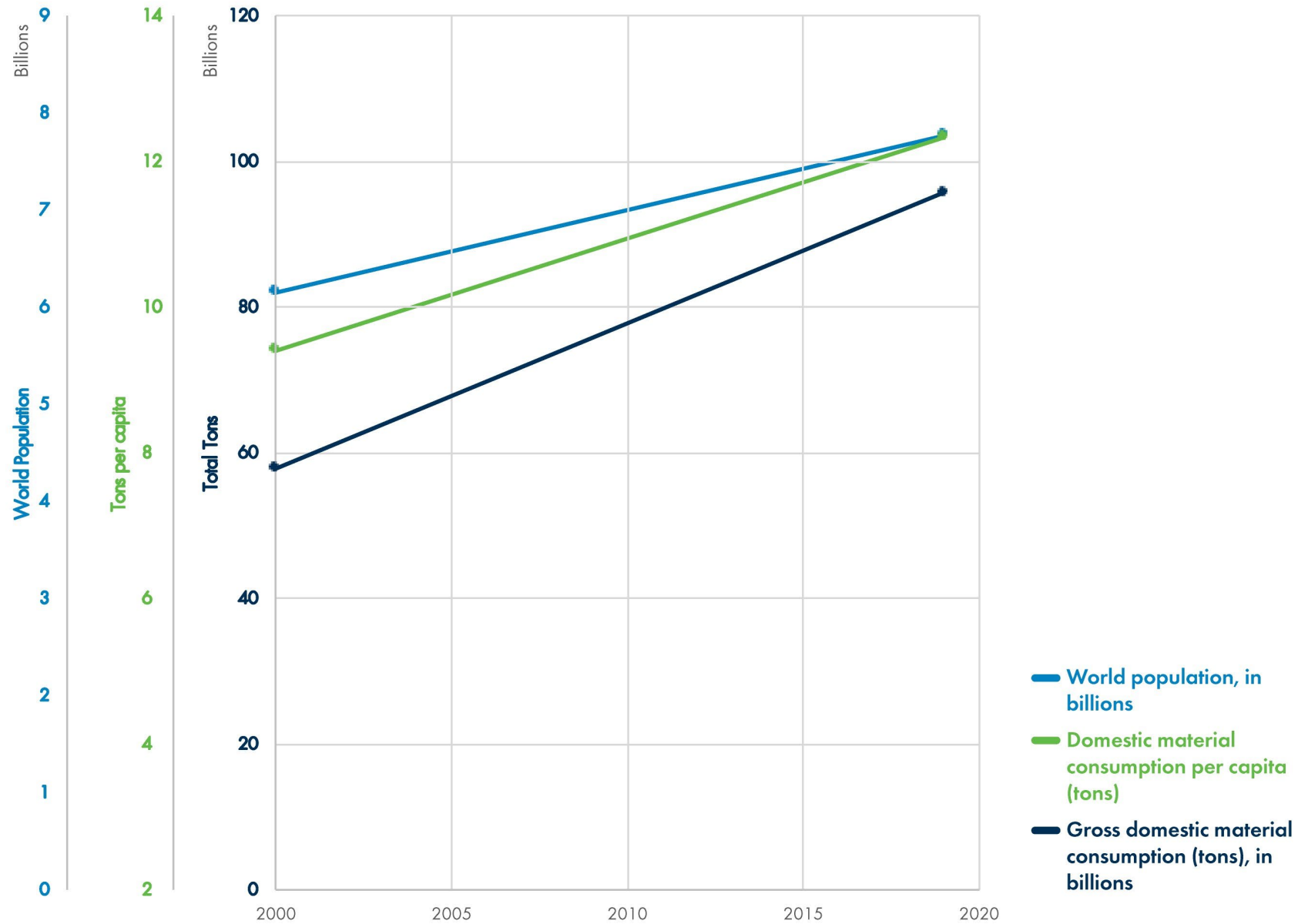


Data source: UN Statistics Division - [Learn more about this data](#)

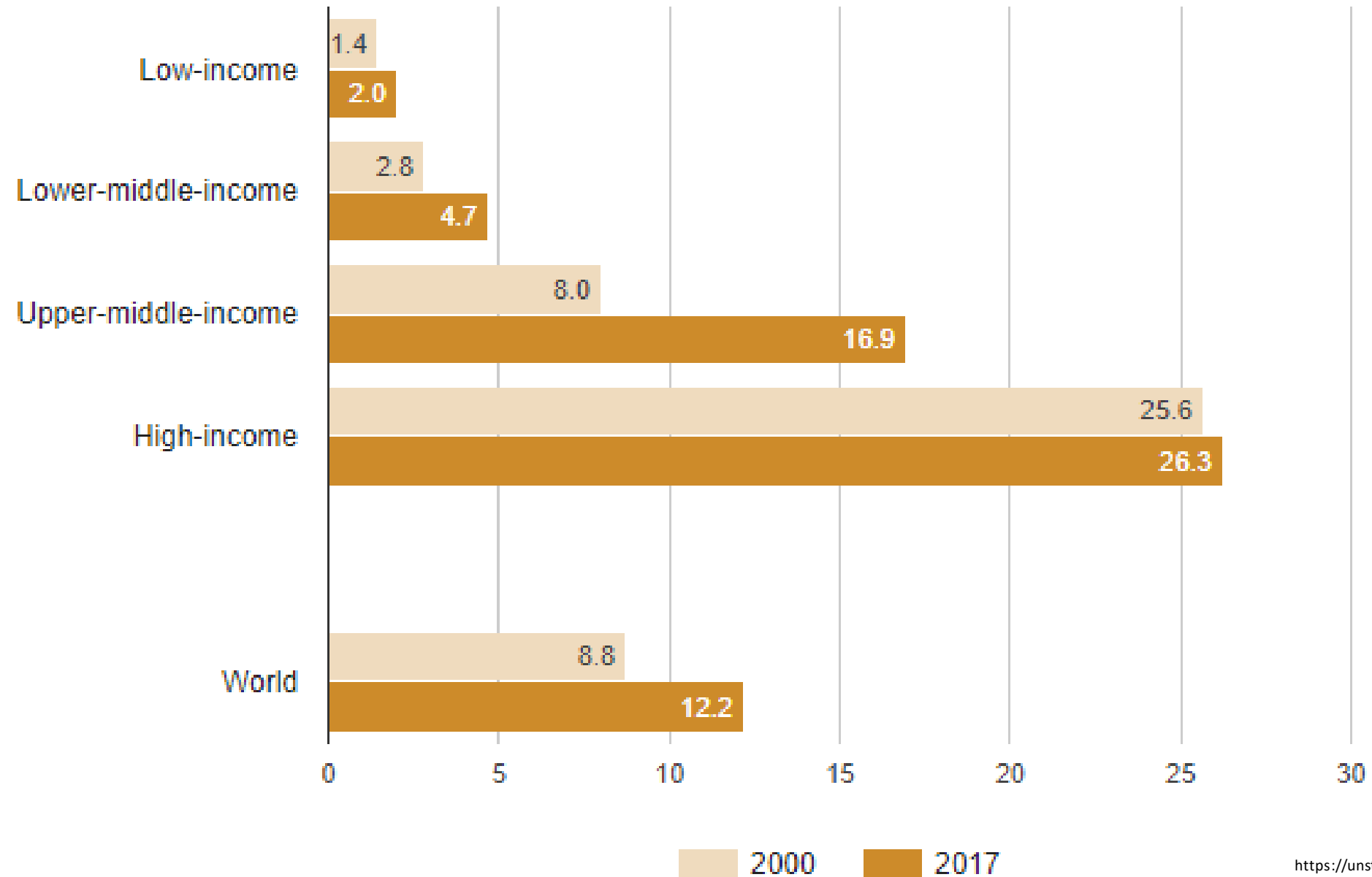
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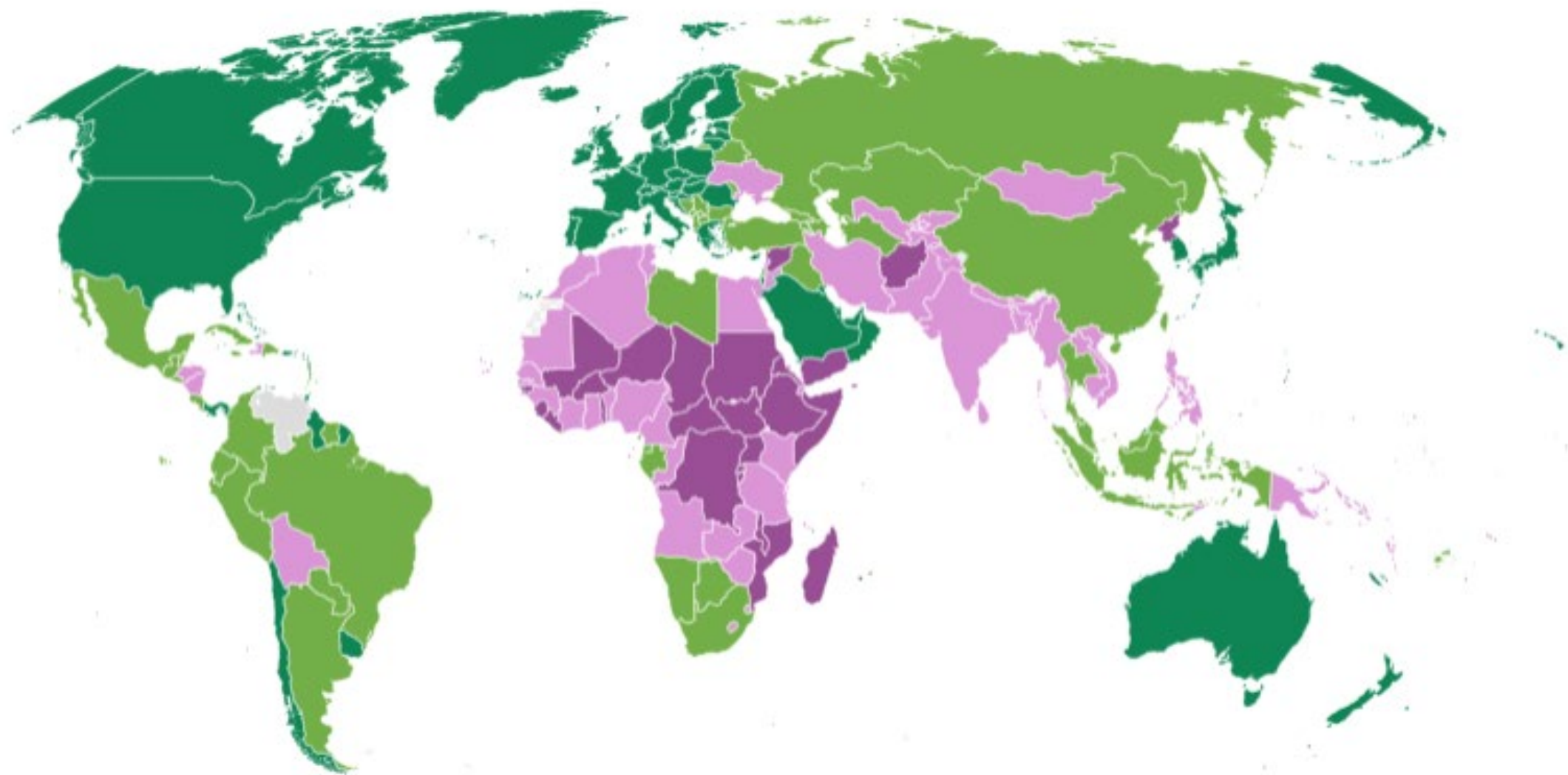
GLOBAL MATERIAL CONSUMPTION: 2000 - 2019



Material footprint per capita, 2000 and 2017 (metric tons per person)



High Income Upper-middle Income Lower-middle Income Low Income Not Classified



Source: [World Bank Income Classifications FY24](#) • The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.

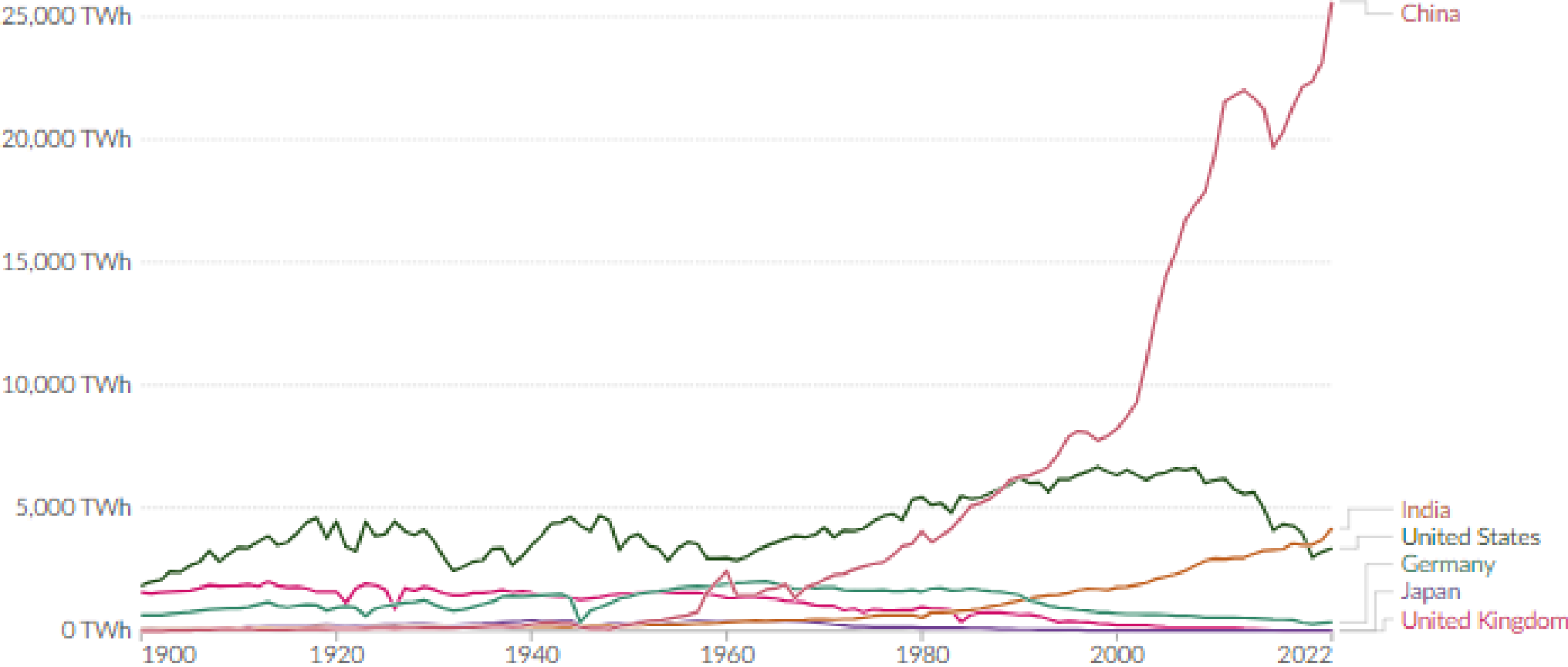
Coal production

Measured in terawatt-hours.

Table | Map | Chart

Edit countries and regions

Settings



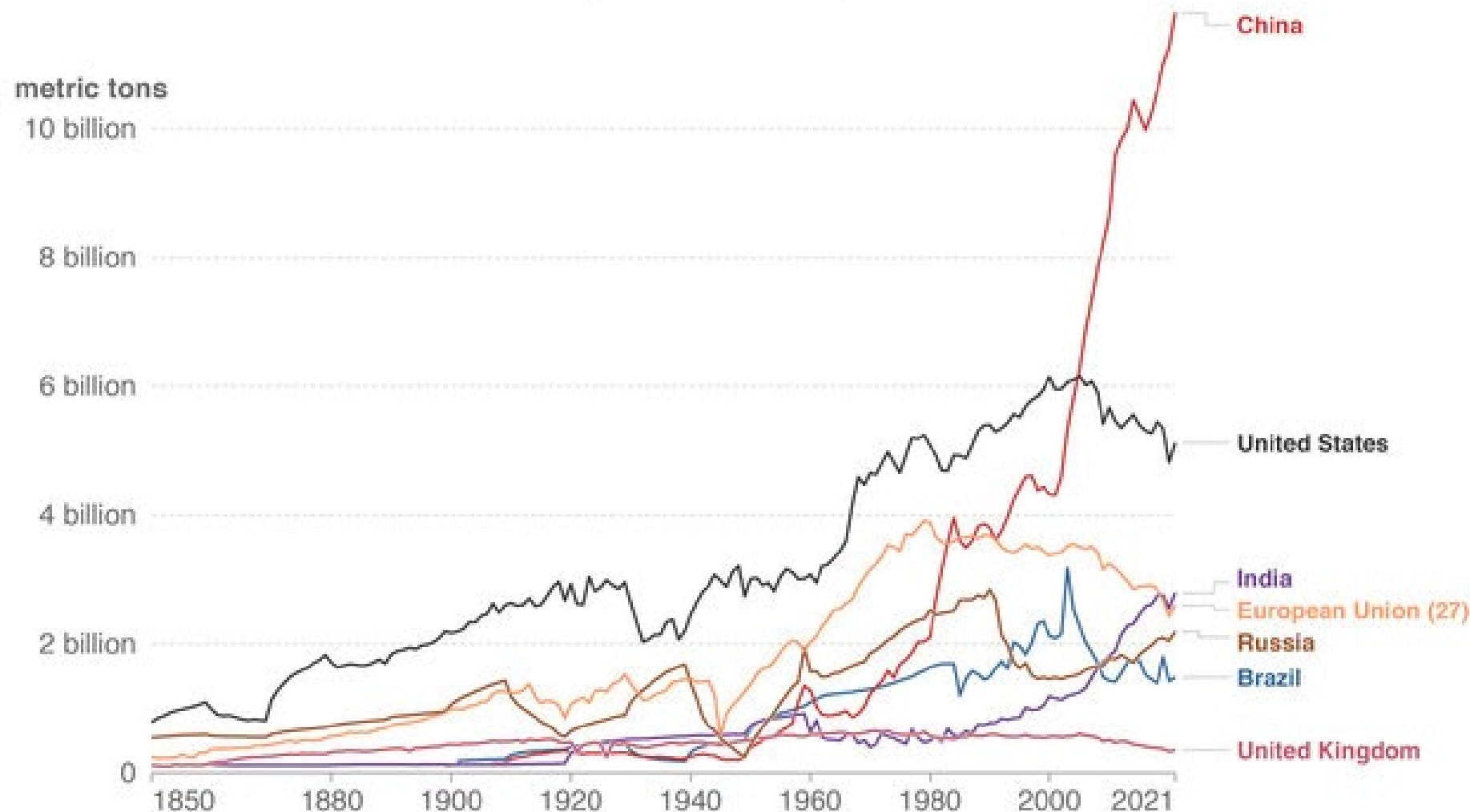
1900 2022

Data source: Energy Institute - Statistical Review of World Energy (2023); The Shift Data Portal (2019) - [Learn more about this data](#)

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Annual CO₂ emissions including land-use change, 1850 to 2021

Emissions include those from fossil fuels and industry¹ and land use change.



Source: Global Carbon Budget (2022)

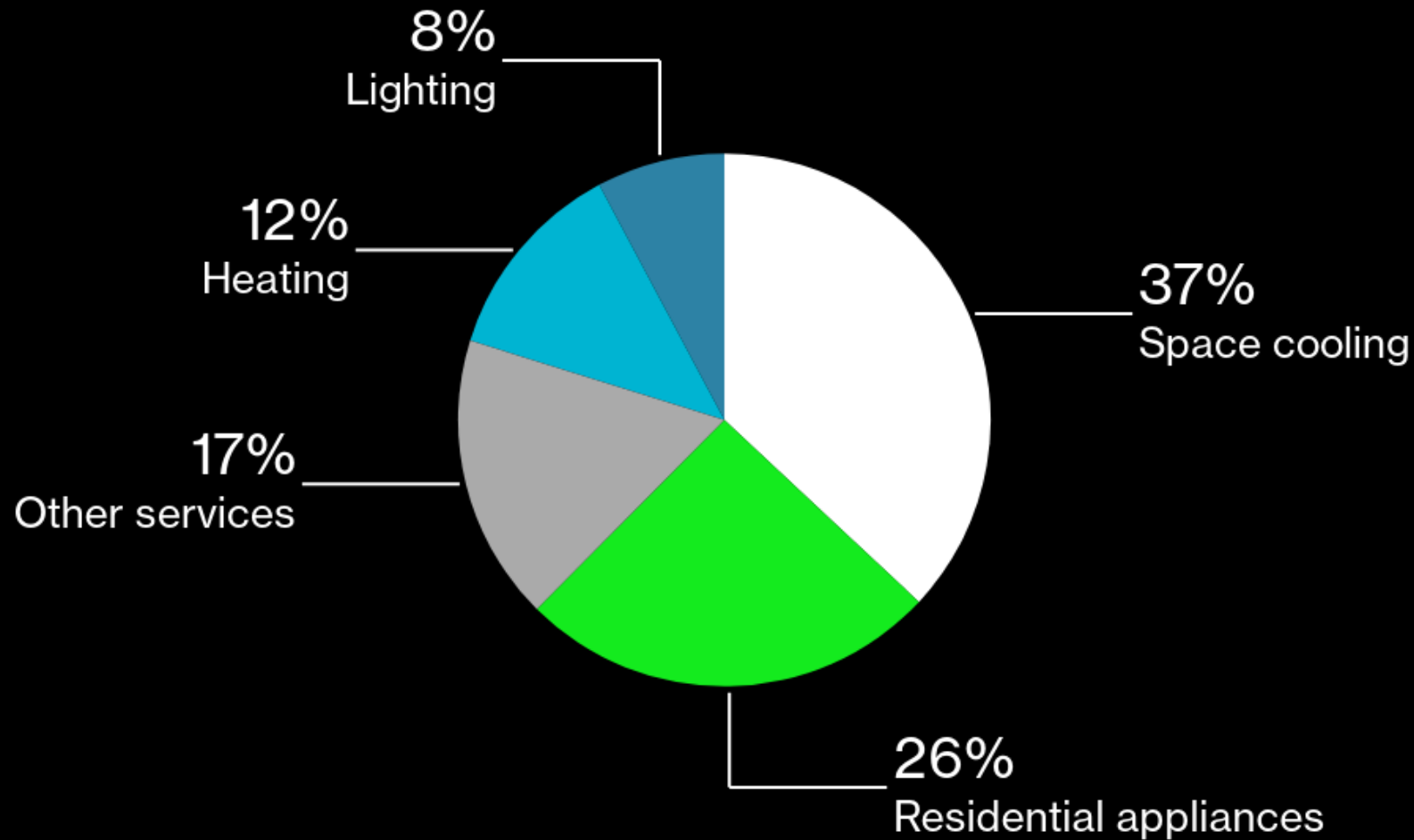
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Note: Emissions from land-use change can be positive or negative depending on whether these changes emit or sequester carbon.

1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO₂) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO₂ includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

Space Cooling Adds Most to Global Demand For Power

Total growth in electricity demand through 2050, by sector



Source: International Energy Agency

Bloomberg

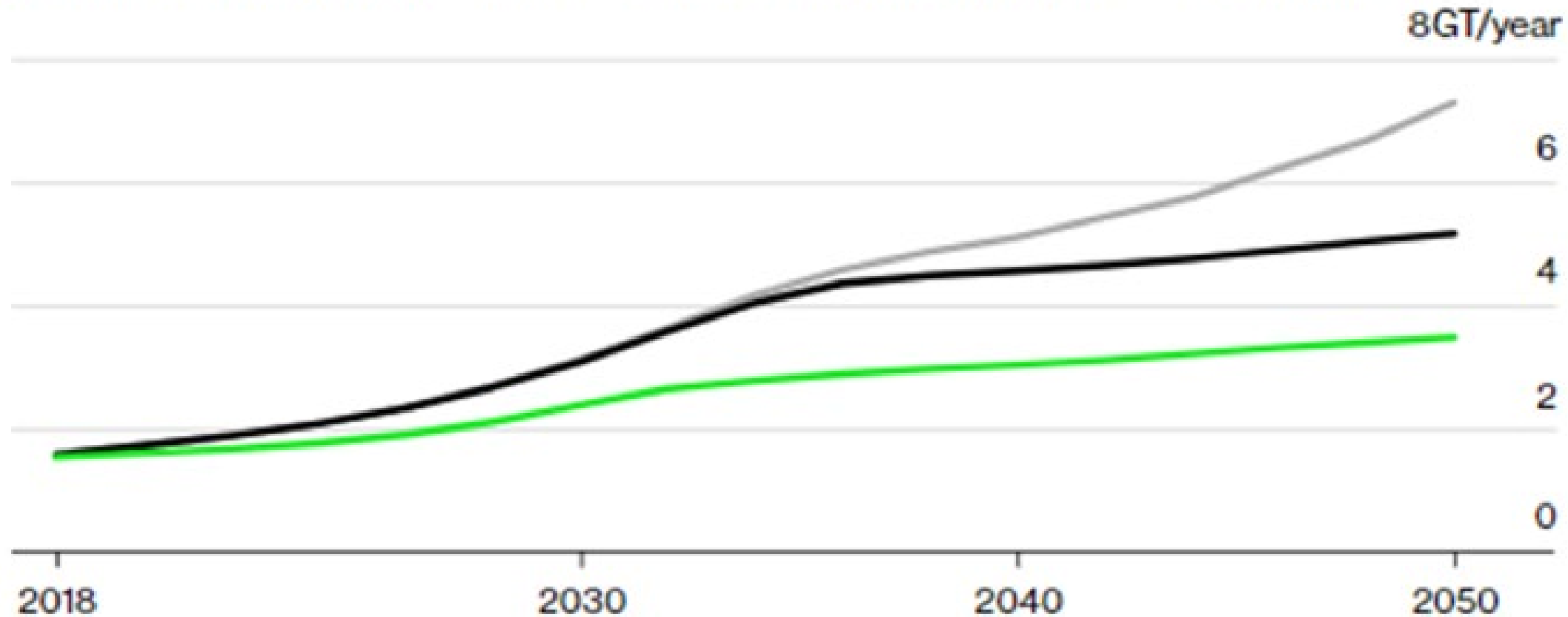
India's demand for electricity for running household air conditioners is estimated to expand nine-fold by 2050



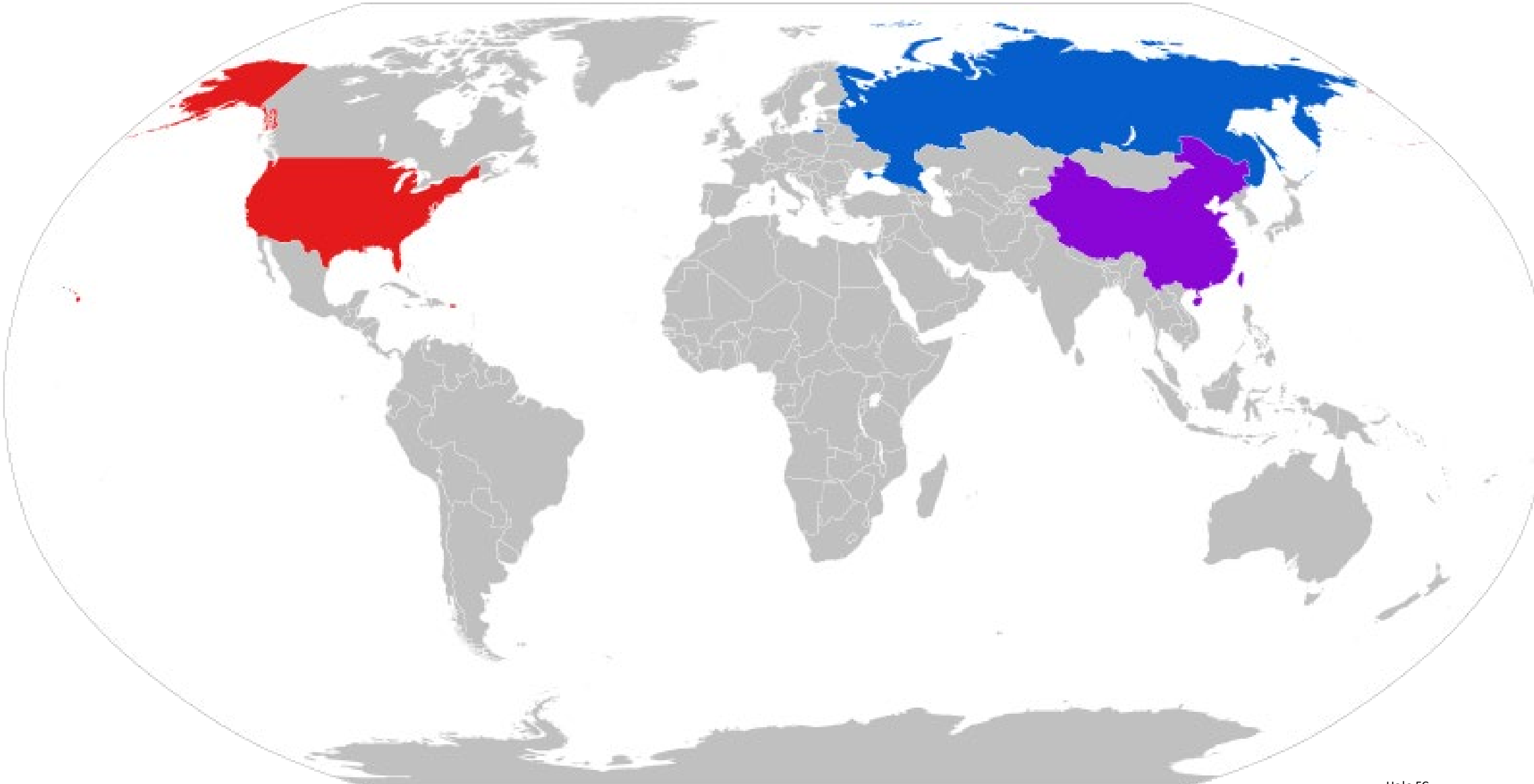
Cooling For All Means a Lot More Carbon Pollution

Carbon dioxide emissions from space cooling under three scenarios

Space cooling with efficiencies / Space cooling no efficiencies / Cooling for all



Source: Green Cooling Initiative, Centre for Sustainable Cooling
Assumes current energy mix



Halo FC

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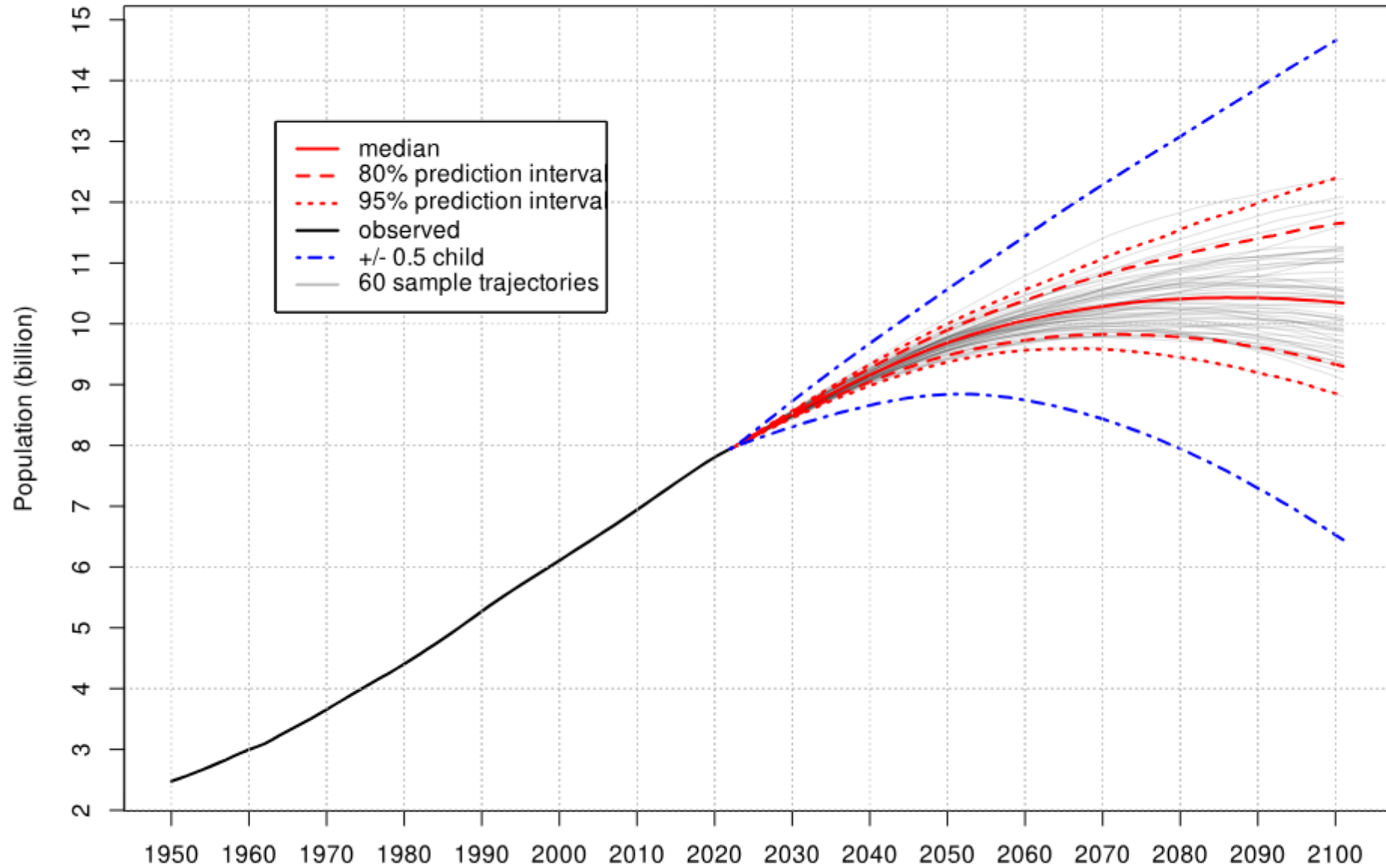
“We could spend less on fur coats, and the grain harvest would go up.”



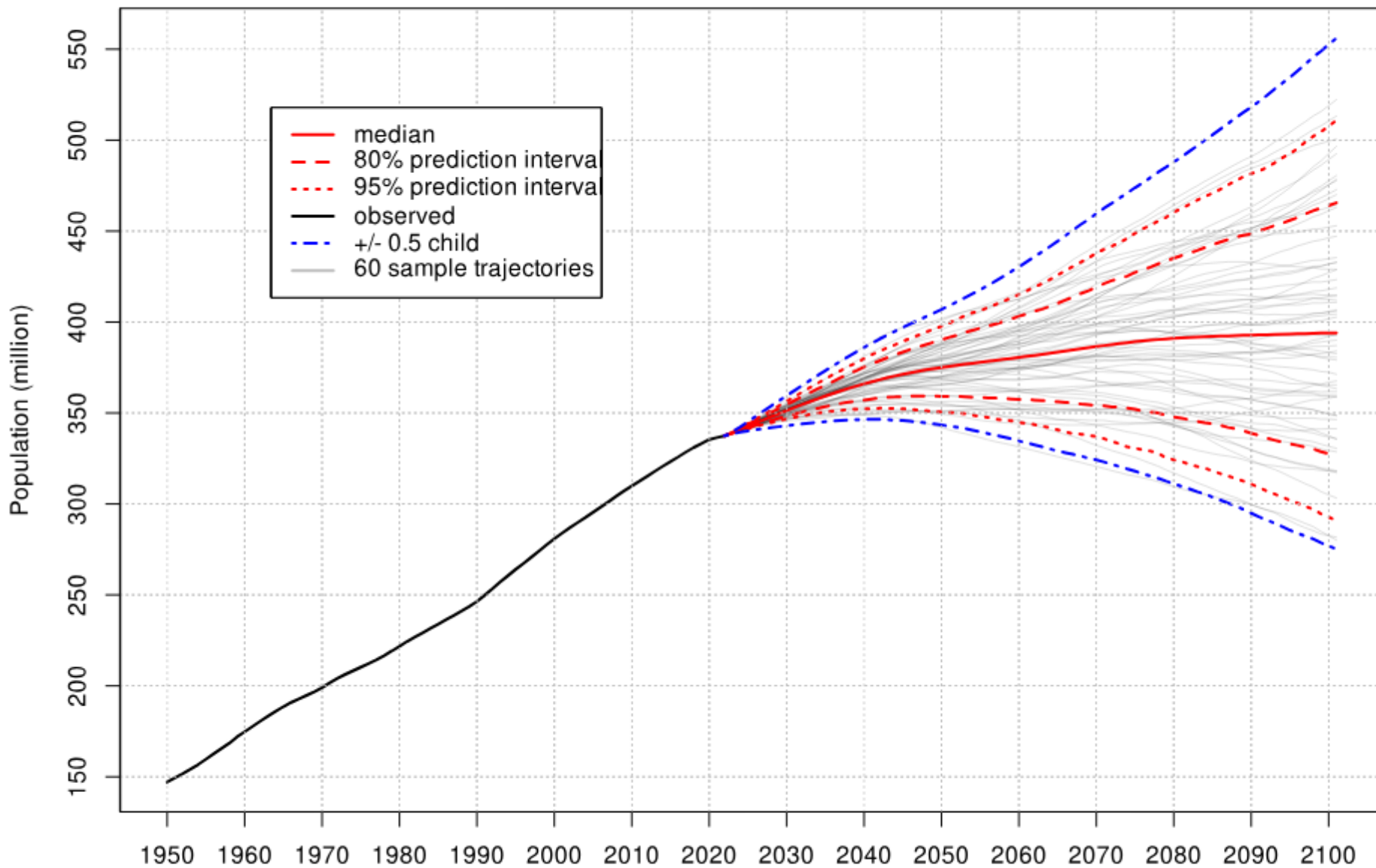


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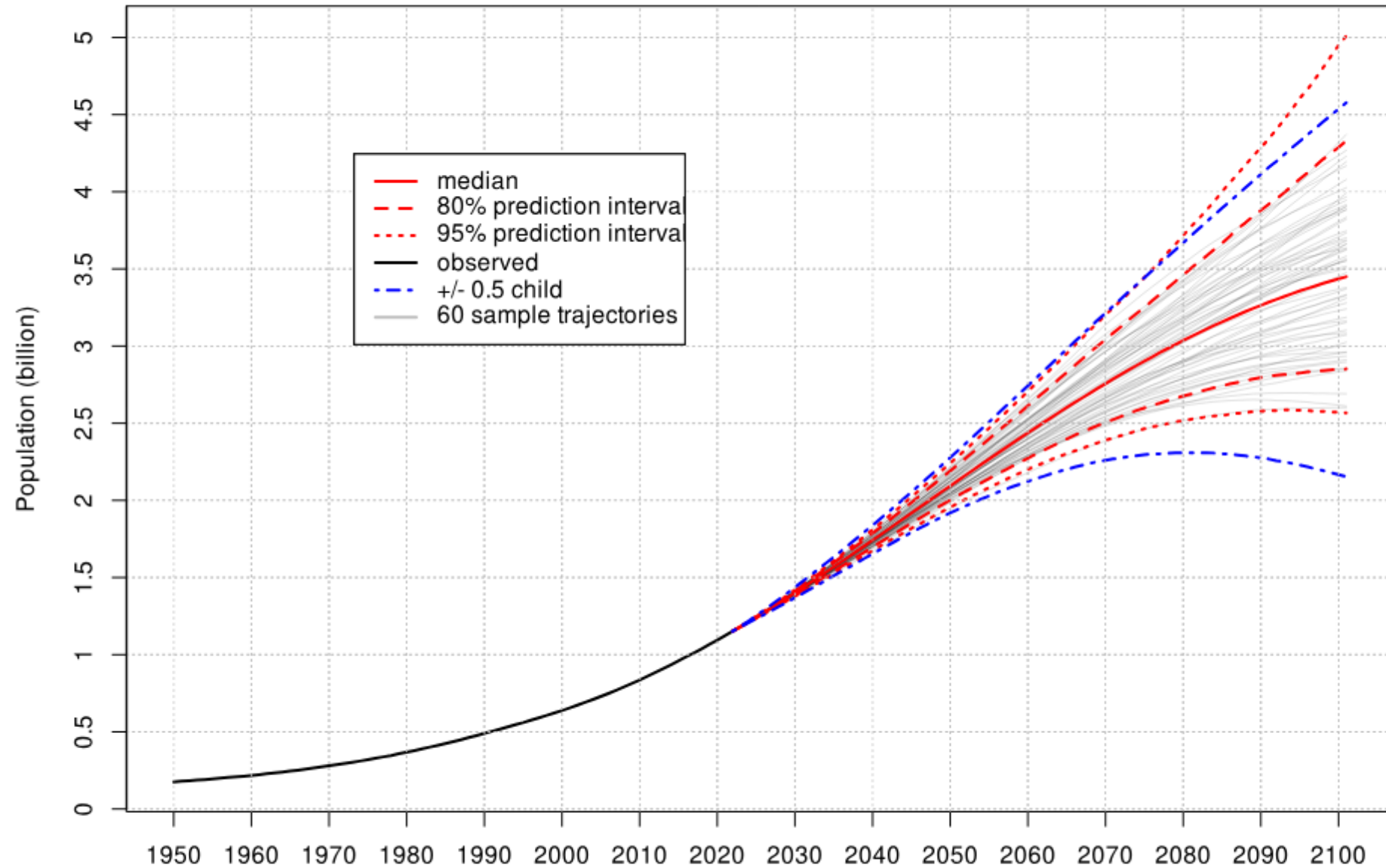
World: Total Population



United States of America: Total Population



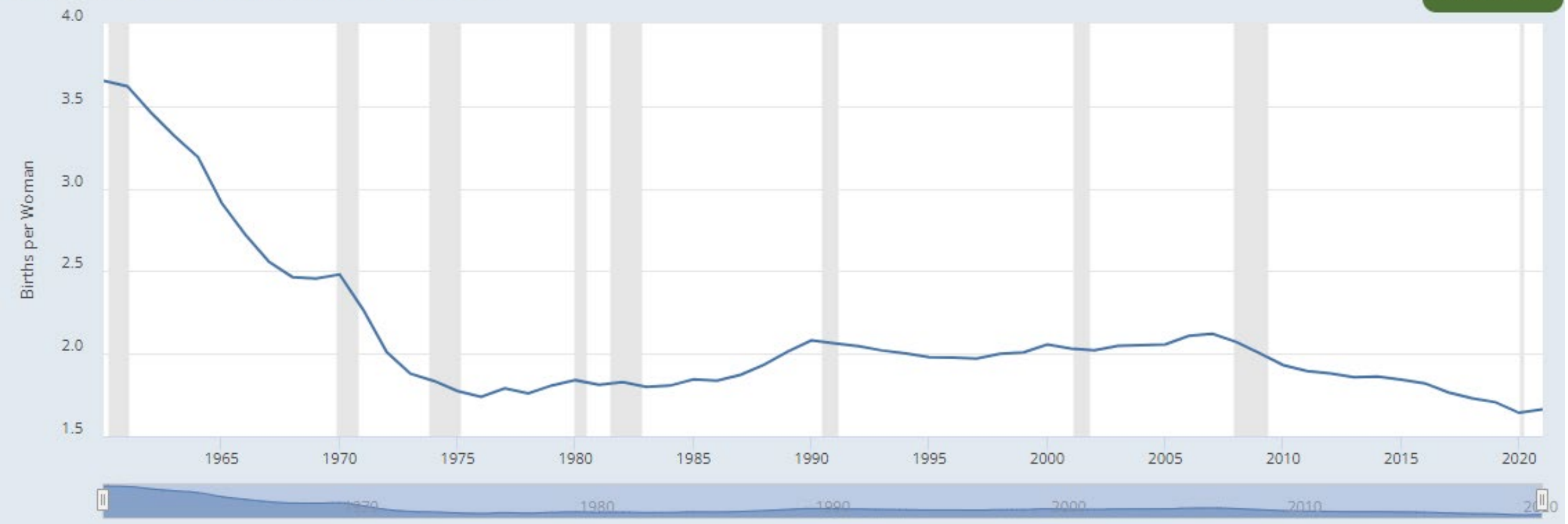
Sub-Saharan Africa: Total Population



It's not just Population Growth. It's also Population Impact.







Shaded areas indicate U.S. recessions.

Source: World Bank

fred.stlouisfed.org



Emissions solutions and their costs



Solution	Cost per ton of CO ₂ averted
Family planning	\$4.50
Girls' education	\$10
Onshore wind	\$24
Utility-scale solar photovoltaic	\$28
New coal with carbon capture and storage	\$95

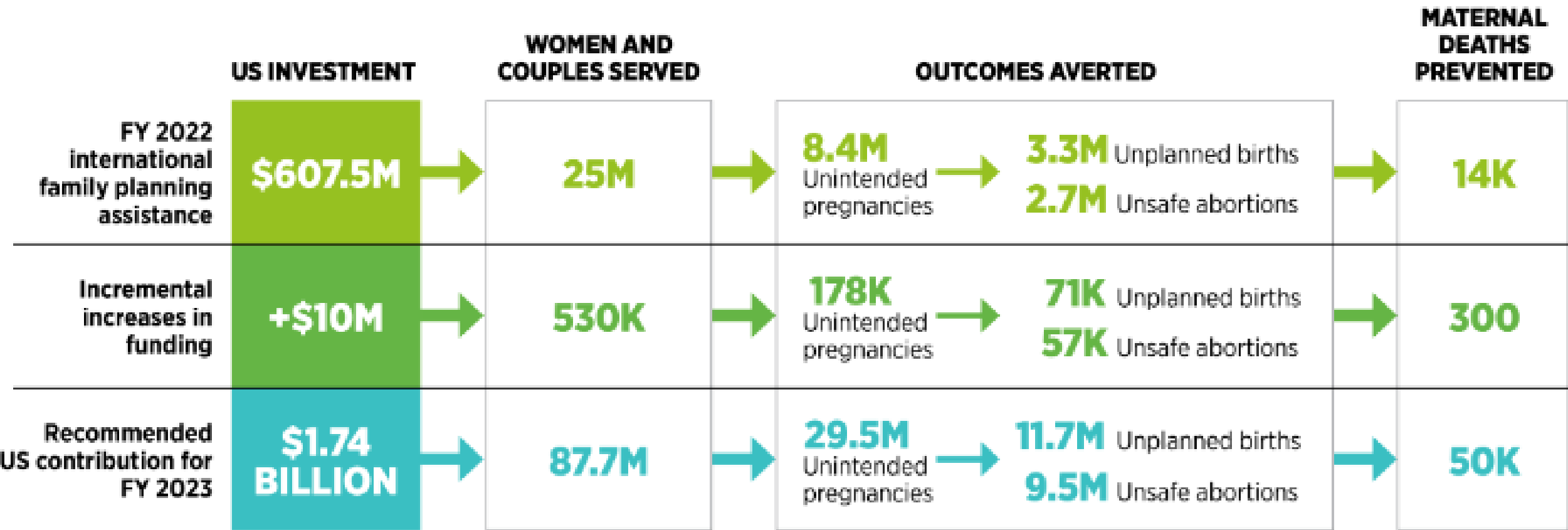
FIGURE 2:
UNINTENDED PREGNANCY AND UNMET NEED

Women with unmet need for modern contraceptive methods account for 84% of unintended pregnancies.

89 million unintended pregnancies, 2017



Outcomes associated with current and increased US investment in international family planning



Notes: Impacts estimated using 2019 Adding It Up data with 2022 costs. M=million, K=thousand, B=billion.

Narratives around global health issues, including family planning, are still colonized by discourses from Global North donors.

– Congo Participant

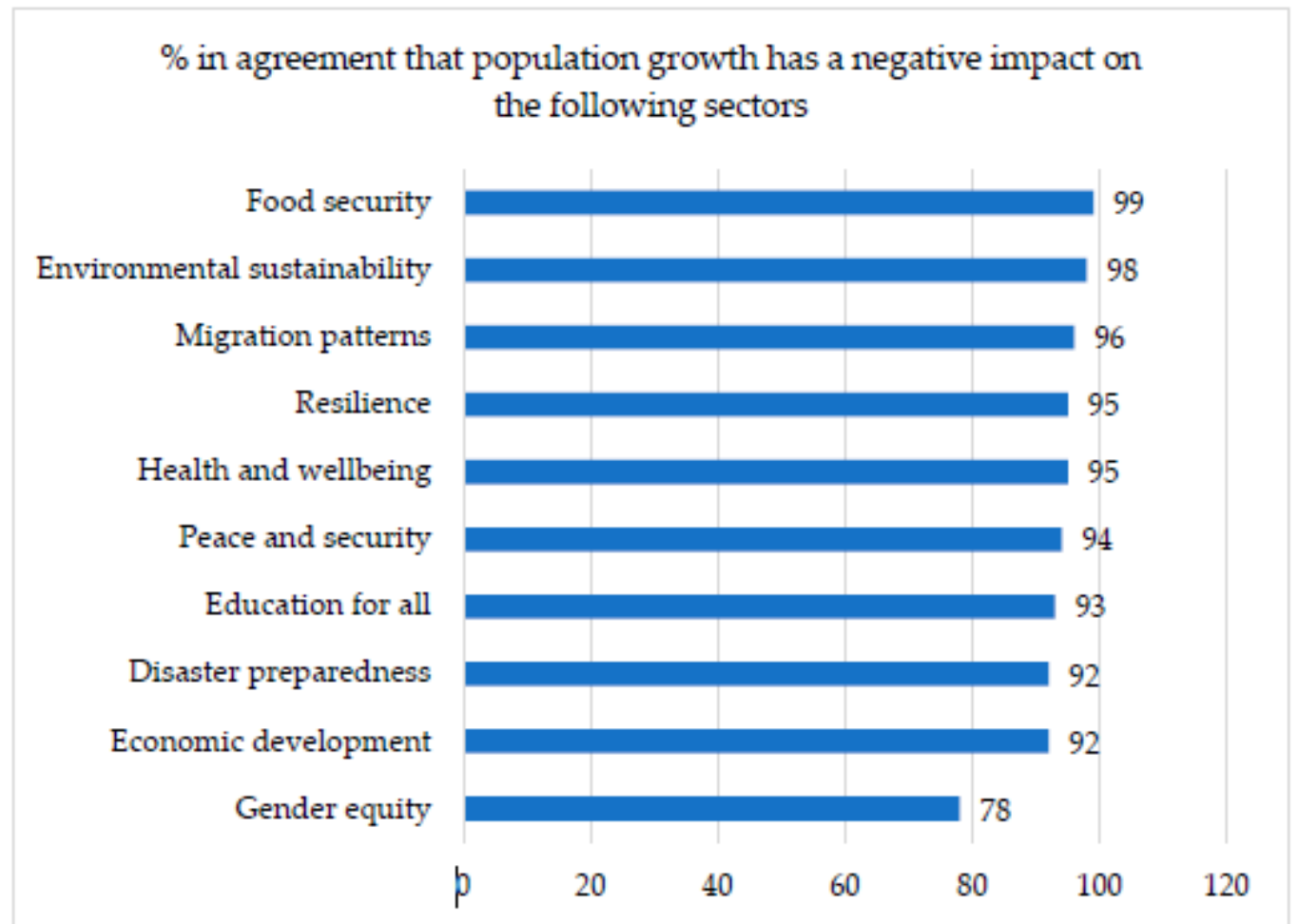


Figure 1. Effects of population growth on welfare outcomes.

Survey of 402 experts in sub-Saharan Africa with “with a marked interest or concern related to economic, social, or environmental development. Documenting the Perspectives of Sub-Saharan African Policy Makers, Researchers, and Activists on



POPULATION EDUCATION

A program of Population Connection



107,848
*educators
trained*



484
college campuses



5,764
*workshops
conducted*

Thank so much for the fantastic workshop you did for my students today. They just raved about it and were excited about the lessons you shared with them!

Sara Martin, University of North Texas

If you don't like the news, go out and make some of your own!



john@popconnect.org