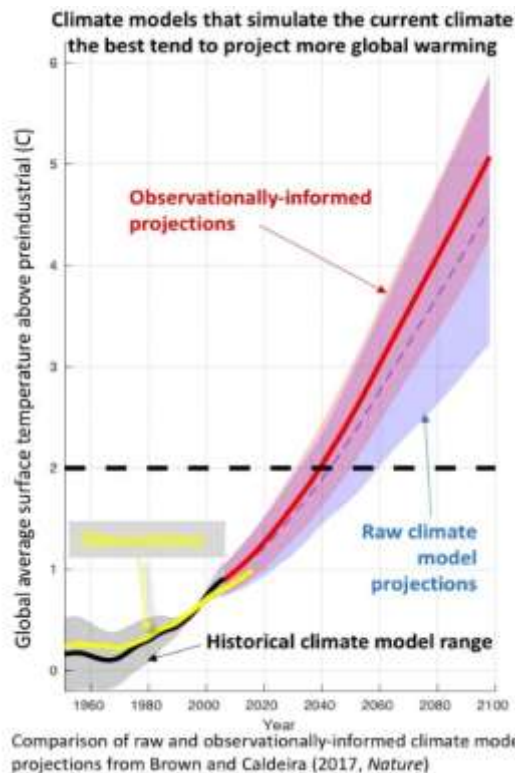


Climate Change Overview Briefing Newsletter

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CONDENSED INFORMATIVE NEWS SUMMARY OF CLIMATE EXPERTS AND THEIR FINDINGS



With three (3) recent climate reports¹ indicating two degrees (2°C) Celsius as an achievable global limit to warming, there is now a serious discrepancy between these reports intended for the general public and the actual science underlying climate change. Leading climatologists have published details of the more likely five to six-degree (5-6°C) increase based on present trends and the climate models. Dr. James Hansen (Columbia U) discovered a triad of temperature, CO₂, and sea level to be interlocked and tightly correlated to each other.² This IRI future-oriented news brief offers a condensed summary of such climate information which has already proven to be accurate and more factual than the three climate reports cited above. We look at what the best climatologists expect to happen worldwide by 2100 **realistically**.

Figure 1 – Brown and Caldeira³ (Stanford) published a composite **temperature** trend graph which “reduces uncertainty” (says *Nature’s* Editor) and predicts at least a five degree (5°C) increase by 2100 (red line), not two degrees. Much is known about the present exponential trend in temperature up to 2020 but here the climate models are merged to include “observationally-informed projections” up to 2100.

This is a rude awakening. The extreme conditions which we know are inherent in such a five to six degree (5-6°C) increase have been well documented over ten (10) years ago. A National Geographic

90-minute online video, **“Six Degrees Could Change the World”** https://www.youtube.com/watch?v=R_pb1G2wloA is one of the best. It may be more important than ever for seeing, rather than just reading reports about, immanent inconvenient truth of each degree of change. Figure 1 equals a one-degree (1°C) Celsius increase EVERY twenty (20) years from now on, *even past 2100*. At five to six-degree (5-6°C) level above the 1900 baseline of 15°C world average temperature, heat stroke, famine, migrant invasions, farming/food production crises, widespread drought, uninhabitable equatorial regions, super tornadoes/hurricanes, and global tropical disease are anticipated to result.

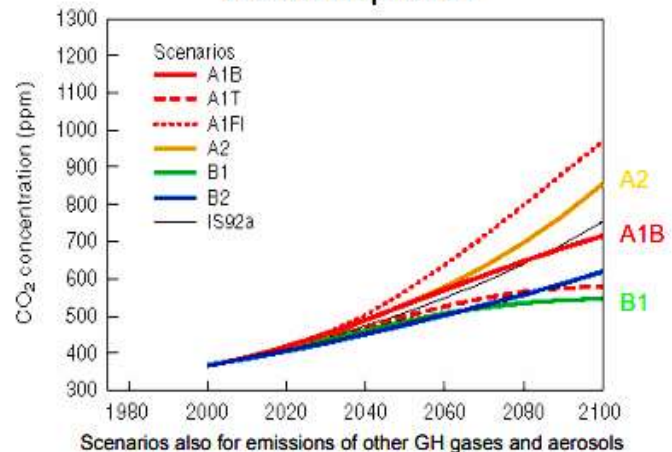
Q. “Isn’t CO₂ going to level out or ‘peak’ soon?”

A. The 9th UN Emissions Gap Report just released¹ states there is **“no sign of peaking”** and emphatically issues a **warning that carbon emissions are actually increasing** once again this past year, after a short dip, with a record **53 gigatons of CO₂ in one year**. All three (3) recent climate reports acknowledge the Paris limits are **not happening**. No major country seems willing to reverse its long-standing use of fossil fuels with a carbon tax.

Figure 2 - University of Washington composite CO₂ computer models extrapolating to 2100 (**A2** is the model projection for *business as usual* which **doubles** to reach 800 ppm by 2100).⁵

Note: All links are live in the online version at Integrity-Research.org

How much Carbon Dioxide will go into the atmosphere?

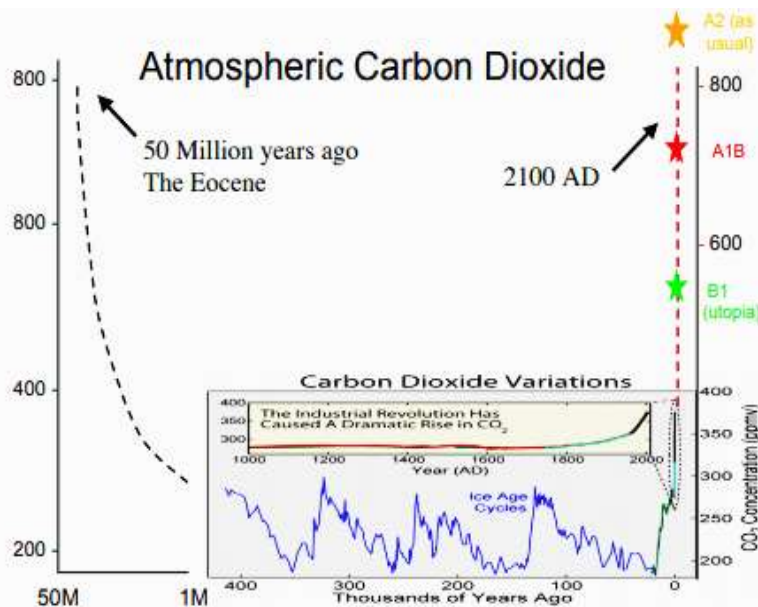


¹ [UNEP Emissions Gap Report 11/27/18](#), [NCA4 11/23/18](#), [IPCC Report 10/8/18](#), and [COP24 KATOWICE 12/2/18](#)

² Hansen, James et al., **“Young people’s burden: requirement of negative CO₂ emissions”** *Earth Sys. Dyn.* 8,2017

³ *Nature* V. 552, p.45-50 (12/7/17) **“Greater future global warming inferred from Earth’s recent energy budget”**

Climatologists agree earth-atmosphere-ocean system temperature is led by the **real climate driver of global CO2**.



Heat-trapping CO2 levels are seen in Fig. 2 to be rising at a similar exponential rate as temperature. However, we take note that the present **408 ppm** of CO2 is a level the earth has not experienced in over 400,000 years (see Fig. 3 and 4). Worse than that, humans are now pumping up the **CO2 level worldwide by about 100 ppm EVERY 20 YEARS from now on**. If we allow business as usual (**A2 line**), the earth surpasses **800 ppm** around 2100 and even **1000 ppm** of CO2 soon after, with worldwide **COGNITIVE IMPAIRMENT** to be expected, as shown in NIH office and classroom studies.⁴

Figure 3 – Washington Univ. (WU) compares 800 ppm CO2 (right) with the most recent historical epoch with similar CO2 levels (left).⁵

WU notes quoted from this slide: **“Eocene Period 50 million years ago - palm trees flourished in Wyoming and Antarctica was a pine forest - crocodiles lived in the Arctic - deep ocean temperature was 55°F (today it is ~35°F) - sea level was at least 300 feet higher than today and the difference in global temperature from our baseline of 15°C is an additional 15°C yielding a new average of around 30°C (86°F).”** Note: this is ten degrees (10°C) higher than the 5°C increase predicted from Brown and Caldeira (Figure 1) and Hansen (Figure 4).

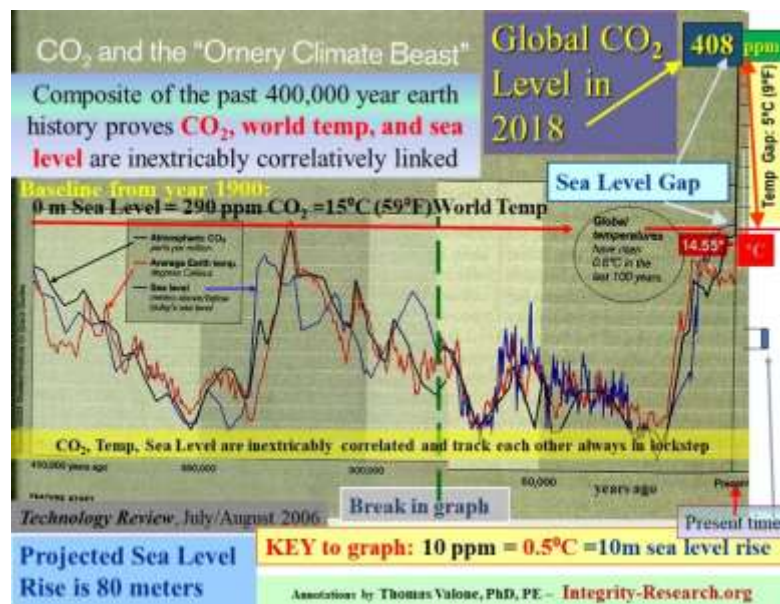


Figure 4 – Dr. Jim Hansen’s “Climate Beast Graph”⁶ annotated by IRI.⁷ Hansen, “alarmist and also right” (Daily Beast, 7/20/15), plotted the temperature, CO2, and sea level for the past 400,000 years so the max and min points are coincident exposing a “Triad Correlation.”

This Hansen graph was converted by IRI into a useful and predictive **KEY**: 400 ppm is 11 times 10 ppm above 290 so $11 \times 0.5^\circ\text{C} = 5.5^\circ\text{C}$ increase. Beyond that, Eocene data appear to indicate **800 ppm of CO2** will force temperature at least **15°C above baseline** (not five) during the 2100’s and beyond, which will be intolerable for the civilized world, with WU reported sea levels confirming Hansen projection.

CONCLUSION: This is a major cause for alarm since Hansen’s discovery of the *Triad Correlation* means the 21st century **5°C increase in global temperature is actually being thermally forced ONLY from the PRESENT global level of CO2 passing 400 ppm**, even if global CO2 emissions were to stop tomorrow. Therefore, the most recent journal articles are calling for **“Climate Adaptation”** while the UN Emissions Gap Report emphasizes: “Accelerating innovation is a key component of any attempt to bridge the emissions gap, but it will not happen by itself.” **IRI advocates** international cooperative billion-ton carbon capture programs, immediate carbon-free energy legislation to supplant fossil fuels, and emergency non-toxic aerosols dimming solar influx for mid-century intervention.

⁴ Environ. Health Perspectives; DOI:10.1289/ehp.1510037 <https://ehp.niehs.nih.gov/15-10037/> (open access)

⁵ https://www.atmos.washington.edu/academics/classes/2011Q1/101/Climate_Change_2011_part2.pdf

⁶ Hansen, James, *Technology Review*, July/August, 2006 <https://www.integrityresearchinstitute.org/climatechart.pdf>

⁷ <https://www.integrityresearchinstitute.org/CO2andClimateBeastgraph.jpg> (Ref. 6 reveals 400,000 years of Triad)