



What Climate Crisis?

Developing Policy Based on Reality

May 29, 2020

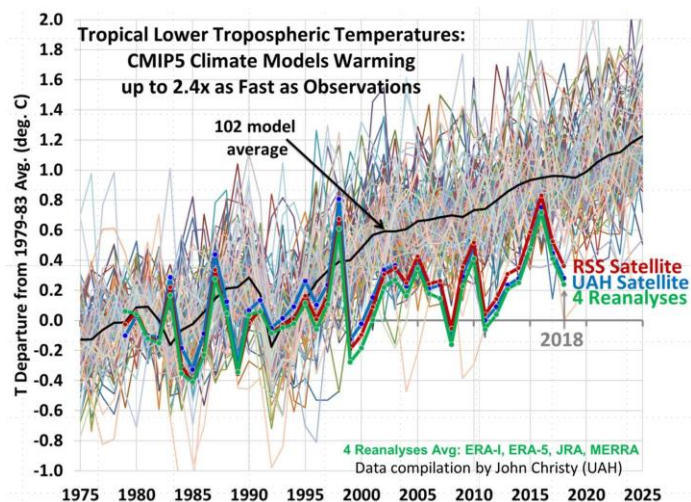
There is an apparent belief, prevalent among policy makers, accepting the idea of a man-made climate crisis born from our insatiable burning of fossil fuels to power our cars, our homes, and our factories. And if not soon addressed, this crisis will lead to disastrous consequences of increasing mortality, severe weather events, inundating sea level rise, and mass extinctions. We have, we are told, only months or years or a couple of decades to mend our ways by switching to renewable energy sources before the irreversible tipping point is reached.

We are instructed that this scenario of doom can only be avoided by enacting restrictions, mandated and managed by international agencies and treaties. This apparent consensual belief rests on the authority of government agencies, prestigious academies of science and engineering, and esteemed scientific journals. The message is amplified by green NGOs and increasingly by industrial and financial communities, including the major purveyors of fossil fuels whose virtue signaling is broadcast with increasing frequency. To green activists, nuclear energy is not an alternative option. The resulting reduced standard of living will be regrettable but necessary collateral damage. Though rarely overtly stated, the undeveloped world will continue to be denied abundant, dependable, affordable energy.

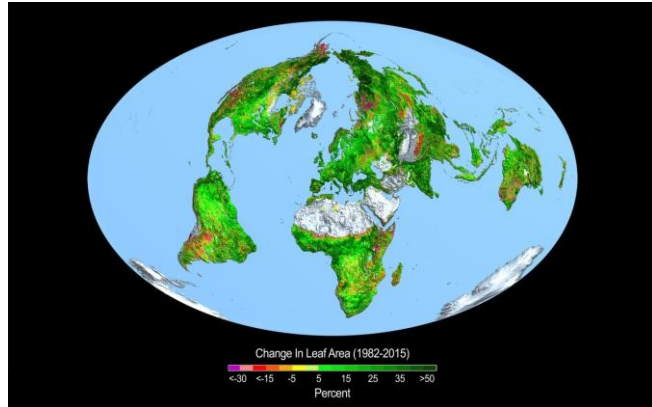
The leading culprit for this crisis is allegedly carbon dioxide, an odorless, tasteless, invisible gas.

We pump some 33 billion tons of CO₂ into the atmosphere every year because of our activities. And the earth's temperature has risen around 0.9 °F since WWII because of it, according to these authorities. This is because CO₂ is a greenhouse gas that retards the movement of heat into space. Left unchecked, these experts say we are headed to a heating of between 2.7 °F to over 7.2 °F by the end of this century, leading to all of those bad things mentioned above. The "evidence" for such predictions comes from climate models.

But what if the climate models are wrong and that the warming from increasing levels of CO₂ in the air is modest, less than 2.0 °F by 2100? Indeed, the plot of temperature from actual measurement by satellites and weather balloons (reanalyses) reflect this modest warming, with model output being over twice reality, i.e. the models run hot. Wouldn't this suggest that there is something wrong with the models? Wouldn't it be better to base policy on the hard data?



Forgotten in this story is that CO₂ is a gas of life, the raw material converted by photosynthesis into plants that feed and shelter animals, including Homo sapiens. Nature annually emits over 770 billion tons of CO₂ from plant decay and ocean outgassing, and it takes up a similar amount by the biosphere and oceans; this is the carbon cycle. It turns out that only half of the 33 billion tons of CO₂ emissions introduced by mankind remain in the atmosphere; the rest is fertilizing plant growth. The earth is greening, on a path to increase gross plant productivity by 47% circa 2080 from preindustrial times. And plants in a higher CO₂ environment need less water. These benefits are enhanced by a longer growing season from the additional warmth. Yet these features are not reflected in social-economic models that have been used to rationalize policy.



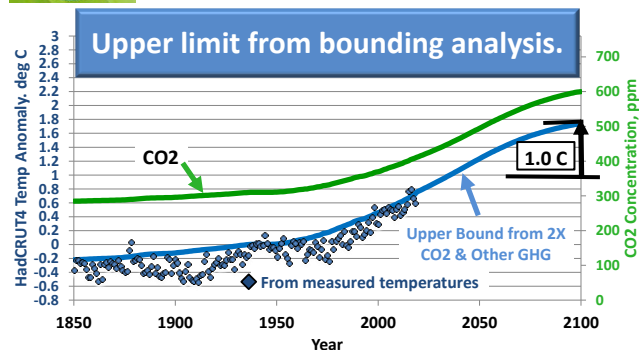
The greening of the earth. Nasa.gov/feature/goddard/2016

What might we learn about the future warming potential from a model constrained by reality? Our group, The Right Climate Stuff research team, are scientists and engineers mostly from the Apollo-era NASA program. We took on the challenge to construct such a model with the requirement that this impact assessment must be based on actual data that would validate the results; in other words, our product must reflect reality.

The result is a metric called Transient Climate Sensitivity (TCS) that projects an upper bound of 1.0 °C (1.8 °F) warming of the global mean surface temperature by 2100 from rising CO₂ and other greenhouse gases and aerosols. Such modest warming would be beneficial, not detrimental, to mankind and the biosphere. We thus suggest that only reality-based projections such as our TCS metric be used in policy development of CO₂ emission regulations.



Warming Projection from Greenhouse Gases



The blue line is the TCS due to a doubling of atmospheric CO₂ from the preindustrial level of 284.7 ppm in 1850. HadCRUT4 temperatures above the blue line reflect years having super El Niños.

The alternative is the continued misuse of falsified climate models for policy justification. This practice will lead to the degradation of the economic vitality of the world, a nation, or state. It is especially damaging to the poor who will bear most of the burden of higher energy costs.

Details and references that serve as the basis for this essay can be found in our position paper, Reality-Based Warming Potential of Anthropogenic Greenhouse Gas Emissions, at <https://www.therightclimatestuff.com/>