

GSM - Grand Solar Minimum. The real "Climate Change" existential threat is right around the corner. Do the Research!

CSS-57a Human Emissions - Volumes

More detail? climatechangeandmusic.com

The simplistic, unscientific All CO₂, All the Time (ACO₂AT) narrative says that humanity's emissions are almost entirely responsible for the 1.07 °C warming (based on the IPCC's 2021 AR6 SPM Report) since the pre-industrial era (1850). That notion glosses over a few important facts.

1. Temperatures started warming out of the Little Ice Age (LIA) centuries before human emissions were a factor (definitely natural).
2. Over 86% of humanity's emissions occurred post-1950.
3. Roughly half of the 1.07 C temperature rise occurred pre-1950 (i.e.: mostly natural).

This slide is focused on the emission story. The post will then transition to some discussion on temperatures and atmospheric CO₂ concentrations.

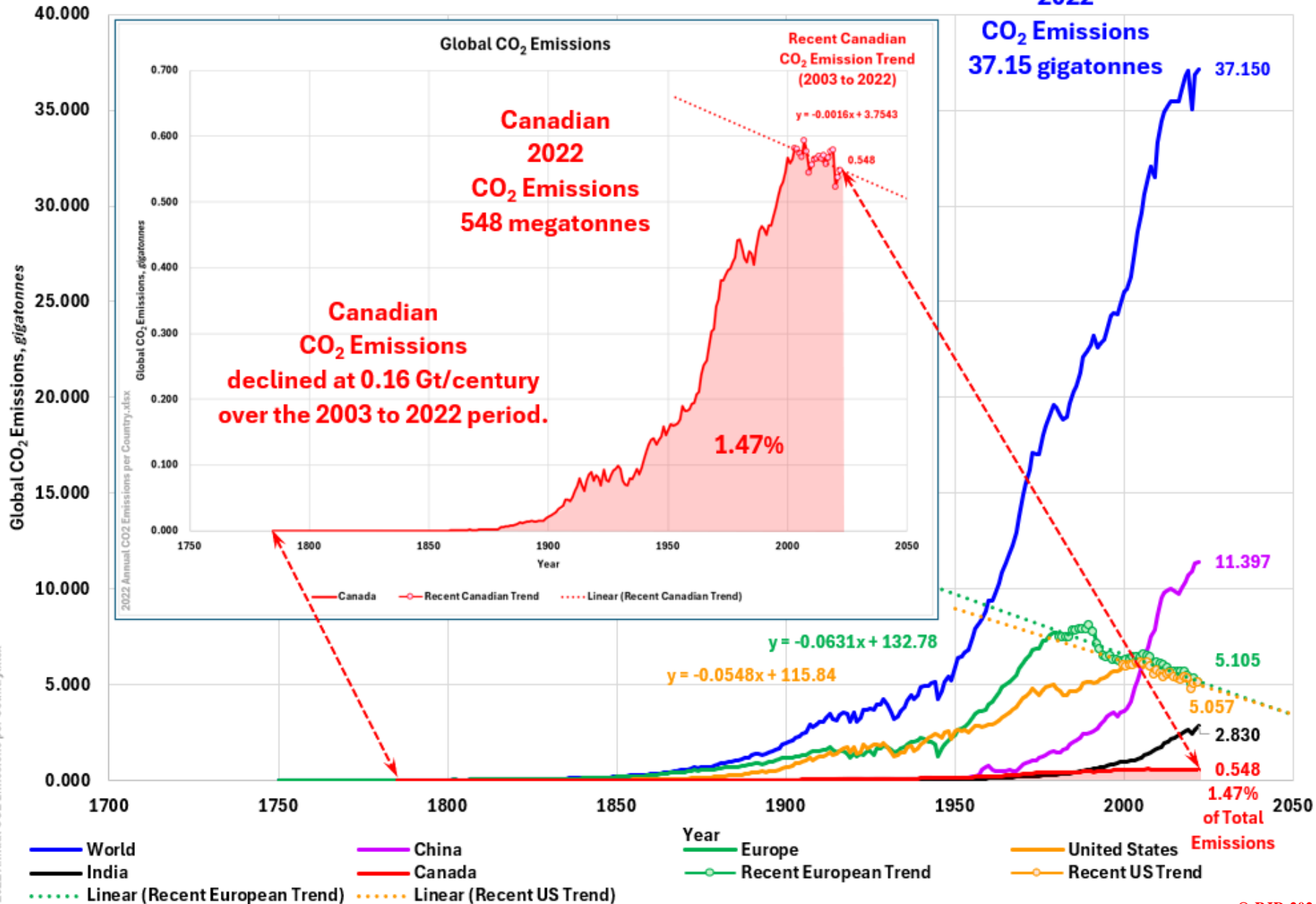
Our emissions have definitely increased substantially. China

Human CO₂ Emission Volumes

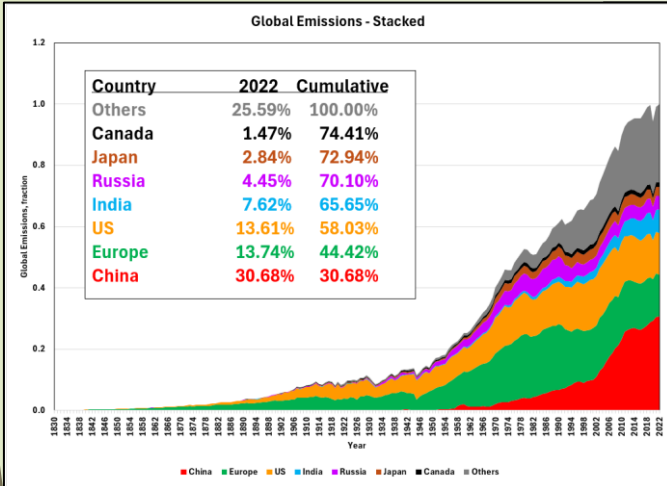
Leads the pack at 11.4 Gt/year (30.7%). The top 4 emitters (China, Europe, US and India) combine for 24.4 Gt/year (65.7%). Canada comes in at 0.55 Gt/year (1.47%) with a shallow decline since 2003. China and India are rising much faster than the US and Europe are declining. Emissions are still climbing sharply (the 2020 COVID dip notwithstanding) and will continue to rise.

Data Courtesy: Our World in Data

Global CO₂ Emissions



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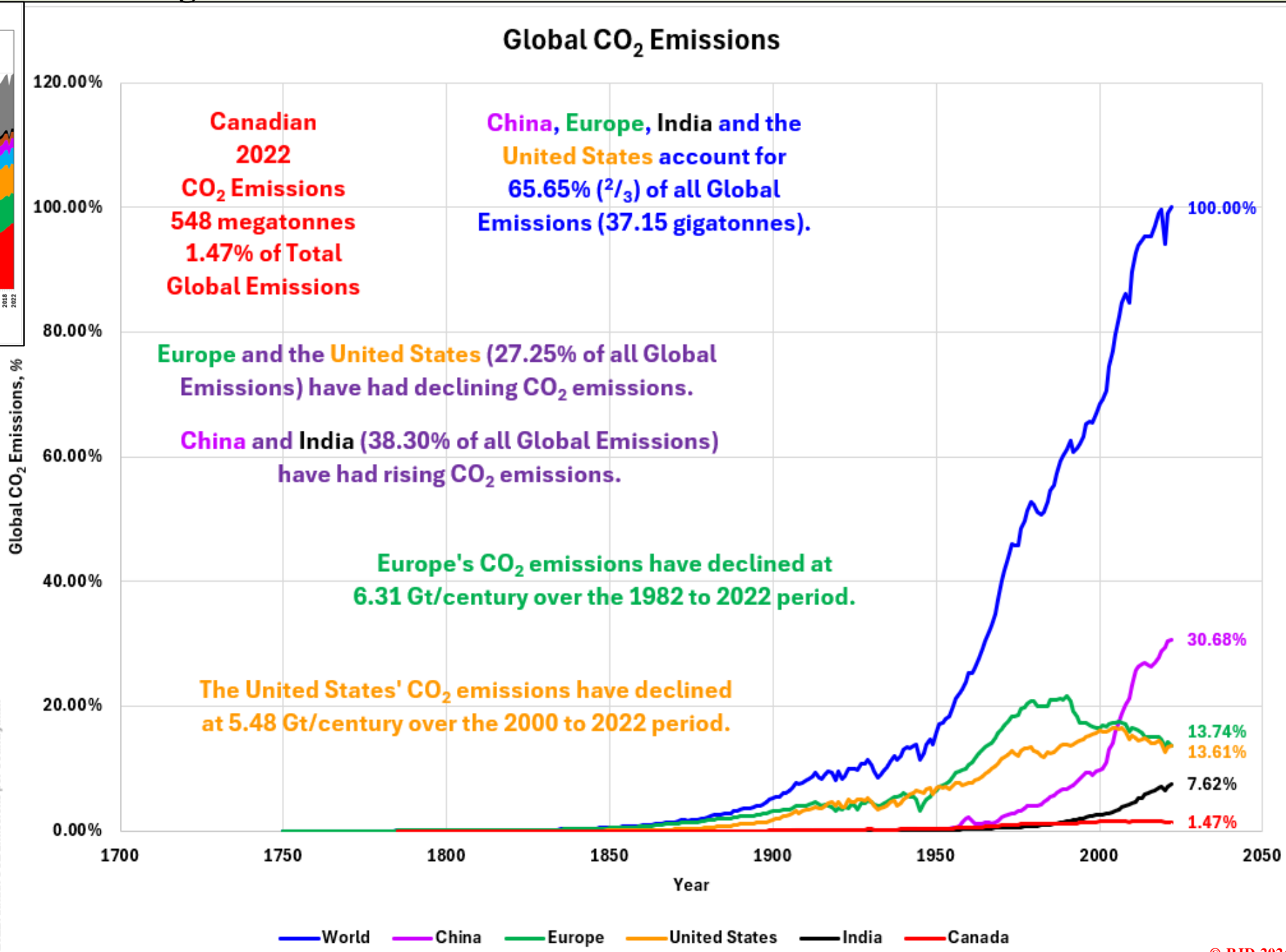
The same emission data presented as percentages (to the right) and as cumulative plot (above) with the 5th (Russia) and 6th (Japan) largest emitters added. Canada's contributions to global emissions (whether you believe in "Climate Change" as defined by the ACO₂AT narrative or not) are insignificant.

Human CO₂ Emission Percentages

Reducing our emissions to zero is effectively impossible.

Reducing our

emissions significantly is effectively economic suicide. And what do we get for the taxpayer's trillions of dollars currently designated to fight "climate change"? That answer is simple. A temperature reduction that is too small to measure (i.e.: meaningless) and an enormous debt burden that will haunt our children's and grandchildren's future (using "the Science).



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CSS-57c Human Emissions – Temperature Impact

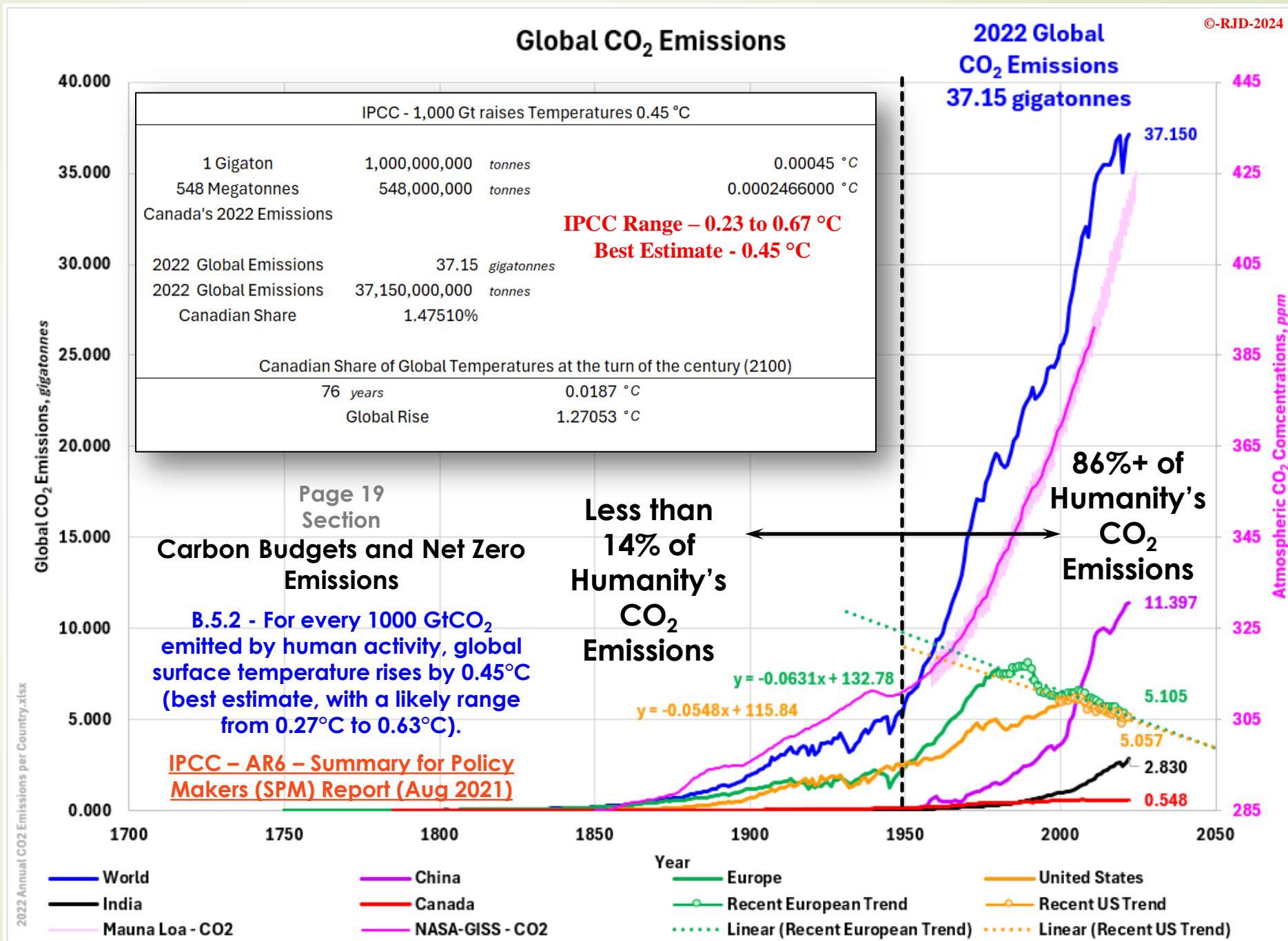
More detail? climatechangeandmusic.com

This post was initiated after I read a short letter by Pav Penna, "CANADA'S CO₂ EMISSIONS IMPACT ON GLOBAL TEMPERATURE". I wanted to confirm his calculations and expand the discussion. I have added the atmospheric CO₂ concentrations to the plot along with the temperature/CO₂ correlation laid out in the IPCC's 2021 AR6 SPM report. The IPCC states that adding 1,000 Gigaton will raise temperatures 0.45 °C ±0.22 °C. The alarmist community tells us "the science" is settled. Why then does the IPCC have an error range of almost 50%? To be fair that number is in line with their CO₂ climate sensitivities (51% error range) which range from 1.8 to 5.6 °C in the models (that are self-acknowledged to "run way too hot" and use unrealistically high emission scenarios). Also, you would think that

the IPCC would understand that the temperature/CO₂ relationship is exponential, not

Human CO₂ Temperature Impact

linear. Their B.5.2 clause is totally unscientific. Every time CO₂ doubles, twice as much CO₂ is required to get the same temperature rise. But let's use their "science". At the turn of the century, the temperature rise would be 1.27 °C, our share just 0.019 °C. Appropriate science points to much lower temperatures over the next few decades. There is NO Climate Emergency!



CSS-57d Human Emissions – Temperature Correlation

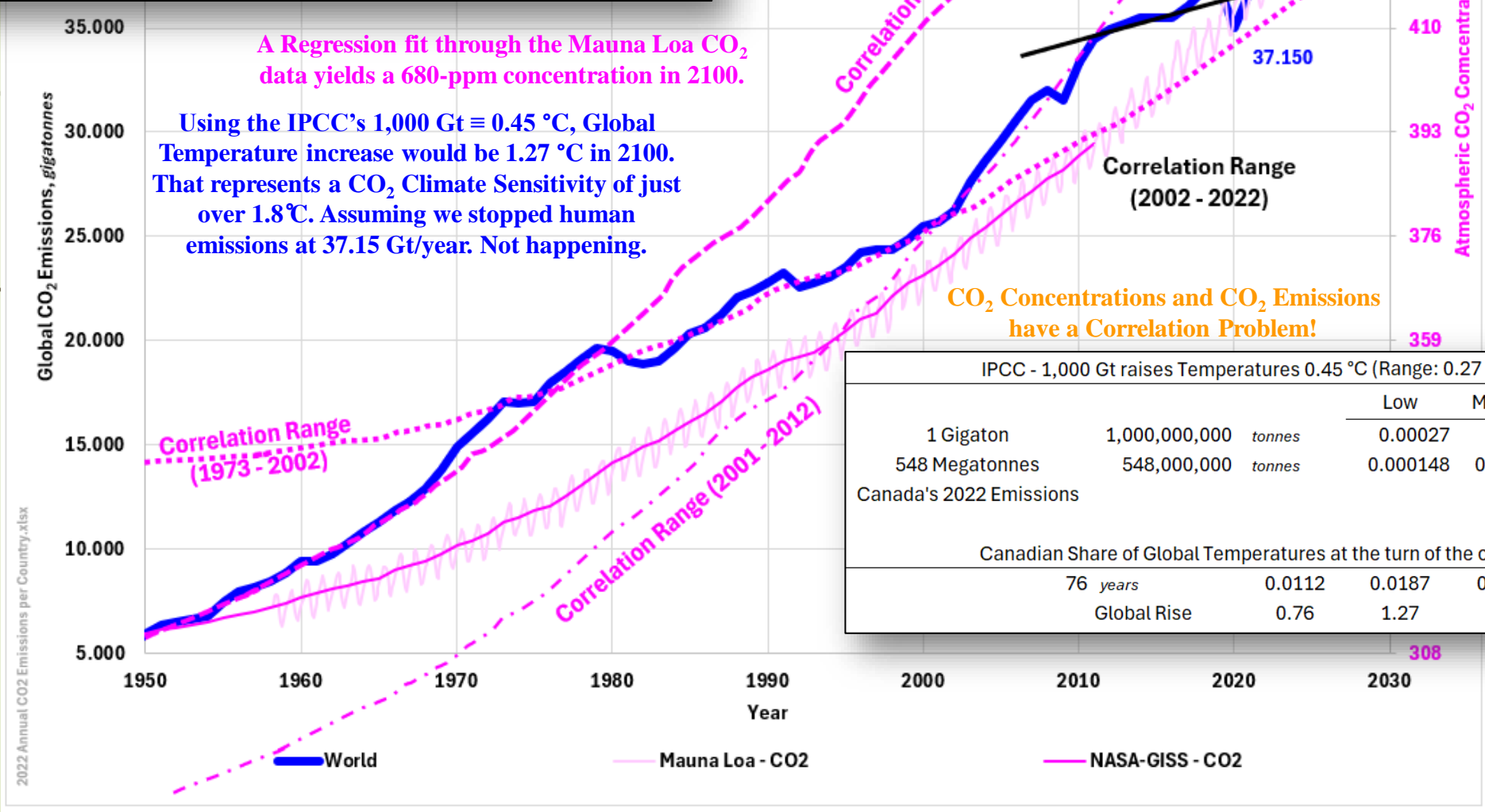
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IPCC Temperature Increase Estimates				Temporal Temperature Estimates			
Emission	Low	Medium	High	CO ₂ Concentrations	425	680	ppm
				CO ₂ Climate Sensitivity	2024	2100	Difference
SSP1-1.9	1.0	1.4	1.8	0.75 °C	4.06	4.57	0.51 °C
SSP1-2.6	1.3	1.8	2.4	1.0 °C	5.41	6.09	0.68 °C
SSP2-4.5	2.1	2.7	3.5	1.2 °C	6.49	7.30	0.81 °C
SSP3-7.0	2.8	3.6	4.6	1.8 °C	9.74	10.96	1.22 °C
SSP5-8.5	3.3	4.4	5.7	2.1 °C	12.45	13.96	1.51 °C

The table above shows the IPCC estimates based on different emission scenarios and my estimates of temperature based on a range of climate sensitivities. With natural forcings (primarily solar)

Human CO₂ Temperature Correlation

and Urban Heat Island Effect (UHIE) considered, the 2100 temperature increase is likely between 0.68 to 0.51 °C. That assumes that the AMO and GSM will cause no cooling. But they will!



The plot shown here highlights the problems with human CO₂ emissions and the atmospheric CO₂ concentration correlation. Although CO₂ emissions and concentrations are generally rising together, the CO₂ concentrations do rise independent of the emission changes. There are natural forces in play as well.

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