

# **Al Gore's 'Climate Reality' and Unscientific Fear-mongering Tale**

**By Ken Gregory**

**March 22, 2013**

Two students of an Al Gore's Climate Reality training session gave a presentation to a Calgary, Canada audience in March, 2013. The talk was titled, "Climate Reality and the New Green Economy". A lively question and answer session followed the presentation. It was apparent from the discussion that the presenters were unaware of evidence that the anthropogenic global warming theory (AGW) is incorrect. The PowerPoint presentation showed emotional images designed to scare the audience into thinking that fossil fuel usage endangers the world as promoted by the Intergovernmental Panel on Climate Change (IPCC) and Al Gore. It contained no evidence that greenhouse gas emissions cause significant climate change or severe weather events.

Similar presentations are given throughout the world. I hope that my comments on the presentation may assist others to rebut these types of presentations. Here I comment on points made in the presentation, discuss issues and evidence that were left out of the presentation, and show that the IPCC and Al Gore are not credible sources of climate information. I show evidence that AGW is not a problem. However, misguided actions to reduce carbon dioxide (CO<sub>2</sub>) emissions are resulting in great misery, deaths and economic loss.

## **The Presentation**

The presentation starts with showing many images of harm caused by hurricanes, storms, floods, droughts and fires. These images were intended to lead the audience to jump to the conclusion that these events are becoming more severe with time. We also were expected to jump to a conclusion that human-caused greenhouse gas emissions, primarily CO<sub>2</sub>, are the cause of an increase in these events. Both of these suppositions are false. It is strange that the presentation would show images of severe weather events without first providing evidence to show whether or not CO<sub>2</sub> causes significant warming, or whether severe events are related to temperature.

The presentation provided no evidence from a reliable scientific data base showing these events becoming more severe. The hurricane energy is a combination of the storm strength and longevity. It is summed over 2-years to give an Accumulated Cyclone Energy (ACE) index as shown in Figure 1.

Global hurricane activity declined to mid-2012 to levels not seen since 1978. There is no correlation to CO<sub>2</sub>. During the past 40 years, Global and Northern Hemisphere ACE undergoes significant variability but exhibits no significant statistical trend. The global 2013-02 ACE was 62% of the 1998-01 ACE.

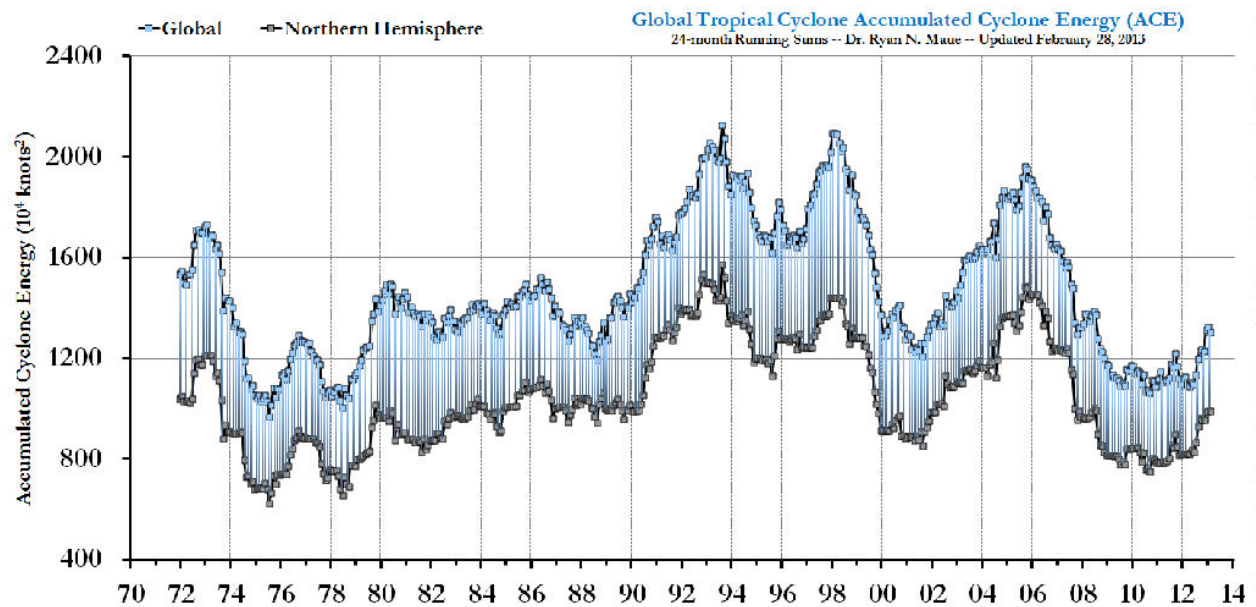


Figure 1. From [here](#).

The presenters were unaware that hurricane activity is near a 30-year low. Figure 2 is a graph of USA east coast storm wind-speed.

#### *Wind Speed of U.S. East Coast Winter Storms Shows No Trend Over Last 55 Years*

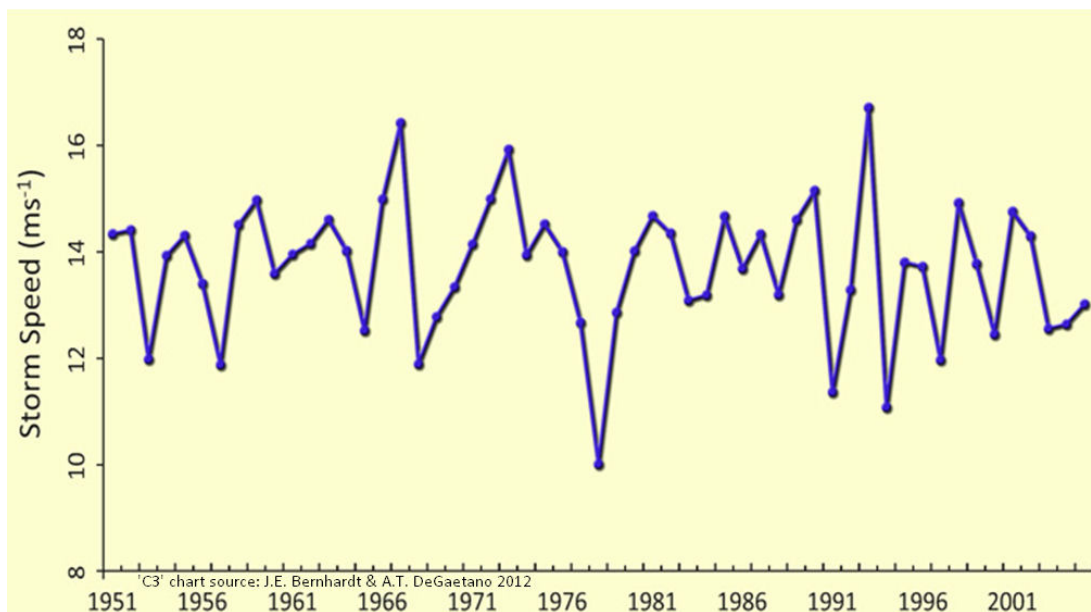


Figure 2. From [here](#).

Over the last 55 years, there was no trend of east coast storm wind speed, contrary to climate alarmists' predictions.

The theory of CO<sub>2</sub>-induced warming would increase temperatures in Polar Regions more than temperate or tropical regions, so reducing the temperature differences that power storms. The storm Sandy was made large by a very cold front colliding with a tropical storm. See [here](#).

The presentation had several pictures of drought areas and implied that droughts were getting worst, but provided no evidence. Figure 3 is a graph of the Palmer drought index for North America.

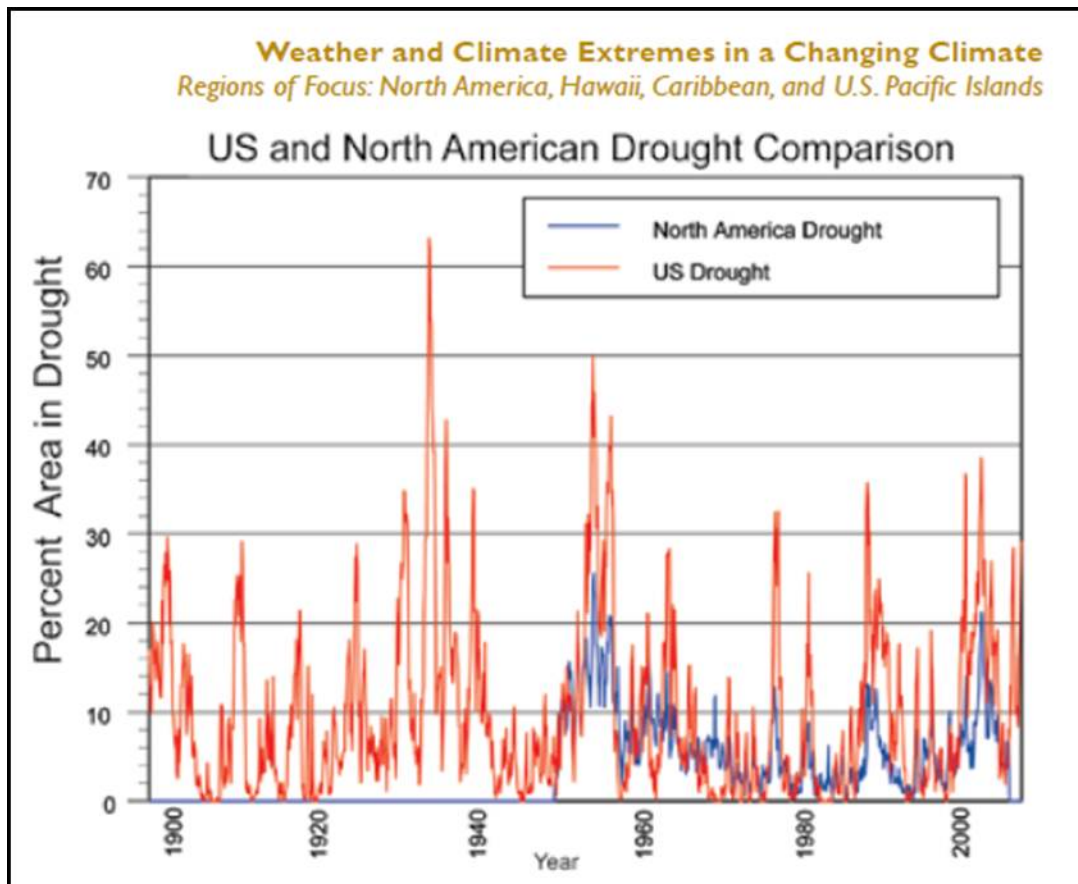


Figure 3. From [here](#).

There has been no increase in drought in North America. Most people should remember from history that the worst droughts of the last century were during the 1930's (the prairie dust bowl) and the 1950's. Further back in time there were mega-droughts that were far more severe than the 1930s.

Over the last century, global temperatures may have increased by about 0.6 C. This would have insignificant effect on forest fires. A slight warming would cause slightly more evaporation and precipitation, but there is no reason this would cause more drought or fires. There have been numerous studies of floods throughout Europe that show modern flooding is not increasing in terms of frequency and size. See [here](#).

Weather related damages as a fraction of constant dollar wealth (GDP) has declined as shown below.

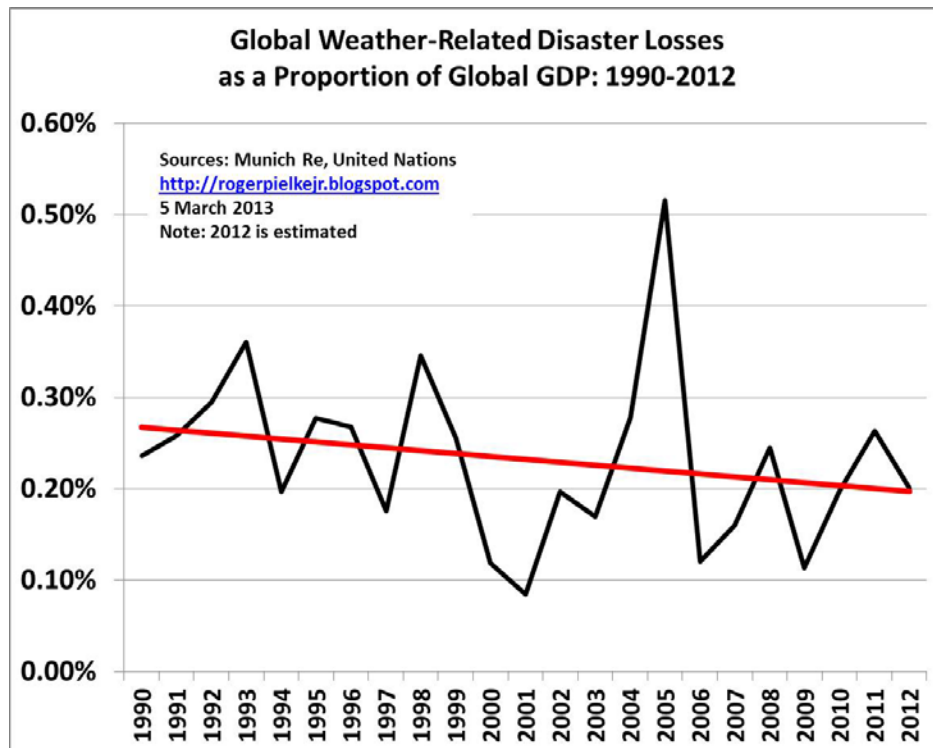


Figure 4. From [here](#).

The global sea ice area is currently 500,000 sq. km greater than the 1979 to 2008 average. Figure 5 is a blowup of the sea ice anomaly from a graph “Global Sea Ice Area”. The right vertical axis is in millions sq. km.

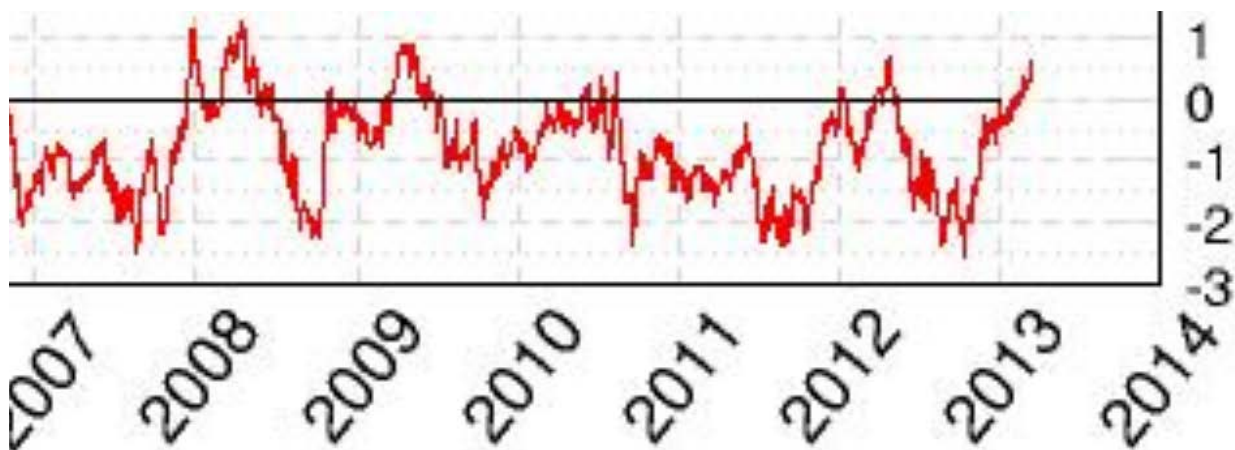
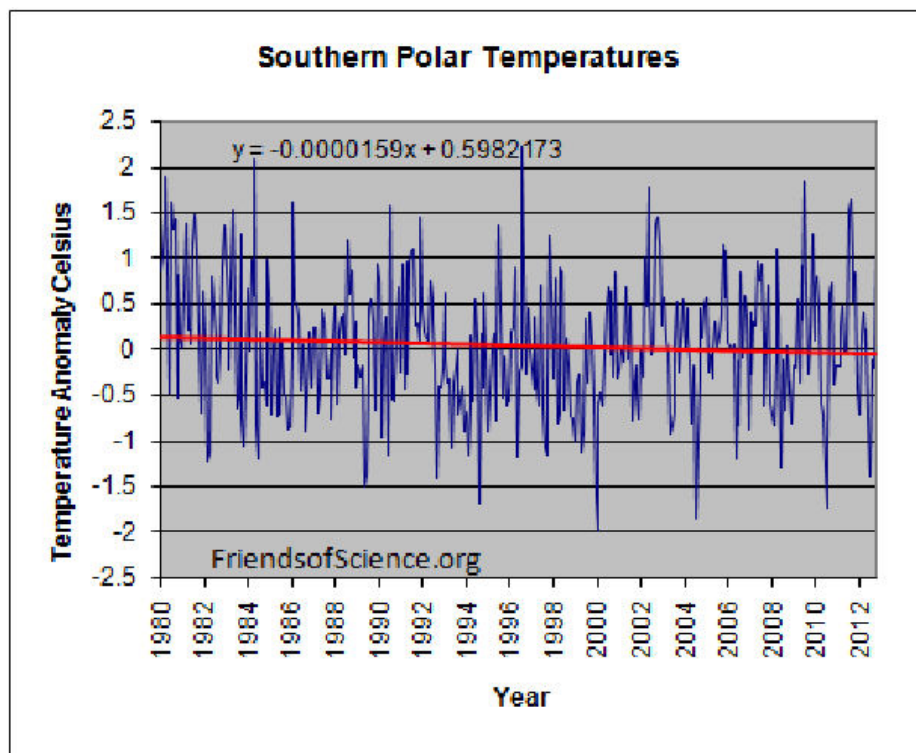


Figure 5.

A graph of the August Arctic ice extent was presented by the Climate Reality duo showing a decline. Arctic sea ice has declined, but there was little change in the winter and early spring months. Showing only August values is misleading. Polar bears don't care about August ice extent - only spring time ice extent matters to them. Polar bear populations have more than double from that of the 1960s. A reduction of August sea ice is only beneficial, as it extends the Arctic drilling and shipping season. Our Friends of Science website at Library, [Climate Science](#) Polar Region Sea Ice, [here](#), shows several real-time graphs of sea ice area and extent.

Note that the AGW theory alleges that as CO2 increases, the greenhouse gas percentage increase at the poles is much greater than elsewhere because there is very little water vapor at the polar regions, but a lot of water vapor in the tropics. If this AGW-CO2 theory is correct, then there should be enhanced warming at the polar surface. In fact, the Antarctic region has not warmed since 1980. Figure 6 shows satellite measured temperatures from 60 degrees to 85 degrees south latitude. It shows a slight cooling, contradicting AGW theory.



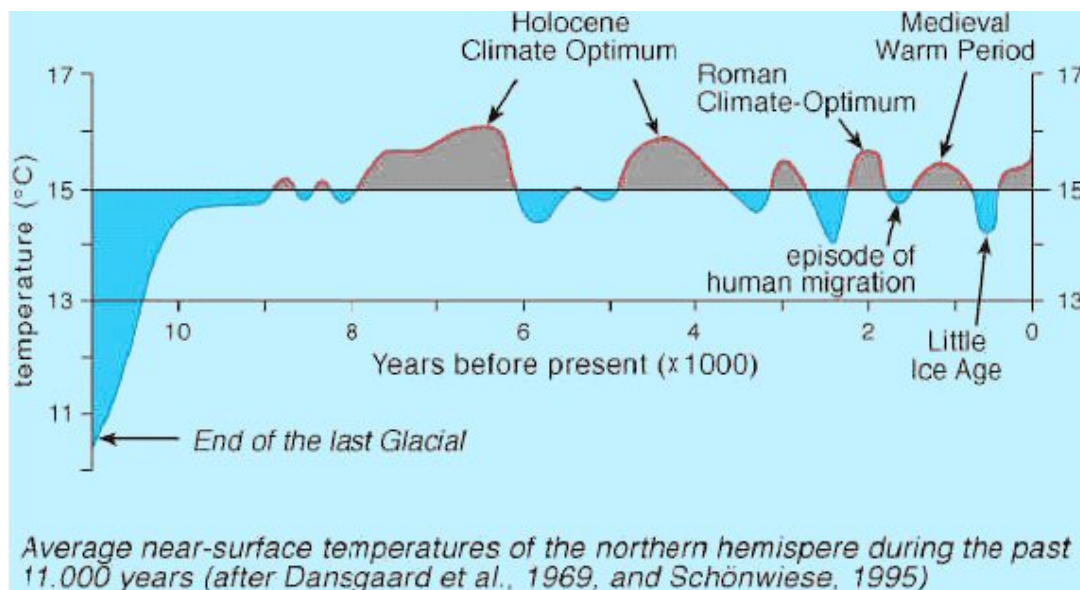
[Figure 6.](#)

The presenters said the sea level rise caused by CO2 emissions would result in huge losses by flooding tropical islands and they showed an image of the Maldives' Islands. We have had continual sea level rise over the last 10,000 years with no recent acceleration and no harmful effects. Low tropical islands grow with sea level rise because they are composed of material from living corals. As sea level rises, more sand and coral rubble is added to the atoll from the reefs. See [here](#). They can grow as fast as sea level rise, so the area of tropical islands has not declined only the last 100 years. A paper [here](#) studied the area of 27 atoll islands over 61 years



and shows "that 86% of islands remained stable (43%) or increased in area (43%) over the timeframe of analysis. Largest decadal rates of increase in island area range between 0.1 to 5.6 hectares. Only 14% of study islands exhibited a net reduction in island area." Sea level rise has insignificant economic consequences. See [here](#).

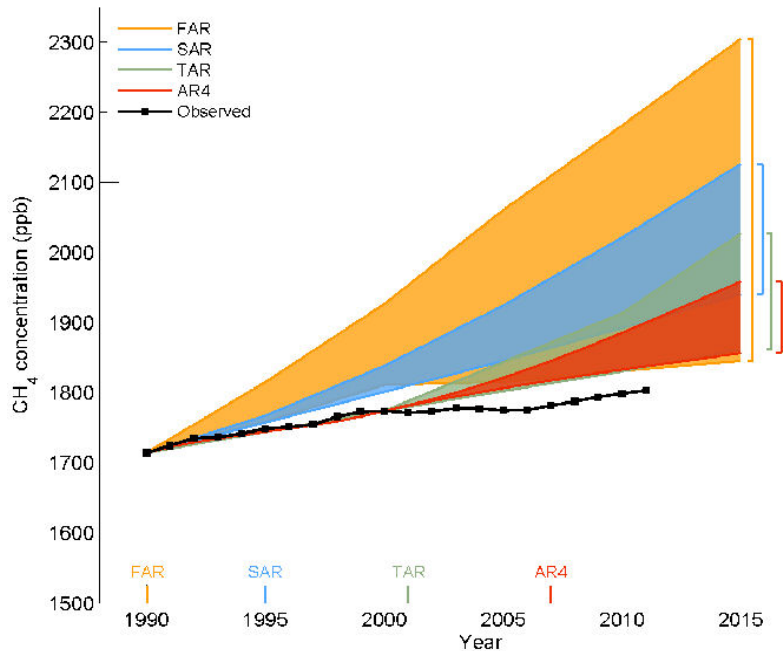
The Climate Reality presentation did not include a global temperature graph from instrument data. The only graph shown that was alleged to represent temperature was hockey stick graph by Michael Mann that was so prominently displayed in the IPCC third report. Over a thousand studies show that the Medieval Warm period and the Little Ice Age were significant global events, but the hockey stick graph tried to eliminate them from history. Climate models can't simulate these events because they do not include any natural causes of climate change. A senior IPCC official said, "we must get rid of the Medieval Warm Period" because its existence contradicts the models. The hockey stick graph was built from faulty statistical analysis of tree ring data. Two Canadian scientists, Steve McIntyre and Ross McKittrick showed the hockey stick graph was false, see [here](#). Figure 7 is a graph of global temperatures over the last 11,000 years.



[Figure 7](#).

The Climate Reality presenters indicated that the methane concentration in the atmosphere is forecast to increase with warming and would be a major contributor to dangerous warming. The forecasts are from IPCC models. Figure 8 is from the IPCC fifth draft report. It compares the measured methane concentrations to the IPCC previous forecasts.

Each of the four IPCC reports gives a huge range of forecasts, but the actual measurements are far below the bottom of the range of all the forecasts. The forecasts were incredibly bad.



[Figure 8.](#)

The methane global warming potential at the 100 year time-frame is 25 times that of CO<sub>2</sub> as shown [here](#). But the methane concentration has increased only 90 ppb (parts per billion) in 21 years, or 2.5%/decade. The effects on climate are very tiny because all of the spectrum that methane effects is already mostly saturated by water vapor as shown [here](#).

The Climate Reality presenters pointed to a survey that allegedly shows 97% of climate scientists agree that CO<sub>2</sub> emissions are the main cause of global warming. This was disputed during the discussion period by one of the audience who stated that the figure was based on just 79 responses from a survey sent to over 10,000 scientists. Of the 3149 scientists who responded to the survey, the authors of the paper reporting the survey results selected just 79 scientists who the authors described as specialists in climate science. We are told of just two questions.

Question 1 was: "When compared with pre-1800s levels, do you think that mean global temperatures have generally risen, fallen, or remained relatively constant?" 76 out of 79 = 96.2% answered "risen".

Pre-1800's were in the Little Ice Age. All climate skeptics would answer "risen". There is no suggestion that the temperature rise was due to greenhouse gas emissions.

Question 2 was: "Do you think human activity is a significant contributing factor in changing mean global temperatures?" 75 out of 77 = 97.4% answered "yes". See [here](#).

There is no suggestion in these two survey questions that the "human activity" is restricted to greenhouse gas emissions. Further, both questions are asking for a subjective opinion, not scientific evidence. Most of the earth's temperature rise from 1975 was north of 55 degrees latitude, where black carbon soot deposits on snow and ice caused 45% of the Arctic warming according to a NASA study [here](#). The land station measurements are contaminated by the urban

heat island effect (UHIE). Several studies show that the UHIE contributes 50% of the warming in the land temperature indexes. See McKittrick and Michaels [here](#). The UHIE is very well documented. Anyone can measure it with a thermometer and driving into and out of a city at night time under clear skies. [Here](#) are some examples. The temperature indexes used by the IPCC do not correct for this effect. The HadCrut temperature index (by the Hadley Centre and the Climate Research Unit in England) makes no correction. NASA's GISS temperature index has a correction, but in fact they apply an urban warming correction in the wrong direction in 45% of the adjustments which increases the urban warming effect, as shown [here](#). Black carbon induced warming and the UHIE are very significant, so the correct answer to question 2 may be "yes".

The answers to neither question suggest that AGW is a significant problem or that CO2 emissions are the main cause of 20th century global warming. CO2 emissions have very little effect on temperatures.

The Climate Reality presentation suggests that continued development of wind mills and solar energy will reduce fossil fuel consumption and reduce CO2 emissions. This is incorrect. Windmills do not reduce fossil fuel usage compared to using high efficiency gas-fired generators because of the great variability of wind speed. Wind power requires 100% backup from gas-fired generators that are less efficient than gas-fired generators that run continually, [here](#). In Britain, 4000 wind turbines provided only 0.3% of the electrical power during some cold winter days. Electricity bills in the UK have doubled in the last 8 years due to the wind fantasy, see [here](#). In Germany, wind turbines operated at only 16% of their rated capacity over the last 10 years, see [here](#).

Solar power is not reliable either and requires large land areas. They are practical in only limited locations. After spending billions of Euros on subsidies, Germany's total combined solar facilities have contributed a miserly, imperceptible 0.084% of Germany's electricity over the last 22 years.

The Climate Reality presentation claimed that CO2 induced warming caused drought-induced spikes in food prices. Generally, warmer regions with similar levels of economic developments have higher crop yields. Global warming would cause longer growing seasons and increasing arable land area. Policies to subsidize biofuels have caused a quarter of the US corn crops to be diverted from food to making biofuels resulting in higher food prices. Biofuel policies caused 192,000 excess deaths from malnutrition and poverty in the developing world in 2010. See [here](#).

## **What Was Left Out of the Presentation**

The Climate Reality presentation was supposed to be about global warming, but there was no graph presenting global temperatures. The presenters were surprised when told that there has been no global warming for 15 years (some sources cite 17 years). CO2 emissions during the last 15-years were 31% of all emissions since 1750, which indicates the climate is insensitive to CO2 additions. A linear best fit line of the HadCRUT3 data (the main global data set used by the IPCC) shows no warming trend for over 16 years as shown in Figure 9.



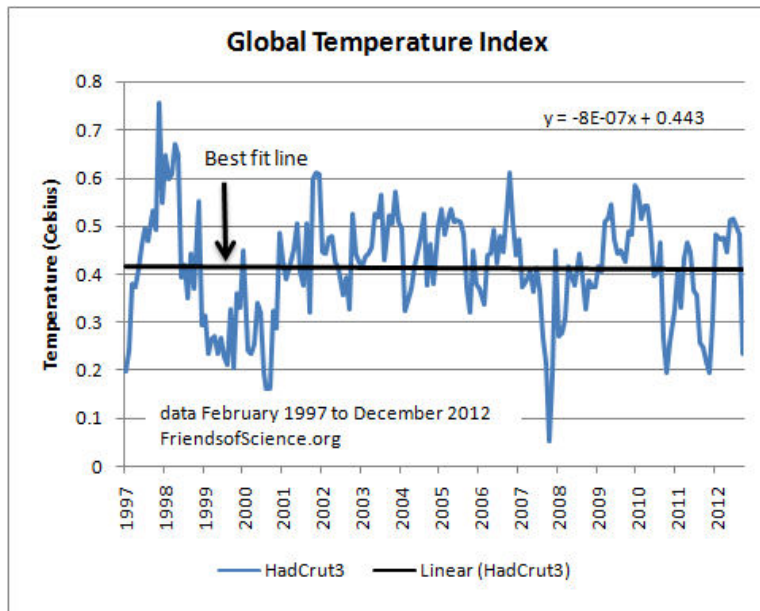


Figure 9. Data [source](#).

The HadCRUT surface temperature index is published by the Met Office Hadley Centre and the Climate Research Unit. [Here](#) are the surface temperatures with a best fit line and climate model projection from January 2002. [Here](#) is a graph of the satellite global temperatures. Both graphs show the best fit linear trend from January 2002 are negative. The earth is cooling.

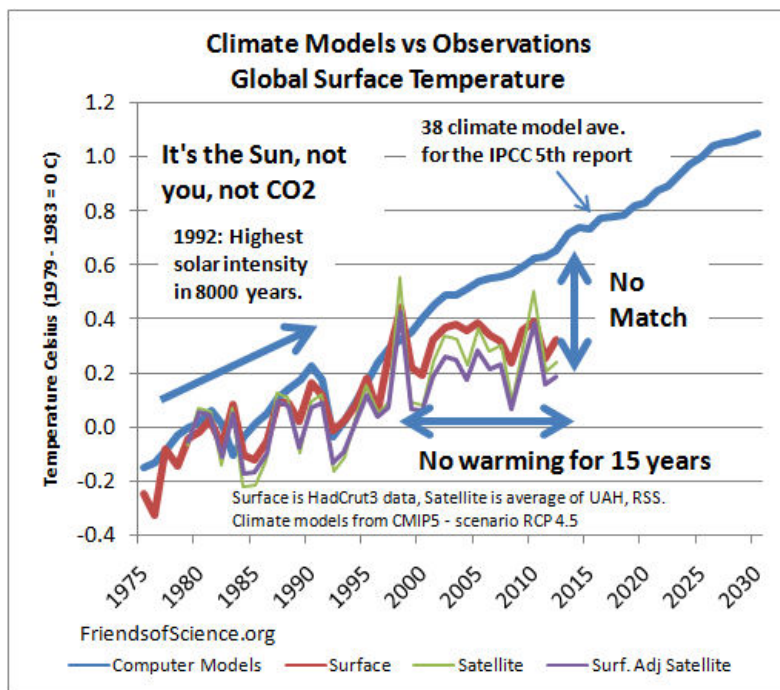


Figure 10.

The IPCC is preparing another report based on climate models that don't work. Figure 10 is a graph of the new climate model projections that are being used for the upcoming IPCC report and the temperature observations. Note that there is a huge discrepancy at the current date.

Temperatures have risen from 1975 to 2002 because the sun reached a maximum magnetic flux activity in 1990, causing a maximum temperature response in about 2002.

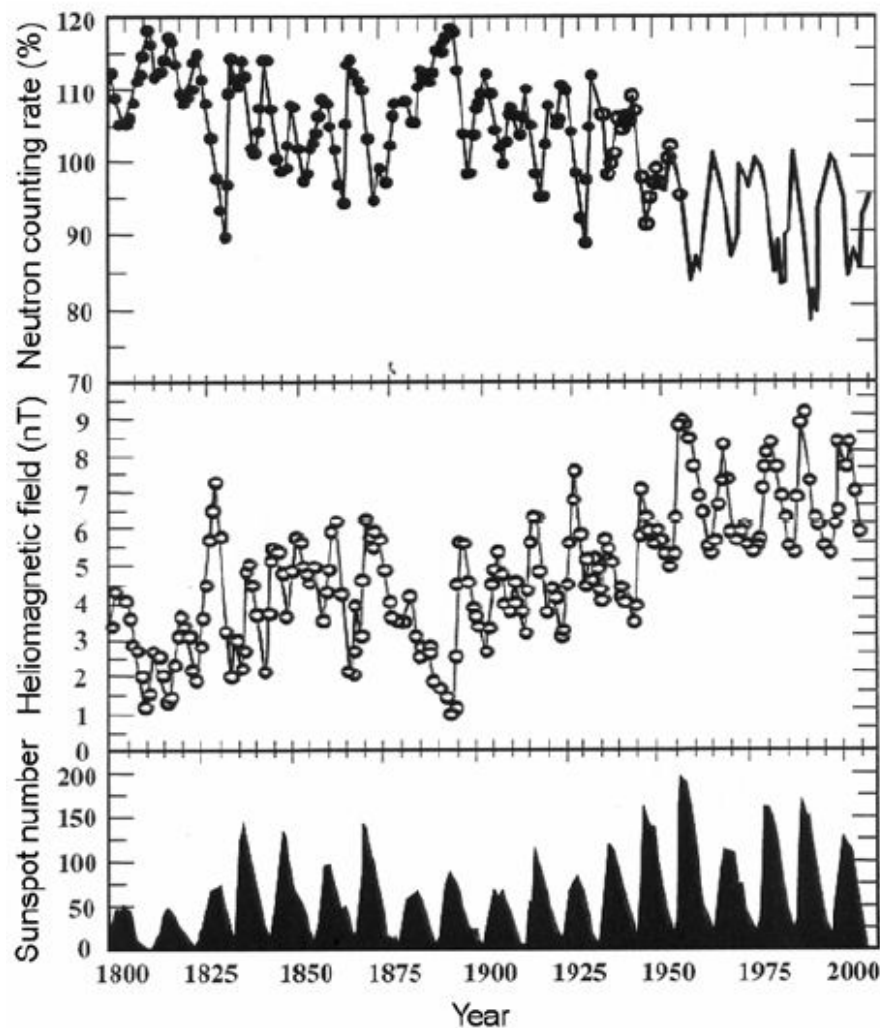


Figure 11. From [here](#).

The top panel of figure 11 shows the cosmic ray intensity. The middle panel shows the near-Earth helio-magnetic field and the lower panel shows the sunspot number.

In 1990, the sun was more active than at any time in the past 8000 years, [here](#). The sun's magnetic flux affects the cosmic ray flux to earth, which changes cloud cover. It also has an effect on upper atmosphere electric currents, and ozone levels which affects climate. The heat

flux going into and out of the oceans over the solar cycles is about seven times that expected from the total solar irradiance (TSI) forcing alone, therefore there must be a seven fold amplification of the TSI, see [here](#). The IPCC only considers the tiny effect of TSI changes, even though they state in the draft report that "The forcing from changes in total solar irradiance alone does not seem to account for these observations, implying the existence of an amplifying mechanism". Correlations of solar activity to temperatures show the most of the global temperature change in the 20th century was due to the sun, [here](#). Much of the difference may be due to ocean cycles and the urban warming effect, leaving little room for a CO2 effect.

The sun is entering into an inactive state, like what occurred during the Little Ice Age, and the majority of solar scientists believe that global temperatures will continue to decline.

Cold periods, such as the Little Ice Age and the Dark Ages were terrible times to be alive. They were times of famine, plagues and disease, and severe storms.

NASA satellite data show that water vapor, the most important greenhouse gas, has declined in the upper atmosphere causing a cooling effect that is 16 times greater than the warming effect from man-made greenhouse gas emission during the period 1990 to 2001. Radiosonde data also shows declining upper atmosphere humidity. Both satellite data and radiosonde data confirm no tropical upper atmosphere temperature amplification, contrary to IPCC theory. See [here](#). The climate model temperature trends of the mid-troposphere, using 23 climate models, are four times larger than observations from satellites and weather balloons, as shown in Figure 12.

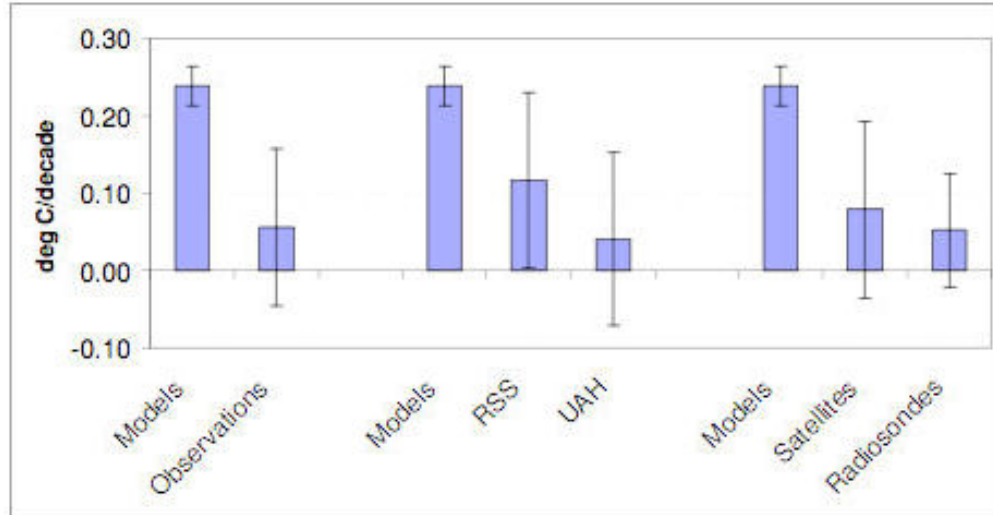


Figure 3: Modeled and estimated trends (1979-2009, C decade<sup>-1</sup>) in the tropics, mid-troposphere (MT) layer

[Figure 12](#). From [here](#).

This modeled amplification of warming trends above the tropics is responsible for about 2/3 of the surface warming projections. Four independent data sets prove the IPCC theory wrong. CO2 does not cause significant global warming. CO2 displaced water vapor, the most important greenhouse gas, in the upper atmosphere, so CO2 has little effect on temperatures. Water vapour

has declined 13% at 8 km altitude (pressure of 400 mbar) according to NOAA radiosonde data since 1960 in the tropics allowing heat to escape to space as shown in Figure 13. Climate models assume that relative humidity in the upper atmosphere remains constant with global warming, implying increasing specific humidity. The figure shows the large discrepancy between the radiosonde measurements that the model assumption.

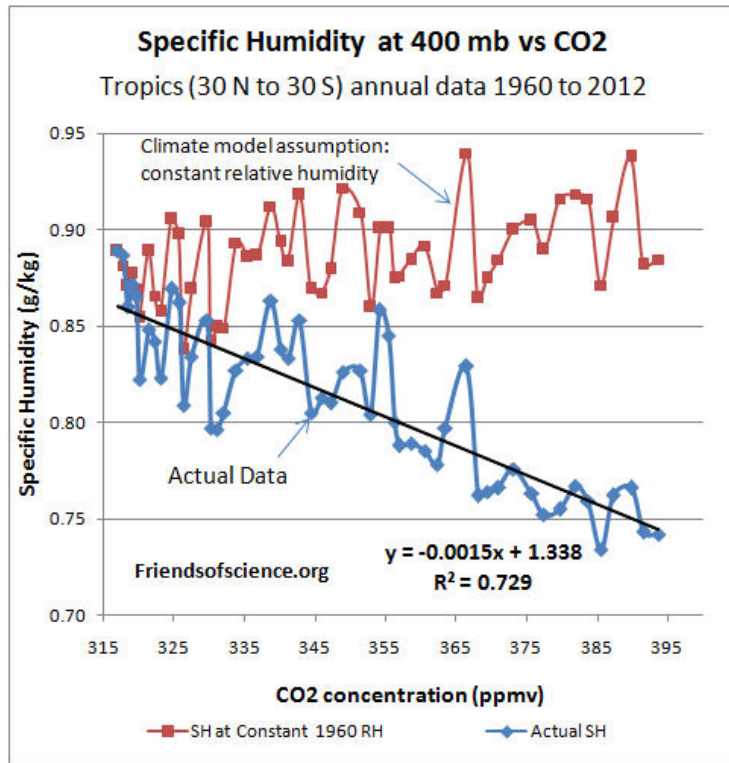


Figure 13. From [here](#).

An analogy: CO2 emissions are like pouring sand into a lake. Should you be concerned that adding sand (say, by a conveyor belt from a mining operation) to a lake will cause the lake level to rise and flood your shore-side cottage? Of course not! It just displaces the water so it flows down the outlet river. The lake level is determined by the spill-point of the outlet river, so the lake level doesn't rise. Similarly, adding CO2 displaces an almost equivalent amount of upper-atmosphere water vapor, so there is almost no increase in the total amount of greenhouse gases in the atmosphere, and very little CO2-induced warming.

Clouds provide strong negative feedbacks to temperature change, contrary to the climate models. See the article "Clouds Have Made Fools of Climate Modelers" [here](#). Tropical thunderstorms actively regulate the temperature of the tropics. This keeps the tropics at an equilibrium temperature regardless of changes in the forcings. See [here](#). The climate model sea surface warming trend at the equator from 1981 is 6 times higher than measured by satellites, as shown in Figure 14, in part due to the modelers' failure to model thunderstorms correctly.

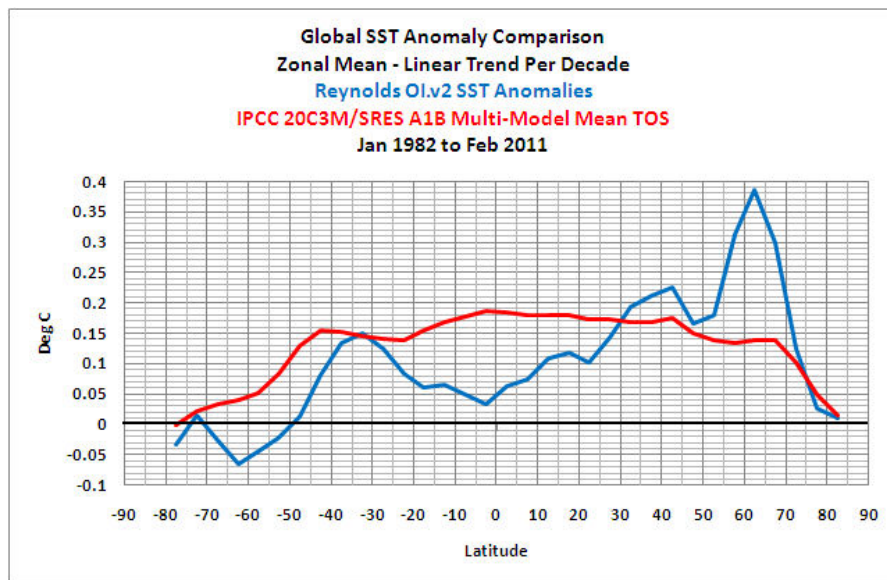


Figure 14. From [here](#).

A major failing of the IPCC reports is their lack of discussion of the significant fertilization effect of elevated CO<sub>2</sub> concentrations on plant growth. CO<sub>2</sub> is a major plant fertilizer. There are over 1,300 peer reviewed scientific articles that show the increase in CO<sub>2</sub> emissions has caused increased crop yields and faster growing plants and forests, thereby greening the planet. Estimates vary, but the increase in global food crop yields due to aerial fertilization with increased carbon dioxide since 1950 is about 15%. This increase has preserved or returned enormous tracts of marginal land as wildlife habitat that would otherwise have had to be put under the plow in an attempt to feed the growing global population. A 300 ppm increase in the atmosphere's CO<sub>2</sub> concentration would cause the productivity of earth's herbaceous plants to rise by about of 30%.

Warming would be wonderful for humanity. There are almost no harmful effects of one or two degrees of warming. Warming would reduce severe storms, improve health, increase crop yields, increase the area that can be farmed, reduce construction costs, reduce transportation costs, and reduce heating costs. Warming is mainly in the exo-tropics and at night.

The world spent \$240 billion reducing CO<sub>2</sub> emissions in 2010 and more than \$1 trillion over ten years to 2010 for no benefit while 1.3 billion people live in poverty without electricity. The USA Government alone has spent \$79 billion on climate change research, foreign aid and tax breaks from 1989 to 2009, see [here](#).

The cost of the California Cap and Trade scam is \$450 billion over 10 years. The cost of abating the 1 C° warming by measures as cost-ineffective as California's policies would be \$3,500 trillion, assuming 1 C climate sensitivity. See [here](#). Britain plans to spend £250 billion on windmills and back-up generators by 2020 to reduce CO<sub>2</sub> emissions, but they cause more CO<sub>2</sub> emissions than electricity generation by gas-fired turbines only. See [here](#).

Our submission to Environment Canada [here](#) shows our best estimate of the CO<sub>2</sub> effect is that a



doubling (about 150 years from 1960) of CO<sub>2</sub> causes a 0.5 C temperature rise, which is one-sixth of the IPCC estimate. See our Climate Science Essay [here](#) for a comprehensive discussion on climate change.

## **IPCC and Al Gore Credibility**

The “Climate Reality” presentation was based on information from IPCC reports and Al Gore political propaganda. The IPCC is one of the worst sources of information on climate change because it is restricted to only consider human caused climate change according to its mandate. It does not consider natural causes of climate change. Most of its lead officers have financial interests in promoting the AGW scare. The IPCC has no conflict-of-interest guidelines. Al Gore’s home consumed 221,000 kWh of electricity in 2006, more than 20 times the US national average. Gore received a \$100 million cut of the sale of Current TV to AL Jazeera earlier this year and made the rest of his money off of global warming hysteria. His net worth is \$300 million, see [here](#).

The Non-governmental International Panel on Climate Change [here](#), and the Friends of Science website [here](#) are excellent sources of climate science information.

A large archive of emails and files from the Climate Research Unit in the UK was released on the internet in November 2009. Climategate emails confirmed what skeptical scientists strongly suspected. The emails show a group of scientists manipulated, hid or misrepresented data and evidence in official reports. The CRU scientists participated in an illegal scheme to delete emails that were subject to the Freedom of Information Act. They also actively prevented publication of scientific papers that were critical of the AGW theory. They blocked access to data and methodologies to prevent other scientists from evaluating their work. Five inquiries were commissioned to investigate. The inquiries failed to interview critics, cross-examine evidence, and investigate the key issues. [This article](#) summarizes the key issues and the inquiries. For example, CRU director Dr. Phil Jones deleted the most important tree ring data in a key graph because it showed declining values. The data was deleted to hide the decline. The deleted segment would prove that tree ring data does not represent temperatures.

Journalist Ms. Donna Laframboise conducted a review of the IPCC and its reports and found that the IPCC is a thoroughly political organization. Far from objectively weighing the best available science, it cherry-picks egregiously to support its main objective: to serve its government masters. Its lead authors are not the world’s leading scientists but frequently wet-behind-the-ears graduates, and/or ardent activists. A full 30 percent of references cited by the IPCC (5,587) were not published in peer-reviewed academic journals. She found that 2/3 of the AR4 chapters were authored by at least one World Wild Life Fund activist.

The IPCC AR4 gives a distorted, misleading, biased and often erroneous picture of climate science. The article [here](#) lists 54 errors in the first two parts of the report.

In 2005, the United Nations Environment Program predicted that climate change would create 50 million climate refugees by 2010. The actual number was zero! See [here](#).



Al Gore's movie "An Inconvenient Truth" (AIT) is grossly misleading about climate change. Nearly every major statement made in the movie is one-sided, exaggerated, or plainly false. This movie has had a large effect on public opinion even though most scientists agree it is misleading. The British High Court found that the film was false or misleading in 11 respects.

In order for the film to be shown, the High Court ruled in October, 2007 that teachers must make it clear to their students that:

- 1.) The film is a political work and promotes only one side of the argument.
- 2.) Nine inaccuracies have to be specifically drawn to the attention of school children.

A list of errors is [here](#) (See An Inconvenient Truth).

The [Friends of Science](#) home page declares, "The Sun is the main driver of climate change. Carbon Dioxide has nominal impact on temperature. Carbon dioxide is a wonderful by-product of fossil fuel use."

Ken Gregory  
[Friends of Science](#)

*Ten years of providing independent  
climate science information*