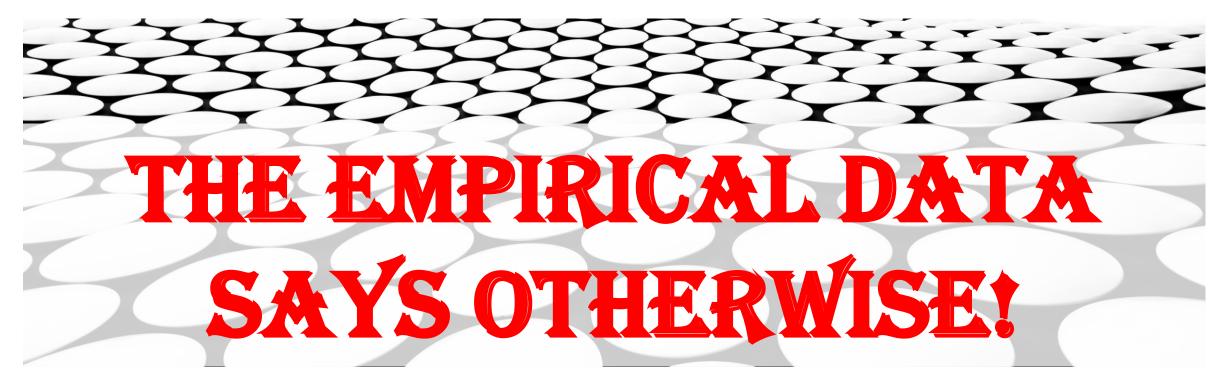
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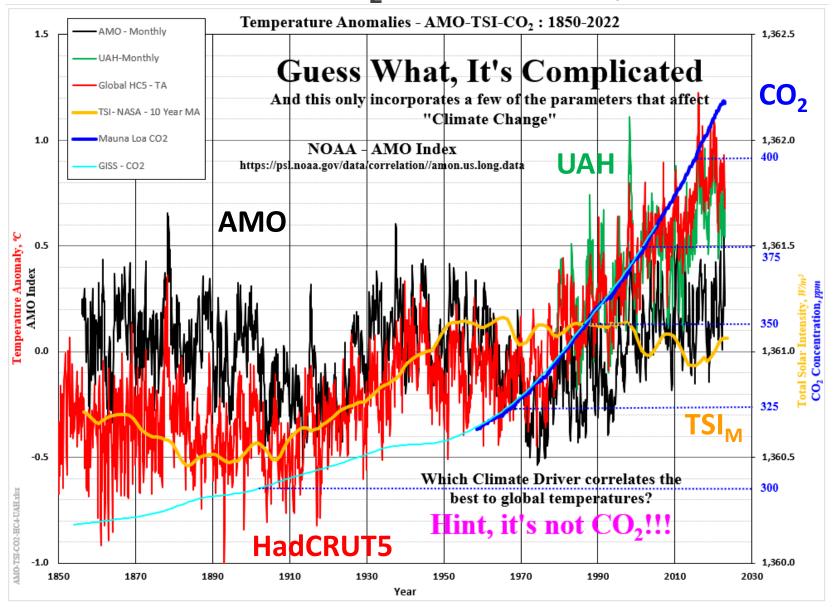
CO₂ IS RESPONSIBLE FOR ALL THE MODERN WARMING!!! REALLY?



FRIENDS OF SCIENCE SOCIETY - RONALD J. DAVISON, P. ENG. (PRESIDENT)



IT'S COMPLICATED - CO₂ IS JUST ONE OF, NOT THE PRIMARY CLIMATE DRIVER

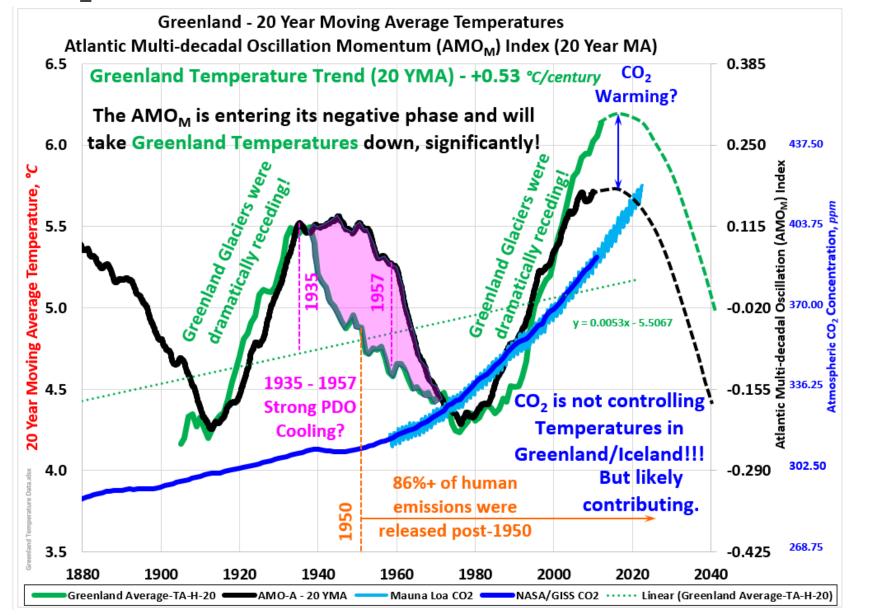


The Catastrophic **Anthropogenic Global** Warming (CAGW) alarmist narrative is simplistic and unscientific. CO2 is just one of the 3 climate forcing parameters shown here. There are many more (PDO, ENSO, volcanic activity, etc.) that easily overpower CO₂ when they are active.

CO₂'s Moneyball Moment

If CO₂ is such a great climate driver, why does it not drive the climate well?

CO₂ IS NOT THE PRIMARY DRIVER IN GREENLAND



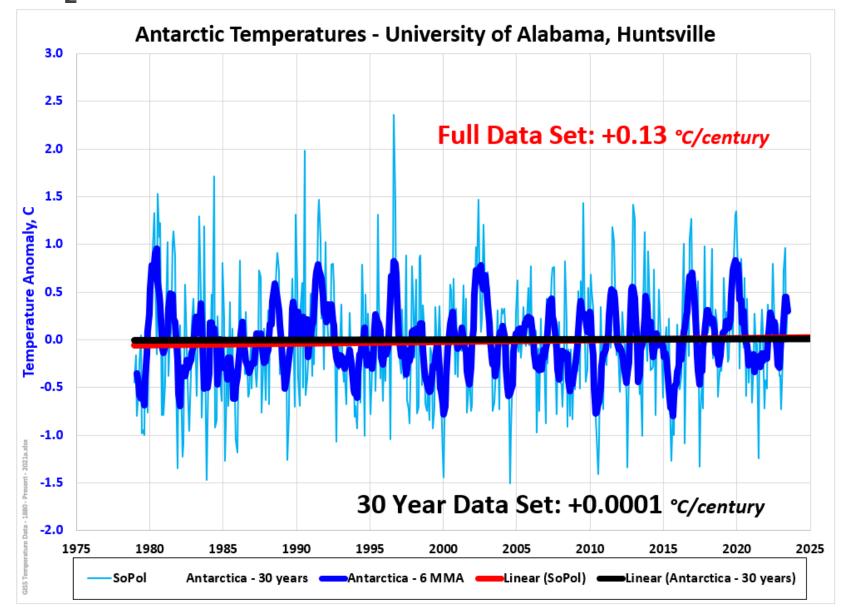
Greenland holds 10% of the planet's land ice. Not melting anytime soon.

Greenland Temperatures are rising at just 0.53 °C/century.

The Atlantic Multidecadal Oscillation (AMO) is the primary driver of temperatures in Greenland.

The sun is the primary driver of ocean cycles like the AMO.

CO₂ IS NOT THE PRIMARY DRIVER IN ANTARCTICA



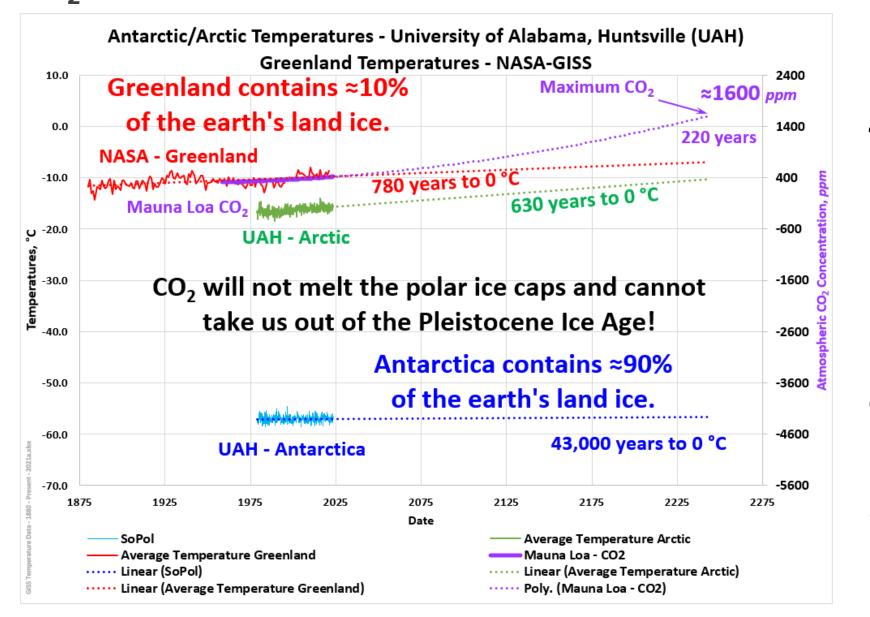
Antarctica holds 90% of the planet's land ice. Also not melting anytime soon.

Antarctic Temperatures are statistically flat at 0.13 °C/century (flat for the last 30 years).

The Antarctic had its coldest six-month period EVER in 2021.

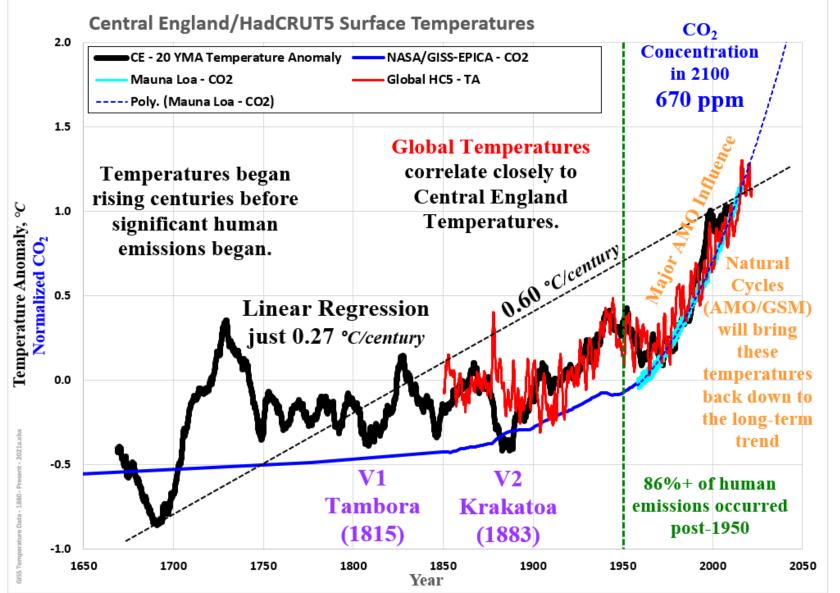
CO₂ has no perceptible influence on Antarctic temperatures.

CO₂ WILL NOT BE THE REASON THE ICE CAPS MELT



Even if we continued our current CO₂ emission trajectory, our ability to generate warming (using "the IPCC science") would end centuries (for the Arctic) and millennia (for Antarctica) before the ice caps would melt. There is not enough coal, oil and gas on the planet to drive CO₂ concentrations much above the 1600 ppm level. All assuming temperatures continue to climb (a dangerous assumption).

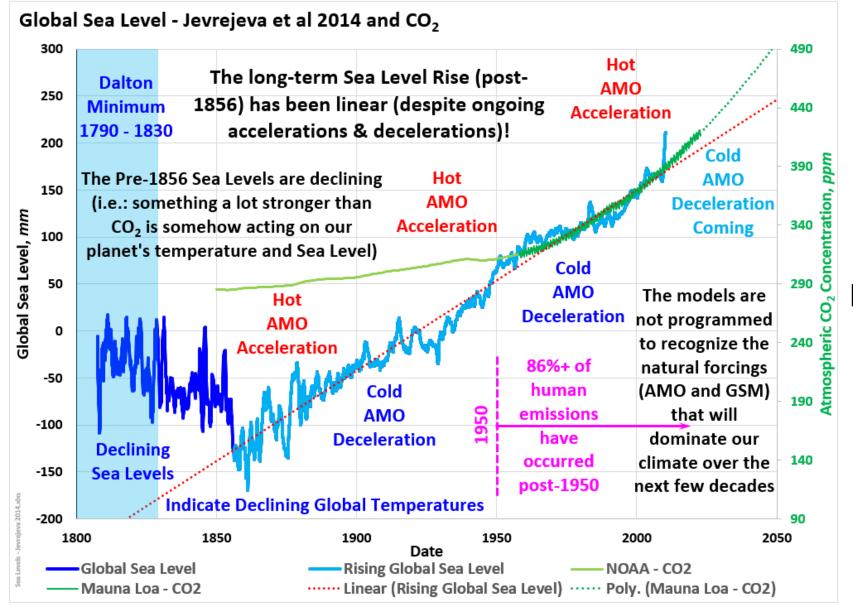
TEMPERATURES FLUCTUATE WITHOUT CO₂ INFLUENCE



Over humanity's recent lived experience, temperatures and CO₂ concentrations have not correlated (i.e.: there is more to climate than CO₂). Global temperatures and Central **England Temperatures** correlate very well, providing a template for global temperatures pre-1850.

Temperatures began rising out of the Little Ice Age long before CO₂ or humanity's emissions could have had any significant effect.

CO₂ DOES NOT CORRELATE WITH SEA LEVEL CHANGES



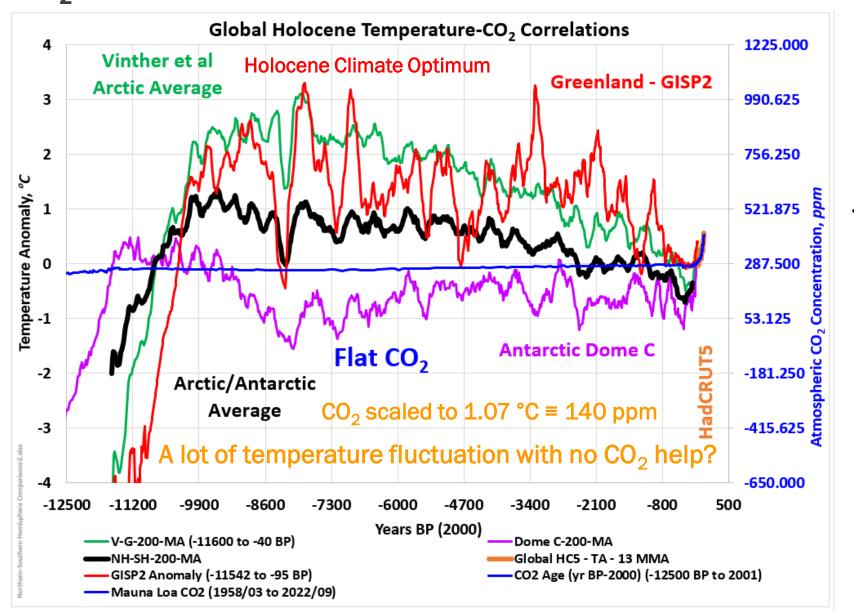
CO₂ has little to no effect on global sea levels despite the hype!

The Sea Level Declines pre-1856 are an inconvenient truth to the CO₂ narrative.

Why is the post-1856 Sea Level Rise linear when CO₂ concentrations are rising exponentially?

The subtle accelerations and decelerations correspond to the Atlantic Multi-decadal Oscillation (AMO) cycle.

CO₂ IS NOT CONTROLLING HOLOCENE TEMPERATURES

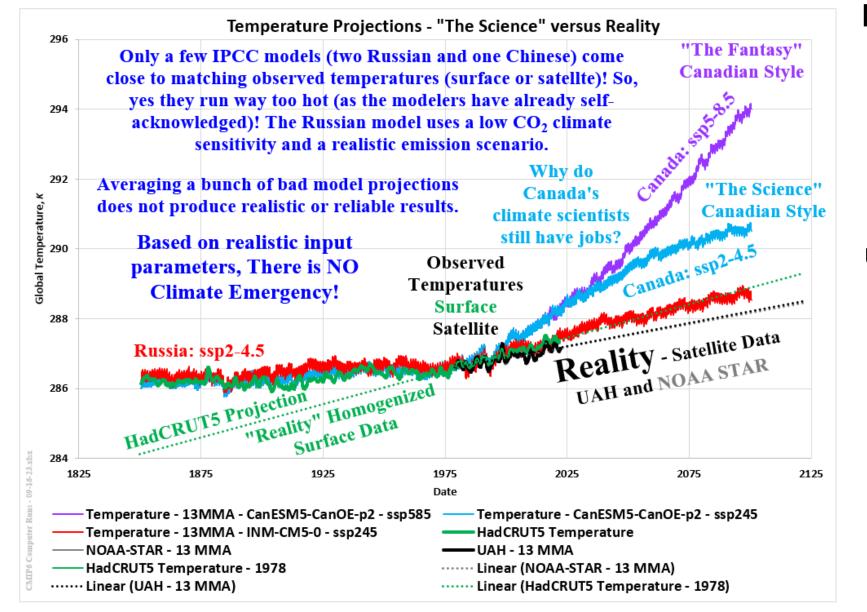


Temperatures fluctuate significantly over the pre-Modern Temperature Record (MTR, 1850 to the present) despite a virtually flat CO₂ concentration.

Those fluctuations are due to natural forcings (solar directly and/or indirectly) that have not stopped acting on our planet just because the alarmists have decreed it so.

Those natural forcings are set to take temperatures significantly colder!

CO₂ CLIMATE SENSITIVITY IS NOT SETTLED SCIENCE!



The IPCC Computer

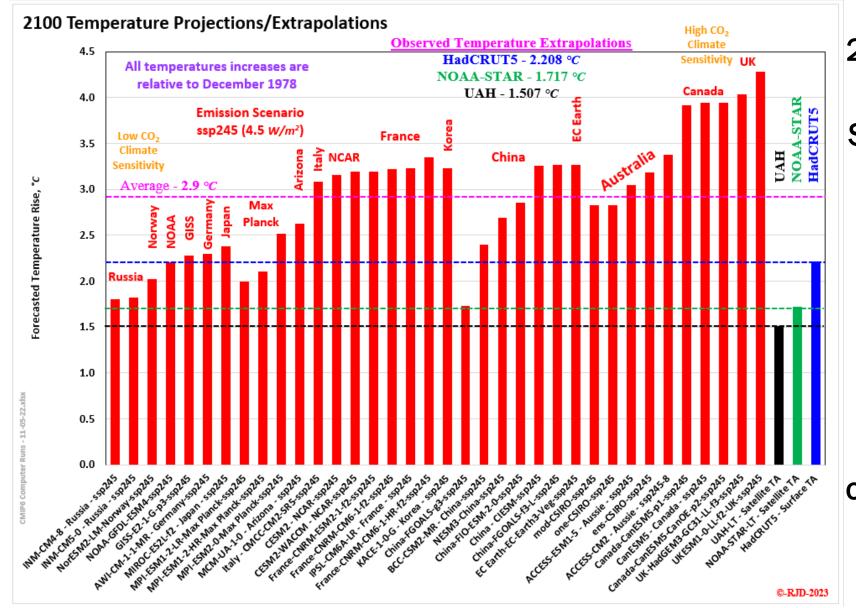
Models use a range of CO₂

Climate Sensitivities (1.8 to 5.7 °C). The 1.8 °C option comes close to reality (but is still high).

These simplistic, unscientific models ignore the natural forcings (past, present and future) and are simply wrong.

The projections are useless. They should not be used for policy!

CO₂ INFLUENCE IS GROSSLY OVERSTATED

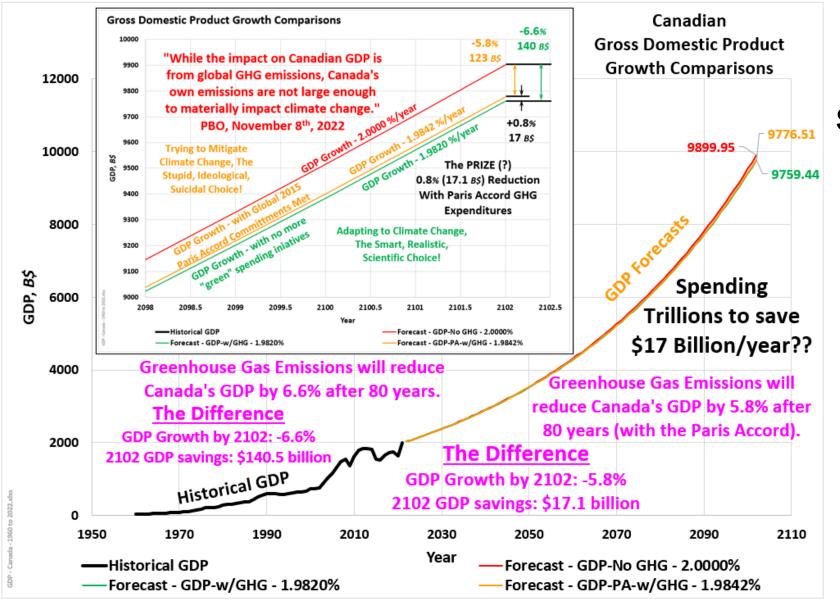


All the IPCC models overstate the projected 2100 temperature (most of them grossly).

So, obviously the modelers are correct when they acknowledged that the models run way too hot. Note: these outputs are based on a reasonable emission scenario (ssp2-4.5).

The majority even overstate the adjusted over homogenized HadCRUT5 surface data estimates.

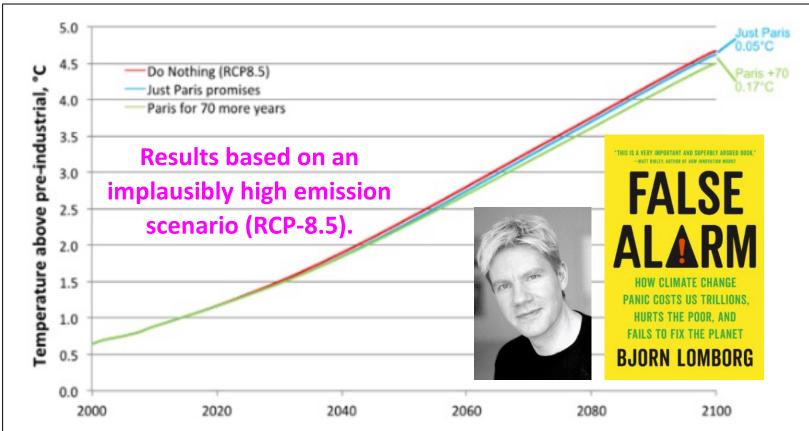
CO2 REDUCTIONS WILL NOT PRODUCE ECONOMIC UPSIDE



Canada's economy will not benefit significantly, if at all, from CO₂ Emission Reduction Expenditures. Based on Canada's

Based on Canada's
Parliamentary
Budget Office (PBO)
Report, published
on November 8th,
2022

CO₂ REDUCTIONS WILL NOT REDUCE TEMPERATURES SIGNIFICANTLY



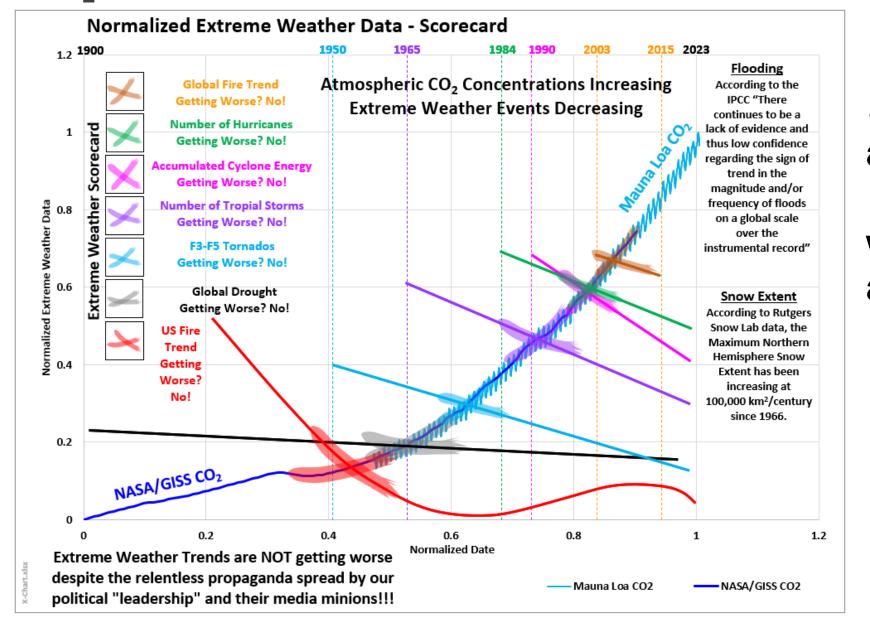
In what world is 10 trillion dollars for a 1/100th of a degree temperature reduction 77 years from now (that only lasts at best a few years), economically justified???

The global temperature change from pre-industrial, for the Do Nothing (RCP8.5) scenario, for the global promises for Paris and for Paris extended for 70 more years, as run on MAGICC.

Despite trillions in CO₂
Emission Reduction
Expenditures,
temperature reductions
a century from now will
be too small to
measure and will last
just a few years.

When a reasonable emission scenario is used, those reductions will be much more insignificant!

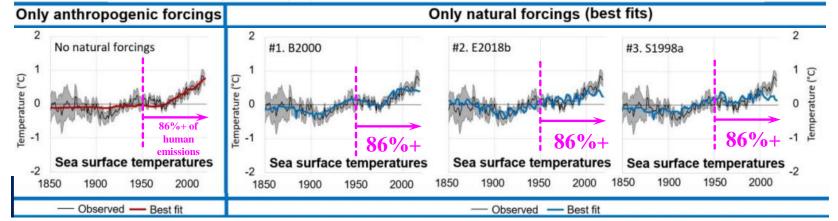
CO₂ IS RISING, EXTREME WEATHER EVENTS ARE DECLINING???



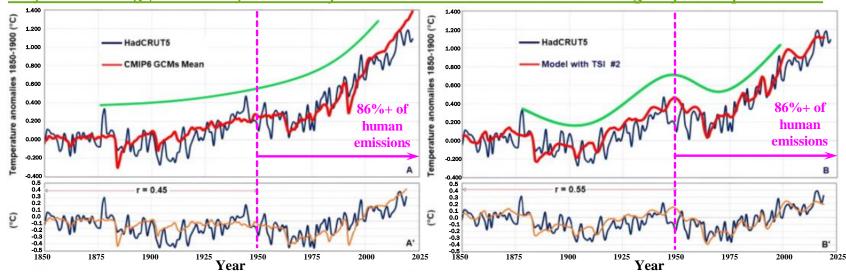
The chronic calls to end Fossil Fuel Use and take us to NetZero are pushed incessantly to avoid the extreme weather events that we are supposedly already experiencing and will be destroyed by in the future. Why then have wildfires, hurricanes, droughts and tornados been declining for decades?

CO₂ OR NATURAL FORCINGS (I.E.: THE SUN) OR BOTH???

Surface temperature (ST) relative to 1901-2000 observed compared to statistical fits



Soon, Connolly² et al 2023 - <u>"The Detection and Attribution of Northern Hemisphere Land</u> Surface Warming (1850–2018) in Terms of Human and Natural Factors: Challenges of Inadequate Data"

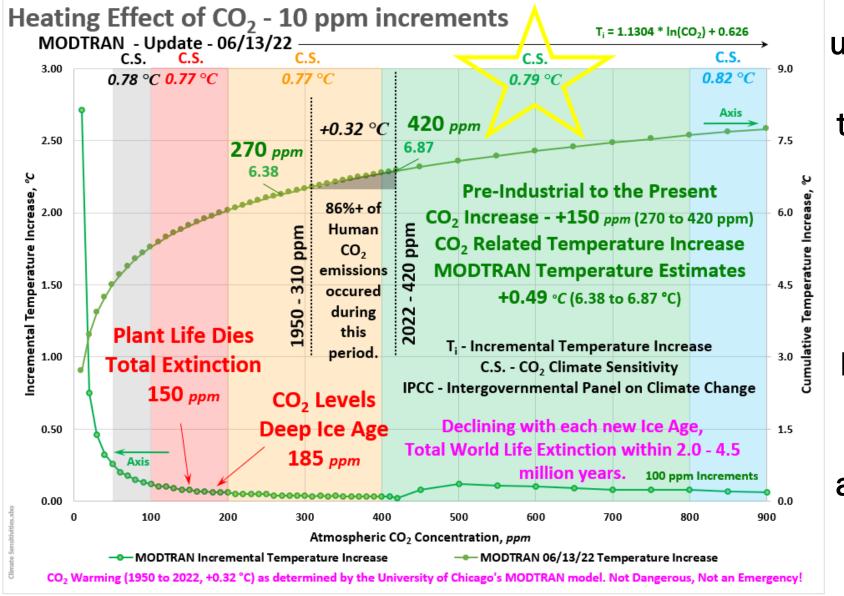


Scafetta, N., 2023 - "Empirical assessment of the role of the Sun in climate change using balanced multi-proxy solar records"

CO₂ absolutely does not correlate with pre-MTR Holocene temperatures (slide 8) and has a poorer correlation than natural forcings over the MTR. Ignoring natural forcings (primarily solar) will not produce a reliable forecast of our future climate as proven by the IPCC's models that are self-acknowledged

to run way too hot.

CO₂ CLIMATE SENSITIVITY – MODTRAN, U. OF CHICAGO



CO₂ climate sensitivity is not settled science. The IPCC uses a range of 1.8 to 5.7 °C in their models (which run too hot and use implausibly high emission scenarios). The value is less than 1.8 and likely around 0.8 °C when solar contributions and Urban Heat Island Effects are recognized. The **MODTRAN Model (shown** here) uses ≈0.8 °C and accurately models radiation to space (calibrated to satellite measurements).

CO₂ HAS LITTLE TO NO EFFECT ON THE FOLLOWING PARAMETERS

- > GREENLAND TEMPERATURES
- > ANTARCTIC TEMPERATURES
- PRE-MTR HOLOCENE TEMPERATURES
- > GLOBAL SEA LEVELS

Why do the models run way too hot? Maybe, just maybe the CO₂ alarmist narrative is not all encompassing?



- ➤ GROSS DOMESTIC PRODUCT (GDP) GROWTH (DUE TO CO₂ EMISSION REDUCTION)
- > FUTURE TEMPERATURE REDUCTIONS (DUE TO CO₂ EMISSION REDUCTION)
- > EXTREME WEATHER EVENTS ARE DECLINING AS CO₂ LEVELS RISE (NOT CONSISTENT WITH THE 'NARRATIVE')

CO₂'s INFLUENCE IS GROSSLY OVERSTATED

- > THE COMPUTER MODELS USE A CO₂ CLIMATE SENSITIVITY RANGE OF 1.8 TO 5.7 °C (ALL TOO HIGH, NOT SETTLED).
- > OBVIOUS NATURAL FORCINGS (SOLAR AND SOLAR RELATED) ARE BEING IGNORED (TO OUR OWN DETRIMENT).

SO WHY ARE WE SACRIFICING OUR WAY OF LIFE TO REDUCE CO₂ EMISSIONS?

