

Global Warming and CO₂

Introduction

Is Global Warming a Man-Made Crisis Caused by Increased CO₂ Emissions?

Given my background as a professional geologist and geophysicist, I was initially surprised by claims that mankind was causing a climate change crisis, with an emphasis on crisis. I was aware of prior ice ages, climate change and changing sea levels that occurred well before mankind arrived. I was also aware that CO₂ is very important for plant life. This drove me to research this subject in much more detail. I invite you to do the same and offer this material for your consideration.

Graeme Phipps Professional Geophysicist and Geologist
email: graeme@phippsandassociates.com

Global Warming and CO₂

Introduction

Is Global Warming a Man-Made Crisis Caused by Increased CO₂ Emissions?

This presentation shows the results to date of my research into the subject of Global Warming and CO₂ taken from 30 books, 191 articles plus 97 videos from 54 well-respected and competent scientists and professionals, all listed at the end of the presentation. The results of my investigations are contrary to what is being said in mainstream media and have important implications for future Government actions.

Please consider this quote from Tolstoy's 1894 treatise "The Kingdom of God is Within You" which contains: "The most difficult subjects can be explained to the most slow-witted man if he has not formed any idea of them already, but the simplest thing cannot be made clear to the most intelligent man if he is firmly persuaded that he knows already, without a shadow of a doubt, what is laid before him". I encourage you to proceed with an open mind.

[Graeme Phipps Climate Change Presentation](#)

Global Warming and CO₂

Introduction

Key Findings

- 1) Increased CO₂ in the atmosphere is beneficial and not damaging to the world; added CO₂ increases plant growth (CO₂ is essential for plants), especially in desert areas (the world is greening) and significantly improves plant and crop yields
- 2) Climate change is a very complex system with CO₂ as a greenhouse gas playing a very minor role
- 3) Adding CO₂ i) is not causing increased extreme and dangerous weather events; they are not increasing compared to historic occurrences, ii) has reached a saturation level; doubling prior CO₂ levels is required to make the same minor climate impact, and iii) does not bring about runaway temperatures issues
- 4) Over the course of the last 2,000 years, there have been at least 3 verifiable extended periods where, prior to any industrial emission, global temperatures increased without any impact of 'man-made CO₂ emissions' - the Roman Warming (250 BC - 450 AD); the Medieval Warming (900 - 1300 AD) and the Late 20th Century Warming (1850 - present), along with two extended cooling periods - the dark Ages Cooling (535 - 900 AD) and the Little Ice Age (1280 - 1850),; what's happening is not unusual.

View these videos for an overview: **Climate: The Movie** <https://www.climatethemovie.net/>),

<https://www.msn.com/en-gb/video/news/man-made-climate-change-is-garbage/vi-AA1z94Ta?ocid=msedgntp&pc=HCTS&cvid=cfa592b2dc4f468fb1500aed4da18925&ei=11>

[Bing Videos](#); Lord Monckton Net Zero Emissions – The Costliest Error of Physics and Economics in History

Climate Crisis Scam <https://youtu.be/aT2SvIAkE5s>; Gregory Wrihstone

This presentation asks and responds to 11 questions regarding global warming and CO₂ impacts with a section on each question including factual information supporting the conclusions to each question.

Global Warming and CO₂

Eleven questions to consider

- 1) Is present Global Warming a man-made or a natural phenomenon?
- 2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?
- 3) Are higher CO₂ levels and warmer temperatures good or bad?
- 4) Are CO₂ atmosphere levels dangerously high or historically low?
- 5) What could have caused changes in CO₂ levels over geologic time?
- 6) Is climate change mainly caused by mankind's emissions of CO₂?
- 7) What is the impact of CO₂ on climate warming?
- 8) Is sea level rise and rate of rise unusual and a major concern?
- 9) What about the scientists' man-made Global Warming crisis consensus?
- 10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?
- 11) What are the negative implications of pursuing a carbon-neutral policy?

Global Warming and CO₂

Starting Scientific Videos Worth Watching

1) [It Is Easy Going Green](#) The value of added CO₂

2) **Dr. William Happer** https://youtu.be/pHCCE-sw_Sc <https://youtu.be/PbIYr-KjOVY>

<https://wattsupwiththat.com/2023/09/29/professor-william-happer-ipa-lecture-the-crusade-against-carbon-dioxide-september-2023/>
(1106) [Elimination of CO₂ is a suicide pact – Professor William Happer on climate change misconceptions - YouTube](#)

- The world has historically had 4 to 10 times more CO₂ concentrations and is presently starved of CO₂.

3) **Gregory Wrightstone** <https://youtu.be/aT2SvIAkE5s>; The Climate Crisis Scam

4) **NASA Engineer** (1132) [NASA Engineer Tom Moser Reveals the Truth About Climate Science - YouTube](#)

5) **Dr. John Christy** Distinguished Professor of Atmospheric Science

(11) (5124) [Data shows there's no climate catastrophe looming – climatologist Dr J Christy debunks the narrative – YouTube](#)
[John Christy: The Climate Real Deal | Science Matters \(rclutz.com\)](#) There is **no climate catastrophe**

6) **Dr. R Lindzen** (170) [Climate Science: What Does it Say? | Dr. Richard Lindzen | EP 320 – YouTube](#)

- Rejects 'Climate Change' as a quasi-religious movement predicated on **absurd scientific narrative**

- [\(2046\) This Well Known Effect Breaks the Climate Narrative - YouTube](#)

- [\(1106\) Dr Richard Lindzen exposes climate change as a politicised power play motivated by malice and profit - YouTube](#)

7) **Dr. Patrick Moore** [A Dearth of Carbon? – YouTube](#) PhD in Environment Co-founder Greenpeace

- Discussion on the **positive environmental impact of CO₂** which is the fuel of plants and life

8) **Dr. Steven Koonin** <https://www.youtube.com/watch?v=YXvBdwmXT2c>

- There s no apocalypse climate crisis now or in the future

9) **The Heartland Institute** <https://www.delranchoproductions.com/climate> password: ppm2023

Global Warming and CO₂

1 of 11 Questions

Question 1

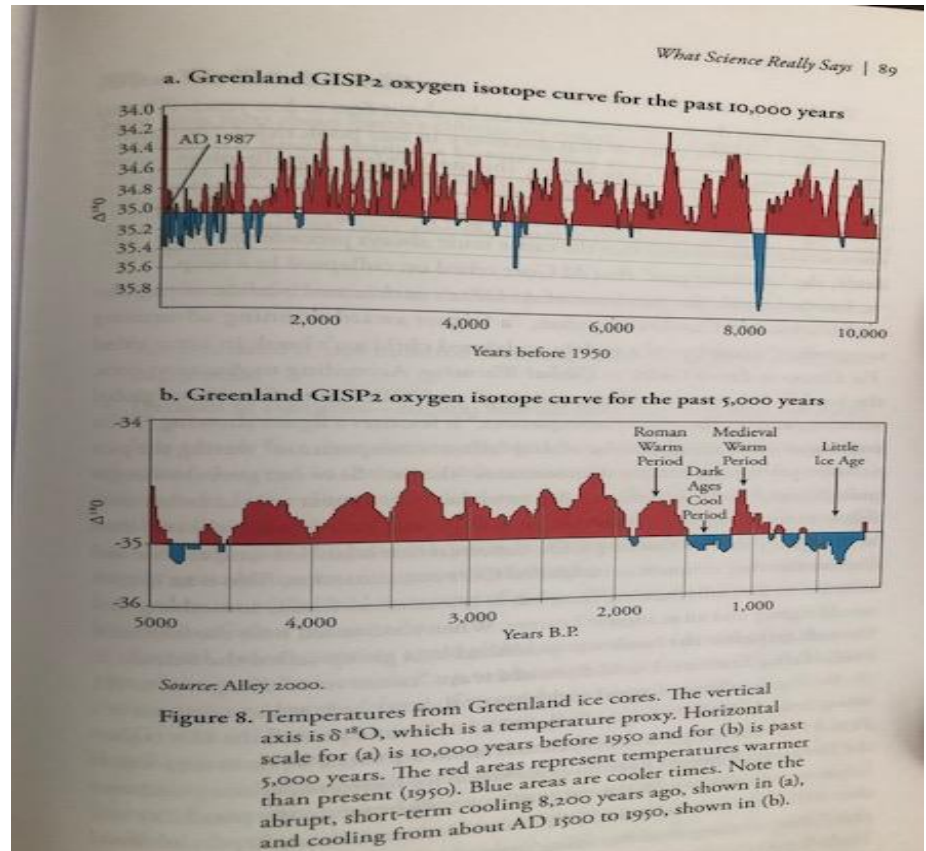
Is present Global Warming a man-made or a natural phenomenon?

1) Is present Global Warming a man-made or a natural phenomenon?

Graphs showing Greenland temperature changes over last 10,000 years

- Ice cores are effective methods of recreating records of temperature and atmospheric gases. Snow falls on an annual cycle. Over a few decades, the layers of snow compact and become ice. By drilling through that ice, it is possible to reconstruct records of temperature and atmospheric gases for periods of hundreds of thousands of years.
- Greenland ice core data over the last 10,000 years show warmer temperatures than today.
- Recent temperature increases are simply a part of the warming that has been occurring since the last ice age.
- Gas bubbles trapped in ancient foraminifera fossils provide similar records of temperature and CO₂ levels over hundreds of millions of years.

Greenland ice core temperature changes



Reference book: Hot Talk, Cold Science page 89

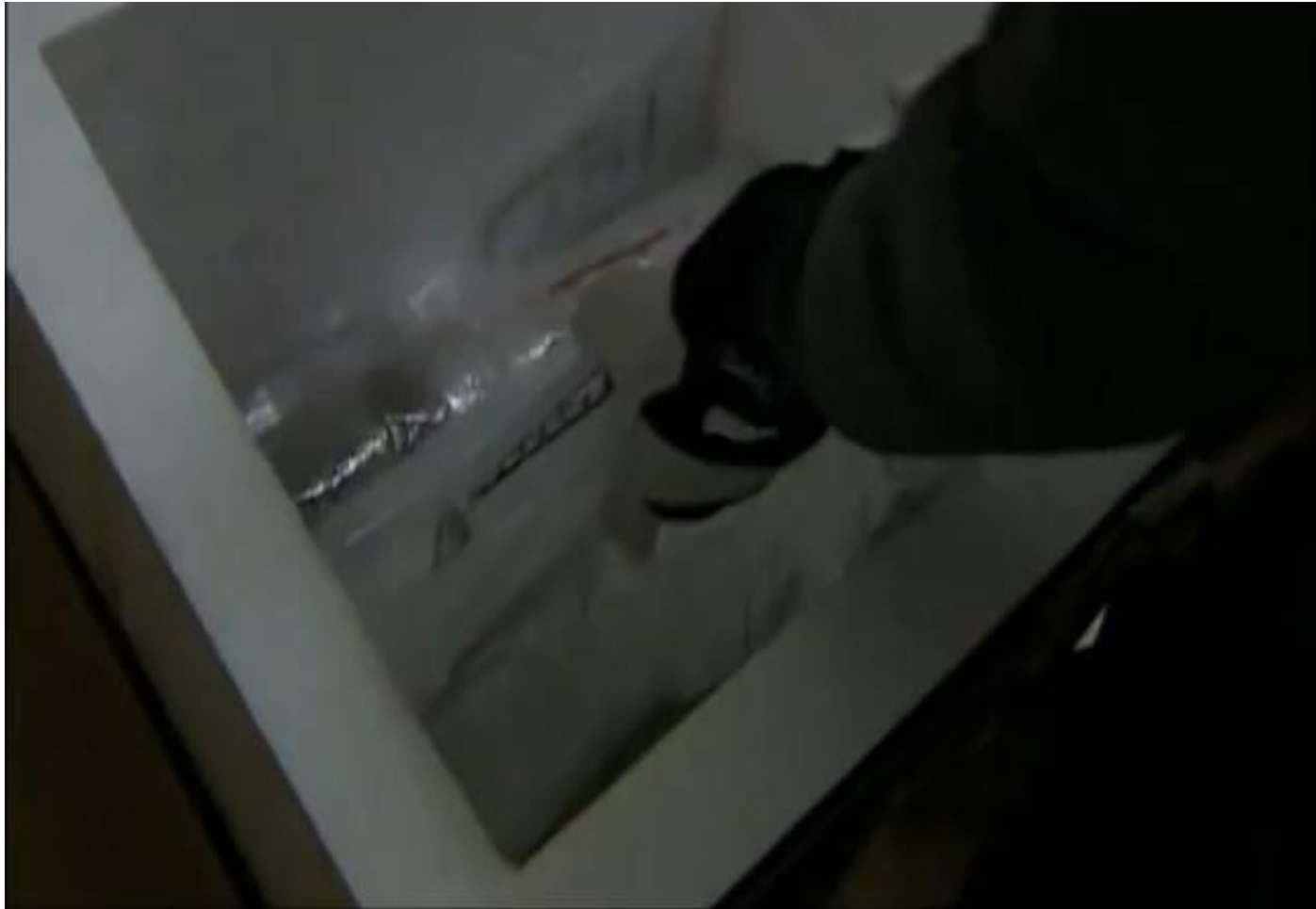
Source: Alley 2000

Reference book: Climate All is Well. All Will be Well page 19

1) Is present Global Warming a man-made or a natural phenomenon?

1) Results from Greenland ice core study

Climate Greenland Ice Research You Tube Video - [click to view](#)



1) Is present Global Warming a man-made or a natural phenomenon?

Greenland ice core graph of temperature changes over last 150,000 years

- Temperatures varied 10 degrees Celsius over the last 150,000 years and dropped recently
- 0.8 degrees Celsius warming over the last 100 years is neither unique nor alarming.
- Present temperature changes are not different from historic temperature changes.

Greenland Ice Core Temperature Changes Over Last 150,000 Years

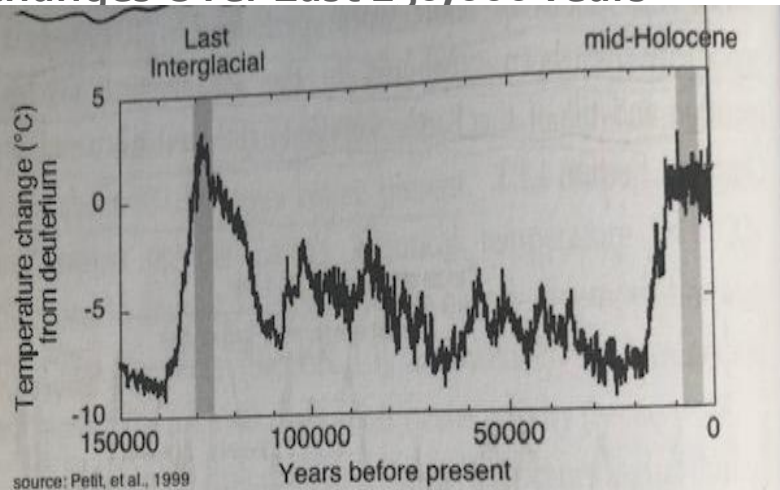
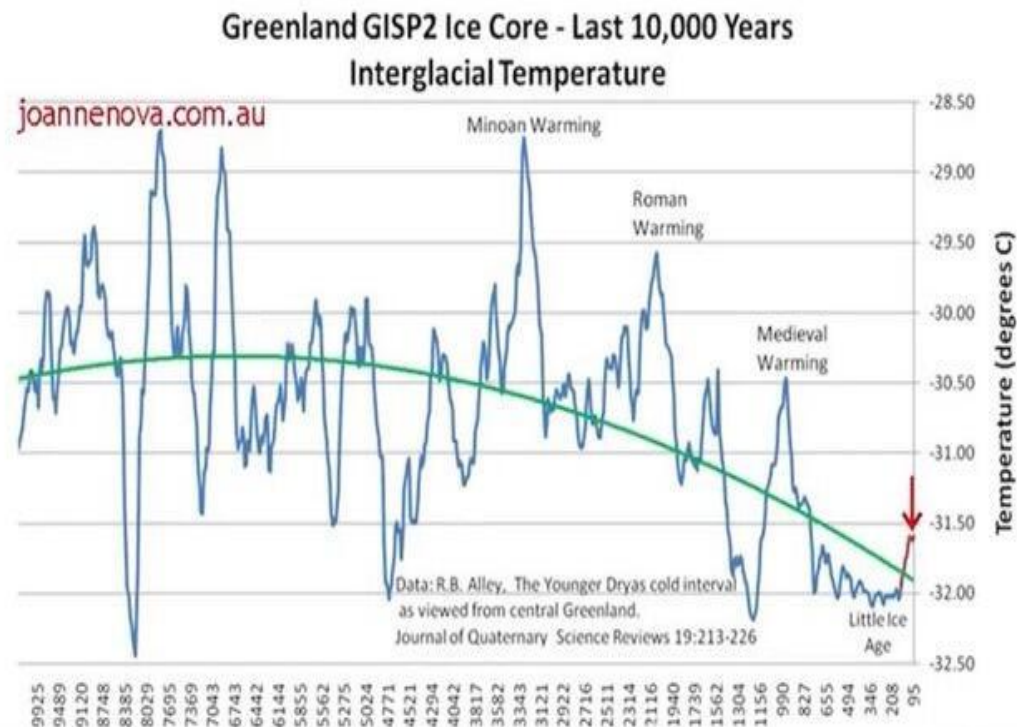


Figure 3-2 Temperatures over the last 150,000 years

(Source: ncdc.noaa.gov/paleo/globalwarming/paleobefore)



Reference book: The Real Inconvenient Truth page 68

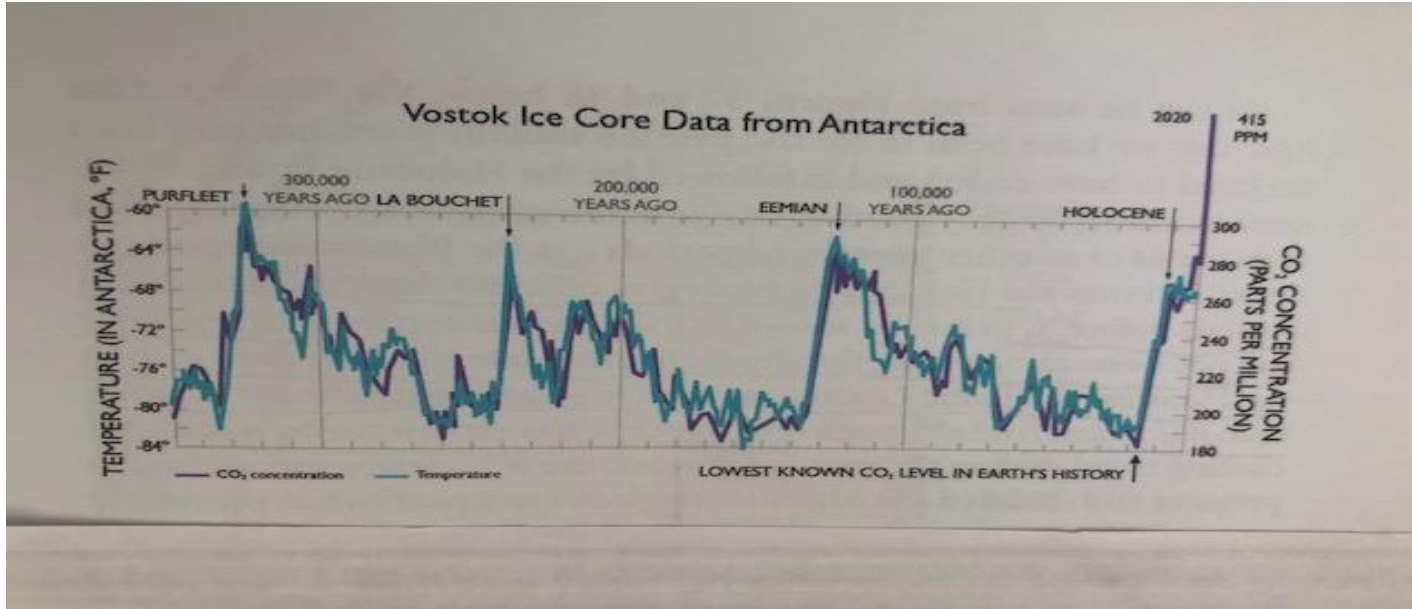
Source: ncdc.noaa.gov/paleo/globalwarming/paleobefore

[Ice Age 1978 Leonard Nimoy - YouTube](#)

1) Is present Global Warming a man-made or a natural phenomenon?

Antarctic ice core graphs of temperature and CO₂ changes last 350,000 years

- Over the last 350,000 years temperatures were up to 4°C higher than today with a temperature range of over 20°C.
- Recently CO₂ levels have increased significantly but temperatures have not.
- Antarctic ice core data show that **CO₂ levels** (purple line) tended to **change 650 to 6000 years after changes in temperature** (blue line) and **therefore cannot be the cause of the temperature change**.
- The eccentricity of the Earth's orbit around the Sun appears to govern the cycles of ice ages (90/120,000 years) and interglacial periods (10/14,000 years).



Reference book: Fake Invisible Catastrophes and Threats of Doom page 73

Source: Vostok Ice Core Data from Antarctica

Comparing the current interglacial with the last one illustrating that Climate hysteria is no substitute for evidence.

[Climate hysteria and Climate reality a comparison of interglacials.pdf](https://www.facebook.com/share/19rXoXP3Wa/?)

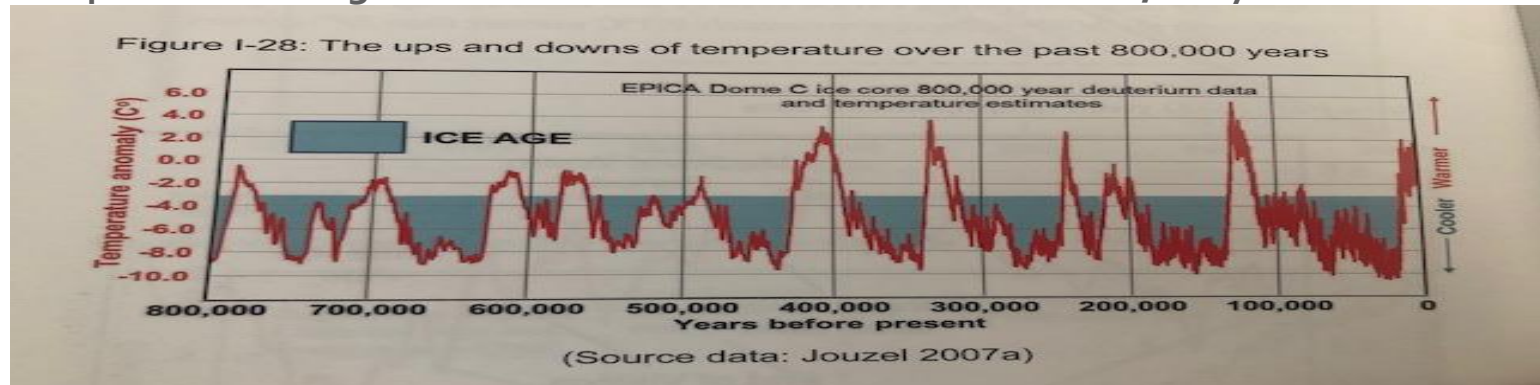
<https://www.facebook.com/share/19rXoXP3Wa/?>

1) Is present Global Warming a man-made or a natural phenomenon?

1) Repeating periods of glaciation over last 800,000 years

- Ice-core history data over the last 800,000 years shows the Earth's climate experienced a series of glacial periods that lasted about 100,000 years, interspersed by shorter inter-glacial periods that lasted 10,000 to 15,000 years.
- Over the last 800,000 years, the temperature has fluctuated between about 4 degrees C hotter than today and just over 10 degrees C colder. The 0.8 C rise in the last 100 years is not unusual. A greater than 1 C rise occurred in 173 centuries
- Ice Ages appear driven by variations in the Earth's orbit and rotation axis with changes in the mean incident of the Sun's radiation. NASA states that the Earth's orbit (Milankovitch cycles) is the likely cause of long-term changes to Earth's climate. These cycles operate over timescales of tens of thousands or hundreds of thousands of years.
- The 100,000-year periodicity has been attributed to the Milankovitch Cycles (position and tilt of the Earth relative to the Sun). We are now about 11,000 years into the current interglaciation period (10,000 to 14,000 years)

Temperature Changes and Glaciation Periods over the last 800,000 years



Reference book Inconvenient Facts page 38

Source: Adapted from NASA by Robert Simmon, based on data from Jouzel et al , 2007

Reference: Climate Hysteria and Climate reality: a clash of cultures Les Hatton* Climatology and social forces

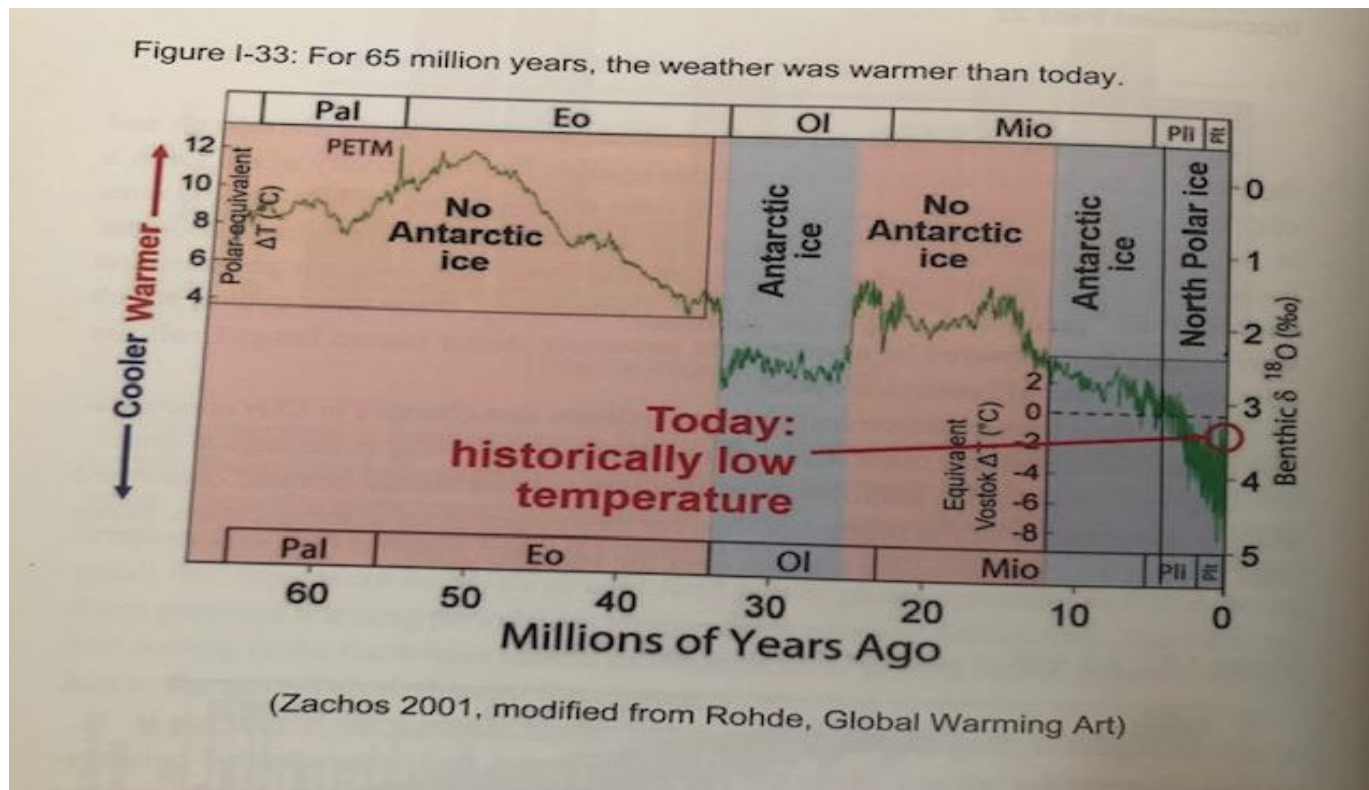
Cybershed 16-Dec-2023

1) Is present Global Warming a man-made or a natural phenomenon?

Geologic record of changing polar ice caps over last 60 million years

- Polar ice caps came and went over the last 30 million years.
- The earth is now in one of the coldest periods in its history.
- Higher temperatures are not unusual; changing temperature is a natural phenomenon.

Geologic Record of Changing Polar Ice Caps Over Last 60 million Years



1) Is present Global Warming a man-made or a natural phenomenon? The Earth's temperature changes since last 485 Years is now historically low



The Washington Post
Democracy Dies in Darkness

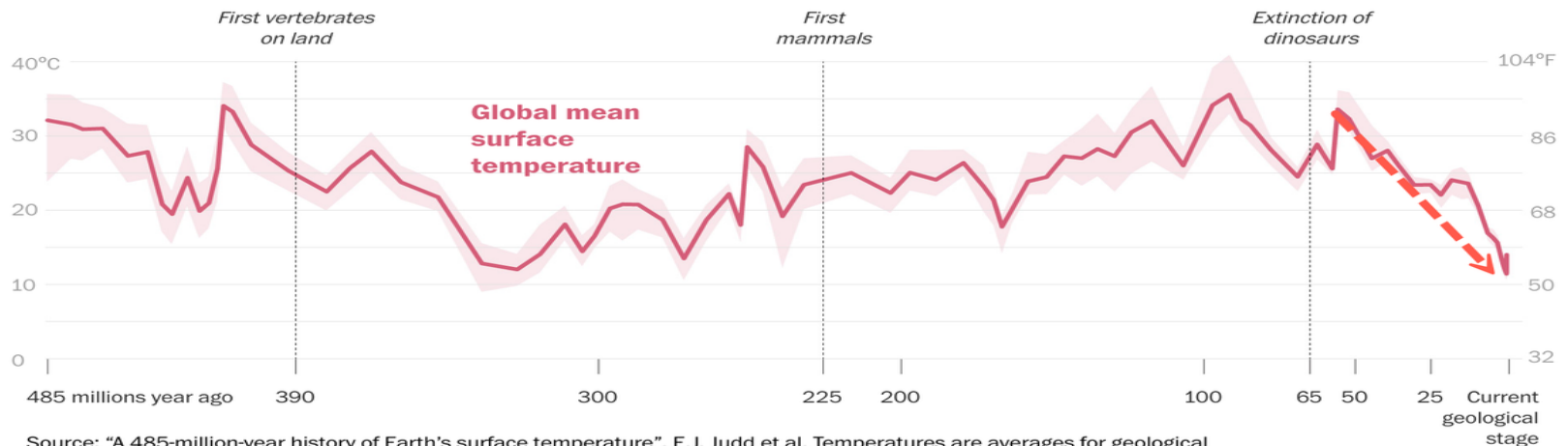
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Scientists have captured Earth's climate over the last 485 million years. Here's the surprising place we stand now.

An effort to understand Earth's past climates uncovered a history of wild temperature shifts and offered a warning on the consequences of human-caused warming.

🔊 10 min 🔗 📌 🗑



Source: "A 485-million-year history of Earth's surface temperature", E.J. Judd et al. Temperatures are averages for geological periods. Shaded area shows values with a 68% probability.

By [Sarah Kaplan](#) and [Simon Ducroquet](#)
September 19, 2024 at 2:01 p.m. EDT

<https://energycentral.com/c/pip/co2-innocent-proof-recent-science-paper>

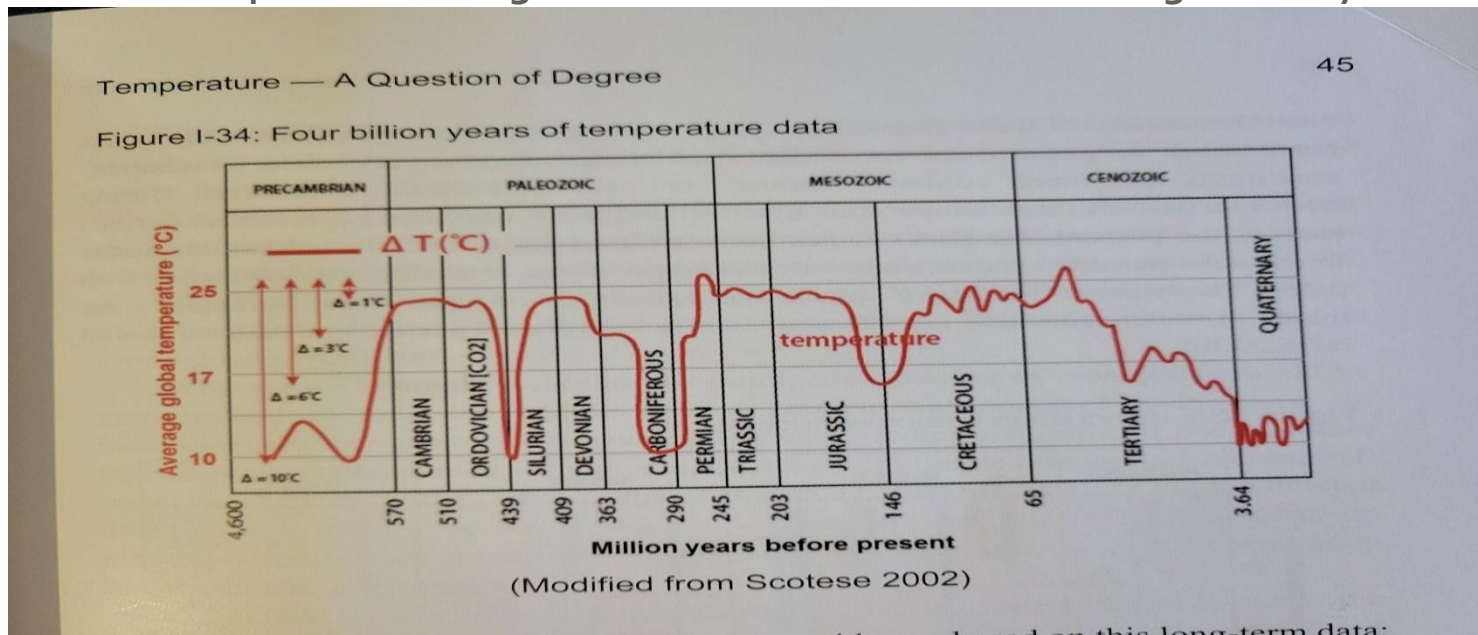
<https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming>

1) Is present Global Warming a man-made or a natural phenomenon?

The Earth's temperature changed significantly over last 600 million years

- For over 600 million years of geologic time, temperatures changed dramatically while plants and animals evolved and thrived (historic records of living species began in the Cambrian time).
- Over most of recorded geologic history, temperatures were much higher than at present time.
- Equator temperatures changed little with the bulk of temperature changes occurring at the poles.
- Changing temperature is a natural phenomenon that has occurred throughout the Earth's history

Temperature Changes Over 600 Millions Years of Geologic History



Reference book: Inconvenient Facts page 45 Source: Modified from Scotese 2002

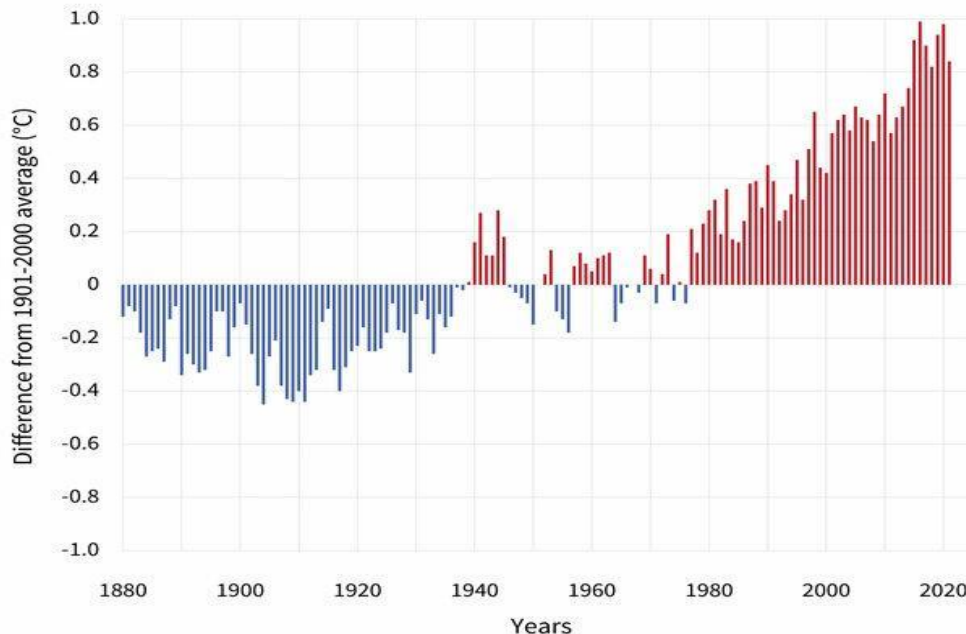
Source: www.climate.gov/news-features/climate-qa/whats-hottest-earths-ever-been

1) Is present Global Warming a man-made or a natural phenomenon?

Earth's temperature changed much more over last 500 million years than last 100 years

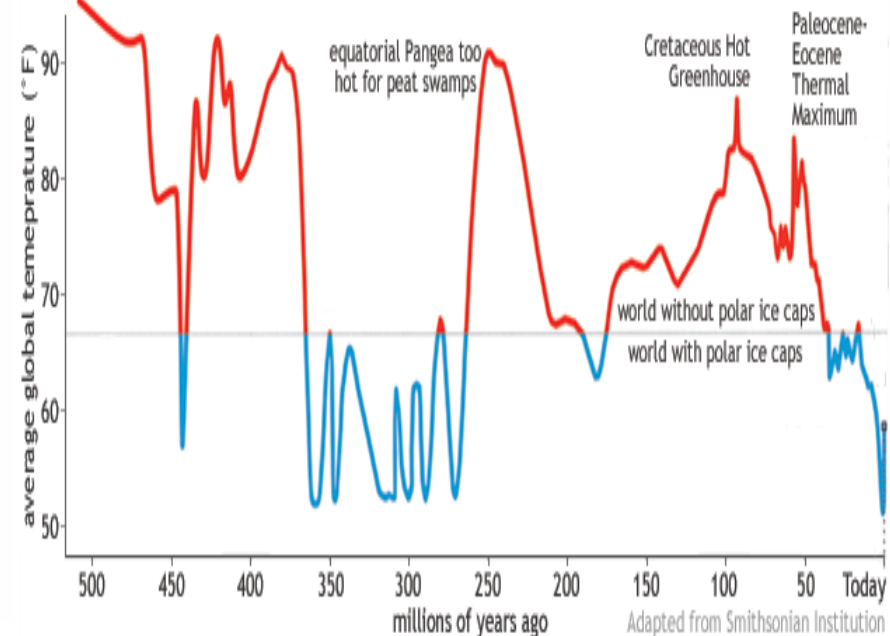
- Talk of global warming in the media might make people believe that the Earth is rapidly plunging into a hot cauldron of doom, but the truth is that the Earth's temperature has risen less than 1°C in the past 100 years.
- The Earth has been much hotter in the past when man-made CO₂ was not a factor in any previous heating events.

GLOBAL AVERAGE SURFACE TEMPERATURE



Reference Tyler Durden

Estimated global temperature over the last 500 million years

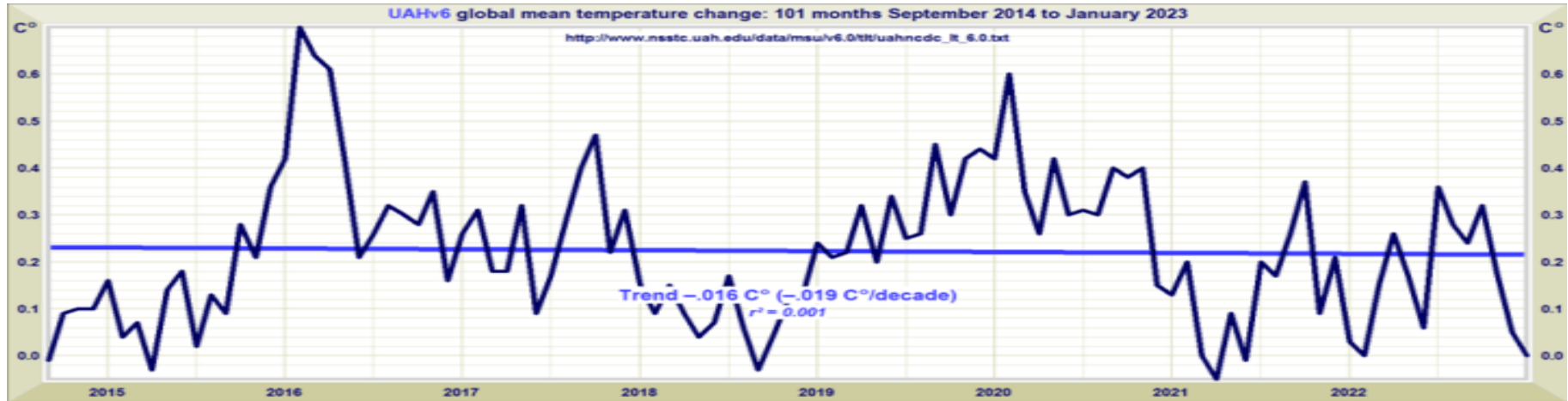


Adapted from Smithsonian Institution

1) Is present Global Warming a man-made or a natural phenomenon?

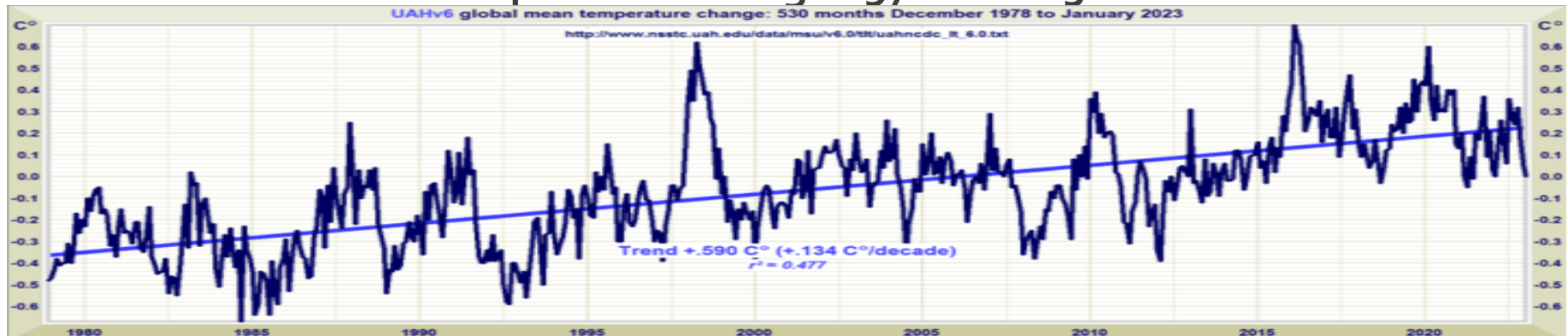
Global warming is slow, small, harmless and on the evidence to date, beneficial

Global mean temperature change September 2014 to January 2023



UAE measurements show modest upward trend of 0.134 k per decade

Global mean temperature change 1978 to 2023

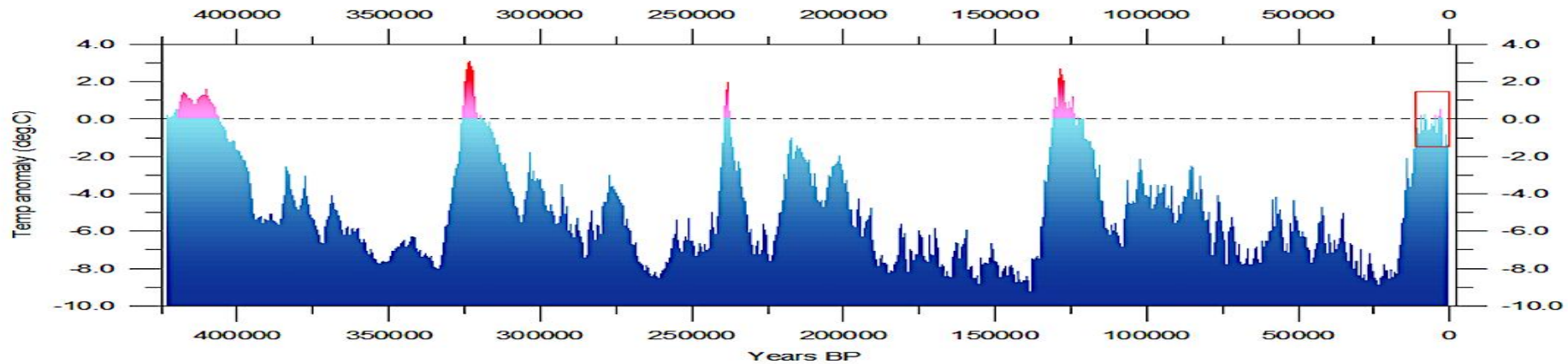


Reference: <https://wattsupwiththat.com/2023/02/03/the-new-pause-lengthens-again-101-months-and-counting/>

1) Is present Global Warming a man-made or a natural phenomenon?

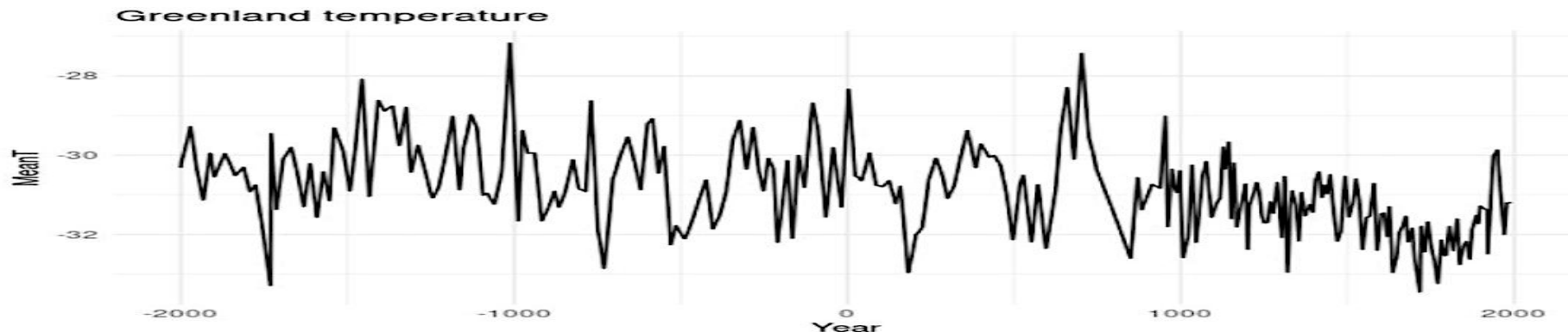
Statistics Norway Recent Report Findings

Figure B2. Reconstructed temperatures over the last 420,000 years



Reconstructed global temperature based on the Vostok ice core from the Antarctica. The horizontal line indicates the modern temperature level. The red square to the right indicates the time interval shown in greater detail in <https://www.climate4you.com/>

Figure B4. Reconstructed temperatures from Greenland, 2000 BC to 2000 AD



1) Is present Global Warming a man-made or a natural phenomenon?

1) Statistics Norway recent report findings

- The government agency, Statistics Norway, recently release a [report](#) that concludes: *the effect of man-made CO₂ emissions does not appear to be sufficiently strong to cause systematic changes in the pattern of the temperature fluctuations. our analysis indicates that with the current level of knowledge, it seems impossible to determine how much of the temperature increase is due to emissions of CO₂*
- The report looks at the last 400,000+ years of Earth's climate history: *The preceding four interglacial periods are seen at about 125,000, 280,000, 325,000 and 415,000 years before now, with much longer glacial periods in between. All four previous interglacial periods are seen to be warmer than the present. The typical length of a glacial period is about 100,000 years, while an interglacial period typically lasts for about 10-15,000 years. The present inter-glacial period has now lasted about 11,600 years. Similarly, on the time scale of recent millennia, current temperatures are nothing unusual: Kobashi et al. (2011) have reconstructed Greenland surface snow temperature variability with a new method that utilizes argon and nitrogen isotopic ratios from occluded air bubbles. These data indicate that warmer temperatures were the norm in the earlier part of the past 4,000 years, including century-long intervals nearly 1°C warmer than the decade (2001-2010).*

1) Is present Global Warming a man-made or a natural phenomenon?

1) Statistics Norway Recent Report Findings

- *Therefore, it appears that the current decadal mean temperature in Greenland has not exceeded the envelope of natural variability over the past 4,000 years. During the past 10,000 years temperatures over long periods were higher than they are today. The warmest phase occurred 4,000 to 8,000 years ago and is known as the Holocene Climate Optimum.*
- It criticizes the models on which climate alarmism is based; there is nothing alarming in the observational record: *In the global climate models (GCMs) most of the warming that has taken place since 1950 is attributed to human activity. Historically, however, there have been large climatic variations. Temperature reconstructions indicate that there is a 'warming' trend that seems to have been going on for as long as approximately 400 years. Prior to the last 250 years or so, such a trend could only be due to natural causes. The length of the observed time series is consequently of crucial importance for analyzing empirically the pattern of temperature fluctuations and to have any hope of distinguishing natural variations in temperatures from man-made ones.*
- This Norwegians' report is important because climate alarmism can survive only if it is deemed a "consensus," so that people who point out inconsistent facts can be censored. Once the reported consensus is punctured, it rapidly becomes clear that the Climate Emperor is unclothed. Although this report does not represent the Norwegian Government's official position, it is an important finding.

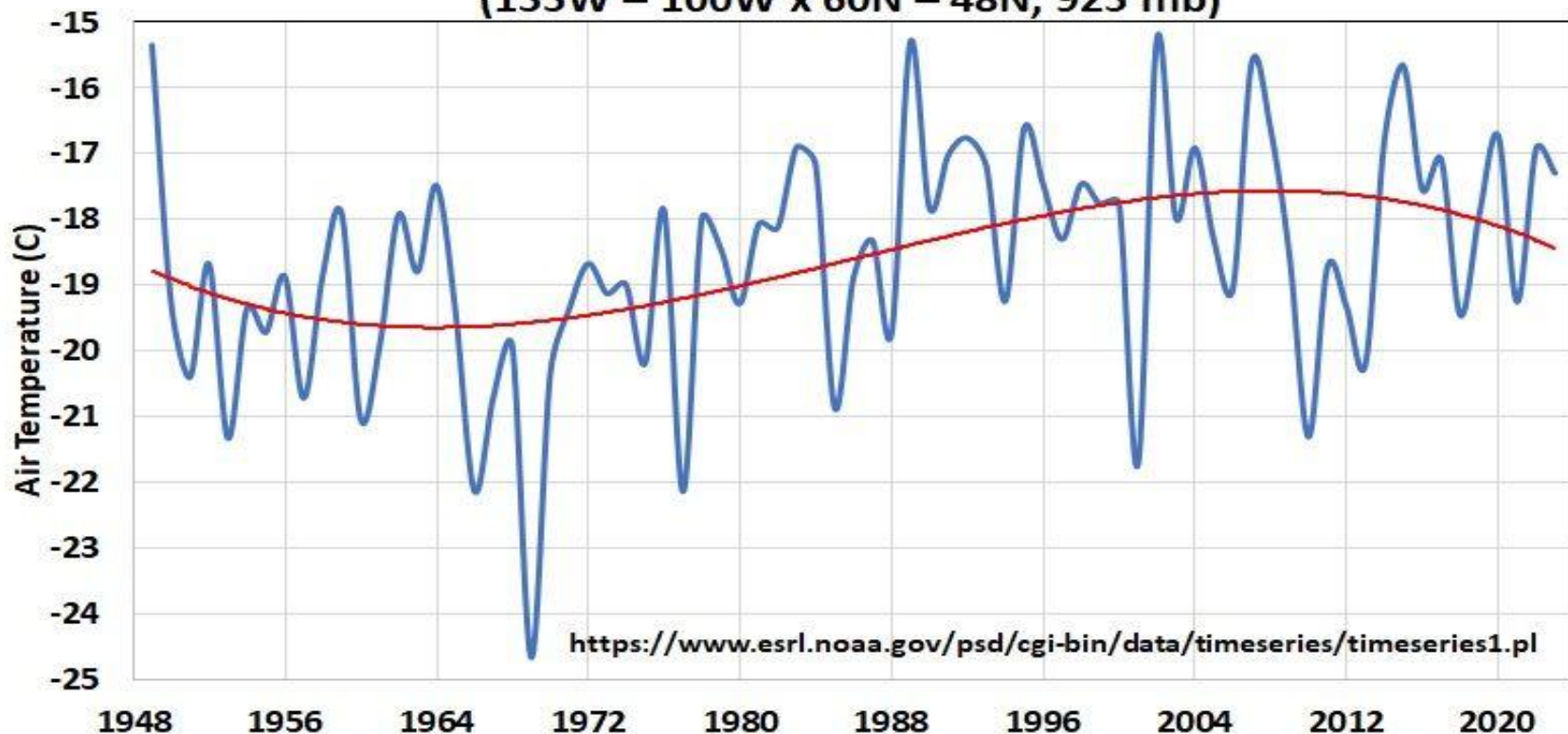
1) Is present Global Warming a man-made or a natural phenomenon?

Western Canadian Temperatures Show Cyclic Variations Unrelated to CO₂ Increases

Radiosonde (aka weather balloon) data shows that the lower tropospheric air temperature over Western Canada continues to exhibit a cyclical trend.



**Annual Averaged Lower Tropospheric Winter Season Air
Temperatures for Western Canada NCEP Reanalysis
(135W – 100W x 60N – 48N, 925 mb)**

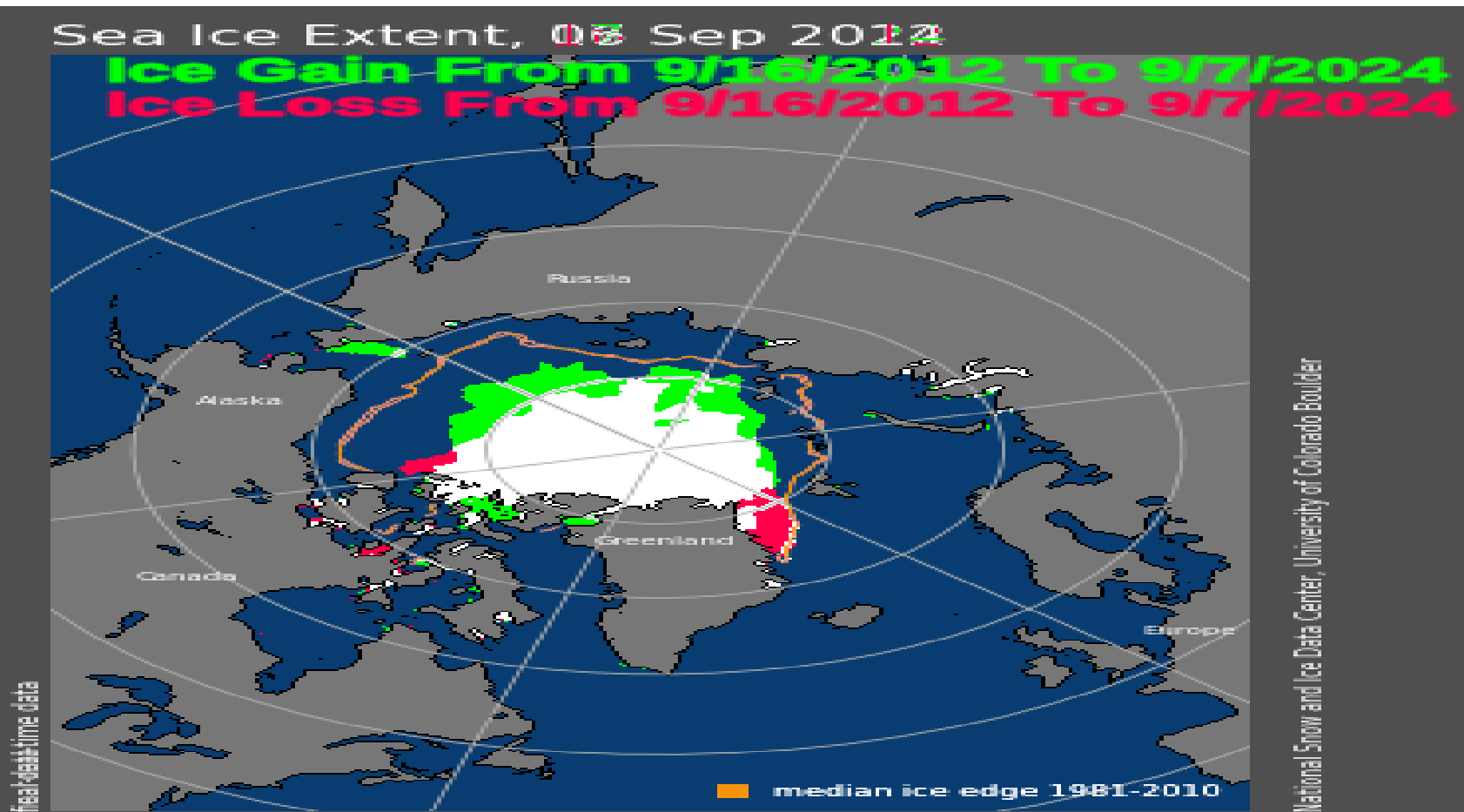


1) Is present Global Warming a man-made or a natural phenomenon?

Arctic Ice has been recently expanding

NOAA Sea Ice Extent data of the Arctic from Sept. 16, 2012, and Sept. 7, 2024, and found:

"This year's minimum Arctic sea ice extent was 26% larger than 2012."



1) Is present Global Warming a man-made or a natural phenomenon?

1) Scientific study shows importance of natural climate change factors

The scientific study, *Climate of the Past, Present and Future: a Scientific Debate* by Jauvier Vinos shows the natural climate change and its contribution to ongoing multi-centennial global warming and critically reviews:

- Milankovitch cycles
- abrupt glacial (Dansgaard-Oeschger) events
- Holocene climate variability
- the 1500-year cycle
- solar activity
- volcanic eruptions
- greenhouse gases
- energy transport

It shows how important natural climate change has been on human societies of the past. It also produces new climate projections for the 21st century and when the next glaciation could happen.

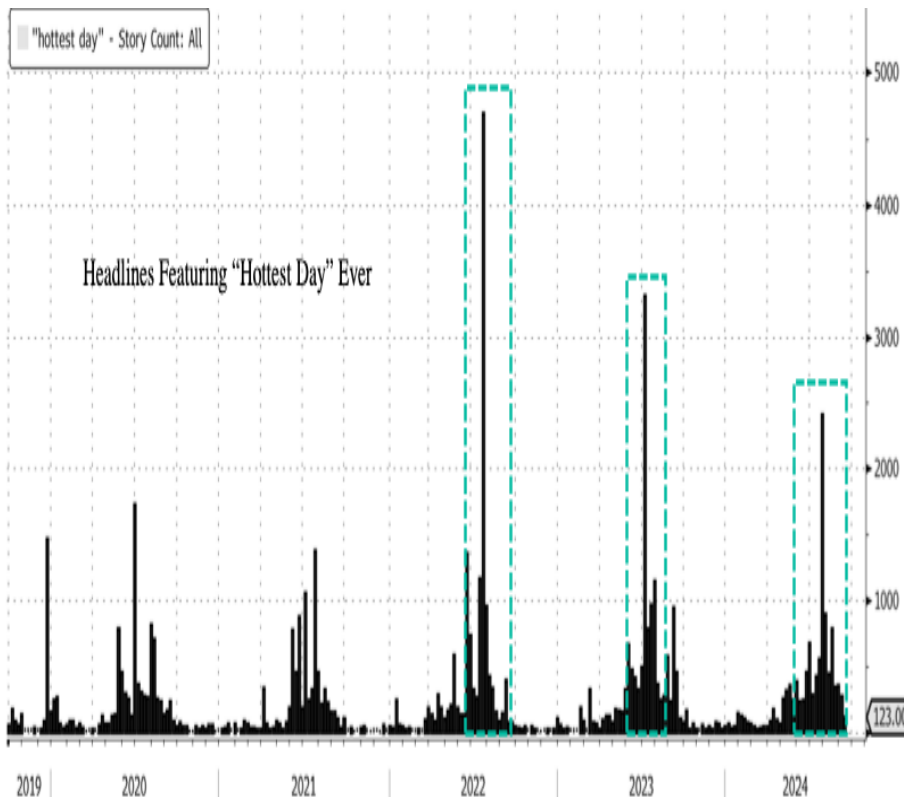
Variations in the transport of energy from the tropics to the poles have been neglected as a cause of climate change, and solar activity variations affect climate by modulating this transport. Transporting more energy from a greenhouse gas-rich region, the tropics, to a greenhouse gas-poor region, the poles, increases the amount of energy lost at the top of the atmosphere. The effect resembles a reduction in the greenhouse gas content. This Winter-Gatekeeper Hypothesis shows how variations in solar activity regulate Earth's energy transport and in so doing affect atmospheric circulation, the rotation of the planet, and the El Niño/Southern Oscillation. By uncovering a strong natural climate change component, it provides an important perspective on anthropogenic climate change, fossil energy use, and our future climate; a view quite different from the IPCC's gloomy projection

Reference *Climate of the Past, Present and Future: A scientific debate*, 2nd ed Javier Vinos

https://www.amazon.co.uk/s?k=Climate+of+the+Past%2C+Present+and+Future%3A+A+scientific+debate%2C+2nd+ed&i=digital-text&crd=5FoHGCV2VAG6&sprefix=climate+of+the+past+present+and+future+a+scientific+debate+2nd+ed%2Cdigital-text%2C239&ref=nb_sb_noss

1) Is present Global Warming a man-made or a natural phenomenon?

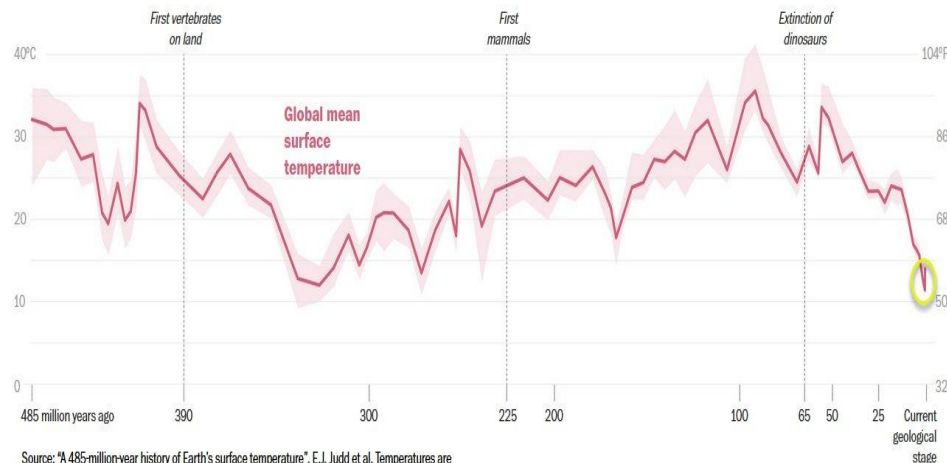
Global warming is a normal, nature driven phenomena



Scientists have captured Earth's climate over the last 485 million years. Here's the surprising place we stand now.

An effort to understand Earth's past climates uncovered a history of wild temperature shifts and offered a warning on the consequences of human-caused warming.

10 min 1321



<https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming>

[https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming;](https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming)

1) Is present Global Warming a man-made or a natural phenomenon?

Global warming is a normal, nature driven phenomena

Ice core temperature data shows numerous glaciation cooling and warming periods.

Temperature records throughout all of geologic history also show that temperatures have always been changing and present global warming is a normal phenomenon.

[\(1324\) The Inconvenient Truth About Climate Science — Steven Koonin - YouTube](#)

<https://wattsupwiththat.com/2023/02/03/the-new-pause-lengthens-again-101-months-and-counting/>

[\(1106\) Elimination of CO2 is a suicide pact – Professor William Happer on climate change misconceptions – YouTube](#)

[THE REAL CAUSE OF CLIMATE CHANGE – The Highwire with Del ...](#)

[\(1115\) “There’s no emergency” – dissident climatologist Dr Judith Curry on climate change – YouTube](#)

[There is no climate emergency](#)

[“Stripes Across My T-Shirt”](#) Current conditions are not unusual except in being abnormally chilly.

<https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming>

[Graeme Phipps letter to Jersey Paper:](#)

https://edition.pagesuite.com/infinity/article_popover_share.aspx?guid=43bd1bf4-ad4e-4186-a29e-50390607863c&share=true&appcode=JEEVPO

Question 2

Are warmer temperatures and higher CO₂ levels causing a climate crisis?

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis? Heat Wave Index for the USA between 1895 and 2020

- In recent decades USA, heat waves have been less frequent and severe than they were in the 1930s.
- Most of the modest warming that has occurred over the past few decades has largely affected winter temperatures, locations closer to the poles and temperatures recorded at night.

Heat Waves



Reference book: Climate at a Glance page 49, (Source: EPA).

Source: Environmental Protection Agency Climate Change Indicators Aug 14, 2021

<https://youtu.be/pV7TZzD1N5Q>
(1135) Judith Curry: "Relax, there is no climate emergency!" – YouTube

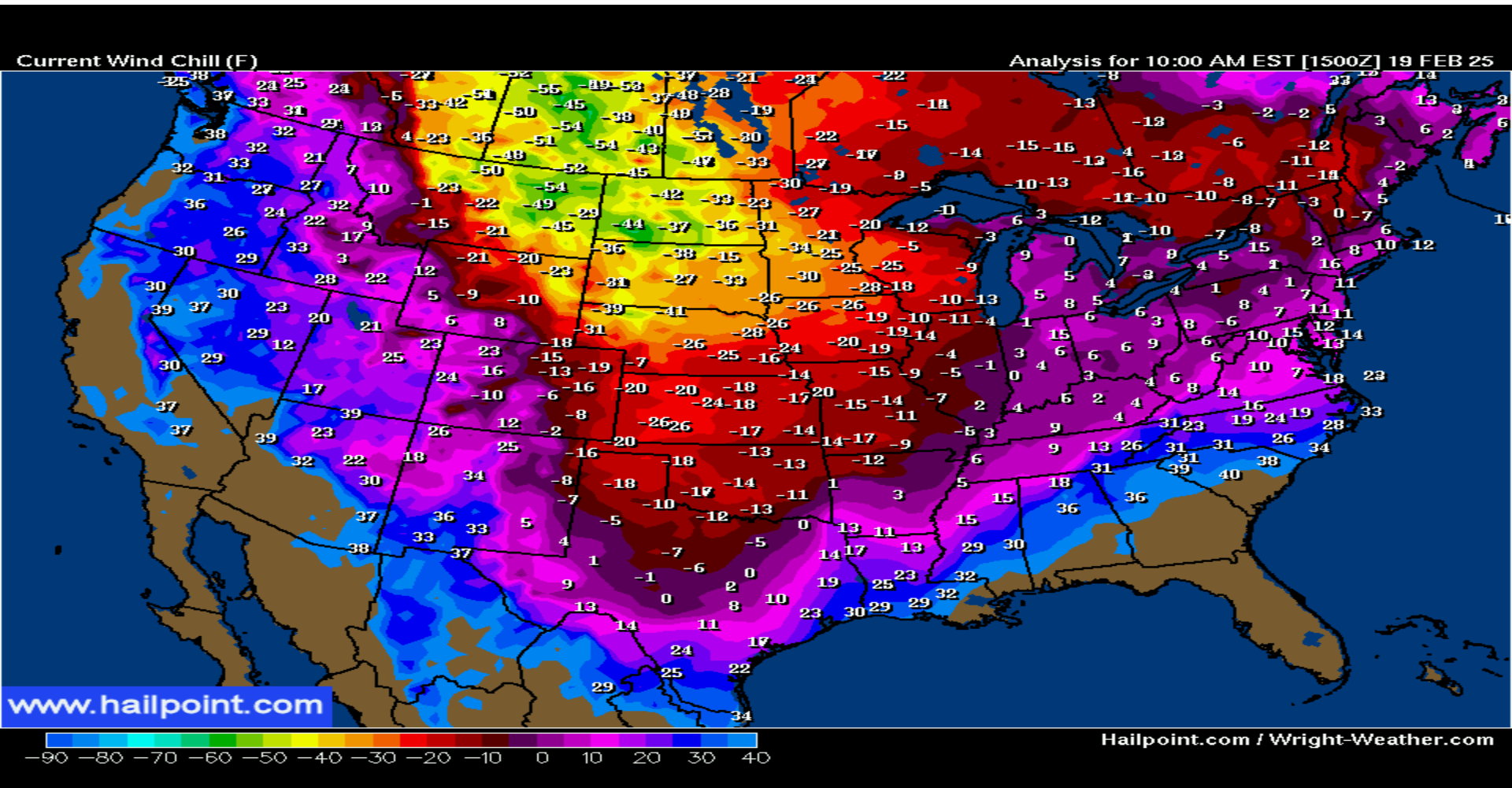
Climate and environment updates: US had the coldest January in decades
<https://abcnews.go.com/International/live-updates/climate-environment-updates/?id=115115959>

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

February 19, 2025: Record-breaking cold across North America

- Recent low temperatures go against CO₂ driven global warming climate crisis

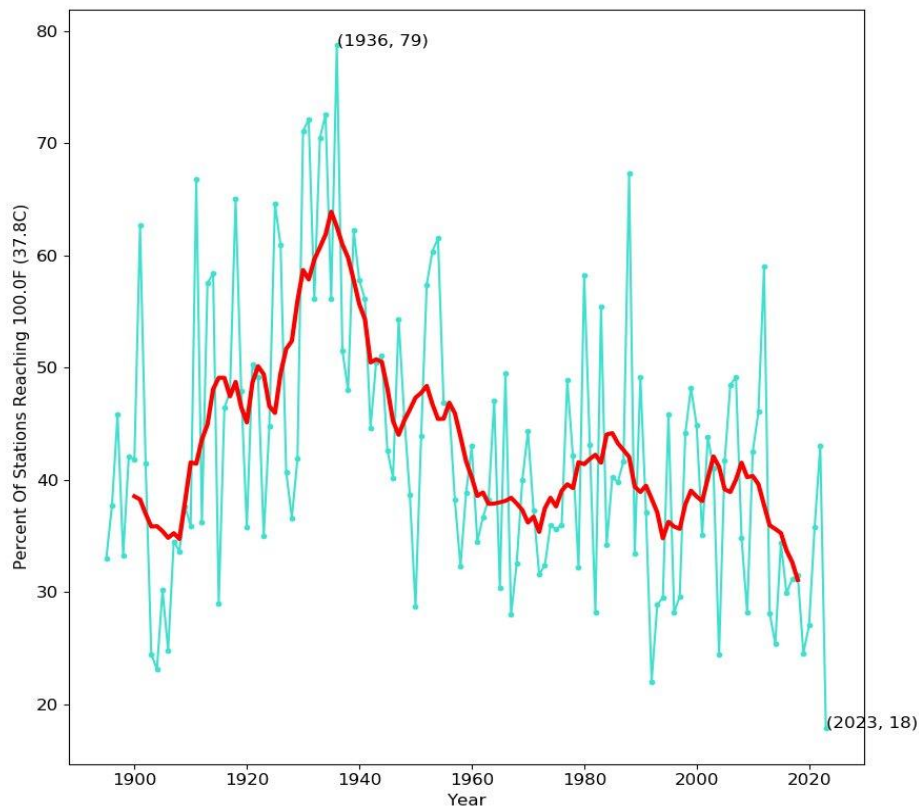
Record-breaking cold: Temperatures to plunge to as much as 50 degrees below



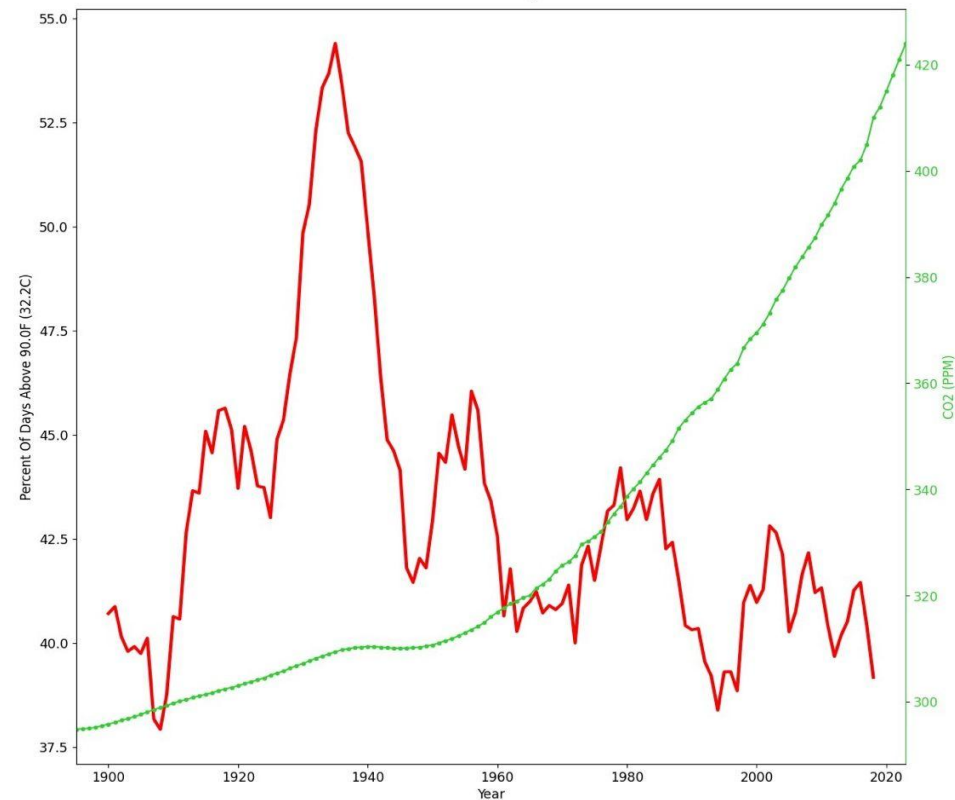
2) Are warmer temperatures and higher CO₂ levels causing a climate crisis? Mean temperatures from all USA climatology stations: 1895 and 2023

USA, temperature highs occurred in the 1930s and have not reached these highs since then.
No correlation between temperature change and increasing CO₂

Percent Of Stations Reaching 100.0F (37.8C) Vs. Year 1895-2023
At All US Historical Climatology Network Stations
Red Line Is 10 Year Mean Average = 42.6

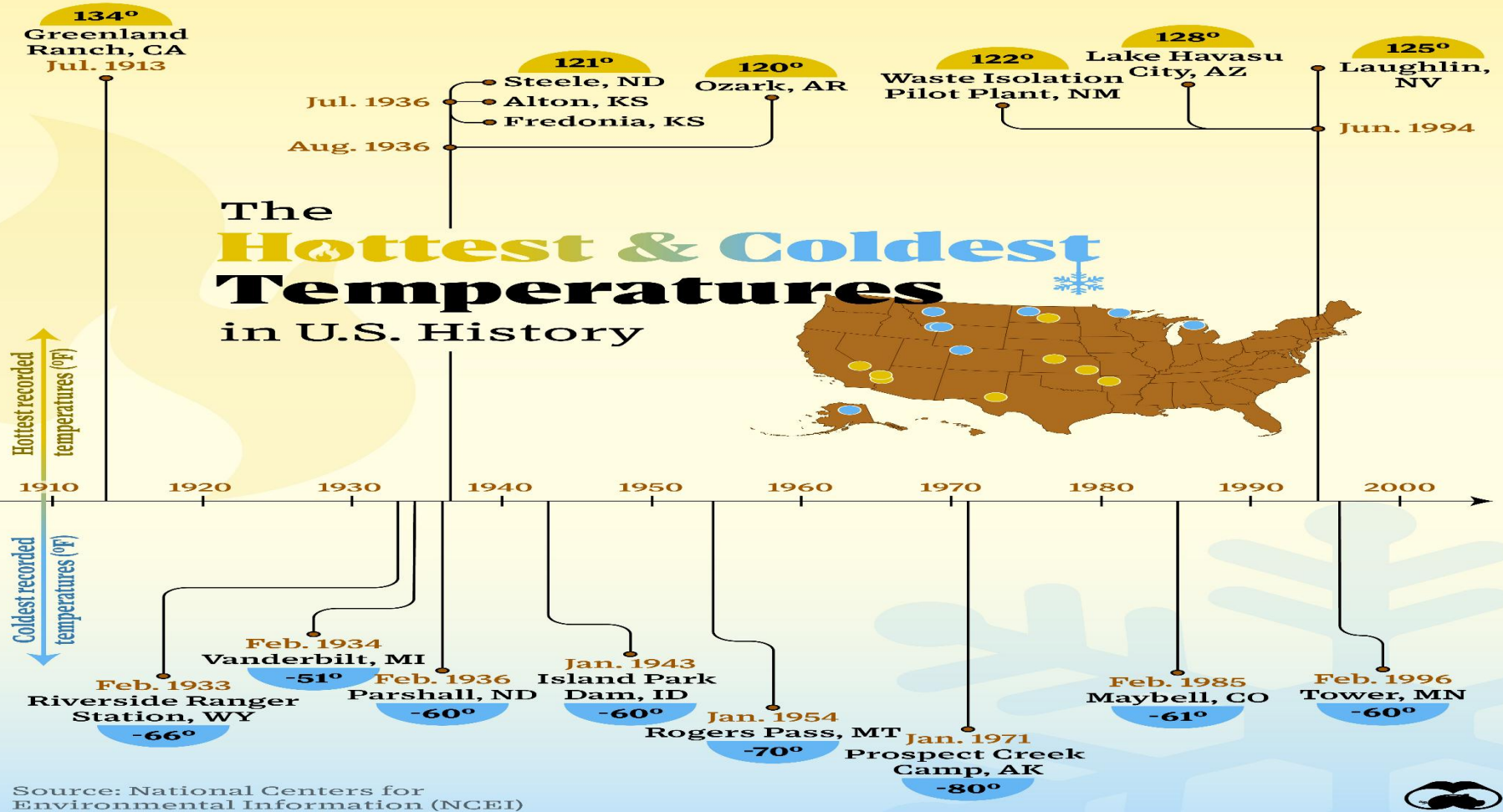


July Percent Of Days Above 90.0F (32.2C) Vs. Year 1895-2023
At All US Historical Climatology Network Stations
https://www.ncei.noaa.gov/pub/data/ghcn/daily/ghcnd_hcn.tar.gz
Red Line Is 10 Year Mean Average = 42.9 Stdev = 7.3



<https://www.youtube.com/shorts/qL3dZ5Qimiw>

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis? Recent USA temperature changes are not unusual

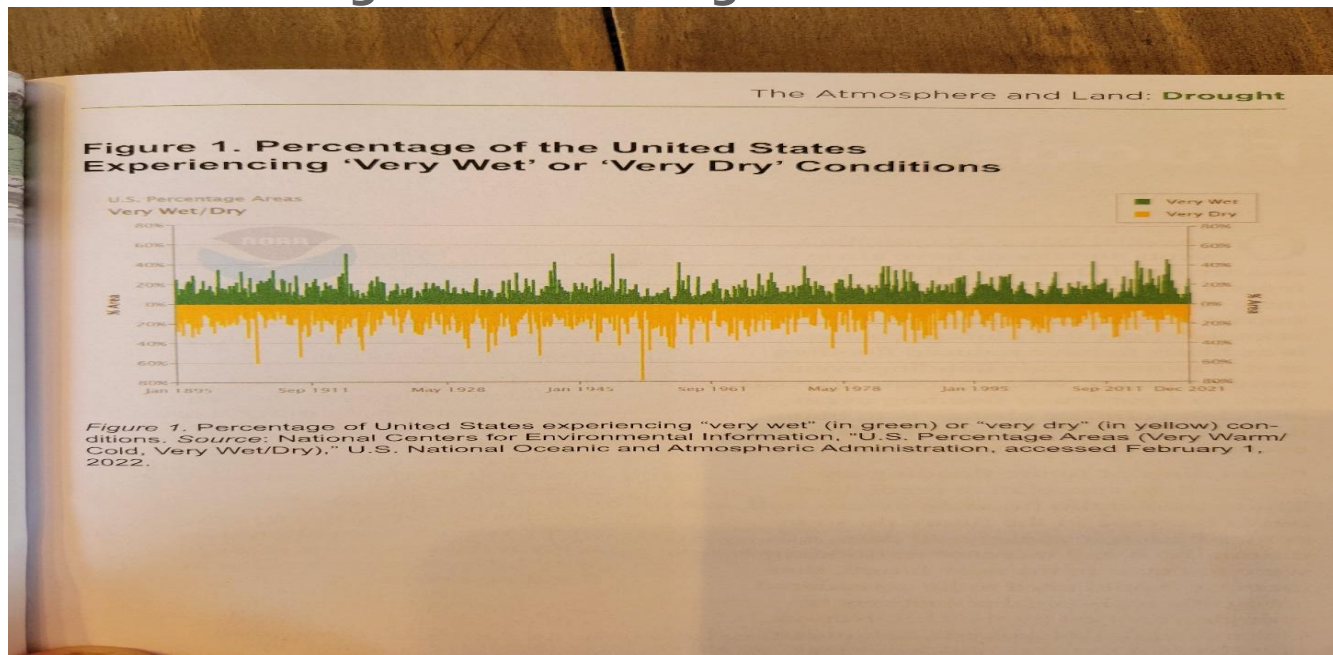


2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

Percentage of the USA experiencing very wet or very dry conditions between 1895 and 2022

- Between 1985 and 2022, there has been no significant change in very wet or very dry conditions in the USA in spite of increasing CO₂ levels.
- Temperature extremes in the US have become less common and somewhat milder since the 19th century

Drought and Flooding Conditions



Reference book: Climate at a Glance Page 9

Reference book: Unsettled Chapter 5

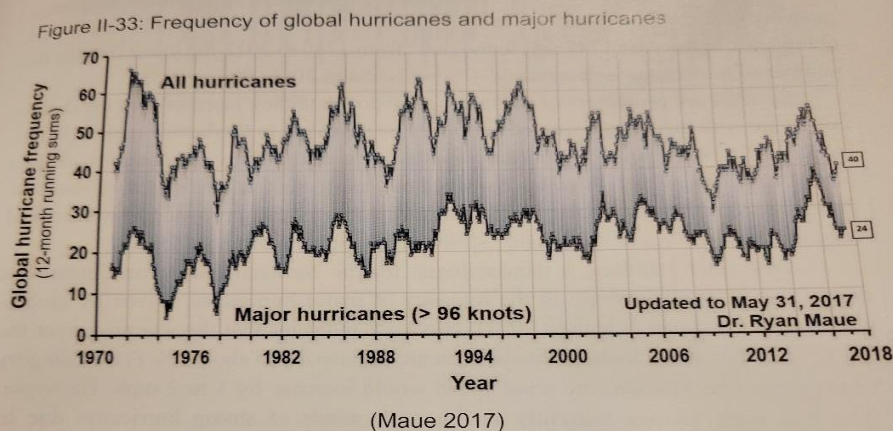
Source: National Centers for Environmental Information US National Oceanic and Atmospheric Administration Feb 1, 2022

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

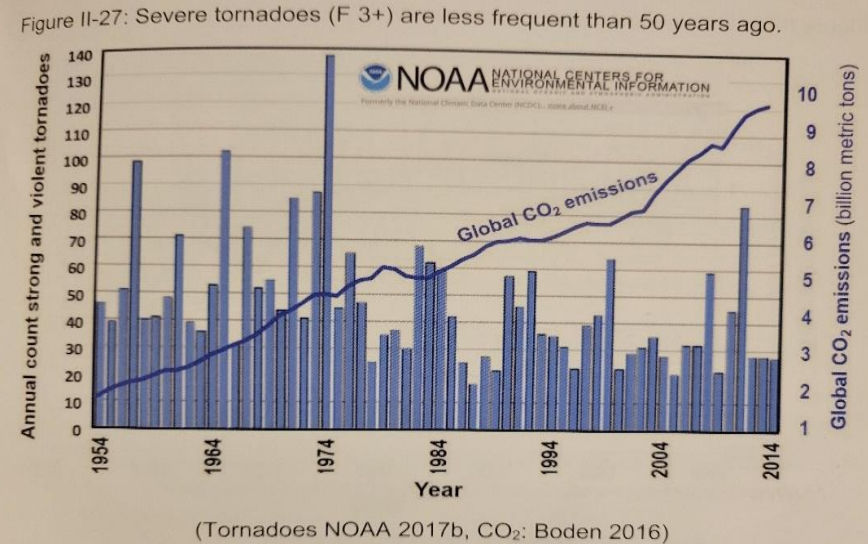
Two graphs showing number of hurricanes and tornadoes plus CO₂ changes over recent time

- The frequency of global and major hurricanes has remained at the same levels over the last 50 years and severe tornadoes are less frequent over the last 50 years.
- Hurricane frequencies fell over the last 250 years.
- There is an inverse correlation between intense El Nino ocean currents and hurricanes.
- The media continues to promulgate unsupported alarm

Hurricanes



Tornadoes



Reference book: Inconvenient Facts pages 91, 95

Reference Book: Unsettled Chapter 6

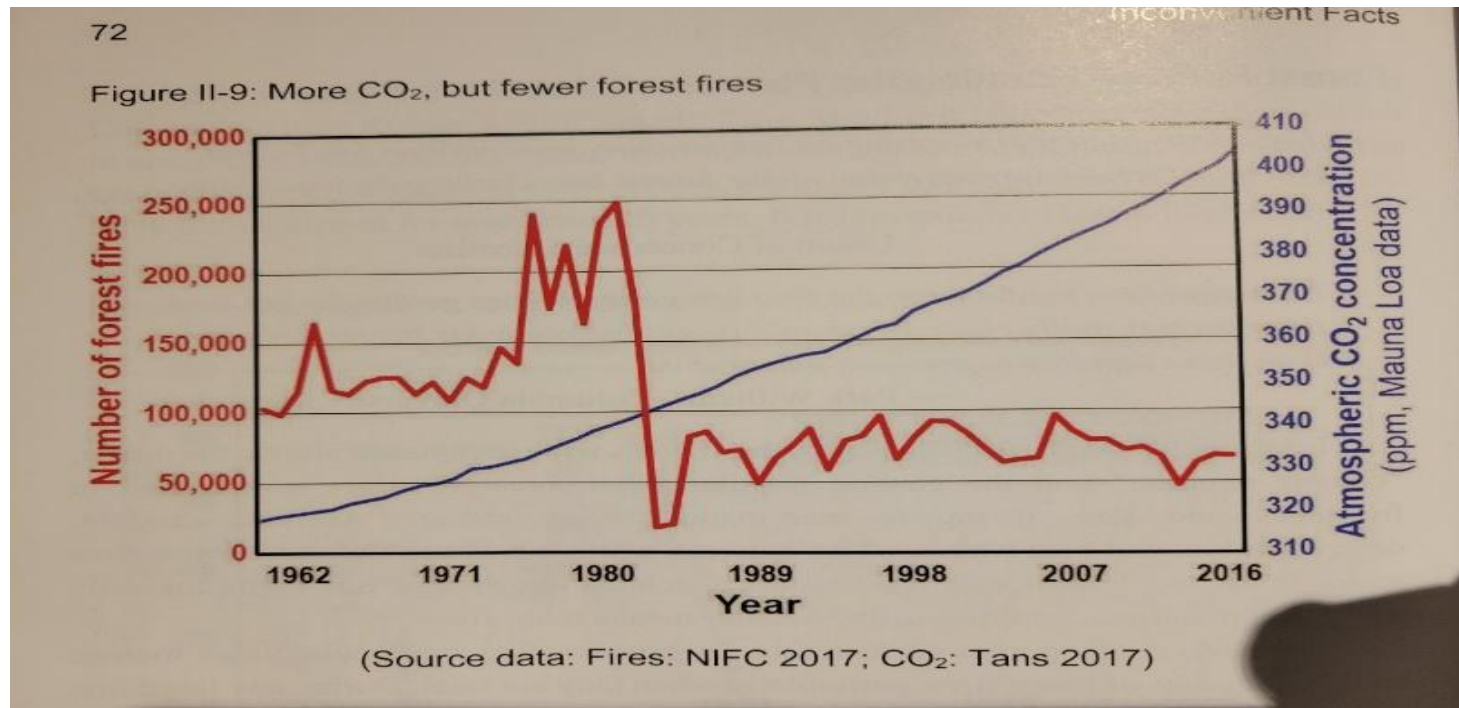
Source CO₂ Boden 2016, Tornadoes NOAA 2017 Hurricanes Maue 2017

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

Graph showing US forest fires between 1962 and 2016 and changing CO₂ levels

- Forest fires across the Northern Hemisphere have decreased since 1980 although associated costs and damages increased with more people and buildings impacted.

Forest Fires Across USA



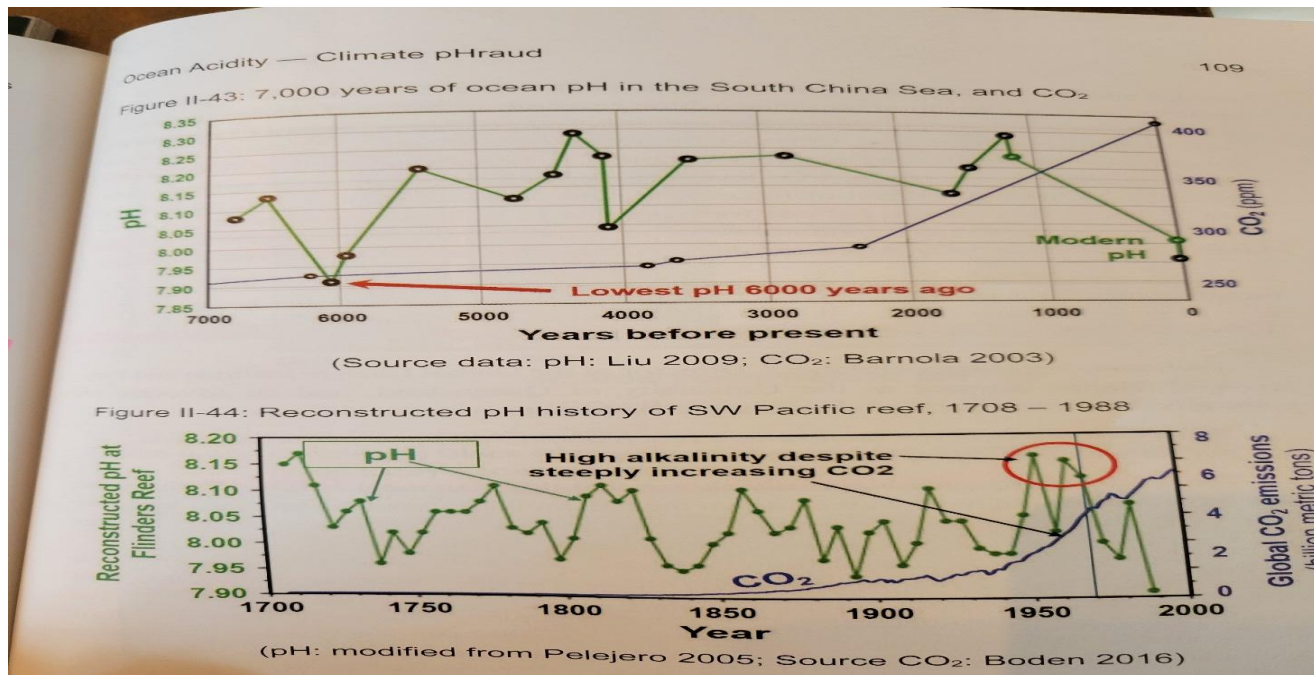
- https://open.substack.com/pub/rogerpielkejr/p/what-the-media-wont-tell-you-about-783?r=ukert&utm_campaign=post&utm_medium=emailNorthern

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

Graph showing ocean pH levels and CO₂ levels

- Ocean acidity is now between 7.9 and 8.2. Neutral is pH7. Vast amounts of acid would be required to acidify oceans.
- CO₂ is dissolved and stored in the oceans and the oceans retain CO₂ over a long period of time.
- The oceans did not become acidic even with CO₂ at 15 times higher than present levels. Limestone was deposited when the CO₂ concentration was much higher than today. Ocean acidity doesn't correlate with CO₂ changes.
- There is no correlation between CO₂ and oceanic pH or evidence that higher CO₂ levels will make the oceans acidic.

Changes in pH and CO₂ levels over the last 7000 years and last 300 years



Reference book: Inconvenient Facts page 109

Source pH modified from Pelejero 2005; CO₂ Boden 2016

2) Are warmer temperatures and higher CO2 levels causing a climate crisis?

Media and political reporting can be misleading

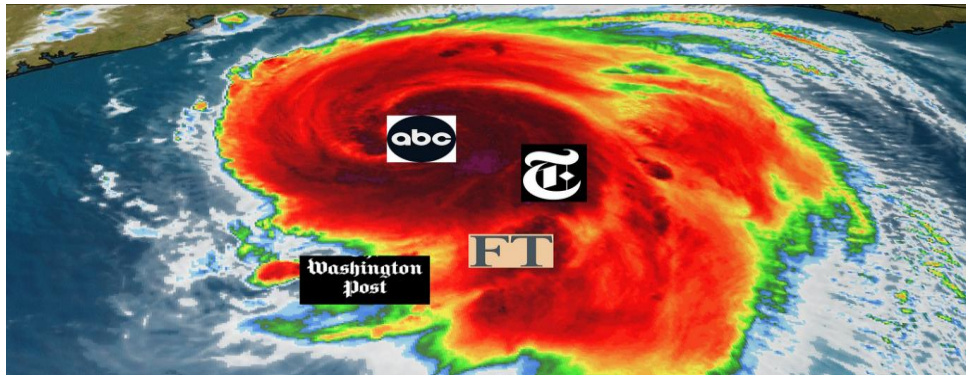
Media Lying About Climate And Hurricanes

Media Lying About Climate And Hurricanes

It's time to state the obvious.

Michael Shellenberger

October 5, 2022



Over the last several weeks, many mainstream news media outlets have claimed that hurricanes are becoming more expensive, more frequent, and more intense because of climate change.

- *The Financial Times* [reported](#) that “hurricane frequency is on the rise.”
- *The New York Times* [claimed](#), “strong storms are becoming more common in the Atlantic Ocean.”
- *The Washington Post* [said](#), “climate change is rapidly fueling super hurricanes.”
- *ABC News* [declared](#), “Here’s how climate change intensifies hurricanes.”
- Both the *FT* and *N.Y. Times* showed graphs purporting to show rising hurricane frequency using [data from the U.S. government’s National Oceanic and Atmospheric Administration \(NOAA\)](#).

All of those claims are false.

The increasing cost of hurricane damage can be explained entirely by more people and more property in harm’s way. Consider how much more developed Miami Beach is today compared to a century ago. Once you adjust for rising wealth, there is no trend of increasing damage.

Article on media bias

open.substack.com/pub/rogerpielkejr/p/climate-journalism-is-broken?r=ukert&utm_campaign=post&utm_medium=email

Al Gore’s Climate Crisis predictions made in 1992 but now 30 years later proven false



[Inconvenient Truth: 32 Climate Predictions Proven False | Facts Matter \(youtube.com\)](#)

see [This one](#) for more information

<https://stat>

2ac7e/1723623541496/Homewood-BBC-2023.pdf

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

Some of the most erroneous 'climate change' predictions

"Experts" have been making dire predictions on the climate for over one hundred years, and their solution is always for the government to control our lives. They always falsely claim that the predictions and solutions are based on science, but science has nothing to do with it. It is always about taking more money and power for the government, or \$science.

One hundred and two years ago, [the AP predicted that the ice caps would soon be gone](#), coastal cities would soon be underwater, and claimed the oceans were dying; instead, the globe went into a cooling period from 1940 to 1975. The dire predictions were 100% wrong, because they were simply fabricated. Fifty-four years ago, around the first Earth Day, [billions were set to die from starvation](#) because of disastrous global cooling; the dire predictions were 100% wrong because they were pulled out of thin air. Once the cooling stopped in the late 1970s, the fear mongers were back to pushing global warming propaganda, of course caused by humans and our use of natural resources. Thirty-five years ago, the United Nations put out a dire warning, essentially repeating the false forecasts from 1922, that said that the government only had ten years left to solve the problem; these predictions were 100% wrong because, again, they were just invented. From a [report](#) at the time:

A 1989 AP Report: Nations 'Wiped Off Face of the Earth' by 2000

A senior U.N. environmental official says entire nations could be wiped off the face of the Earth by rising sea levels if the global warming trend is not reversed by the year 2000. Coastal flooding and crop failures would create an exodus of 'eco-refugees,' threatening political chaos, said Noel Brown, director of the New York office of the U.N. Environment Program, or UNEP. He said governments have a 10-year window of opportunity to solve the greenhouse effect before it goes beyond human control.

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

Some of the most erroneous 'climate change' predictions

- Hurricane forecasters are bewitched, bothered, and bewildered. The Atlantic hurricane season was supposed to be epic. Instead, it's turned into a real dud.
- Huge storms wreaking havoc on coastlines from Aruba to Long Island were supposed to line up in the Eastern Atlantic in June and hit us one at a time until late September. The damage was going to be historic and the TV coverage was going to give climate change fanatics plenty of air time to vent that 'this is just a foretaste' of what's to come.

McNoldy's 'omen' proved to be something much less. There hasn't been a named storm since August 21 and the conditions, still optimum for large, dangerous storms to form, aren't producing the killer hurricanes forecasters predicted.

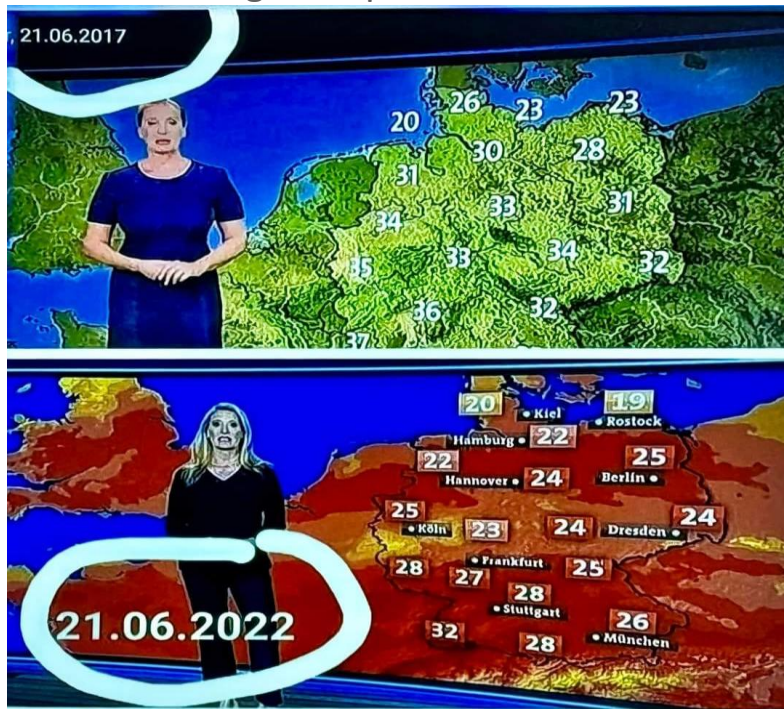
And what do the so-called experts blame for fewer storms than predicted? Dust and wind off the Saharan desert! Somehow, these experts who tell us that they can predict global temperatures and sea levels forever, couldn't accurately predict storm activity a few months out because the dust blocked the sun and therefore storms didn't develop; per the "experts," the "[Saharan Dust Puts Atlantic Hurricane Season On Pause](#)". This natural dust and wind, from a tiny speck of land (the Sahara Desert) overcame the warm oceans, eight billion people breathing out CO₂, billions of gas-powered cars and trucks, and billions of cows spewing methane - and we're to believe this? Politicians, scientists, bureaucrats, the Paris Climate accord, and green slush funds had nothing to do with blocking the storms. They were blocked naturally.

Temperatures and sea levels have always changed cyclically and naturally without humans causing the change. Most of the media will just repeat the dire forecasts, no matter how wrong previous predictions have been, without asking questions or doing research. Human-caused climate change is the biggest scam of all time.

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

The impact of media bias in reporting can be very misleading

- These graphs have similar data from different years gathered from the Government weather stations
- These German temperatures are similar, but the media message signaling is slanted and different.
- The time magazine pictures also show similar biased reporting over dramatizing reality.



Reference graph from Germany Met.

Global Cooling



Global Warming

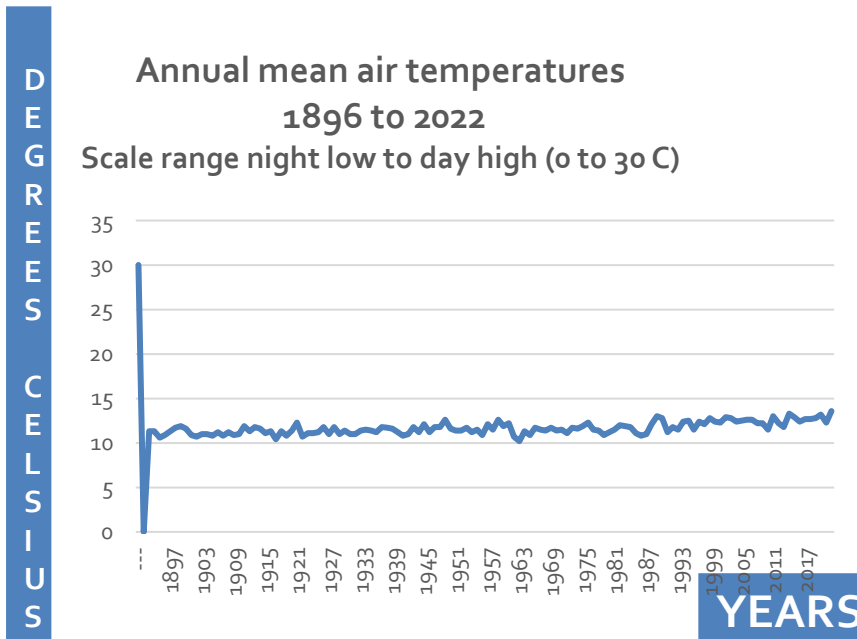


[Bjorn Lomborg on X: "UN routinely warns us that we have just a few years left until catastrophe: In 1982, Tolba, head of UN Environment Programme told the world that it had just 18 years before an environmental catastrophe as irreversible as any nuclear holocaust <https://t.co/8wyP10fJOn> <https://t.co/zDYD8ldJo5>" / X \(twitter.com\)](#)

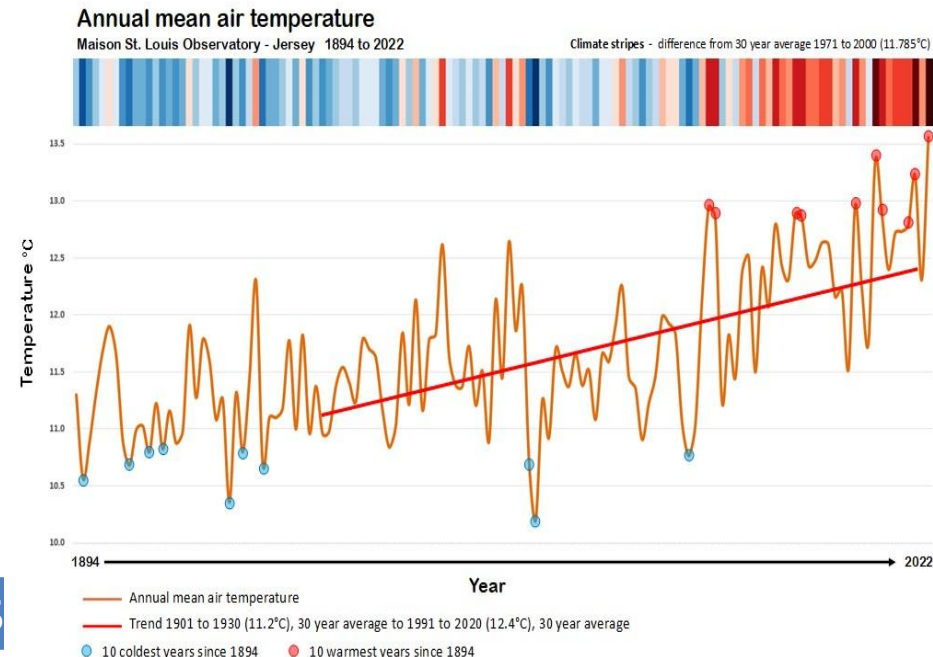
2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

The impact of changing the scale of the graph can be very misleading – perspective is important

- These graphs have the exact same data gathered from the Jersey Government weather station
- However, the scales are different with the left graph ranging from 0 C to 30 C, which is day to night seasonal ranges experienced in Jersey; the right graph obtained from the Meteorology Department – Jersey Met., ranges from only 10 C to 13.5 C visually magnifying these changes
- Scales chosen can magnify change and mislead the viewer
- Picking proper scales to allow changes to be put in perspective is very important



Reference data from Jersey Gov. weather station

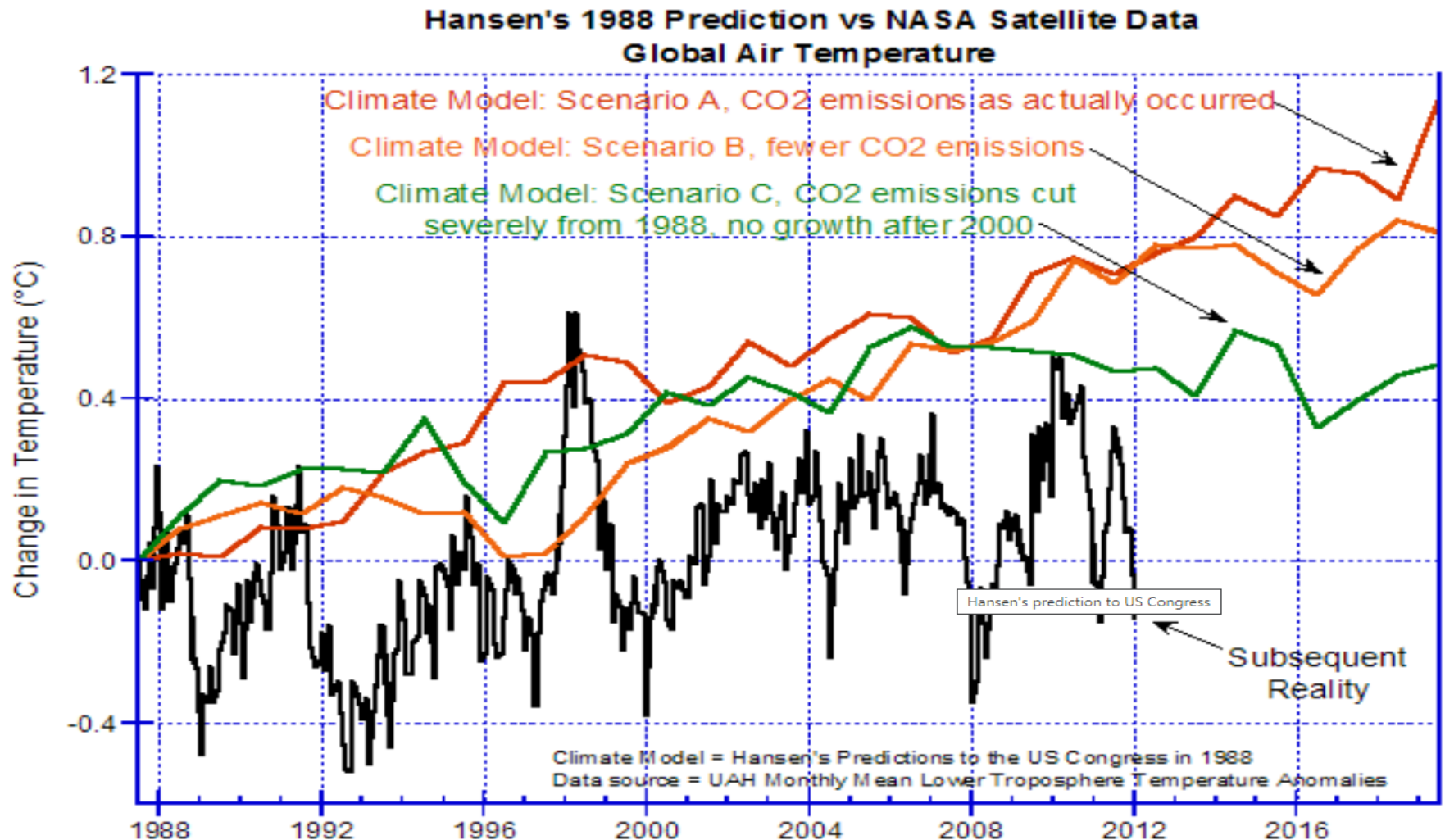


Reference graph from Jersey Met.

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

Graph showing model predictions versus actual results

Actual changes in temperature are occurring well below climate model predictions

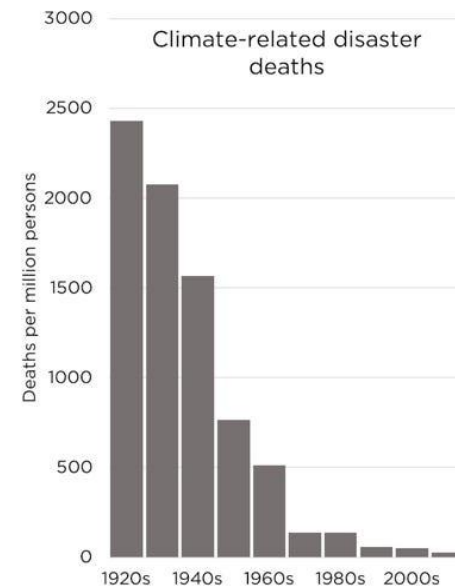
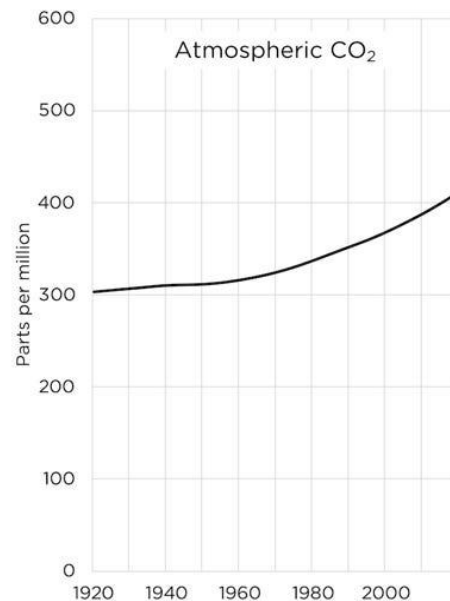


2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Climate related deaths have decreased significantly since 1920

If there are any negative climate changes influenced by fossil fuels, they are greatly outweighed by the benefits of FFs—including how they protect us from climate danger.

“This climate crisis is a fossil fuel crisis.”
- Gavin Newsom, September 20, 2023



Sources:

UC San Diego - The Keeling Curve, <https://keelingcurve.ucsd.edu/> EM-DAT, CRED / UCLouvain, Brussels, Belgium, <https://www.emdat.be/>

Maddison Database 2010, <https://www.rug.nl/ggdc/historicaldevelopment/maddison/releases/maddison-database-2010>

World Bank Data, <https://data.worldbank.org/indicator/SP.POPTOTL>

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Alex Epstein: 25 facts about energy and climate

Fossil fuels make us far safer from climate

1) Annual deaths from climate-related causes (extreme temperature, drought, flood, storms, wildfires) have declined 98% over the last 100 years, even as CO₂ levels have risen.

2) Even though Earth has gotten 1°C warmer in the last century, deaths from cold outnumber deaths from heat by 5-15x. Cold is more dangerous than heat on every continent. Even in especially hot countries such as India, cold-related deaths significantly exceed heat-related deaths.

3) Near-term global warming is expected to decrease temperature-related mortality, avoiding more cold-related deaths than it will cause heat-related deaths—as it has over the past two decades

4) Despite many incentives for global climate-related damages to go up—preferences for riskier areas, government bailouts—GDP-adjusted climate-related damages are flat

Global fossil fuel use is increasing, and the energy-poor world needs even more to power life-saving machines.

5) Fossil fuel use is 80% of the world's energy and still growing despite 100+ years of aggressive competition and 20+ years of political hostility and massive solar and wind favouritism

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Alex Epstein: 25 facts about energy and climate

6) There is a desperate need for far more of the global-scale cost-effective energy that only fossil fuels can provide near-term: ⅓ of the world uses wood and animal dung for heating and cooking, and 3 billion use less electricity than a typical American refrigerator

7) Since 1980, India's fossil fuel use has increased by >700% and China's by >600%. In the same time frame, India's life expectancy increased by 17 years and China's by 14.

8) China, which uses mostly coal to produce “green” tech, has over 300 planned new coal plants designed to last over 40 years.

9) Even nations with little or no fossil fuel resources have used fossil fuels to develop and prosper. E.g., South Korea (83% fossil fuels), Japan (85% fossil fuels), Singapore (99% fossil fuels)

The “green” movement catastrophizes the future climate side effects of fossil fuels, which are completely masterable.

10) Climate warming is concentrated in colder areas of the world (such as the Arctic), during colder times of day, and colder seasons. (This means that future warming will occur more in cold situations where it saves lives than in hot situations where it causes problems.)

11) The most extreme UN sea level rise projections are just 3 feet in 100 years. (This is a completely masterable level.) There are already 100 million people on Earth living below high-tide sea level.

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Alex Epstein: 25 facts about energy and climate

12) Mainstream estimates say hurricanes will be less frequent and between 1-10% more intense at 2° C warming. (This is not at all catastrophic if we continue our fossil-fueled climate mastery.)

13) The latest data on global hurricane frequency and intensity (Klotzbach et al 2022) shows no significant alarming upward trend.

14) It is common for leading media outlets to deliberately misrepresent the flat long-term hurricane trend. E.g., the New York Times cherry-picked a starting point—the low point of 1980—to make a flat trend seem upward.

15) The National Oceanographic and Atmospheric Administration and the Intergovernmental Panel on Climate Change have made the point that any increases in hurricane frequency in records are likely due to increasing reporting, not actual frequency.

16) The US Annual Heat Wave Index from the EPA has said, “Longer-term records show that heat waves in the 1930s remain the most severe in recorded U.S. history.” (Today's “reporting” would give you no indication that this is the case.)

17) Mainstream science is unanimous that the warming impact of CO₂ diminishes (“logarithmically”) as it increases in concentration. Every new molecule of CO₂ we add to the atmosphere has less of a warming effect than the previous one.

18) Battery backup for solar and wind is so expensive that just 3 days of global backup using Elon Musk’s Megapacks would cost \$570 trillion, about 6X global GDP.

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Alex Epstein: 25 facts about energy and climate

19) Solar and wind never provide the exact amount of electricity that is needed. Electricity requires exactly matching supply and demand, and solar and wind on their own exactly match supply with demand 0% of the time.

20) Even mild increases in demand for critical minerals involving solar and wind have led to scaling issues and cost increases. (What will the demand increases of “net zero” plans lead to?)

21) “Net zero” plans to scale solar and wind involve more than doubling the supply of half a dozen major mined materials per decade—even though they can’t point to any examples of any major mined mineral doubling that fast, even with pro-development governments.

22) 6 days after pledging to go all-EVs, California Governor Gavin Newsom told residents there wasn't enough power to charge their EVs.

23) 80% of the world’s energy is not electricity. For non-electricity energy, solar and wind either can’t do what fossil fuel can—e.g., airplanes or cargo ships—or are far more expensive.

24) Our dependence on China for key components of solar, wind, and batteries is far greater than our dependence on Russia for fossil fuels.

25) Far from out-competing fossil fuels, solar and wind are growing fast only when given massive government preferences—mandates, subsidies, and no penalty for unreliability

Unreliable solar and wind are not anywhere near able to replace fossil fuels.

<https://financialpost.com/opinion/global-warming-policies-hurt-poor> Bjorn Lombér⁴⁴g

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Weather related crises have not increased with increases in CO₂

- Assertions are made claiming that weather extremes are increasing in frequency and severity, spurred on by humanity's greenhouse gas emissions. However, many types of extreme weather show no signs of increasing and in some cases are decreasing. Drought has shown no clear increasing trend, nor has flooding. Hurricane intensity and number show no increasing trend. Globally, wildfires have shown no clear trend in increasing number or intensity

Real-world evidence refutes climate alarmist claims that extreme weather events are on the rise. FRASER INSTITUTE

DROUGHTS: NO increase in duration or magnitude going back to 1900 <small>Source: World Meteorological Organization</small>	WILDFIRES: NO overall increase, but a decline over recent decades <small>Source: Royal Society</small>
HURRICANES: NO long-term trends going back to 1980 <small>Source: World Meteorological Organization</small>	FLOODING: NO increase in flood risk, but a decline globally <small>Source: Journal of Hydrology</small>

Gregory Wrightstone <https://youtu.be/aT2SvIAkE5s>; The Climate Crisis Scam

[Extreme Weather and Climate Change \(fraserinstitute.org\)](https://www.fraserinstitute.org/extreme-weather-and-climate-change)

[With Trump soon to be inaugurated, climate scientists declare SUDDEN END to “climate emergency” narrative](#)

2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

1) Weather related crises have not increased with increases in CO₂

- Climate change is very complex and driven by many factors including oscillations in the planetary orbit, ocean circulation, clouds and other factors.
- Ice Ages were likely driven by variations in the Earth's orbit (Milankovitch cycles) with changes in the mean incident of the Sun's radiation impacting the poles and snow melting.
- The Earth's climate has been warming since the last ice age.
- Hurricanes, tornadoes, heat waves, forest fires and ocean acidification are not increasing.
- Extreme weather events show no long-term trend that can be attributed to human influences or CO₂
- The Great Barrier Reef sees third record year of coral growth
- Projections of future climate-based disasters are proving wrong; based on faulty climate models.

Reference books: Hot Talk, Cold Science: Chapter 7 and Unsettled Chapters 5, 6, 7

Dr. R Lindzen <https://wattsupwiththat.com/2022/12/04/mit-climate-scientist-dr-richard-lindzen-rejects-climate-change-as-a-quasi-religious-movement-predicated-on-an-absurd-scientific-narrative/> Book An Assessment of the Conventional Global Warming Narrative

Fake Invisible Catastrophes and Threat of Doom: Chapters 2, 9, 10

Climate at a Glance: Sections 1,2,3 Inconvenient Facts: Section II pages 57 to 112

Videos: [John Christy: Climate models for politics?... "A bridge too far" – YouTube](#)

[Natural Climate Variability. Does CO₂ Have Any Effect? | Prof. Judith Curry – YouTube](#)

<https://financialpost.com/opinion/lawrence-solomon-finally-its-safe-for-the-whistleblowers-of-corrupted-climate-science-to-speak-out>

[\(5479\) Unsettled: Climate and Science | Dr. Steven Koonin | EP 323 – YouTube](#)

www.co2learningcenter.com

[Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know](#)

Global Warming and CO₂

3 of 11 Questions

Question 3

Are higher CO₂ levels and warmer temperatures good or bad?

Global Warming and CO₂

CO₂ makes a positive influence on life on Earth

the [CO₂ Coalition](#), which includes scientists and researchers from across the globe devoted to educating the public and policymakers about the benefits of CO₂. Not only is the naturally occurring substance not a pollutant, but it's in fact the great elixir of life on Earth.

The coalition has a long and copious list of ["facts and data"](#) highlighting the benefits of CO₂ that do not fit in with the narrative of centralized planners in Washington D.C.

The regulatory attack on CO₂ is essentially an attack on humanity itself. Dr. William Happer, a retired Princeton University physicist and founder of the CO₂ Coalition, explains why.

"Carbon dioxide is at the basis of life on Earth." Happer said in an [interview](#) with Freedom Research. "We live because plants are able to chemically transform carbon dioxide and water into sugar and a byproduct is the oxygen that we breathe, and so we should all be very grateful that we have carbon dioxide in the atmosphere."

"Life would die without carbon dioxide," he explained.

Happer and other members of the CO₂ Coalition view the recent warming trend as a [natural response](#) to planet's emergence from the Little Ice Age beginning in the 1800s.

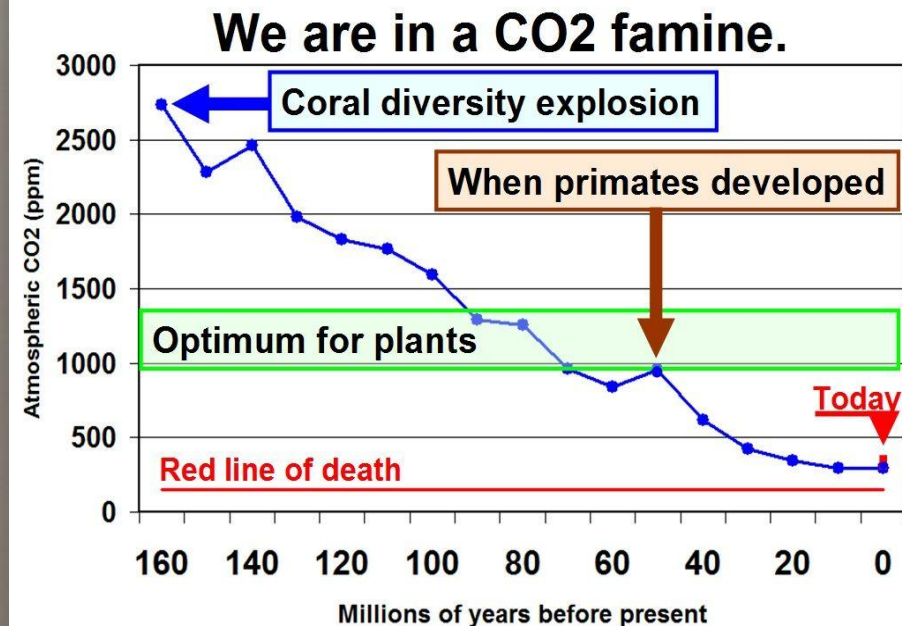
Overtaking the Endangerment Finding is therefore a matter of sound science.

- <https://conservativedailynews.com/2025/04/lee-zeldin-is-hovering-right-over-the-target/>

3) Are higher CO₂ levels and warmer temperatures good or bad?

Test shows improved tree growth with higher CO₂ levels

- Greenhouse gases keep the world warm; they absorb heat and radiate it back to Earth warming the surface and atmosphere; humans could not exist on Earth without this warming effect.
- When CO₂ increases plants thrive, becoming larger and able to absorb more CO₂.
- These trees were grown under the same conditions except with varying CO₂ atmosphere levels.
- A standard procedure for greenhouse growers is to increase the level of CO₂ to 800 to 1,200 ppm.
- Improving Tree Growth With Increasing CO₂ Levels Optimum plant growth CO₂ levels 1000 – 1400ppm

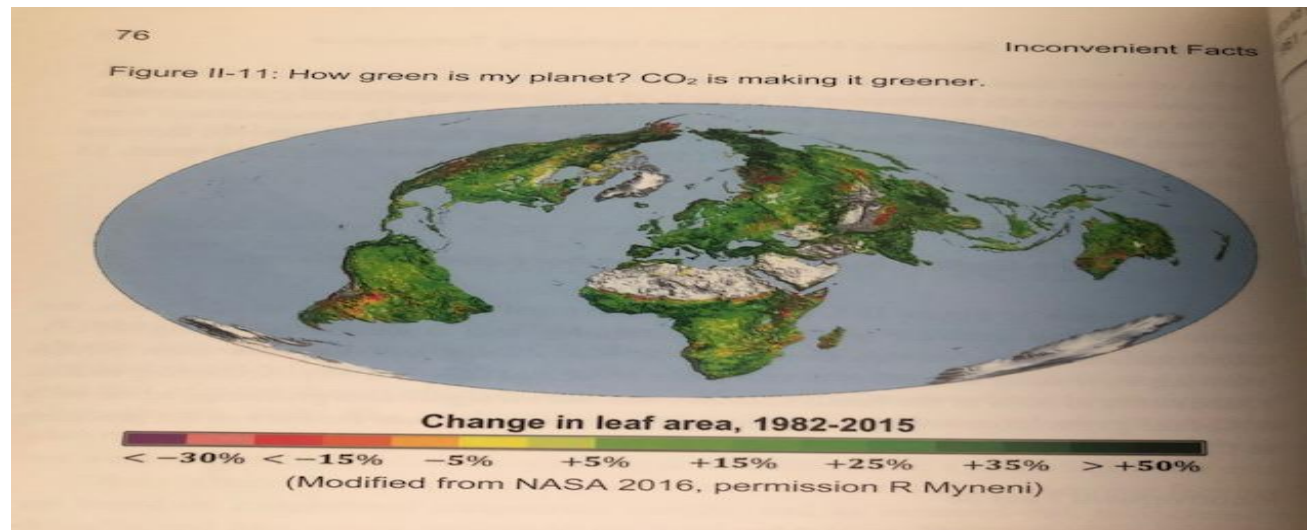


Reference book: Fake Invisible Catastrophes and Threats of Doom page 54

3) Are higher CO₂ levels and warmer temperatures good or bad?

Between 1982 to 2015 the world has been greening with increases in CO₂

- NASA satellite images show vast regions with increased growth due mainly to higher levels of CO₂ as increased CO₂ levels mean plants require less water to grow. Examples are the greening of the lower Sahara and the retreating deserts in China. More CO₂ has resulted in more and more rapid plant growth with significant greening. Since 1980, the semi-arid areas have greened 40%
- Global warming increases cold temperatures much more than warm temperatures, temperate and Arctic regions are affected much more than tropical areas where temperatures have varied little
- As CO₂ continues to rise in the atmosphere, global plant growth will also increase.



Reference book: Inconvenient Facts page 76, 213

Source: Modified from NASA 2016, permission R Myneni

Reference book: Cool It Page 12; <https://youtu.be/M8iEE02UIbA> William Happer

[Study finds CO₂ is greening the earth and making vegetation flourish worldwide \(westernstandard.news\)](https://www.westernstandard.news)

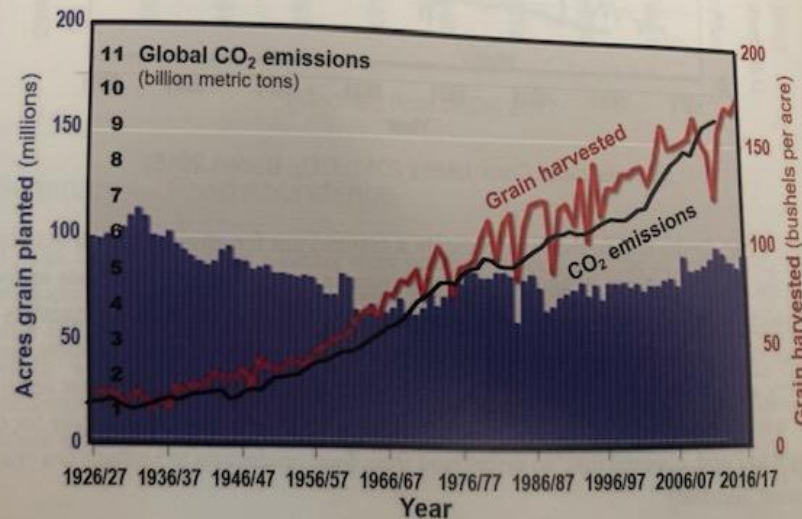
3) Are higher CO₂ levels and warmer temperatures good or bad?

Crop yields and per acre crops improve with higher CO₂ and temperature levels

- Increases in CO₂ benefit crop production as CO₂ works as an aerial fertilizer.
- Bushels of grain per acre harvested worldwide have improved with increased CO₂ emissions.
- Global warming lengthens growing seasons, reduces frost events and adds available farmland

Increases in Bushels of Grain Harvested Worldwide

Figure II-14: Bushels of grain per acre harvested worldwide, 1936/37 – 2016/17

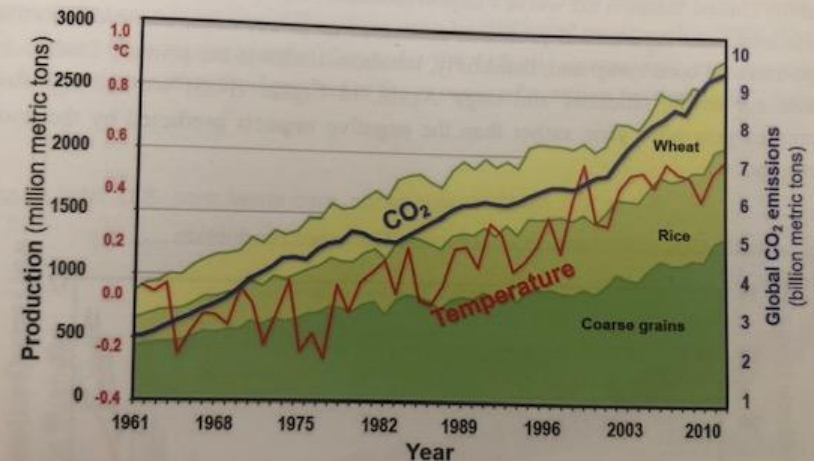


(Acres planted and grain: USDA 2017, CO₂: Boden 2016)

Higher Crop Yields With Increasing CO₂ Levels

Famine: The Best Solution is More CO₂ and Increasing Temperature

Figure II-13: World grain production, CO₂ concentration and temperature, 1961 – 2014



(Source data: grain: UN FAO 2017, CO₂: Boden 2016, temperature: HadCRUT4 2017)

[It Is Easy Going Green](#) The value of added CO₂

Reference book: Inconvenient Facts page 77, Climate at a Glance page 6,7

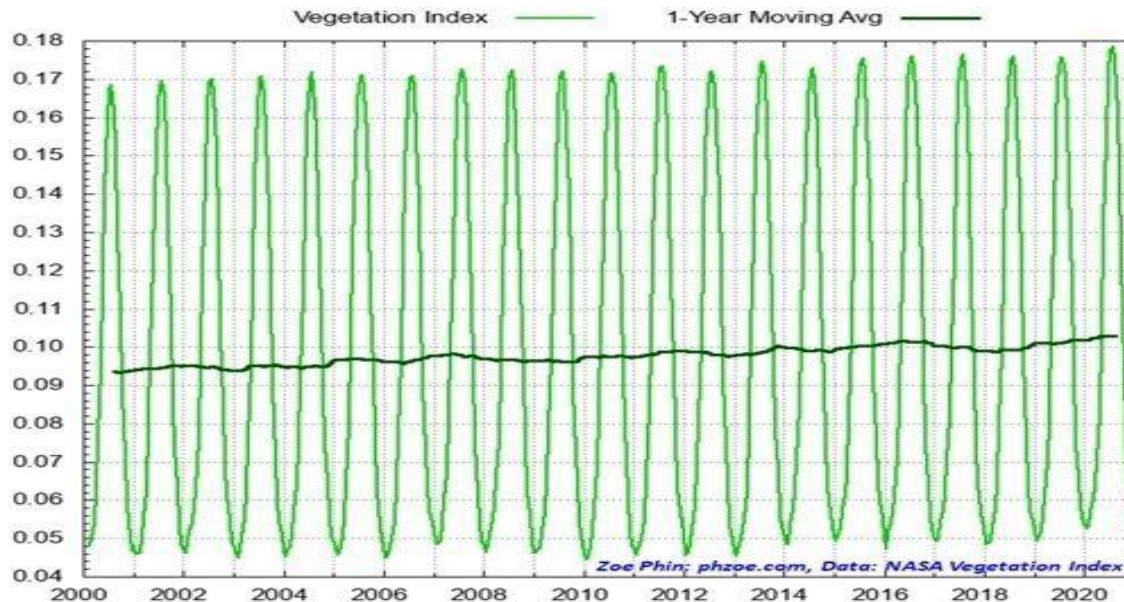
Source: Acres planted and grain USDA 2017, CO₂ Boden 2016

3) Are higher CO₂ levels and warmer temperatures good or bad?

NASA shows increased vegetation with higher CO₂ ; other positive aspects of CO₂

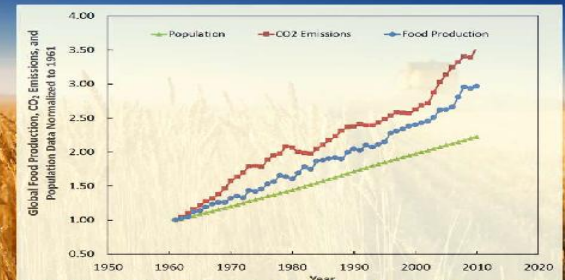
- NASA's Earth Observatory and its Terra satellite show that the biosphere has expanded by 10 % since 2000.
- The Vegetation Index is an empirically observed indicator of global leaf surface area and photosynthetic activity, while the sinusoidal time dependence shown in the time series below is indicative of the Solar Seasonal Cycle.
- Venter et al (2018) likewise showed that the Sahara Desert shrunk by 8% (700,000 km²) since the 1980s and a recent Harvard study suggests that upwards of 70% of the biosphere's recent expansion is due to the CO₂ Fertilization Effect (<https://lnkd.in/di3Bud7p>

NASA Monthly Average Global Vegetation Index



The Positive Externalities of Carbon Dioxide:

Estimating the Monetary Benefits of Rising Atmospheric CO₂ Concentrations on Global Food Production



Craig D. Idso, Ph.D.
Center for the Study of Carbon Dioxide and Global Change
21 October 2013

3) Are higher CO₂ levels and warmer temperatures good or bad?

Tests show improved crop yields with increased CO₂ for plants

- Crop yield growth improved with 300 ppm more CO₂ based on 3,586 experiments on 549 plant species.
- These tests show that plants benefit from higher CO₂.

Improving Crop Yield With Increased CO₂ Levels



Reference book: Inconvenient Facts page 20

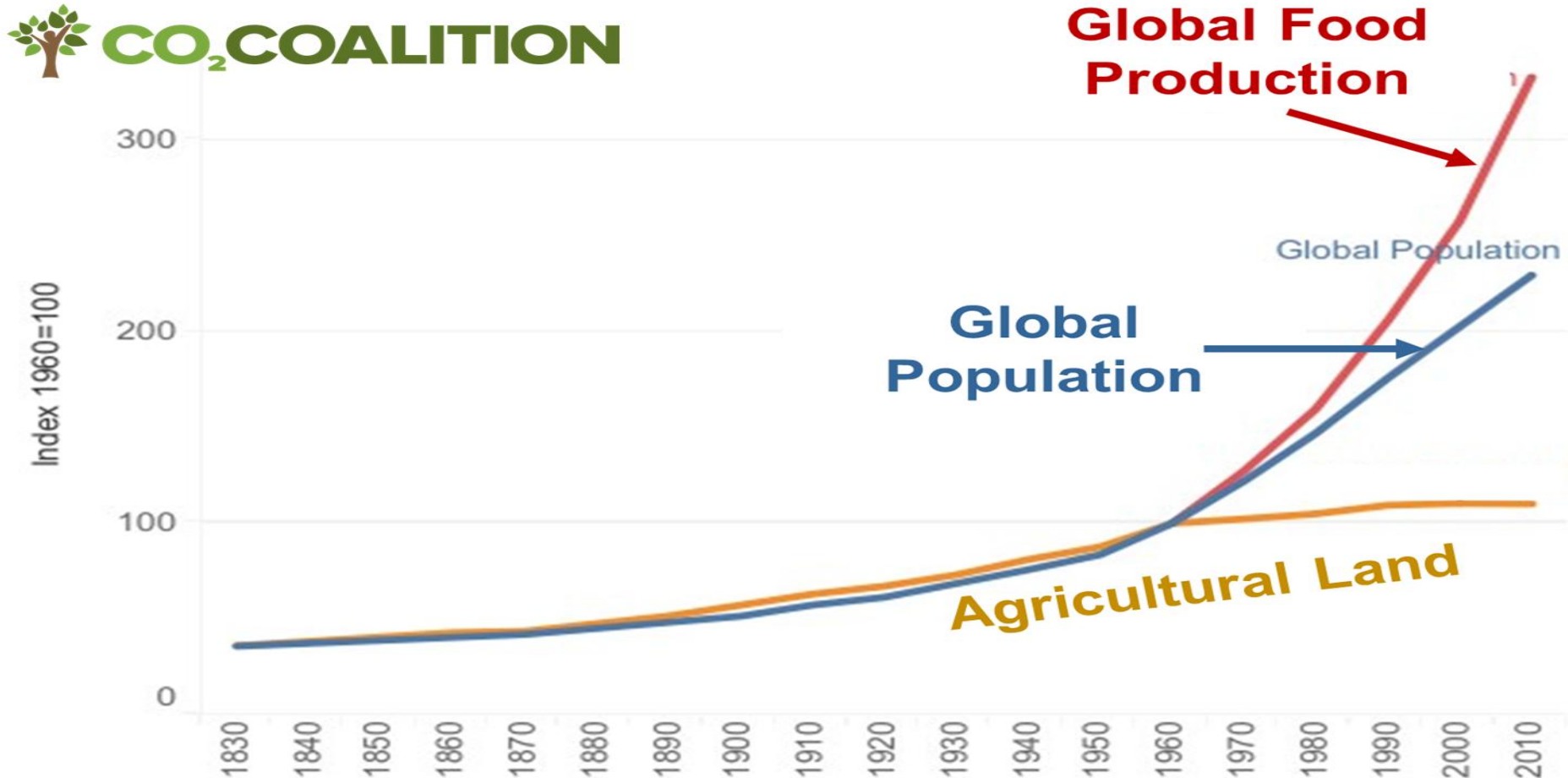
Source: Idso2013, courtesy Monckton 2017

3) Are higher CO₂ levels and warmer temperatures good or bad?

Tests show improved crop yields with increased CO₂ for plants

Improving Crop Yield With Increased CO₂ Levels

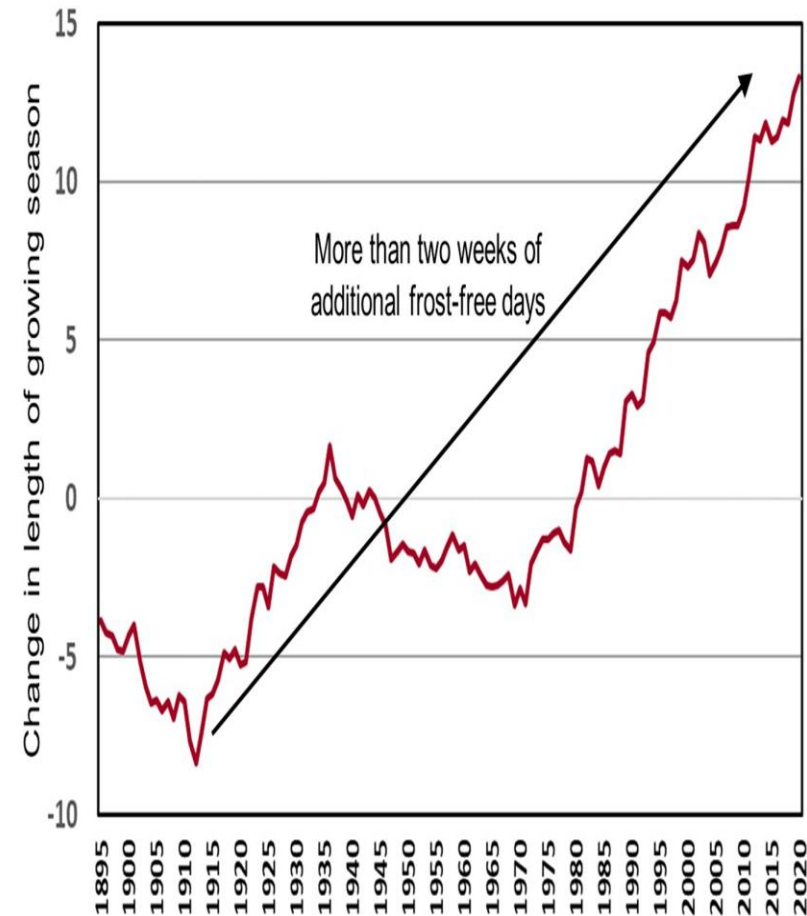
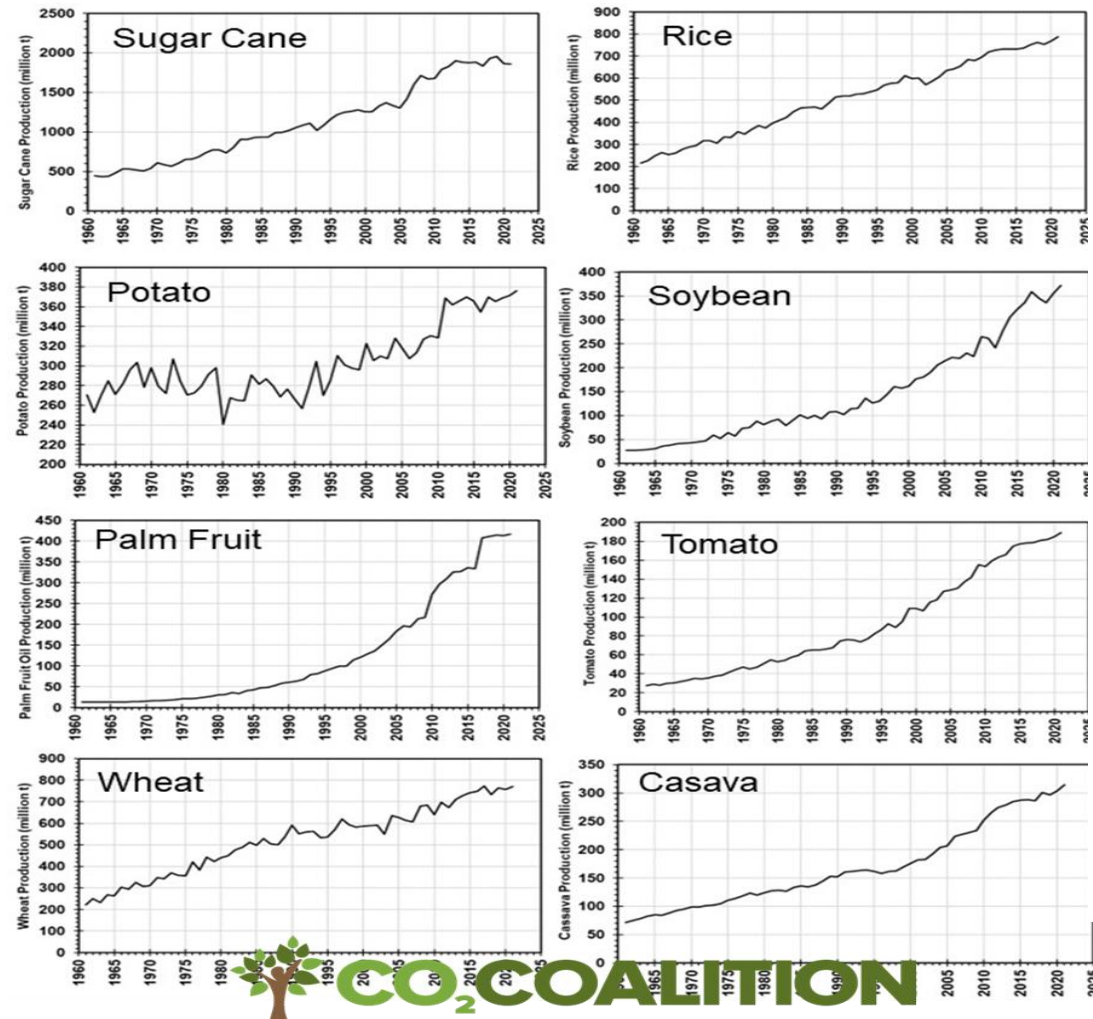
Global food production, population and agricultural land use



3) Are higher CO₂ levels and warmer temperatures good or bad?

Tests show improved crop yields with increased CO₂ for plants

Improving Crop Yield With Increased CO₂ Levels



3) Are higher CO₂ levels and warmer temperatures good or bad?

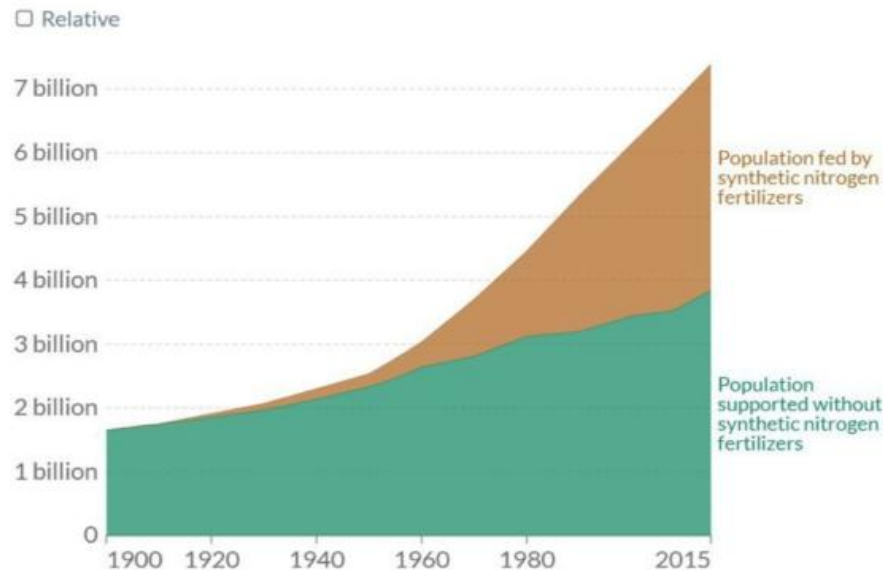
Natural gas use for synthetic fertilizers have made a very positive impact

- Synthetic fertilizers, which are derivatives of natural gas, are responsible for nearly half the world's food production today.
- The world's population is increasingly dependent on synthetic fertilizers, a derivative of gas fossil fuels.

World population supported by synthetic nitrogen fertilizers

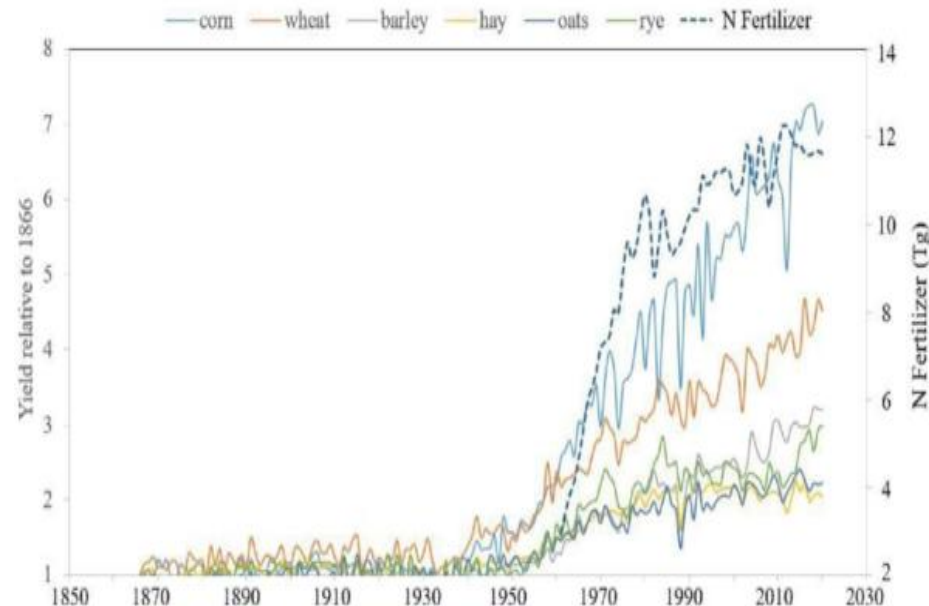
Best estimates project that just over half of the global population could be sustained without reactive nitrogen fertilizer derived from the Haber-Bosch process.

Our World
in Data



frost events and adds available farmland

Synthetic fertilizers (derivatives of natural gas)



Reference book: Inconvenient Facts page 77, Climate at a Glance page 6,7

Source: Acres planted and grain USDA 2017, CO₂ Boden 2016 (Source: ourworldindata.org)

3) Are higher CO₂ levels and warmer temperatures good or bad?

Tests show positive aspects of CO₂ on humans

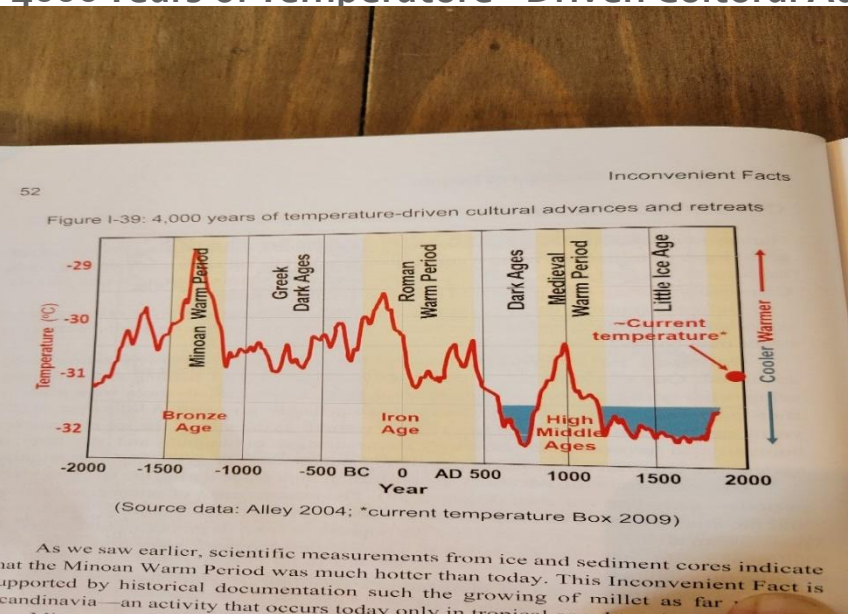
- **CO₂ is invisible and odourless.** Pollution we see from vehicles, coal mines etc comes from other associated pollutants which can and do need to be removed and not immitted to the atmosphere.
- "In 1904, Christian Bohr, a Danish biochemist, discovered that carbon dioxide (CO₂) facilitates the release of oxygen (O₂) into our cells. The oxygen is transported through our body by the haemoglobin in our red blood cells. CO₂ acts as a catalyst for haemoglobin to release oxygen for use by our bodies. When the level of CO₂ in our body is too low, the bond between oxygen and haemoglobin increases, making it more difficult for oxygen to get into the cells. Poor physical oxygen supply leads to many health problems in our bodies.
- in 2017, Dr. U.P. Singh at India's Suharto Medical College discovered that there are relationships between yoga breathing and CO₂. He wrote that CO₂ stimulates the Vagus nerve. He discovered that increased levels of CO₂ in the blood can activate the Vagus nerve and slow down the heart rate acting as a "natural sedative calming the irritability of the brain's centres of consciousness and promotes using logic, reason, and common sense. Without CO₂, we become anxious, depressed and angry.
- Trials of CO₂ therapy in epilepsy patients showed fewer seizures occurred. Yandle Henderson, a Yale physiologist, found that a mixture of oxygen and 5% CO₂ can produce excellent results in patients with asthma, stroke, pneumonia, heart attack and suffocation attacks in newborns.
- CO₂ contributes to the expansion of smooth muscle tissue and the regulation of the cardiovascular system. CO₂ is converted into carbonic acid and is therefore an important regulator of the alkali-acid balance in the body. In addition, it plays an important role in the functioning of the digestive system."
- US navy submariners breath 3000 to 5000 ppm of CO₂ for 3-month tours with no reproducible evidence that it makes any difference to their health or mental acuity. There is no reason it should since their normal exhaled breath is 40,000 to 50,000 ppm CO₂. plus CO₂ < 100,000 ppm is not toxic.

3) Are higher CO₂ levels and warmer temperatures good or bad?

4000 years of temperature driven cultural advances and retreats

- Historically, mankind thrived under warmer temperatures and suffered during cold spells.
- Minoans prospered during the warm Bronze Age followed by mere survival during Greek Dark Age.
- Civilization flourished during the Roman Warm Period followed by colder, devastating Dark Age.
- The Medieval Warm Period (1.0 to 1.4°C warmer) saw civilization advance with positive living conditions.
- The Little Ice Age brought severe hardships including crop failures, famine and population decline.
- These warm periods, when mankind thrived, were all higher by 0.5 to 2°C than today's temperature

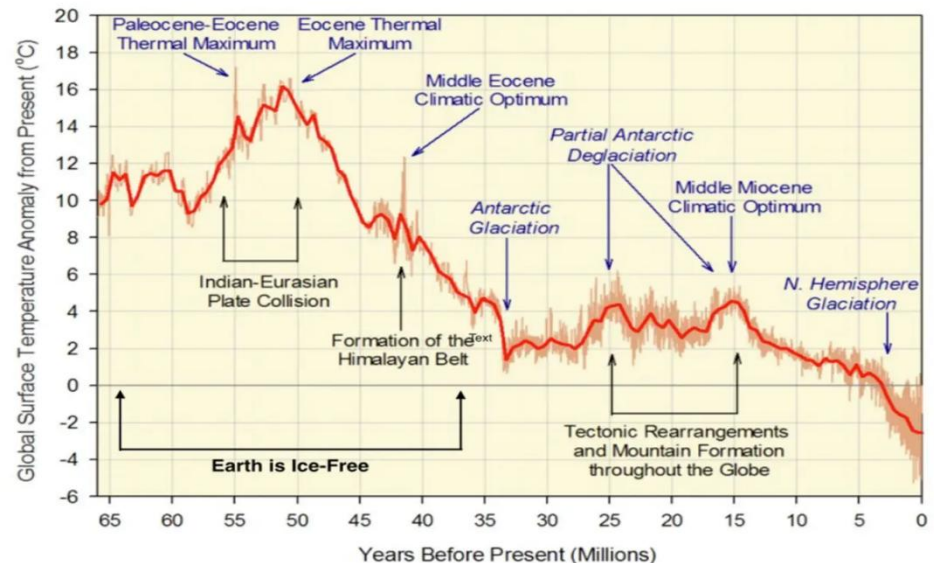
4000 Years of Temperature –Driven Cultural Advances and Retreats.



Reference book: Inconvenient Facts page 52

Source: Alley 2004; *current temperature Box 2009

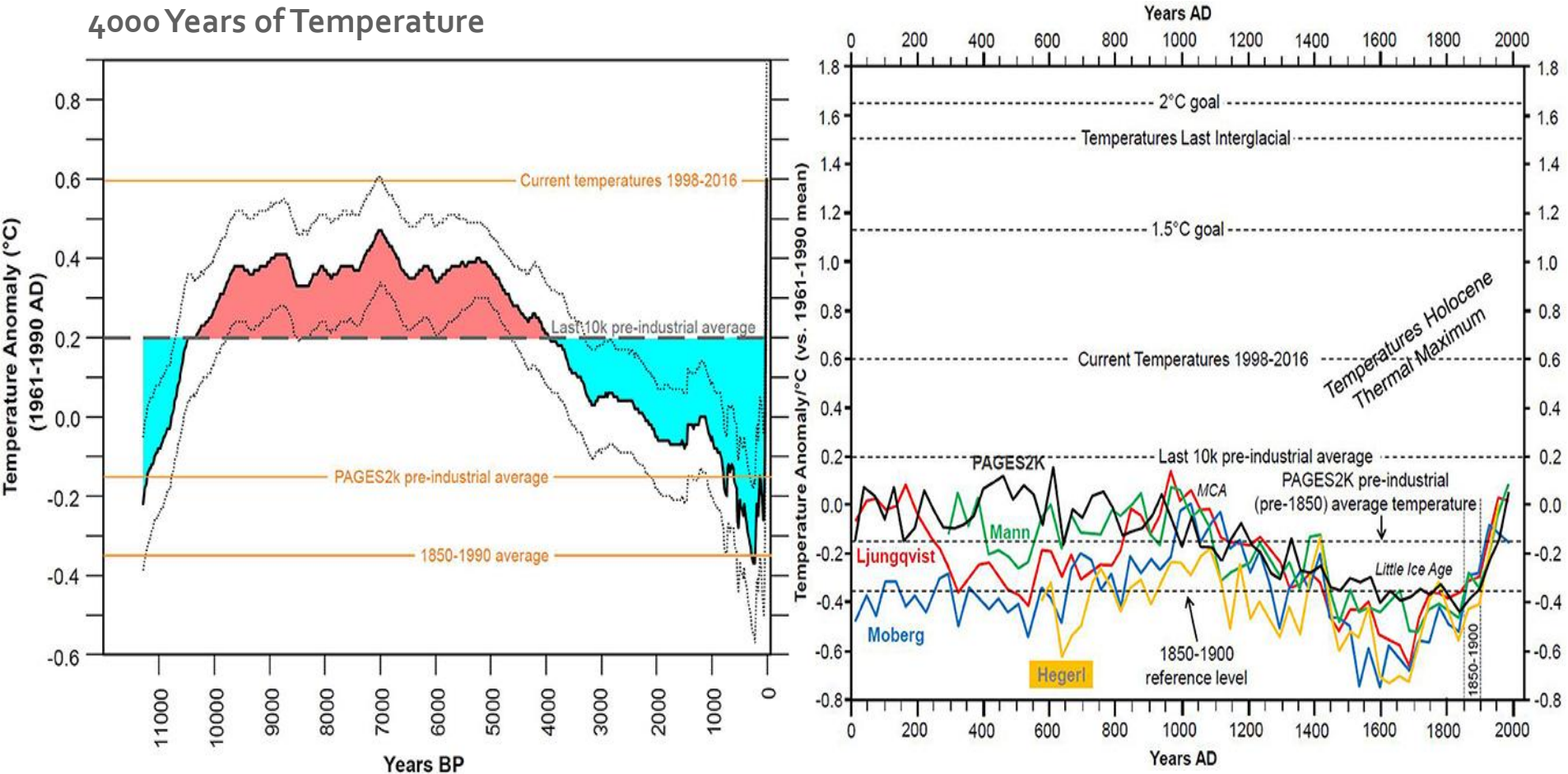
Global Temperature for the past 65 million years



3) Are higher CO₂ levels and warmer temperatures good or bad?

4000 years of temperature driven cultural advances and retreats

- Historically, mankind thrived under warmer temperatures and suffered during cold spells.



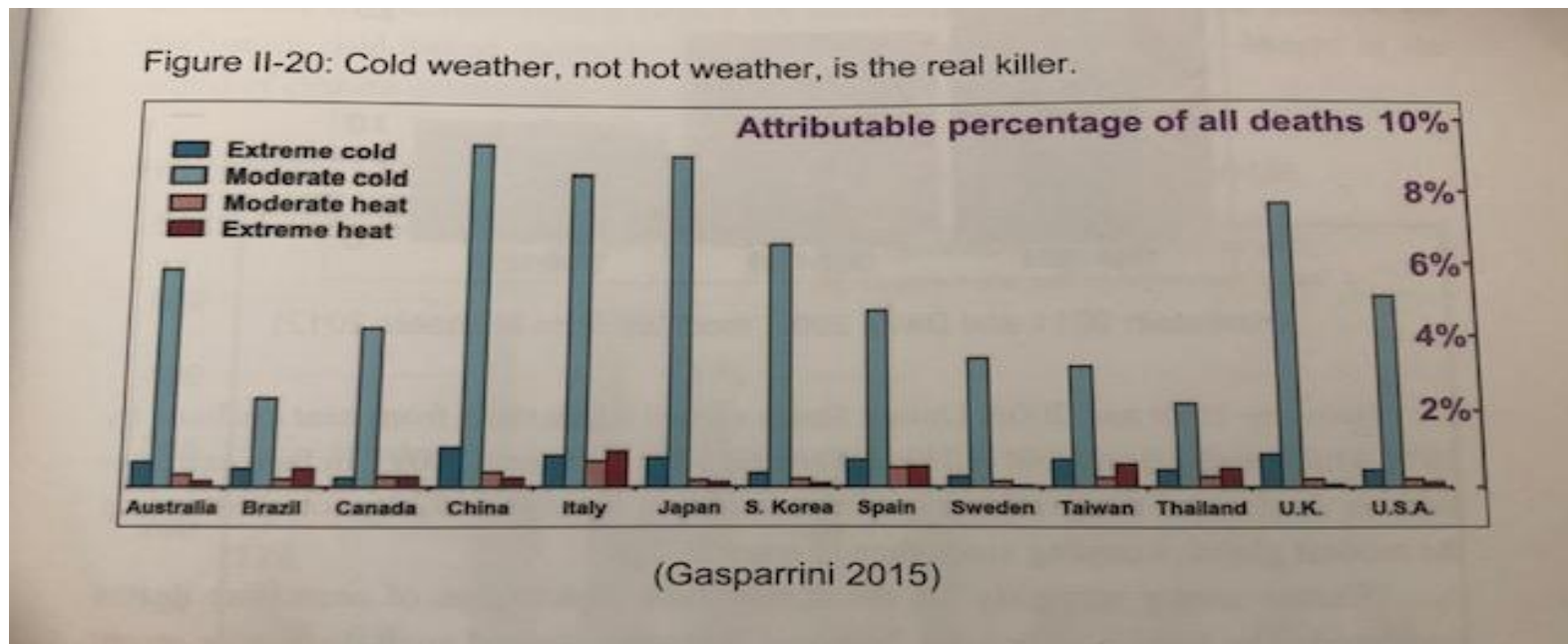
[Frontiers | Paleoclimatological Context and Reference Level of the 2°C and 1.5°C Paris Agreement Long-Term Temperature Limits \(frontiersin.org\)](https://frontiersin.org)

3) Are higher CO₂ levels and warmer temperatures good or bad?

Table showing human deaths attributed to varying temperatures

- Significantly more people have died related to cold temperatures than warm temperatures. In Europe, about 200,000 people die from excess heat each year, but 1.5 million die annually from excess cold.
- Climate change will not cause massive disruptions or huge death tolls. A direct impact of climate warming will mean fewer dead.

Higher Percentage of Deaths Attributed to Cold Vs Warm Temperatures



Reference book: Inconvenient Facts page 83

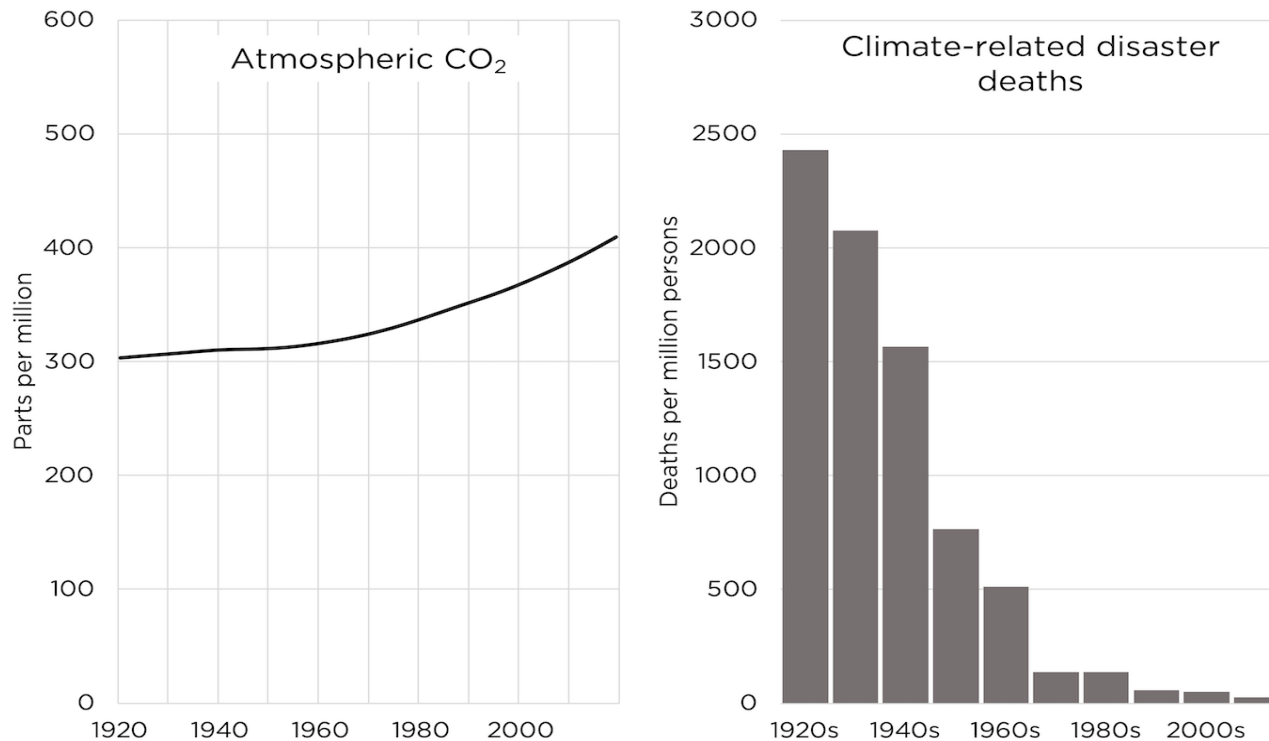
Source: Gasparrini 2015

Reference book Cool It Page 17, 38

3) Are higher CO₂ levels and warmer temperatures good or bad?

Table showing climate related deaths and varying CO₂ concentrations

Climate disaster deaths have decreased 98% over the last century.⁸



Source: Alex Epstein Aug 24, 2022

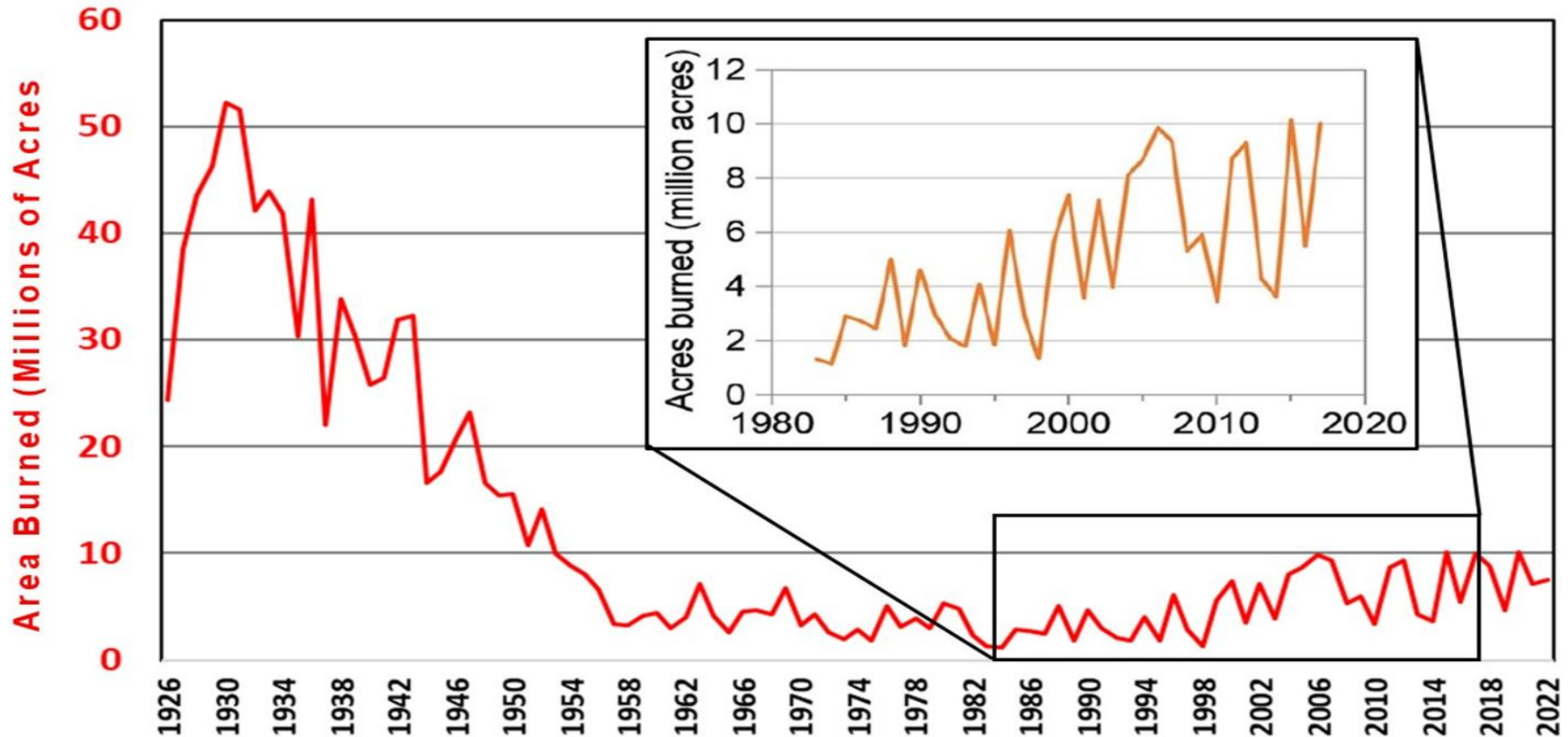
[A pro-human, pro-freedom policy for CO₂ emissions](#)

[Vijay Jayaraj](#) The real cause of weather-related deaths <https://co2coalition.org/2024/10/01/the-real-cause-of-weather-related-deaths/>

3) Are higher CO₂ levels and warmer temperatures good or bad?

Table showing significant reduction in area burned by forest fires

Beware the time scales used to promote a specific view



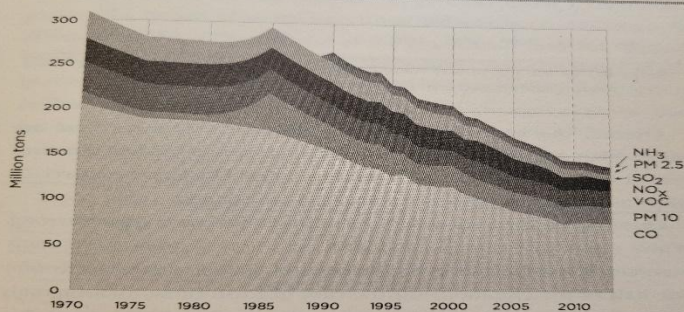
3) Are higher CO₂ levels and warmer temperatures good or bad?

What has happened since fossil fuel use for energy has increased adding more CO₂?

- Mankind has benefited from fossil fuel use providing cheap and accessible energy.

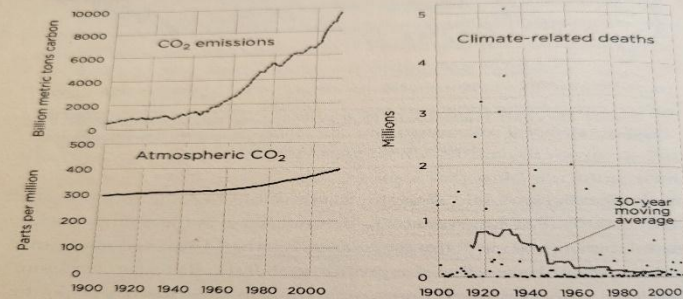
Pollution down

Figure 1.6: U.S. Air Pollution Goes Down Despite Increasing Fossil Fuel Use



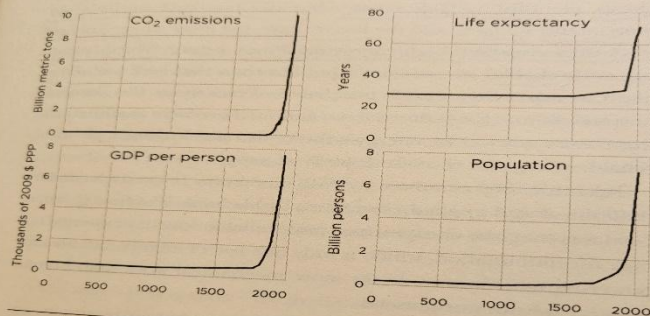
Deaths down

Figure 1.9: More Fossil Fuels, Fewer Climate-Related Deaths



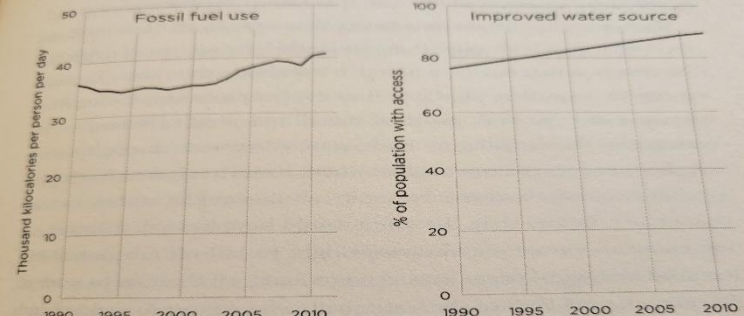
Improved life expectancy

Figure 3.1: Fossil Fuel Use and Human Progress—the Big Picture



Improved clean water access

Figure 6.1: More Fossil Fuels, More Clean Water

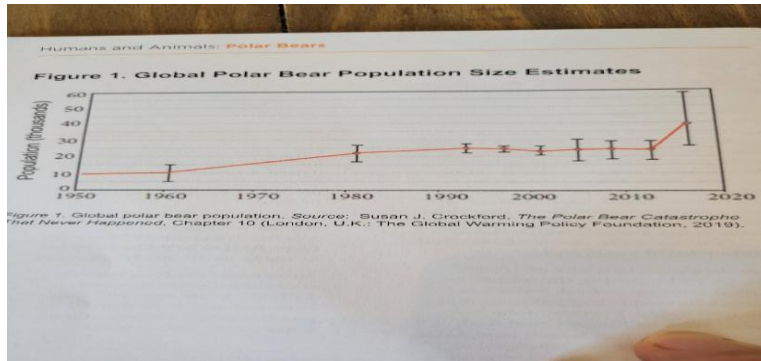


3) Are higher CO₂ levels and warmer temperatures good or bad?

What about claimed loss of polar bears and coral reefs with rising temperature?

- There are almost four times as many polar bears today versus 1960.
- Coral reefs thrive in warm water, not in cold water. Recent warming has allowed corals to expand their range poleward while still thriving near the equator. The Great Barrier Reef is thriving and expanding, not dying.
- Corals have existed continuously for the past 40 million years under higher temperatures and CO₂ levels and continue to do so today.

Polar Bear Population Increasing



Reference Book : Climate at a Glance page 24

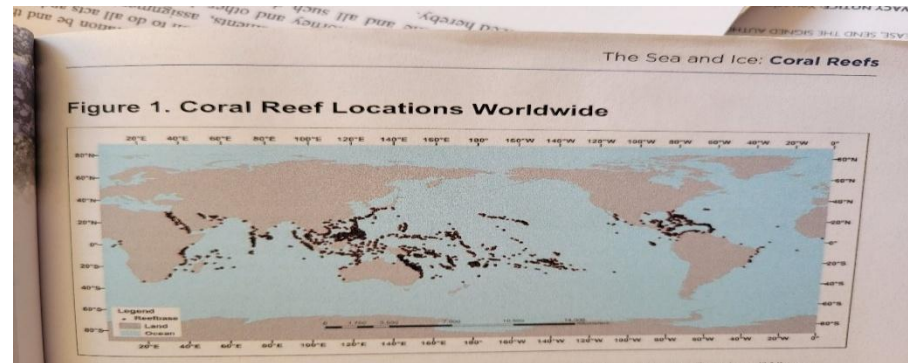
Source: Where Reef Building Corals Found National Oceanic and Atmospheric Administration July 26, 2021

Reference book: Climate at a Glance page 70

Source: Susan j. Crookford Chapter 10 London UK The Global Warming Policy Foundation 2019

Reference: Hot Talk, Cold Science page 101, 103

Expanding Coral Reef Locations



https://www.aims.gov.au/sites/default/files/2023-08/AIMS_LTMP_Report_GBR_coral_status_2022_2023_9August2023.pdf Coral cover levels have broadly increased or not changed over the 37 years of detailed surveys

Polar bears - <https://x.com/bjornlomborg/status/1596907524577320960>

<https://www.nytimes.com/2024/06/27/briefing/maldives-atolls-climate-change.html>

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

Gregory Wrightstone, associated with the **CO₂ Coalition**, emphasizes several points regarding carbon dioxide (CO₂) and climate change:

- **CO₂'s Vital Role:** The **CO₂ Coalition** asserts that carbon dioxide plays a **vital role** in our environment. They provide facts and resources to educate thought leaders, policymakers, and the public about this contribution. CO₂ is essential for plant growth and photosynthesis, benefiting ecosystems and food production.
- **Earth's Greening:** Wrightstone highlights that **80% of the Earth is greening** due to marginally higher CO₂ levels. Contrary to the perception of widespread desertification, increased CO₂ has led to more vegetation.
- **Challenging Catastrophic Predictions:** The **CO₂ Coalition** challenges catastrophic predictions related to climate change. They argue that hurricanes, wildfires, and sea level rise data do not necessarily point to a disastrous future.
- **A Warmer Planet:** Wrightstone suggests that a **warmer climate** has historically correlated with periods of human advancement.
- We [know from history](#) that primates developed at 400% higher tropospheric CO₂ levels and that most plants crave higher temperatures as CO₂ levels rise and that the optimum photosynthetic productivity is between 1500 and 2000 ppm versus current concentrations of 414 ppm.

Gregory Wrightstone Inconvenient Facts

<https://co2-coalition.mobilize.io/links?url=https%3A%2F%2Fyoutu.be%2FftaUJg-ojoo>

[FOURNIER: This just in! Oilsands emissions make trees grow \(westernstandard.news\)](#)

<https://www.newsmax.com/larrybell/co2-climate-change/2024/12/01/id/1189976/>

3) Are higher CO₂ levels and warmer temperatures good or bad?

60 Facts About CO₂ and Climate

Impact and benefits of CO₂

1. CO₂ is not the most important greenhouse gas
2. The heating effects of CO₂ decrease with increasing concentrations
3. CO₂ is food for plants and is considered the gas of life
4. During the last four ice ages, the CO₂ levels on the planet were dangerously low for life
5. Development over 140 million years has produced dangerous reductions in CO₂
6. The current geologic period has the lowest CO₂ level throughout the planet's history
7. More CO₂ means better plant growth
8. More CO₂ makes it possible to produce more food for more people
9. More CO₂ makes the soil more moist
10. More CO₂ in the atmosphere means more food for everyone
11. The globe is getting greener and not currently changing to more desert

3) Are higher CO₂ levels and warmer temperatures good or bad?

60 Facts About CO₂ and Climate

CO₂ and climate change

12. Despite the continuous increase in CO₂ emissions, global warming stopped for a period of 18 years
13. CO₂ concentrations rose after the Second World War, while temperatures fell
14. Global warming began long before we got SUVs or coal-fired power plants
15. Melting glaciers and rising sea levels confirm warming before the increase of CO₂ in the atmosphere
16. Temperatures have changed over 800,000 years. It had nothing to do with us
17. Middle Ages usually last from 10,000 to 15,000 years. We have now used up 11,000 years of them
18. Each of the previous interglacial periods was warmer than the one we are currently in
19. The last interglacial, about 120,000 years ago, was 8 degrees warmer than today. The polar bears survived and the Greenland ice did not melt
20. Temperatures have changed over the past 10,000. It wasn't our fault
21. Today's total warming and warming rate are similar to what we find for earlier periods

3) Are higher CO₂ levels and warmer temperatures good or bad?

60 Facts About CO₂ and Climate

Impact and benefits of CO₂

- 22. Out of the last 10,000 years, 6,100 years were warmer than today
- 23. The current warming trend is neither unusual nor unprecedented
- 24. The Earth's orbit and the tilt of the Earth's axis are the cause of ice ages and interglacial periods
- 25. We are now living in one of the coldest periods in the history of the planet
- 26. Earth has not had such a cold geological period in 250 million years
- 27. The only thing that has been constant with regard to temperature over 600 million years is that it has been constantly changing
- 28. Throughout most of the planet's history, it was 10 degrees warmer than today
- 29. IPCC's models exaggerate the warming up to three times
- 30. Only 0.3% of the publications showed that the current warming was mainly anthropogenic
- 31. Research is not consensus, and consensus is not research

3) Are higher CO₂ levels and warmer temperatures good or bad?

60 Facts About CO₂ and Climate

Benefits of CO₂ and warmer climate

- 32. For human progress, warmer is better than colder
- 33. Returning to pre-industrial Revolution temperatures will lead to starvation, death
- 34. Growing seasons are getting longer
- 35. More CO₂ and a warmer climate means higher global food production
- 36. Cold kills significantly more people than heat every year
- 37. Warmer weather means fewer temperature-related deaths
- 38. Warmer weather prevents millions of premature deaths every year

Heat waves, droughts and forest fires

- 39. Cases of extreme heat show a decrease
- 40. EPA3 – Heat waves will not become more common
- 41. More CO₂ results in fewer drought periods
- 42. Higher temperatures result in fewer drying periods
- 43. Forest fires in the Northern Hemisphere are decreasing
- 44. More CO₂ > CO₂ fertilization > moister soil > faster growth of the trees > fewer forest fires
- 45. More CO₂ and heat means shorter and less intense heat waves

3) Are higher CO₂ levels and warmer temperatures good or bad?

60 Facts About CO₂ and Climate

Tornadoes

- 46. The number of tornadoes is decreasing
- 47. The number of tornadoes in 2016 was the lowest on record
- 48. Tornado death tolls are falling

Hurricanes

- 49. There has been no increase in the frequency of hurricanes
- 50. We have seen a decreasing frequency in hurricanes over the last 250 years
- 51. No significant increase in hurricane strength is linked to global warming

Polar bears

- 52. The polar bear population is growing
- 53. There are more polar bears today than there have been in 50 years
- 54. Polar bears thrive even where the sea ice is shrinking

Gregory Wrightstone Inconvenient Facts

3) Are higher CO₂ levels and warmer temperatures good or bad?

60 Facts About CO₂ and Climate

Ocean acidity and Ph levels

- 55. There is no historical connection between CO₂ and the ocean's PH
- 56. The oceans did not become acidic, even in periods when CO₂ level was 15 times higher than today

Sea level rise

- 57. Sea level rise began more than 15,000 years ago
- 58. The current sea level rise began 150 years ago, long before the increases in CO₂
- 59. The melting of the ice in the Arctic Ocean will not raise the sea level
- 60. Most of Antarctica is cooling down and putting on ice

Gregory Wrightstone Inconvenient Facts

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

MIT & Princeton Scientists: 'More carbon dioxide cannot cause catastrophic global warming or more extreme weather' – Net Zero Policies Will Have Disastrous Effects on People Worldwide

Richard Lindzen Professor of Earth, Atmospheric, and Planetary Sciences, Emeritus
Massachusetts Institute of Technology

William Happer Professor of Physics, Emeritus Princeton University

- Countries worldwide are vigorously pursuing regulations and subsidies to reduce carbon dioxide emissions to Net Zero by 2050 on the assumption, best stated by the Intergovernmental Panel on Climate Change (IPCC), that the “evidence is clear that carbon dioxide (CO₂) is the main driver of climate change” and is “responsible for more than 50% of the change.”
- We are career physicists with a special expertise in radiation physics, which describes how CO₂ affects heat flow in Earth's atmosphere. The physics of carbon dioxide is that CO₂'s ability to warm the planet is determined by its ability to absorb heat, which decreases rapidly as CO₂'s concentration in the atmosphere increases. This scientific fact about CO₂ changes everything about the common view of CO₂ and climate change.

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

- **Carbon Dioxide is Now a Weak Greenhouse Gas.**
- At today's CO₂ concentration in the atmosphere of approximately 420 parts per million, additional amounts of CO₂ have little ability to absorb heat and therefore is now a weak greenhouse gas. At higher concentrations in the future, the ability of future increases to warm the planet will be even smaller. This also means that the common assumption that carbon dioxide is "the main driver of climate change" is scientifically false. In short, more carbon dioxide cannot cause catastrophic global warming or more extreme weather. Neither can greenhouse gases of methane or nitrous oxide, the levels of which are so small that they are irrelevant to climate.
- Referring to additional atmospheric CO₂ as "carbon pollution" is complete nonsense. More CO₂ does no harm. Quite the contrary, it does two good things for humanity:
 - 1) It provides a slight and beneficial increase in temperature; much less than natural fluctuations.
 - 2) It creates more food for people worldwide.
- **First. Net Zero Efforts Will Have a Trivial Effect on Temperature.**
- More of the atmospheric greenhouse gas, CO₂, will increase temperature, but only slightly. Changes in atmospheric greenhouse gases affect radiation transfer described by precise physical equations.

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

- We show that all the efforts to achieve Net Zero emissions of carbon dioxide, if fully implemented, will have a trivial effect on temperature: - United States Net Zero by 2050 — only avoids a temperature increase of 2/100 °F (**0.02 °F**) with no positive feedback, and only 6/100°F (**0.06 °F**) with positive feedback of 4 that is typically built into the models of the United Nations International Panel on Climate Change (IPCC). - Worldwide Net Zero by 2050 — only avoids a temperature increase of 13/100 (**0.13 °F**), or 50/100 °F (**0.50 °F**) with a factor of 4 positive feedback. These numbers are trivial, but the cost of achieving them would be disastrous to people worldwide.
- **Second. Net Zero Policies Will Be Disastrous for People Worldwide.**
- Net Zero regulations and subsidies will have disastrous effects worldwide. Chief among them would be the proposed elimination of fossil fuels, which would mean doing away with internal combustion engines for transportation and other uses, the power plants that provide most of the world's electricity, gas space heaters and cooking stoves and the feedstocks for nitrogen fertilizers that enable the feeding of nearly half the global population.
- The resulting economic devastation would include massive job losses, which already has occurred in places where Net Zero subsidies and regulations have diverted capital away from investments into productive assets and ineffective technologies such as wind and solar energy. Those hostile to fossil fuels ignore the overwhelming evidence that the increase in atmospheric carbon dioxide from their combustion has significantly greened Earth and boosted crop production.

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

- In addition, various countries will require electric vehicles (EVs), heat pumps and electric appliances be purchased and require companies to report information on carbon dioxide and other greenhouse gases emissions. Since more carbon dioxide causes trivial and beneficial warming, this data is immaterial and not required.
- **Third. More Carbon Dioxide Means More Food.**
- Contrary to common reporting, more carbon dioxide increases the amount of food available to people worldwide and is particularly helpful in drought-stricken areas. Doubling carbon dioxide to 800 ppm, for example, will increase global food supplies by approximately 60%. Thus, carbon dioxide emissions should not be reduced but increased to provide more food worldwide. Moreover, there is no risk of catastrophic global warming or extreme weather because carbon dioxide is now a weak greenhouse gas.
- Reducing carbon dioxide emissions will reduce the amount of food available to people worldwide and produce no benefit to the climate.

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

- **Fourth. Fossil Fuels Must Not Be Eliminated.**
- Net Zero requires that fossil fuels be eliminated because they account for about 90% of human-induced CO₂ emissions. However, the elimination of fossil fuels will have no effect on the climate since carbon dioxide is now a weak greenhouse gas.
- The use of fossil fuels must not be eliminated and should be expanded because they 1) provide more carbon dioxide which makes more food, 2) are used to make nitrogen fertilizer that enables the feeding of about half of the world's population, and 3) provide reliable and inexpensive energy for people everywhere, especially for the two-thirds of the world's population without adequate access to electricity.
Conclusion.
- All Net Zero carbon dioxide regulations and subsidies worldwide must be stopped as soon as possible to avoid disastrous effects on people worldwide, especially in developing countries.

Reference: **MIT & Princeton Scientists: 'More carbon dioxide cannot cause catastrophic global warming or more extreme weather' – Net Zero Policies Will Have Disastrous Effects on People Worldwide**

Richard Lindzen Professor of Earth, Atmospheric, and Planetary Sciences, Emeritus Massachusetts Institute of Technology

William Happer Professor of Physics, Emeritus Princeton University

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

- Numerous alarms of increased frequencies and severity of disasters caused by higher temperatures have been reported by IIPC. However, this is not reflected in official statistics which show stable, reduced tendencies or similar patterns over centuries.
- The small temperature effect and significant CO₂ contribution to plant growth have made the Earth greener by approximately 15% since satellite recordings started in 1979, also in critical areas like the south Sahara. This is consistent with up to 1200 ppm of CO₂ being added in greenhouses to stimulate photosynthesis and growth in particularly C₃ plants but also less abundant C₄ plants. Record crops are frequently reported over the later warmer periods. A warmer world will make huge land areas towards the north and at higher altitudes better suited for farming and forestry.
- Results from Richard Tol, working with environmental and climate strategies, justify that the world would be a better place to live for richer and poorer within a temperature rise of 2 C. Increased atmospheric level of greenhouse gases is no threat to that limit.
- There is no climate crisis. Natural variations are the more likely explanation for recent climate change. Increased CO₂ will, most likely, contribute to a more favorable development in most climate regions.

Reference Science of Climate Change International Journal of Science and Philosophy pg 13 Klimarealistene
Carbon and Climate Catastrophes Dr. Patrick Moore https://youtu.be/IX1z_6pvM-Q?si=TyUpEKESQU2SJ53j

3) Are higher CO₂ levels and warmer temperatures good or bad?

Warmer temperatures and higher CO₂ are good for mankind and nature

- For most of the last 10,000 years temperatures were higher than today.
 - Plants grow better and the Earth is greening with higher CO₂ and beneficial to human's health plus crops harvested worldwide have increased dramatically.
 - Mankind has historically done better under higher temperatures than cold spells.
 - Many more people die related to cold versus warm temperatures.
 - Mankind has greatly benefited from access to fossil fuel energy.
 - The polar bear population has been increasing since 1960.
 - Coral reefs have been expanding, not declining.
 - CO₂ is essential to terrestrial and marine life. Increases in CO₂ is beneficial and result in the creation of surplus food, plus expansion of both vegetation and forestation.
- “What historians will definitely wonder about in future centuries is how deeply flawed logic, obscured by shrewd and unrelenting propaganda, actually enabled a coalition of powerful special interests to convince nearly everyone in the world that carbon dioxide from human industry was a dangerous, planet-destroying toxin. It will be remembered as the greatest mass delusion in the history of the world - that carbon dioxide, the life of plants, was considered for a time to be a deadly poison.” Dr. Richard Lindzen,
- <https://youtu.be/M8iEEO2UIbA>

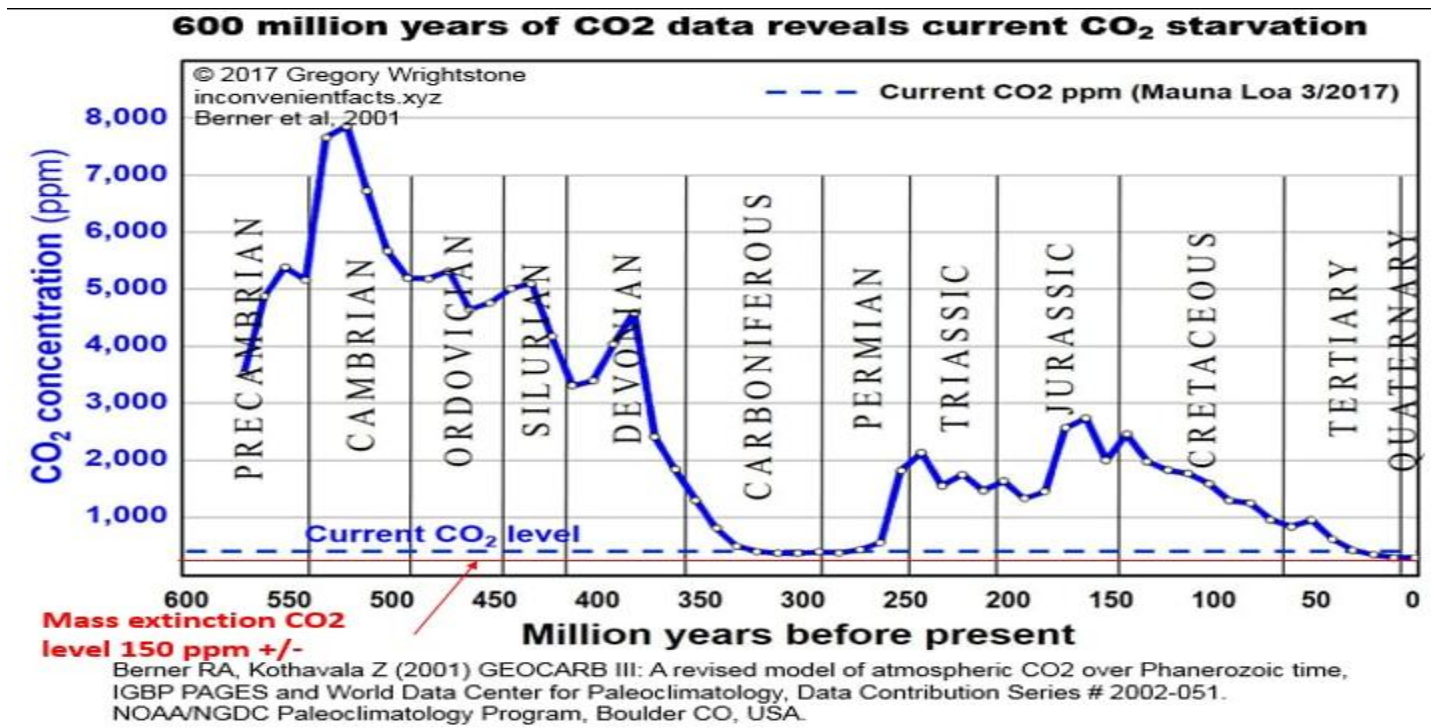
Question 4

Are CO₂ atmosphere levels dangerously high or historically low?

4) Are CO₂ atmosphere levels dangerously high or historically low?

Graph showing global atmospheric CO₂ levels over last 600 million years

- CO₂ levels have been much higher throughout geologic time while life on Earth evolved and developed.
- CO₂ highs in the Jurassic time of dinosaurs were about 2,800 ppm and nearly 8,000 ppm in the Cambrian period when recorded life began on Earth. Today's CO₂ concentration is only 415 ppm (over 10 times lower than in the past when life flourished). However, modern humans appeared only some 100,000 years ago.
- Concentrations up to 1,000ppm are common in classrooms. Physiological effects begin above 2,000 ppm.



Source: Berner 2001 ; data also available from GEOCARB III; Carbon Dioxide Poisoning 2005 Nigel Langford COPSE MODELS and Royer compilation; Carbon Dioxide Poisoning Nigel Langford

Reference: Book: Unsettled What Climate Science Tells Us, What it Doesn't and Why It Matters Steven E. Koonin

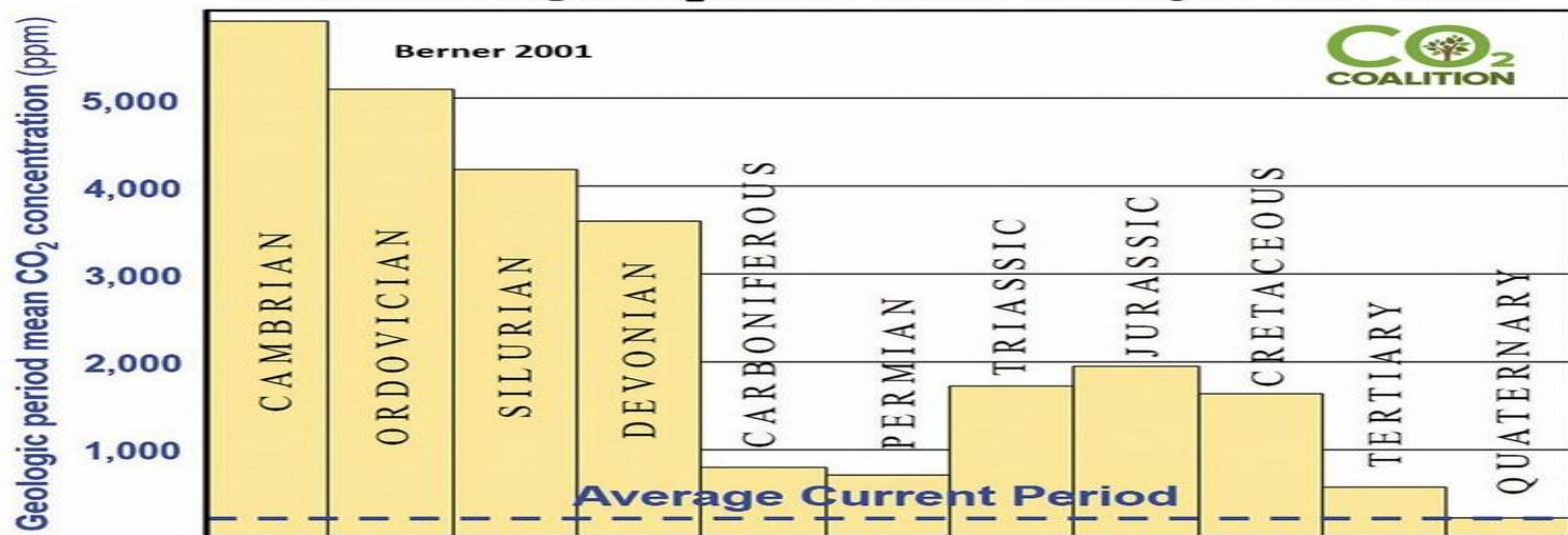
4) Are CO₂ atmosphere levels dangerously high or historically low?

CO₂ levels are near the lowest levels since last 600 million years

- CO₂ levels have been over 20 times higher when life on Earth evolved and developed.
- The Cambrian Period began over 500 million years ago. It was when life as we know it began.
- Dr. Happer, a leading proponent of the 'saturation' hypothesis of warming gases such as CO₂, observes that at certain levels such gases become saturated in small bands of the infrared spectrum. As a consequence, their warming ability diminishes on a logarithmic scale, an observation that helps explain the 600 million-year geological record, where CO₂ measurements have been up to 20 times higher than current atmospheric levels.

Our current geologic period (Quaternary) has the lowest average CO₂ levels in the last 600 million years

Our current geologic period (Quaternary) has the lowest average CO₂ levels in the history of the Earth.

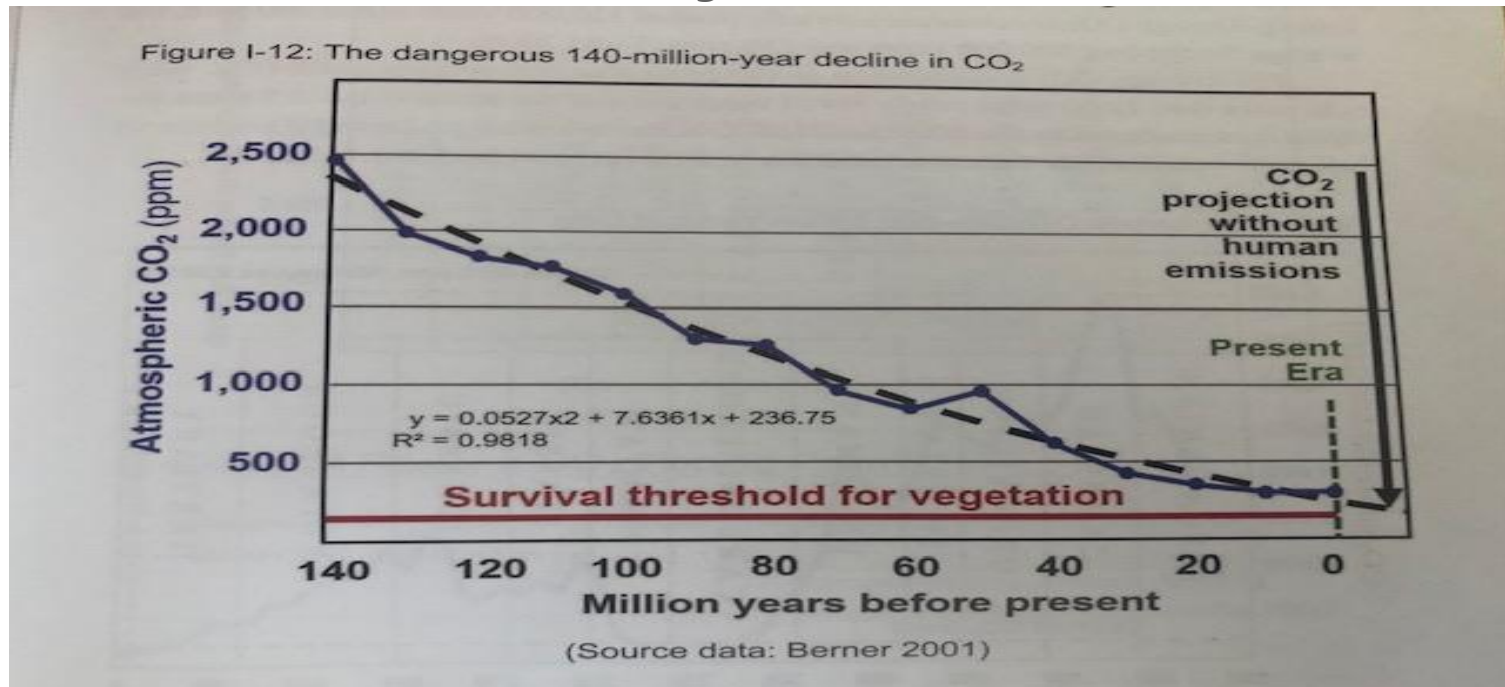


4) Are CO₂ atmosphere levels dangerously high or historically low?

Graph showing CO₂ levels decline over last 140 million years plus plant survival level

- Over the last 140 million years, CO₂ levels were dropping to a recent low of 180 ppm.
- A further 30 ppm decline in atmospheric CO₂ would bring about the end of plant life.
- Mankind's CO₂ emissions have reversed this trend bringing CO₂ levels up to 415 ppm.

CO₂ Levels Declining Over Last 140 Million Years



Reference book: Inconvenient Facts page 15

Source data: Berner 2001

[Dr. Patrick Moore - A Dearth of Carbon? – YouTube](#)

https://youtu.be/pHCCE-sw_Sc William Harper discussion on CO₂

4) Are CO₂ atmosphere levels dangerously high or historically low?

Graphs showing CO₂ emissions recently declining

- Global CO₂ emissions flattened since 2016 and declined since 2019
- CO₂ emissions from land use have been flat since 1965 and declining since 2016

CO₂ Levels Recently Declining

Michael Shellenberger's Guide to Escaping the Woke Matrix

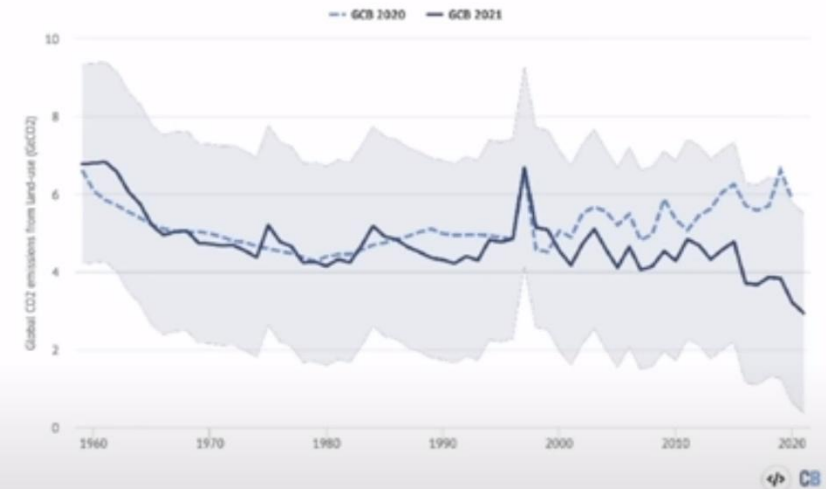
Global Emissions in Decline

Recent global CO₂ emissions revised notably downward



Annual total global CO₂ emissions – from fossil and land-use change – between 2000 and 2021 for both the 2020 and 2021 versions of the Global Carbon Project's Global Carbon Budget. Shaded area shows the estimated one-sigma uncertainty for the 2021 budget. Data from the [Global Carbon Project](#); chart by Carbon Brief using [Highcharts](#).

Major downward revision in land-use emissions over the past decade



Annual global CO₂ emissions from land-use change between 1959 and 2021 for both the 2020 and 2021 versions of the Global Carbon Project's Global Carbon Budget. Shaded area shows the estimated one-sigma uncertainty for the 2021 budget. Data from the [Global Carbon Project](#); chart by Carbon Brief using [Highcharts](#).

Source: Zeke Hausfather, Carbon Brief, November 4, 2021

4) Are CO₂ atmosphere levels dangerously high or historically low?

CO₂ levels were historically low and were getting dangerously low

- CO₂ levels have been much higher throughout geologic time while life on Earth evolved, developed and flourished.
- Over the last 140 million years, CO₂ levels were dropping to a low of 180 ppm.
- Plant life would have ended with a further 30 ppm decline to 150 ppm atmospheric CO₂.
- With mankind's added CO₂ emissions, this downward trend was reversed to now be at 415 ppm, only 0.0417% of total atmospheric gases
- Concentrations up to 1,000ppm are common in classrooms. Physiological effects begin above 2,000 ppm.
- CO₂ concentrations are dangerous to humans when CO₂ is greater than 100,000 ppm (240 times higher than today).

Question 5

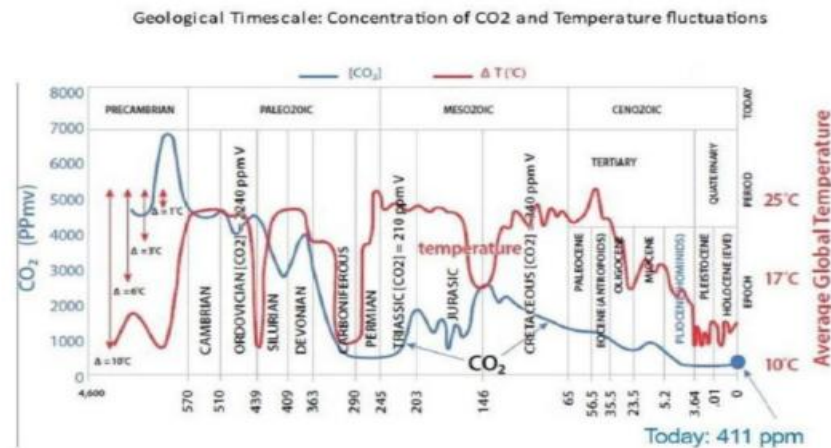
What could have caused changes in CO₂ levels over geologic time?

5) What could have caused changes in CO₂ levels over geologic time?

Graphs showing both temperature and CO₂ levels changed over last 600 million years

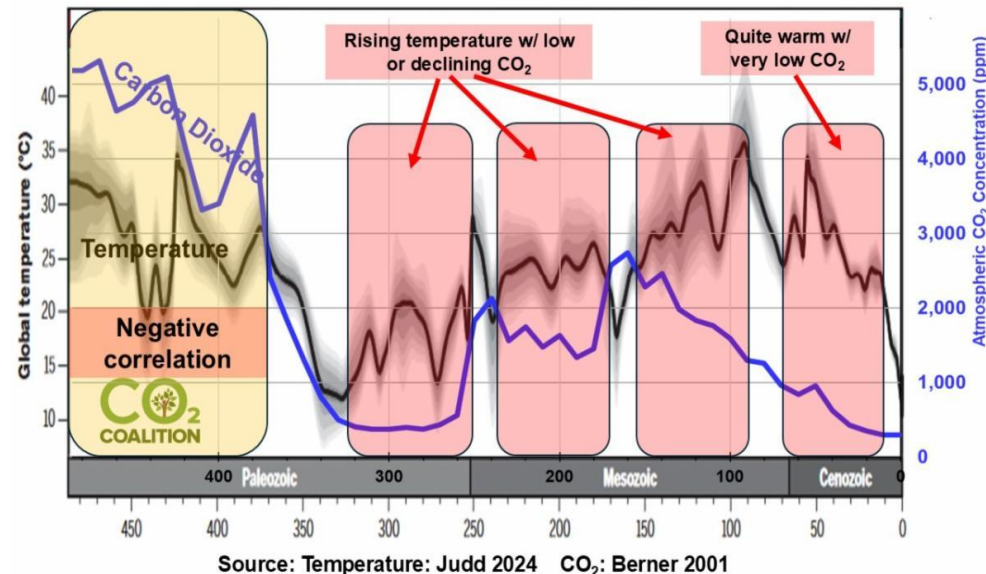
- From about 550 to 350 million years ago (the Paleozoic Era), while life was restricted to the oceans, CO₂ fluctuated from 10 to 25 times higher than today's levels. CO₂ dropped sharply in response to the appearance and spread of land plants about 350 million years ago, then shot up again during the Mesozoic Era..
- From peak CO₂ values of more than ten times the current levels 150 million years ago, CO₂ began a long, gradual decline to today's low levels, as seen in the ice core samples.

485 Million Years of Non-Correlation!



1- Analysis of the Temperature Oscillations in Geological Eras by Dr. C. R. Scotese © 2002. 2. Ruddiman, W.F. 2001. Earth's Climate: past and future W.H. Freeman & Sons. New York, NY. 3 - Mark Pagani et al. Marked Decline in Atmospheric Carbon Dioxide Concentrations During the Paleocene. Science; Vol. 309, No. 5734; pp. 600-603. 22 July 2005. Retrieved on 07 July 2008 [CO₂: Ordovician Period].

Reconstructed atmospheric carbon dioxide concentrations (Berner, 2001) & global mean surface temperature (Scotese, 1999) over the last 550 million years.



Reference book The Real Inconvenient Truth page 77, 81

[What's the hottest Earth's ever been? | NOAA Climate.gov](https://www.noaa.gov/climate/what-is-the-hottest-earth-ever-been/)

[A Runaway Greenhouse Effect On Earth is Very Unlikely \(youtube.com\)](https://www.youtube.com/watch?v=...)

PALEOCLIMATE A 485-million-year history of Earth's surface temperature

Emily J. Judd*, Jessica E. Tierney, Daniel J. Lunt, Isabel P. Montañez, Brian T. Huber, Scott L. Wing, Paul J. Valdes

5) What could have caused changes in CO₂ levels over geologic time?

Comments CO₂ and Climate Changes

- The emergence of plant life 450 MY ago resulted in plants absorbing CO₂ and adding O₂
- Plate tectonics and resulting volcanics added CO₂. Colliding and spreading plates and warm oceans presently add about 280 to 360 million tonnes (0.28 to 0.36 Gt) per year of CO₂ to the atmosphere, including that released into the oceans from mid-ocean ridges.
- About 85% of the planet's volcanoes are submarine and account for 75% of the heat transfer to the surface from molten rock which releases monstrous amounts of CO₂.
- Large disturbances, including immense release in magma occurred at least five times in the past 500 million years dramatically increasing the overall level of CO₂.
- Plants and cold oceans are major reservoirs for absorbing CO₂.
- Over geologic time, global temperatures changed independently from changing CO₂ levels which have been generally decreasing over the last 150 million years.
- Through burning fossil fuels, human carbon emissions added to atmospheric CO₂ levels
- Modern agricultural practices of preparing a field by spraying with weed killer and then light furrow planting opens the topsoil and allows oxidation of the soil carbon releasing about 18 tons (23% of total) of carbon dioxide output into the atmosphere.

Reference book: Fake Invisible Catastrophes and Threats of Doom page 38

Reference book: The Real Inconvenient Truth Chapters 3 and 4; Reference book: Catchments and Carbon Lois Cabon

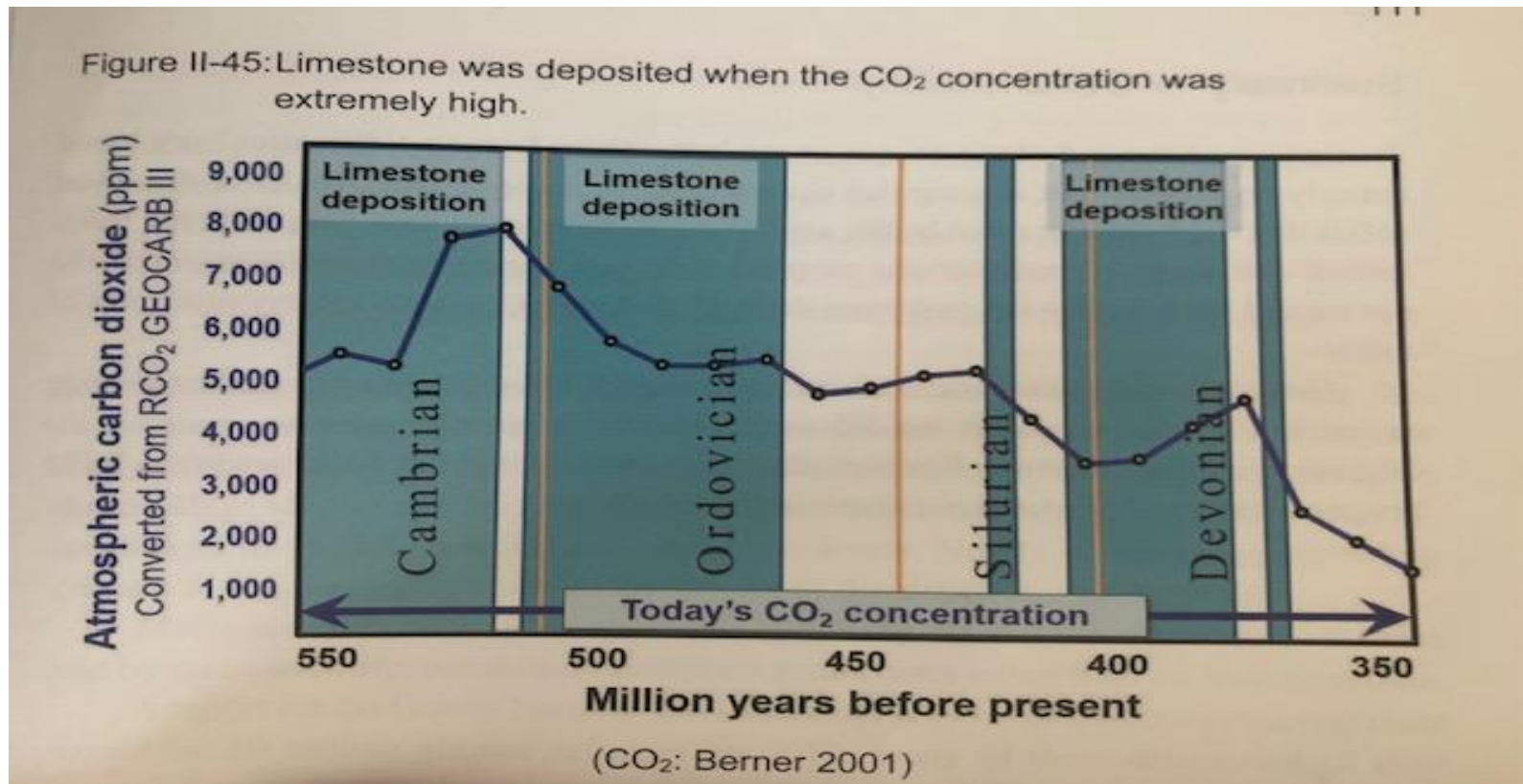
<https://youtu.be/JCt2MhOzWVE?si=StLeINo6uTMDXA06>

5) What could have caused changes in CO₂ levels over geologic time?

Historically high CO₂ levels and limestone deposition between 650 and 360 million years ago

- CO₂ is dissolved and stored in the oceans; the oceans retain CO₂ over a long period of time.
- Marine deposition of limestone, chalk, organic-rich shales, oil, gas and coal deposits store large amounts of CO₂

Limestone Deposited Under High CO₂ Levels in Paleozoic Time.



Reference book: Inconvenient Facts page 111 Source: CO₂ Berner2001

Reference book : The Inconvenient Treal Truth page 80,

5) What could have caused changes in CO₂ levels over geologic time?

Study Shows Sea Surface Temperature (SST) Drives CO₂ Levels

A new study by independent researcher *Dai Ato* contends that human activities are NOT the primary drivers of rising atmospheric CO₂ levels.

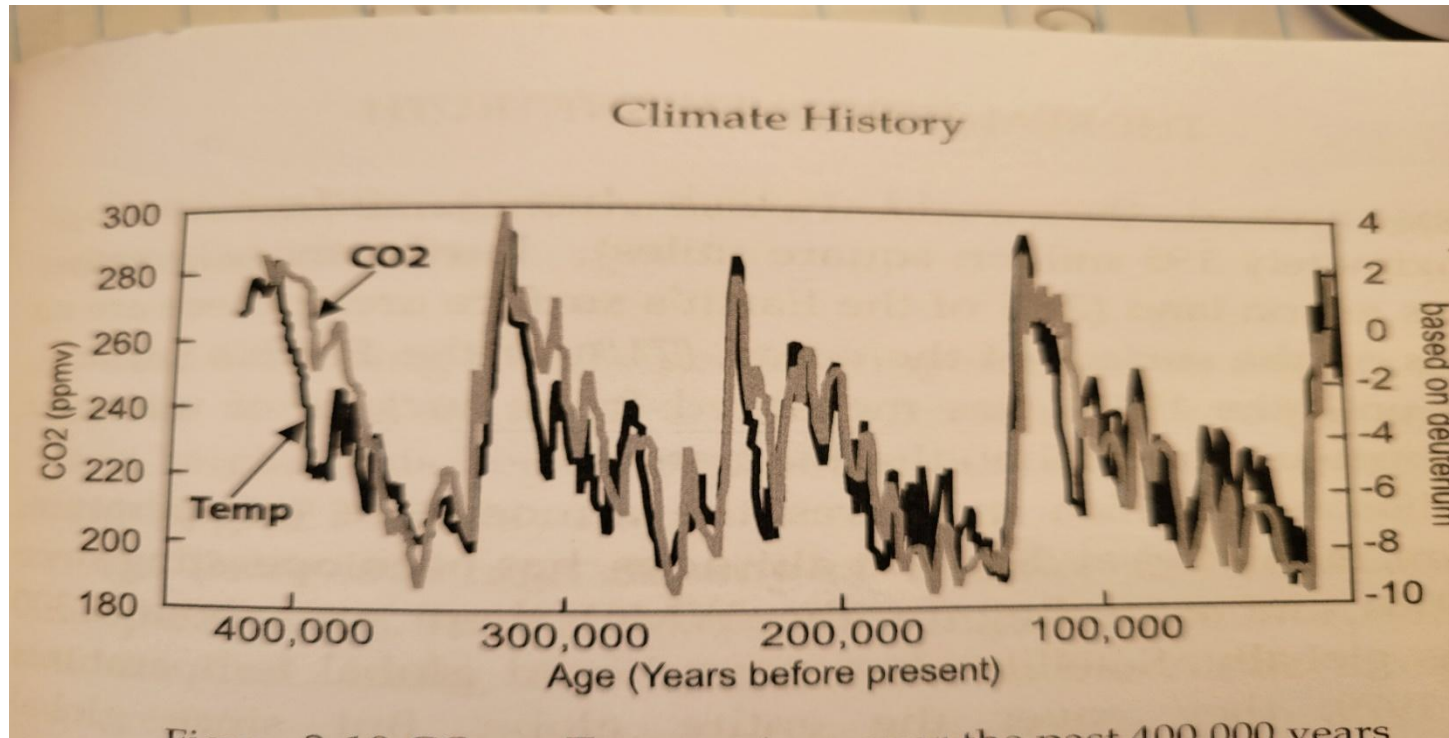
- By applying multivariate analysis to data spanning from 1959 to 2022, Ato shows that sea surface temperature (SST) is the dominant factor influencing atmospheric CO₂ levels, with human emissions playing a negligible role.
- He demonstrates a near-perfect correlation between SST and atmospheric CO₂ levels, with correlation coefficients approaching 0.9995.
- His study, linked suggests that human emissions are negligible compared to the natural exchange of CO₂ between the ocean and the atmosphere, which is primarily driven by temperature fluctuations.
- Ato challenges the widely accepted belief that pre-industrial CO₂ levels remained stable at around 280 ppm, arguing that this figure is likely grossly underestimated, perhaps by some 30-50%.
- This study uses multiple regression analysis to demonstrate that the independent determinant of the annual increase in atmospheric CO₂ concentration was sea surface temperature, which showed strong predictive ability. However, human CO₂ emissions were irrelevant. This result indicates that atmospheric CO₂ has fluctuated as natural phenomenon, regardless of human activity.

5) What could have caused changes in CO₂ levels over geologic time?

Graphs showing both temperature and CO₂ levels changed over last 400,000 years

- Because of the oceans' volume and depth, it takes much longer for oceans to warm from increasing temperatures than for land. Colder and denser water absorbs CO₂. As temperature increases, warming oceans slowly release CO₂ into the atmosphere. As seen in these historic ice records, **CO₂ increases occur in response to temperature increases (800-year lag) and therefore do not cause these temperature increases.**

CO₂ vs Temperature Over the Past 400,000 Years



Reference book:: The Inconvenient Real Truth page 80, 81

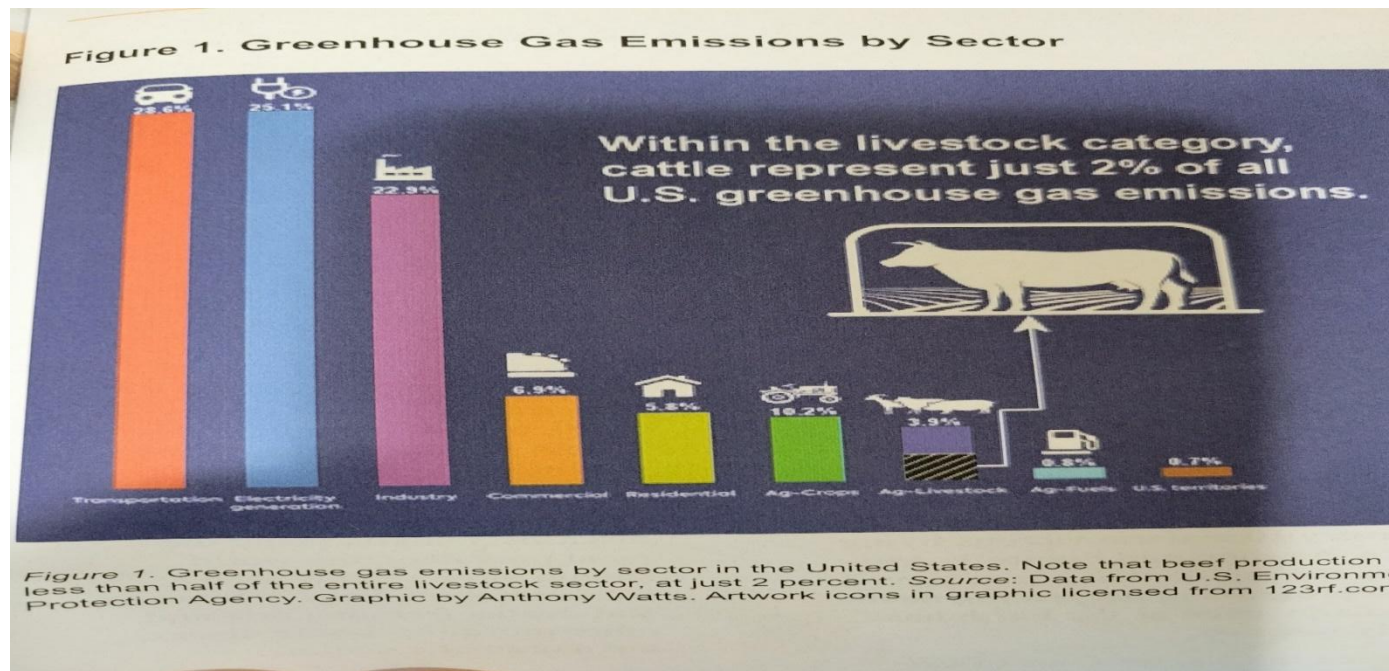
Source Adapted from U.S.Dept. of Energy

5) What could have caused changes in CO₂ levels over geologic time?

Present day sources of USA CO₂ emissions

- Green plants remove CO₂ by photosynthesis.
- Living organisms and industrial combustion release CO₂.
- 76.6% of US greenhouse gas emissions come from transportation, electricity generation and Industry.

Greenhouse Gas Emissions by Sector



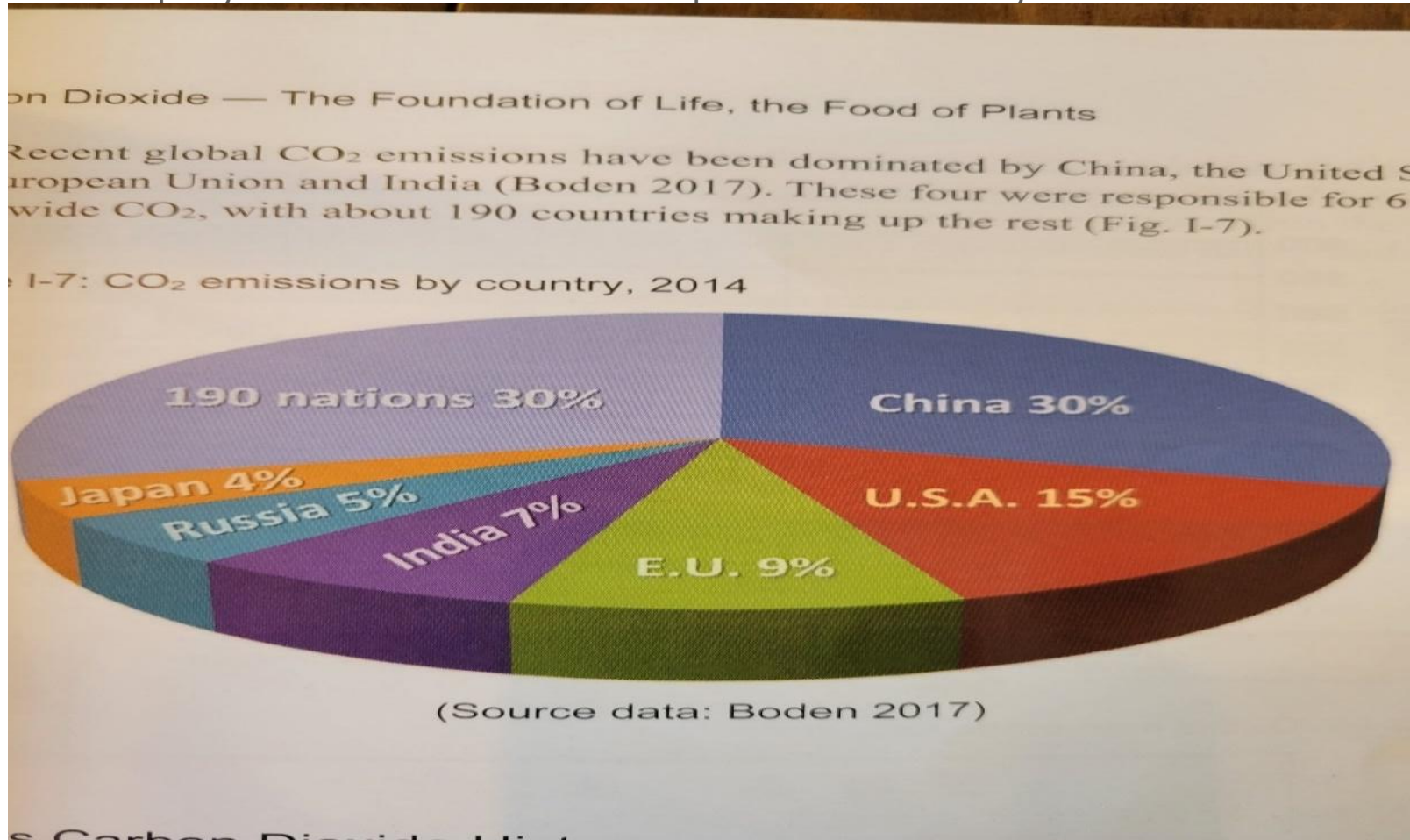
Reference book: Climate at a Glance page 65

Source US Environmental Protection Agency

5) What could have caused changes in CO₂ levels over geologic time?

CO₂ emissions by country 2014

- About 2/3rds of greenhouse gas emissions come from China, India and 3rd world countries.
- The developing world accounts for about 40% of the annual global carbon emissions.



Reference book: Inconvenient Facts page 11, Source Boden 2017

Reference book: Cool It Page 11

5) What could have caused changes in CO₂ levels over geologic time?

CO₂ emissions by country 2023

In 2023, 2/3rds of greenhouse gas emissions come from China and Asia Pacific countries

6:13 PM Fri Sep 6

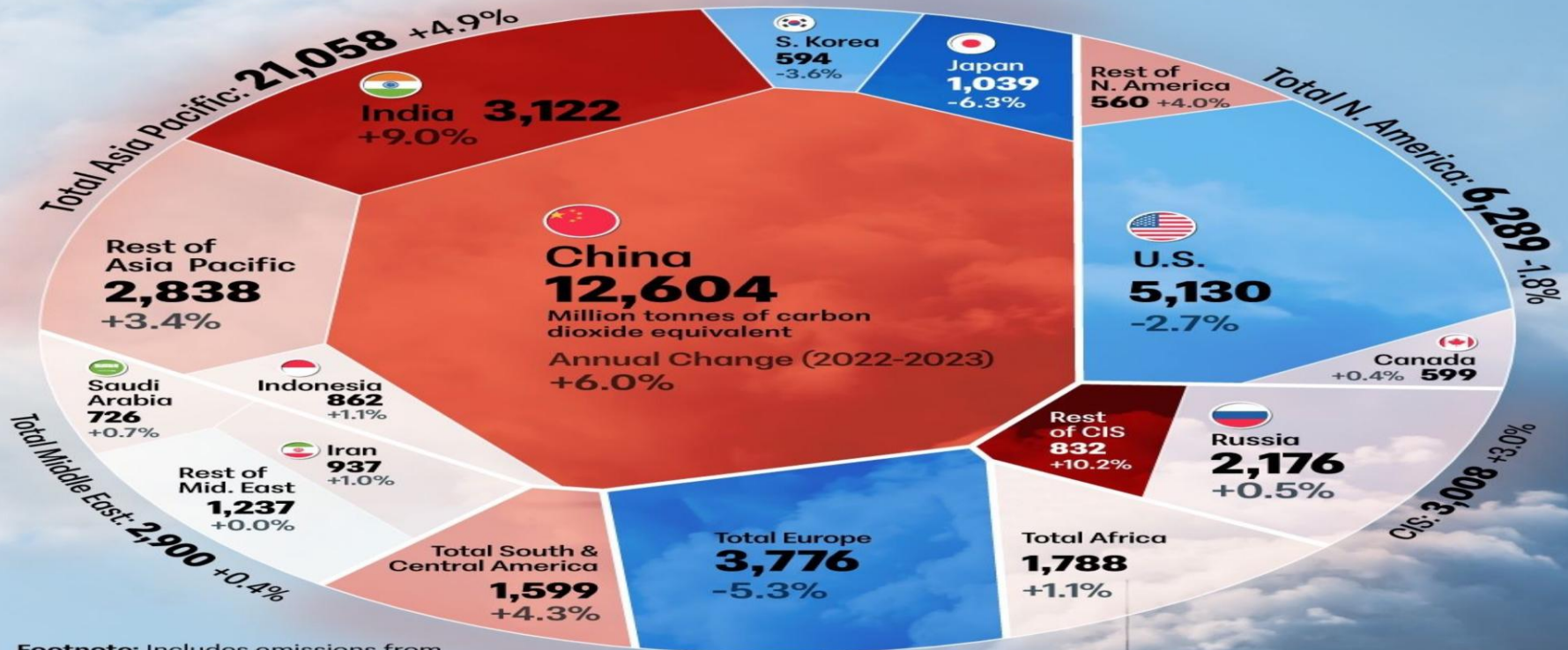
81%

CARBON EMISSIONS

FROM ENERGY PRODUCTION
IN 2023

SHADING BASED ON ANNUAL CHANGE (2022-2023)

-6% -3% 0% +3% +6% +9% +12%



Footnote: Includes emissions from energy production, flaring, industrial processes, and the transportation and distribution of fossil fuels.



Source: Energy Institute, Statistical Review of World Energy 2024

5) What could have caused changes in CO₂ levels over geologic time?

Comments CO₂ and Climate Change

- The Earth is massive enough to hold onto a tenuous atmosphere. In this [gaseous soup](#) are elements and a few compounds. Nitrogen is the most plentiful element, followed by oxygen and then the inert gas argon and helium. Carbon dioxide is just a bit down the list and comprises just over 0.04% of the entire atmosphere - out of every *ten thousand* molecules of air, only *four* are carbon dioxide.
- For earthly animal life, the most important function of the atmosphere is to provide oxygen. It wasn't always this way. The primordial atmosphere was largely devoid of oxygen, which had already been mostly consumed when it combined with hydrogen to create water. Then came photosynthesizing plants. They employ a biochemically complex process that allows plants to combine carbon dioxide with water (the remaining source of hydrogen) to produce various forms of carbohydrates (sugars and fibrous tissues), releasing oxygen as a waste product.
- The process of atmospheric *heat-trapping* is a benefit for *all* life forms. Without this blanket of air and clouds, the surface of the Earth would freeze solid *every* night.
- Over time, the accumulated vegetable biomass decomposes and releases methane gas (CH₄), which is highly flammable. When burned (oxidized), methane produces water and carbon dioxide among other trace compounds such as carbon *monoxide*. Other ultimate products of plant decomposition are coal and petroleum. Peat bogs are mostly found in the northern hemisphere and can be used directly as fuel. Many ancient peat bogs became buried beneath sediment, where they morphed into coal deposits — archetypical of the term “fossil” fuel. In rare cases, pure crystals of carbon have formed in diamond deposits.

5) What could have caused changes in CO₂ levels over geologic time?

Comments CO₂ and Climate Change

- When a hydrocarbon is oxidized, water is always part of the exhaust — hence the condensation trails produced by jet aircraft. Carbon dioxide is also produced. What is often not mentioned is that *all* of the carbon in fossil fuels got there due to the extraction of atmospheric carbon dioxide by photosynthesis. It just keeps cycling around and around.
- When sugary water (such as fruit juice or diluted barley malt extract) is digested by yeast, both alcohol (ethanol) and carbon dioxide are produced. The primary source of *commercial* carbon dioxide is the beer-brewing industry. During the recent supply chain crunch, there was a shortage of soda pop because less beer was being brewed and thus less carbon dioxide was available to inject the necessary fizz into these products. Carbon dioxide is also fairly inert, so it's safe for us to swallow and also use in fire extinguishers. And because it is so inert, it takes such a complex biochemical process as photosynthesis to separate it into carbon and oxygen.
- Climate change, however, is a given. Were climate *not* to change, there would never have been ice ages and their interstitial warm periods, the causes of which are still not fully understood.
- Since the beginning of the Industrial Revolution in the late 1700s, the average concentration of Earth's atmospheric carbon dioxide (CO₂) has increased by about 140 parts per million by volume (ppmv) to the current amount of about 420 ppmv. This is much higher than concentrations of the past 800,000 years, which rarely exceeded 300 ppmv, according to ice core data, the CO₂ Coalition presents multiple lines of scientific evidence demonstrating conclusively that the modern increase in CO₂ is mainly due to anthropogenic emissions.

Reference: [Oh, that pesky carbon dioxide! - American](#)

Thinker<https://co2coalition.org/publications/human-contribution-to-atmospheric-co2-how-human-emissions-are-restoring-vital-atmospheric-co2/>

5) What could have caused changes in CO₂ levels over geologic time?

Summary Observations

- Over time, colliding and spreading continental and oceanic plates, volcanoes and warm oceans have added CO₂ to the Earth's atmosphere.
- At least five times in the past 500 million years, large plate tectonic disturbances caused immense release of magma dramatically increasing the level of CO₂.
- El Nino and other ocean currents also increase CO₂ emissions.
- The cold ocean, marine deposition of limestone, chalk and organic-rich shales, oil, gas and coal deposits have absorbed and stored large amounts of CO₂.
- Over geologic time, global temperatures changed independently from changing CO₂ levels. This does not support CO₂ causing these temperature changes.
- Humanity adds to carbon emissions through burning fossil fuels & industry activity.
- Transportation, electricity generation and Industry add 70% of USA CO₂ emissions.
- Less than 30% of yearly greenhouse gas emissions by country come from the US, Canada, EU, UK and Japan.
- Forest fires, farming irrigation, animals and other events also add to CO₂ emissions.
- Geologic records of the Earth's past do not support a link between temperature and CO₂ levels; life has prospered under much higher CO₂ levels than present today.

Question 6

Is Climate change mainly caused by mankind's emissions of CO₂?

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Climate Overview

- The Earth has experienced climate change well before the appearance of humanity.
- The Earth is recovering from a cold period that began long before mankind-induced CO₂ gases were produced.
- Over the last 7,000 to 8,000 years, temperature changes are consistent with past glacial/interglacial periodicity.
- Profound changes in temperature differences between the poles and equator with little change in tropical regions.
- The Earth's climate is determined by the Sun's flows of energy into and out of the Earth's atmosphere and surface. Anything that increases or decreases the amount of incoming or outgoing energy causes global temperatures to rise or fall in response. Such climate forces include Sun and solar activity, transmitted energy, orbital parameters, the Earth's Sun trajectory, planetary perturbations, tilts and wobble and greenhouse gases.
- Solar activity causes changes in UV, solar wind, magnetic field, sunspots and indirectly cosmic rays and climate.
- Solar activity is measured by the number of sunspots. There have been times when the Sun appears to have ceased to develop sunspots for lengthy periods including the end of the 17th century to early 18th century when there was a freezing period during which there were virtually no sunspots. Solar scientists' research shows robust correlations between solar variability and climate change including directly connecting centennial-scale periods of low solar activity with cooler climates (e.g. Little Ice Age) and periods of high solar activity with warm periods.
- Clouds are the single, largest internal factor affecting global temperature but also the area of greatest uncertainty which explains the difficulties with climate modelling forecasts. Cloudy days are generally cooler than sunny days.
- The rearrangement of atmospheric pressure, which governs wind patterns and sea-surface temperature, can drastically affect regional and global weather patterns. Their effect on global warming can also be significant
- .Passing stars can also the orbital pattern of the Earth thereby affecting climate

Reference book: The Real Inconvenient Truth: Chapters 3 and 4 Source: Caleb Rossiter PhD Equal warming 1900 to 1950 versus 1950 to 2018
Effects of clouds on atmospheric processes <https://co2coalition.org/publications/radiation-transport-in-clouds/>
[Henrik Svensmark & Nir Shaviv - How the sun regulates our climate – YouTube](#)

An Assessment of the Conventional Global Warming Narrative. -Dr. Richard Lindzen's new paper. Published by the Global Warming Policy Foundation – September 22, 2022 <https://phys.org/news/2024-02-stars-orbital-evolution-earth-planets.html>

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change

- **The biggest factor influencing weather and climate patterns on Earth is the Sun.** Depending on the earth's position to the sun at any given time, climate conditions are going to vary dramatically (day/night, seasons, etc)
- NASA states that the Earth's orbit and the resulting changing angle of the Sun's rays (Milankovitch cycles) are the likely cause in long-term changes to Earth's climate. These cycles operate over timescales of tens of thousands or hundreds of thousands of years. The Earth is presently warming from the last ice age.
- The climate system is very complex. Compared to the effects of the Sun and other natural phenomena, mankind's contributed CO₂ makes a minor impact on the Earth's energy balance and overall climate:

i) Sun's energy and Sunspot energy emissions. There is a close correlation of temperature with solar activity plus longer-term changes (Milankovitch cycles); ii) clouds have 25 times more impact than mankind's CO₂ impact; iii) tectonics and moving plates and associated volcanos; iv) orbital parameters impact on climate orbit, tilt, wobble effect; v) atmospheric and ocean circulations; v) ocean oscillations; vii) wind circulations; viii) total greenhouse gases. The influence of added CO₂ on the climate has only a minor influence on a massive system.

<https://www.sott.net/article/420049-NASA-admits-climate-change-occurs-because-of-changes-in-Earths-solar-orbit-not-because-of-SUVs-and-fossil-fuels>

[Solar Influence on Weather and Climate | Dr. Brian ...](#)

Impact of global factors on climate <http://youtu.be/KtjeNvTwYeU>

Reference book: Climate All Is Well, All Will Be Well | Jeremy Nieboer pages 28, 29

Reference book: The Real Inconvenient Truth: Chapters 3 and 4

Please review these chapters for a more detailed understanding of factors that impact climate

Source:: Caleb Rossiter PhD Equal warming 1900 to 1950 versus 1950 to 2018

Freeman Dyson <https://youtu.be/BiKfWdXXfls>

[Henrik Svensmark & Nir Shaviv - How the sun regulates our climate – YouTube](#)

[Natural Climate Variability. Does CO₂ Have Any Effect? | Prof. Judith Curry – YouTube](#)

<https://www.sott.net/article/420049-NASA-admits-climate-change-occurs-because-of-changes-in-Earths-solar-orbit-not-because-of-SUVs-and-fossil-fuels>

<https://www.youtube.com/watch?v=b50yv8I6I-g>

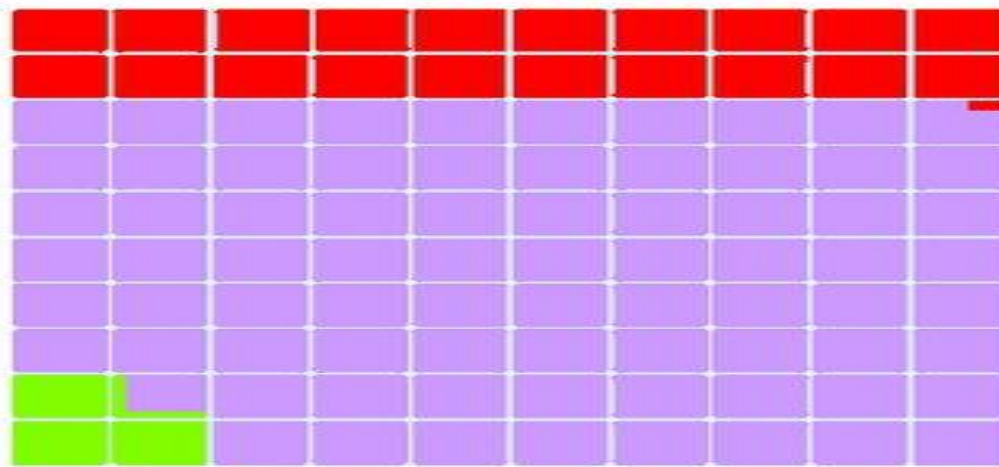
Importance of Sun on Climate [Willie Soon](#)

<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2024GL111500> - Volcanic activity can have a significantly greater effect than CO₂

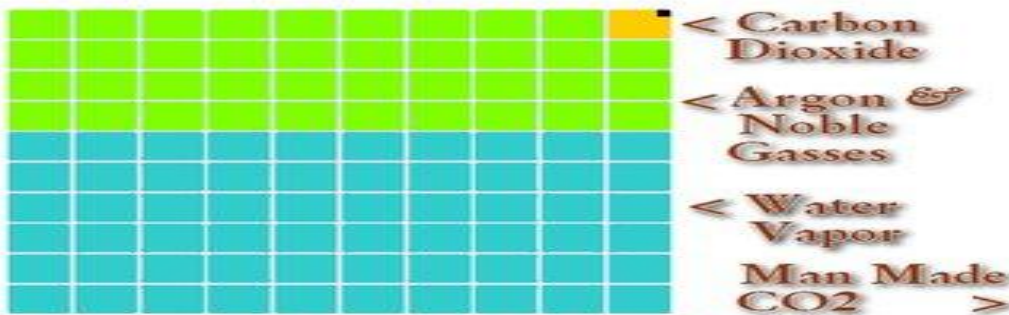
6) Is Climate change mainly caused by mankind's emissions of CO₂?

CO₂ takes up a very small proportion of the Earth's total atmospheric gas

In the Earth's atmosphere, CO₂ is a trace gas that plays a part in the greenhouse effect, carbon cycle, photosynthesis and ocean carbon cycle. CO₂ represents 5% of greenhouse gas which takes up a small 0.8% of total atmospheric gases. CO₂ represents only 0.04% of the total atmosphere gas.

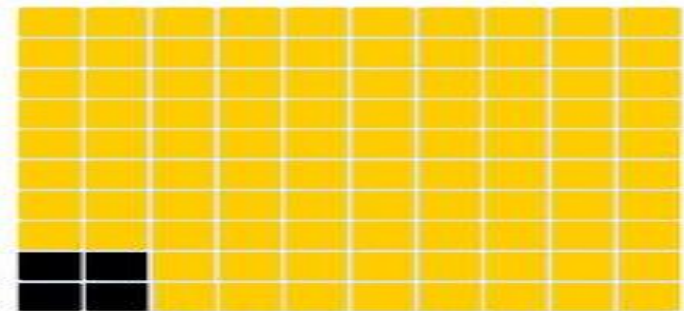


This is The Earth's
Atmosphere
Nitrogen, Oxygen,
And
Everything Else.



ALL Trace Gasses

< Carbon
Dioxide
< Argon &
Noble
Gasses
< Water
Vapor
Man Made
CO₂ >



Carbon Dioxide

How much CO₂ is TOO Much?

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors impacting Climate Change over last 66 Million Years

Geoscientist Tom Gallagher applied his knowledge of a changing Earth, including changing ocean currents and plate tectonics, to help understand ever-changing historical Earth temperatures .

There was clearly an increase in temperatures from the Paleocene (ending about 56 million years ago) to the Early Eocene Climate Optimum (ending about 45 million years ago). Then came a general decline in temperature trends with the East Antarctic forming about 34 million years ago, a long period of stable temperatures ending in the Miocene Climate Optimum (about 14 million years ago) when the West Antarctic Ice Sheet began to form. The temperatures continued to decline, with variation until about 3.5 million years ago with the formation of the Northern Ice Sheet. In general, temperatures have fallen since, with even stronger variation.

Oceans are the primary mechanism for storing solar energy on Earth. When the Earth warms, the oceans warm. Conversely, when the Earth cools, the oceans cool. The principal change in ocean currents was the changing of the Earth's land masses. During the warmest period, the Eocene, the warmest epoch in the past 66 million years, the equatorial currents ran strongly, indicating little divergence to the north and south. Heat accumulates from the tropical sun. Neither polar region had ice, and the North Pole was covered by an isolated, fresh-water lake. Antarctica had not yet formed, and the South Pole was ice-free. What changed was the gradual blocking of the equatorial currents that led to a decline in Earth's temperatures.

Professor Ian Plimer emphasizes that climate change is influenced by numerous factors beyond human activity, such as volcanic activity, ocean currents, and solar cycles.

Reference: <http://www.sepp.org/twtwfiles/2023/TWTW%207-15-23.pdf>

<https://wattsupwiththat.com/2023/07/24/weekly-climate-and-energy-news-roundup-560/>

Professor Ian Plimer's book "Climate Change: The Facts 2025,"

6) Is Climate change mainly caused by mankind's emissions of CO₂? Over the last 67 Million Years, the Earth has been over 10C higher than today

Gallagher concludes that the following cause Climate Change:

- Solar cycles – The sun controls the energy system; Solar cycles govern longer-term climate change.
- Oceans control energy storage
- Water in all phases drives the energy cycle of Climate.
- Continental Drift has shaped major steps in climate change over the past 67 million years.
- CO₂ and Temperature proxies do not correlate in paleoclimate data.
- Until recently, CO₂ was produced by volcanoes and oceans, with volcanoes heavy in C-13
- Catalysts such as Clouds and vegetation modify cycles.

Over the last 66 million years there have been four distinct periods or Climate States:

- Hot house: 56 to 47 million years ago (Mya) more than 10 C above today
- Warm house: 66 to 56 Mya and 47 to 34 Mya
- Cool house 34 to 3.3 Mya Warmer than today
- Icehouse: 5 C below with the beginning of the Pleistocene (closing of the Panama seaway 3.3 MYA ago).
- Our current global condition is Wet, Warm, Non-glacial Time when Vegetation and Civilization thrive.

If governments claim their policies address the causes of climate change, then their policies must include all these factors, and then CO₂ will be relegated to a bit player.

Reference: <http://www.sepp.org/twtwfiles/2023/TWTW%207-15-23.pdf>
<https://www.dropbox.com/scl/fi/j2k014cejej8tabi4elt7/TwoClimateFacts.docx?rlkey=0w1uf4o81wkg6vqy1qe5s8yxx&e=1&dl=0>

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change - Dr. Lindzen

“Technical paper 5, The Global Warming Policy Foundation Dr Lindzen Abstract

The one-dimensional picture of the greenhouse effect and the role of carbon dioxide in this mechanism dominates current depictions of climate and global warming. We briefly review this picture. [[See attached document.](#)] We then discuss the shortcomings of this approach in dealing with the three-dimensional climate system. One problem is determining what temperature on the real Earth corresponds to the temperature in the one-dimensional treatment. This, in turn, leads to the traditional recognition that the Earth has, in fact, many climate regimes at present. Moreover, there have been profound changes in the temperature difference between the tropics and polar regions over millennia, but at the same time, the temperature of the tropical regions has remained little changed. The popular narrative assumes that small changes in the tropics are amplified at high latitudes. There is no basis for this assumption.

Rather, the difference is determined by dynamic heat fluxes in the atmosphere and oceans, with the controlling flux due to baroclinic instability in the atmosphere. Changes in mean temperature are primarily due to changes in the tropic-to-pole difference, and not to changes in the greenhouse effect. The stability of tropical temperatures in the face of strongly varying heat fluxes out from those latitudes points to the existence of strong negative feedbacks in the radiative-convective response of the tropics. Finally, we will comment on the so-called impacts of climate change.

Dr. Lindzen's assessment addresses the following points:

1. The popular narrative
2. What is the Earth's temperature?
3. What is the Earth's climate?
4. What determines the tropics-pole temperature difference?
5. What produces the stability of the tropical temperature?
6. Where does CO₂ fit in the climate?
7. Impacts
8. Where does this leave us?"

Dr. Lindzen's assessments: [2022 09 22 Lindzen-global-warming-narrative](#)

<https://www.youtube.com/watch?v=DYWrehjaMFQ>

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Dr. Clouser

Mr. John Clauser, who recently became a [recipient of the 2022 Nobel Prize in Physics](#) for his contributions to quantum mechanics, holds degrees from Caltech and Columbia University states the following:

- Cloud cover has a profound effect on the earth's heat input that the clouds are reflecting a massive amount of light back out into space. While many theories of anthropogenic climate change focus primarily on the impact of human-produced CO₂, Mr. Clauser argues that these models overlook the significance of cloud dynamics. satellite images consistently show wide variances in cloud cover, which can span anywhere from five to 95 percent of the Earth's surface.
- "The cloud cover fraction fluctuates quite dramatically on daily weekly timescales. We call this weather. You can't have weather without having clouds," Clouds play a paramount role in regulating the Earth's temperature, serving as a "cloud-sunlight-reflectivity thermostat" that "controls the climate, controls the temperature of the earth, and stabilizes it very powerfully and very dramatically,"
- With two-thirds of the Earth being oceanic, the ocean becomes instrumental in cloud formation.
- Minimal clouds result in heightened sunlight exposure to the ocean, triggering increased evaporation and subsequent cloud formation, resulting in more clouds. On the contrary, abundant clouds reduce this sunlight, thus curbing evaporation rates and cloud formation, resulting in fewer clouds, Mr. Clauser explains. This balance acts like a natural thermostat for the earth's temperature, he said.
- Mr. Clauser contends that this "thermostat" mechanism has a vastly greater influence on Earth's temperature than the effect of CO₂ or methane. He presented to The Epoch Times preliminary calculations that suggest that the impact of this cloud-reflectivity mechanism might overshadow CO₂'s influence by more than 100 or even 200 times.

https://www.theepochtimes.com/us/nobel-winner-refutes-climate-change-narrative-points-out-ignored-factor-5486267?utm_source=Morningbrief&src_src=Morningbrief&utm_campaign=mb-2023-09-10&src_cmp=mb-2023-09-10&utm_medium=email&est=zxLxigdHW2P7Hy0XW1vWNkCT0dzF8hCq9ubtc8Fm%2B9sAXQSi%2BgUchDd0h1odjThySHobrA%3D%3D

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Dr. Ole Humlum

The global climate system represents a multifaceted system, involving the sun, planets, atmosphere, oceans, land, geological processes, biological life, and complex interactions between them. Many components and their mutual coupling are still not fully understood or perhaps not even recognised. Among all these influences, human CO₂ emissions have in all probability contributed only a little to the current warming. In fact, believing that one minor constituent of the atmosphere (CO₂) controls nearly all aspects of climate is amazingly naïve and entirely unrealistic. The global climate has remained in a quasi-stable condition within certain limits for millions of years, although with important variations playing out over periods ranging from years to centuries, or more, but the global climate has never been in a fully stable state without change. Modern observations show that this normal behaviour is also characterizing recent years, including 2024, and there is no observational evidence for any global climate crisis. Our world should consider focussing on real and much more pressing problems than a fictional climate crisis.

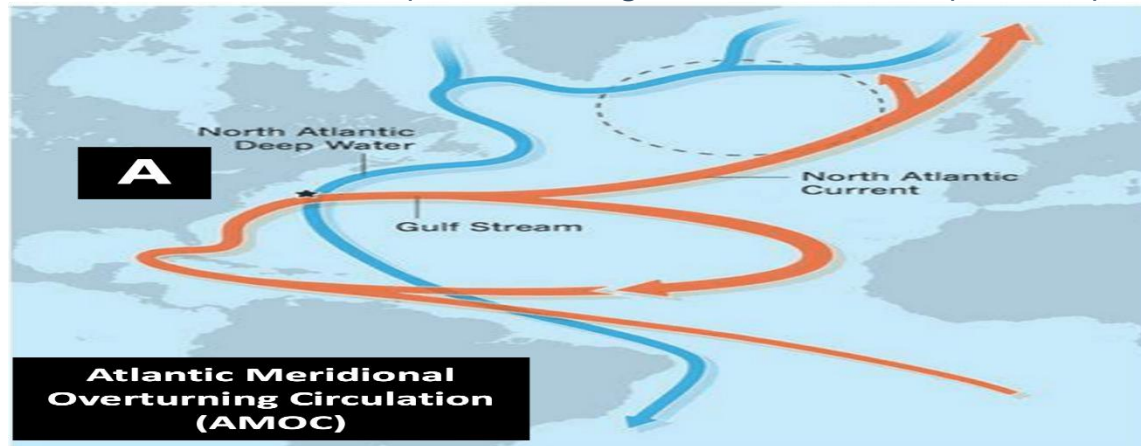
Dr. Ole Humlum former Professor of Physical Geography at the University Centre in Svalbard, Norway, and Emeritus Professor of Physical Geography, University of Oslo, Norway.

[GWPF-StateOfTheClimate2024_Humlum_SubmittedVersion20250307.pdf](#)

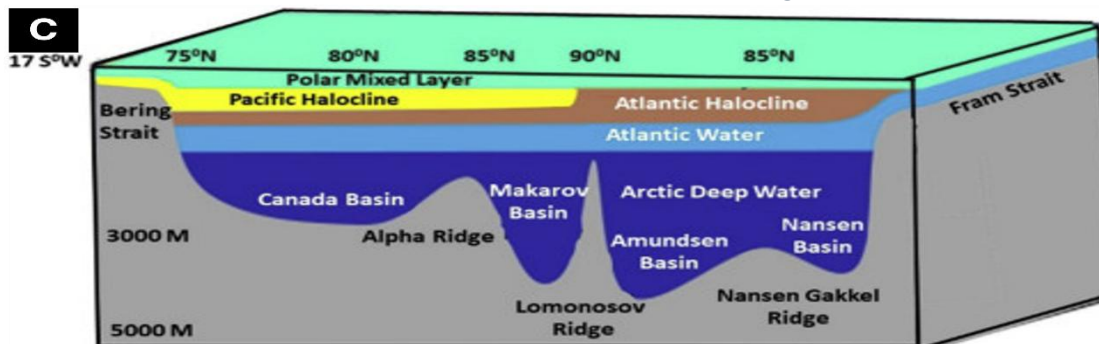
6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Jim Steele

- The wind-driven surface flow of the Atlantic Meridional Overturning Circulation (AMOC) brings precious warmth from the tropics towards the Arctic & enables a milder climate in Europe and North America. It's the oceans that tremendously effect climate and create temperature changes that cannot be explained by a CO₂ greenhouse effect.



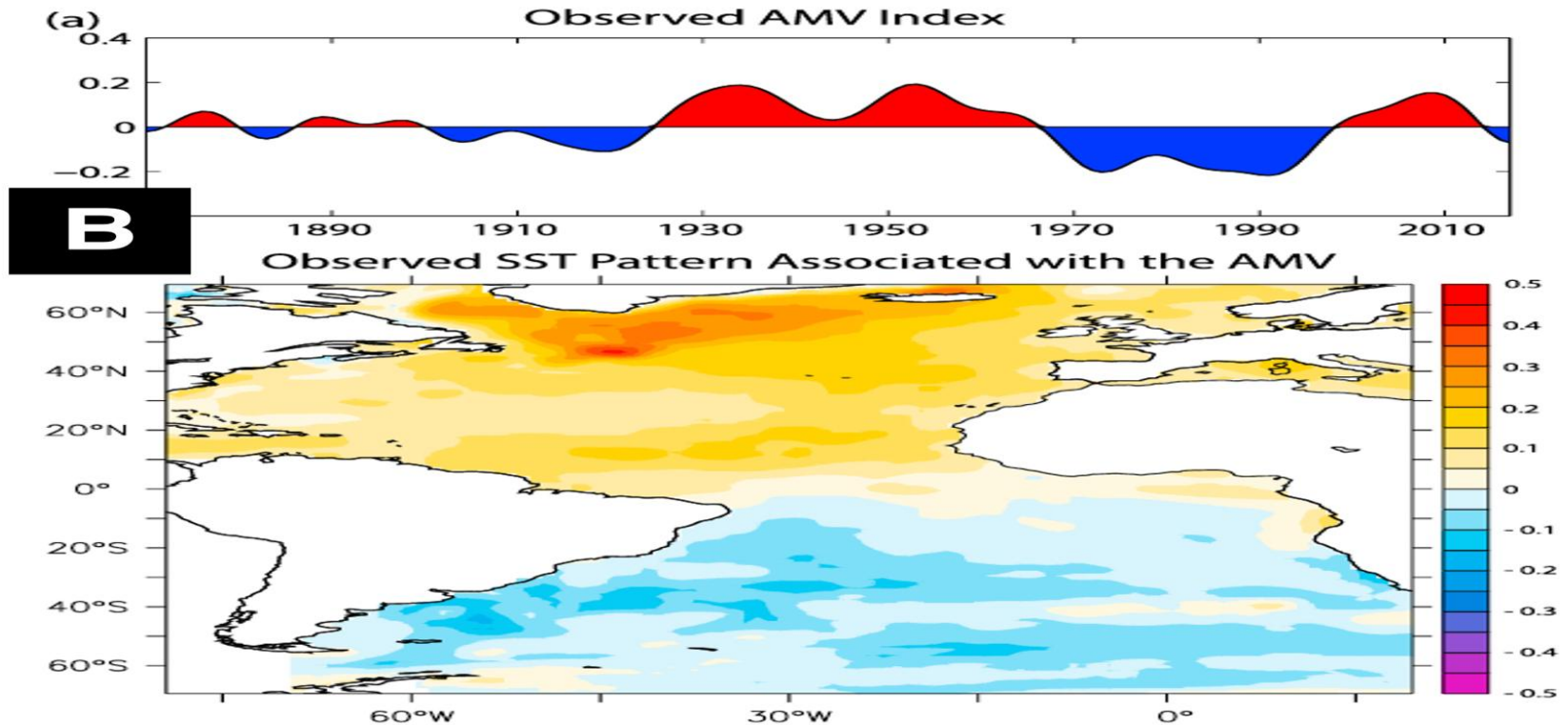
- The AMOC is unique because 1) it carries tropical heat from the south Atlantic, across the equator into the north Atlantic and Arctic Ocean (red currents, graphic A). 2) it creates a reservoir of warm Atlantic water at 100 to 900 meters depth in the Arctic Ocean capable of melting all sea ice 4 times over (graphic C). 3) Because the Atlantic is saltier than the Pacific, it becomes dense enough to sink to the ocean floor when it cools, creating the pressure that drives a deep return current back to the Antarctic (blue currents, graphic A).



6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Jim Steele

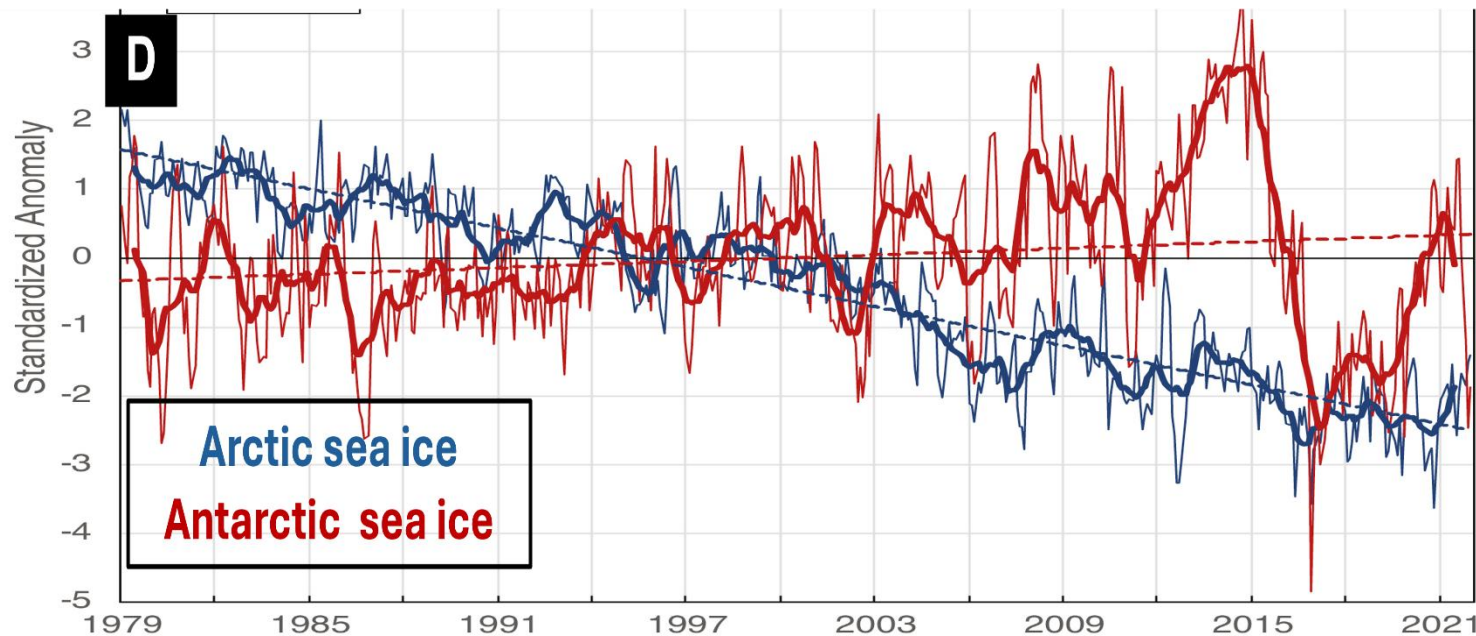
- When the AMOC slows down, it delivers less heat to the Arctic. Now a growing ocean cold spot south of Greenland suggests the AMOC is indeed slowing down again. To protect global warming narratives, climate alarmists like Stefan Rahmstorf and Michel Mann push the idea that global warming is causing the cooling and that rising CO₂ will soon cause a catastrophic AMOC collapse that freezes Europe and disrupts global climates. But the variations in the AMOC's heat transport have been happening for millennia and do not correlate with changing CO₂ concentrations.



6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Jim Steele

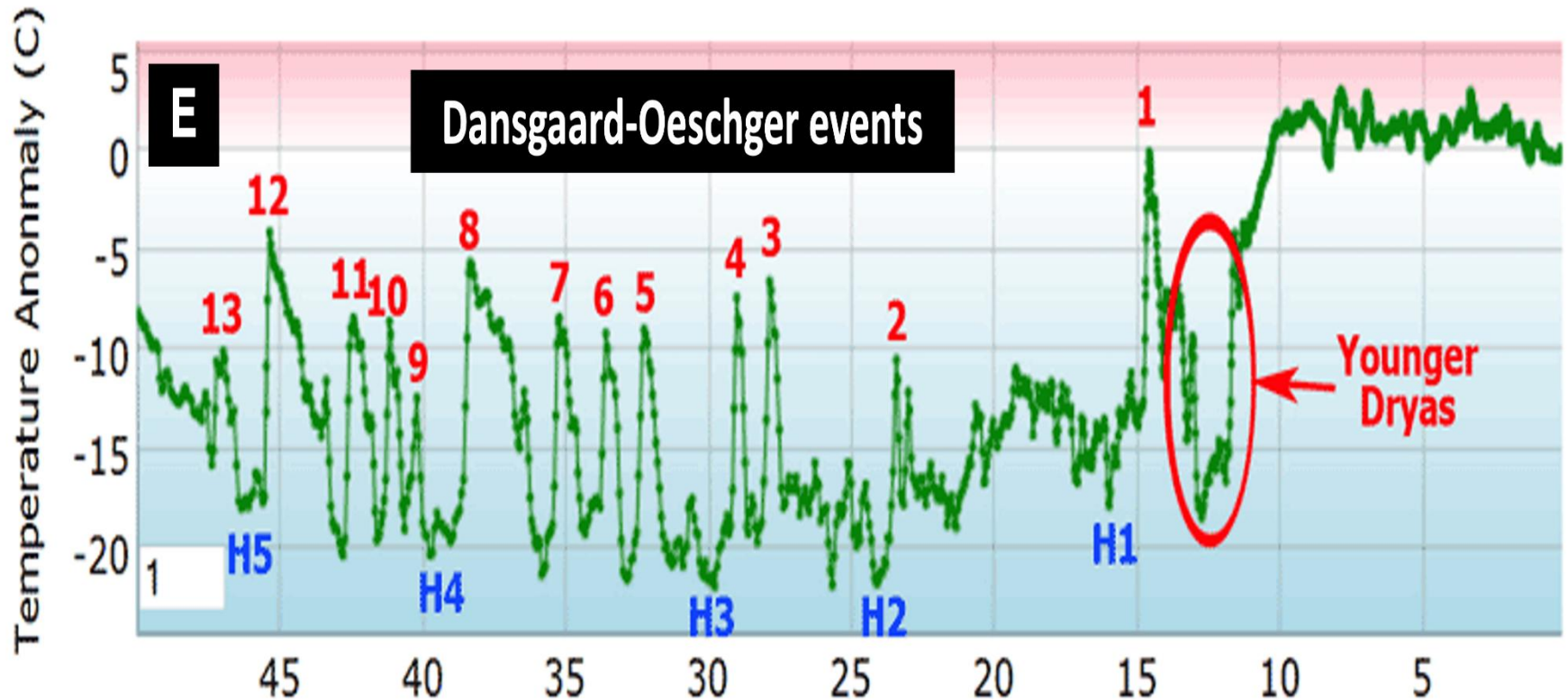
- Most scientists believe varying AMOC heat transport causes the global see-saw effect contributing to the Atlantic Multidecadal Variability (AMV) (graphic B). When the AMOC strengthens it also pirates more warmth from the south Atlantic. The north Atlantic then warms while the south Atlantic cools. During the 1930s & 40s, the north Atlantic warmed and Arctic sea-ice retreated similar to what is observed today. During the 1970s and 80s, the AMV cycled to cooling the north Atlantic and Norwegian glaciers grew prompting several scientists to warn we were headed for a new ice age. In the 1990s as the AMV cycled and the Atlantic warmed again, the new fear was global warming. Blinkered scientists blamed rising CO₂ for the AMOC's effects. Most ignored the fact that Arctic sea-ice was melting mostly where warm Atlantic water entered the Arctic and downplayed the AMOC see-saw effect that was redistributing heat and causing Antarctic sea-ice to simultaneously increase (graphic D).



6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Jim Steele

- Nonetheless those changes provided the ammunition for drama queens and eco-loons like Roger Hallam to create the Extinction Rebellion and Just Stop Oil movements. Ignorant politicians offered government grants to grifting alarmist scientists to demonize CO₂ and blame fossil fuels for the warming that they soon hyped as a crisis. To manipulate our fears, alarmist scientists like Katharine Hayhoe falsely claimed the world is warming faster than ever before, rising 1.1°C (2°F) since 1850. But such claims dishonestly ignored climate history and the effects of the AMOC.



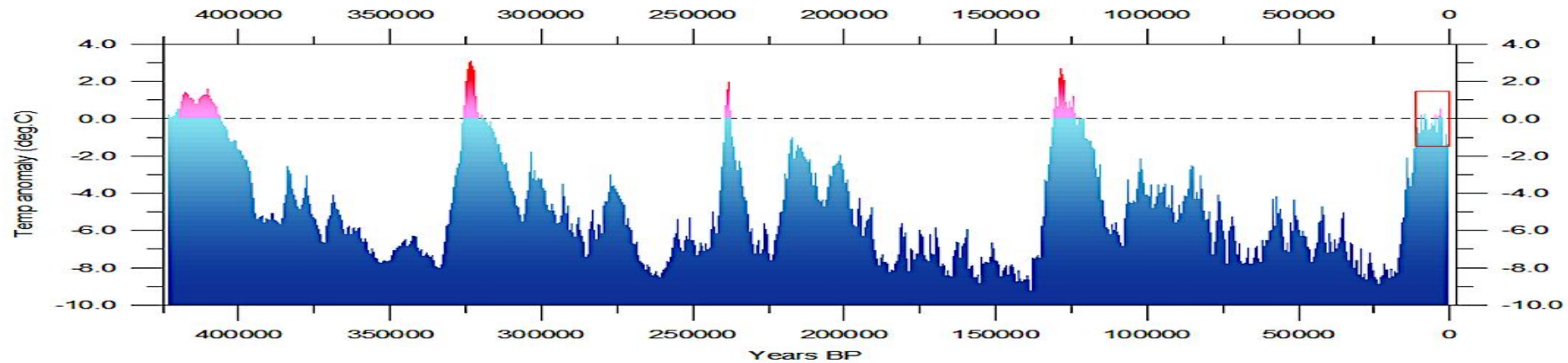
6) Is Climate change mainly caused by mankind's emissions of CO₂?

Factors that impact Climate Change – Jim Steele

- During the last glacial period CO₂ concentrations were around 180-200 parts per million (ppm) and temperatures were approximately 11 degrees Fahrenheit (6 degrees Celsius) cooler than today. Yet associated with the AMOC effects, the Arctic experienced 25 Dansgaard-Oeschger (D-O) events, raising Greenland temperatures by 18 to 27 degrees Fahrenheit (10 to 15 degrees Celsius) in just a few decades (graphic E, red numbers mark each D-O event in most recent half of glacial period). Such rapid warming can only be explained by the sudden ventilation of Atlantic heat transported via the AMOC and stored in the Arctic Ocean.
- As is the case today, the warm salty Atlantic water is insulated from the surface ice and the atmosphere by a layer of fresh water that prevents the heat of the warm Atlantic water from rising to the surface. As the glaciers grew the air dried and the flow of fresh river water into the Arctic was reduced, enabling the warm Atlantic water to rise closer to the surface. Coupled with an increased AMOC bringing more heat, Arctic sea-ice melted, and its stored heat was released, rapidly raising air temperatures
- The ebb and flow of the AMOC today similarly, but less dramatically than during D-O events, contributed to Arctic sea-ice melt, which enabled stored heat to be released. The Arctic temperatures then rose 2 to 4 times faster than anywhere else. The current slowing of the AMOC is simply part of a natural oscillating dynamic. Its current slowdown will soon increase Arctic sea-ice and lower temperatures naturally without crazy Net Zero mandates or Gate's sun blocking. The slowdown doesn't mean we are all going to die like the eco-loons and alarmist scientists push with their catastrophic story telling. Whether we burn more or less fossil fuels, it will not change the AMOC. And perhaps it will then be realized that life-giving CO₂ is not our enemy!

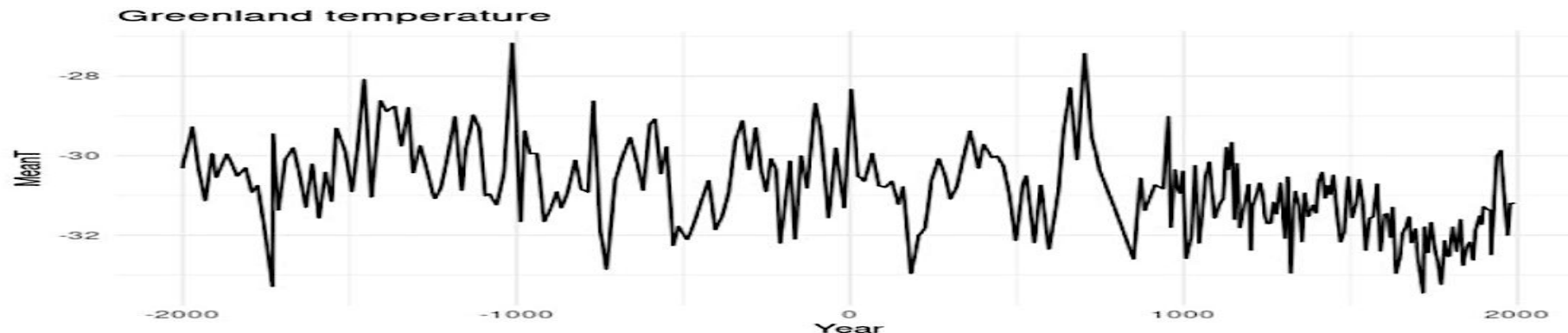
6) Is Climate change mainly caused by mankind's emissions of CO₂? Statistics Norway Recent Report Findings

Figure B2. Reconstructed temperatures over the last 420,000 years



Reconstructed global temperature based on the Vostok ice core from the Antarctica. The horizontal line indicates the modern temperature level. The red square to the right indicates the time interval shown in greater detail in <https://www.climate4you.com/>

Figure B4. Reconstructed temperatures from Greenland, 2000 BC to 2000 AD



6) Is Climate change mainly caused by mankind's emissions of CO₂?

1) Statistics Norway recent report findings

- The government agency, Statistics Norway, recently released a [report](#) that concludes: *that the effect of man-made CO₂ emissions does not appear to be sufficiently strong to cause systematic changes in the pattern of temperature fluctuations. our analysis indicates that with the current level of knowledge, it seems impossible to determine how much of the temperature increase is due to emissions of CO₂*
- The report looks at the last 400,000+ years of Earth's climate history: *The preceding four interglacial periods are seen at about 125,000, 280,000, 325,000 and 415,000 years before now, with much longer glacial periods in between. All four previous interglacial periods are seen to be warmer than the present. The typical length of a glacial period is about 100,000 years, while an interglacial period typically lasts for about 10-15,000 years. The present inter-glacial period has now lasted about 11,600 years. Similarly, on the time scale of recent millennia, current temperatures are nothing unusual: Kobashi et al. (2011) have reconstructed Greenland surface snow temperature variability with a new method that utilizes argon and nitrogen isotopic ratios from occluded air bubbles. These data indicate that warmer temperatures were the norm in the earlier part of the past 4,000 years, including century-long intervals nearly 1°C warmer than the decade (2001-2010).*

6) Is Climate change mainly caused by mankind's emissions of CO₂?

1) Statistics Norway Recent Report Findings

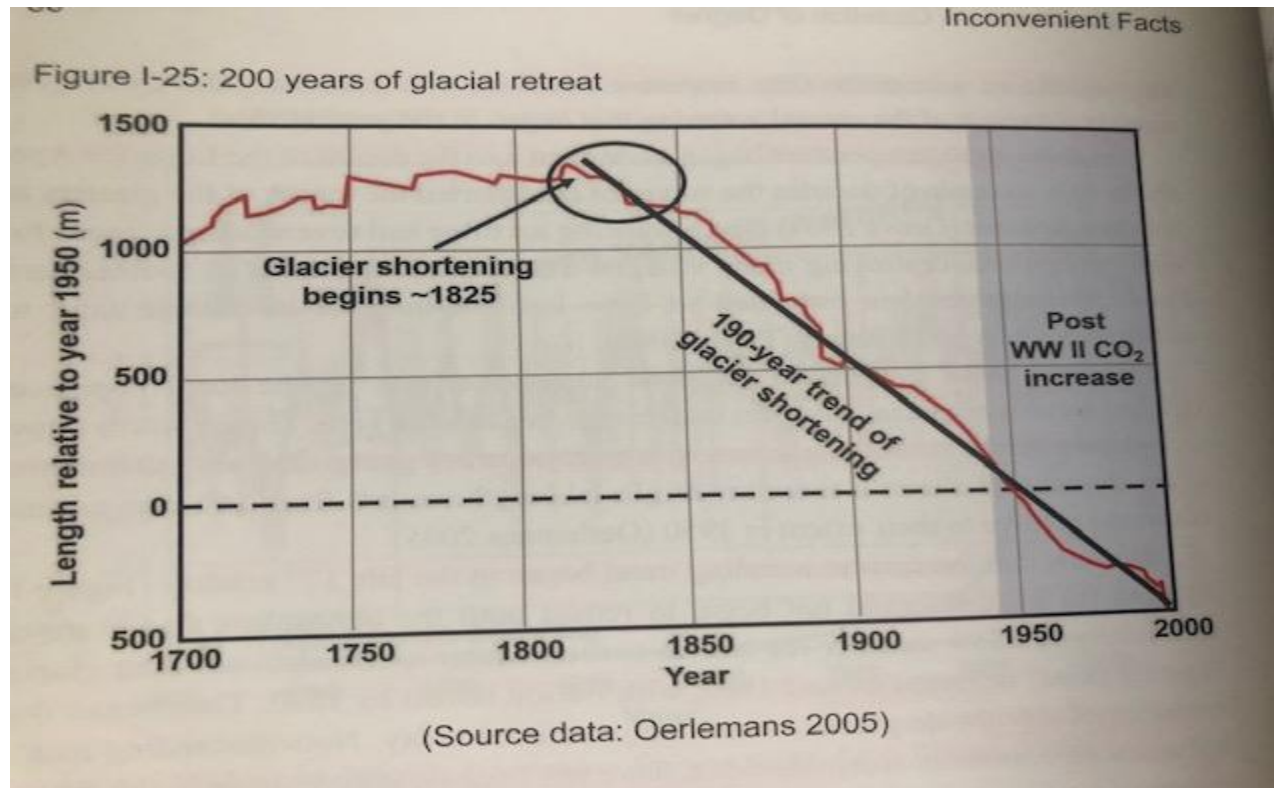
- *Therefore, it appears that the current decadal mean temperature in Greenland has not exceeded the envelope of natural variability over the past 4,000 years. During the past 10,000 years temperatures over long periods were higher than they are today. The warmest phase occurred 4,000 to 8,000 years ago and is known as the Holocene Climate Optimum.*
- It criticizes the models on which climate alarmism is based; there is nothing alarming in the observational record: *In the global climate models (GCMs) most of the warming that has taken place since 1950 is attributed to human activity. Historically, however, there have been large climatic variations. Temperature reconstructions indicate that there is a 'warming' trend that seems to have been going on for as long as approximately 400 years. Prior to the last 250 years or so, such a trend could only be due to natural causes. The length of the observed time series is consequently of crucial importance for analyzing empirically the pattern of temperature fluctuations and to have any hope of distinguishing natural variations in temperatures from man-made ones.*
- This report, although not representing the Government's official position on Climate Warming, is important because climate alarmism can survive only if it is deemed a "consensus," so that people who point out inconsistent facts can be censored. Once the purported consensus is punctured, it rapidly becomes clear that the Climate Emperor is unclothed.

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Graph showing rate of glacial retreat between 1700 and 2000 with period of increasing CO₂ shown

- The rate of glacier shortening and ice melting has remained constant since about 1825 and does not appear impacted by recent, higher CO₂ levels.

200 Years of Constant Glacial Retreat



Reference book: Inconvenient Facts page 36

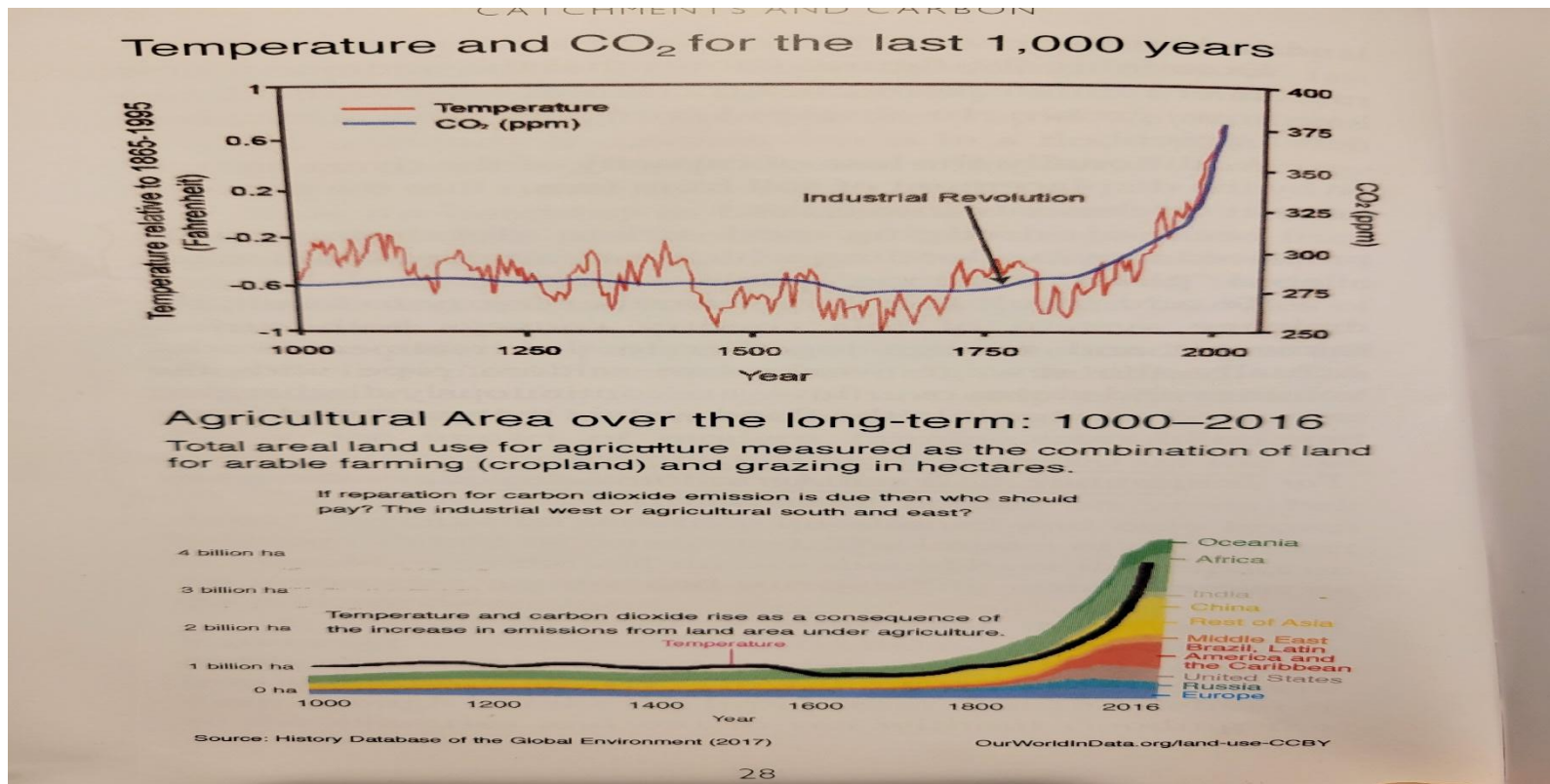
Source: Oerlemans 2005

<https://www.youtube.com/watch?v=QjQupZVS-3A>

6) Is Climate change mainly caused by mankind's emissions of CO₂?

Graph showing increasing CO₂ and increased agricultural land use

- Correlation is not causation. The correlation between CO₂ and increased land being dedicated to agriculture shows a strong correlation, as does increased fossil fuel use. Modern agricultural practices of preparing a field by spraying with weed killer and then light furrow planting opens the topsoil and allows oxidation of the soil carbon releasing about 18 tons of carbon dioxide into the atmosphere.
- Agriculture accounts for about 23% of CO₂ output and fossil fuels about 13%



6) Is Climate change mainly caused by mankind emissions of CO₂?

Climate change doesn't appear to be caused by man's emissions of CO₂

- Many factors impact climate and temperature; CO₂ levels do make a minor impact but do not correlate with changing climate over time. There is a close correlation between climate, solar activity and ocean oscillations.
- Earth's temperature has cycled between very hot climates and very cold climates. Both of these occurred during periods of both high and low CO₂
- Global temperatures changed independently with changing CO₂ levels which have been generally decreasing over the last 150 million years.
- Ice records over the last 400,000 years show CO₂ increases followed temperature increases and did not lead (cause) these increases.
- Rates of recent temperature increases, glaciation retreats and sea level rises have not changed when CO₂ levels increased significantly.
- [NASA admits climate change occurs because of changes in Earth's solar orbit, not because of SUVs and fossil fuels](#)
- Freeman Dyson <https://youtu.be/BiKfWdXXfls>
- [John Christy: Climate models for politics?... "A bridge too far" – YouTube](#)
- [Natural Climate Variability. Does CO₂ Have Any Effect? | Prof. Judith Curry - YouTube](#)
- <https://youtu.be/U6JpmDqpzQY> Increasing polar ice and climate variations
- <https://www.theepochtimes.com/epochtv/nobel-laureate-john-clauser-there-is-no-climate-emergency-climate-models-miss-one-key-variable-5486017>
- Australian debate <https://youtu.be/OlgHSqIA-6o?si=uldWZe2hp-pRZN9S>

Question 7

What's the impact of increasing CO₂ emissions on climate warming?

7) What is impact of increasing CO₂ emissions on climate warming?

Atmospheric CO₂ and as a component of total greenhouse gas is very small

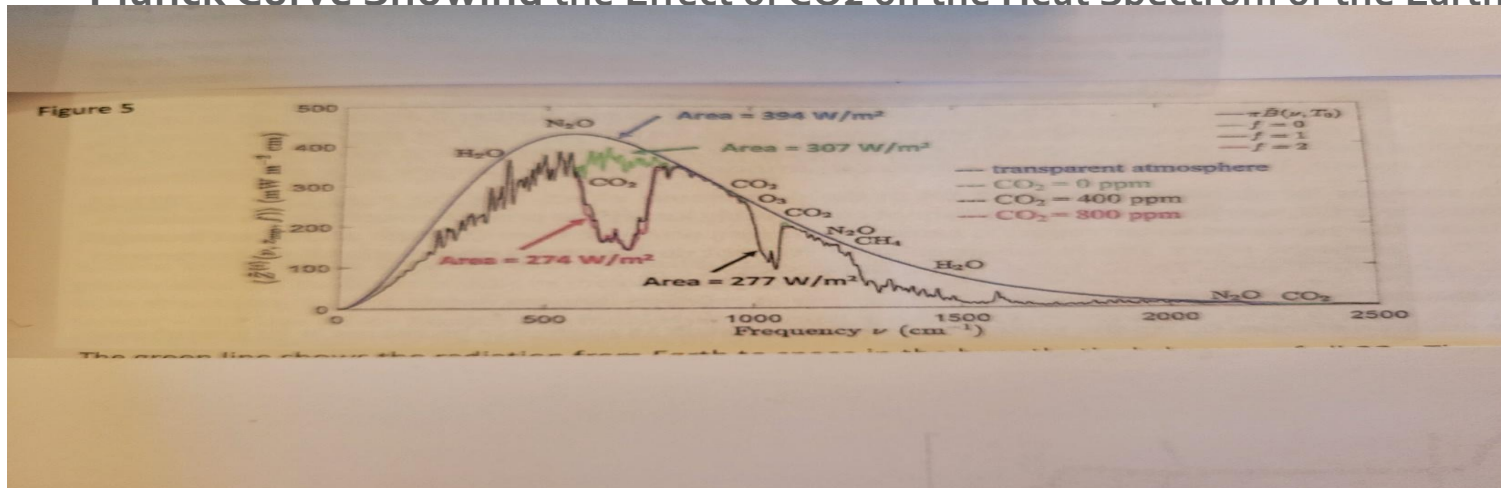
- Our planet's atmosphere consists of about 78% Nitrogen, 21% Oxygen, 1% Argon, and small trace gases (CO₂ 0.04%)
- The concentration of CO₂ in the atmosphere is about 400 parts per million and is classified as a trace gas
- The majority of CO₂ comes from natural sources like volcanic activities, release from warm oceans and irrigation of carbon-rich soils.
- CO₂ represents only 5% of the total greenhouse gas and mankind's contribution only a portion of this 5%, with water vapour representing over 90%
- Human burning of fossil fuels produces a small % of the total CO₂ emissions (about 12 parts per million)
- Only a small % of the total CO₂ generated emissions would be reduced by removing fossil fuel combustion use

7) What is impact of increasing CO₂ emissions on climate warming?

Planck curve shows the insignificant impact of doubling atmospheric CO₂

- Mainstream science is unanimous that the warming impact of CO₂ diminishes (“logarithmically”) as it increases in concentration. Every new CO₂ molecule added to the atmosphere has less warming effect than the previous one.
- Max Planck delineated the spectrum of radiation from warm bodies. The horizontal scale is the frequency of thermal radiation. The vertical scale is the thermal power going out in space. The area under the curve corresponds to the cooling power of the radiation. If there were no greenhouse gases the radiation into space would be comprised within the upper blue curve.
- The infrared radiation from Earth to space with CO₂ at 400 ppm is shown by the jagged black line. The red line is what the Earth would radiate into space if the concentration of CO₂ were to double to 800 ppm.
- The impact of doubling CO₂ from 400ppm to 800ppm, according to basic physics, is only 0.71C of warming.

Planck Curve Showing the Effect of CO₂ on the Heat Spectrum of the Earth



Reference: Climate All Is Well, All Will Be Well Jeremy Nieboer page 13

<https://wattsupwiththat.com/2023/09/29/professor-william-happer-ipa-lecture-the-crusade-against-carbon-dioxide-september-2023/>

["CO₂, The Gas of Life"-Dr. William Happer – YouTube](https://www.youtube.com/watch?v=...)

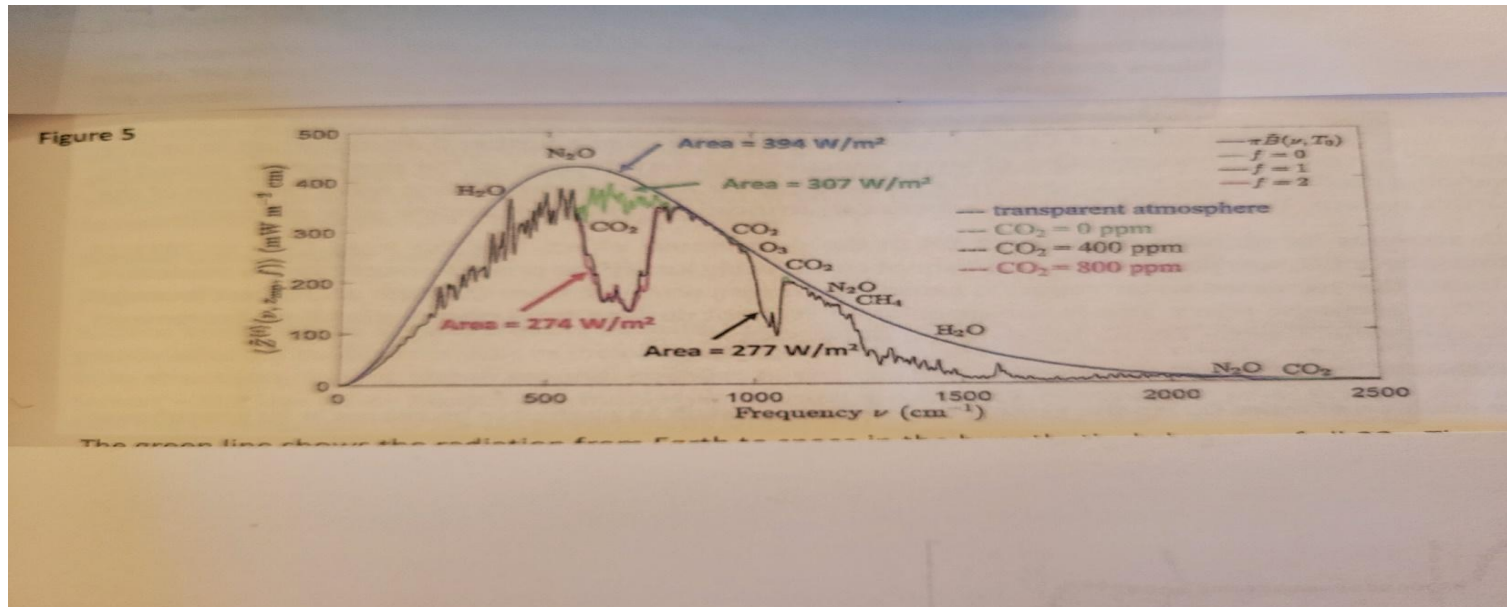
<https://wattsupwiththat.com/2025/01/18/the-saturation-effect-questions-the-prevailing-narrative-on-co2/>

7) What is impact of increasing CO₂ emissions on climate warming?

Clouds have a much greater impact on heating the Earth than added CO₂

- In a recent paper by Dr. W. A. van Wijngaarden and William Happer, they **prove the dominant role of clouds in Earth's climate**. We all experience this by going outside in a cloudless night versus a cloud overed night.
- These professors showed that clouds have a large effect on radiative heat transfer from Earth's surface to space. **Greenhouse gases also affect heat transfer, but much less than clouds**. For example, "instantaneously doubling" CO₂ concentrations, a 100% increase, only decreases radiation to space by about 1%. To increase solar heating of the Earth by a few percent, low cloud cover only needs to decrease by a few percent.
- Radiative transfer theory shows that doubling the concentration of the most important human caused greenhouse gas, carbon dioxide, for a cloudless sky only decreases radiation to space by 1%. However, clouds cover more than half the planet. An increase in low cloud cover of only about 1% could largely compensate for the doubling of CO₂.

Planck Curve Showing the Effect of CO₂ on the Heat Spectrum of the Earth

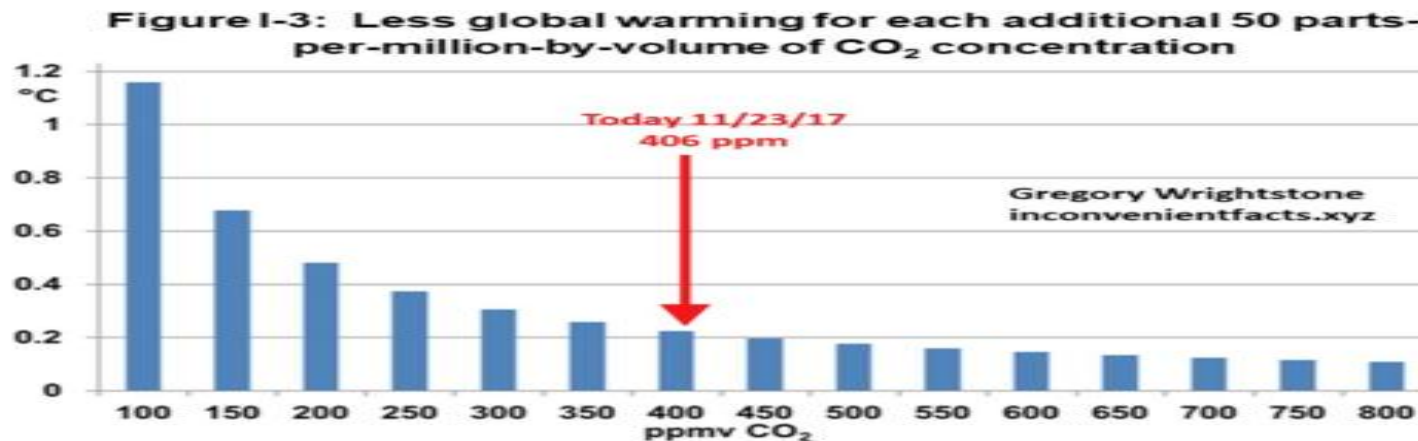


7) What is impact of increasing CO₂ emissions on climate warming?

Graph shows warming impact decreases with additional atmospheric CO₂

- The warming effect of CO₂ declines (logarithmically) as its concentration increases.
- Adding more CO₂ has an ever-decreasing impact on the Greenhouse gas effect on climate.
- From 1898 to 1998 global temperatures increased 0.8C and CO₂ increased from 295 ppm to 367 ppm. Since 1998 CO₂ increased from 367 ppm to 420 ppm, half of the previous increase, while temperatures rose slightly.
- Mars has hot and cold seasons and an average temperature of -80 F with 96% CO₂ atmosphere and no extreme heat

Temperature Impact Decreases with Increased CO₂



Graph calculated using IPCC's formula Courtesy Monckton 2017

Reference: Inconvenient Facts page 7 plus 208 www.ronaldbarmby.ca

Ivan Giaver <https://www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change/>

https://youtu.be/pHCCE-sw_Sc William Harper discussion on CO₂

(2046) This Well Known Effect Breaks the Climate Narrative – YouTube Richard Lindzen - CO₂ impact on temperature

<https://thehighwire.com/editorial/new-peer-reviewed-study-co2-has-zero-impact-on-climate-change/>

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Watch an overview of Mars [here](#)

7) What is impact of increasing CO₂ emissions on climate warming?

The saturation effect refutes that increasing levels of CO₂ will cause catastrophic global warming

- CO₂ radicalism rests on one main assumption – that increases in atmospheric CO₂ will cause a linear and dangerous increase in global temperature. The belief that more CO₂ emitted equals significantly more heat and higher temperature is a cornerstone of the ruling scientific paradigm.
- The peer-reviewed analysis completed in June, 2020 by eminent physicists William Happer and William van Wijngaarden. Mr. Happer is Professor Emeritus at Princeton University and van Wijngaarden is a professor in the Department of Physics and Astronomy at York University in Toronto shows this to be wrong.
- They applied mathematical analytics to the physics of CO₂ in the atmosphere and raised serious doubts about CO₂'s ability to absorb heat after becoming "saturated" at current levels of 400 parts per million, and therefore unable to absorb significantly more heat from the Sun. Any further increases in atmospheric CO₂ even doubling that amount to 800 parts per million, would result in minimal increases in temperature of 0.5C,.
- This finding was validated through a controlled laboratory experiment conducted by a team of researchers in 2024. They measured the back infrared radiation of CO₂ in a test chamber with increasing CO₂ concentrations emulating realistic atmospheric conditions. They concluded that doubling CO₂ from pre-industrial levels from 400 to 800 ppm "shows no measurable increase in infrared radiation absorption and can lead to just 0.5C warming increase at most".
- in 2020 German chemist Michael Schnell published "Experimental Verification of the CO₂ Greenhouse Effect" which also confirmed that the saturation effect of CO₂ results in minimal warming.
- Franz-Karl Reinhardt, a professor with the leading Swiss research facility EPF, demonstrated that a doubling of the current level of atmospheric CO₂ from 400ppm to 800ppm would produce only be one-quarter of 1 degree Celsius – too small to even be accurately measured.
- This conclusion illustrates why climate alarmists have never been able to explain the reason why the Earth has never experienced runaway warming in the past when CO₂ levels were 5-10 times more concentrated than today, nor why the UN climate models have been proven to be so terribly wrong. These saturation analyses refute that increasing levels of CO₂ will cause catastrophic global warming.

7) What is impact of increasing CO₂ emissions on climate warming?

Research papers show the decreasing climate impact with additional atmospheric CO₂

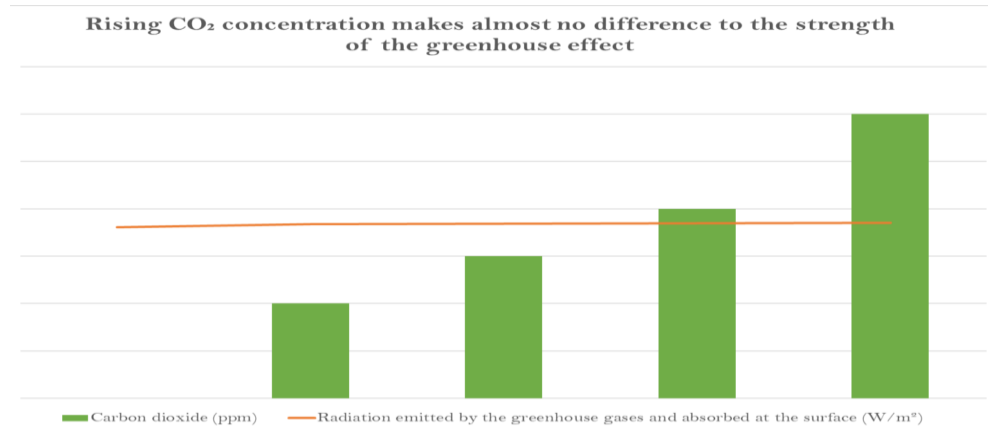
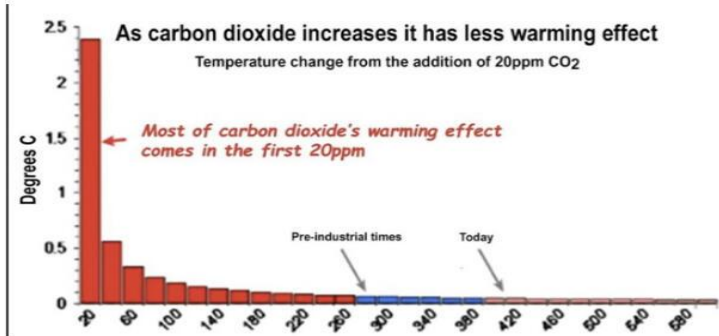
CO₂ Temperature Impact Decreases Logarithmically with Increased CO₂

- Nobody doubts whether carbon dioxide is a greenhouse gas; the questions are how much additional radiant energy CO₂ is currently absorbing compared to the past, and what impact this has on climate.
- Two recent scientific papers assess the role of CO₂ in influencing atmospheric temperature. [The first paper](#) developed a mathematically rigorous theory from first principles regarding the absorption of long-wavelength radiation (LWR). The second paper [Read Dr. Jim Mason's article in the C2C journal](#) and associated video <https://youtu.be/tcyQS4uz4rc> raise further doubts regarding climate impact of CO₂.
- [According to NASA](#), (the second paper) also shows that the absorption of LWR does not increase in a linear fashion along with the increase in atmospheric CO₂. Instead, as the gas concentration increases, the incremental amount absorbed *decreases*.
- At twice the C value – 2C – only three-quarters of the incident radiation would be absorbed. And at 3C, seven-eighths. By 10C, 99.9 percent of the absorbable LWR is being absorbed. In effect, the atmosphere has become “saturated” with the gas from a radiation-absorption perspective and further increases in CO₂ have a negligible effect on absorption.
- The phenomenon of non-linearity and absorption saturation, along with an associated Beer-Lambert Law equation is also discussed by Thayer Watkins, a mathematician and physicist, and professor emeritus of economics at [San José State University](#). “In order to properly understand the greenhouse effect one must take into account the nonlinearity of the effect of increased concentration of greenhouse gases,” Watkins notes. “The source of the nonlinearity may be thought of in terms of a saturation of the absorption capacity of the atmosphere in particular frequency bands.”

7) What is impact of increasing CO₂ emissions on climate warming?

CO₂ Has Almost No Effect on Global Temperature, Says Leading Climate Scientist

Published on Oct 15, 2022



As CO₂ concentration increases from 0 to 600 parts per million (green bars), the total strength of the greenhouse effect, measured as the energy the greenhouse gases radiate to the Earth's surface, barely changes (orange line). Source: [Kininmonth 2022](#)

Little warming would be averted from adoption of net zero policies. If the United States achieved net zero emissions of carbon dioxide by the year 2050, only a few hundredths of a degree Celsius of warming would be averted. If the entire world eliminated carbon dioxide emissions from the activities of mankind the amount of warming averted would be 0.07 degrees Celsius, inconsequential and not worth destroying the world economy.

The fundamental reason is that warming by atmospheric carbon dioxide is heavily "saturated," with each additional ton of atmospheric carbon dioxide producing less warming than the previous ton.

7) What is impact of increasing CO₂ emissions on climate warming

Peer-reviewed study: CO₂ emissions have zero impact on global temperature

- “Carbon dioxide (CO₂) emissions in the atmosphere have no impact on the Earth’s global temperatures, according to a peer-reviewed scientific study.
- The study, [published in Science Direct](#), concludes that even though most publications attempt to depict a catastrophic future for the planet due to an increase in CO₂, there is serious doubt that this is, in fact, the case.
- The study’s authors concluded that “their research unequivocally means that the officially presented narrative that human activity is causing a detrimental CO₂ increase on Earth’s climate is merely a hypothesis rather than a substantiated reality,” Tracy Beanz and Michelle Edwards wrote in a July 25 [analysis](#) for The Highwire.
- The study, conducted by researchers from the Institute of Optoelectronics, Military University of Technology in Warsaw, Poland, found that even if all the world’s coal was dug up, all the world’s oil was extracted, and they were all burned in one giant pyre, the CO₂ emissions from that endeavor would not heat up planet Earth.
- “Indeed, this is because carbon dioxide does not cause the Earth to warm up indefinitely,” the analysis noted of the study.
- The warming effect of carbon dioxide in the atmosphere reached its limit decades ago, the study concludes.

7) What is impact of increasing CO₂ emissions on climate warming?

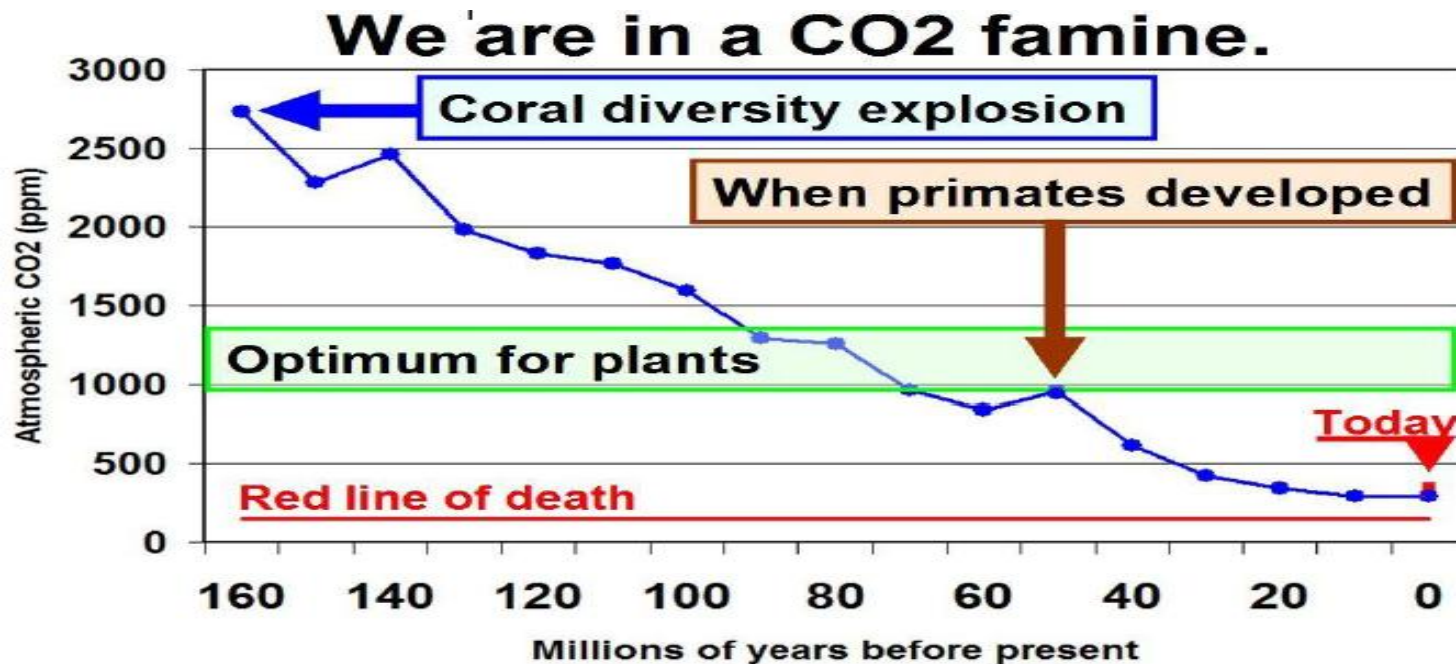
Peer-reviewed study: CO₂ emissions have zero impact on global temperature

- As [reported](#) by Slay News, much like a sponge, the Earth's atmosphere can only hold so much, meaning that carbon dioxide can no longer increase temperatures since the saturation point was reached a long time ago. The study uses a hypothetical concept of a fire inside a greenhouse consistently emitting heat. The glass walls and ceiling can contain only so much heat before emitting it outside. CO₂ in the atmosphere is very similar in that it can act as a “greenhouse” gas, but all the CO₂ together can only contain so much heat, much like the hypothetical greenhouse.
- The CO₂ Coalition agrees with this conclusion as well. Thus, amidst all the fearmongering around climate change—and the knowledge that many things, including changes in solar activity heavily influence Earth's weather — Curry believes even if the Earth is warming, it is not a dangerous thing:
- “This whole issue of ‘dangerous’ is the weakest part of the whole argument,” Curry, Professor Emeritus and former chair of the School of Earth and Atmospheric Sciences at the Georgia Institute of Technology, said. “What is dangerous? Everybody has a different idea of what's good. The only harm from warming is rising sea levels. And that's a slow creep unless something catastrophic happens, say, to the West Antarctic ice sheet. And if something catastrophic happens there, that's as likely to be associated with under-ice volcanoes as it is to be with global warming.”

7) What is impact of increasing CO₂ emissions on climate warming?

Summary by Terry Richard of paper "Atmosphere and Greenhouse Gas Primer"

- CO₂ is the food used by plants for photosynthesis, which produces the oxygen we breathe and is the direct or indirect source of all the food we eat.
- Current atmospheric concentrations of CO₂ (about 420 ppm) are an order of magnitude lower than they have been in geological history, and indeed are not far above the "red line of death" at about 150 ppm, below which plant life would perish (and thus so would we)



CO₂ data: Berner: 2001

Atmosphere and Greenhouse Gas Primer

William van Wijngaarden and Will Happer, two atmospheric physicists

7) What is impact of increasing CO₂ emissions on climate warming?

Summary by Terry Richard of paper “Atmosphere and Greenhouse Gas Primer”

- The infrared radiation emitted from a sun-warmed earth and absorbed by greenhouse gasses such as CO₂ prevents a significant portion of this energy from being radiated directly into outer space. Instead, this energy is absorbed by these gases, and the greater warming of the surface air from this absorbed energy results in a slow vertical convection of this warmer air up to a level we call the tropopause, the boundary between the troposphere and the stratosphere.
- As the warm air rises, it gradually cools and becomes more dense (a phenomenon described by the “adiabatic lapse rate” of decreasing temperature with altitude), causing it eventually to begin sinking and be replaced by warmer air rising from below. Thus, a sort of “elevator equilibrium” is established in this vertical convection. At elevations higher than the tropopause, the air density is low enough that most of the emitted infrared energy from greenhouse gasses at lower elevations is radiated directly into outer space.

Atmosphere and Greenhouse Gas Primer

William van Wijngaarden and Will Happer, two atmospheric physicists 128

7) What is impact of increasing CO₂ emissions on climate warming?

Summary by Terry Richard of paper “Atmosphere and Greenhouse Gas Primer”

- Thus, greenhouse gases are directly responsible for this most striking feature of our atmosphere. The many orders of magnitude slower process of energy transport via convection (as opposed to the light-speed process of radiation through a transparent medium) is what retains adequate heat within the troposphere to make life on earth possible. Without the absorption of infrared energy by greenhouse gasses (as described in detail in the paper), which prevents a direct radiative transfer of the earth's emitted energy to outer space, earth's surface would be much colder and unable to sustain life.
- Targeting a “Net Zero” of CO₂ emissions is a fool's errand that is flirting with disaster, as we would then have to rely upon volcanos, forest fires and tiny amounts produced by respiration to have adequate CO₂ above the “red line of death”. Prior to mankind's added CO₂ emissions, these mechanisms were bringing about an ever-decreasing level of CO₂ in the atmosphere and would have resulted in hitting the “red line of death”.
- Plants must eat, and the earth needs to stay warm enough for life to exist. CO₂ is truly “the gas of life” in a double sense!

Atmosphere and Greenhouse Gas Primer

William van Wijngaarden and Will Happer, two atmospheric physicists ¹²⁹

7) What is impact of increasing CO₂ emissions on climate warming?

CO₂ Has Almost No Effect on Global Temperature, Says Leading Climate Scientists

- The concentration of water vapor rises with temperature, so as the earth warms the capacity to radiate heat to space increases.
- This means that water vapor provides a negative feedback mechanism for moderating the temperature of the planet.
- Given that the Earth has managed itself without man's intervention over the epochs, it should not surprise us that Le Chatelier's principle is at work.
- Climate change is natural. (And out of mankind's control !)
- Perhaps the greatest irony of the Greenhouse Effect Theory is that the so-called "Greenhouse Gases" facilitate heat transfer at the surface AND the top of the atmosphere, rather than hindering it.

Richard Lindzen: **"What historians will definitely wonder about in future centuries is how deeply flawed logic, obscured by shrewd and unrelenting propaganda, actually enabled a coalition of powerful special interests to convince nearly everyone in the world that CO₂ from human industry was a dangerous, planet-destroying toxin. It will be remembered as the greatest mass delusion in the history of the world – that CO₂, the life of plants, was considered for a time to be a deadly poison."**

7) What is impact of increasing CO₂ emissions on climate warming?

All but a small fraction of Outgoing Radiation energy comes from water vapor.

- The failure to recognize that the behavior of IR active gas molecules [like water vapour and CO₂] changes radically in the presence of non-IR active species [like Nitrogen] due to THERMALIZATION has led to the perpetuation of the radiative transfer model, despite evidence showing that it is invalid.
- There is no law of conservation of radiation.
- Atmospheric heat is not “trapped.” Its transport is simply slowed to a tiny fraction of the speed of light.
- All but a small fraction of Outgoing Longwave Radiation energy comes from water vapor.
- Most of the energy loss to space comes from water vapor emission.
- Emission by the other GHGs is insignificant. Again, this does not mean that the non-condensing GHGs “trap” heat in the atmosphere, but that the radiated energy they absorb from the surface is mostly transferred via thermalization and equipartition to water vapor and radiated to space by water vapor.
- With a finite energy input [radiation from sun] and an effectively infinite sink [vacuum of space] for the excess energy to leave, it is difficult to rationalize a scenario that results in “runaway warming” without a substantial change in input energy.

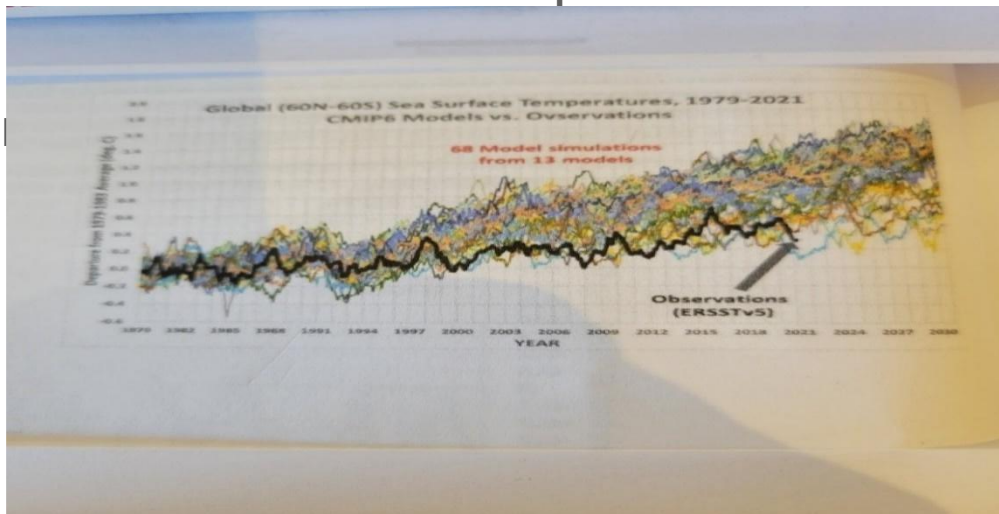
7) What is impact of increasing CO₂ emissions on climate warming?

Climate models significantly over estimate actual trend of climate change

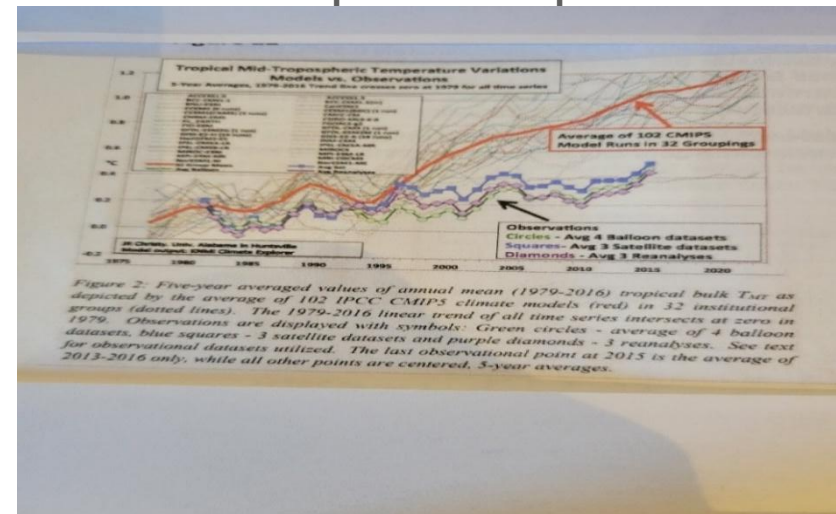
- The left hand graph shows the ocean surface temperatures and the CMIP6 climate model simulations from 13 different climate models which underwrite the IPCC 2012 report. The 42 years of observations from 1979 show warming as occurring much more slowly than the average climate model predicted
- The right-hand graph shows the average of 102 climate models of the IPCC shown against the actual observed atmospheric temperature record from three sources – satellite, balloon and reanalyses
- Dr. Van Wijngaarden, professor in the Department of Physics and Astronomy at York University in Toronto [testified in a court case](#) that the IPCC's climate models "systematically overstate global warming", an assertion that is incontrovertibly true.

Computer climate models vs actual results

Ocean surface temperatures



Atmosphere temperatures



Reference: Climate All Is Well, All Will Be Well Jeremy Nieboer page 20017

Source: J.R. Christy, Univ. of Alabama; KNMI Climate Explorer

[John Christy: Climate models for politics?... "A bridge too far" - YouTube](#)

7) What's the impact of increasing CO₂ emissions on climate warming?

1) Scientists raise serious concerns with Climate Models

Climate models fail to model past climates accurately and consistently overestimate future temperature trends, nor are they able to explain the following:

- The current hiatus or pause in warming.
- Why the 285 ppm of atmospheric CO₂ estimated for the beginning of the Industrial Revolution is in any way, a desirable benchmark. It coincides with the Victorian Little Ice Age, a period of starvation and population decline.
- Climate models always predict higher temperatures than actually occur
- The absence of the predicted tropospheric hotspot – the '*fingerprint of AGW*'.
- CO₂ and temperature were higher than today during the previous 50 million years plus, with no CAGW effects, why not?
- The natural warming of 8oC and ~100ppm increase in CO₂ during the Holocene up to the 1800s, and the subsequent 125 ppm increase in CO₂ after 1950 but only ~1oC rise.
- The Holocene enigma of generally falling but fluctuating temperatures from ~3,000BP, accompanied by rising CO₂ that predates industrial CO₂ emissions.
- How AGW theory relies on radiative transfer only to heat the planet, and seemingly ignores insolation, enthalpy and water vapour.

Such rational failures have to be of concern as they demonstrate that CO₂ alone cannot drive global warming, so how can it drive climate change?

7) What is impact of increasing CO₂ emissions on climate warming?

Climate models are shown to be based on fundamental errors

- Roy Clark, a retired engineer and climate researcher, criticizes historical and modern climate models, particularly those developed by Manabe and the IPCC, for their inaccuracies and fraudulent data manipulation. He won a Nobel Prize for this work.
- Clark explains how climate models have been flawed since the 1960s and attributes recent climate changes to natural ocean oscillations rather than CO₂ emissions. He calls for a re-evaluation of current climate policies and funding, arguing that these are driven by politics rather than valid scientific research.
- Roy shows that the global mean temperature record and not the “adjusted” temperature record shows very little change since 1900.
- He also believes that the changing climate is due primarily to ocean oscillations and expects we will begin to see cooling as the Atlantic Ocean oscillation moves to its next negative phase. He shows that the impact on temperature of doubling CO₂ is too small to measure.
- Paul Linsay discusses the effects of carbon dioxide on the Earth's atmosphere and climate, with Paul arguing that doubling CO₂ has no impact on heating the atmosphere. Paul critiques current climate models emphasizing the complexity of predicting climate due to non-linear dynamics and chaos theory and the challenges and complexities in modeling the Earth's climate accurately.

Reference Interview with Roy Clark

https://youtu.be/PsM4aOmCb_U

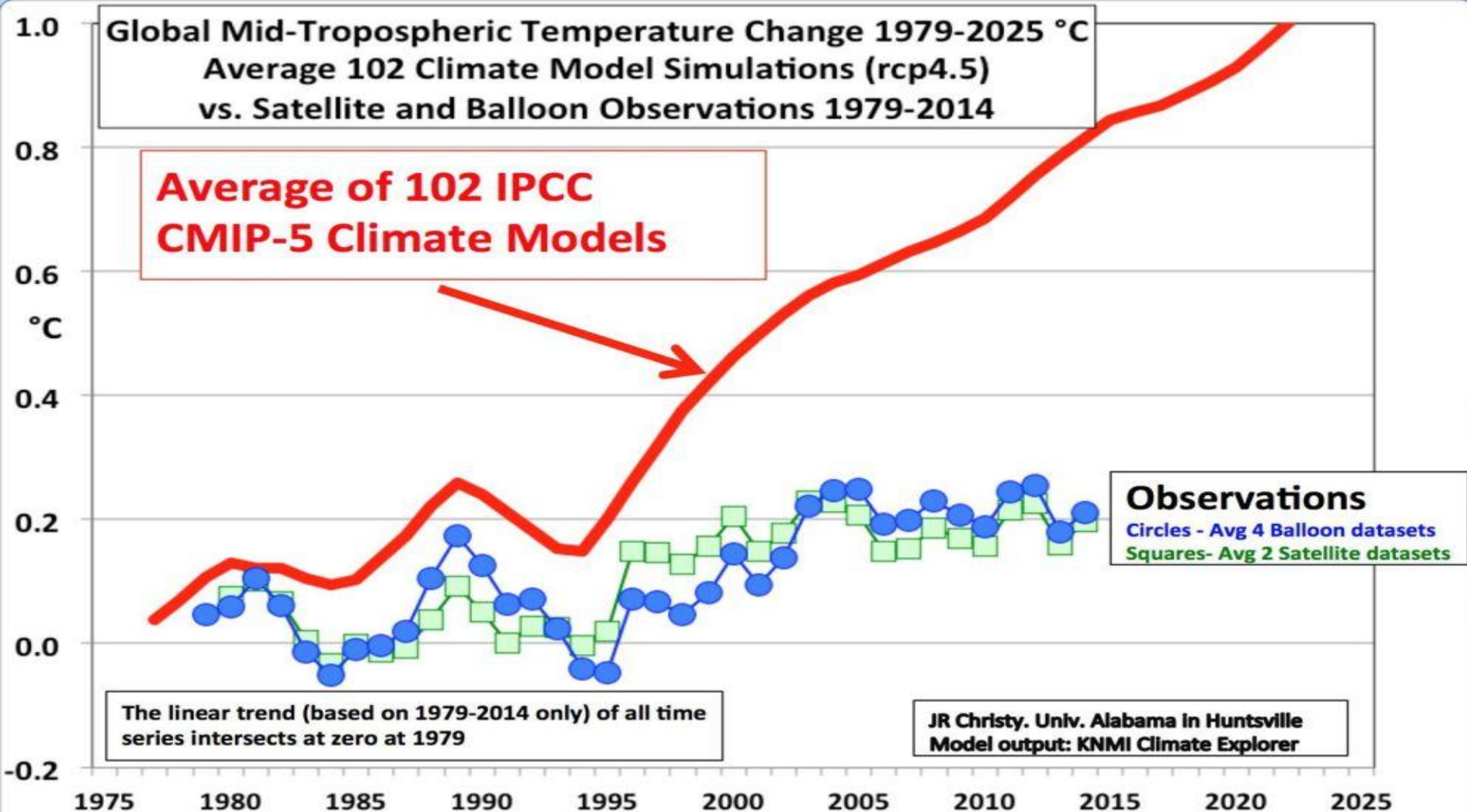
7) What is impact of increasing CO₂ emissions on climate warming?

Climate models are shown to be based on fundamental errors

- Sir George Simpson states that:
 - It is impossible to solve the problem of temperature distribution in the atmosphere by working out the radiation. The atmosphere is not in a state of radiative equilibrium and it also receives heat by transfer from one part to another.
 - The temperature distribution in the atmosphere is determined almost entirely by the movement of air up and down. This forces the atmosphere into a temperature distribution which is quite out of balance with the radiation. One could not, therefore, calculate the effect of changing any one factor in the atmosphere.
- Based on these findings, Paul Linsey shows that:
 - The computer models by their chaotic nature cannot make any long-range forecasts that are meaningful
 - He also shows that carbon dioxide or any other radiative gas does not act as a greenhouse gas that heats the surface by back radiation. Vibrational- Translational- Relaxation acts to massively suppress the emission of infrared photons which means there is no “back radiation” to heat the surface. Convection and the water vapor phases have a much bigger effect on the atmosphere than radiation by infrared gases

7) What is impact of increasing CO₂ emissions on climate warming?

Climate models significantly over estimate actual trend of climate change



Reference: [John Christy: The Climate Real Deal | Science Matters \(rclutz.com\)](http://www.rclutz.com)

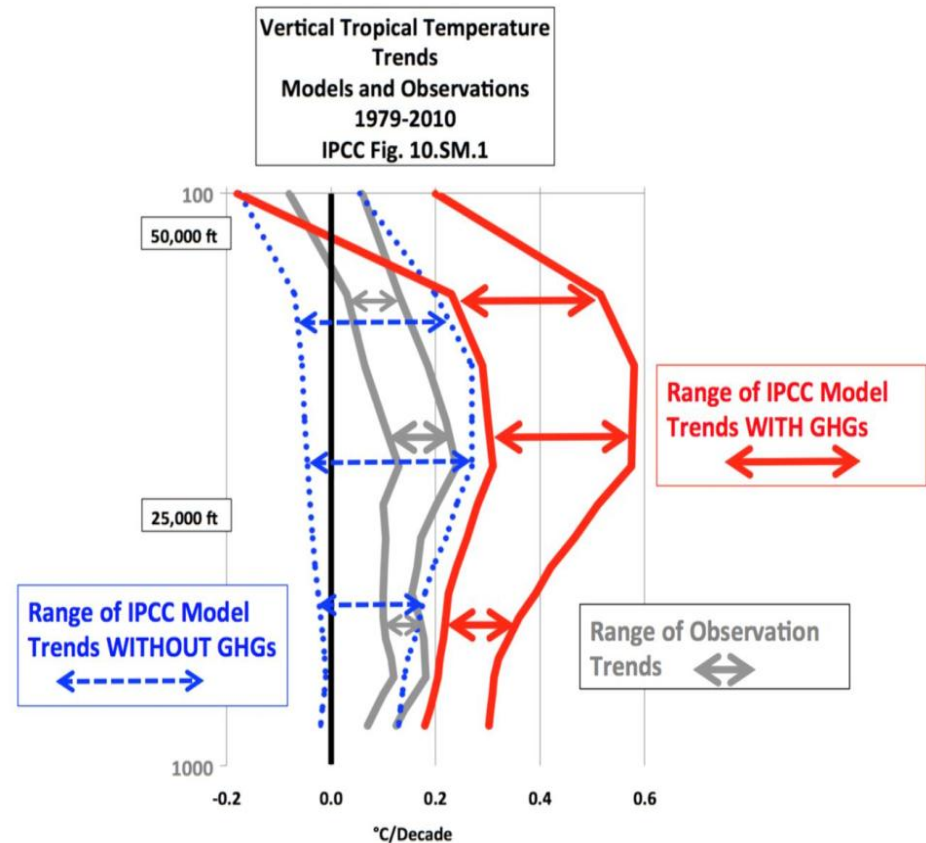
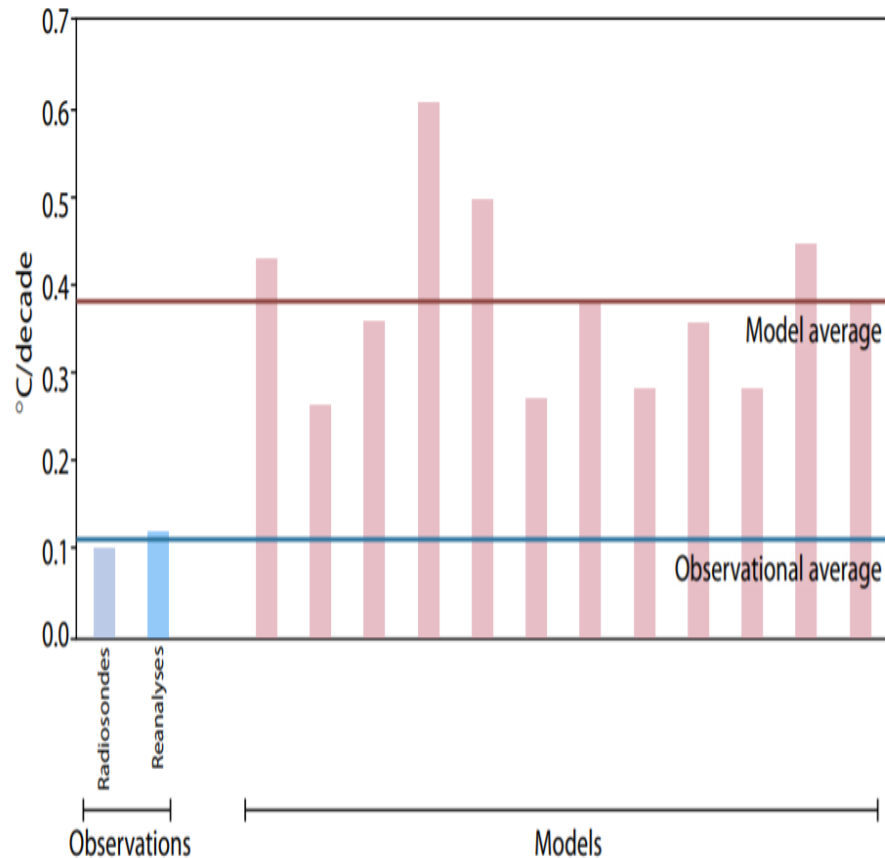
Computer Modelling [Willie Soon](#)

<https://www.youtube.com/watch?v=b5oyv8l6l-g>

7) What is impact of increasing CO₂ emissions on climate warming?

Climate models significantly over estimate actual trend of climate change

Computer climate models vs actual results



7) What is impact of increasing CO₂ emissions on climate warming?

Complexity and uncertainty in climate models make it impossible to forecast reliably

- Comparisons amongst models on the scales required to measure the climate's response to human influences differ dramatically from each other and from observations. The simulated models' global average surface temperature varies by about 3C, three times greater than the observed value of the twentieth-century warming they're purporting to describe and explain. The models also fail to reproduce the strong warming observed from 1910 to 1940, on average giving a warming rate of about half of what was actually observed.
- Climate observations clearly show repeated behaviors over decades and even centuries. At least some of these are due to slow changes in ocean currents and the interaction between the oceans and the atmosphere (e.g. El Nino events). Cycles like these influence global and regional climates and are superimposed upon any trends due to human or natural forcings like greenhouse gas emissions or volcanic aerosols. They make it difficult to determine which observed changes in the climate are due to human influences and which are natural.
- The failure of models to warm rapidly enough in the early twentieth century suggests that it's possible, even likely, that internal variabilities contributed significantly to the warming of recent decades. That the models can't reproduce the past erodes confidence in their projections on future climates. It greatly complicates sorting out the relative role of natural variability and human influences in the warming that has occurred since 1980.
- Uncertainties in modeling both climate change and the consequences of future greenhouse gas emissions make it impossible today to provide reliable, quantitative statements about the relative risks, consequences and benefits of rising greenhouse gases.

7) What is impact of increasing CO₂ emissions on climate warming?

There are two great errors to address in overturning the CO₂ endangerment finding.

Dr William Happer's comments

- There are two great errors to address in overturning the CO₂ endangerment finding.
- First is the error of bad science. As I understand it, all the CMIP suite models are tuned with fudge factors to improve their hindcasting, and therefore, it is assumed their forecasting. Any such tuning is essentially a Deus ex machina violation of physics. Same is true for the expediciencies of oversimplifying the calculations by making massive assumptions with the models that insolation is invariable, geothermal forces are negligible, ocean thermal reservoir and outgassing follow rather than lead climate changes, the Earth's complete heat budget is known, and that conservation of energy for the earth's surface climate system need be only applied to photons in the light spectrum originating from the Sun. It is also a crime against science to feed a model with fabricated data points created by itself or other models, as this is recursive and exponential reinforcement of error. Predictive power is the essence of truth and predictive power has been both weak and systemic rather than random in error, indicating baked-in bias that has not been corrected in the 50 years since climate alarmists switched from particulate-induced ice age to CO₂-induced hothouse.

7) What is impact of increasing CO₂ emissions on climate warming?

There are two great errors to address in overturning the CO₂ endangerment finding.

Dr William Happer's comments

- Second is the error of bad assessment. The only rational way to make policy from science is to do a thorough benefit-cost analysis – both ecological and economic. For CO₂, this would require opening the aperture beyond the one-dimensional demonization of CO₂ as the sole control knob of global warming, to include its full scope of effects on the health and flourishing of nature and humans. It would weight actual observations and trends over the predictions of falsified and preposterously simplistic models. It would include an honest assessment of whether warming is net harmful or net beneficial, as well as to what degree CO₂ is actually responsible. It would look at hard data showing shrinking deserts and the net greening of the Earth, increasing (not decreasing) coastal and coral atoll land area, the current 17:1 ratio of cold-related to heat-related deaths, the critical phenomena of improved water efficiency of plants and crops with higher CO₂ PPM in the context of an increasingly water-constrained human civilization, the lack of any distinguishable trends for extreme and cyclonic weather intensity or frequency, historical and geologic records showing worse flooding and wildfires and sea level rise rates in the distant and recent past, etc. The assessment piece is human judgment applied to empirical data, and it is the assessment that drives public opinion, policy, research, and action. If we don't win this argument, the data and the science are irrelevant.

7) What is impact of increasing CO₂ emissions on climate warming?

Adding more CO₂ has a very minimal and decreasing impact on climate warming

- Compared to natural phenomena like the Sun's energy emission, tilt, rotation of the earth, clouds and ocean effects, adding CO₂ has a minor effect on climate and temperature.
- Nobody doubts whether carbon dioxide is a greenhouse gas; the real questions are how much additional radiant energy CO₂ is currently absorbing compared to the past, and what impact this has on the climate.
- CO₂ represents only about 5% of total greenhouse gas. The impact of increasing CO₂ in the atmosphere has an ever-reducing logarithmic effect on increasing temperature. If the current 417ppm doubles there would be negligible impact. From 1900 to 2020 CO₂ levels increased by 120 ppm and temperature increased by 0.8C. To reach the last 350,000 years +5C high, CO₂ would need to increase by 15,120 ppm over 720 years.
- All the computer-generated climate models to date have not been able to replicate past climate changes and therefore are not at all reliable for making future climate predictions.
- In the case of climate change, how likely it is that humans rather than other factors such as solar activity cause most of the warming? Previous periods of warming could not have been caused by increased greenhouse gases from humans, so it seems reasonable to assume that the probability humans caused most of the recent increase in temperature is very low.

See the video [John Christy: Climate models for politics?... "A bridge too far" – YouTube](#)

Reference book Climate All is Well, All Will be Well Jeremy Nieboer page 8, 12, 13, 14

The Prosecutor's Fallacy and the IPCC Report Norman Fenton The Global Warming Policy Foundation 2023

https://www.theepochtimes.com/article/fixation-on-co2-ignores-real-driver-of-temperature-say-experts-5588495?utm_source=Morningbrief&src_src=Morningbrief&utm_campaign=mb-2024-02-20&src_cmp=mb-2024-02-20&utm_medium=email&est=AAAAAAAAAAAAAAAAAdeokeBlfzdPH4LYa6DB5DLI7wk9AJCYDwskfcLgaGzgIMxfM63pAbQ%3D%3D

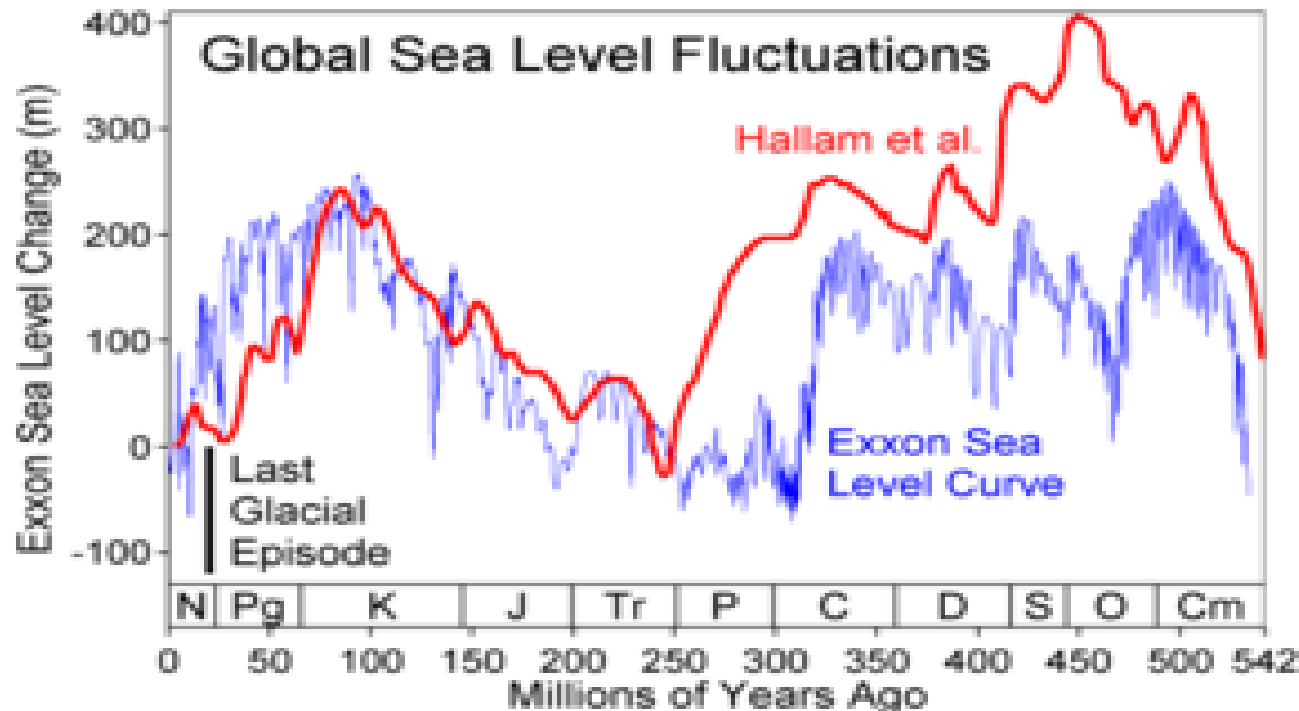
Question 8

Is sea level rise and rate of rise unusual and a major concern ?

8) Is sea level rise and rate of rise unusual and a major concern ?

Two independent graphs showing sea level changes over last 542 million years

- Global sea level has changed significantly over Earth's history and change is not new.
- 6,000 years ago the average sea level was more than 6 feet higher than today.
- The main factors affecting sea level are the amount and volume of available water, including water taken up as ice caps and the shape and volume of the ocean basins.



- Geologists have used this global sea level change information to assist their exploration efforts.

Source: Wikipedia, Peter Vail publications

Source: Heaven and Earth, Global Warming and the Missing Science Plimer 2009

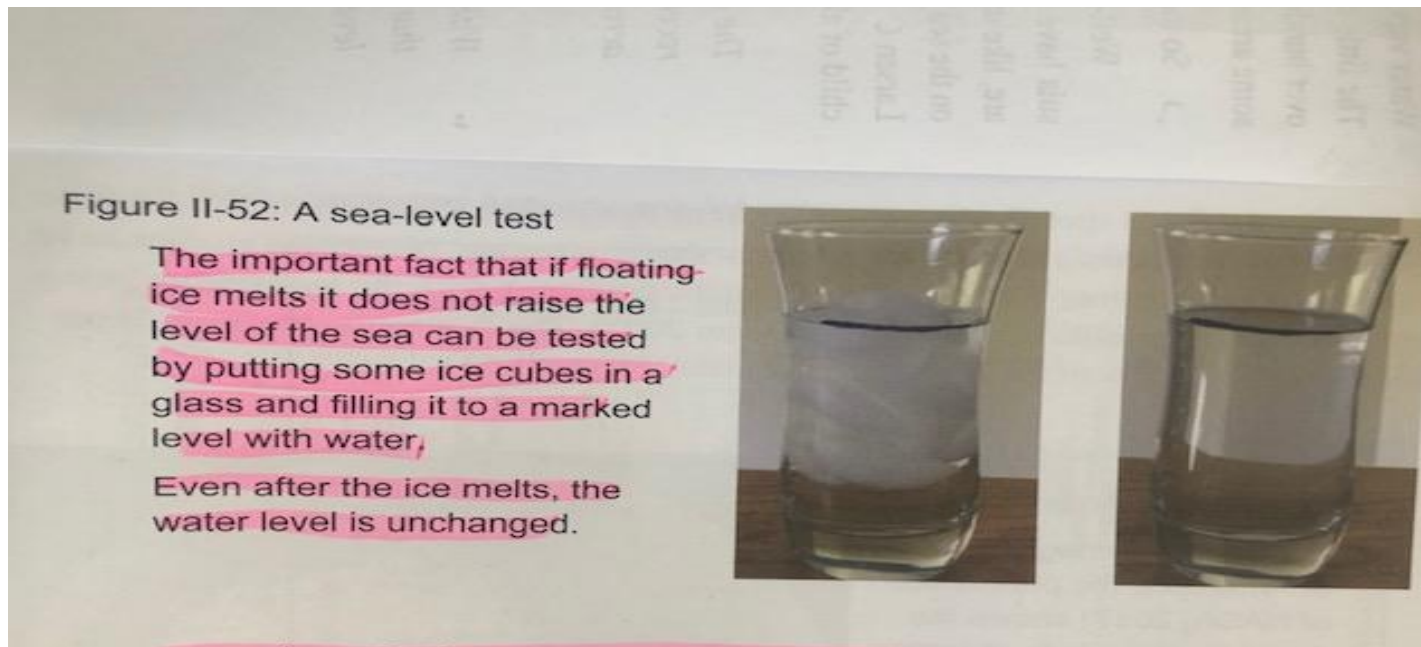
[Archaeologists find underwater island previously home to hundreds of thousands of people \(msn.com\)](http://www.msn.com)

8) Is sea level rise and rate of rise unusual and a major concern ?

Basic physics: experiment showing impact of melting ice in water

- When ice in a glass of water melts, there is no change in water level. The ice cube displaces its own weight in the underlying water and the water level remains constant when the ice melts, because the melting process replaces the water which has already been displaced by the ice. This effect is known as **Archimedes' principle**.
- Melting the remaining polar ice caps that float on water will not materially impact sea levels; only the remaining ice on land can raise sea levels.

Water Level Test: Ice in Water and Melted Ice – No Change in Water Level

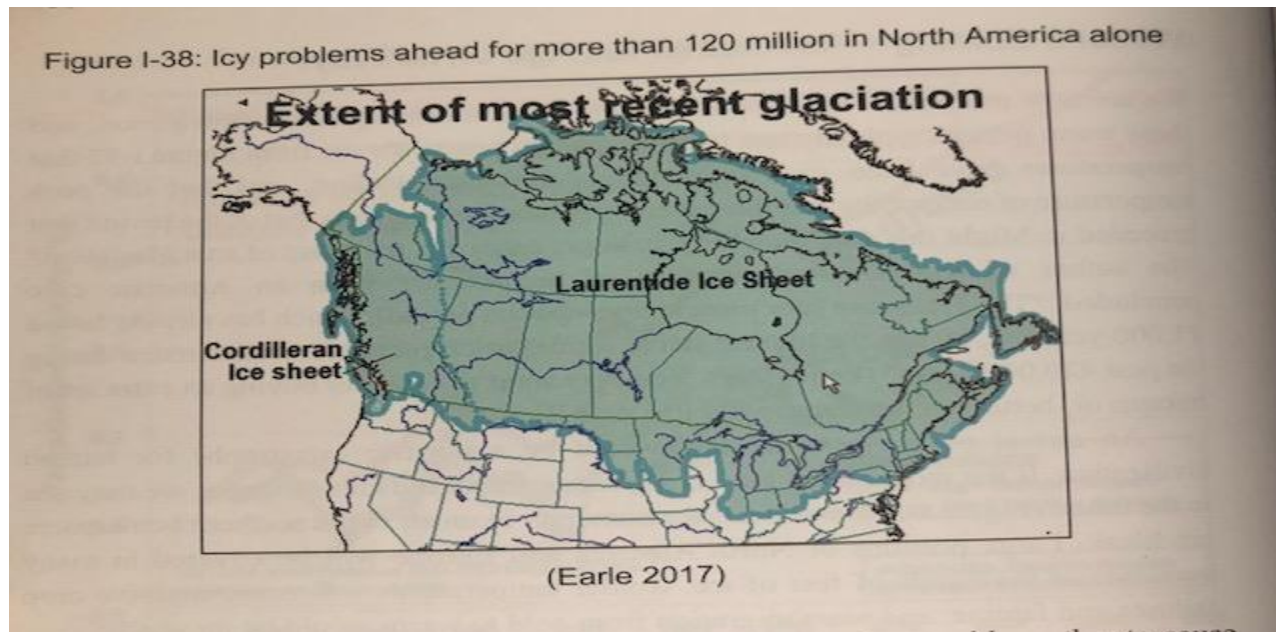


8) Is sea level rise and rate of rise unusual and a major concern?

Map showing extent of most recent glaciation over North America

- Most of North America's large ice cap has now melted and resulted in a previously experienced rapid rise in sea level. Only Greenland, Iceland, northern Alaska and northern Siberia now contain glaciers in the Arctic region.
- The global remaining ice caps on land are now much less with correspondingly less impact.
- Following glaciation, sea level rise was due to ice melting plus sea warming and expanding.

Extent of Most Recent, Melted North America Glaciation



Reference book: Inconvenient Facts page 50

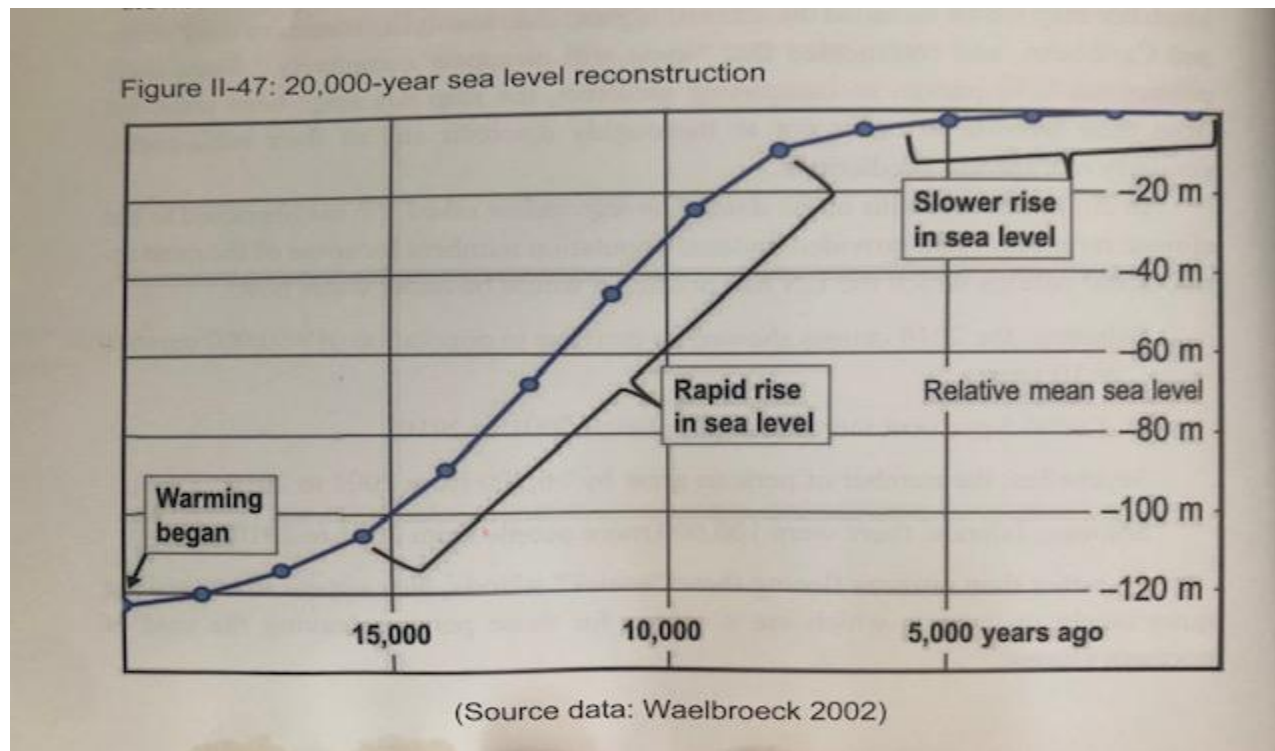
Source: Earle 2017

8) Is sea level rise and rate of rise unusual and a major concern?

Graph showing stages of sea level rate changes through melting ice cap over last 20,000 years

- Over the last 6 million years of several ice ages, the primary driver of sea level changes were periods of glaciation which locked up huge amounts of water drawing down sea levels followed by periods of melting and rising seas. Warming and thereby expanding seas added to rising sea levels.
- During warmer interglacial periods, melting ice from land yielded much higher sea levels with less recent impact

2000-Year Sea Level Reconstruction



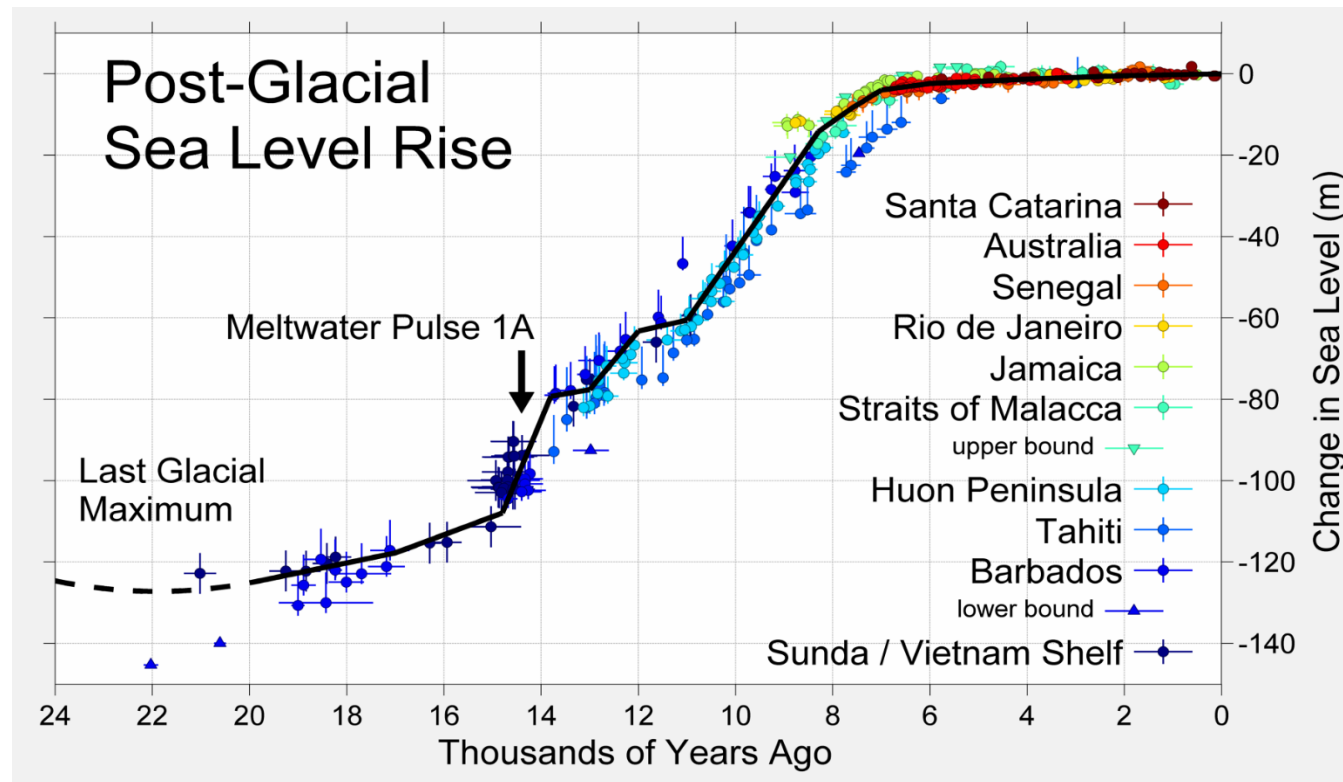
Reference book: Inconvenient Facts page 114

Source: Waelbroeck 2002

8) Is sea level rise and rate of rise unusual and a major concern?

Graph showing measured sea level changes through melting ice cap over last 24,000 years

- Since the melting of the North American ice cap, **sea level rise** has decreased dramatically and **has been comparatively stable over the past 6,000 years**
- **Between 1901 and 2018, the globally averaged sea level rose by only 15 to 25 cm**



Reference book: Fake Invisible Catastrophes and Threats of Doom page 63

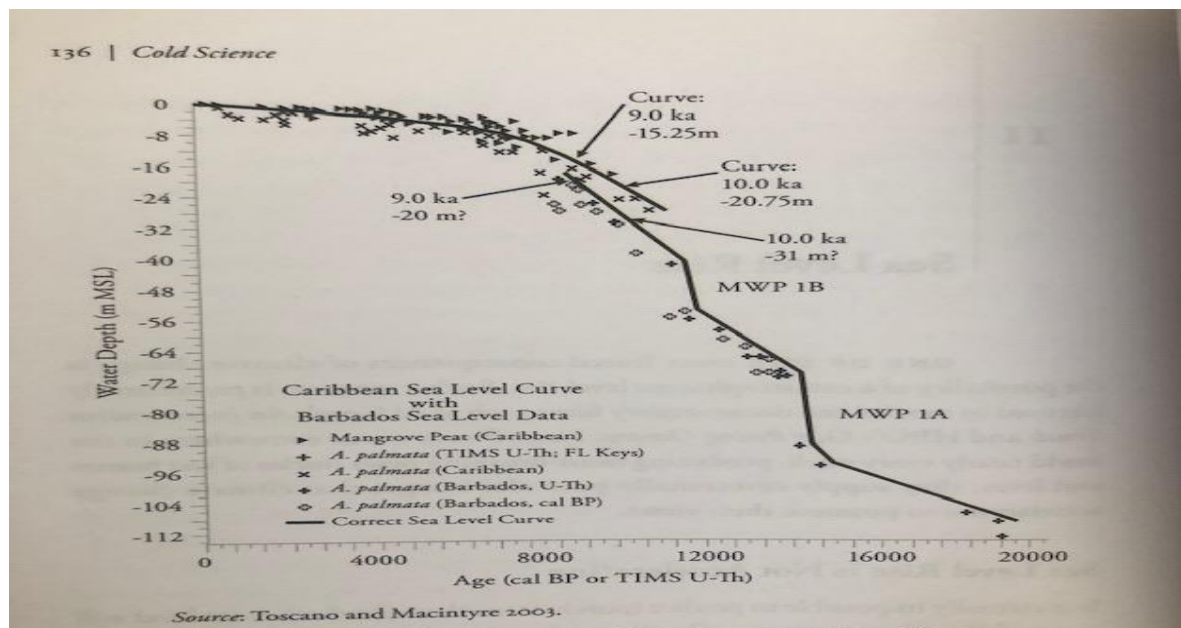
Source: Wikipedia

8) Is sea level rise and rate of rise unusual and a major concern?

Graph showing measured sea level changes through melting ice cap over last 20,000 years

- Sea level since the last glacial maximum, as deduced from coral and peat data, also shows the rapid sea level rise as continental ice sheets melted and a more modest rise since then.
- This modest rise was irrespective of global temperature fluctuations and recent increases in CO₂.

Post Glaciation Sea Level Rise



- Sea levels may continue to rise at these rates (about 20 cm per 100 years), but this is manageable.
- Societies can adapt to sea level rise in three different ways: implement managed retreat, accommodate coastal change, or protect against sea level rise through hard-construction practices like seawalls or soft approaches such as dune rehabilitation and beach nourishment. Focussing on reducing CO₂ emissions won't help.

Reference book Hot Talk Cold Science page 136

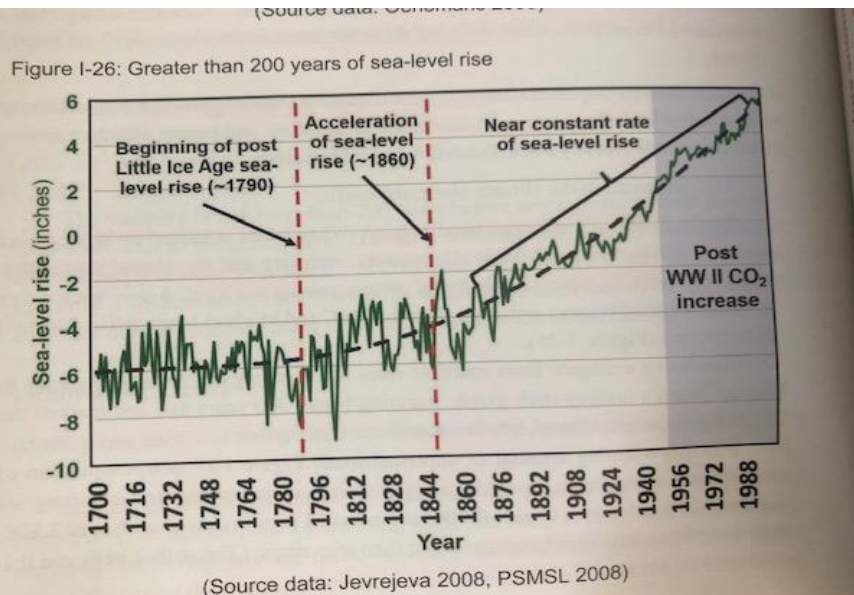
Source: Toscano and Macintyre 2003

8) Is sea level rise and rate of rise unusual and a major concern?

Graphs showing rate of sea level rise between 1700 and 2020 with period of increasing CO₂ highlighted

- Sea level rise rates since 1844 have not changed with CO₂ increases.
- From 1898 to 1998 sea level has risen 20 cm, which is the same rate (20 cm per 100 years) over the previous 100 years – there was no change in the rate of sea level rise with more recent CO₂ increases.

Sea Level Rise 1700 – 1988



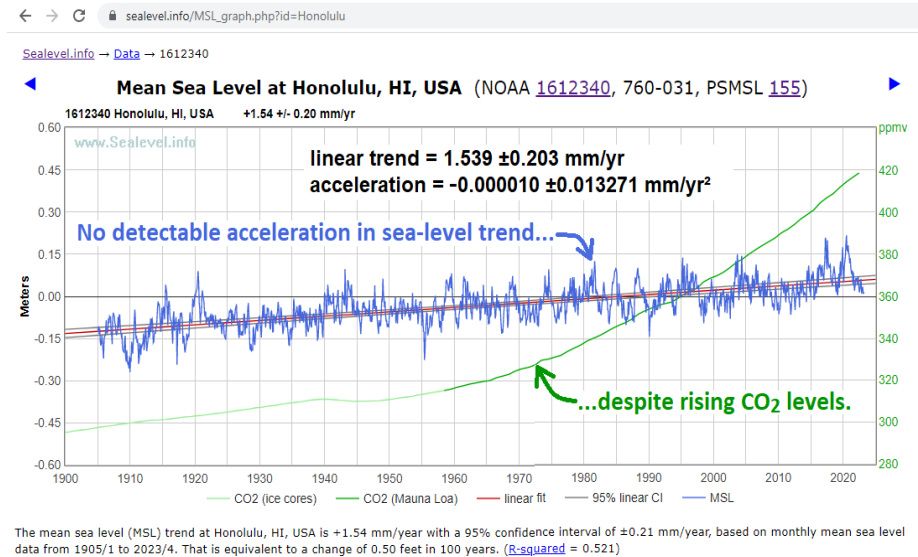
Reference book: Inconvenient Facts page 36

Source: Jevrejeva 2008, PSML 2008

Video Ivan Giaever: <http://www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change/>

Sea Level Rise 1900 – 2020 and CO₂ Rise

sealevel.info/learnmore.html



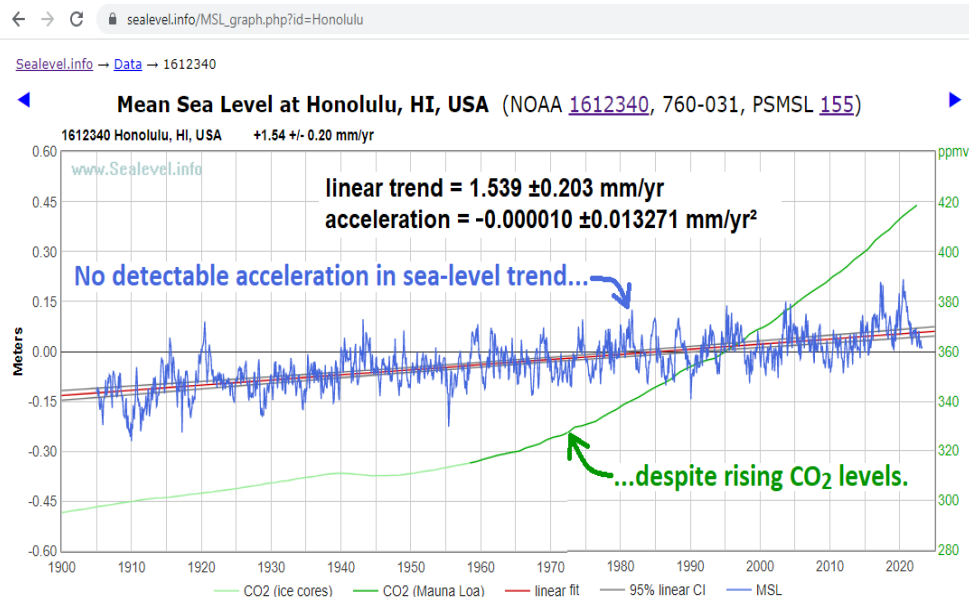
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Sea Level Rise 1700 - 1988

sealevel.info/learnmore.html



The mean sea level (MSL) trend at Honolulu, HI, USA is +1.54 mm/year with a 95% confidence interval of ±0.21 mm/year, based on monthly mean sea level data from 1905/1 to 2023/4. That is equivalent to a change of 0.50 feet in 100 years. (R^2 = 0.521)

Reference book: Inconvenient Facts page 36

Source:

8) Is sea level rise and rate of rise unusual and a major concern?

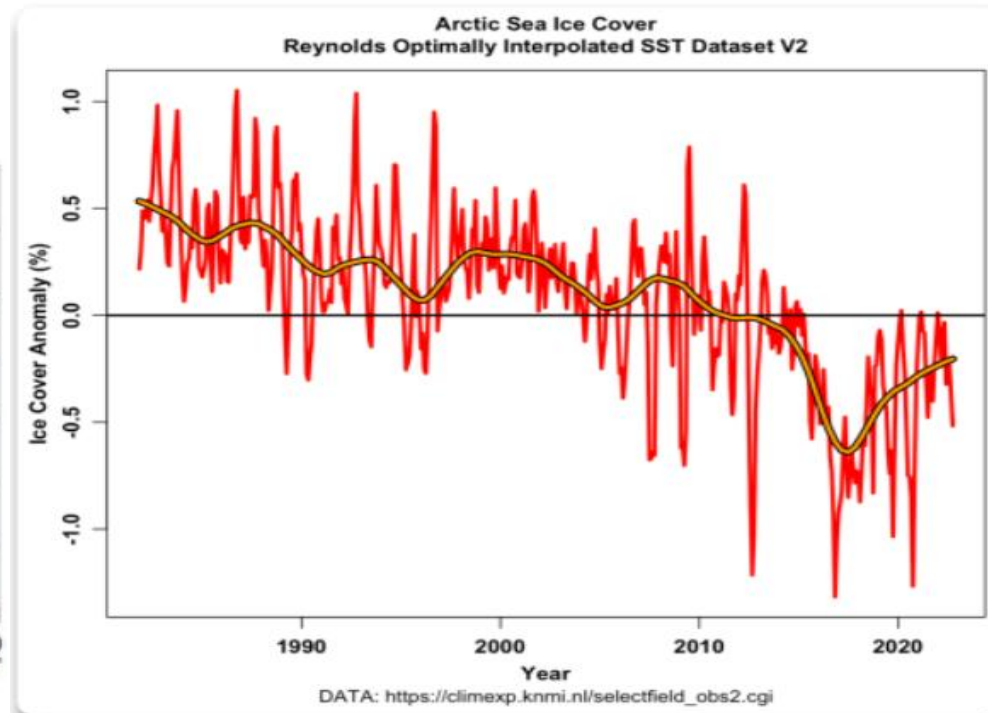
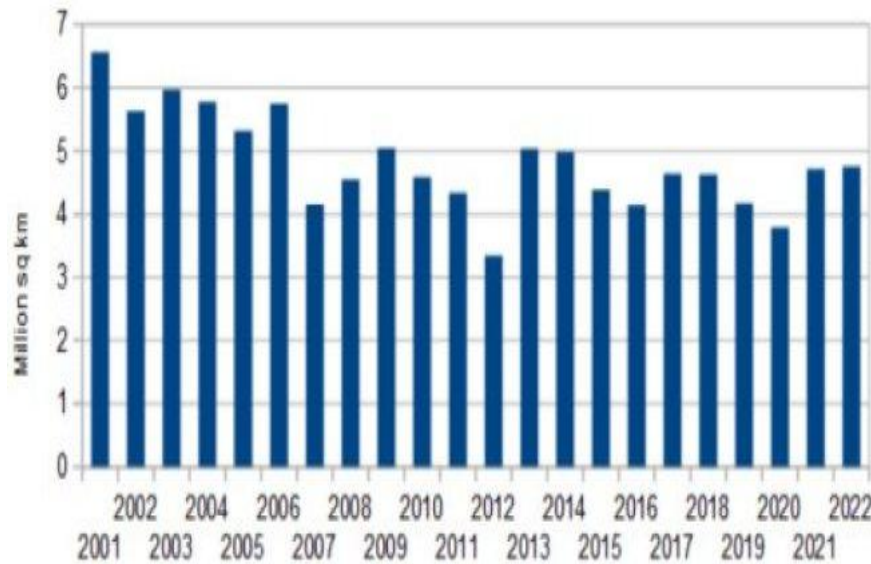
Changes in Arctic Sea Ice 1995 to 2022, no change in Antarctic ice

- Arctic Sea ice shows no change in minimum extent since 2007 with an increase since 2009
- Antarctica hasn't warmed over 70 years despite a rise in CO₂ levels

Changes in Arctic Sea Ice from 2001 to 2022

Arctic Sea Ice Extent - 2001 to 2022

Minimum Extent



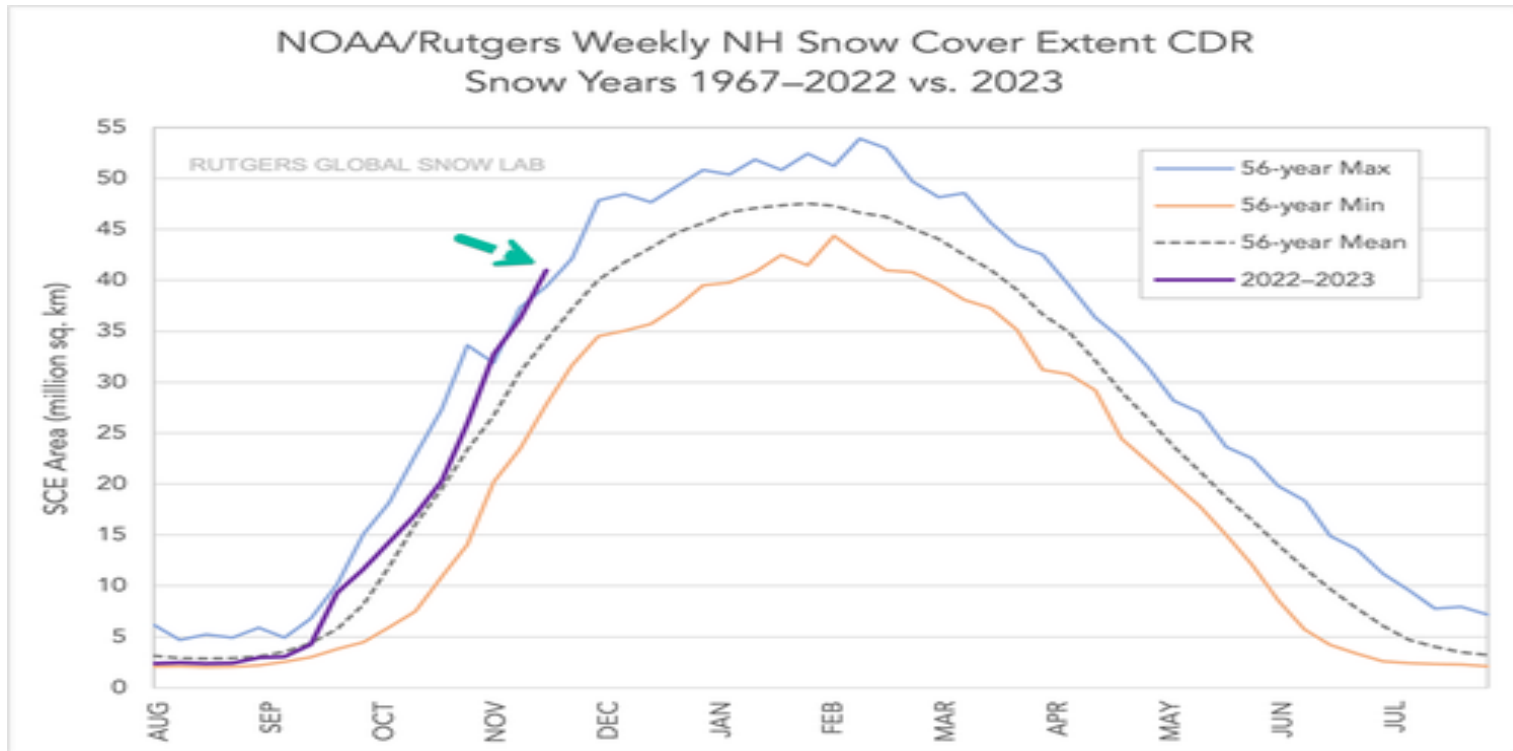
Source: https://nsidc.org/data/seaice_index/data-and-image-archive

<https://dailysceptic.org/2023/01/29/scientists-struggle-to-understand-why-antarctica-hasnt-warmed-for-over-70-years-despite-rise-in-co2/>

8) Is sea level rise and rate of rise unusual and a major concern?

Recent increase in snow fall levels in Northern Hemisphere

- NOAA and Rutgers University released new data that showed snow cover across the Northern Hemisphere reached the highest level since measurements began in 1967 and are currently above the 56-year mean



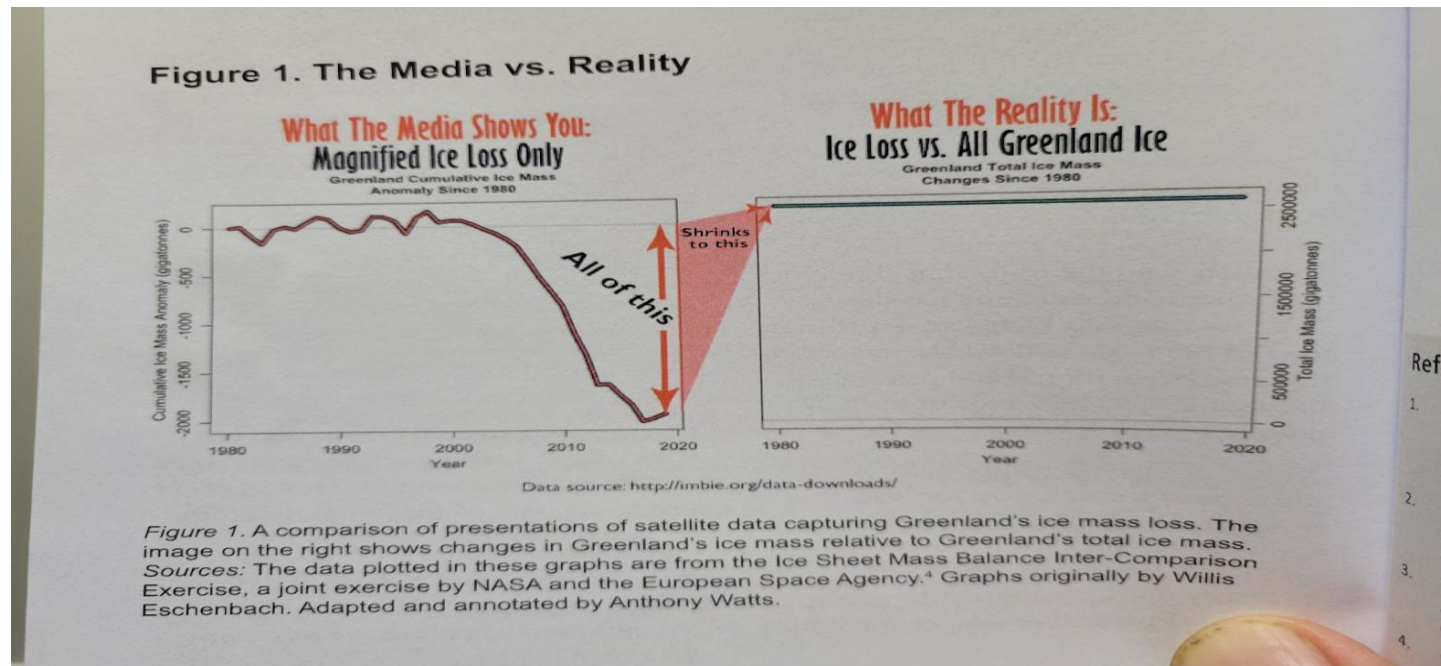
Source: NOAA and Rutgers University

8) Is sea level rise and rate of rise unusual and a major concern?

An example of misrepresenting information – recent loss versus total Greenland ice

- Climate activists claim the Greenland ice sheet is melting six times faster than it was 30 years ago, but 30 years ago it was not melting.
- When recent ice loss is compared to the full Greenland ice sheet, the loss is minimal.
- The Antarctic has been experiencing record sea ice coverage since satellite measurement began.

Recent Greenland Ice Sheet Melt vs Total Greenland Ice Sheet Size



Reference book: Climate at a Glance page 27, 28

Source: The Ice Sheet Mass Balance NASA and the European Space Agency

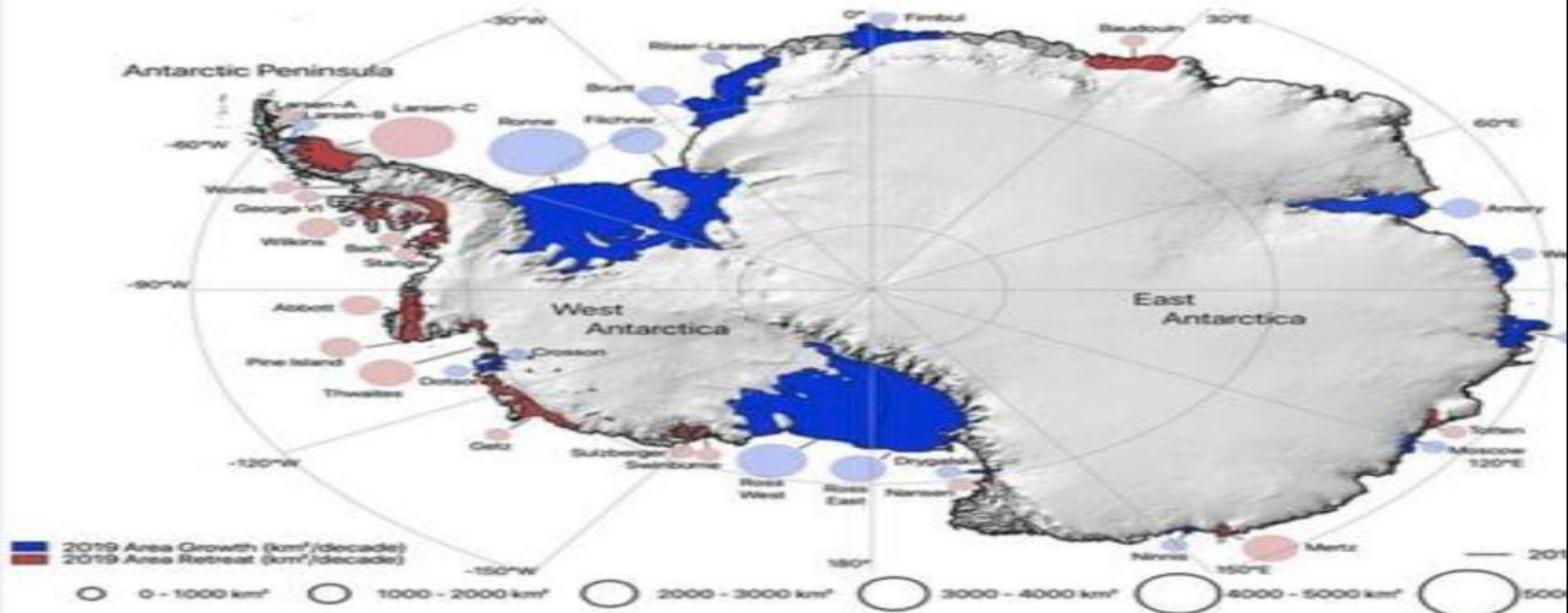
Reference Book: Cool It by Bjorn Lomborg page xiv Foreword

8) Is sea level rise and rate of rise unusual and a major concern?

Recent gain in Antarctic ice sheet

Antarctic ice shelves provide buttressing support to the ice sheet, stabilizing the flow of grounded ice and its contribution to global sea levels. Over the last decade, a reduction in the area on the Antarctic Peninsula (6693 km²) and West Antarctica (5563 km²) has been more than offset by growth in East Antarctica (3532 km²) and the large Ross and Ronne–Filchner ice shelves (14 028 km²).

Nature can't be fooled: New study reveals Antarctic ice shelf area has grown by 5305 km² from 2009–2019



tc.copernicus.org • 4 min read

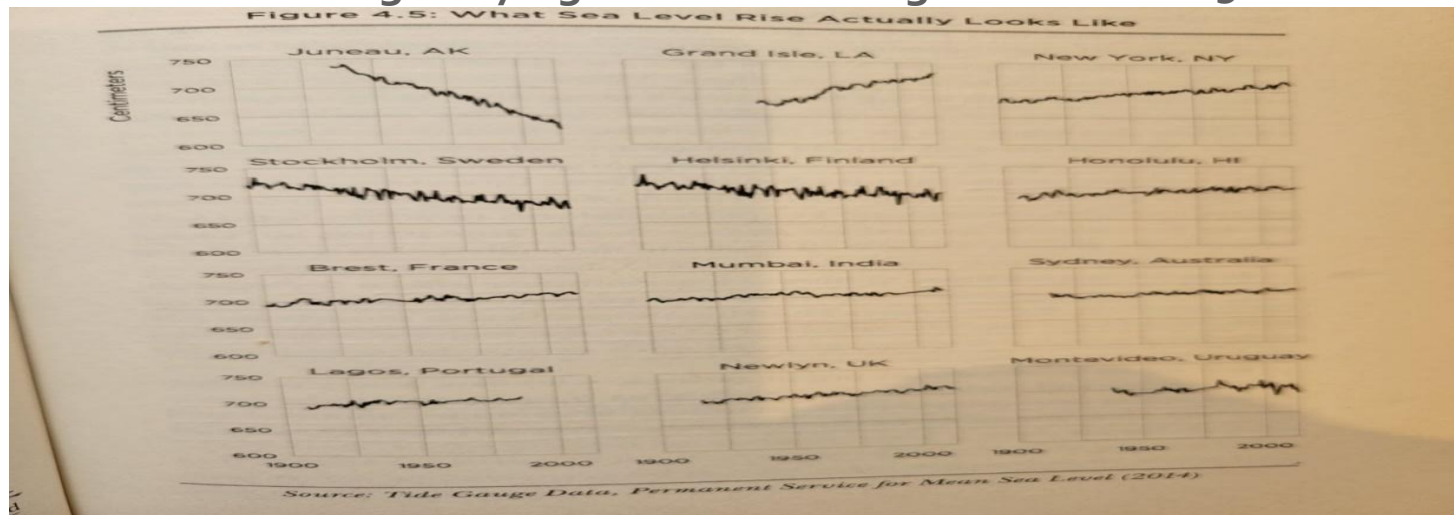
Change in Antarctic ice shelf area from 2009 to 2019

8) Is sea level rise and rate of rise unusual and a major concern?

Area comparisons of changing sea levels between 1900 and 2000

- Given the moderate temperature changes since 1900, we wouldn't expect warming to have a dramatic effect on sea levels and it hasn't.
- From 1900 to 2000 sea level trends from locations throughout the world are variable; some smooth, some rising, some falling.
- Local sea level rise differs due to local factors like tectonics and subsidence and changing temperatures and currents

Areas Showing Varying Sea Level Changes Between 1900 - 2000



Reference book: The Moral Case for Fossil Fuels page 107

Reference book: Unsettled Chapter 8

Source: Tidal Gauge Data, Permanent Service for Mean Sea Level (2014)

Ivan Giaever: [//www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivan-giaever-on-climate-change/](http://www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivan-giaever-on-climate-change/)

8) Is sea level rise and rate of rise unusual and a major concern?

Area comparison of changing sea levels between 1898 and 2017

The Intergovernmental Panel on Climate Change stated “No significant acceleration in the rate of sea level rise during the 20th century has been detected.” Long-term tide gauge records show a long steady rise in relative sea levels over the entire length of their records, sometimes longer than a hundred years, with no acceleration. NOAA places this rate of rise at about 1.7-1.9 mm per year. NOAA Tides and Currents: “The absolute global sea level rise is believed to be 1.7 +/- 0.3 millimeters/year during the 20th century.”

This is what catastrophic sea-level rise actually looks like



<https://wattsupwiththat.com/2023/10/06/nothing-to-sea-here-folks/>

8) Is sea level rise and rate of rise unusual and a major concern?

Sea level rise is not unusual; the present, modest rise can be dealt with

- Global sea level has changed significantly over Earth's history; this is not new.
- Since the last glacial maximum, sea levels showed a rapid rise as continental ice sheets melted with a more modest rise since when the majority of land held ice had melted.
- There is little evidence that reducing CO₂ emissions will reduce sea level rise or that any CO₂ contribution has been or will be a significant contributor to sea level rise
- Humans adapt proactively and such adaption can greatly reduce possible impacts. The main consequence of a large-scale rise in sea level is a larger investment in protection infrastructure
- Societies can adapt to the present 20cm/100-year sea level rise by:
 - i) Implementing a managed retreat,
 - ii) Accommodating coastal change,
 - iii) Protecting against sea level rise through hard-construction practices like seawalls or soft approaches such as dune rehabilitation and beach nourishment.

<https://notrickszone.com/2023/02/07/sea-level-is-stable-around-the-world-the-good-news-the-media-dont-want-us-to-hear/>

Reference books: Unsettled Steven Koonin Chapter 8;

False Alarm Bjorn Lomborg page 33

Question 9

What about the scientists' man-made Global Warming crisis consensus?

9) What about the scientists' man-made Global Warming crisis consensus?

Consensus on what? Consensus depends on the wording of the question

- Climate alarmists claim a 97% consensus amongst scientists, but on what? This study found that 66% of the scientists questioned had no opinion and, of the remaining 97%, 33% agreed mankind had increased CO₂ levels and that CO₂ impacts temperature, but to what degree?
- Scientists agree that the Earth is warming and that humans are contributing to CO₂ increases which impact warming; they don't agree as to how significant this added CO₂ is on global warming or if it is causing a global warming crisis.
- According to Kenneth Richard, scientists are increasingly tuning out the claims that the Earth's temperatures are predominantly shaped by anthropogenic CO₂ emissions. However, solar scientists are showing robust correlations between solar variability and climate change.
- The 2008 Global Warming Petition Project signed by 31,487 scientists including 9,029 PhDs states: "There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing or will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth".
- Brilliant scientists and explorers have been opposed to the consensus of the time: Galileo (astronomy), Mendel (genetics), Darwin (evolution), Einstein (physics) and Columbus (explorer).
- Reference book: The Inconvenient Truth Page 27, 28 https://youtu.be/P_nH1BAfDhs?si=OVxNpHIBiUNkX2ot
- <https://youtu.be/BiKfWdXXfls> Freeman Dyson <https://www.youtube.com/shorts/PZPZioH4wBk>
- [Climate I: Is The Debate Over? –YouTube](#) Richard Lindzen MIT USA and Hadi Dawlatabadi UBC Canada
- https://www.econlib.org/archives/2014/03/16_not_97_agree.html

9) What about the scientists' man-made Global Warming crisis consensus?

Climate disaster dissenters' different views are being muffled by top Institutions

Dissenters state that the public and government officials are getting a one-sided, apocalyptic account that stokes fear, politicizes science, misuses climate modeling, and shuts down debate. They are systematically sidelined and diminished by government funding agencies, grant-makers, academic journals, and much of the media. These scientists acknowledge that the climate is warming, but they also ascribe as much, if not more, influence to natural cycles and climate variability than to human activities, such as burning fossil fuel.

These dissenters claim:

- **There is no climate crisis or existential threat as expressed in catastrophic predictions by activists in the media and academia.**
- **Global temperatures are increasing incrementally, and have been for centuries, but the degree of human influence is uncertain or negligible.**
- **Rapidly replacing fossil fuels with renewables and electricity by mid-century would be economically risky and may have a negligible effect on global warming.**
- **The global political push to kill the fossil fuel industry to get to “net zero” and “carbon neutrality” by 2050, will erase millions of jobs and raise energy costs, leading to a prolonged economic depression and political instability.**

9) What about the scientists' man-made Global Warming crisis consensus?

Climate disaster dissenters' different views are being muffled by top Institutions

- There is no evidence that a gradually warming planet is affecting the frequency or intensity of hurricanes, storms, droughts, rainfall, or other weather events.
- Extreme weather events, such as wildfires and flooding, are not claiming more human lives than previously. "People are safer from climate-related disasters than ever before,"
- Climate science has been hijacked and politicized by activists, creating a culture of self-censorship that's enforced by a code of silence
- Slogans such as "follow the science"&"scientific consensus" are misleadingm disingenuous.
- The warming of the planet is a complicated phenomenon that will cause some disruptions but will also bring benefits, particularly in agricultural yields and increased vegetation.

Reference: **Here's The Climate Dissent You're Not Hearing About Because It's Muffled By Society's Top Institutions** SATURDAY, SEP 16, 2023 - 09:20 PM [*Authored by John Murawski via RealClear Wire,*](#)

[\(2233\) The Lowdown On Climate "Science" – YouTube](#)

[17 Questions to Challenge the Climate Change Crisis - Activist Post](#)

<https://www.telegraph.co.uk/news/2023/08/04/net-zeros-dam-has-burst-but-bbc-is-still-papering-over/>

<https://youtu.be/KhCKYvETYDc?si=GWclipwVGIYTreDv>

[**Will Happen: CO₂, the Gas of Life | Tom Nelson Pod #158**](#)

[Climate hysteria and Climate reality a comparison of interglacials.pdf](#)

<https://thehighwire.com/editorial/new-peer-reviewed-study-co2-has-zero-impact-on-climate-change/>

<https://www.instagram.com/reel/DH6NkhCKHJo/?igsh=MXBsdTJ4cW53MDMoYw==>

9) What about the scientists' man-made Global Warming crisis consensus?

Reports discredit IPCC AR6 report of claims of a man-made climate crisis

- Crok and May document biases and errors in almost every chapter of the latest IPCC AR6 report with blatant data cherry-picking. Even ardent IPCC supporters should feel embarrassed.
- The IPCC seems obsessed with a few themes: i) the current warming is unique and unprecedented, ii) climate change is all bad and iii) it's caused by CO₂. This attitude leads to tunnel visioning.
- This doesn't mean that CO₂ is not having any effect. Of course, it has, but the evidence that CO₂ and other greenhouse gases are causing dangerous climate change is, even after 30 years and 6 major IPCC reports, shown to be rather thin.
- In summary: i) Warming in the Holocene likely peaked during the Holocene Thermal Maximum, when century-scale global temperatures were probably similar to those observed in the last decade. After the Thermal Maximum, a slow cooling began, which follows the Milankovitch cycles. The cooling climaxed in the Little Ice Age, which was probably the coldest period of the Holocene. Greenhouse gases have likely contributed to the subsequent moderate modern warming since 1850.. ii) It is impossible to state with reasonable accuracy what percentage of this modest warming is due to greenhouse gases. lii) Sea level started rising in the 19th century and there is no acceleration visible after 1950, the period in which the climate is supposedly dominated by greenhouse gases. iv) Most types of extreme weather have not become more frequent or more intense. This is especially true for tropical cyclones and floods, events that cause the most damage globally. Disaster losses, if normalized for economic development, show a slight decrease since 1990s. v) Climate-related deaths show more than a 95% drop since the 1920s. This reflects increasing wealth and availability of technologies that better prepare humanity for disasters.
- A prosperous humanity is largely prepared for climate change and can easily cope with it.

The Frozen Climate Views of the IPCC: An analysis of AR6: Edited by Marcel Crok, Andy May

- *Regarding the Hockey Stick of IPCC 2001 evidence now indicates, in my view, that an IPCC Lead Author working with a small cohort of scientists, misrepresented the temperature record of the past 1000 years by (a) promoting his own result as the best estimate, (b) neglecting studies that contradicted his, and (c) amputating another's result so as to eliminate conflicting data and limit any serious attempt to expose the real uncertainties of these data. – John Christy*

- [John Christy's testimony](#)

g) What about the scientists' man-made Global Warming crisis consensus?

Many prominent Physicists discredit the claim of a man-made climate crisis

- Physicists along with chemists play a dominant role in investigating the science surrounding climate, which at its core focuses on heat exchange and the behaviour of atmospheric gases.
- **Dr. John Clauser** is one of the [world's leading authorities](#) on quantum mechanics, the study of matter and light at a sub-atomic and atomic level. In 2010 he was awarded the Wolf Prize in Physics. He states that the climate pseudoscience has become a scapegoat for a wide variety of other unrelated ills. It has been promoted and extended by similarly misguided business marketing agents, politicians, journalists, government agencies and environmentalists. "In my opinion, there is no real climate crisis. There is, however, a very real problem with providing a decent standard of living to the world's largest population and an associated energy crisis. The latter is being unnecessarily exacerbated by what, in my opinion, is incorrect climate science,"
- **Dr. William Happer** is a leading proponent of the 'saturation' hypothesis of warming gases such as CO₂, observing that at certain levels such gases become saturated in small bands of the infrared spectrum. As a consequence, their warming ability diminishes on a logarithmic scale, an observation that helps explain the 600 million-year geological record, where CO₂ measurements have been up to 20 times higher than current atmospheric levels.

<https://dailysceptic.org/2023/07/14/nobel-physics-laureate-2022-slams-climate-emergency-narrative-as-dangerous-corruption-of-science/>
<https://electroverse.info/nobel-prize-winner-slams-climate-alarm-thanksgiving-arctic-blast-sun-hush/>
<https://www.dropbox.com/scl/fi/3k7g1bmrwr1iwlgsa1dg9/MIT-Scientists-Say-EPA-Climate-Regulations-Based-on-Hoax.pdf?rlkey=fl7e8zhojbs66vd3ava9wl4eg&dl=0;>

9) What about the scientists' man-made Global Warming crisis consensus?

Many prominent Physicists discredit the claim of a man-made climate crisis

- **Professor Antonino Zichichi** is the holder of Italy's highest merit order, the Knight Grand Cross of the Order of Merit of the Italian Republic, awarded for a lifetime of distinguished scientific work. In 2019 he [led a group of 48 Italian science professors](#) in stating that human responsibility for climate change is "unjustifiably exaggerated and catastrophic predictions are not realistic". In their scientific view, "natural variation explains a substantial part of global warming observed since 1850".
- Recently, four Italian scientists, including three physics professors, undertook a major review of [historical climate trends](#) and concluded that declaring a 'climate emergency' is not supported by the data. Over many meteorological categories, there was "no clear positive trend of extreme events".
- Last September, the leading nuclear physicist **Dr. Wallace Manheimer** warned that Net Zero would [end modern civilisation](#). He observed that the new wind and solar infrastructure would fail, cost trillions, trash large portions of the environment "and be entirely unnecessary". The 'Climate Industrial Complex' had "somehow" managed to convince many that CO₂ in the atmosphere, a gas necessary for life on Earth that is exhaled in every breath, "is an environmental poison".
- NOAA agrees to restore 'scientific integrity' in its influential \$1 billion climate disaster'

Dr. Roger Pielke Jr [released a preprint of his study](#), on *Scientific integrity*

Numbers Behind The Narrative: What Climate Science Actually Says

FRIDAY, MAY 31, 2024 - 08:10 PM [Authored by Kevin Stocklin via The Epoch Times.](#)

/ [ANTHONY SADAR: Attacks on climate change skeptics a ...](#) Washington Times

9) What about the scientists' man-made Global Warming crisis consensus?

Dr. Steven Koonin former Undersecretary for Science US Dept. of Energy

- “It is true that the globe is warming (and has since the last ice age), and that humans are exerting a warming influence upon it. But beyond that I do not think ‘The Science’ says what you think it says.
- Climate science says clearly that heat waves in the US are now no more common than they were in 1900, and that the warmest temperatures in the US have not risen in the past fifty years.
- Humans have had no detectable impact on hurricanes over the past century.
- Greenland’s ice sheet isn’t shrinking any more rapidly than it was 80 years ago.
- The public gets their climate information almost exclusively from the media; few people actually read the assessment summaries, let alone the reports.
- The science is insufficient to make useful projections about how the climate will change over the coming decade, much less what effect our actions will have.”

References: Unsettled pages 1, 2, 4

Dr. R Lindzen <https://wattsupwiththat.com/2022/12/04/mit-climate-scientist-dr-richard-lindzen-rejects-climate-change-as-a-quasi-religious-movement-predicated-on-an-absurd-scientific-narrative/>

9) What about the scientists' man-made Global Warming crisis consensus?

Dr. Steven Koonin former Undersecretary for Science US Dept. of Energy

Conformance pressures are real in the media, governments, corporations, NGOs, schools and the public

Possible factors: A Self-Reinforcing Alignment of Perspectives and Interests.

- 1) The Media:** As the age of the internet advances, headlines become more provocative to encourage clicks. The general lack of knowledge of what the science actually says, the fear drama of extreme weather events and their heart-rendering impact on people and pressure within the industry all work against a balanced coverage in popular media
- 2) Politicians:** Politicians win elections by arousing passion and commitment from voters – by motivating and persuading. The threat of climate catastrophe resonates with everyone. Politicians declare the science is settled and label anyone who questions that “a denier”
- 3) Scientific Institutions:** When it comes to climate, institutions frequently seem more concerned with making the science fit the narrative than ensuring the narrative fits the science. Assessment reports often summarize or describe the data in ways that are misleading. Scientific institutions have been willing to persuade rather than inform.
- 4) Scientists:** Academic pressure occurs for securing funding through grants plus the matter of promotion and tenure plus peer pressure.
- 5) Activists and NGOs:** Have built organizations based on “climate emergency” that rely on donations to exist making claims that climate change is one of the most devastating problems that humanity has ever faced.
- 6) The Public:** Concerns about climate change are as old as humanity. Public attitudes mostly involve unquestioning acceptance of wisdom handed down from on high and do not have the time or ability to examine the science themselves. Getting information from social media can also be misleading.

g) What about the scientists' man-made Global Warming crisis consensus?

Dr. Steven Koonin/Dr. Jordan Peterson on climate crisis motivating factors

- Political motivation: Quote from H. L. Menkin “The purpose of practical politics is to keep the electorate alarmed by a series of mostly imaginary hobgoblins so that they can be clamoring to be led to safety”
- Media motivation: People are tilted towards attention paid to negative consequences and any given threat could be shown to be personally and socially apocalyptic
- Two immoral consequences of the present “Climate Crisis movement
 - 1) We are denying 6 ½ billion people adequate, reliable and affordable energy;
 - 2) We are depressing the younger generation in a most unreasonable way
- Fortunately, techno-economic realities should eventually cause the system to do the right thing

[\(405\) Unsettled: Climate and Science | Dr. Steven Koonin | EP 323 – YouTube](#)

<https://dailysceptic.org/2023/07/14/nobel-physics-laureate-2022-slams-climate-emergency-narrative-as-dangerous-corruption-of-science/>

9) What about the scientists' man-made Global Warming crisis consensus?

John Stossel interview with Dr. Judith Curry Aug 9, 2023

- We are told climate change is a crisis, and that there is an “overwhelming scientific consensus.”
- “It’s a manufactured consensus,” climate scientist Judith Curry tells me.
- She says scientists have an incentive to exaggerate risk to pursue “fame and fortune.”
- She knows about that because she once spread alarm about climate change.
- The media loved her when she published a study that seemed to show a dramatic increase in hurricane intensity.
- “We found that the percent of Category 4 and 5 hurricanes had doubled,” says Curry.
- “This was picked up by the media,” and then climate alarmists realized, “Oh, here is the way to do it. Tie extreme weather events to global warming!”
- Curry’s “more intense” hurricanes gave them fuel.
- “I was adopted by the environmental advocacy groups and the alarmists and I was treated like a rock star,” Curry recounts.
- “Flown all over the place to meet with politicians.”

9) What about the scientists' man-made Global Warming crisis consensus?

John Stossel interview with Dr. Judith Curry Aug 9, 2023

- But then some researchers pointed out gaps in her research — years with low levels of hurricanes.
- “Like a good scientist, I investigated,” says Curry.
- She realized that the critics were right.
- “Part of it was bad data. Part of it is natural climate variability.”
- Curry adds, “This was picked up by the media,” and then climate alarmists realized, “Oh, here is the way to do it. Tie extreme weather events to global warming!” [ZUMAPRESS.com](https://www.zumapress.com)
- Curry was the unusual researcher who looked at criticism of her work and actually concluded: “They had a point.”
- Then the Climategate scandal taught her that other climate researchers weren’t so open-minded.
- Alarmist scientists’ aggressive attempts to hide data suggesting climate change is *not* a crisis were revealed in leaked emails.
- “Ugly things,” says Curry.
- “Avoiding Freedom of Information Act requests. Trying to get journal editors fired.”

9) What about the scientists' man-made Global Warming crisis consensus?

John Stossel interview with Dr. Judith Curry Aug 9, 2023

- It made Curry realize that there is a “climate-change industry” set up to reward alarmism.
- “The origins go back to the . . . UN environmental program,” says Curry.
- Some United Nations officials were motivated by “anti-capitalism. They hated the oil companies and seized on the climate change issue to move their policies along.”
- The UN created the Intergovernmental Panel on Climate Change.
- “The IPCC wasn’t supposed to focus on any *benefits* of warming. The IPCC’s mandate was to look for *dangerous* human-caused climate change.”
- “Then the national funding agencies directed all the funding . . . *assuming* there are dangerous impacts.”
- The researchers quickly figured out that the way to get funded was to make alarmist claims about “man-made climate change.”
- This is how “manufactured consensus” happens.
- Even if a skeptic did get funding, it’s harder to publish because journal editors are alarmists.
- “The editor of the journal Science wrote this political rant,” says Curry.

g) What about the scientists' man-made Global Warming crisis consensus?

John Stossel interview with Dr. Judith Curry Aug 9, 2023

- She even said, “The time for debate has ended.”
- “What kind of message does that give?” adds Curry.
- Then she answers her own question: “Promote the alarming papers! Don’t even send the other ones out for review. If you wanted to advance in your career, like be at a prestigious university and get a big salary, have big laboratory space, get lots of grant funding, be director of an institute, there was clearly one path to go.”
- That’s what we’ve got now: a massive government-funded climate alarmism complex.

By [John Stossel](#) August 9, 2023

g) What about the scientists' man-made Global Warming crisis consensus?

Dr. William Happer , Physics Department Princeton University, Dr. Indur Goklany

- [Dr. William Happer](#), professor emeritus in the Department of Physics at Princeton University, has coauthored a [paper](#) that shows that the greenhouse effect of carbon dioxide is limited to a narrow band of the electromagnetic spectrum and cannot cause dangerous planet heating.
- “Carbon dioxide is completely natural,” he says. “Plants need it to grow. We all breathe out about two pounds of it every day. When people say that we need to remove carbon dioxide from the air, I can’t imagine what they are thinking because today there is not enough carbon dioxide compared to what plants would prefer. We are living in a time of a carbon dioxide famine in the context of geological history. We need more of it not less.”
- “The demonization of carbon dioxide is absurd. Widely accepted data, such as those from Antarctic ice cores, show that over geologic time almost never have carbon dioxide levels been as low as today. Over most of Earth’s history, levels have been four or five times what they are now.”
- As for the comparative value of energy sources, an analysis by CO2 Coalition member Dr. Indur Goklany finds that coal, oil and natural gas are the most beneficial based on their efficiencies and on the salutary effects of their emissions of carbon dioxide. These fuels have fostered unprecedented prosperity and human health. Their CO2 emissions have contributed to an overall greening of Earth and record crop harvests.
- Interview on Climate Change with Dr William Happer <https://fromsmash.com/695VS4Y6zU-ht?e=Z3JhZW1lQHB0aXBwc2FuZGFzc29jaWFoZXMuY29t>
- [New Paper by Lindzen, Happer and van Wijngaarten Shows the ...](#)
- <https://financialpost.com/opinion/scientific-method-beats-climate-alarmism>
- [The Real Story on Climate Change William Happer Princeton ...](#) William Happer

9) What about the scientists' man-made Global Warming crisis consensus?

Dr. Richard Lindzen , Atmospheric Physicist , served as Chair at Harvard U. and M.I.T

- Dr. Richard Lindzen states the claim of 97% agreement among climate scientists is misleading. There is 100% agreement that CO₂ is a greenhouse gas and adding it to the atmosphere is increasing warming. The question is how much?
- The evidence shows it will increase by a little. There is little or no evidence that the climate is highly sensitive to increasing atmospheric carbon dioxide today.
- Global climate modelers seize upon is positive feedback: That is how a small warming will be amplified into a greater warming. This assumption is contrary to Le Chatelier's Principle: ("A change in one of the variables that describe a system at equilibrium produces a shift in the position of the equilibrium that counteracts the effect of this change." Although it was first applied to chemical solutions, it can also be applied to systems.)
- Climate is controlled by two regions: the tropics (30 S to 30 N) and the extratropics. The rotation of the Earth, the Coriolis effect, and other fluid dynamics result in great differences in the effects of changing greenhouse gases and other causes of climate change. The tropics stay relatively constant, in the extratropics changes are significant. Within the tropics, the greenhouse effect is significant but relatively constant. But what occurs between the tropics and the extratropics has little to do with the greenhouse effect. Temperature differences cause dramatic changes in weather; prevailing winds change with latitude. Claiming increasing CO₂ will cause a significant difference is false.

[170\) Climate Science: What Does it Say? | Dr. Richard Lindzen | EP 320 – YouTube](#) Dr. Lindzen and Jordan Peterson interview

https://www.youtube.com/live/Ydl_47G8nzk?si=ZYBjf2dZEtNPV4K6 "Panel: Climate Science: the use and abuse of consensus"

<https://youtu.be/spKTb3wMmJM?si=N195b4ezUGO3u5Ni> Dr Richard Lindzen on IPCC

9) What about the scientists' man-made Global Warming crisis consensus?

Dr. Judith Curry , Professor Emerita Earth and Atmospheric Sciences Georgia Institute of Technology and President of Climate Forecast Applications Network

Main points from her book *Climate Uncertainty and Risk Rethinking Our Response*:

- **Underappreciated uncertainty in climate science:** Climate models have consistently overestimated warming, and there's significant uncertainty surrounding the sensitivity of the climate system to greenhouse gas emissions. This uncertainty makes it difficult to predict the extent and impacts of future climate change.
- **Rethinking climate risk:** Curry argues for a broader perspective on climate risk that considers both the potential negative impacts of climate change and the potential benefits of a warmer climate. It emphasizes the importance of adaptation and resilience in managing climate risk.
- **Challenging the dominant paradigm:** Curry critiques the prevailing view that all climate change is dangerous and that drastic measures to reduce emissions are necessary. She argues for a more nuanced approach that considers the uncertainties and complexities of the climate system.
- **New framework for decision-making:** Curry proposes a decision-making framework that focuses on managing uncertainty and risk, rather than trying to eliminate it. This framework emphasizes the importance of flexibility, adaptability, and learning as we navigate the uncertain future of climate change.

9) What about the scientists' man-made Global Warming crisis consensus?

Meteorologist Dr. Ole Humlum finds no evidence of a planetary crisis

Dr. Ole Humlum used meteorological and climatological data to objectively assess the state of the Earth's climate and found no evidence of a climate crisis:

1. Observed data do not support the notion of a climate crisis, but reveals many and partly recurrent natural variations.

2. Ocean surface temperature controls the atmospheric temperature.

1. Atmospheric temperatures: Possible global increase of up to 1.5°C by 2100, and likely less. Antarctic temperatures remain stable.

2. Ocean temperatures: Much still to be learned. Oceans are definitely not "boiling."

3. Sea Level: 15-20 cm further global rise by 2100? [6 to 8 inches]

4. Sea Ice: Much still to be learned. Arctic sea ice is not disappearing.

5. Snow: Snow cover is quasi-stable, and snow is not disappearing.

6. Wind and Storms: Recurrent (periodic?) variations. No trend in hurricanes.

7. Precipitation: Recurrent (periodic?) variations superimposed on upward trend since 1900.

8. Cloud Cover: Cloud cover has declined since about 1980. This development is probably contributing to observed atmospheric and ocean warming.

9. CO₂, although being very important for life is not overly important to understand meteorology and climate.

9) What about the scientists' man-made Global Warming crisis consensus?

CO2 Coalition Report challenges Net Zero with science

- Applying the scientific method indicates **there is no risk that fossil fuels and CO2 are causing, or will cause catastrophic global warming, There is, however, a real risk that eliminating fossil fuels and CO2 emissions will cause massive starvation**
- Their report also states that “in our scientific opinion, any government or other analysis advocating “Net Zero” regulation or other policy is scientifically invalid and flawed if it:
- Omits unfavorable data that contradicts conclusions on extreme weather events such as heatwaves, wildfires, hurricanes, tornados, fires and droughts.
- Relies on models that do not work and should never be used in science.
- Relies on IPCC (the Inter-Governmental Panel on Climate Control), which are Government opinions, not science.
- Omits the extraordinary social benefits of CO2 and fossil fuels.
- Omits the disastrous consequences of reducing fossil fuels and CO2 to net zero.
- Reject the science that demonstrates that there is no risk of catastrophic global warming caused by fossil fuels and CO2. [Challenging Net Zero with Science - CO2 Coalition](https://www.co2coalition.org)
[The 55-page paper](https://www.co2coalition.org) [WWW.CO2COALITION.ORG](https://www.co2coalition.org)

g) What about the scientists' man-made Global Warming crisis consensus?

1,975 Scientists' World Climate Declaration: THERE IS NO CLIMATE EMERGENCY

There is no climate emergency

- A global network of over 1600 scientists and professionals has prepared this urgent message. Climate science should be less political, while climate policies should be more scientific. Scientists should openly address uncertainties and exaggerations in their predictions of global warming, while politicians should dispassionately count the real costs as well as the imagined benefits of their policy measures.

Natural as well as anthropogenic factors cause warming

- The geological archive reveals that Earth's climate has varied as long as the planet has existed, with natural cold and warm phases. The Little Ice Age ended as recently as 1850. Therefore, it is no surprise that we now are experiencing a period of warming.

Warming is far slower than predicted

- The world has warmed significantly less than predicted by IPCC on the basis of modeled anthropogenic forcing. The gap between the real world and the modeled world tells us that we are far from understanding climate change.

9) What about the scientists' man-made Global Warming crisis consensus?

1,975 scientists World Climate Declaration: THERE IS NO CLIMATE EMERGENCY

Climate policy relies on inadequate models

- Climate models have many shortcomings and are not remotely plausible as global policy tools. They blow up the effect of greenhouse gases such as CO₂. In addition, they ignore the fact that enriching the atmosphere with CO₂ is beneficial.

CO₂ is plant food, the basis of all life on Earth

- CO₂ is not a pollutant. It is essential to all life on Earth. Photosynthesis is a blessing. More CO₂ is beneficial for nature, greening the Earth: additional CO₂ in the air has promoted growth in global plant biomass. It is also good for agriculture, increasing the yields of crops worldwide.

Global warming has not increased natural disasters

- There is no statistical evidence that global warming is intensifying hurricanes, floods, droughts and such natural disasters, or making them more frequent. However, there is ample evidence that CO₂ mitigation measures are as damaging as they are costly.

Climate policy must respect scientific and economic realities

9) What about the scientists' man-made Global Warming crisis consensus?

1,975 scientists World Climate Declaration: THERE IS NO CLIMATE EMERGENCY

- There is no climate emergency. Therefore, there is no cause for panic and alarm. We strongly oppose the harmful and unrealistic net-zero CO₂ policy proposed for 2050. If better approaches emerge, and they certainly will, we have ample time to reflect and re-adapt. The aim of global policy should be 'prosperity for all' by providing reliable and affordable energy at all times. In a prosperous society men and women are well educated, birth rates are low and people care about their environment.

Epilogue

- The World Climate Declaration (WCD) has brought a large variety of competent scientists together from all over the world*. The considerable knowledge and experience of this group is indispensable in reaching a balanced, dispassionate and competent view of climate change.
- From now onward the group is going to function as "Global Climate Intelligence Group". The CLINTEL Group will give solicited and unsolicited advice on climate change and energy transition to governments and companies worldwide.
- ** It is not the number of experts but the quality of arguments that counts*

9) What about the scientists' man-made Global Warming crisis consensus?

1,975 scientists World Climate Declaration: THERE IS NO CLIMATE EMERGENCY

World Climate Declaration AMBASSADORS

NOBEL LAUREATE PROFESSOR IVAR GIAEVER NORWAY/USA

PROFESSOR GUUS BERKHOUT / THE NETHERLANDS

DR. CORNELIS LE PAIR / THE NETHERLANDS

PROFESSOR REYNALD DU BERGER / FRENCH SPEAKING CANADA

BARRY BRILL / NEW ZEALAND

VIV FORBES / AUSTRALIA

PROFESSOR JEFFREY FOSS † / ENGLISH SPEAKING CANADA

JENS MORTON HANSEN / DENMARK

PROFESSOR LÁSZLÓ SZARKA / HUNGARY

PROFESSOR SEOK SOON PARK / SOUTH KOREA

PROFESSOR JAN-ERIK SOLHEIM / NORWAY

STAVROS ALEXANDRIS / GREECE

FERDINAND MEEUS / DUTCH SPEAKING BELGIUM

PROFESSOR RICHARD LINDZEN / USA

HENRI A. MASSON / FRENCH SPEAKING BELGIUM

PROFESSOR INGEMAR NORDIN / SWEDEN

JIM O'BRIEN / REPUBLIC OF IRELAND

9) What about the scientists' man-made Global Warming crisis consensus?

1600+ scientists World Climate Declaration: THERE IS NO CLIMATE EMERGENCY

World Climate Declaration AMBASSADORS continued

PROFESSOR IAN PLIMER / AUSTRALIA

DOUGLAS POLLOCK / CHILE

DR. BLANCA PARGA LANDA / SPAIN

PROFESSOR ALBERTO PRESTININZI / ITALY

PROFESSOR BENOÎT RITTAUD / FRANCE

DR. THIAGO MAIA / BRAZIL

PROFESSOR FRITZ VAHRENHOLT / GERMANY

THE VISCOUNT MONCKTON OF BRENCHELY / UNITED KINGDOM

DUŠAN BIŽIĆ / CROATIA, BOSNIA AND HERZEGOVINA, SERBIA AND MONTE
NEGRO

References:

[\(1132\) NASA Engineer Tom Moser Reveals the Truth About Climate Science – YouTube](#)

[Press-release-Clintel-The-Frozen-Climate-Views-of-the-IPCC.pdf](#)

<https://wattsupwiththat.com/2023/10/07/marcel-crok-speaks-in-the-danish-parliament/>

<https://clintel.org/wp-content/uploads/2023/05/Clintel-The-Frozen-Climate-Views-of-the-IPCC-online-version.pdf>

[Video: 2022 Nobel physics prize winner John Clauser rips climate idiocy, No 'climate crisis' and IPCC 'one of the worst sources of dangerous misinformation' • Watts Up With That?](#)

g) What about the scientists' man-made Global Warming crisis consensus?

Expert opinion by Dr. Richard Lindzen, Dr. William Happer and Dr. Steven Koonin

The case against going carbon-neutral

I. THERE WILL BE DISASTROUS CONSEQUENCES FOR THE POOR, PEOPLE WORLDWIDE, FUTURE GENERATIONS AND THE WEST IF FOSSIL FUELS AND CO2 EMISSIONS ARE REDUCED TO “NET ZERO”

A. CO2 is Essential to Our Food, and Thus to Life on Earth

B. More CO2, Including CO2 from Fossil Fuels, Produces More Food.

C. More CO2 Increases Food in Drought-Stricken Areas.

D. Greenhouse Gases Prevent Us from Freezing to Death

E. Enormous Social Benefits of Fossil Fuels

F. “Net Zeroing” Fossil Fuels Will Cause Massive Human Starvation by Eliminating Nitrogen Fertilizer

II. THE IPCC IS GOVERNMENT-CONTROLLED AND THUS ONLY ISSUES GOVERNMENT OPINIONS, NOT SCIENCE, THUS PROVIDES NO SCIENTIFIC BASIS FOR THE COURT’S OPINION

III. SCIENCE DEMONSTRATES FOSSIL FUELS AND CO2 WILL NOT CAUSE DANGEROUS CLIMATE CHANGE AND EXTREME WEATHER

A. Reliable Science is Based on Validating Theoretical Predictions With Observations, Not Consensus, Peer Review, Government Opinion or Cherry-Picked or Falsified Data

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Reference: Shell v. Milieudefensie et al – Expert Opinion Prepared for Foundation Environment and Man November 30, 2023

9) What about the scientists' man-made Global Warming crisis consensus?

Expert opinion by Dr. Richard Lindzen, Dr. William Happer and Dr. Steven Koonin

B. The Models Predicting Catastrophic Warming and Extreme Weather Fail the Key Scientific Test: They Do Not Work, and Would Never Be Used in Science.

C. 600 Million Years of CO₂ and Temperature Data Contradict the Theory That High Levels of CO₂ Will Cause Catastrophic Global Warming.

D. Atmospheric CO₂ Is Now “Heavily Saturated,” Which in Physics Means More CO₂ Will Have Little Warming Effect.

E. The Theory Extreme Weather is Caused by Fossil Fuels and CO₂ is Contradicted by the Scientific Method and Thus is Scientifically Invalid

Heat Waves. On extreme temperatures in the U.S.: “*The annual number of high-temperature records set shows no significant trend over the past century, nor over the past 40 years.*”

Hurricanes. “hurricanes and tornadoes show no changes attributable to human influences.” Id. Further, “There has been no significant trend in the global number of tropical cyclones nor has any trend been identified in the number of U.S. land-falling hurricanes.”

Sea Levels. there is no risk of increased damage from rising sea levels because of increasing atmospheric CO₂ from fossil fuels. Sea levels may rise and cause damage, but the resulting increased financial losses will have nothing to do with fossil fuels and increases in CO₂.

Wildfires. there is no risk of increased damage by wildfires because of increasing atmospheric CO₂ from fossil fuels.

Flooding: there is “*low confidence* regarding the sign of trend in the magnitude and/or frequency of floods on a global scale.”

Droughts. ‘*Low confidence* in a global-scale trend in drought since middle twentieth century,”

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9) What about the scientists' man-made Global Warming crisis consensus?

60 Facts About CO₂ and Climate

1. CO₂ is not the primary greenhouse gas
2. The warming effect of CO₂ declines as its concentration increases
3. CO₂ is food for plants and is considered the gas of life
4. In the last four ice ages, the CO₂ level was dangerously low
5. The world has been in a 140 million-year trend of dangerously decreasing CO₂
6. The current geologic (Quaternary) period has the lowest CO₂ level in the Earth's history
7. More CO₂ means more plant growth
8. More CO₂ helps to feed more people worldwide
9. More CO₂ means moister soil, **greener globe and smaller desserts**
10. Global warming stopped 18 years despite the rise in CO₂
11. CO₂ rose after the Second World War, but temperatures fell
12. The present warming began long before SUVs or coal-fired power plants
13. Melting glaciers and rising sea levels confirm warming predates CO₂ increases
14. Temperatures have changed over 800,000 years and well before mankind
15. Interglacials usually last 10,000 to 15,000 years. Our present one is 11,000 years

Gregory Wrightstone Inconvenient Facts pages 125 - 128

g) What about the scientists' man-made Global Warming crisis consensus?

60 Facts About CO₂ and Climate

16. Each of the four previous interglacial periods was significantly warmer than the one we are currently experiencing
17. The last interglacial, about 120,000 years ago, was 8 degrees warmer than today and the polar bears survived plus the Greenland ice didn't melt
18. Temperatures have changed over the past 10,000 and weren't due to mankind.
19. Today's total warming and rate of warming are similar to earlier periods
20. For 6,100 years out of the last 10,000 years, it was warmer than today
21. The current warming trend is neither unusual nor unprecedented
22. Earth's orbit and the tilt of the Earth's axis drive ice ages and interglacial periods
23. We are now living in one of the coldest periods in all of Earth's history
24. Earth has not had a geologic period this cold in 250 million years
25. The only thing constant about temperatures over 600 million years is that they have been constantly changing
26. For most of Earth's history, it was 10 degrees C warmer than today
27. IPCC's models overstate future warming up to three times too much
28. For human advancement, warmer is better than colder
29. Returning to pre-industrial Revolution temperatures will lead to famine and death

g) What about the scientists' man-made Global Warming crisis consensus?

60 Facts About CO₂ and Climate

- 30. Only 0.3% of the publications stated in their papers that the recent warming was mostly man-made
- 31. Science is not consensus, and consensus is not science
- 32. More CO₂ yields fewer droughts
- 33. Higher temperatures also show fewer droughts
- 34. Forest fires in the Northern Hemisphere are decreasing
- 35. More CO₂ provides more CO₂ fertilization and more soil moisture, faster tree growth and fewer forest fires
- 36. More CO₂ in the atmosphere means more food for everyone
- 37. The Earth is becoming greener and not turning into deserts which are shrinking
- 38. Growing seasons are lengthening
- 39. More CO₂ and warmer weather means more world food production
- 40. EPA: Heat waves are not becoming more frequent
- 41. Extreme heat events are declining
- 42. Cold kills far more people every year than heat
- 43. Warmer weather means many fewer temperature-related deaths
- 44. Warmer weather prevents millions of premature deaths every year

g) What about the scientists' man-made Global Warming crisis consensus?

60 Facts About CO₂ and Climate

45. More CO₂ and warmth means shorter and less intense heat waves
46. The number of tornadoes is decreasing
47. The number of tornadoes in 2016 was the lowest on record
48. Death from tornadoes are falling
49. There has been no increase in the frequency of hurricanes in recent data
50. We have seen 250 years of declining hurricane frequency
51. No significant increase in hurricane intensity due to global warming
52. The polar bear population is growing
53. There are more polar bears today than there have been for 50 years
54. Polar bears thrive even where the sea ice is diminishing
55. There is no historical connection between CO₂ and the ocean's PH
56. The oceans did not become acidic, even at 15 times modern CO₂ levels
57. Sea level increases began more than 15,000 years ago
58. Recent sea level rise began 150 years before the increases in CO₂
59. Melting the northern pole ice cap in the Arctic Ocean will not raise the sea level
60. Most of Antarctica is cooling down and gaining ice mass

9) What about the scientists' man-made Global Warming crisis consensus?

22 essays on the science, politics and economics challenge the crisis consensus

Climate Change: The Facts

Recent essays on the science, politics and economics of the climate change debate featuring the world's leading experts and commentators on climate change. Highlights include:

- Ian Plimer draws on the geological record to dismiss the possibility that human emissions of carbon dioxide will lead to catastrophic consequences for the planet.
- Patrick Michaels demonstrates the growing chasm between the predictions of the IPCC and the real world temperature results.
- Richard Lindzen shows the climate is less sensitive to increases in greenhouse gases than previously thought and argues that a warmer world would have a similar weather variability to today.
- Willie Soon discusses the often unremarked role of the sun in climate variability.
- Robert Carter explains why the natural variability of the climate is far greater than any human component.
- John Abbot and Jennifer Marohasy demonstrate how little success climate models have in predicting important information such as rainfall.

https://www.amazon.co.uk/gp/product/BooS5L5YoW/ref=ppx_yo_dt_b_d_asin_title_351_000?ie=UTF8&psc=1

Climate Change :The Facts Dr. John Abbot

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Climate Change: The Facts

- Nigel Lawson warns of the dire economic consequences of abandoning the use of fossil fuels.
- Alan Moran compares the considerable costs of taking action compared to the relatively minor potential benefits of doing so.
- James Delingpole looks at the academic qualifications of the leading proponents of catastrophic climate change and finds many lack the credentials of so-called 'sceptics'.
- Garth Paltridge says science itself will be damaged by the failure of climate forecasts to eventuate.
- Jo Nova chronicles the extraordinary sums of public money awarded to climate change activists, in contrast to those who question their alarmist warnings.
- Kesten Green and Scott Armstrong compare climate change alarmism to previous scares raised over the past 200 years.
- Rupert Darwall explains why an international, legally binding climate agreement has extremely minimal chances of success.
- Ross McKittrick reviews the 'hockey stick' controversy and what it reveals about the state of climate science.

https://www.amazon.co.uk/gp/product/BooS5L5YoW/ref=ppx_yo_dt_b_d_asin_title_351_000?ie=UTF8&psc=1

9) What about the scientists' man-made Global Warming crisis consensus?

22 essays on the science, politics and economics challenge the crisis consensus

Climate Change: The Facts

- Donna Laframboise explains how activists have taken charge of the IPCC.
- Mark Steyn recounts the embarrassing 'Ship of Fools' expedition to Antarctica.
- Christopher Essex argues the climate system is far more complex than it has been presented and there is much that we still don't know.
- Bernie Lewin examines how climate change science came to be politicized.
- Stewart Franks lists all the unexpected developments in climate science that were not foreseen.
- Anthony Watts highlights the failure of the world to warm over the past 18 years, contrary to the predictions of the IPCC.
- Andrew Bolt reviews the litany of failed forecasts by climate change activists.

https://www.amazon.co.uk/gp/product/BooS5L5YoW/ref=ppx_yo_dt_b_d_asin_title_351_000?ie=UTF8&psc=1

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9) What about the scientists' man-made Global Warming crisis consensus?

Concerns with the United Nations' IPCC Climate Change

- The IPCC's assessment of the impact of extreme weather events states a "high confidence" of temperature increases in average air and ocean temperatures and incidences of extreme heat in tropical and mid-latitudes. It also indicates high confidence in a decrease in arctic sea ice.
- However, it states "low confidence" for any increase in floods, rainstorms, landslides, drought, "fire weather," cyclones, hurricanes, tornadoes, sand and dust storms, hail, sea level rise, coastal flooding, and erosion. It also indicates low confidence regarding a decrease in snow, glaciers, ice sheets, or lake, river, and sea ice, beyond the Arctic region.
- How do such mundane assessments of the impact of climate change evolve into the narrative that "our climate is imploding" and "oceans are boiling"? In two ways: first, the public statements from the IPCC and the U.N. often diverge from what their own reports actually say; and second, the predictions of a dire future are based on models rather than observations.
- **John Clauser**, a 2022 Nobel Prize recipient in physics. [stated](#) in 2023 that "the popular narrative about climate change reflects a dangerous corruption of science that threatens the world's economy and the well-being of billions of people. Mr. Clauser stated. "In my opinion, there is no real climate crisis."

• [Authored by Kevin Stocklin via The Epoch Times](#)

• <https://www.msn.com/en-gb/video/news/man-made-climate-change-is-garbage/vi>

• Reform UK position on Climate Change -AA1z94Ta?ocid=msedgntp&pc=HCTS&cvid=cfa592b2dc4f468fb1500aed4da18925&ei=11

9) What about the scientists' man-made Global Warming crisis consensus?

Empirical Evidence Contradicts IPCC Models and Solar Forcing Assumptions

- Analysis reveals that human CO₂ emissions, constituting a mere 4% of the annual carbon cycle, are dwarfed by natural fluxes, with isotopic signatures and residence time data indicating negligible long-term atmospheric retention.
- Moreover, individual CMIP3 (2005-2006), CMIP5 (2010-2014), and CMIP6 (2013-2016) model runs consistently fail to replicate observed temperature trajectories and sea ice extent trends, exhibiting correlations (R^2) near zero when compared to unadjusted records. **A critical flaw emerges in the (Intergovernmental Panel on Climate Change) IPCC's reliance on a single, low-variability.**
- Total Solar Irradiance (TSI) reconstruction, despite the existence of 27 viable alternatives, where higher-variability options align closely with observed warming—itself exaggerated by data adjustments.
- **We conclude that the anthropogenic CO₂-Global Warming hypothesis lacks empirical substantiation, overshadowed by natural drivers such as temperature feedbacks and solar variability, necessitating a fundamental reevaluation of current climate paradigms.**
- **The IPCC's CO₂-Global Warming narrative collapses under scrutiny.** Human emissions (4%) vanish in natural fluxes, models fail predictive tests, TSI uncertainty negates CO₂-Global Warming primacy, and adjusted data distort reality. Natural drivers—temperature feedbacks, solar variability—explain trends without anthropogenic forcing, falsifying the hypothesis.

9) What about the scientists' man-made Global Warming crisis consensus?

Empirical Evidence Contradicts IPCC Models and Solar Forcing Assumptions

- The anthropogenic CO₂-Global Warming hypothesis, as articulated by the Intergovernmental Panel on Climate Change (IPCC) and supported by researchers such as Mann, Schmidt, and Hausfather, lacks robust empirical support when subjected to **rigorous scrutiny**. This analysis integrates unadjusted observational data and recent peer-reviewed studies to demonstrate that the assertion of human CO₂ emissions as the primary driver of climate variability since 1750 is not substantiated. Instead, natural processes—including temperature feedbacks, solar variability, and oceanic dynamics—provide a more consistent explanation for observed trends.
- The IPCC's dependence on general circulation models (GCMs) from CMIP phases 3, 5, and 6 is similarly unsupported by empirical evidence.
- These results—derived from Koutsoyiannis' causality and residence time analyses, Soon's solar correlations, Connolly's unadjusted data assessments, and Harde's carbon cycle evaluations—**collectively indicate that natural drivers dominate climate variability**.
- **Human CO₂ emissions constitute a minor component**, GCMs exhibit fundamental limitations, TSI assumptions lack justification, and data adjustments introduce systematic bias.
- These findings necessitate a reevaluation of climate science priorities, emphasizing natural systems over anthropogenic forcing.

9) What about the scientists' man-made Global Warming crisis consensus?

US Republican Party Resolution supporting a transformative Energy Freedom Policy

The Republican National Committee has passed an unprecedented resolution that powerfully advocates for energy freedom in America The resolution is available [here](#)

- *WHEREAS, Fossil fuel energy gives us an unprecedented ability to protect ourselves from the climate, driving down climate disaster deaths by 98% over the last century by powering the technology that protects us against storms, extreme temperatures, and drought;*
- *WHEREAS, Affordable, reliable energy is essential to American and human prosperity because it gives us the ability to use machines to become productive and prosperous; and more affordable and reliable American energy leads to a better economy, a lower cost of living, more well-paid job opportunities, a smaller deficit, and greater national security;*
- *WHEREAS, Fossil fuels are and for the foreseeable future will remain a uniquely affordable, reliable, scalable, and secure source of energy—the only source that can provide plentiful energy to billions of people in thousands of places;*
- *WHEREAS, Energy poverty is a crucial problem at home and abroad, affecting tens of millions of Americans and billions worldwide, including the three billion individuals who survive daily on less electricity than a household refrigerator;*
- *WHEREAS, Fossil fuel energy gives us an unprecedented ability to protect ourselves from the climate, driving down climate disaster deaths by 98% over the last century by powering the technology that protects us against storms, extreme temperatures, and drought;*

9) What about the scientists' man-made Global Warming crisis consensus?

US Republican Party Resolution supporting a transformative Energy Freedom Policy

- *WHEREAS, America and the world need an energy policy that ensures plenty of fossil fuel energy and fosters promising cost-competitive alternatives like nuclear energy;*
- *WHEREAS, America can enrich itself and empower billions with policies that free human ingenuity to produce energy in as low-cost, reliable, plentiful, and clean a way as possible—while protecting us against harmful emissions and dangerous practices;*
- *WHEREAS, The Biden administration has restricted investment, production, and transport of American fossil fuels on the false promise that they can be rapidly replaced by solar and wind; has shut down reliable power plants and created unprecedented electricity shortages; has sought to excuse their policies from fault by blaming price spikes on “Putin’s price hike,” post-COVID demand, or the supposed greed of oil companies; therefore, be it*
- *RESOLVED, That America should take the following steps to promote American prosperity, increase energy security, improve our environment, and enhance the well-being of billions around the world through energy freedom: (1) Liberate responsible development of domestic energy resources; (2) End preferences for unreliable electricity; (3) Reform air and water emissions standards to incorporate realistic cost-benefit analysis; (4) Withdraw from climate agreements that punish America instead of fostering innovation; and (5) Unleash nuclear energy; and*
- *RESOLVED, That the Republican National Committee urges the United States Congress and the White House to advance energy freedom policies that liberate American energy for the benefit of all.* [Meet the scientists Trump could tap to undermine climate regulations - E&E News by POLITICO](#)

g) What about the scientists' man-made Global Warming crisis consensus?

There is no consensus regarding mankind's CO₂ emission causing a climate crisis

- Consensus is based on the specific question asked. Scientists agree there is Global Warming and that mankind has increased CO₂ levels which does affect temperature, but they do not agree as to the degree of impact or if this is causing a global warming crisis.
- Our understanding of global warming as shaped by the media and environmental pundits is severely biased, more public debates involving various experts are needed.
- [\(1132\) NASA Engineer Tom Moser Reveals the Truth About Climate Science - YouTube](#)
- <https://youtu.be/oYhCQv5tNsQ> BBC The Great Global Warming Swindle March 8, 2007
- [Climate I: Is The Debate Over? – YouTube](#) Richard Lindzen and Hadi Dawlatabadi
- [\(5124\) Data shows there's no climate catastrophe looming – climatologist Dr J Christy debunks the narrative - YouTube](#)
- Freeman Dyson <https://youtu.be/BiKfWdXXfls>
- Ivan Giaever: www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change
- John Christy: Climate models for politics?... "A bridge too far" – YouTube
- www.populartechnology.net/2007/10/no-consensus-on-global-warming.html
- <https://clintel.org/world-climate-declaration/>
- www.populartechnology.net/2007/10/no-consensus-on-global-warming.html
- [Wrong Again: 50 Years of Failed Eco-pocalyptic Predictions - Competitive Enterprise Institute \(cei.org\)](#)
- https://www.wsj.com/opinion/climate-ideology-is-dying-environment-change-policy-movement-8c8fb882?st=PWd67z&reflink=article_email_share

Question 10

If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Focus on reducing the actual pollutants while still obtaining advantages of fuel usage

Presently, automobile engine emissions are a source of environmental air pollution. Day by day the number of vehicles increases which increases the emission of pollutants from vehicles. By burning fuel in its combustion chamber cylinder, Internal Combustion engines convert heat energy into mechanical energy. Petrol and diesel oil are mainly used as fuels for these I.C. engines. These fuels contain hydrogen and carbon in various combinations. During combustion, oxygen combines with hydrogen and carbon to form water (H₂O) and carbon dioxide (CO₂). These CO₂ and H₂O products are not the associated air pollutants.

Some fuel goes unburnt resulting in smoke and ash. This incomplete combustion of fuels in automobiles results in polluted engine exhaust of partly burnt petrol, carbon monoxide, nitrogen oxides and, if sulphur is in petrol, sulphur oxides, which pollute the air. These oxides of nitrogen together with hydrocarbons react in the presence of sunlight and they form petrochemical smog. The atmosphere becomes dirty and breathing may become difficult. Negative effects may also include crop damage, eye irritation, objectionable odour, decrease of visibility, cracking in rubber etc.

Focussing on reducing and removing these pollutants, which is possible, is where the focus should be thereby allowing continued cost-effective and energy efficient use of fossil fuels.

An economic migration from fossil fuels over time utilizing nuclear energy and potentially other developing energy (not wind and solar) is a pragmatic solution, which should be pursued in a realistic fashion while not negatively impacting society.

[Dr. Judith Curry - Bing video](#) [\(1115\) "There's no emergency" – dissident climatologist Dr. Judith Curry on climate change – YouTube](#) Book: Climate Uncertainty and Risk Dr Judith Curry

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Focus on reducing/removing the actual fossil fuel pollutants

- CO₂ emissions is not a problem. Focus on where the actual problem is and then solve this problem. Stop wasting funds on Carbon Net Zero initiatives and re-allocate these funds to more beneficial areas
- If the detrimental coal, oil and gas pollutant components or products are removed from the oil and gas closer to the source (e.g. sulfur removal at refinery level for petroleum use in transportation) and reduced during burning (e.g. improved engine combustion process or coal burning process when creating electricity from steam), then the world can continue to benefit from the very efficient and effective fossil fuel use with significantly reduced air pollution
- Significant improvements in removing pollutants have already occurred
- Continued focus on additional removal of these actual pollutants and improvement to engine combustion and advanced coal-fired generating plants that gasify the coal rather than burn it directly can and should be done with existing and evolving technologies to enable mankind to benefit from the efficient and effective use of fossil fuels while also protecting the environment
- To further reduce urban air pollution from fuel combustion, move to new dual-fuel engines that run on LPG and petrol; LPG has zero tail-pipe particulate emissions.

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Comments from The Science & Environmental Policy group

- **The Science & Environmental Policy Project (SEPP)** is a 501-c-3 organization, incorporated in Virginia. Established in 1990 by the late S. Fred Singer to challenge government environmental policies employing poor science, SEPP stands for objective science, based on physical evidence and rigorous adherence to the scientific method.

No matter how elaborate, results from numerical models that are not thoroughly tested against physical evidence are speculative and cannot be relied upon. Testing the results from using parts of a model against the results from the entire model is a ruse used by the UN Intergovernmental Panel on Climate Change (IPCC). Major government policies based on speculation and misleading “modeling” are a waste of resources.

Two prevalent myths are damaging our economy and hurting the less fortunate:

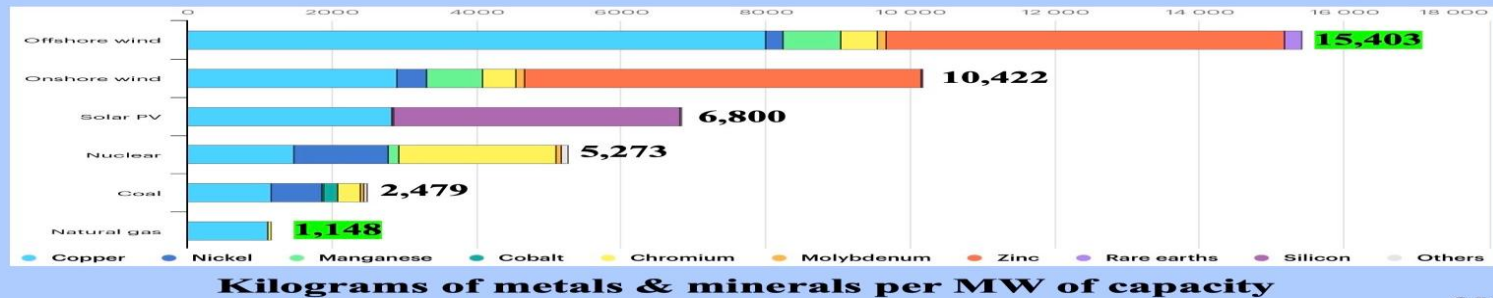
- 1) greenhouse gases, chiefly carbon dioxide, are causing dangerous global warming; and**
- 2) wind and solar can easily replace fossil fuels, nuclear, and hydro in electricity generation.**

As South Korea faces mounting pressure to bridge its energy supply-demand gap, the nation is doubling down on coal, oil, and natural gas imports. This decision, controversial in an era dominated by calls for decarbonization, underscores South Korea’s pragmatic focus on safeguarding its economic engine while reinforcing its industrial dominance.

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Practical limitations to wind and solar power

The Iron Law of Power Density: The Lower The Power Density, The Greater The Resource Intensity



Source: IEA, <https://www.iea.org/data-and-statistics/charts/minerals-used-in-clean-energy-technologies-compared-to-other-power-generation-sources>

© Robert Bryce

The shape and size of our energy systems are ruled by the Iron Law of Power Density which says: the lower the power density, the greater the resource intensity. This can be seen in the graphic above. It includes a screen grab from a [2021 International Energy Agency report](#) on the mineral intensity of various methods of electricity generation. The mineral intensity of offshore wind, including huge amounts of copper and zinc, is: roughly 15,400 kilograms per megawatt of generation capacity; roughly 13 times more than the amount needed for natural gas-fired generation (1,148 kg) and six times more than what's needed for a coal plant (2,479 kg).

The Iron Law of Power Density explains why offshore wind projects in the U.S. and in Europe, are being cancelled. It also explains why, all around the world, rural communities and landowners are fighting back against the landscape-blighting encroachment of massive wind and solar projects.

<https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2016/market-snapshot-canadian-tidal-power-capacity-fourth-in-world-with-potential-add-up-7-000-mw-more.html>

https://open.substack.com/pub/robertbryce/p/the-iron-law-of-power-density-part?r=ukert&utm_campaign=post&utm_medium=email

Details on wind farms <https://youtu.be/LkIUvKMPI8g?si=pwaRoMahL7WnBHl6>

https://en.wikipedia.org/wiki/Small_modular_reactor

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Practical limitations to wind and solar power

- Wind farms have technology and efficiency issues plus environmental concerns with spinning blades and noise frequency issues affecting birds and whales and contractual concerns.
- Wind is an intermittent power source. All wind power from onshore has a worldwide efficiency, (megawatt- hrs generated versus megawatts installed) of only a 23-26 % rating.
- Wind farm maintenance costs and end-of-life issues are coming up so far short of ongoing return on capital estimates. Companies are rethinking the whole issue of wind power as a real option given the supply reliability and sustainable capital commitments.
- The UK's offshore wind energy plans, and the climate goals that go with it, have been brought to a sudden halt. <https://www.bnn.ca/1.1969169.1694244871>
- From a utility point of view for the supplier of the final electricity to the grid, there is on average a terrible mismatch between when power is needed in the overall grid at the peaks of the day compared to the supply that reliably comes from both wind and solar. The grid availability of utility requires an instantaneous match between supply and demand. Most utilities that are to serve vast areas are not supportive of intermittent sources like wind and solar for primary supply needs.
- Renewables cannot replace reliable energy sources in UK <https://gridwatch.co.uk/>
- Today worldwide energy supply needs all available sources including coal, natural gas, nuclear, hydroelectric, etc. Renewables like wind and solar have captured a few percent of the overall world's supply of electricity and may reach someday approximately 20% of the electricity generation with solar, wind and geothermal. Today, the best renewable source is hydroelectric power, but limited.
- Limitations of wind farms <https://youtu.be/ogqVE6VFFtI?si=eGew3ldscgir1rKJ>
- <http://digitaleditions.telegraph.co.uk/data/1503/reader/reader.html?social#!preferred/o/package/1503/pub/1503/page/69/article/NaN>
- <https://on.ft.com/3tYAcfp>
- Tidal energy <http://euanmearns.com/swansea-bay-tidal-lagoon-and-baseload-tidal-generation-in-the-uk/>

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Practical solutions for reliable, cost-effective electricity generation

- Promote the use of proven, cost-effective and efficient electric generation techniques like nuclear (highest energy density), hydroelectric, geothermal, natural gas and recently environmentally improved coal-fired generating plants that gasify the coal
- Solar and wind generation techniques are costly, unreliable and not sufficient; development and improvements of these technologies should follow normal scientific and economic-driven factors and not rely on government subsidies
- Same for electric vehicles. Long-standing EV vulnerabilities include high input costs, grid inadequacies, issues surrounding cold-weather performance and a skeptical market in which uptake, though publicized, has so far been anemic.
- Allow technology and economics to drive the reduction of petroleum consumption.
- Hybrid vehicles (electric battery engine plus petrol engine) allow electric charging at home at night while using existing gas stations for road refueling. Charging batteries at home with petroleum fuel backup removes need for roadway electric charging stations
- Vehicle transportation using battery power in populated cities reduces petrol-powered car pollution where there may be an environmental concern
- The world should continue to benefit from the very efficient and effective fossil fuel use while reducing atmosphere pollution in affected areas
- <https://www.city-journal.org/article/the-magical-thinking-behind-the-energy-transition>

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Recent events going against "Carbon Neutral" policies

- Many [large developing countries](#) such as China, India, Indonesia and Vietnam carry on with their [ambitious schedules](#) for growing coal mining capacity and building new fossil-fueled power plants needed by their growing economies.
- Many governments in the Global South struggle to have [access to affordable fossil fuels](#). Western governments veto the development and use of fossil fuels in developing countries in the name of the "climate crisis". [Carbon colonialism](#) hypocritically denies developing countries the means to scale the [energy ladder](#) that the now-developed West has exploited to obtain their industrial prosperity and high standards of living.
- European [farmers have revolted](#). Its working and middle classes have begun to support the [populist right](#) as a force in the European political order.
- Steve Goreham discusses the controversies surrounding the recent COP 29 climate conference and criticizes the effectiveness and practicality of current climate policies and renewable energy initiatives. Global efforts to curb CO₂ emissions and switch to renewable energy have largely been ineffective, costly, and sometimes counterproductive. He also predicts a future pushback against green policies, driven by their economic and practical shortcomings, leading to a return to more reliable and low-cost energy sources.

<https://wattsupwiththat.com/2024/11/13/president-trump-the-final-nail-in-the-coffin-of-the-global-environmental-agenda/>

Steve Goreham book *Green Breakdown: The Coming Renewable Energy Failure*

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Recent events going against "Carbon Neutral" policies

- Dr. Sultan Al Jaber, the president of the COP28 climate summit and CEO of Abu Dhabi National Oil Company, [said](#): "You're asking for a phase-out of fossil fuels... Please show me the roadmap for a phase-out of fossil fuel that will allow for sustainable socio-economic development, unless you want to take the world back into caves." Saudi Energy Minister Prince Abdulaziz bin Salman who told [Bloomberg](#) that the world's biggest oil exporter would not agree with Western demands to phase out fossil fuels. "Absolutely not,"
- [BBC News](#): "Trump victory is a major setback for climate action" Mr. Trump's climate scepticism will encourage U.S. oil and gas dominance globally.
- Hours after the announcement of the results of the U.S. elections, the German three-party ruling coalition government [collapsed](#) after Chancellor Olaf Scholz announced the sacking of Finance Minister Christian Lindner over deadlocks on spending and economic reforms. The fiscal constraints brought on by years of [irrational energy policies](#) that [de-industrialised and immiserated](#) EU economies have come home to roost.

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Recent events going against "Carbon Neutral" policies

- Shell has [won a landmark case at The Hague court of appeal](#), overturning an earlier ruling requiring it to cut its carbon emissions by 45%. Renowned physicists Drs. Richard Lindzen, Steve Koonin and William Happer wrote in the filing that: Contrary to what is commonly reported, CO₂ is essential to life on earth. Without CO₂, there would be no plant food and thus no human or animal life. “Net zeroing” CO₂ will reduce the amount of food available for all people worldwide, especially the poor. Without fossil fuels, there will be no nitrogen fertilizer, and thus mass starvation, and no low-cost energy. “Net zeroing” will undermine human rights crippling: the eradication of poverty, elimination of hunger and achieving universal good health and well-being.
- Science demonstrates that fossil fuels and CO₂ will not cause “dangerous” climate change and extreme weather. [The entire Expert Opinion can be downloaded here.](#)
- Court Erases 50 Years of Environmental Law: On November 12th, the U.S. Court of Appeals for the D.C. Circuit summarily erased 46 years of Federal environmental regulations. Writing in a case called *Marin Audubon Society, et al v. FAA, et al*, the majority of a three-judge panel ruled that the [Council on Environmental Quality](#) had illegally used the Federal Register to publish guidance, thereby giving citizens, agencies, and even the courts the impression that their internal guidance had the authority of law. The [court goes on to detail](#) how an advisory body with no regulatory authority was able to write environmental regulations for the entire United States for nearly a half-century just because it decided it could. [Read more here.](#)

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Recent countries' actions going against "Carbon Neutral" policies and initiatives

USA: moves away from carbon-neutral policy and related initiatives

<https://youtu.be/FFgdSJEhx1Y?si=iHUgK1hdAmkpsKPI>

At the recent ARC conference in London, the US energy secretary, Chris Wright, calls net-zero-by-2050 "sinister", and climate alarm as serving only to deny 7 billion people the energy-rich lifestyles enjoyed by the wealthiest 1 billion. He suggests there be a different energy conversation over the years ahead, one focused on humans and prosperity and the realities of abundant, reliable, affordable energy as the root of all good.

UK: Reform UK Party's position also moves away from carbon-neutral policy:

<https://www.msn.com/en-gb/video/news/man-made-climate-change-is-garbage/vi-AA1z94Ta?ocid=msedgntp&pc=HCTS&cvid=cfa592b2dcaf468fb1500aed4da18925&ei=11>

[Shortened: Artistly.ai - Unlimited AI Images, Consistent Characters, Perfect AI Text](#)

Canada: [Banks quit Carney's Net Zero alliance. Giving up the ideology is next. | Financial Post](#)

International BRICS countries including Saudi Arabia, China, India, Brazil, and The United Arab Emirates represent more than 45% of the global population and 35% of the global gross domestic product. They declared that their domestic energy needs and economic well-being will take precedence over international climate agreements like the Paris Accords and "net zero" initiatives. <https://co2coalition.org/2024/11/18/brics-kazan-declaration-trumps-cop29-climate-blather/>

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

Adapt to Climate Change while providing reliable, cost-effective electricity generation

- Championing increasing prosperity and adaptation is the proper course. The answer to climate change, as with all change, is “prosperous adaptation”.
- Humanity has grown prosperous in large numbers thanks to the cheap and efficient use of fossil fuels. Improved prosperity for the poor 3rd world countries will require their reliance on fossil fuels and their unbeatable economic value.
- Gradual and economic transition to cost-effective and efficient alternative energy sources, like nuclear, will allow increased prosperity and development while adding alternative energy sources and supply over time.
- Promote economic development in developing countries
- Developing technology to manage the environmental impacts of fossil fuels is being responsible. Depriving the world of reliable affordable energy is not.

Reference books: An Appeal to Reason Lord Nigel Lawson 2008

The Moral Case for Fossil Fuels Alex Epstein 2014; Unsettled Steven Koonin; False Alarm Bjorn Lomborg

Reference Videos: Jordan Peterson https://youtu.be/--QS_UyW2SY

Oxford Collège debate <https://m.youtube.com/watch?v=JKIOSnKX96E>

The electricity grid, which is at the heart of our assumptions about how society will move forward. See

[DR. BYRON CAPLAN LECTURE ON FUTURE OF FOSSIL FUELS](#)

LISTEN NOW 6

Question 11

What are the negative implications of pursuing a Carbon Neutral policy?

11) What are the negative implications of pursuing a Carbon Neutral policy?

Reducing CO₂ emissions is bad for plants

1) Reducing CO₂ levels in the atmosphere is bad for plant growth and life.

- Plants need and thrive on CO₂ levels. Increased CO₂ levels are bringing about improved crop growth plus a greening of the Earth, especially in desert areas. Reducing CO₂ levels will mitigate this positive and desirable effect.

Reference books: Confessions of a Greenpeace Dropout Patrick Moore

Reference Videos: Jordan Peterson https://youtu.be/--QS_UyW2SY

Oxford Collège debate <https://m.youtube.com/watch?v=JKIOSnKXg6E>

[Dr. Patrick Moore - A Dearth of Carbon? – YouTube](#)

Discussion on the positive environmental impact of CO₂ which is the fuel of plants

<http://ecosense.me> Patrick Moore Revised – YouTube

Discussion about predicted catastrophic doom effects of Global Warming being wrong and the main impact of increasing CO₂ levels is increased growth of plants, trees and phytoplankton in the sea

<https://boereport.com/2023/08/29/alex-epstein-returns-to-alberta-with-a-prescription-for-effective-energy-dialogues/>

https://www.dailymail.co.uk/columnists/article-12493679/RICHARD-LITTLEJOHN-No-heat-pump-thermals-youre-nicked.html?ito=native_share_article-top

Reducing fossil fuel usage would negatively impact 3rd world economy and these people

- Preventing and limiting the very cost-effective and energy-efficient use of fossil fuel energy for 3rd world developing countries will be very detrimental to their overall economic development.

Reference Videos: Jordan Peterson https://youtu.be/--QS_UyW2SY

<https://financialpost.com/opinion/global-warming-policies-hurt-poor>

11) What are the negative implications of pursuing a Carbon Neutral policy?

Reducing fossil fuel usage would negatively impact 3rd world economy Vijay Jayaraj

2) Access to fossil fuel energy will greatly help 3rd world economies and lifestyles.

In the developing world, climate activism movements, often bankrolled by foreign non-governmental organizations (NGOs), have stalled critical projects across continents. These efforts ignore the human toll of energy poverty: children studying by candlelight, hospitals without power, and economies stunted by unreliable grids.

First, the developing nations should investigate the funding and motives behind climate activism. Who bankrolls these NGOs? Are their campaigns aligned with national interests, or do they serve foreign agendas?

Greenpeace International, for example, has undertaken protests of power generated by fossil fuels and nuclear reactors and of coal and aluminum mining across India, while half of India suffers from unreliable electricity supplies.

Greenpeace leadership enjoys the comfort of an industrial economy but is asking poor people in the Third World to forgo energy abundance and rely instead on useless wind turbines and solar panels and accept generational poverty for the sake of addressing a fabricated climate emergency.

11) What are the negative implications of pursuing a Carbon Neutral policy?

Reducing fossil fuel usage would negatively impact 3rd world economy Vijay Jayaraj

2) Access to fossil fuel energy will greatly help 3rd world economies and lifestyles.

Africa, home to over 600 million people with limited access to electricity, stands at the frontline of energy deprivation. Nigeria, Angola, and Mozambique have vast natural gas reserves, yet face continual opposition from international lobbies.

In the Democratic Republic of Congo, one of the world's poorest countries, the non-profit 350Africa.org coordinated demonstrations against oil and gas exploration, mobilizing hundreds of groups. In Uganda and Tanzania, the \$3.5 billion East African Crude Oil Pipeline (EACOP), a lifeline for regional energy, has faced relentless opposition from groups like StopEACOP.

Second, governments must assert authority over energy policy, curbing local states or municipalities that align with crusades against fossil fuels. Many cities across the developing world have designated themselves as Net-Zero entities under an initiative of the World Economic Forum.

It is exasperating to see cities, still struggling to provide basic services for the health and safety of their citizens, are willing to prioritize foolish opposition to rational energy development. It is even more weird that municipal leaders would align with foreign organizations like the World Economic Forum and the United Nations in opposition to their own national interests.

11) What are the negative implications of pursuing a Carbon Neutral policy?

Reducing fossil fuel usage would negatively impact 3rd world economy Vijay Jayaraj

2) Access to fossil fuel energy will greatly help 3rd world economies and lifestyles.

Third, legal mechanisms should be used to deter frivolous lawsuits and protests.

African nations rich in energy resources could adopt statutes penalizing activism that delays critical infrastructure without evidence of harm, mirroring the U.S. Attorney General's mandate to challenge unconstitutional state and local laws. Such measures would shift the burden onto activists to justify their claims, rather than paralyzing projects by default.

Energy security is national security, and no ideology should usurp that. From Nigeria's oil fields to India's coal mines, national leaders must dismantle efforts to stymie sensible energy use and clear a path for energy abundance and the eradication of poverty.

This commentary was first published at [Townhall](#) on April 22, 2025. [Vijay Jayaraj](#) is a Science and Research Associate at the [CO₂ Coalition](#), Arlington, Virginia. He holds an M.S. in environmental sciences from the University of East Anglia and a postgraduate degree in energy management from Robert Gordon University, both in the U.K., and a bachelor's in engineering from Anna University, India.

11) What are the negative implications of pursuing a Carbon Neutral policy?

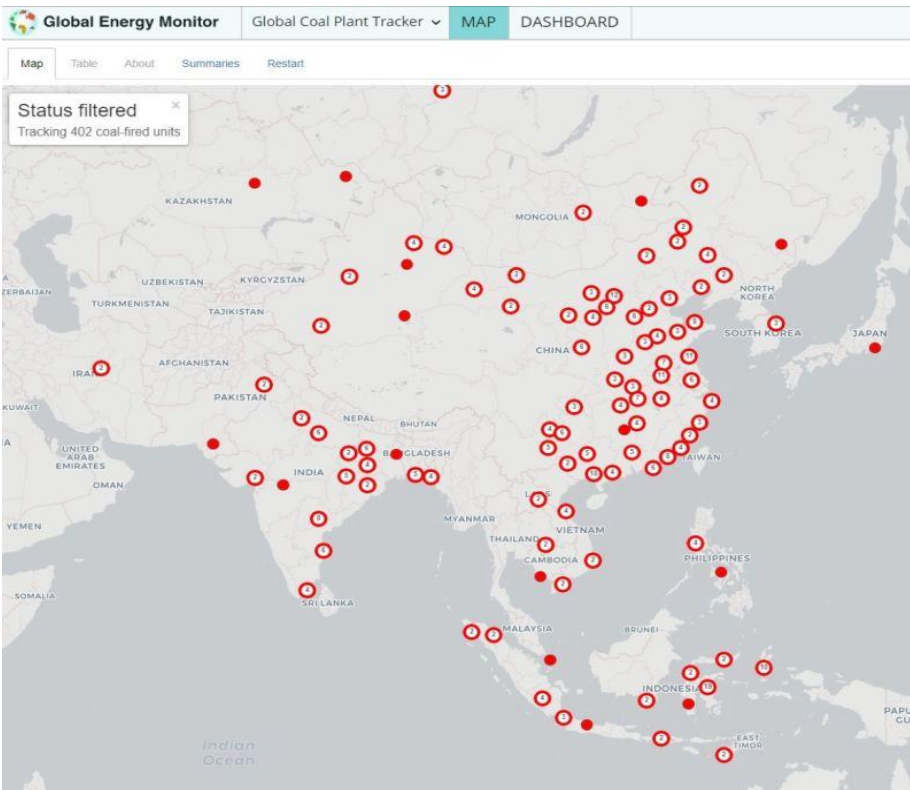
What are other 3rd world countries doing?

2) Access to fossil fuel energy will greatly help 3rd world economies and lifestyles.

Third-world countries continue to develop coal power plants to provide electricity

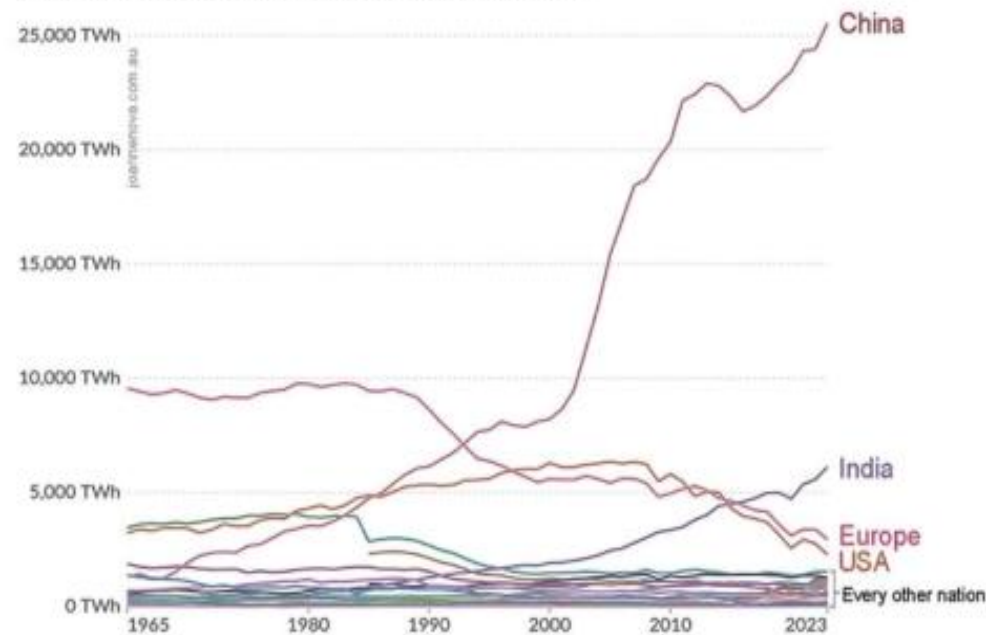
Coal Power Plants under construction:2023

Coal Consumption by Country



Coal consumption

Coal consumption by country or region, measured in terawatt-hours (TWh).



Data source: Energy Institute - Statistical Review of World Energy (2024)

OurWorldInData.org/fossil-fuels | CC BY

<https://co2coalition.org/2024/10/14/western-households-sacrifice-as-asians-splurge-on-coal/>

<https://co2coalition.org/2024/11/18/brics-kazan-declaration-trumps-cop29-climate-blather/>

11) What are the negative implications of pursuing a Carbon Neutral policy?

The cost of going "Carbon Neutral is significant

3) There are significant direct and indirect costs plus safety concerns

- Costs to move home heating and cooking to electric from oil or gas
- Costs to install electric charging stations across the country
- Industry and business costs, etc.
- Costs for significantly increased electricity supply and distribution

Lord Hammond former chancellor states that true costs of about £1 Trillion for the UK to go "Carbon Neutral" and the consequence of slower-rising living standards

<https://www.telegraph.co.uk/politics/2023/07/29/tory-pms-systematically-dishonest-1-trillion-cost-net-zero/>;

<https://driving.ca/column/motor-mouth/scary-putting-out-ev-fire-firefighting-battery-electric-vehicle>

- Ross Clark shows the devastating impact of pursuing net-zero Book: Net Zero Ross Clark

- There are significant International group costs and abuses

https://www.realclearenergy.org/articles/2025/01/05/the_climate_agendas_march_through_the_institutions_can_it_be_stopped_1082512.html

- Electric vehicle and battery safety concerns also need to be addressed

• <https://hotair.com/tree-hugging-sister/2024/05/24/the-lithium-ion-battery-energy-storage-facility-blaze-you-hadnt-heard-about-is-still-burning-n3788991>

• [Solyndra: A Case Study in Green Energy, Cronyism, and the Failure of Central Planning](#)

• <https://www.yahoo.com/news/11-years-celebrated-opening-massive-000749414.html>

- Trucking capacity is also an issue



2 electric car collision



11) What are the negative implications of pursuing a Carbon Neutral policy?

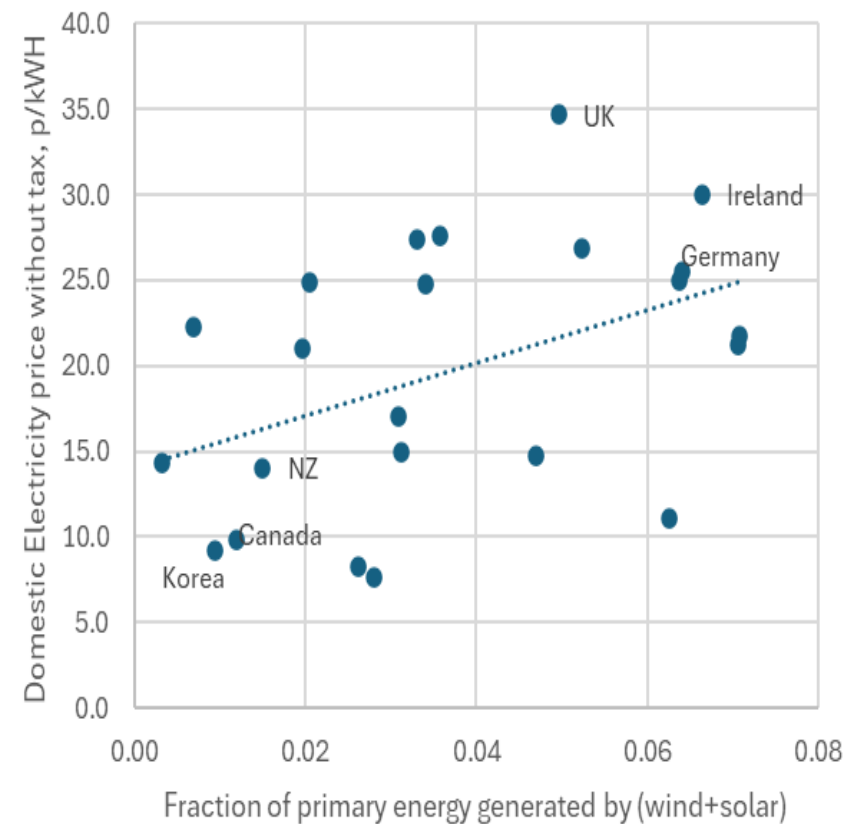
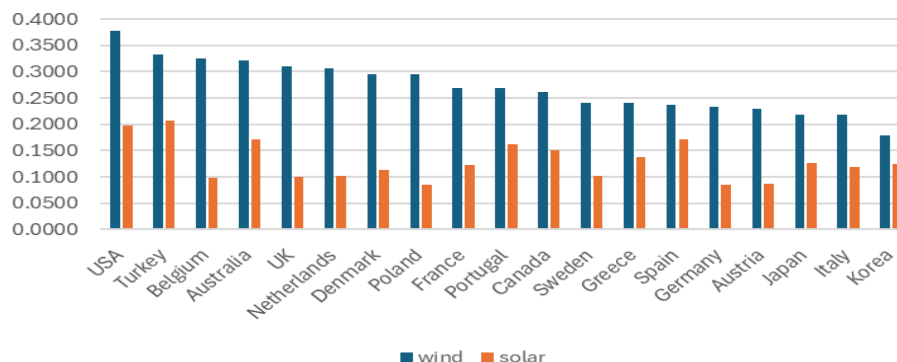
Higher use of low-efficiency, variable access wind and solar yields higher consumer price for electric energy

- The UK has very high domestic consumer electricity price (DCEP)
- These graphs show the correlation between DCEP (consumer price) and the penetration and use of wind and solar which have low and variable efficiency (low capacity factor)

Domestic Electricity Prices 2023



Capacity Factors (CF) for Wind and Solar, 2023



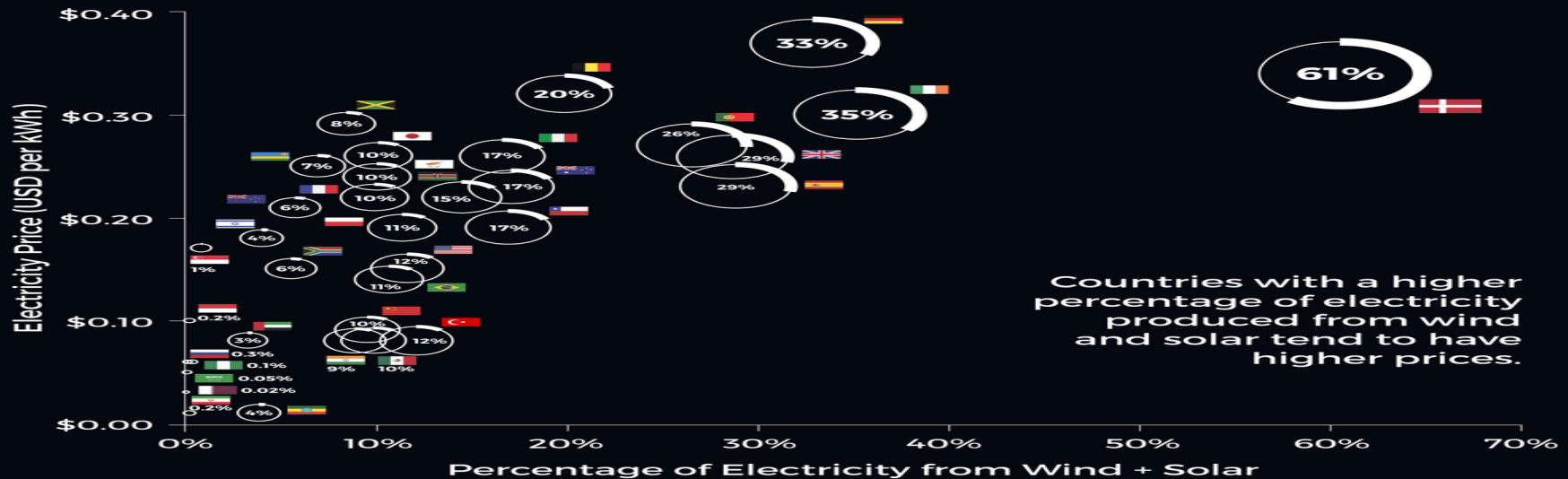
data for 2023 from DESNZ, UK (<https://www.gov.uk/government/collections/internal-energy-price-comparisons>) for electricity prices and the Statistical Review of World Energy (<https://www.energyinst.org/statistical-review>) for electricity generation, wind and solar capacity installed

Ed Miliband's net zero plans branded 'fantasy' in damning letter from top scientist

11) What are the negative implications of pursuing a Carbon Neutral policy?

The cost of going "Carbon Neutral is significant

PERCENTAGE OF WIND AND SOLAR VERSUS PRICE OF ELECTRICITY BY COUNTRY



Source: Statista, Our World in Data

The Initial Investment Liz McKinley B.Sc. Environmental Science

Transitioning to green energy often requires a significant upfront investment. For instance, the cost of solar panels can range from \$15,000 to \$25,000 for an average home, depending on the system size and installation costs.

While government incentives and tax credits can alleviate some of this burden, many households still face a financial hurdle. Additionally, wind turbines and geothermal systems also entail high initial costs, which can deter potential adopters. This initial financial barrier can lead to a slower adoption rate of green technologies, especially in lower-income communities. The reality is that while green energy promises long-term savings, the short-term costs can be daunting. It's akin to buying a membership to a fancy gym; the benefits are great, but the membership fee can be a big hurdle.

Bjorn Borg <https://www.youtube.com/watch?v=RPNqYpT-P2M>

11) What are the negative implications of pursuing a Carbon Neutral policy?

The cost of going "Carbon Neutral is significant

3) There are significant direct and indirect costs plus safety concerns

“Climatism” is a luxury belief (ideas and opinions that can confer status on the upper class while often inflicting costs and health concerns on the lower class

- Electricity poverty affects some 3.7 billion people today. 47% of people live in electricity poverty (source Our World in Data)
- Electricity frees women from manual water pumps, open stove and washtub labour
- Household air pollution caused by indoor, low-quality cooking fuels (such as wood, crop waste, charcoal, coal and dung) and kerosene in open fires and inefficient stoves kills 3.2 million people each year (mostly women and girls who do the cooking)
- This could be prevented if developing countries had enough natural gas, propane and butane stoves
- **California EV Rule Turmoil** Toyota, the World’s largest automaker indicated that the proposed 2026 California auto emission standards requiring 35 percent of new vehicles to be fully electrified were impossible for them to meet.
- <https://www.cnbc.com/2024/11/08/toyota-california-ev-mandates-impossible.html>

Source: Robert Bryce

<https://financialpost.com/opinion/climate-policy-turning-point>

11) What are the negative implications of pursuing a Carbon Neutral policy?

The cost of going "Carbon Neutral is significant

- **THE NATIONS THAT DOMINATE THE GLOBAL ECONOMY...**will be those that adopt sane energy policies. Unfortunately, that group does not include the U.S. Our government is determined to drive the coal industry, and coal-fired power plants, out of business, with natural gas next on the list.
- *As the United States continues to rapidly retire its dwindling fleet of coal-fired power plants in the name of fighting climate change, the world's two most populous nations, China and India, continue efforts to dramatically expand their own coal usage. These two starkly divergent approaches inevitably lead to questions about which philosophy will prevail at the end of the day, and whether there is actually any "energy transition" happening at all.*
- *Like many other developing nations, India and China have been rational actors when it comes to fulfilling the energy needs of their societies, choosing factors like affordability and reliability over the Western norm of policymaker virtue signaling. This is a stark contrast to the approach in the US, which has been working overtime to kill the nation's once-dominant coal industry in its feverish pursuit of often arbitrary and irrational climate goals. This rapid dismantling of US coal recently led one commissioner at the Federal Energy Regulatory Commission (FERC), Mark Christie, to question, "Are the lights going to stay on?"*
- You can't keep the electricity on 24/7 with power sources that work only occasionally, and unpredictably. No one has ever done it, even on a small scale. Nowhere on Earth is there even a demonstration project to show how a town or village can run itself on wind and solar energy, plus batteries.

11) What are the negative implications of pursuing a Carbon Neutral policy?

The cost of going "Carbon Neutral is significant

- *[In the U.S.], "Announced coal retirements total 44,700 MW over the next 4 years and 83,400 MW during the next 6 years. "That is a problem because we have no plan to replace that dispatchable capacity:*
- *Given that the permitting, funding, construction and starting-up of dispatchable replacement capacity can take 7-10 years under ideal conditions in the US, consideration of that 6-year time frame becomes especially crucial. Yet, as the report notes, no one in the Biden administration appears to be attempting to address the situation in any real way despite consistent warnings since 2019 of a looming shortage of reliable generating capacity on the grid.*
- *China, meanwhile, continues to permit **1 to 2 new coal-fired power plants every week**, and now has 243 GW of new capacity permitted and under construction, according to the Center for Research on Energy and Clean Air.*
- *So China alone has 243 gigawatts of new coal capacity already coming online, while we are planning to retire a little under 45 gigawatts. And that is just what they are currently building. There are many more coal-fired power plants where those came from, as coal is plentiful. And India has almost doubled its coal-fired power production, with much more yet to come. There are other governments, too, that are not crazy.*
- *All of which is to say that anyone who thinks we are somehow helping the climate with our energy policies is deluded. We are simply condemning the U.S. to second-class power status, and our citizens (except for our virtue-signaling elites, of course), to a sharply declining, ultimately third-world, standard of living.*

11) What are the negative implications of pursuing a Carbon Neutral policy?

Are scientists, institutions, activists and NGOs contributing to climate misinformation?

Conformance pressures are real in the media, governments, corporations, NGOs, schools and the public

Possible factors: A Self-Reinforcing Alignment of Perspectives and Interests.

- 1) **The Media:** As the age of the internet advances, headlines become more provocative to encourage clicks. The general lack of knowledge of what the science actually says, the drama of extreme weather events and their heart-rendering impact on people and pressure within the industry all work against a balanced coverage in popular media
- 2) **Politicians:** Politicians win elections by arousing passion and commitment from voters – by motivating and persuading. The threat of climate catastrophe resonates with everyone. Politicians declare the science is settled and label anyone who questions that “a denier”
- 3) **Scientific Institutions:** when it comes to climate, institutions frequently seem more concerned with making the science fit the narrative than ensuring the narrative fits the science. Assessment reports often summarize or describe the data in ways that are misleading. Scientific institutions have been willing to persuade rather than inform.
- 4) **Scientists:** For academics, pressure occurs to secure funding through grants plus the matter of promotion and tenure plus peer pressure.
- 5) **Activists and NGOs:** Have built organizations based on “climate emergency” that rely on donations to exist making claims that climate change is one of the most devastating problems that humanity has ever faced.
- 6) **The Public:** Concerns about climate change are as old as humanity. Public attitudes mostly involve unquestioning acceptance of wisdom handed down from on high and do not have the time or ability to examine the science themselves. Getting information from social media can also be misleading.

11) What are the negative implications of pursuing a Carbon Neutral policy?

Are institutions, activists and NGOs contributing to climate misinformation?

Groups pushing anti-hydrocarbon use and reduced CO2 emissions are spending staggering amounts of money to push claims that we must only use alternative energy sources like wind and solar

On 17th October, Oxfam published a [report](#) that shockingly found that up to \$41 billion in World Bank climate finance —nearly 40% of all climate funds disbursed by the Bank over the past seven years— is “unaccounted for between the time projects were approved and when they closed.” No one knows how the money was used. There is no paper trail revealing where the money went or what was accomplished.

The Climatism Industry Is A \$4.7 Billion Per Year Business

Rockefeller Brothers Fund	\$838	Sierra Club Foundation	\$123
Natural Resources Defense Council	\$548	League of Conservation Voters	\$71
World Resources Institute	\$306	Union of Concerned Scientists	\$64
ClimateWorks Foundation	\$350	Center for American Progress	\$40
Environmental Defense Fund	\$385	Center for Biological Diversity	\$34
National Audubon	\$361	Greenpeace	\$33
Windward Fund	\$224	Climate Reality Project	\$30
Climate Imperative Foundation	\$289	EDF Action Fund	\$29
The Energy Foundation	\$133	Public Citizen Foundation	\$25
Earthjustice	\$198	350.org	\$23
Sixteen Thirty Fund	\$192	Friends of the Earth	\$20
Sierra Club	\$184	Nextgen Climate Action	\$20
Rocky Mountain Institute	\$164	Total	\$4,684

Gross receipts of top 25 Climate NGOs, in \$Millions

Source: [Guidestar](#)

©Robert Bryce

Imagine the benefits if these funds were directed towards mitigating any negative impacts of Climate Change rather than trying to prevent natural climate change by reducing valuable CO2 emissions

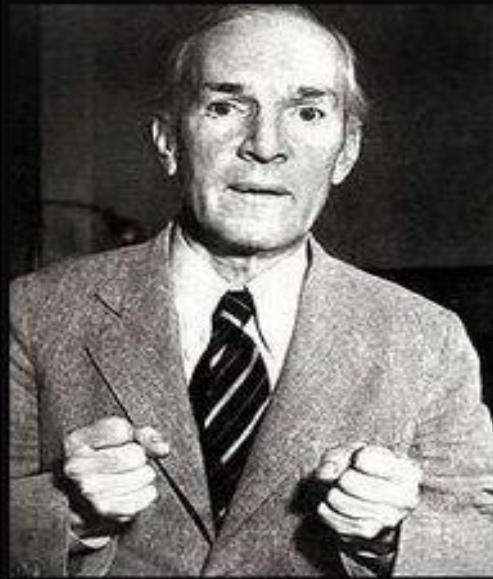
https://www.realcleanenergy.org/articles/2025/01/05/the_climate_agendas_march_through_the_institutions_can_it_be_stopped_1082512.html

[The Renewable Energy Reckoning: Challenges, Failures, and 2025 Policy Shifts](#)

11) What are the negative implications of pursuing a Carbon Neutral policy?

The Climate "Green" Industry is a \$4.7 Billion per Year Business (Gross receipts of top 25 NGOs in \$ Millions)

The groups pushing the anti-energy messaging are spending staggering sums of money to demonize hydrocarbons and push claims that we only use alt-energy like wind and solar.



It is difficult to get a man to understand something when his salary depends upon his not understanding it.

(Upton Sinclair)

It's difficult to believe that much of what you've been told about climate change is wrong when seemingly every sector of society is warning us about an imminent catastrophe. Still, the fact remains: there is no climate crisis, and modest warming and more CO₂ is benefiting humanity.

<https://x.com/CO2Coalition/status/1899233814322561314> Gregory Wrightstone CO₂ Coalition ³²⁵

11) What are the negative implications of pursuing a Carbon Neutral policy?

The "Green" Industry is not that Green or environmentally "friendly"

Green energy is often praised for its ability to produce zero emissions. However, the reality is more complex. While wind turbines and solar panels themselves may not emit carbon during their operation, the manufacturing process is a different story. The creation of these green technologies often involves the use of fossil fuels. Factories emit significant amounts of carbon dioxide to produce the steel, concrete, and other materials needed. Additionally, transporting these components to installation sites adds to the carbon footprint. Therefore, the complete lifecycle of green energy solutions is not as emission-free as one might think. Jeff Carlin B.Sc. Neuroscience.

Mining for Materials

- Both wind and solar technologies require raw materials such as rare earth metals, lithium, cobalt, and copper, which are often extracted through mining practices that can be environmentally harmful. The mining processes contribute to land degradation, water pollution, and greenhouse gas emissions.

For instance, the extraction of lithium, a key component in batteries, often involves the use of vast amounts of water, leading to water table depletion in already arid regions. This not only impacts the local environment but also affects the communities that rely on these water sources for their daily needs.

Furthermore, the mining of rare earth metals often results in toxic waste that can contaminate local ecosystems. The environmental impact of these activities underscores the need for sustainable mining practices as demand for these materials increases. Liz McKinley B.Sc. Environmental Science

11) What are the negative implications of pursuing a Carbon Neutral policy?

The "Green" Industry is not that Green or environmentally "friendly"

The Blade Stops Here: France Holds Wind Industry Accountable at Last

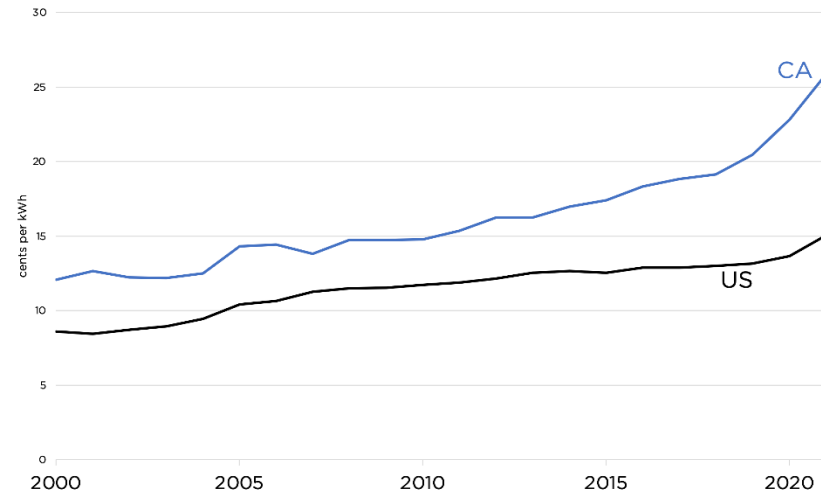
- [The recent shutdown of the Bernagues wind farm in Hérault, France](#), marks a reckoning with the lethal impacts of wind energy on wildlife. On April 9, 2025, a French court ordered the entire site to cease operations for one year following the confirmed death of a golden eagle, a protected species, that collided with one of the farm's turbine blades in January 2023. The decision also slapped the farm's operator with a €200,000 fine, half of which was suspended, and imposed an additional €40,000 fine on the company's director.
- The broader public are beginning to confront the uncomfortable truth about wind energy's collateral damage. For years, bird deaths caused by wind turbines have been ignored, downplayed, or dismissed as unfortunate but tolerable trade-offs in the race toward "net zero." But the Bernagues case shatters that illusion - an implicit admission that the risks to protected species may outweigh the supposed benefits of wind energy.
- Another French wind farm in Aumelas was also ordered to suspend operations, along with a €5 million fine against EDF Renewables.
- The renewable energy sector, long shielded from scrutiny, is now being subjected to long-overdue consequences.

11) What are the negative implications of pursuing a Carbon Neutral policy?

The cost of going "Carbon Neutral is significant - California Example, UK reference

Alex Epstein info from debate: Ron DeSantis and California Governor Gavin Newsom

Residential Electricity Prices in California



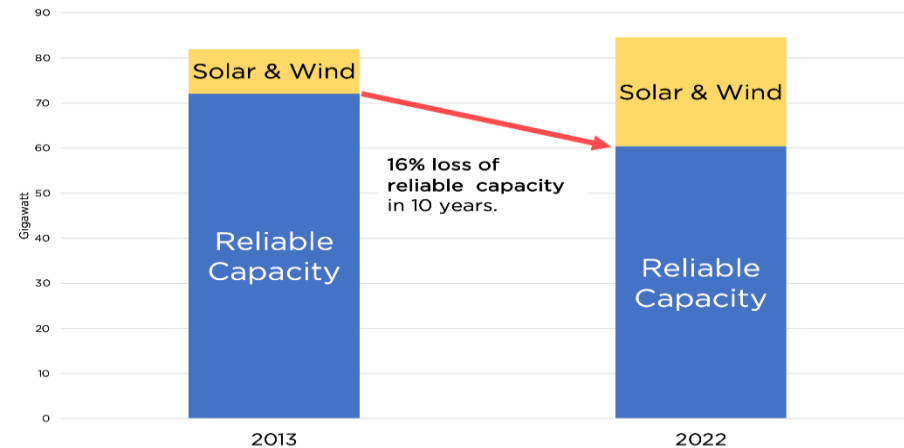
**1 day of world energy:
~460,000,000 MWh
→ \$190 trillion in Tesla Megapacks**

Select Megapack

Megapack enables low-cost, high-density commercial and utility projects at large scale. It ships ready to install with fully integrated battery modules, inverters, and thermal systems. [View Product Details](#)

1927.2 MW Power	3854.4 MWh Energy
Megapack Quantity	1000
Megapack Duration	2 hr 4 hr
Include Installation	Yes No
Site Location	California
Desired Delivery Date	Q2 2024
Estimated Price	\$1,593,272,170
Est. Annual Maintenance	\$4,966,480
Due Today	\$1,000

Installed Electric Capacity in California



8/25/22: CA announces gasoline car ban

We can solve this climate crisis if we focus on the big, bold steps necessary to cut pollution. California now has a groundbreaking, world-leading plan to achieve **100 percent zero-emission vehicles sales by 2035.**

— CA Governor Gavin Newsom

8/31/22: CA tells citizens not to charge their EVs

"consumers are urged to conserve power by setting thermostats to 78 degrees or higher, if health permits, avoiding use of major appliances and turning off unnecessary lights. They should also **avoid charging electric vehicles while the Flex Alert is in effect.**"

— California's grid operator

Source: California Independent System Operator

<https://www.caiso.com/Documents/california-iso-extends-flex-alert-to-thursday-sept-1.pdf>

<http://digitaleditions.telegraph.co.uk/data/1565/reader/reader.html?social#!preferred/0/package/1565/pub/1565/page/73/article/NaN>
<https://youtu.be/HWqv6RH-3WE?si=j9UvTxoGpdSi7-E8>
<https://financialpost.com/opinion/bjorn-lomborg-climate-spending-costs-more-than-climate-change>
<https://davidturver.substack.com/p/record-cfd-subsidies-in-2024> - UK CfD subsidies were £2.4 billion 2024 alone

11) What are the negative implications of pursuing a Carbon Neutral policy?

There is the horrific damage done to the earth and people in the name of climate change.

In 2021, during the COP26 climate summit in Glasgow, the U.S. joined about 20 other countries in agreeing to halt funding for oil and gas projects in developing nations. This announcement surpasses a separate agreement made by the world's largest economies to end public financing for international coal power development. Also in 2021, the U.S. Treasury Department issued guidance for multilateral development banks "aimed at squeezing off fossil fuel financing except in certain circumstances."

Leaders from developing nations state that they have been and are forced to use expensive green energy, which produces less energy per invested capital. This has made it even harder for billions of people to escape poverty. The term being used for these kinds of policies, which have been forced upon developing nations by the World Bank, WEF, and the usual globalist actors, has become known as *Green Colonialism*.

Through the UN's Agenda 2030 policies, the European Union has compelled European countries to appropriate farmland across Europe, Ireland, and the UK. Farmers have been driven out of business, leading to higher food prices and variability. Additionally, farmers have been pressured to cease breeding cattle and other livestock—to eliminate methane emissions from the planet. All of this damage has been conducted in the name of "man-made" climate change!

Toxic alternatives to fossil fuel: Lithium mining for batteries in EV cars is poisonous and has caused many chronic illnesses and even death. Children are often used to mine lithium. The waste from these batteries is not easily disposed of. Furthermore, wind turbines kill animal species, disrupt sea life, and their disposal is complicated and also environmentally damaging.

11) What are the negative implications of pursuing a Carbon Neutral policy?

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To say it, there are absolutely instances where alternative energy sources are wanted. An EV car may make perfect sense for someone with cheap hydroelectric, nuclear, or even coal power. Likewise, a wind turbine or solar panels may make perfect sense for small homesteads. But these choices must be choices, not mandated. These choices need to be regionally based. No solution fits all.

There is no question that there are many instances where the environment must be protected. However, these climate change policies have been abysmal failures. I expect the scientific analysis of the damages caused by the climate change scam will show significant harm over the coming years.

Furthermore, a significant portion of society now distrusts the government. Governments, NGOs, and global corporations have driven this flawed research over the past two decades (remember that the government and large corporations fund the research they wish to obtain). Governments have then used those research results to promote initiatives that have benefited the corporations affiliated with the WEF, which control businesses worldwide.

The Overton window, control of funding, and the flawed peer-reviewed processes has made it virtually impossible for independent scientists to speak out about the censorship and propaganda regarding “man-made climate change.”

https://www.malone.news/p/the-climate-scam-is-over?utm_campaign=post&utm_medium=web

11) What are the negative implications of pursuing a Carbon Neutral policy?

Wind and solar energy cannot meet world needs promoting unrealistic energy options

4) The pursuit of Wind and Solar energy generation is not cost-effective and does not have the capacity to provide required world energy needs and replace hydrocarbon energy

- Wind and solar energy potential combined fall very short of meeting world energy needs
- Without subsidies and Government support, wind and solar energy are not economic
- Both wind and solar energy are intermittent needing significant backup capacity
- Required storage capacity and materials for these batteries are limited making total energy conversion to wind and solar unattainable
- Wind and solar energy have their own environmentally negative impacts including extensive land space usage and negative visual impact, negative impact on animal life, significant open pit mining implications, limited country sourcing (China plus limited other countries for raw material supplies)

Reference books: The Moral Case for Fossil Fuels Alex Epstein 2014

Unsettled Steven Koonin; False Alarm Bjorn Lomborg; Archimedes Fulcrum

Reference Videos: Jordan Peterson https://youtu.be/--QS_UyW2SY

Oxford Collège debate <https://m.youtube.com/watch?v=JKIOSnKX96E>



[Commentary: "Green Energy" is Neither Energy Nor Green – Alex Epstein - Energy News for the United States Oil & Gas Industry | EnergyNow.com](#)

<https://www.foxnews.com/politics/study-casts-doubt-electric-vehicles-climate-cost-benefits-wont-achieve-goals-intended>

[This](#) presentation by Mark Mills The Energy Transition Delusion: Inescapable Mineral Realities

11) What are the negative implications of pursuing a Carbon Neutral policy?

Wind and solar energy cannot meet world needs promoting unrealistic energy options

4) The pursuit of Wind and Solar energy generation is not cost-effective and does not have the capacity to provide required world energy needs and replace hydrocarbon energy

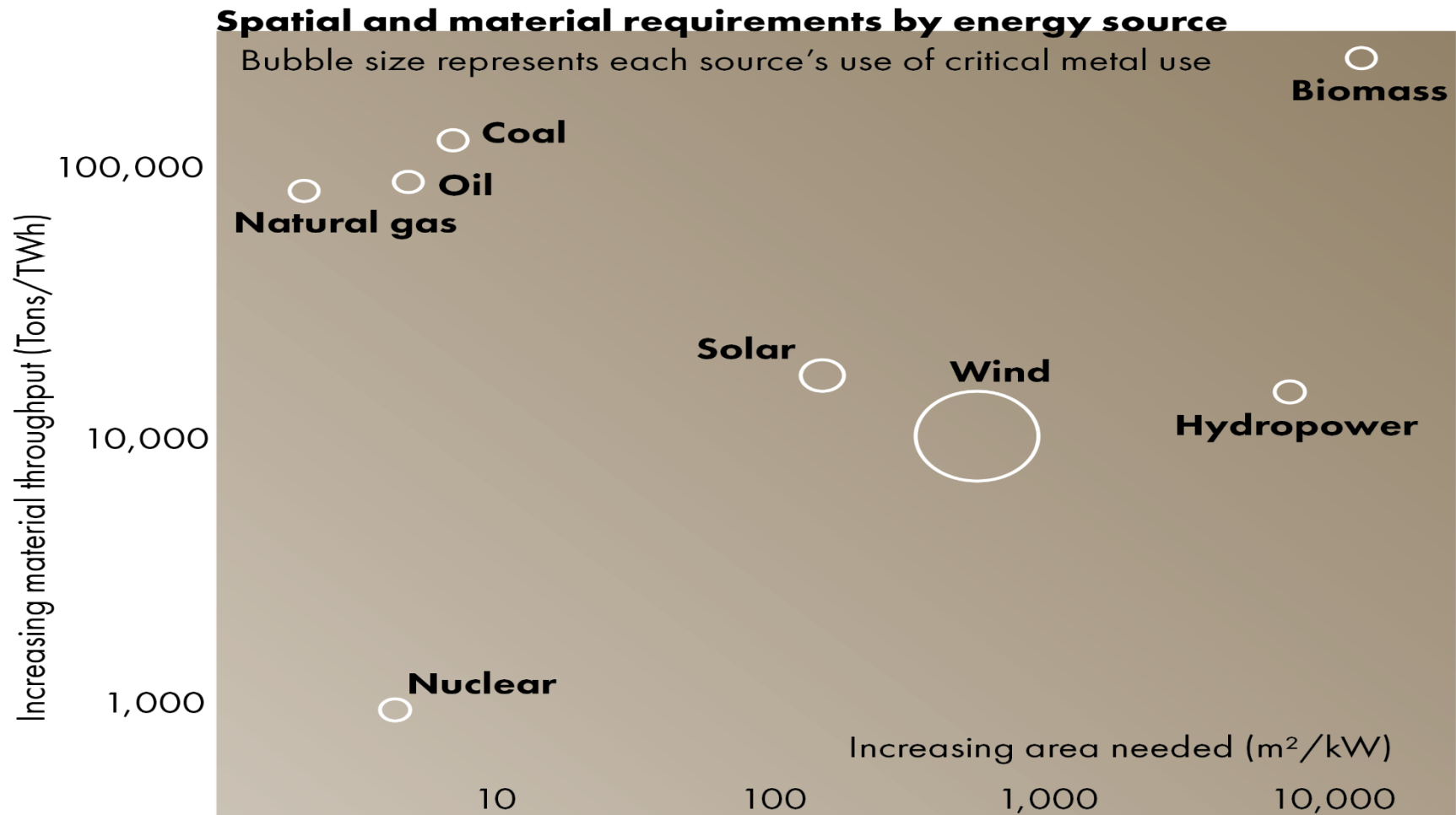
- Energy is the lifeblood of modern economies improving living standards in industrialized countries accompanied by an extraordinary reduction in poverty in the developing world. Fossil fuels and nuclear energy have played a major role in this achievement.
- Energy choices are constrained by the laws of thermodynamics, chemistry, geography, meteorology and economics. Ignoring this can lead to waste of capital, lower living standards in industrialized countries, a threat to poverty reduction and undesired environmental effects.
- Electricity is a central and growing element in the world energy economy, but a complex problem. It is difficult and expensive to store, requiring power companies to generate exactly the required amount.
- The evaluation of energy options requires a review of the complete supply chain from beginning to end. When the full life cycle is considered, energy choices often look quite different.
- Wind and solar have a low energy return on energy invested and are therefore a step backward in history in terms of systems' energy efficiency. Their grid-scale employment risks energy starvation and is neither economically nor environmentally desirable.
- New U.S. Treasury Department numbers show that soaring federal handouts for wind & solar dwarf all other energy-related provisions in the tax code and will cost taxpayers \$421 billion by 2034
- Nuclear reactors offer a much more efficient and cost effective energy option

Reference book The Unpopular Truth about Electricity and the Future of Energy Schemikau and Smith

[THORIUM: World's CHEAPEST Energy! \[Science Unveiled\]](#)

11) What are the negative implications of pursuing a Carbon Neutral policy?

Energy from renewables cannot support the world's energy needs – Glenex Energy



11) What are the negative implications of pursuing a Carbon Neutral policy?

Wind and solar energy cannot meet world needs promoting unrealistic energy options

4) The pursuit of Wind and Solar energy generation is not cost-effective and does not have the capacity to provide required world energy needs and replace hydrocarbon energy

The true full cost of electricity to society includes 10 factors:

- 1) Cost of Building electricity generation /processing equipment
- 2) Cost of fuel to run electric generation site including backup supply
- 3) Cost of operating and maintaining electric generation/processing equipment
- 4) Cost of electricity transportation/balancing systems
- 5) Cost of Storage required by renewable energy systems as well as load balancing
- 6) Cost of Backup and redundancy in case of problems; renewables require 100% backup
- 7) Cost to Environment including plant and animal impact and raw material extraction
- 8) Cost of Recycling, decommissioning or rehabilitation of electricity generation equipment
- 9) Room/land footprint Costs relevant to low energy density renewables – direct and opportunity costs
- 10) Other Metrics including material input per unit of service, lifetime equipment use before retirement, and energy return on energy investment

When all these factors are taken into account, wind and solar are clearly not cost-competitive in electricity cost generation and supply when compared to gas, coal, or nuclear electricity supply costs.

Reference book The Unpopular Truth about Electricity and the Future of Energy Schemikau and Smith

[A Renewable Energy Transition Violates The Maximum Power Principle | Art Berman](#)

Dutch coalition party calls for stop on wind turbines on land after devastating Clintel report Nov 9, 2024

11) What are the negative implications of pursuing a Carbon Neutral policy?

Efforts to reduce CO₂ make no difference given natural emissions of CO₂

5) Nature's CO₂ emissions override all of mankind's CO₂ emission reduction initiatives

- .Since its first spewing of volcanic ash, the volcanic eruption in Iceland has, in just four days, negated every single effort made in the past five years to control CO₂ emissions on our planet. There are around 200 active volcanoes on the planet spewing out this crud at any one time – every day.
- When the volcano Mt. Pinatubo erupted in the Philippines in 1991, *it spewed out more greenhouse gases into the atmosphere than the entire human race had emitted in all its years on Earth.*
- The bush fire season across the western USA and Australia this year alone will negate all efforts to reduce carbon in our world for the next two to three years and it happens every year.

Professor Ian Plimer Geologist [University of New England](#) ,[University of Newcastle](#),[University of Melbourne](#),[University of Adelaide](#)

Alma Mater University New South Wales, Macquarie University, Australia

Notable awards: [Eureka Prize](#) (1995, 2002),[Centenary Medal](#)(2003), [Clarke Medal](#) (2004)

11) What are the negative implications of pursuing a Carbon Neutral policy?

Wind and solar energy cannot meet world needs promoting unrealistic energy options

More and more wind turbines and solar panels are not the answer because they can never fully supply the required electrical grid or provide energy reliability without full dispatchable backup.

- *“An electrical grid powered mostly by intermittent generators like wind and sun requires full backup from some source; and if that source is to be stored energy, the amounts of storage required are truly staggering. When you do the simple arithmetic to calculate the storage requirements and the likely costs, it becomes obvious that the entire project is completely impractical and unaffordable. The activists and politicians pushing us toward this new energy system of wind/solar/storage are either being intentionally deceptive or totally incompetent.”*

<https://www.manhattancontrarian.com/blog/2022-12-1-the-manhattan-contrarian-energy-storage-paper-has-arrived>

Negative impacts of solar and wind-generated energy

(855) Net Zero ‘Slavery’ EXPOSED By Local Resident – YouTube

<https://www.youtube.com/watch?v=LYHRngcYyB8>

Calgary Herald ePaper The anti-fossil fuel dilemma



The electricity grid, which is at the heart of our assumptions about how society will move forward. [This](#) is a little documentary on the issue.

<https://www.texasmonthly.com/news-politics/sweetwater-wind-turbine-blades-dump/>

Doomberg - You Can't Have Heavy Industry With A Dumb Energy Policy

Here is
**The Unpopular
Truth Video...**

[WATCH NOW](#)

Research Findings

Pages refer to section above that supports findings

- 1) Is present Global Warming a man-made or a natural phenomenon? Pages 6 - 16

Answer: Global Warming is substantially and historically a natural phenomenon

Present temperature changes are not different from historic temperature changes and the Earth is now in one of the coldest periods in its history. There is nothing unusual in today's warming.

- 2) Are warmer temperatures and higher CO₂ levels causing a climate crisis? Pages 17 - 26

Answer: No, warmer temperatures and CO₂ levels are not causing a climate crisis

Forest fires, hurricanes, floods, tornadoes, heat waves, droughts and other weather-related concerns have not increased with recent higher CO₂ and temperature levels.

- 3) Are higher CO₂ levels and warmer temperatures good or bad? Pages 27 - 39

Answer: Higher CO₂ and warmer temperatures are good for humans and plants

Plants and crops benefit and grow better with higher CO₂. Mankind has also progressed and done better under warmer temperatures. Over time, weather-related crises have not increased.

- 4) Are CO₂ atmosphere levels dangerously high or historically low? Pages 40 - 45

Answer: CO₂ levels are at historically low levels when viewed over geologic time

CO₂ levels have been dropping over the last 150 million years to a recent low of 180 ppm; a further drop of only 30 ppm would have ended all plants and therefore all life on Earth. With mankind's added CO₂ emissions, today's CO₂ level rose to about 415 ppm. An optimum level for plants would be between 1,000 to 2,000 ppm, but for humans, serious physiological effects begin above 2,000 ppm.

Research Findings

5) What could have caused changes in CO₂ levels over geologic time? Pages 46 - 53

Answer: Natural events have caused changes in CO₂ over geologic time

Cold oceans and plant life absorb CO₂ and concentrated carbon and CO₂ in limestone, coal, oil and gas deposits. Over geologic time, plate tectonics and volcanos have added CO₂ at much higher amounts than recent mankind-induced CO₂ emissions and with no negative impact.

6) Is climate change mainly caused by mankind's emissions of CO₂? Pages 54 - 66

Answer: Mankind has increased CO₂ levels, but this is not causing major climate change

Temperatures and climate changed dramatically and well before mankind's recently added CO₂ emissions. Rates of recent temperature increases, glacial retreats and sea level rise have not changed with recent increases in CO₂. During glaciation periods, CO₂ levels changed after temperature changed and therefore could not be causing these specific temperature increases. Oceans cool then absorb CO₂; oceans warm then release CO₂. NASA states that climate change occurs because of changes in the Earth's solar orbit.

7) What is the impact of CO₂ on climate warming? Pages 67 - 76

Answer: Additional CO₂ will have a very minimal future impact on temperature

Mankind-added CO₂ has had an impact on temperatures but likely a minor impact overall. Major factors that impact weather and climate include Sun intensity (day and night, seasons), Sunspot activity, ocean currents, clouds, plate tectonics and volcanos. As CO₂ concentration increases, CO₂ has a less and less warming effect; adding more CO₂ has a logarithmically reduced impact.

Research Findings

8) Is sea level rise and rate of rise unusual and a major concern? Pages 77 - 90

Answer: Sea level rise has been modest over the last several hundred years. Correlating this gentle increase with higher CO₂ levels does not support causation. It is neither unusual nor unmanageable.

Sea levels have changed significantly over the Earth's entire history. Since the last glacial period the earlier rapid rate of sea level rise has recently reduced as the majority of land ice has already melted. Societies can adapt to the present rate of sea level rise (about 20 cm per 100 years) by implementing managed retreat, accommodating coastal change and protection with sea walls, dune rehabilitation and beach nourishment. There is no evidence that reducing our CO₂ emissions will reduce sea level rise or materially impact temperature.

9) What about scientists' consensus regarding man-made Global Warming crisis? Pages 91 - 109

Answer: The stated scientific consensus is false; many reputable scientists disagree

There is consensus that temperatures have been and are increasing and that mankind has increased CO₂ levels. However, there is no consensus regarding the degree to which mankind's CO₂ emissions are impacting temperatures or that this is causing a climate crisis.

10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption? Pages 110 - 117

Answer: Focus on removing the actual pollutants at refinery levels, engine combustion process levels and at coal burning sites for electricity plants whilst pursuing economic and realistic energy transition replacement options, like mini-nuclear reactors, over time

11) What are the negative implications of pursuing a carbon-neutral policy? Pages 118 - 123

Answer: Overall energy supply, plant life, 3rd world economies and their ability to improve, animal life and the environment (land use, etc.) are all negatively impacted.

Research Findings

Questions and Findings from Dr. Les Hatton

- 1) **Is the current temperature rise of around 1 degree C per century unprecedented?**

Answer: No. The last interglacial contained comparable rises and falls on over 250 occasions in the last 200,000 years and changes of twice this amount on 18 occasions.

- 2) **Has the earth been significantly warmer in the recent past?**

Answer: Yes, in the last interglacial and it was nothing to do with anthropogenic effects.

- 3) **Do we have a climate catastrophe or emergency?**

Answer: No. Given the number of times this has happened in the recent geological past without any help from us, it seems likely that the climate will be fine as it always has been. The current era is relatively cold and low in atmospheric CO₂ even with our efforts.

- 4) **Will life be OK if there is a several degree C rise in temperature?**

Answer: Yes, because it has been before when we were much less technologically capable many years ago, the temperature climbed by 2.05 degrees C in one century and then fell by 2.41 degrees C the following century. It has however been much more threatened by temperature falls and the ensuing ice ages in the 800,000 years as evidenced in the Vostok ice cores.

Les Hatton Ph.D. is a mostly retired mathematician, geophysicist and computer scientist who started his career in numerical weather prediction and climatology

Reference: Climate Hysteria and Climate reality: a clash of cultures Les Hatton* Climatology and social forces
Cybershed 16-Dec-2023

Global Warming and CO₂

Reference Material

I invite you to look closer at the background reference information and analyses regarding these questions and my answers by viewing the following videos and reviewing the listed reference books.

97 Reference Videos – sorted by topic

i) Climate Change over time and causes of Climate Change

[Graeme Phipps Climate Change Presentation](#)

[Climate Greenland Ice Research You Tube](#)

Reveals temperature historic record over last 120,000 years showing Medieval Warm Period 1000 years ago was 1.5 C warmer than today and 2.5C warmer 4000 years ago.

<http://youtu.be/KtjeNvTwYeU> Impact of global factors on climate (ia Nina and El Nino effects on climate)

[Henrik Svensmark & Nir Shaviv - How the sun regulates our climate –YouTube](#)

Demonstrates how sunspot activity changes impact climate change and the formation of clouds.

<https://www.youtube.com/watch?v=ftaUJg-ojoo> Dr. Gregory Wrightstone

<https://youtu.be/U6JpmDqpzQY>

Discusses weather changes associated with natural phenomena.

<https://www.sott.net/article/420049-NASA-admits-climate-change-occurs-because-of-changes-in-Earths-solar-orbit-not-because-of-SUVs-and-fossil-fuels>

[“Stripes Across My T-Shirt”](#) Current conditions are not unusual except in being abnormally chilly.

<https://wattsupwiththat.com/2023/10/06/nothing-to-sea-here-folks/>

<https://wattsupwiththat.com/2023/10/07/marcel-crok-speaks-in-the-danish-parliament/>

[Solar Influence on Weather and Climate | Dr. Brian ... Dr. Brian Tinsley](#)

[THE REAL CAUSE OF CLIMATE CHANGE – The Highwire with Del ...](#)

www.co2learningcenter.com

[New Evidence We Are Entering An Ice Age Termination Event](#) [Dr. Ben Miles](#)

<https://youtu.be/a9NX9a2vyQE?si=8dNFaujgOvYEYKGR>

[Bing Videos](#) Exposing the Net Zero Agenda Paul Burgess

Willie Soon [video](#)

97 Reference Videos – sorted by topic

ii) Claims of crisis due to CO₂ induced Climate Change

[Dr. Patrick Moore-- Carbon and Climate Catastrophe](#) -

Dr. Patrick Moore [Bing video](#); <https://www.instagram.com/reel/DH6NkhCKHJo/?igsh=MXBsdTJ4cW53MDMoYw==>

[\(5124\) Data shows there's no climate catastrophe looming – climatologist Dr J Christy debunks the narrative – YouTube](#)

Dr. John Christy Distinguished Professor of Atmospheric Science Shows there is no climate catastrophe associated with added CO₂ and associated climate change with evidence of no change in catastrophic weather events

www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change

Discredits claim of Global Warming as a crisis; it is always changing and is not a problem

[Dr. Judith Curry - Bing video](#) Dr Judith Curry Professor Georgia Institute of Technology

Discussion on Climate Change including IPCC findings and historic development and why; comments on the social dynamics behind climate catastrophe story.

[\(1115\) "There's no emergency" – dissident climatologist Dr Judith Curry on climate change - YouTube](#)

<https://financialpost.com/opinion/lawrence-solomon-finally-its-safe-for-the-whistleblowers-of-corrupted-climate-science-to-speak-out>

<https://www.youtube.com/watch?v=DYWrehjaMFQ> Dr. Richard Lindzen exposes climate change as a politicized power play motivated by malice and profit

[\(1106\) Elimination of CO₂ is a suicide pact – Professor William Happer on climate change misconceptions – YouTube](#)

[\(1135\) Judith Curry: "Relax, there is no climate emergency!" – YouTube](#)

<https://youtu.be/KhCKYvETYDc?si=GWclipwVGIYTreDv>

[Will Happer: CO₂, the Gas of Life | Tom Nelson Pod #158](#)

Climate: The Movie <https://www.climatethemovie.net/>),

Alex Epstein <https://youtu.be/HWqv6RH-3WE?si=j9UvTxoGpdSi7-E8>

https://www.youtube.com/live/Ydl_47G8nzk?si=ZYBjf2dZEtNPV4K6 "Panel: Climate Science: the use of consensus"

[Bing Videos](#); Lord Monckton Net Zero Emissions – The Costliest Error of Physics and Economics in History

<https://www.youtube.com/watch?v=QjQupZVS-3A>

97 Reference Videos – sorted by topic

ii) Claims of crisis due to CO₂ induced Climate Change

[It Is Easy Going Green](#) [The value of added CO₂](#)

[What's the hottest Earth's ever been? | NOAA Climate.gov](#)

The planet has been much warmer than it is now. Modern human civilization, with its permanent agriculture and settlements, has developed over just the past 10,000 years. The period has generally been one of low temperatures and relative global climate stability. Whistleblowers reveal significant suppression and false reporting by agencies

[\(5479\) Unsettled: Climate and Science | Dr. Steven Koonin | EP 323 – YouTube](#)

Dr Jordan B Peterson and Dr. Steven Koonin discuss the IPCC reports – the research on climate change and how policymakers take summaries to justify their agenda, despite what the reports say.

www.populartechnology.net/2007/10/no-consensus-on-global-warming.html

https://youtu.be/P_nH1BAfDhs?si=OVxNpHIBiUNkX2ot

[\(97\) Climate Change: Separating Fact from Fear | Dr. Judith Curry | EP 329 - YouTube](#)

Interview with Dr Judith Curry and Dr. Jordan Peterson

<https://youtu.be/oYhCQv5tNsQ> The Great Global Warming Swindle BBC March 8, 2007

<https://youtu.be/pV7TZzD1N5Q> Washington Post "Global Heat Waves

Shows media misrepresentation in reporting recent climate extremes and disasters

[\(1324\) The Inconvenient Truth About Climate Science — Steven Koonin – YouTube](#)

[Inconvenient Truth: 32 Climate Predictions Proven False | Facts Matter \(youtube.com\)](#)

<https://youtu.be/spKTb3wMmJM?si=N195b4ezUGQ3u5Ni> Dr. Richard Lindzen on IPCC

[Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know](#)

Interview on Climate Change with Dr William Happer <https://fromsmash.com/695VS4Y6zU-ht?e=Z3JhZW1lQHB0aXBwc2FuZGFzc29jaWFoZXMuY29t>

<https://x.com/CO2Coalition/status/1899233814322561314> Gregory Wrightstone CO2 Coalition

97 Reference Videos – sorted by topic

iii) CO₂ impact on climate and the world

<https://wattsupwiththat.com/2023/09/29/professor-william-happer-ipa-lecture-the-crusade-against-carbon-dioxide-september-2023/> The importance and impact of CO₂ Dr. William Happer

["CO₂ , The Gas of Life"-Dr. William Happer - YouTube](#)

www.ronaldbarmby.ca Ron Barmby CO₂ and Global Warming: Two Presentations

Discussions on limits to CO₂ Greenhouse gas impact on global warming from CO₂ (logarithmic impact) plus discussion on heat impact of Sun Spot activity changes

[Dr. Patrick Moore - A Dearth of Carbon? – YouTube](#) The positive environmental impact of CO₂

<http://ecosense.me> Patrick Moore Revised – YouTube

Discussion about predicted catastrophic doom effects of Global Warming being wrong and the main impact of increasing CO₂ levels is increased growth of plants, trees and phytoplankton in the sea

<https://youtu.be/BiKfWdXXfls> Interview with Dr. Freeman Dyson Stated his views that increasing CO₂ is on the whole good (increased plant growth and greening of world)

[\(855\) Net Zero 'Slavery' EXPOSED By Local Resident – YouTube](#)

<https://www.youtube.com/watch?v=LYHRngcYyB8>

<https://youtu.be/JCt2MhOzWVE?si=StLeINo6uTMDXAo6>

<https://www.youtube.com/shorts/qL3dZ5Qimiw>

Watch an overview of Mars [here](#)

Australian debate <https://youtu.be/OlgHSqIA-6o?si=uldWZe2hp-pRZN9S>

<https://co2coalition.org/publications/human-contribution-to-atmospheric-co2-how-human-emissions-are-restoring-vital-atmospheric-co2/>

97 Reference Videos – sorted by topic

iii) CO₂ impact on climate and the world

[\(1132\) NASA Engineer Tom Moser Reveals the Truth About Climate Science - YouTube](#)

https://youtu.be/pHCCE-sw_Sc <https://youtu.be/PbIYr-KjOVY> CO₂ Professor William Happer

Shows additional CO₂, the main food for plants, is good for the world. The world has had 4 to 10 times more CO₂ concentrations and is presently starved of CO₂. Climate is changing all the time. There is very little evidence that mankind has made an impact on climate change.

[\(3812\) Why Has Global Warming Paused? – William Happer – YouTube](#)

Detailed scientific discussion on the nature of CO₂, and its impact on warming shows that model forecasts are not even close to being correct.

<https://youtu.be/M8iEEO2UIbA> William Happer

More CO₂ is a benefit, computer models predicting the impact of added CO₂ on warming are 2 to 3 times exaggerated. Climate has always been changing and the impact of added CO₂ is minimal.

[\(405\) Unsettled: Climate and Science | Dr. Steven Koonin | EP 323 - YouTube](#)

_Discusses Climate Science, energy systems and factors behind the climate emergency movement

[\(2046\) This Well Known Effect Breaks the Climate Narrative – YouTube](#) Richard Lindzen - CO₂ impact

[A Runaway Greenhouse Effect On Earth is Very Unlikely \(youtube.com\)](#)

[CO₂ and temperature, do they have a cause and effect relationship - Dr Javier Vinós \(youtube.com\)](#)

<https://co2-coalition.mobilize.io/links?url=https%3A%2F%2Fyoutu.be%2FftaUJg-ojoo>

<https://youtu.be/tcyQS4uz4rc> Can CO₂ Even Drive Global Temperatures

<https://www.youtube.com/watch?v=RPNqYpT-P2M>

97 Reference Videos – sorted by topic

iv) Limitations on use of Climate Models

[Climate I: Is The Debate Over? –YouTube](#) Dr. Hadi Dowlatabadi (UBC) & Dr Richard Lindzen (MIT)
Discusses concerns and fallacy of predictions of future climate and related environmental impacts from computer models, plus concerns with NASA predictions

[John Christy: Climate models for politics?... "A bridge too far" –YouTube](#)

Clearly demonstrates the serious problems with climate change models and IPCC forecasts

[blog post](#) Wayne Brown on limitations of models

Limitations of wind farms <https://youtu.be/ogqVE6VFFtI?si=eGew3ldscgir1rKJ>

Dr. Willie Soon Clearly demonstrates the serious problems with climate change models and IPCC forecasts plus discussed the solar radiation impact on climate

<https://www.youtube.com/watch?v=b50yv8l6l-g>

Paul Lindsay An Analysis of Climate Models He shows: Temperature effect of doubled CO₂ is “Zero”.

https://www.youtube.com/watch?v=hQt_I-RvGF4

[The Great Green Hypocrisy: Why Fossil Fuels Are Still Indispensable | Watch](#)

<https://www.youtube.com/shorts/PZPZioH4wBk> Consensus versus scientific evidence

97 Reference Videos – sorted by topic

v) The CO₂ environmental movement's negative world impact

[170\) Climate Science: What Does it Say? | Dr. Richard Lindzen | EP 320 – YouTube](#) Dr. Lindzen and Jordan Peterson

[This](#) presentation The Energy Transition Delusion: Inescapable Mineral Realities Mark Mills

Rejects 'Climate Change' as a quasi-religious movement predicated on absurd scientific narrative

[\(5084\) The Great Climate Con | Alex Epstein | #312 – YouTube](#) Alex Epstein and Jordan Peterson

Shows the moral necessity for an energy-rich future that relies on abundant provision of petroleum-based fuels..

[DR. BYRON CAPLAN LECTURE ON FUTURE OF FOSSIL FUELS LISTEN NOW · 1:15:56](#)

https://youtu.be/--OS_UyW2SY Jordan Peterson

[\(855\) Net Zero 'Slavery' EXPOSED By Local Resident – YouTube](#)

Strong message to elite, group-think environmentalists claiming upcoming environmental catastrophe.

[Doomberg - You Can't Have Heavy Industry With A Dumb Energy Policy](#)

[\(2233\) The Lowdown On Climate "Science" – YouTube](#) Shows the pressure for academics to conform

[Video: 2022 Nobel physics prize winner John Clauser rips climate idiocy, No 'climate crisis' and IPCC 'one of the worst sources of dangerous misinformation' • Watts Up With That?](#)

<https://m.youtube.com/watch?v=JKIOSnKXg6E> Oxford Collège debate with Konstantin Kisin

Climate: The Movie <https://www.climatethemovie.net/>),

The BBC and Climate Change: A Triple Betrayal Christopher Brooker

Michael Shellenberger talk: <https://www.youtube.com/watch?v=Ey7iWsDYnJ8>

the electricity grid, [This](#) is a little documentary on the issue.

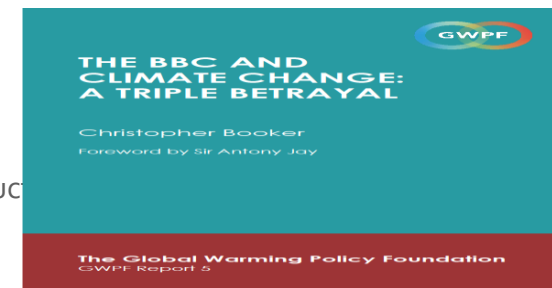
UK Debate on Wind Farm cost <https://youtu.be/fd3xCfQ6RxE?si=APLUM6C3mkhgPPhg>

[THORIUM: World's CHEAPEST Energy! \[Science Unveiled\]](#) [This](#) presentation is an introduction

[The Renewable Energy Reckoning: Challenges, Failures, and 2025 Policy Shifts](#)

Shortened: Artistly.ai - Unlimited AI Images, Consistent Characters, Perfect AI Text

[The Great Green Hypocrisy: Why Fossil Fuels Are Still Indispensable | Watch](#)



30 Reference Books

1) The Real Inconvenient Truth - M.J.Sangster PhD

2) Inconvenient Facts

- Gregory Wrightstone – Geologist, Executive Director CO2 Coalition

3) Fake Invisible Catastrophes and Threats of Doom

- Dr. Patrick Moore PhD in Ecology, co-founder of Greenpeace

4) Confessions of a Greenpeace Dropout The Making of a Sensible Environmentalist

- Dr. Patrick Moore PhD in Ecology, co-founder of Greenpeace

5) Hot Talk Cold Science - S. Fred Singer PhD in Physics

6) Climate Change Reconsidered - S. Fred Singer, Craig Idso

7) Climate All is Well, All Will Be Well - Jeremy Nieboer

8) Climate at a Glance For Teachers and Students Facts on 30 Prominent Climate Topics

- Anthony Watts senior fellow for environment and climate at The Heartland Institute, James Taylor President of the Heartland Institute, H. Sterling Burnett PhD Heartland senior fellow

9) Unsettled What Climate Science Tells Us, What It Doesn't and Why It Matters

- Dr. Steven E. Koonin former Undersecretary for Science U.S. Department of Energy

10) Apocalypse Never - Michael Shellenberger Environmentalist

11) Catchments and Carbon The real cause of unstable weather - Lois Cabon

12) Climate Change: The Facts – Ian Plimer

13) Green Breakdown: The Coming Renewable Energy Failure – Steve Gorham

14) Not Zero – Ross Clark

15) Climate Change The Facts 2025 Ian Plimer

30 Reference Books

16) **The Moral Case for Fossil Fuels** Alex Epstein

17) **False Alarm** Bjorn Lomborg

18) **Green Fraud Why the Green New Deal is Even Worse Than You Think** Marc Morano

19) **An Assessment of the Conventional Global Warming Narrative.**

- Dr. Richard Lindzen's new paper. Published by the Global Warming Policy Foundation, 2022

20) **Unsettled What Climate Science Tells Us, What It Doesn't and Why It Matters April 27, 2021**

- Dr. Steven Koonin Physics Professor NYU, former undersecretary for science US Department of Energy

21) **Paper: An Assessment of the Conventional Global Warming Narrative.**

- Dr. Richard Lindzen's new paper. Published by the Global Warming Policy Foundation Sept. 22, 2022

22) **An Appeal to Reason A Cool Look at Global Warming 2008**

- Lord Nigel Lawson champions increasing prosperity and adaptation as the proper course.

23) **An Assessment of the Conventional Global Warming Narrative** Published by the Global Warming Policy Foundation – September 22, 2022 Dr. R. Lindzen PhD Atmospheric Physics

24) **Archimedes Fulcrum** Gwynthian Prins

25) **The Unpopular Truth about Electricity and the Future of Energy** Lars Schernikau, William Smith

26) **Climate Uncertainty and Risk Rethinking Our Response** Dr. Judith Curry

27) **The Greenhouse Effect Busted** Thomas Shula, California, USA & Dr. Markus Ott, Germany

28) **Climate of the Past, Present and Future: A scientific debate, 2nd ed** Javier Vinos

29) **The Frozen Climate Views of the IPCC: An Analysis of AR6** Marcel Crok, Andy May

30) **Green Energy Breakdown: The Coming of the Renewable Energy Failure** Steve Gorekam

191 Reference Articles

Question 1) Is present Global Warming a crisis or a normal phenomenon?

- 1) **An Assessment of the Conventional Global Warming Narrative.** Dr. Richard Lindzen
- 2) Global Temperature Changes: <https://wattsupwiththat.com/2023/02/03/the-new-pause-lengthens-again-101-months-and-counting/>
- 3) <https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming>
- 4) <https://www.powerlineblog.com/archives/2023/10/another-nail-in-the-global-warming-coffin.>
- 5) <https://www.zerohedge.com/weather/msm-journos-inadvertently-reveal-shocking-truth-about-global-warming>
- 6) https://edition.pagesuite.com/infinity/article_popover_share.aspx?guid=43bd1bf4-ad4e-4186-a29e-50390607863c&share=true&appcode=JEEVPO
- 7) <http://www.sepp.org/the-week-that-was.cfm> Updated reference articles that go against the premise of a CO2 induced Climate Crisis

191 Reference Articles

Question 2) Are warmer temperatures and higher CO₂ levels causing a climate crisis?

- 8) World Climate Declaration [*There is no climate emergency*](#)
- 9) Carbon Dioxide and a Warming Climate are not Problems - Clintel Foundation 2023 [submitted version can be downloaded for free](#)
- 10) [Great Barrier Reef: Record high coral cover on parts of world's largest reef system - CBBC Newsround](#)
- 11) Article on media bias open.substack.com/pub/rogerpielkejr/p/climate-journalism-is-broken?r=ukert&utm_campaign=post&utm_medium=email
- 12) <https://financialpost.com/opinion/lawrence-solomon-finally-its-safe-for-the-whistleblowers-of-corrupted-climate-science-to-speak-out>
- 13) Bjorn Lomborg on X: "UN routinely warns us that we have just a few years left until catastrophe: In 1982, Tolba, head of UN Environment Programme told the world that it had just 18 years before an environmental catastrophe as irreversible as any nuclear holocaust <https://t.co/8wvYP1ofJOn> <https://t.co/zDYD8ldJo5>" / X (twitter.com)
- 14) Annual Summary Report of the Great Barrier Reef: Coral Reef Conditions 2023 – 2024 Australia Government Aug 7, 2024
- 15) Rick Morgan at PJ Media
- 16) <https://www.facebook.com/share/19rXoXP3Wa/>
- 17) [Extreme Weather and Climate Change \(fraserinstitute.org\)](#)
- 18) <https://energycentral.com/c/pip/co2-innocent-proof-recent-science-paper>
- 19) [With Trump soon to be inaugurated, climate scientists declare SUDDEN END to "climate emergency" narrative](#)
- 20) [Jack Hellner](#) Climate Change Predictions
- 21) [2012 NOAA Sea Ice Extent data](#)
- 22) Climate and environment updates: US had the coldest January in decades
<https://abcnews.go.com/International/live-updates/climate-environment-updates/?id=115115959>
- 23) <https://www.cnn.com/2025/02/18/weather/frigid-cold-us-flooding-tuesday-hnk/index.html>

191 Reference Articles

Question 3) Are higher CO₂ levels and warmer temperatures good or bad?

- 24) Reference Science of Climate Change International Journal of Science and Philosophy pg 13 Klimarealistene
- 25) Alex Epstein Aug 24, 2022 [A pro-human, pro-freedom policy for CO₂ emissions](#)
- 26) [Study finds CO₂ is greening the earth and making vegetation flourish worldwide \(westernstandard.news\)](#)
- 27) ["Climate Scientists Say We Should Embrace Higher CO₂ Levels"](#)
- 28) [FOURNIER: This just in! Oilsands emissions make trees grow \(westernstandard.news\)](#)
- 29) [Vijay Jayaraj](#) The real cause of weather-related deaths
- 30) [Wrightstone Ojai Presentation for Distribution.pdf](#)
- 31) <https://www.newsmax.com/larrybell/co2-climate-change/2024/12/01/id/1189976/>
- 32) **Acute Exposure to Low-to-Moderate Carbon Dioxide Levels and Submariner Decision Making** C.D. Rodeheffer; S. Chabal; JJ M. Clarke; D M. Fothergill
- 33) https://www.aims.gov.au/sites/default/files/2023-08/AIMS_LTMP_Report_GBR_coral_status_2022_2023_9August2023.pdf Coral cover levels have broadly increased or not changed over the 37 years of detailed surveys
- 34) Polar bears - <https://x.com/bjornlomborg/status/1596907524577320960>
- 35) <https://www.nytimes.com/2024/06/27/briefing/maldives-atolls-climate-change.html>

191 Reference Articles

Question 4) Are CO₂ atmosphere levels dangerously high or historically low?

36) Global Emissions in Decline Zeke Hansfather, Carcbon Brief, November 4, 2021

Question 5) What could have caused changes in CO₂ levels over geologic time?

37) [What's the hottest Earth's ever been? | NOAA Climate.gov](#)

38) Multivariate Analysis Rejects the Theory of Human-caused Atmospheric Carbon Dioxide Increase: The Sea Surface Temperature Rules Dai Ato Independent researcher, Osaka, Japan click [here](#)

39) **PALEOCLIMATE** A 485-million-year history of Earth's surface temperature
Emily J. Judd*, Jessica E. Tierney, Daniel J. Lunt, Isabel P. Montañez, Brian T. Huber, Scott L. Wing, Paul J. Valdes

40) : [Oh, that pesky carbon dioxide! - American Thinker](#)

191 Reference Articles

Question 6) Is Climate change mainly caused by mankind's emissions of CO₂?

- 41) **An Assessment of the Conventional Global Warming Narrative** the Global Warming Policy Foundation 07 09 22
- 42) <https://www.sott.net/article/420049-NASA-admits-climate-change-occurs-because-of-changes-in-Earths-solar-orbit-not-because-of-SUVs-and-fossil-fuels>
- 43) Impact of global factors on climate <http://youtu.be/KtjeNvTwYeU>
- 44) Importance of Sun on Climate [Willie Soon](#)
- 45) <https://wattsupwiththat.com/2023/07/24/weekly-climate-and-energy-news-roundup-560/>
- 46) John Clauser, No Climate Crisis <http://www.sepp.org/twtwfiles/2023/TWTW%207-15-23.pdf>
- 47) Dr. Lindzen's assessments: [2022 09 22 Lindzen-global-warming-narrative](#)
- 48) Dr. John Clauser https://www.theepochtimes.com/us/nobel-winner-refutes-climate-change-narrative-points-out-ignored-factor-5486267?utm_source=Morningbrief&src_src=Morningbrief&utm_campaign=mb-2023-09-10&src_cmp=mb-2023-09-10&utm_medium=email&est=zxLxigdHW2P7HyoXW1vWNkCTodzF8hCqgubtc8Fm%2BgsAXQSi%2BgUchDdoh1odjThySHobrA%3D%3D
- 49) <http://www.sepp.org/twtwfiles/2023/TWTW%207-15-23.pdf>
- 50) <https://wattsupwiththat.com/2023/07/24/weekly-climate-and-energy-news-roundup-560/>
- 51) https://www.americanthinker.com/blog/2023/07/what_nasa_and_the_european_space_agency_are_admitting_but_the_media_are_failing_to_report_about_our_current_heat_wave.html
- 52) NOAA Charts Reveal Recent Global Cooling [\[ncei.noaa.gov\]](#)
- 53) <https://phys.org/news/2024-02-stars-orbital-evolution-earth-planets.html>
- 54) http://www.sepp.org/science_papers/...
- 55) Net Zero Averted Temperature Increase R.Lindzen and W.A. Wijngaarden June 2024 [paper](#)
- 56) Dependence of Earth's Thermal Radiation on Five Most Abundant Greenhouse Gases W. A. van Wijngaarden¹ and W. Happer
- 57) A Planet That Might Not Need Saving: Can CO₂ Even Drive Global Temperature Jim Mason C2C Journal Oct 13, 2024
- 58) Climate and the Earth's Energy Budget *by Rebecca Lindsey (NASA)*
- 59) <https://www.dropbox.com/scl/fil/j2ko14cejej8tabi4elt7/TwoClimateFacts.docx?rlkey=ow1uf4o81wkg6vqy1qe5s8yxx&e=1&dl=0>
- 60) **Factors that impact Climate Change CO₂ Coalition** Jin Steele Dec. 2024
- 61) Effects of clouds on atmospheric processes <https://co2coalition.org/publications/radiation-transport-in-clouds/>
- 62) Stochastic assessment of temperature–CO₂ causal relationship in climate from the Phanerozoic through modern times July 10, 2024 D. Koutsoyiannis
- 63) [https://static1.squarespace.com/static/6556f411497ae14084ad8do3a/t/66bc6870a7ad654a13b2ac7e/1723623541496/Homewood-BBC-](https://static1.squarespace.com/static/6556f411497ae14084ad8do3a/t/66bc6870a7ad654a13b2ac7e/1723623541496/Homewood-BBC-2023.pdf)
- 64) https://www.malone.news/p/the-climate-scam-is-over?utm_campaign=post&utm_medium=web
- 65) <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2024GL111500> -Volcanic activity can have a significantly greater effect than CO₂

191 Reference Articles

Question 7) What is the impact of increasing CO₂ emissions on climate warming?

66) Logarithmic aspect of CO₂ on Temperature www.ronaldbarmby.ca

67) Greenhouse gas effect: [Kininmonth 2022](#)

68) [John Christy: The Climate Real Deal | Science Matters \(rclutz.com\)](#)

69) Limitations of Climate Models Wayne Brown [blog post](#)

70) **The Procecutor's Fallacy and the IPCC Report** Norman Fenton The Global Warming Policy Foundation 2023

71) <https://www.theepochtimes.com/epochtv/nobel-laureate-john-clauser-there-is-no-climate-emergency-climate-models-miss-one-key-variable-5486017>

72) https://www.theepochtimes.com/article/fixation-on-co2-ignores-real-driver-of-temperature-say-experts-5588495?utm_source=Morningbrief&src_src=Morningbrief&utm_campaign=mb-2024-02-20&src_cmp=mb-2024-02-20&utm_medium=email&est=AAAAAAAAAAAAAAAAAdeokeBlfzdPH4LYa6DB5DLl7wk9AJCYDwskfcLqaGzqlMxfM63pAbQ%3D%3D

73) The Daily Sceptic [New Scientific Evidence That CO₂ Emissions Can't Warm ...](#)

74) <https://wattsupwiththat.com/2025/01/18/the-saturation-effect-questions-the-prevailing-narrative-on-co2/>

75) <https://thehighwire.com/editorial/new-peer-reviewed-study-co2-has-zero-impact-on-climate-change/>

76) <https://co2coalition.org/publications/radiation-transport-in-clouds/>

L

191 Reference Articles

Question 8) Is sea level rise and rate of rise unusual and a major concern?

77) **Ivan Giaever Climate Change**: [//www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change/](http://www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change/)

78) **Sea Level Changes over time** Wikipedia, Peter Vail publications

79) **Sea Ice Index**: https://nsidc.org/data/seaice_index/data-and-image-archive

80) <https://dailysceptic.org/2023/01/29/scientists-struggle-to-understand-why-antarctica-hasnt-warmed-for-over-70-years-despite-rise-in-co2>

81) **NOAA and Rutgers University** Information on snow coverage on the Northern Hemisphere

82) <https://notrickszone.com/2023/02/07/sea-level-is-stable-around-the-world-the-good-news-the-media-dont-want-us-to-hear>

191 Reference Articles

Question 9) What about the scientists' man-made Global Warming crisis consensus?

- 83) Dr. R Lindzen <https://wattsupwiththat.com/2022/12/04/mit-climate-scientist-dr-richard-lindzen-rejects-climate-change-as-a-quasi-religious-movement-predicated-on-an-absurd-scientific-narrative/>
- 84) Dr. Joun Clauser <https://dailysceptic.org/2023/07/14/nobel-physics-laureate-2022-slams-climate-emergency-narrative-as-dangerous-corruption-of-science/>
- 85) John Stossel Interview with Dr. Judith Curry Aug 9, 2023 [John Stossel](#)
- 86) <https://www.dropbox.com/scl/fi/3k7g1bmrwr1iwlgsa1dgg/MIT-Scientists-Say-EPA-Climate-Regulations-Based-on-Hoax.pdf?rlkey=fl7e8zhojbs66vd3avagwl4eg&dl=0;>
- 87) Clintel foundation [There is no climate emergency](#)
- 88) [Press-release-Clintel-The-Frozen-Climate-Views-of-the-IPCC.pdf](#)
- 89) <https://clintel.org/wp-content/uploads/2023/05/Clintel-The-Frozen-Climate-Views-of-the-IPCC-online-version.pdf>
- 90) Dr. Ivan Giaever: www.foreignpolicyjournal.com/2016/01/01/nobel-laureate-ivar-giaever-on-climate-change
- 91) www.populartechnology.net/2007/10/no-consensus-on-global-warming.html
- 92) <https://clintel.org/world-climate-declaration/>
- 93) www.populartechnology.net/2007/10/no-consensus-on-global-warming.html
- 94) [Wrong Again: 50 Years of Failed Eco-pocalyptic Predictions - Competitive Enterprise Institute \(cei.org\)](#)
- 95) [Challenging Net Zero with Science - CO2 Coalition The 55-page paper](#)
- 96) [17 Questions to Challenge the Climate Change Crisis - Activist Post](#)
- 97) <https://www.telegraph.co.uk/news/2023/08/04/net-zeros-dam-has-burst-but-bbc-is-still-papering-over/>
- 98) <https://electroverse.info/nobel-prize-winner-slams-climate-alarm-thanksgiving-arctic-blast-sun-hush/>
- 99) <https://clintel.org/wp-content/uploads/2023/11/WCD-version-111523.pdf>
- 100) [Archaeologists find underwater island previously home to hundreds of thousands of people \(msn.com\)](#)
- 101) https://www.econlib.org/archives/2014/03/16_not_97_agree.html
- 102) Dr. Roger Pielke Jr [released a preprint of his study](#), on *Scientific integrity*
- 103) <https://sealevel.info/learnmore.html> For detailed additional references from the CO2 Coalition sources

191 Reference Articles

Question 9) What about the scientists' Man made Global Warming crisis consensus?

- 104) [The Real Story on Climate Change William Happer Princeton ... William Happer](#)
- 105) [New Paper by Lindzen, Happer and van Wijngaarten Shows the ...](#)
- 106) [Climate hysteria and Climate reality a comparison of interglacials.pdf](#)
- 107) **Numbers Behind The Narrative: What Climate Science Actually Says** *Authored by Kevin Stocklin via The Epoch Times,*
- 108) [ANTHONY SADAR: Attacks on climate change skeptics a ... Washington Times](#)
- 109) <https://financialpost.com/opinion/scientific-method-beats-climate-alarmism>
- 110) **Reference: Shell v. Milieudefense et al – Expert Opinion Prepared for Foundation Environment and Man**
- 111) <https://thehighwire.com/editorial/new-peer-reviewed-study-co2-has-zero-impact-on-climate-change/>
- 112) <https://x.com/CO2Coalition/status/1859748634436436061> Alberta, Canada Government CO2 +ve legislation
- 113) www.co2coalition.org
- 114) [John Christy's testimony](#)
- 115) https://www.wsj.com/opinion/climate-ideology-is-dying-environment-change-policy-movement-8c8fb882?st=PWd67z&reflink=article_email_share
- 116) <https://www.msn.com/en-gb/video/news/man-made-climate-change-is-garbage/vi-AA1z94Ta?ocid=msedgntp&pc=HCTS&cvid=cfa592b2dcaf468fb1500aed4da18925&ei=11>
- 117) [Meet the scientists Trump could tap to undermine climate regulations - E&E News by POLITICO](#)
- 118) [Home - The Global Warming Policy Foundation](#)

191 Reference Articles

Question 10) If CO₂ is good and climate always changes, what about other fossil fuel pollutants and alternative energy adoption?

119) <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2016/market-snapshot-canadian-tidal-power-capacity-fourth-in-world-with-potential-add-up-7-000-mw-more.html>

120) <https://open.substack.com/pub/robertbryce/p/the-iron-law-of-power-density>

[part?r=ukert&utm_campaign=post&utm_medium=email](https://open.substack.com/pub/robertbryce/p/the-iron-law-of-power-density)

121) 'Offshore wind farms cost issues <https://on.ft.com/3tYAcfp>

122) Renewables cannot replace reliable energy sources in UK <https://gridwatch.co.uk/>

123) Problems with windfarms

<http://digitaleditions.telegraph.co.uk/data/1503/reader/reader.html?social#!preferred/o/package/1503/pub/1503/page/69/article/NaN>

124) [https://www.texaspolicy.com/wp-content/uploads/2023/10/2023-10-TrueCostofEVs-](https://www.texaspolicy.com/wp-content/uploads/2023/10/2023-10-TrueCostofEVs-BennettIsaac.pdf?_hstc=123760149.0b6c4a768d8814345847cae6a32008e7.1693587828998.1698185365265.1698235788581.87&_hssc=123760149.10.1698235788581&_hsfp=2439428725)

[BennettIsaac.pdf?_hstc=123760149.0b6c4a768d8814345847cae6a32008e7.1693587828998.1698185365265.1698235788581.87&_hssc=123760149.10.1698235788581&_hsfp=2439428725](https://www.texaspolicy.com/wp-content/uploads/2023/10/2023-10-TrueCostofEVs-BennettIsaac.pdf?_hstc=123760149.0b6c4a768d8814345847cae6a32008e7.1693587828998.1698185365265.1698235788581.87&_hssc=123760149.10.1698235788581&_hsfp=2439428725)

125) Small Nuclear Reactors are coming [Details here](#)

126) Ross Clark Net Zero Watch [The Retreat from Net Zero](#)

127) <https://www.city-journal.org/article/the-magical-thinking-behind-the-energy-transition>

128) <https://wattsupwiththat.com/2024/11/13/president-trump-the-final-nail-in-the-coffin-of-the-global-environmental-agenda/>

129) <https://financialpost.com/opinion/climate-policy-turning-point>

130) Details on wind farms <https://youtu.be/LklUVkMPI8g?si=pwaRoMahL7WnBHl6>

131) <https://www.newsmax.com/larrybell/co2-climate-change/2024/12/01/id/1189976/>

132) https://en.wikipedia.org/wiki/Small_modular_reactor

133) USA: moves away from carbon-neutral policy and related initiatives <https://youtu.be/FFgdSJEhx1Y?si=iHUGk1hdAmkpsKPI>

134) UK: Reform UK Party's position also moves away from carbon-neutral policy: <https://www.msn.com/en-gb/video/news/man-made-climate-change-is-garbage/vi-AA1z94Ta?ocid=msedgntp&pc=HCTS&cvid=cfa592b2dcfa468fb1500aed4da18925&ei=11>

135) Canada: Banks quit Carney's Net Zero alliance. Giving up the ideology is next. | Financial Post

136) International BRICS countries including Saudi Arabia, China, India, Brazil, and The United Arab Emirates represent more than 45% of the global population and 35% of the global gross domestic product. They declared that their domestic energy needs and economic well-being will take precedence over international climate agreements like the Paris Accords and "net zero" initiatives. <https://co2coalition.org/2024/11/18/brics-kazan-declaration-trumps-cop29-climate-blather/>

137) Tidal energy <http://euanmearns.com/swansea-bay-tidal-lagoon-and-baseload-tidal-generation-in-the-uk/>

138) <https://boereport.com/2023/08/29/alex-epstein-returns-to-alberta-with-a-prescription-for-effective-energy-dialogues/>

191 Reference Articles

Question 11) What are the negative implications of pursuing a carbon-neutral policy?

- 139) https://www.dailymail.co.uk/columnists/article-12493679/RICHARD-LITTLEJOHN-No-heat-pump-thermals-youre-nicked.html?ito=native_share_article-top
- 140) <https://financialpost.com/opinion/lawrence-solomon-finally-its-safe-for-the-whistleblowers-of-corrupted-climate-science-to-speak-out>
- 141) Juser Machogu on Twitter: "Good morning from Kisii Kenya. What is it like to live here without fossil fuels? Some refer to it as 'Sustainable', I agree, only if its definition changes to 'break your back if you want to eat even though you'll be poor forever' I am weeding our maize. 🌾 <https://t.co/gFYo8Pql5W>" / Twitter
- 142) <https://www.telegraph.co.uk/politics/2023/07/29/tory-pms-systematically-dishonest-1-trillion-cost-net-zero/>
- 143) <https://driving.ca/column/motor-mouth/scary-putting-out-ev-fire-firefighting-battery-electric-vehicle>
- 144) Commentary: "Green Energy" is Neither Energy Nor Green – Alex Epstein - Energy News for the United States Oil & Gas Industry | EnergyNow.com
- 145) <https://www.foxnews.com/politics/study-casts-doubt-electric-vehicles-climate-cost-benefits-wont-achieve-goals-intended>
- 146) Mark Mills The Energy Transition Delusion: Inescapable Mineral Realities [This](#)
- 147) <https://www.manhattancontrarian.com/blog/2022-12-1-the-manhattan-contrarian-energy-storage-paper-has-arrived>
- 148) <https://www.powerlineblog.com/archives/2023/10/another-nail-in-the-global-warming-coffin>
- 149) Germany set to miss Net Zero target as climate efforts falter [Reuters, 22 August 2023](#)
- 150) Joel Kotkin: The inhumanity of the green agenda (msn.com)
- 151) [Calgary Herald ePaper](#) The anti-fossil fuel dilemma
- 152) https://www.theepochtimes.com/article/infographic-climate-scientists-credibility-hurt-5552652?utm_source=ref_share&utm_src=ref_share&utm_campaign=mb-cc&utm_cmp=mb-cc
- 153) Dutch coalition party calls for stop on wind turbines on land after devastating Clintel report Nov 9, 2024
- 154) <https://co2coalition.org/2024/11/18/brics-kazan-declaration-trumps-cop29-climate-blathe/>
- 155) Evs https://youtu.be/OEkIh2PcSYE?si=zloFidQh-17kg7Z_
- 156) <http://digitaleditions.telegraph.co.uk/data/1565/reader/reader.html?social#!preferred/0/package/1565/pub/1565/page/73/article/NaN>
- 157) (<https://www.gov.uk/government/collections/international-energy-price-comparisons>)
- 158) (<https://www.energyinst.org/statistical-review>)
- 159) [Power Do wn Blunder – Doomberg](#) Energy problems in Australia due to reliance on renewables 140)
- 160) https://www.realcleanenergy.org/articles/2025/01/05/the_climate_agendas_march_through_the_institutions_can_it_be_stopped_1082512.html
- 161) Solyndra: A Case Study in Green Energy, Cronyism, and the Failure of Central Planning
- 162) Ed Miliband's net zero plans branded 'fantasy' in damning letter from top scientist
- 163) <https://www.yahoo.com/news/11-years-celebrated-opening-massive-000749414.html>
- 164) <https://davidturver.substack.com/p/record-cfd-subsidies-in-2024> - UK CfD subsidies were £2.4 billion 2024 alone
- 165) Sweden to lift the ban on uranium mining, plans to build 10 nuclear plants [Mining Technology, 21 August 2023](#)
- 166) Net Zero "Nearly 13 million UK homes skip heating due to energy bill fears" [Energy Live News, 22 August 2023](#)
- 167) [The recent shutdown of the Bernagues wind farm in Hérault](#)
- 168) Scottish government faces heat pump rebellion over 'exorbitant' bills [The Daily Telegraph, 21 August 2023](#)

191 Reference Articles

Question 11) What are the negative implications of pursuing a carbon-neutral policy

- 169) UK Government looking into “watering down” plans for Net Zero EV mandate [GB News, 21 August 2023](#)
- 170) Voters won’t accept ‘economic destruction’ to reach Net Zero [The Daily Telegraph, 20 August 2023](#)
- 171) New Scientist: How worried should we be about climate change? [Net Zero Watch, 23 August 2023](#)
- 172) Coral reefs may have adapted to ocean warming [The Times, 23 August 2023](#)
- 173) Ian O’Doherty: Ireland’s bonkers plan to kill cows to save the planet [The Spectator, 20 August 2023](#)
- 174) Will the rising cost of green energy cost US Democrats next year's elections? [Politico, 22 August 2023](#)
- 175) Dominic Lawson: Issues with the prospect of giant turbines or an army of pylons wrecking their views [Daily Mail, 21 August 2023](#)
- 176) The Electric-Vehicle bubble starts to deflate [The Wall Street Journal, 21 August 2023](#)
- 177) Are human beings triggering earthquakes and causing volcanoes? [The Daily Sceptic, 22 August 2023](#)
- 178) https://edition.pagesuite.com/infinity/article_popover_share.aspx?guid=6319d212-c1e9-47fd-bb56-5ab8ddf6eac4
- 179) Statistics Norway reports *man-made CO₂ emissions does not cause systematic changes in temperature*
- 1780 <https://www.texasmonthly.com/news-politics/sweetwater-wind-turbine-blades-dump/>
- 181) <https://hotair.com/tree-hugging-sister/2024/05/24/the-lithium-ion-battery-energy-storage-facility-blaze-you-hadnt-heard-about-is-still-burning-n3788991>
- 182) [A Renewable Energy Transition Violates The Maximum Power Principle | Art Berman](#)
- 183) <https://financialpost.com/opinion/net-zero-global-emissions-rising-not-falling>
- 184) Nuclear safety report – Jersey <https://www.gov.je/news/2024/pages/channelislandspublishreportonpotentialnuclearriskstoislanders.aspx>
- 185) <https://co2coalition.org/2024/10/14/western-households-sacrifice-as-asians-splurge-on-coal/>
- 186) <https://financialpost.com/opinion/climate-policy-turning-point>
- 187) <https://www.cnn.com/2024/11/08/toyota-california-ev-mandates-impossible.html>
- 188) <https://financialpost.com/opinion/bjorn-lomborg-climate-spending-costs-more-than-climate-change>
- 189) <https://financialpost.com/opinion/solar-wind-power-expensive>
- 190) <https://financialpost.com/opinion/global-warming-policies-hurt-poor>
- 191) <https://financialpost.com/opinion/global-warming-policies-hurt-poor> Bjorn Lomborg

54 Referenced Scientists, Professionals

- **Ron Barmby** Professional Engineer
- **Paul Burgess** BSc, MSc, C. Eng
- **Dr H. Sterling Burnet** Director Arthur Robinson Center Climate and Environmental Policy, editor of Environment & Climate News.
- **Dr. Byron Caplan** professor of economics George Mason University
- **Dr John Christy** professor of Atmospheric Science and Director Earth System Science Centre University of Alabama
- **Roy Clark** retired engineer and climate researcher, Noble Prize for work on Climate Model Errors
- **Dr. John Clauser** [recipient of the 2022 Nobel Prize in Physics](#) ; degrees from Caltech and Columbia University.
- **Dr. John Constable** Cambridge, Renewable Energy Foundation
- **Dr. Judith Curry** climatologist and former chair of School of Earth and Atmospheric Sciences at the Georgia Institute of Technology.
- **Dr. Hadi Dowlatabad** (UBC) Canada Research Chair, Inst for Resources, Environment & Sustainability,
- **Dr Freeman Dyson** PhD math, physics, Institute for Advanced Study in Princeton.
- **Alex Epstein** philosopher and energy expert, creator of EnergyTalkingPoints.com and Center for Industrial Progress
- **Dr Ivan Giaever** engineer and physicist who shared the Nobel Prize in Physics
- **Tom Gallagher** MSc Geoscientist
- **Steven Goreham** independent scholar, and researcher in energy and environmental policy, engineer and business executive

54 Referenced Scientists, Professionals

- **Ken Gregory** B.AppSc, professional engineer
- **Dr. Ole Humlum** Meteorologist, former Professor of Physical Geography at the University Centre in Svalbard, Norway, and Emeritus Professor of Physical Geography, University of Oslo, Norway.
- **Dr. William Happer** Professor Physics, Princeton University, specialized in atomic physics, optics, spectroscopy
- **Dr. Les Hatten** mathematician, geophysicist, computer scientist, career in weather prediction and climatology
- **Tony Heller** realclimatescience.com
- **Dr. Roger Higgs** geologist **Walt Johnston** geophysicist
- **Vijay Jayaraj** MS environmental sciences U of East Anglia and postgrad degree in energy management from . Robert Gordon University and a Bachelor's in engineering from Anna University India
- **Dr. Steven Koonin** theoretical physicist, former director the Center for Urban Science and Progress at New York U
- **Lord Nigel Lawson** British politician, journalist who served Financial Secretary-Treasurer and Secretary of State Energy
- **Dr Richard Lindzen** (MIT) American atmospheric physicist atmosphere, atmospheric tides, and ozone photochemistry
- **Bjorn Lomborg** visiting fellow at the University of Stanford
- **Dr. Wallace Manheimer** – leading nuclear physicist
- **Dr. Euan Mearns** Geology Honorary Research Fellow at The University of Aberdeen
- **Mark Mills** Energy Expert and Senior Fellow Manhatan Institute
- **Lord Christopher Monckton** Cambridge graduate, journalist and political advisor
- **Patrick Moore** – ecologist UBC, co-founder of Greenpeace

54 Referenced Scientists, Professionals

- **Dr. Tom Moser** NASA Engineer
- **Jeremy Nieboer** Lawyer educated at Harrow School and Oxford
- **Dr. Jordan Peterson** Psychologist
- **Dr. Roger Pielke Jr** and **Dr. M.J. Sangster**
- **Ian Plimer** Geologist
- **Lars Schernikau** and **William Smith**
- **Michon Scott** and **Rebecca Lindsey** Paper of earth temperature history
- **Dr. Nir Shaviv** Professor at the Racah Institute of Physics of the Hebrew University of Jerusalem.
- **Michael Shellenberger** Environmentalist
- **Dr S. Fred Singer** Atmospheric physicist, emeritus professor of environmental science, U. of Virginia
- **Lawrence Solman** Executive director of Energy Probe an environmentalist group
- **Dr. Willie Soon** –Astrophysicist and geoscientist Center for Environmental Research and Earth Sciences
- **Jerger Peder Steffensen**, Curator Nels Bohr Institute Department of Geophysics
- **Ronald Stein** Professional Engineer
- **Dr. Henrik Svensmark** Professor in the Division of Solar System Physics Danish National Space Institute I
- **Dr. Van Wijngaarden** is a professor in the Department of Physics and Astronomy at York University in Toronto
- **Anthony Watts** A former [television meteorologist](#) and current radio meteorologist
- **Gregory Wrightstone** Geologist a Senior Fellow at the Cornwall Alliance, Executive Director CO2 Coalition
- **Professor Antonino Zichichi** holder of Italy's, Knight Grand Cross of the Order of Merit of the Italian Republic

Research Findings

Biography of Graeme Phipps compiler of this presentation material

- A professional Geophysicist/Geologist and director of 2 oil and gas companies with over 50 years experience in the International oil and gas industry. Graeme has spent 21 years as director of various companies (11 different Boards, 7 public, with roles on Audit, Reserves, Compensation, Corporate Governance, EH&S and Special Committees plus being Chairman of one public company, plus the principal of Phipps and Associates – an oil and gas consulting firm). Graeme was President of CEP International/PetroKamchatka Plc./East Siberian Plc. (2007 – 2020). In 2005, Executive VP of PetroKazakhstan to become President and CEO which was successfully sold for \$4.2B in late 2005. Exploration and International VP for Petro-Canada (2001 -2002) and VP Corporate Planning and VP Canadian Division for Nexen (1994 -2001). Graeme spent his first 20 years (1974 -1994) with Esso Resources and Exxon in technical, operational and management roles.
- Oil and gas experience in the Western Canada Basin, the Beaufort Sea area, the Arctic Islands and off the East Coast in Canada, the Gulf of Mexico USA, Yeman, North Africa, Romania, China, Gambia, Australia, Malaysia, Indonesia, Nicaragua, UK North Sea, Kazakhstan, Russia.
- Consulting and advisory experience (2002 – present) as the principal of Phipps and Associates, an Oil and Gas Executive Management consulting company, plus 5 years experience in Corporate planning: three years as VP Corporate Planning and Business Development at Nexen and two years with Exxon in their NY head office.
- Presently a director Tundra Oil and Gas Ltd and Buried Hill Serdar Ltd. and recently a member of the Public Accounts Committee, Government of Jersey