

Comment on:

The Climate Change Debate: Man Versus Nature

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As is usually the case, this writer oversimplifies the situation by making it seem as if there are only possible positions to be taken: (1) total alarmism on the one hand, or on the other hand (2) total denial of anthropogenic global warming ("AGW"). Even the alarmists don't agree within themselves as to the potential effects of future increases in greenhouse gases so there are many shades and degrees of alarmism. And certainly, there are many shades of skepticism ranging from (2a) outright denial that there is AGW, to (2b) acceptance that there is AGW but believing its effects will be small, to (2c) being unsure about the future effects of AGW, but not accepting the alarmist position based on evidence available to date. I am in category (2c).

The evangelists for climate alarmism continually use the phraseology that the skeptics are "attacking climate science", and all the evangelists want to do is "communicate **the science**" to the public. All of this presupposes that the alarmists have a lock on the "climate science", and the skeptics are not scientists and their analyses do not constitute "climate science". However, there does not seem to be a succinct summary of just what "climate science" is. Maybe the latest IPCC Report might qualify in this regard but it is very diffuse and fragmented and does not present a cohesive summary of "climate science". Most climate scientists are specialists in one narrow area of climate science; that is required to succeed in academia. Not very many of them have a synoptic view of the whole field from one end to the other. It would be of great help to everyone if the evangelists for climate alarmism would put out a summary of exactly what they think "climate science" is.

"Climate science" as it is used by warmists seems to imply

adherence to a set of beliefs:

- (1) Increasing greenhouse gas concentrations will warm the Earth's surface and atmosphere;
- (2) Human production of CO₂ is producing significant increases in CO₂ concentration;
- (3) The rate of rise of temperature in the 20th and 21st centuries is unprecedented compared to the rates of change of temperature in the previous two millennia and this can only be due to rising greenhouse gas concentrations;
- (4) The climate of the 19th century was ideal and may be taken as a standard to compare against any current climate;
- (5) Continued use of fossil fuels at projected rates in the 21st century will cause the CO₂ concentration to rise to a high level by 2100 (possibly 700 to 900 ppm);
- (6) The global average temperature global climate models, while still not perfect, are good enough to indicate that will rise more than 3°C from the late 19th century ideal;
- (7) The negative impact on humanity of such a rise will be enormous;
- (8) The only alternative to such a disaster is to immediately and sharply reduce CO₂ emissions (reducing emissions in 2050 by 80% compared to today's rate – equivalent to an 88% reduction from business as usual in 2050) and continue further reductions after 2050;
- (9) Even with such draconian CO₂ reductions, the CO₂ concentration is likely to reach at least 450 to 500 ppm by 2100 resulting in significant damage to humanity;
- (10) Such reductions in CO₂ emissions are technically feasible and economically affordable while providing adequate energy to a growing world population that is increasingly industrializing.

My personal views are (color-coded: blue: I agree with alarmists; maroon = I am not sure – not enough data; red = I disagree with alarmists). :

- (1) Yes, it is true that increasing greenhouse gas concentrations will tend to warm the Earth's surface and atmosphere – although the quantitative relationship remains heavily in doubt;
- (2) Yes, human production of CO₂ is producing significant

increases in CO2 concentration;

(3) The rates of change of temperature in the previous two millennia are uncertain because proxies have been misapplied by the hockey stick crowd. It remains unclear how much greenhouse gases contributed to the rise in the 20th and 21st centuries;

(4) The climate of the 19th century was far from ideal, being considerably colder than many people in mid-latitudes would prefer;

(5) Yes, continued use of fossil fuels at projected rates in the 21st century will cause the CO2 concentration to rise to a high level by 2100 (possibly 700 to 900 ppm);

(6) Global climate models still suffer from great uncertainty in regard to how clouds, humidity and aerosols change spatially and temporally in an era of increasing greenhouse gases. No one knows how warm it will get by the end of the 21st century. Nevertheless, it seems likely that a CO2 concentration in the range 500 to 900 ppm might produce a temperature rise of at least 2°C from the late 19th century that could lead to some problems for humankind;

(7) The potential negative impact on humanity has been exaggerated;

(8) Yes, the only alternative to rising greenhouse gas concentrations is to immediately and sharply reduce CO2 emissions – whether this averts a “pending disaster” is not well understood;

(9) Even with such draconian CO2 reductions, the CO2 concentration is likely to reach at least 450 to 500 ppm by 2100 probably resulting in some warming; The impact on humanity remains very unclear

(10) Such reductions in CO2 emissions are neither technically feasible nor economically affordable, and would result in an inadequate energy supply to a growing world population that is increasingly industrializing, leading to worldwide depression.