THE REAL CLIMATE CRISIS IS NOT GLOBAL WARMING, IT IS COOLING, AND IT MAY HAVE ALREADY STARTED
By Allan MacRae and Joseph D'Aleo, October 2019

Introduction – Catastrophic Anthropogenic Global Warming - A Failed Hypothesis

The Catastrophic Anthropogenic Global Warming (“CAGW”, aka “Global Warming”, “Climate Change”, “Climate Crisis”, “Climate Emergency”) scare is a failed hypothesis and the greatest scientific fraud in history. Global warming alarmism has been promoted by political extremists and believed in by their gullible acolytes for decades, even though there is no credible evidence that catastrophic global warming exists in reality, and ample evidence that the CAGW hypothesis has been falsified.

The failed CAGW hypothesis assumes that increasing atmospheric CO2 from fossil fuel combustion drives dangerous runaway global warming. The alleged evidence for this fraud is climate computer models that greatly over-predict current observed warming, typically by 300 to 500%. These climate models deliberately employ excessively high assumed values of climate sensitivity to CO2, and are designed to create false alarm.

Global warming has slowed since the mid-1990’s, so the climate alarmists alleged that increased atmospheric CO2 from combustion of fossil fuels will cause wilder, more chaotic weather. There is ample evidence that this allegation is also false. Weather has actually become less chaotic.

The Mann hockey stick (MBH98 etc.), the Climategate emails, historical temperature data revisions and the thuggish tactics of the climate extremists provide ample evidence of fraud.

Credible Evidence That CO2-Driven Global Warming/Climate Change Alarmism Is A False Crisis

Atmospheric CO2 concentrations have been much higher in geologic time, and runaway global warming has never occurred in the billions of years of Earth history. Global temperatures have been much warmer and also much colder over geologic time. Earth is now in a glacial period, when mile-thick ice sheets cover much of the planet for about 100,000 years, interrupted by interglacials that last about 10,000 years. Earth is now in a warm interglacial, but the last glaciation ended only about 10,000 years ago, so Earth is due for another glaciation.

Temperatures were much higher during the Medieval Warm Period circa 900-1300 AD, and then humanity experienced the Little Ice Age circa 1300-1850 which caused enormous suffering and the deaths of millions.

The USA has some of the best surface temperature data in the world. The hottest USA surface temperature records occurred in the 1930’s, before fossil fuel combustion accelerated circa 1940.

Number of State Record High & Low Temperatures by Decade

Source: Dr. John Christy, Senate and House Testimony
Fossil fuel combustion accelerated strongly at the start of World War II, and global temperatures COOLED significantly from 1940 to 1977. That one observation is sufficient to disprove the CAGW hypothesis – global temperatures do NOT rise catastrophically due to increasing atmospheric CO2.

Even if it is assumed that ALL the observed global warming is ascribed to increasing atmospheric CO2, the following two studies calculated that the MAXIMUM climate sensitivity to a hypothetical doubling of atmospheric CO2 is only about 1 degree C, which is too low to cause dangerous global warming. *Christy and McNider (2017) analysed UAH Lower Troposphere data since 1979.*
*Lewis and Curry (2018) analysed HadCRUT4v5 Surface Temperature data since 1850.*

That 1C/doubling is not an average, it is a MAXIMUM climate sensitivity, since some or most of the observed warming could be due to natural causes. Repeating, climate computer models used by the IPCC and other global warming alarmists employ climate sensitivity values 3-to-5-times higher than 1C/doubling, in order to create false fears of dangerous global warming.

*It is highly probable, based on the evidence, that solar activity, not atmospheric CO2, is the primary driver of Earth’s temperature.* In astrophysicist Willie Soon’s recent video, he shows the Sun-Climate relationship and provides his conclusions. There is strong correlation between the Daily High Temperatures and the Solar Total Irradiance (54:51 of the video):

... in the USA (55:02),

Canada (55:16).
Solar Total Irradiance is now close to 1360 W/m², similar to the lows of very cold periods circa 1700 and 1800. Atmospheric temperatures should be cooling in the near future – maybe they already are.

We do know that the Sun is at the end Solar Cycle 24 (SC24), the weakest since the Dalton Minimum (circa 1800+), and SC25 is also expected to be weak. We also know that both the Dalton Minimum and the Maunder Minimum (~1650 to ~1700) were very cold periods that caused great human suffering.

http://woodfortrees.org/plot/pmod/offset:-1360/scale:1 Note: Offset = -1360 means 0 = 1360.

http://lasp.colorado.edu/home/sorce/files/2011/09/TIM_TSI_Reconstruction-1.png
Global temperature is certainly NOT primarily driven by increasing atmospheric CO2, because CO2 changes LAG global temperature changes in time, both in the ice core proxy record and also in the modern data record. The Vostok ice core record shows a lag of CO2 after temperature of ~800 years.


a. The velocity of changes of atmospheric CO2 \([dCO2/dt]\) varies ~contemporaneously with changes in global temperature.
b. Therefore the integral of \(dCO2/dt\), changes in atmospheric CO2, lag changes in global atmospheric temperature by ~9 months.

The very close relationship of \(dCO2/dt\) (red) vs global temperature (blue) is clearly apparent. Major volcanoes (some VEI5 and most VEI6 events) disrupt the relationship.

Integrating the \(dCO2/dt\) data gives changes in CO2, which lag changes in temperature by ~9 months.

The above figures employ Mauna Loa (mlo) CO2 data. Similar results were observed using global CO2 data, as in MacRae 2008. The impact of major volcanoes is apparent.

The 12-month delta in CO2 is used to allow for the "seasonal sawtooth" in the Keeling Curve.
The ~9-month lag of atmospheric CO2 changes (red) after temperature changes (blue) is apparent.

In January 2013, a similar observation was made by Humlum, Stordahl and Solheim - that atmospheric CO2 changes lag global sea surface and air temperature changes by 9-12 months.

Reference: “The phase relation between atmospheric carbon dioxide and global temperature”

a. Changes in global atmospheric CO2 are lagging 11–12 months behind changes in global sea surface temperature.

b. Changes in global atmospheric CO2 are lagging 9.5–10 months behind changes in global air surface temperature.

c. Changes in global atmospheric CO2 are lagging about 9 months behind changes in global lower troposphere temperature.

“The phase relation between atmospheric carbon dioxide and global temperature”, January 2013
Our Predictive Track Record Is Excellent; The IPCC and Acolytes Have Been Consistently Wrong.

The ability to predict is probably the best objective measure of scientific competence. The IPCC and its global warming alarmists have consistently failed – every one of their scary global warming/climate change predictions has failed to happen.

In 2002 co-authors Dr Sallie Baliunas, Astrophysicist, Harvard-Smithsonian, Dr Tim Patterson, Paleoclimatologist, Carleton, Ottawa and Allan MacRae wrote:

“Climate science does not support the theory of catastrophic human-made global warming – the alleged warming crisis does not exist.”

“The ultimate agenda of pro-Kyoto advocates is to eliminate fossil fuels, but this would result in a catastrophic shortfall in global energy supply – the wasteful, inefficient energy solutions proposed by Kyoto advocates simply cannot replace fossil fuels.”

Both these above statements are demonstrably correct to date. Despite accelerating combustion of fossil fuels, especially since 1940, and increases in in atmospheric CO2 measured since 1958, the world has experienced only hugely beneficial increases in crop yields and mild, beneficial global warming.

Despite the decades-long campaign to eliminate them, fossil fuels have retained their 85% share of global primary energy, and the rest is mostly nuclear and hydro. Despite tens of trillions of dollars in squandered subsidies, green energy still comprises only 4% of global primary energy. Due to intermittency, grid-connected green energy schemes do not even significantly reduce CO2 emissions, since they require almost 100% spinning-reserve, typically fossil fueled, to fill-in when the wind does not blow or the sun does not shine.

CO2 Concentration is Far Too Low; Earth Is Colder-Than-Optimum for Humanity and the Environment

The radical greens could not be more wrong. Contrary to green propaganda, atmospheric CO2 is far too low, and Earth is colder-than-optimum for humanity and the environment.

Atmospheric CO2 concentration is not too high - it is far too low for optimal plant and crop growth, and far too low for the continued survival of terrestrial life on Earth. CO2 reduction and sequestration schemes are not just wrong; they are costly, destructive and imbecilic.

Cold weather kills about 20 times as many people as warm and hot weather. Excess Winter Deaths in the USA average about 100,000 per year – equivalent to two 9-11’s per week for 17 weeks EVERY YEAR.

Excess Winter Deaths are calculated as the difference between deaths in the four winter months (December to March in the Northern Hemisphere) less half the deaths in the eight non-winter months.

Excess Winter Deaths occur worldwide, even in warm countries like Thailand and Brazil. An approximate-low estimate of Excess Winter Deaths is 2 million souls per year worldwide.

More than 50,000 Excess Winter Deaths occurred in England and Wales during the winter of 2017-18 – an Excess Winter Death rate about THREE TIMES the per-capita average in the USA and Canada. Proportionally, that is about 35,000 more deaths in the UK than the average rates of the USA and Canada. Excessively high energy costs in the UK due to false global warming/anti-fracking hysteria are a major part of the cause of these Excess Winter Deaths – driven by global warming alarmists and their corrupted minions in governments and institutions.
Predictions of Imminent Global Cooling, Starting Anytime Soon

Allan MacRae also published on September 1, 2002, based on a conversation with Dr. Tim Patterson, the prediction that global cooling, which happened from ~1940 to 1977, would recommence by 2020-2030:

“Over the past one thousand years, global temperatures exhibited strong correlation with variations in the sun’s activity. This warming and cooling was certainly not caused by manmade variations in atmospheric CO2, because fossil fuel use was insignificant until the 20th century.

Temperatures in the 20th century also correlate poorly with atmospheric CO2 levels, which increased throughout the century. However, much of the observed warming in the 20th century occurred before 1940, there was cooling from 1940 to 1977 and more warming after 1977. Since 80 per cent of manmade CO2 was produced after 1940, why did much of the warming occur before that time? Also, why did the cooling occur between 1940 and 1977 while CO2 levels were increasing? Again, these warming and cooling trends correlate well with variations in solar activity.

Only since 1977 does warming correlate with increased CO2, but solar activity also increased during this period. This warming has only been measured at the earth’s surface, and satellites have measured little or no warming at altitudes of 1.5 to eight kilometres. This pattern is inconsistent with CO2 being the primary driver for warming. If solar activity is the main driver of surface temperature rather than CO2, we should begin the next cooling period by 2020 to 2030.”

For the past “five years, MacRae has written that global cooling would start closer to 2020. This global cooling will start sporadically, at different locations in the world. Similar predictions of global cooling are included in the Appendix.

It is notable that planting of crops has occurred one month later-than-usual in North-central growing areas of North America in both 2018 and 2019. In 2019, there were many more record U.S. all-time daily low temperatures than record highs for the last 30 days, 365 days and year-to-date. These events may just be weather, not climate, or they could be the early indicators of global cooling.

The U.S. Department of Agriculture publishes a weekly crop report:
Crop Progress NASS Weekly, Mondays
https://usda.library.cornell.edu/concern/publications/8336h188j
The October 21, 2019 report is here: https://downloads.usda.library.cornell.edu/usda-esmis/files/8336h188j/qr46rf238/fx71b191j/prog4319.pdf

Corn Harvested – Selected States
[These 18 States harvested 94% of the 2016 corn acreage]

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<th>State</th>
<th>Week ending</th>
<th>2014-2018 Average</th>
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<td>2019 (percent)</td>
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<td>18 States</td>
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The growing season in North America has been especially challenging.

### Crop Challenges 2019

- Greatly delayed or aborted planting
  - 19 million acres did not get planted.
  - Late cold, snow, rain and flooded fields.
- Shallow roots caused by excess rain
- Soil Compaction
- Mid to late summer dryness and heat to the South and East.
- North-central growing areas saw excessive rainfall AND not enough sun or Growing Degree Days
- Early snows in Northwest growing areas
- Half the corn and soybean crop was not mature enough to harvest until mid-October
- The soybeans and corn still in the field are delaying the planting of winter wheat
The cold weather that developed early in the year persisted through the summer into the fall in the North-central region, which helped move warmth into the Southeast. Heavy rains fell along the contrast zone between the extremes.

*Year-to-Date Temperature Anomalies*

With the cold, the Growing Degree Days were well below normal in North-central growing areas, and above in the Southeast.
See the heavy rains in the central Corn Belt early in the growing season, shifting Northwest late.
Corn and soybeans progress on average trailed well behind the normal.

The U.S. corn crop was 86% mature on October 20, 11 percent below the 5 year average. 30% was harvested, 17% below the 5 year average

Corn maturity as of October 20th 2019 was most behind in the Dakotas Southeast to the Great Lakes and Ohio Valley. Note the much better conditions in the South.
Newman’s analysis of 1980 showed the ideal growing areas of the Corn Belt would shift North with warming and South with cooling by approximately 144 kilometers per 1°C. The current corn growing area is shaded.


The 2019 soybean harvest also trailed the 5-year average by 18% though the leaf drop was just 3% behind average.
Even where the first freezing temperatures came on time, the delays meant losses of corn not reaching black layer maturity and soybeans that had not dropped their leaves.

Very early snows arrived with the early cold in the North-central region affecting corn, soybeans, spring wheat and small grains, there and in parts of the Canadian Prairies.
The yield estimate on October 10th marks the first season in 6 years below the trend line.

Production estimates are down slightly but are expected to decline further after the effects of the early cold and snows are considered.
The soybean yield also is below trend line for the first year in 6 years. Projected soybean production is down more than corn production.
More areas will see below freezing temperatures and even snow before November.

Summary and Conclusions

It is notable that crop planting has occurred one month later-than-usual in the North-central growing areas of North America in both 2018 and 2019. While warm summer weather saved the 2018 crop, in 2019 the northern corn and soybean harvests were devastated by a cold summer and early cold weather. In 2019, there were many more record U.S. all-time daily low temperatures than record highs. These events may just be weather, not climate, or they could be the early indicators of global cooling.
Appendix - Other Predictions of Global Cooling, In Chronological Order Since 2003:

In 2003, Dr. Theodor Landscheidt wrote a paper predicting serious global cooling:
“Analysis of the sun’s varying activity in the last two millennia indicates that contrary to the IPCC’s speculation about man-made global warming as high as 5.8° C within the next hundred years, a long period of cool climate with its coldest phase around 2030 is to be expected.”

In 2005, Piers Corbyn predicted cooling by 2040.
On the 2nd February 2005, he gave this presentation to the Institute of Physics Energy Management Group. It contained the following statement:
“In the next 5 or 10 years warming is likely to be maintained as a transpolar shift occurs. This will be followed by the magnetic pole moving away from the geographic pole, a decrease in solar activity, a Southward shift in the Gulf Stream and considerable world cooling by 2040 AD.”

In 2006, NASA predicted that
“Solar Cycle 25, peaking around the year 2022, could be one of the weakest in centuries”.

Khabibullo Abdusamatov and colleagues at the Russian Academy of Science stated in 2006:
“Global cooling could develop on Earth in 50 years and have serious consequences before it is replaced by a period of warming in the early 22nd century...
On the basis of our [solar emission] research, we developed a scenario of a global cooling of the Earth's climate by the middle of this century and the beginning of a regular 200-year-long cycle of the climate's global warming at the start of the 22nd century.”
Khabibullo Abdusamatov said he and his colleagues concluded that a period of global cooling similar to one seen in the late 17th century - when canals froze in the Netherlands and people had to leave their dwellings in Greenland - could start in 2012-2015 and reach its peak in 2055-2060.
He said he believed the future climate change would have very serious consequences and that authorities should start preparing for them today because "climate cooling is connected with changing temperatures, especially for Northern countries.

Nigel Weiss, University of Cambridge, stated in 2006:
“If you look back into the sun’s past, you find that we live in a period of abnormally high solar activity. Periods of high solar activity do not last long, perhaps 50 to 100 years, then you get a crash. It’s a boom-bust system, and I would expect a crash soon.”

Leif Svalgaard, Stanford University, stated in 2006:
“Sunspot numbers are well on the way down in the next decade. Sunspot numbers will be extremely small, and when the sun crashes, it crashes hard. The upcoming sunspot crash could cause the Earth to cool.”

In 2007, Lin Zhen-Shan and Sun Xian wrote in “Multi-scale analysis of global temperature changes and trend of a drop in temperature in the next 20 years”:
“... Signs also show a drop in temperature in China on century scale in the next 20 years. (4) The dominant contribution of CO2 concentration to global temperature variation is the trend. However, its influence weight on global temperature variation accounts for no more than 40.19%, smaller than those of the natural climate changes on the rest four timescales. Despite the increasing trend in atmospheric CO2 concentration, the patterns of 20-year and 60-year oscillation of global temperature are all in falling. Therefore, if CO2 concentration remains constant at present, the CO2 greenhouse effect will be deficient in counterchecking the natural cooling of global climate in the following 20 years. Even though the CO2 greenhouse effect on global climate change is unsuspicious, it could have been excessively exaggerated. It is high time to re-consider the trend of global climate changes.”