

SCIENTIFIC DECEPTIONS: Fake climate crisis is “JUST ALARMIST HOT AIR,” Dr. Ross McKittrick. WMO head, “whole agenda has been hijacked by extremists undermining economy” IPCC’s Report - “. long-term prediction of future climate *states is not possible.*”

“I think they’re beginning to realize that the whole agenda has been hijacked by extremists and undermining the economy and the social stability of European countries,” Peiser told The Epoch Times.

Ross McKittrick: Reality check — so called ‘climate emergency’ just alarmist hot air

OPINION: Clearly, there’s no climate emergency in Metro Vancouver. Amid the ordinary variability of nature, today’s weather is about the same as it’s been for as far back as the records go.

ROSS MCKITRICK

Updated: July 23, 2019

Recently, city councils in North Vancouver and West Vancouver declared a “climate emergency.” In doing so — unanimously, no less — they are the latest cities to jump on one of the most bizarre bandwagons of modern times.

The whole movement is an abuse of language and common sense. An emergency is something you call 911 about. And you call when it's happening, not when you get a vague inkling that it might happen a decade from now.

Those who defend these gestures insist that a climate emergency is, in fact, happening all around us, and to prove it they rattle off unsubstantiated slogans about the weather getting worse and more extreme. But is this really happening in Vancouver? Let's find out.

Temperature records for Vancouver begin in 1896. Looking at the 100 years from 1918 to 2018, February and September average daytime highs rose slightly, at about 1.5 degrees per century, while the other 10 months did not exhibit a statistically significant trend. Looking at the interval from 1938 forward, no month exhibits a significant upward trend in average daytime highs, in fact four months went down slightly. Looking at 1958 to the present, four months warmed slightly, but the annual average daytime high did not exhibit a significant trend.

Once we get past the 1940s, a lot more measures are available. The website weatherstats.ca disseminates everything available in the modern records from Environment and Climate Change Canada. Go to their website, and when you have called up the Vancouver page, click on the "Charts" button.

Since 1942, Vancouver has rarely had days with average temperatures over 30 degrees Celsius. The decade with the most was the 1960s, with seven. In the 2000s there were six. The present decade so far has only had one. The most in a single year was 2009 with four — 1960 and 1942 are tied for second with three.

The record for the highest humidex level (reaching 38 degrees C) is a tie between 2009, 1998 and 1961. So far this decade the average has bounced around within the historical range but hasn't trended up.

In sum, no sign of a heat wave emergency.

Total annual precipitation records for Vancouver begin in 1937. The wettest year was 1997 — more than 20 years ago. Second place is 1983, even further back. On average, the last two decades have been a bit wetter, but less variable, than the 1980s and 1990s. Looking at the annual number of very wet days, where more than an inch of rain falls in 24 hours, the record

was set in 1996 with 13 downpour days. Tied for second place (with 11 days) are 2017, 1984, 1983 and 1980.

So I'm not seeing a precipitation emergency. It's true that precipitation tends to fall more now as rain than snow. The 1950s through the 1970s were snowier. But it's still variable. Years with less than five centimetres of snow include 2015, 1999, 1951 and 1937.

Wind speed records begin in 1953. The highest gusts (89 km/h) were recorded in 1960 and 1961. Second place is 82 km/h in both 2001 and 2003. Other than those two years, maximum gusts have stayed within their historical range of between 60 and 80 km/h so far this century. The hourly mean wind speed has been very steady since the 1990s at between 12 and 14 km/h. So, no windstorm emergency.

Clearly, there's no climate emergency in Metro Vancouver. Amid the ordinary variability of nature, today's weather is about the same as it's been for as far back as the records go. If you think Vancouver is an exception in this regard, go to weatherstats.ca and find a location with a supposed crisis. Lotsa luck.

Activists are convincing city councillors and parliamentarians around the world to, at best, waste time on meaningless symbolic declarations and, at worst, lay the groundwork for even more extreme and ill-advised climate policy misadventures. That's the real emergency.

Ross McKittrick is an economics professor at the University of Guelph and senior fellow of the Fraser Institute.

<https://vancouver.sun.com/opinion/op-ed/ross-mckittrick-reality-check-there-is-no-climate-emergency-in-vancouver>

References



The European Parliament building in Strasbourg. Image: AOP

Some 300 professional scientists in Europe have signed a petition urging the European Parliament to abandon the unfounded alarmist position about an imminent "Climate Crisis" and adhere to the scientific facts as revealed by observations:

SEPTEMBER 22, 2019

EmielCharles Michel, President of the European Council
Ursula von der Leyen, President of the European
Commission 'To be appointed', Head of the European
Parliament -----

There is no climate emergency

We, the undersigned 300(?) independent Climate Scientists and Professionals from 15(?) countries, wish to convey five urgent messages to you:

- 1. Climate change is a fact. The geological archive reveals that Earth's climate has varied as long as the planet has existed, with naturally-driven cold and warm cycles.**
- 2. After leaving the Little Ice Age (around 1870 AD), it is no surprise that we now are experiencing a warming-up period. This is fully in line with the natural behavior of the climate system. However, measurements show that the temperature-increase is significantly less than mainstream models predict.**
- 3. Anthropogenic Global Warming is only a hypothesis. There exists no proof that anthropogenic carbon dioxide (CO₂) emissions are the principal cause of global warming. On the contrary, latest insights confirm that more CO₂ has only a modest influence on climate but it is hugely beneficial for agriculture, forestry, and for the photosynthesis that is the basis of life on Earth.**
- 4. Moreover, there is no scientific evidence that increasing CO₂ levels have an enhancing effect on natural disasters. Quite the reverse, there are many indications that most CO₂-reduction measures have a devastating effect on wildlife, land use and economic development.**
- 5. Energy policy must be based on scientific and economic realities. We argue strongly against a harmful and unrealistic "2050-carbon-neutral policy". There is no climate emergency and therefore no cause for panic and alarm. If superior approaches emerge, we will have ample time to reflect and transition. Our aim should always be reliable and affordable energy at all times.**

With respect to a well thought-out future, we advise European leaders that science should aim at a significantly better understanding of the climate system and that politics should focus on minimizing damage by giving priority to effective adaptation strategies to extreme weather events.

We also recommend that European leaders make a clear difference in their policy between the Earth's environment and the Earth's climate. Taking good care of our environment is a matter of good stewardship. Climate change, however, is primarily caused by a complex combination of natural phenomena we cannot control.

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Climate change hoax COLLAPSES as new science finds human activity has virtually zero impact on global temperatures

Friday, July 12, 2019 by: [Mike Adams](#)

Tags: [badscience](#), [Climate](#), [climate change](#), [deception](#), [fraud](#), [global warming](#), [hoax](#), [junk science](#), [lies](#), [real science](#), [science clowns](#)

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([Natural News](#)) The [climate change hoax](#) has collapsed. A devastating series of research papers has just been published, revealing that human activity can account for no more than a **.01°C** rise in global temperatures, meaning that all the human activity targeted by radical climate change alarmists — combustion engines, airplane flights, diesel tractors — has virtually no measurable impact on the temperature of the planet.

Finnish scientists spearheaded the research, releasing a paper entitled, "[No Experimental Evidence for the Significant Anthropogenic Climate Change.](#)"

The paper explains that IPCC analysis of global temperatures suffers from a glaring error — namely, failure to account for “influences of low cloud cover” and how it impacts global temperatures. Natural variations in low cloud cover, which are strongly influenced by cosmic radiation’s ability to penetrate Earth’s atmosphere due to variations in the strength of our planet’s magnetosphere, account for nearly all changes in global temperature, the researchers explain.

As this chart reveals, more cloud cover is inversely related to temperature. In other words, **clouds shield the surface of the Earth from the sun, providing shade cover cooling**, while a lack of clouds results in more warming:

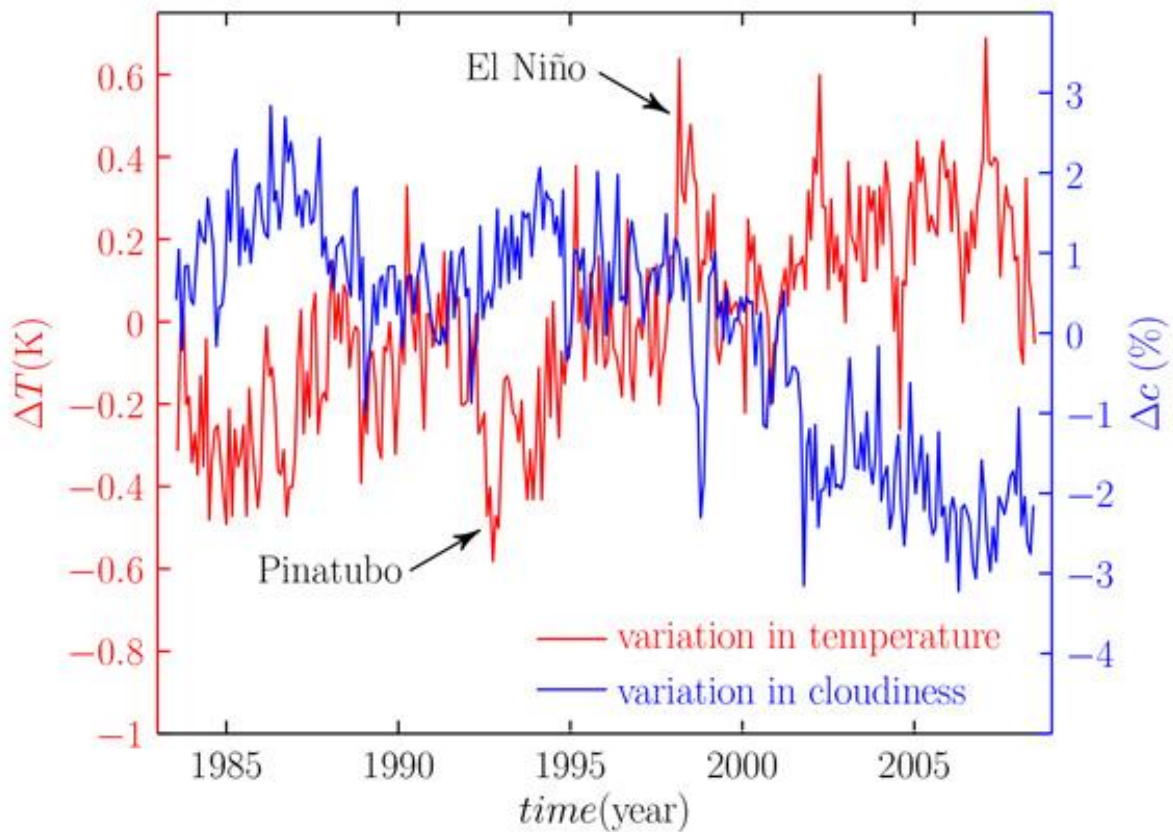


FIGURE 2. [2] Global temperature anomaly (red) and the global low cloud cover changes (blue) according to the observations. The anomalies are between summer 1983 and summer 2008. The time resolution of the data is one month, but the seasonal signal is removed. Zero corresponds about 15°C for the temperature and 26 % for the low cloud cover.

Cloud cover accounts for the real changes in global temperatures

This is further supported by researchers at Kobe University in Japan who published a nearly simultaneous paper that reveals how changes in our planet's magnetic field govern the intensity of solar radiation that reaches the lower atmosphere, causing cloud formation that alters global temperatures.

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That study, published in Nature, is called, “[Intensified East Asian winter monsoon during the last geomagnetic reversal transition](#).” It states:

Records of suborbital-scale climate variation during the last glacial and Holocene periods can be used to elucidate the mechanisms of rapid climate changes... At least one event was associated with a decrease in the strength of the Earth’s magnetic field. Thus, climate records from the MIS 19 interglacial can be used to elucidate the mechanisms of a variety of climate changes, including testing the effect of changes in geomagnetic dipole field strength on climate through galactic cosmic ray (GCR)-induced cloud formation...

In effect, cosmic rays which are normally deflected via the magnetosphere are, in times of weak or changing magnetic fields emanating from Earth itself, able to penetrate further into Earth’s atmosphere, causing the formation of low-level clouds which cover the land in a kind of “umbrella effect” that shades the land from the sun, allowing cooling to take place. But a lack of clouds makes the surface hotter, as would be expected. This natural phenomenon is now documented to be **the primary driver of global temperatures and climate**, not human activity.

Burn all the oil you want, in other words, and it’s still just a drop in the bucket compared to the power of the sun and other cosmic influences. All the fossil fuel consumption in the world barely contributes anything to actual global temperatures, the researchers confirmed.

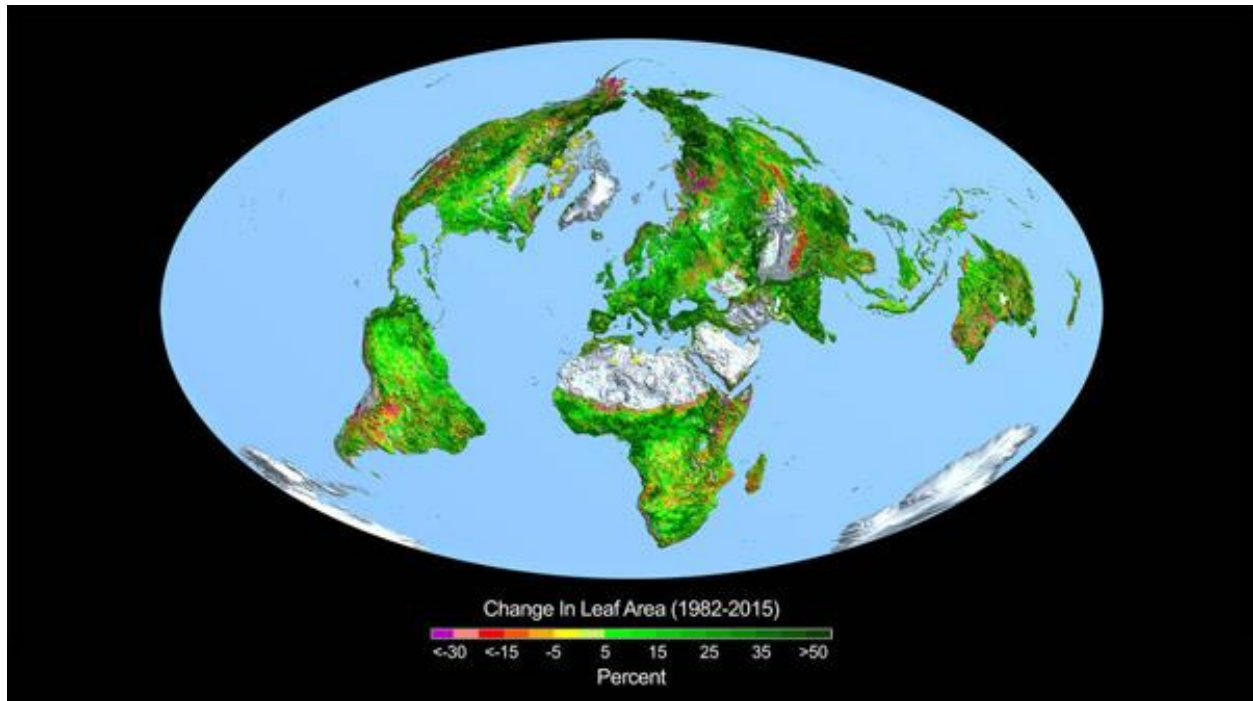
As they explain, the IPCC's climate models are wildly overestimating the influence of carbon dioxide on global temperatures:

...the [IPCC] models fail to derive the influences of low cloud cover fraction on the global temperature. A too small natural component results in a too large portion for the contribution of the greenhouse gases like carbon dioxide. That is why J. KAUPPINEN AND P. MALMI IPCC represents the climate sensitivity more than one order of magnitude larger than our sensitivity 0.24°C. Because the anthropogenic portion in the increased CO2 is less than 10%, we have practically no anthropogenic climate change. The low clouds control mainly the global temperature.

The entire “climate change” hoax is a fraud

[Carbon dioxide](#), in other words, isn't the “pollutant” that climate change alarmists have long claimed it to be. CO2 won't destroy the planet and barely has any effect on global temperatures (the IPCC's estimate of its effect is, according to Finnish researchers, about one order of magnitude too large, or ten times the actual amount).

In fact, NASA was forced to recently admit that [carbon dioxide is re-greening the Earth](#) on a massive scale by supporting the growth of rainforests, trees and grasslands. See these maps showing the increase in green plant life, thanks to rising CO2:



Importantly, reducing our global consumption of fossil fuels will have virtually **no impact on global temperatures**. The far bigger governor of climate and temperatures is the strength and configuration of Earth's magnetosphere, which has always been in flux since the formation of the planet billions of years ago. The weaker the magnetosphere, the more cosmic rays penetrate the atmosphere, resulting in the generation of clouds, which shield the planet's surface from the sun. Thus, a weaker magnetosphere causes global cooling, while a stronger magnetosphere results in global warming, according to this research. This phenomenon is called the "Svensmark Effect."

As [reported by Science Daily](#):

This suggests that the increase in cosmic rays was accompanied by an increase in low-cloud cover, the umbrella effect of the clouds cooled the continent, and Siberian high atmospheric pressure became stronger. Added to other phenomena during the geomagnetic reversal — evidence of an annual average temperature drop of 2-3 degrees Celsius, and an increase in annual temperature ranges from the sediment in Osaka Bay —

this new discovery about winter monsoons provides further proof that the climate changes are caused by the cloud umbrella effect.

The “war on carbon” is derived from sheer stupidity, arrogance and scientific illiteracy

The extreme alarmism of climate change lunatics — best personified by Alexandria Ocasio-Cortez’ insistence that [humanity will be destroyed in 12 years if we don’t stop burning fossil fuels](#) — is all based on nothing but fearmongering media propaganda and faked science. (The IPCC and NOAA both routinely fudge temperature data to try to create a warming “trend” where none exists.)

It’s all a massive, coordinated fraud, and the mainstream media deliberately lies to the public about climate change to push anti-free market schemes that would destroy the U.S. economy while transferring literally trillions of dollars into the pockets of wealthy globalists as part of a “carbon tax” scheme.

Yet carbon isn’t the problem at all. And the “war on carbon” is a stupid, senseless policy created by idiots, given that **humans are carbon-based lifeforms**, meaning that any “war on carbon” is a war on humanity.

See more research papers from Jyrki Kauppinen [at this link on Researchgate.net](#). And stay informed by reading [Climate.news](#).

<https://www.naturalnews.com/2019-07-12-climate-change-hoax-collapses-new-science-cloud-cover.html>

CLIMATE CHANGE FUELED WITCH HUNTS - THEN AND NOW

OCTOBER 26, 2018

By Gregory Wrightstone

European witch hunts of the 15th to 17th centuries targeted witches that were thought to be responsible for epidemics and crop failures related to declining temperatures of the Little Ice Age.



European witch hunts of the 15th to 17th centuries targeted witches that were thought to be responsible for epidemics and crop failures related to declining temperatures of the Little Ice Age. A belief that evil humans were negatively affecting the climate and weather patterns was the “consensus” opinion of that time. How eerily similar is that notion to the the current oft-repeated mantra that Man’s actions are controlling the climate and leading to catastrophic consequences?

The first extensive European witch hunts coincided with plunging temperatures as the continent transitioned away from the beneficial warmth

of the Medieval Warm Period (850 to 1250 AD). Increasing cold that began in the 13th century ushered in nearly five centuries of advancing mountain glaciers and prolonged periods of rainy or cool weather. This time of naturally-driven climate change was accompanied by crop failure, hunger, rising prices and epidemics.

<https://www.heartland.org/news-opinion/news/climate-change-fueled-witch-hunts---then-and-now>

Witches were burned at the stake over bad weather. Climate alarmism has long been a political tool of fear and control (*21):

Storm Callers - The Art of Weather Magic

Updated on April 16, 2017



Pollyanna Jones

more



"Many tales were bruited about the power of witches and wizards over storms, weapons, spirits, love, and death. I have been assured that at this day the country folk, some of them at least, tremble at the sight of one of these gifted persons, or persons of such repute, lest by some chance the sorcerers eye lighting on them should kindle in him a dislike." – Rev Oswald Cockayne, 1864

The weather. Most unpredictable, and most important to those living off the

land, efforts have been made throughout the ages to predict and even control the sun, wind, and rain. Good weather would ensure a plentiful harvest and safe travels, whilst a wet summer or particularly harsh drought would doom a community to starvation and suffering. Even today, extreme weather events affect us profoundly, claiming lives each year. So it is no wonder that throughout the ages, man has tried to influence the elements around him.

Tales of magical manipulation of the weather appear all over Europe, and appear in the Sagas as well as Saxon records. Even today, we utter charms to ensure good weather.

"Rain, rain, go away.

Come again another day."

~ Traditional English proverb, charm for good weather.

Appeasing the Sea

It would seem that some of Britain's earliest superstitions around the sea and weather came to our shores with the Norsemen.

The goddess Rán, one of the deities who ruled the domain of the sea, would catch any who fell overboard with her net. The Helgakviða Hjörvarðssonar Edda describes how she receives those drowned at sea, luring men into the water and sinking ships with her daughters, the waves. As a result, many Norsemen would carry gold with them on a voyage, to appease Rán in the unfortunate event they drowned.

This superstition was carried through right up to the present day; it is believed placing a gold coin under the mast will bring good luck and works as a talisman against stormy weather.

<https://exemplore.com/magic/Storm-Callers-The-Art-of-Weather-Magic>



World Meteorological Organization (WMO) Secretary-General Petteri Taalas gives a press conference in Geneva on Oct. 8, 2018. (Fabrice Coffrini/AFP/Getty Images)

[INTERNATIONAL](#)

In Unprecedented Move, Head of Key Meteorological Organization Slams Climate Extremists

BY [IVAN PENTCHOUKOV](#)

September 10, 2019 Updated: September 11, 2019Share

The head of the world's foremost weather science organization issued a surprise rebuke to [climate](#) alarmists in remarks published on Sept. 6, marking what may be, according to some experts, one of the most significant developments in the climate debate in decades.

Petteri Taalas, the secretary-general of the World Meteorological Organization (WMO), told the *Talouselämä* magazine in Finland that he disagrees with doomsday climate extremists who call for radical action to prevent a purported apocalypse.

“Now we should stay calm and ponder what is really the solution to this problem,” Taalas said. “It is not going to be the end of the world. The world

is just becoming more challenging. In parts of the globe, living conditions are becoming worse, but people have survived in harsh conditions.”

The remarks came as a “total surprise,” especially coming from Talaas, who has himself made alarmist statements about the climate, according to Benny Peiser, the director of the Global Warming Policy Foundation in London.

“I think they’re beginning to realize that the whole agenda has been hijacked by extremists and undermining the economy and the social stability of European countries,” Peiser told *The Epoch Times*.

Talaas said that establishment meteorological scientists are under increasing assault from radical climate alarmists who are attempting to move the mainstream scientific community in a radical direction. He expressed specific concern with some of the solutions promoted by climate alarmists, including calls for couples to have no more children.

“While climate skepticism has become less of an issue, now we are being challenged from the other side. Climate experts have been attacked by these people and they claim that we should be much more radical. They are doomsters and extremists. They make threats,” Talaas said.

“The latest idea is that children are a negative thing. I am worried for young mothers, who are already under much pressure. This will only add to their burden.”

According to Myron Ebell, the chair of the Cooler Heads Coalition—an organization that challenges climate alarmism—Talaas’s remarks are significant because he heads the WMO. The WMO is one of the two organizations that founded the Intergovernmental Panel on Climate Change ([IPCC](#)) in 1988. Since being formed, the IPCC has become the leading institution worldwide to promote the theory that human activity contributes to global warming.

“It’s a major international organization. It has a lot of credibility and for the head of it to say that the alarmists have gone too far is important or potentially important,” Ebell said.

“We’ll have to see what the impact is and also what the blowback is,” he added. “Because, in the past, when people have stepped out of line in a more realistic or skeptical direction, the alarmist establishment has been

pretty effective—and often in a very brutal way—in punishing or forcing people back into line.”

While Taalas limited his examples in the climate debate to Finland, some of the extremism Ebell references is akin to the rhetoric employed by climate alarmists in the United States. Democratic socialist Rep. Alexandria Ocasio-Cortez has become one of the key faces of that movement. The New York congresswoman regularly promotes the theory that the world will enter an irreversible downward spiral toward apocalypse unless the United States takes radical action to eliminate carbon dioxide emissions in 12 years.

The 12-year deadline Ocasio-Cortez references comes from a [special report](#) by the IPCC, which states that “global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.” The report concludes that risks of long-lasting or irreversible impact on the earth’s ecosystems are higher if warming breaches the 1.5-degree mark by 2030.

Talaas pointed out that climate extremists are selectively picking out facts from the IPCC reports to fit their narrative.

“The IPCC reports have been read in a similar way to the Bible: you try to find certain pieces or sections from which you try to justify your extreme views. This resembles religious extremism,” Taalas said.

Greenpeace co-founder Patrick Moore called Talaas’s remarks the “biggest crack in the alarmist narrative for a long time.”

“The meteorologists are real scientists and probably fed up with Greta, Mann, Gore, & AOC catastrophists. Good on him,” [Moore wrote on Twitter](#) on Sept. 7. AOC is the acronym commonly used to refer to Ocasio-Cortez. The three others named in the message are Michael Mann, a climatologist; Greta Thunberg, a 16-year-old Swedish student; and Al Gore, the former vice president.

The vast majority of the climate models the IPCC uses as the basis for its predictions have incorrectly forecast higher temperatures repeatedly. According to an [analysis by the Cato Institute](#), 105 of the 108 models predicted a higher surface temperature for the period between 1998 and 2014 than the temperature actually recorded.

The IPCC has previously admitted that climate models cannot be used to accurately predict long-term changes in the climate.

“In sum, a strategy must recognise what is possible. In climate research and modelling, we should recognise that we are dealing with a coupled non-linear chaotic system, and therefore that the long-term prediction of future climate states is not possible,” the IPCC’s [2018 report](#) states.

Peiser said he sent Talaas’s comments to a list of 5,000 media contacts, but none have picked up the story. Peiser’s non-profit posted the [first translation](#) of the comments, some of which were adopted for this article after verification.

“I think people are utterly shocked by the language that he is using,” Peiser said. “He talks about a religious cult. He talks about people being extremists and doomsters. It’s quite staggering. The language that he uses and the signal that he’s sending out is ‘We are afraid of these extremists. They are destroying our society.’”

[In Unprecedented Move, Head of Key Meteorological Organization Slams Climate Extremists](#)

WMO SECRETARY-GENERAL REJECTS CLIMATE ‘DOOMSTERS AND EXTREMISTS’

- Date: 06/09/19
- Andrew Montford and Mikko Paunio

The Secretary-General of the World Meteorological Organization (WMO) says that the alarmist narrative on climate change has gone off the rails and criticised the news media for provoking unjustified anxiety.



Petteri Taalas, Secretary-General of the World Meteorological Organization (WMO)

Speaking to Finland's financial newspaper *Talouselämä* ("The Journal") on 6 September 2019, Petteri Taalas called for cooler heads to prevail, saying that he does not accept arguments that the end of the world is at hand:

It is not going to be the end of the world. The world is just becoming more challenging. In parts of the globe living conditions are becoming worse, but people have survived in harsh conditions.

He also says that the Finnish discourse on climate change has become overly doom-laden:

The atmosphere created by media has been provoking anxiety. The latest idea is that children are a negative thing. I am worried for young mothers, who are already under much pressure. This will only add to their burden.

Moreover, contrary to much of what is heard in the media, he thinks that the solution to climate change does not require people to live ascetic lives. "If you start to live like an orthodox monk", he says, "the world is not going to be saved". He stresses that standards of living should not be lowered.

And he suggests that radical environmentalists are now a major problem:

While climate scepticism has become less of an issue, now we are being challenged from the other side. Climate experts have been attacked by these people and they claim that we should be much more radical. They are doomsters and extremists; they make threats. Much more radical action is demanded by Extinction Rebellion movement. They demand zero emissions by 2025 and “honest” climate information from governments.

To Taalas, the deep greens have been abusing the reports of the Intergovernmental Panel on Climate Change, cherrypicking parts that they think will support radical action.

The IPCC reports have been read in a similar way to the Bible: you try to find certain pieces or sections from which you try to justify your extreme views. This resembles religious extremism.

Although he is critical of right wing populists who do not accept any climate action, he warns of what might happen if fuel taxes are raised too far, noting the protests of the French *gilets jaunes*.

Taalas hopes that mainstream media will become more critical and hopes more for a more diverse presentation of views and argues that all sides should be interviewed.

We should consider critically, and with reservations, the thoughts of experts...”

[Full interview \(in Finnish\)](#)

[WMO Secretary-General Rejects Climate 'Doomsters and Extremists' - The Global Warming Policy Forum \(GWPF\)](#)

What is the tragedy of overconfidence about global warming climate science?

This question previously had details. They are now in a comment.



James Matkin, former Director at Bank of Canada (1992-1995)

[Updated 5m ago](#)

MY ANSWER: CLIMATE OVERCONFIDENCE WORSENS THE PLIGHT OF IMPOVERISHED MILLIONS LIVING WITHOUT ELECTRICITY AND SPURS IMMORAL GOVERNMENT SPENDING

THE SOCIAL INJUSTICE OF ENERGY POVERTY

Energy Poverty is devastating

Energy poverty is devastating for more than 2 billion impoverished peoples living without electricity for light and heat. Cooking happens the way it has for centuries before – over smoky indoor fires that do no favors for lungs or life expectancies. I witnessed the tragedy first hand working in the China countryside in the winter where peasants are forced to live with their animals in a vain attempt to keep warm. Their weathered faces from the harsh life in the dark without heat is very sad.



Once upon a time, social justice was synonymous with equal access to modern amenities — electric lighting so poor children could read at night, refrigerators so milk could be kept on hand, and washing machines to save the hands and backs of women. Malthus was rightly denounced by generations of socialists as a cruel aristocrat who cloaked his elitism in pseudo-science and claimed that Nature couldn't possibly feed any more hungry mouths.

*Now, at the very moment modern energy arrives for global poor — something a prior generation of socialists would have celebrated and, indeed, demanded — today's leading left-wing leaders advocate a return to energy penury. The loudest advocates of cheap energy for the poor are on the libertarian Right, while *The Nation* dresses up [neo-Malthusianism](#) as revolutionary socialism.*

Left-wing politics was once about destabilizing power relations between the West and the Rest. Now, under the sign of climate justice, it's about sustaining them.



Left-wing politicians like Al Gore, Obama and Naomi Klein crusading against cheap coal and efficient fossil fuels represents the greatest progressive reversal in history.

http://***http://thebreakthrough.org/index.php/voices/michael-shellenberger-and-ted-nordhaus/its-not-about-the-climate***

This is immoral.

Climate movement's immoral spending

By Tom Harris

The consequence of overconfidence about climate science is tragic. According to the San Francisco-based Climate Policy Initiative, of the \$1 billion spent worldwide each day on climate finance, 94 percent goes to mitigation, trying to control future climate. Only 6 percent of global climate finance is dedicated to helping vulnerable people cope with climate change today. In developing countries, even less, an abysmal 5 percent, goes to adaptation. Based on a theory about climate, we are letting people die today so as to possibly help those in the distant future.

"Providing the world's most deprived countries with solar panels instead of better health care or education is inexcusable self-indulgence. Green energy sources may be good to keep on a single light or to charge a cellphone. But three billion people suffer from the effects of indoor air pollution because they burn wood, coal or dung to cook. These people need access to affordable, reliable electricity today. Too often clean alternatives, because they aren't considered "renewable," aren't receiving the funding they deserve.

We all know how well its access could help lift those without it out of poverty.

The UN is more interested in chasing the chimera of “global warming” and its unproven science. The reason, of course, is power. Money and control equal power.”

<http://hotair.com/archives/2015/10/22/is-the-focus-on-global-warming-immoral/>

<http://www.providencejournal.com...>

World Bank Document/IEA

With respect to electricity, the global access deficit amounts to 1.2 billion people. Close to 85 percent of those who live without electricity (the “nonelectrified population”) live in rural areas, and 87 percent are geographically concentrated in Sub-Saharan Africa and South Asia (figure O.2). For cooking, the access deficit amounts to 2.8 billion people who primarily rely on solid fuels. About 78 percent of that population lives in rural areas, and 96 percent are geographically concentrated in Sub-Saharan Africa, Eastern Asia, Southern Asia, and South-Eastern Asia.

LOW PROBABILITY OF TOO HOT CLIMATE

Earth’s climate system is unfathomably complex. It is affected by innumerable interacting variables, atmospheric CO₂ levels being just one.

The list of variables that shape climate includes cloud formation, topography, altitude, proximity to the equator, plate tectonics, sunspot cycles, volcanic activity, expansion or contraction of sea ice, conversion of land to agriculture, deforestation, reforestation, direction of winds, soil quality, El Niño and La Niña ocean cycles, prevalence of aerosols (airborne soot, dust, and salt) — and, of course, atmospheric greenhouse gases, both natural and manmade. A comprehensive list would run to hundreds, if not thousands, of elements, none of which scientists would claim to understand with absolute precision.

<http://www.bostonglobe.com/opini...>

Canada’s national newspaper the Globe & Mail first published my research on the climate issue in 1991 (..) I urged a wait and see view as the science was not settled and any action by Canada would have no effect “like a drop in the ocean.”

My article published in 1990 by the GLOBE urged "MORE RESEARCH" on global warming theory . Co2 is essential to plant life. GLOBAL WARMING IS NATURAL. Climate is always changing. Canada is - "ONLY A DROP IN THE OCEAN."

I relied on the safety research of Aaron Wildavsky who said if the risk is predictable or low probability then resilience is the right action. Overconfidence has been called the most “pervasive and potentially catastrophic” of all the cognitive biases to which human beings fall victim. It has been blamed for lawsuits, strikes, wars, and stock market bubbles and crashes. I blame it for the devastating impact of misguided climate alarmism called human made global warming denying cheap electricity to > 2 billion living in the dark and needing coal fired power.

[Overconfidence effect - Wikipedia](#)My view hasn't changed and the fear of unprecedented warming by fossil fuels is a very low probability and more untrue today than in 1991. Solar radiation has gone into decline making winters earlier, colder with more snow around the world. Climate is complex with many influencing variables.

Earth's climate system is unfathomably complex. It is affected by innumerable interacting variables, atmospheric CO2 levels being just one. The more variables there are in any system or train of events, the lower the probability of all of them coming to pass.

The list of variables that shape climate includes cloud formation, topography, altitude, proximity to the equator, plate tectonics, sunspot cycles, volcanic activity, expansion or contraction of sea ice, conversion of land to agriculture, deforestation, reforestation, direction of winds, soil quality, El Niño and La Niña ocean cycles, prevalence of aerosols (airborne soot, dust, and salt) — and, of course, atmospheric greenhouse gases, both natural and manmade.

Measuring human impacts on climate is indeed “very challenging.” The science is far from settled. That is why calls to radically reduce carbon emissions are so irresponsible — and why dire warnings of what will happen if we don't are little better than reckless fearmongering.

[Why are climate-change models so flawed? Because climate science is so incomplete - The Boston Globe](#)



Snow-clearing crews were busy in Montreal on Wednesday after a major snowstorm swept through the province. (Graham Hughes/Canadian Press)

Big dig begins after Quebec slammed with record-setting blizzard

Montreal Mayor Denis Coderre urges people to stay home as crews scramble to clear roads

By Benjamin Shingler, [CBC News](#) Posted: Mar 15, 2017 6:40 AM ET Last Updated: Mar 15, 2017 9:34 PM ET

A major cleanup is underway in Quebec after a record-setting snowstorm that left hundreds stranded on a highway in Montreal and many schools, universities and daycares closed across the province.

A total of 40 centimeters has fallen in Montreal since the snow began Tuesday, while other parts of the province were digging out from as much as 70 centimeters of snow.

German research shows crumbling consensus on warming with the portent of an ice age coming because of the unusual colder weather of the past decades. **Germany Warns Of Coming Mini Ice Age**

Posted on July 5, 2016 by [Sean Adl-Tabatabai](#) in [Sci/Environment](#)

Mini

Solar physicists from Germany have issued a warning that Europe is about to enter a mini ice age in the next few years.

Scientists at the ultra-warmist Potsdam Institute for Climate Impact Research (PIK) say that the current solar minimum suggests the continent is about to suffer a miniature ice-age.

The Berliner Kurier writes:

“That’s the conclusion that solar physicists of the Potsdam Institute for Climate Impact Research reached when looking at solar activity.”

For an institute that over the past 20 years has steadfastly insisted that man has been almost the sole factor in climate change over the past century and that the sun no longer plays a role, this is quite remarkable.

The Berliner Kurier reports that the PIK scientists foresee a weakening of the sun’s activity over the coming years.

“That means that conversely it is going to get colder. The scientists are speaking of a little ice age.”

According to the PIK scientists, the reduced solar activity will, however, not be able to stop the global warming and only brake the warming up to 2100 by 0.3°C.

Given the extreme warnings of warming and sea level rise put out by the Potsdam Institute in the past, this still represents an extraordinary

admission, one that has us suspecting a major climate turnaround may be ahead – despite all the efforts by the Potsdam Institute to play it all down. Here we see them possibly setting up a global warming postponement of a couple of decades. **The sun plays a role after all.**

The source of the Berliner Kurier report is the Austrian weather site wetter.at. The site writes that some solar physicists suspect the current solar inactivity may be “the start of a new grand minimum” like the one the planet saw in the 17th century and left Europe in an ice box.

Dozens of studies show Little Ice Age was global!

Though most scientists agree that the Little Ice Age took place, many dispute its extent. Some insist it was localized over the North Atlantic region. But now there are [dozens of studies](#) that show it was in fact a global event. That should make us worry.



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Germany Warns Of Coming Mini Ice Age



CO₂ INCREASES WHILE TEMPERATURES DECREASE???

Global Land Temperatures Plummet In October

NOVEMBER 28, 2016

By Paul Homewood

“We do not believe any group of men adequate enough or wise enough to operate without scrutiny or without criticism. We know that the only way to avoid error is to detect it, that the only way to detect it is to be free to inquire. We know that in secrecy error undetected will flourish and subvert”. – J Robert Oppenheimer.

end description

David Rose has put the cat among the pigeons!

Global average temperatures over land have plummeted by more than 1C since the middle of this year – their biggest and steepest fall on record.

The news comes amid mounting evidence that the recent run of world record high temperatures is about to end.

The fall, revealed by Nasa satellite measurements of the lower atmosphere, has been caused by the end of El Nino – the warming of surface waters in a vast area of the Pacific west of Central America.

<https://notalotofpeopleknowthat....>

Why is coal growing rapidly in South and Southeast Asian countries?



First and foremost, coal consumption is accelerating because of sheer power demand growth, combined with coal’s rapid scalability. China offers a key example. It is already the world’s largest coal consumer and has a coal power fleet that is two and half times the size of the United States’ fleet. China also expects to move another 100 million people from the countryside to the city in the next 12 years and grow its middle class by 200

million by 2035. Given these projections, China estimates electric demand to roughly double by 2030. Let's also consider India, a nation of 1.2 billion people—four times the US population—where the rapid growth of the middle class is also underway. It has only 211 gigawatts of installed electrical generating capacity, equivalent to approximately one-fifth of the capacity of the United States, and India is expected to triple its electric demand by 2030.

When power demand is growing that rapidly, you build what you can, and this very well may include taking all measures to improve efficiency, scale up renewable resources, and diversify the energy mix to include natural gas and nuclear. However, coal is readily available and transportable (no pipelines required), and coal plants can be built quickly—typically in 18 months. While figures have fallen from a much higher peak a few years ago, China still built approximately one large plant every week in 2013.

There is still considerable discussion about the wind, solar, and even nuclear boom in Asia (China is building 28 nuclear plants), yet these other power sources are slow to develop to scale, so coal is still the winner. This has played a big role in the projections for the coming years: 75 percent of the annual new generating capacity being added in Southeast Asia is expected to be coal-fired. It's also important to remember that only about half of China's coal is used for producing power, while slightly over 40 percent of its coal is used directly for industry—for example, cement and steel.

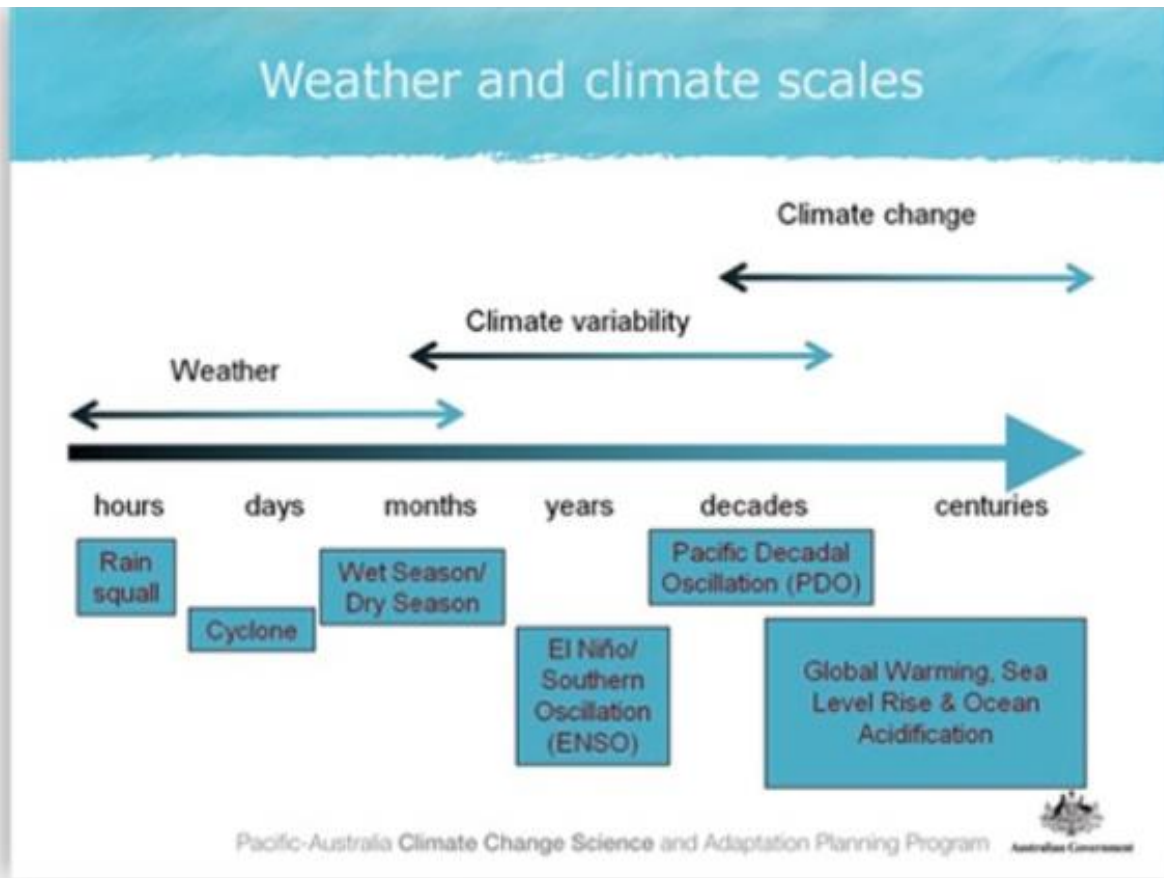
The second greatest contributor to the rapid rise in coal use is cost. Mining coal in China currently costs as little as \$2–\$4 per million British thermal units (mmbtu). Imported liquefied natural gas (LNG) costs \$15–\$20 per mmbtu in Asia, and limited domestic gas production—while in the \$10 or more per mmbtu range—is husbanded for industry, not electricity. Ironically, global coal prices have dropped somewhat in recent years due to decreased electric demand from member countries of the Organization for Economic Co-operation and Development (OECD). This trend has been bolstered by the shale gas revolution in the United States, which has freed up U.S. coal for export, helping further depress global coal prices. Even nuclear plants in China are two to three times more expensive to build than coal plants. Coal plants are cheap in China not only because of lower labor costs, but due to lower intellectual property and licensing costs as well as the high level of China's construction management capability. According to the International Energy Agency (IEA), despite recent price drops, wind

and solar power in Asia remains three to five times more expensive per kilowatt hour to develop than new coal power plants, ignoring the costs of the generating capacity needed to back up these renewable resources when the sun doesn't shine and wind doesn't blow.

The third factor pushing greater coal use in Asia is availability. China has the world's third largest coal reserves, after the United States and Russia. Australia and India are fourth and fifth. Globally, world proven reserves of coal are sufficient for over 100 years of consumption at current rates. True, India and China have substantial natural gas reserves as well, including shale gas, but they have been slow to scale up conventional production infrastructure, and lifting costs for gas are still much higher than for coal. The reality is the hypothesis of catastrophic global warming from carbon dioxide is at best unsettled science and at worst a hoax. Almost no projections by the alarmist scientists have happened. For example, the UN IPCC projected more moderate winters without snowfall. NO. Most importantly natural climate variation has arrested evidence of unprecedented global warming for the past decades and century. The time period needed for climate change analysis is in the hundred or thousands of years not decades.

[Can Any Tech Stop Asia's Coal Future? -- Solar, CCS, Nuclear, and Natural Gas Not Scaling Fast Enough](#)

Climate change is any significant long-term change in the expected patterns of average [weather](#) of a region (or the whole Earth) over a significant period of time. W.



The term ‘climate change’ has a scientific meaning that alarmists are perverting like Orwellian slogan [PEACE IS WAR - LOVE IS HATE] so that it has become meaningless.

“.....the phrase ‘climate change’ is now officially meaningless.”

Dr. Judith Curry view after UN National Climate Assessment Report as “The report effectively implies that there is no climate change other than what is caused by humans, and that extreme weather events are equivalent to climate change.”

SUMMARY

- We can observe the weather and feel temperature changes.
- Weather is chaotic, non-linear and primarily controlled by the sun, clouds and ocean currents with a myriad of other influencers.
- Weather and climate change are unpredictable.
- Climate change cannot be observed or felt as it is a statistical term in science that is a description of temperature averages over a long

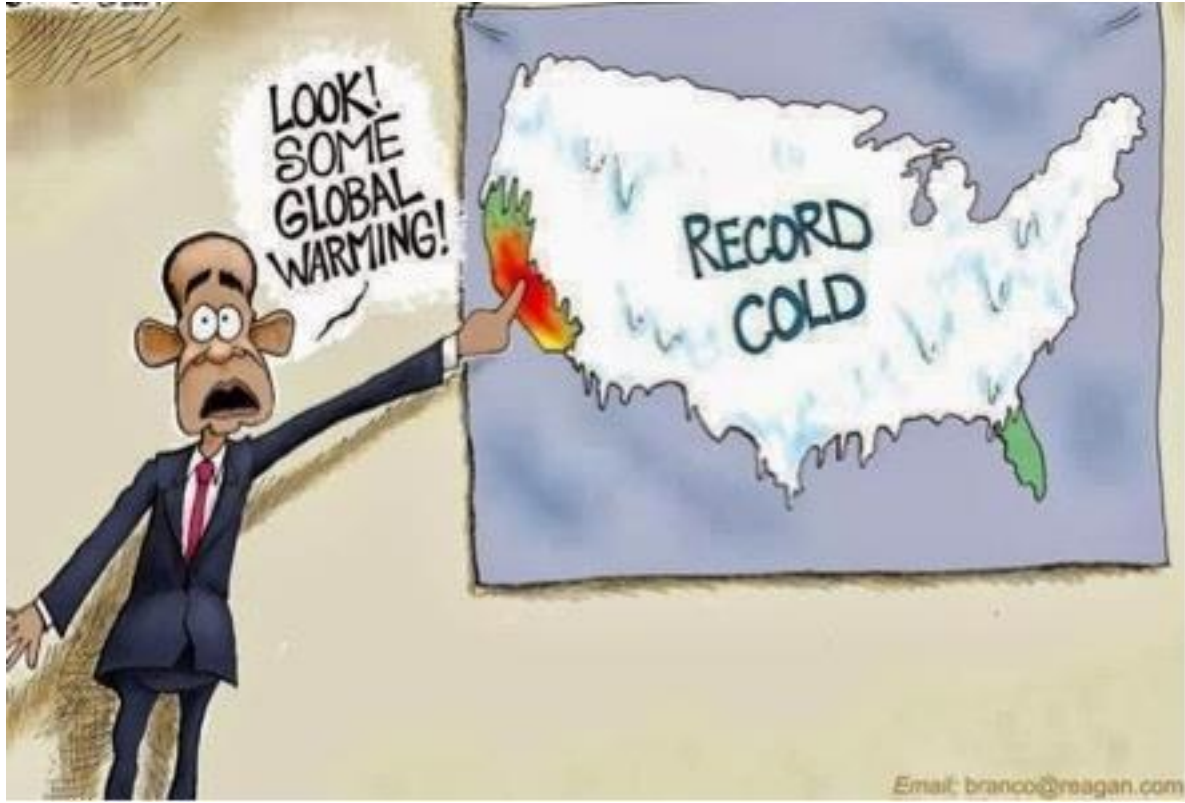
time frame at least centuries or much more where the averages show a trend that is a significant break with the past.

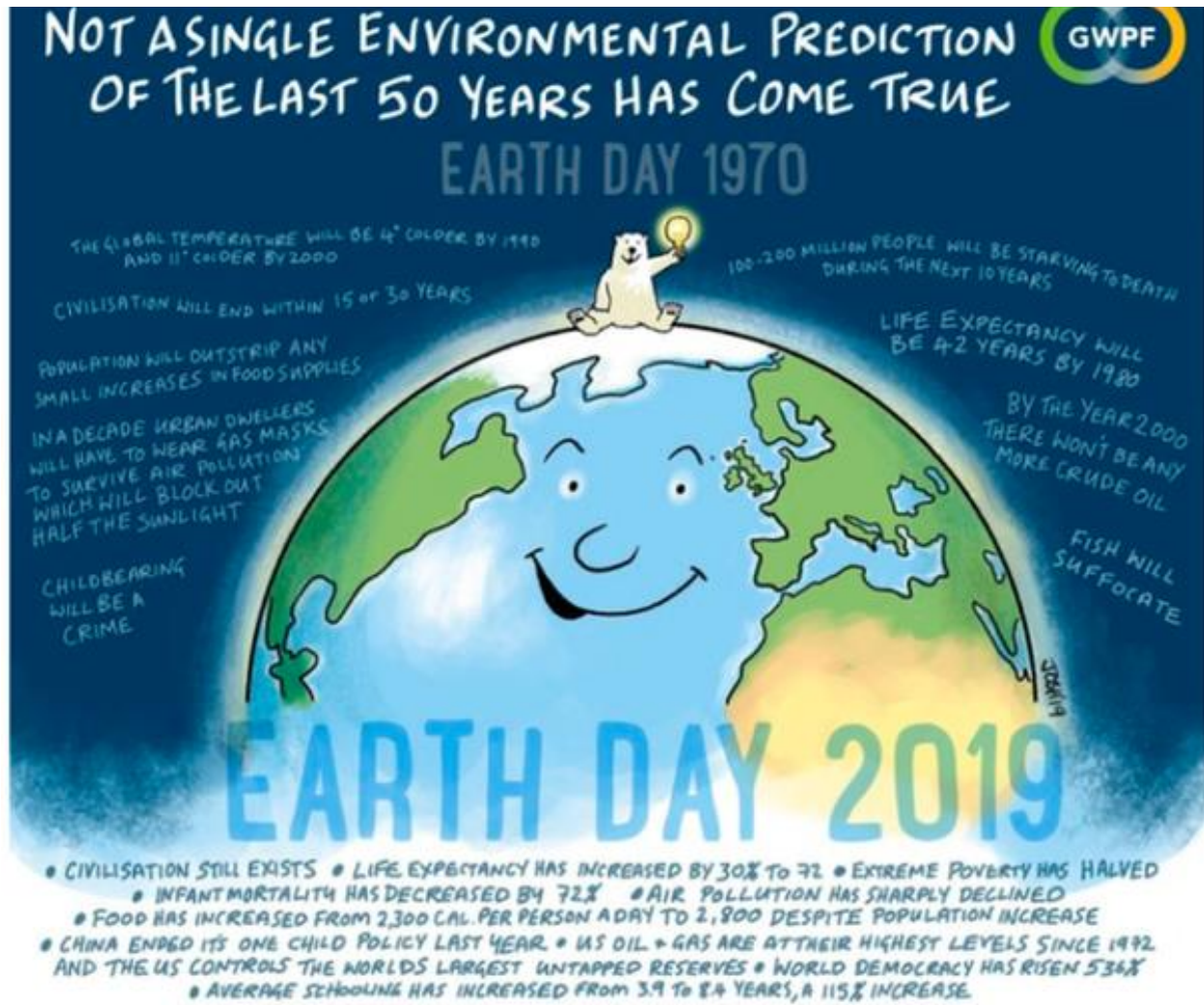
- The climate changes must include both warming and cooling climates because the climate swings in cycles constantly from hot to cold to hot and so on in.
- No one dead or alive has ever observed climate change because of the long time frame in centuries at least and because it is only a fictional statistic about weather averages. It is not observable.
- When the term '*climate change*' is used by the media frequently to describe only man-made global warming or Anthropogenic Global Warming AGW ignoring the inconvenient alternative of global cooling this is an Orwellian *conscious deception* or DOUBLETHINK.
- The computer models of the climate built by the UN IPCC fail utterly

- **REFERENCES**

I submit that a key reason for total failure of alarmist predictions is failing to accept the science of the term 'climate change' with long timelines in centuries as a minimum. The reason for the alarmist rush to judgment is because they want to scare the public with immediate weather like hurricanes or droughts without letting natural variability the chaotic zig zag of temperatures and severe weather temper their analysis.

Obama committed this heresy in claiming the natural 3 year drought in California was global warming. Recent record snowfall showed he had jumped the gun - also research denied his view.





“When you look out a window, the weather you see is not climate. As with atoms and molecules you can only get some idea of it through indirect means. There may be palm trees, or there may be snow outside [or desertification] but you cannot actually see climate with your own eyes. Our knowledge and experience of it is fundamentally indirect...” page 64, Essex and McKirtrick, *Climate Theory Versus Models and Metaphors*, *TAKEN BY STORM - THE TROUBLED SCIENCE, POLICY AND POLITICS OF GLOBAL WARMING*.

SHORTLISTED FOR THE DONNER PRIZE

"Irreverent and devastating ... Essex and McKittrick effectively demolish most of what you think you know." —*THE GLOBE AND MAIL*

TAKEN BY STORM

The Troubled Science, Policy,
and Politics of Global Warming



CHRISTOPHER ESSEX ROSS MCKITRICK

REVISED EDITION

If alarmists and media embraced the scientific meaning of 'climate change' where the words obviously cannot only describe change that is warming, the result would show no climate crisis. The reason is the short term zig zag of temperatures over the past 100 years have been either cold or hot not just one way. For example in the 1930s temperatures so high to cause world record draughts and then in the 1960s temperatures became record cold. Altogether when averaged temperatures no evidence of an unusual warming!

The New York Times

NEW YORK, SATURDAY, JULY 18, 1970

U.S. and Soviet Press Studies of a Colder Arctic

By WALTER SULLIVAN

The United States and the Soviet Union are mounting large-scale investigations to determine why the Arctic climate is becoming more frigid, why parts of the Arctic sea ice have recently become ominously thicker and whether the extent of that ice cover contributes to the onset of ice ages.

The projects, which involve nuclear submarines, earth satellites, aircraft and numerous manned and unmanned stations on the drifting ice, are being pressed with special urgency in view of recent discoveries of important resources in the Soviet and the American Arctic.

These include gold and other ores on the Taimir Peninsula, the northernmost part of Siberia, and one of the world's richest oil fields on the North Slope of Alaska.

Because of increased ice along the north coast of the

Soviet Union and in view of heavier demands for late-season shipping, the Soviet Ministry of Shipbuilding is studying plans for a series of new icebreakers.

The icebreakers would be half again — or even twice — as powerful as the Lenin, the world's most powerful. Driven by nuclear reactors, the Lenin has 40,000 horsepower. The new ships may be driven by diesel-electric or gas turbine engines.

The American plan, which is being developed by the University of Washington with support from the National Science Foundation, is known as AIDJEX, for Arctic Ice Dynamics Joint Experiment. An area of the pack ice some 300 miles square would be studied intensively.

The Soviet plan is known as N.E.I. for Natural Experiment on Interactions. It seeks an understanding of factors that control how much energy enters the Arctic via winds, ocean currents and sunlight and how much is lost to space. The Russians now have four manned research stations on drifting Arctic ice.

The N.E.I. project, which is scheduled to last at least seven years, would also operate two dozen unmanned stations on the ice. Five special weather

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THIS DAY IN HISTORY

THE BLIZZARD OF 1967

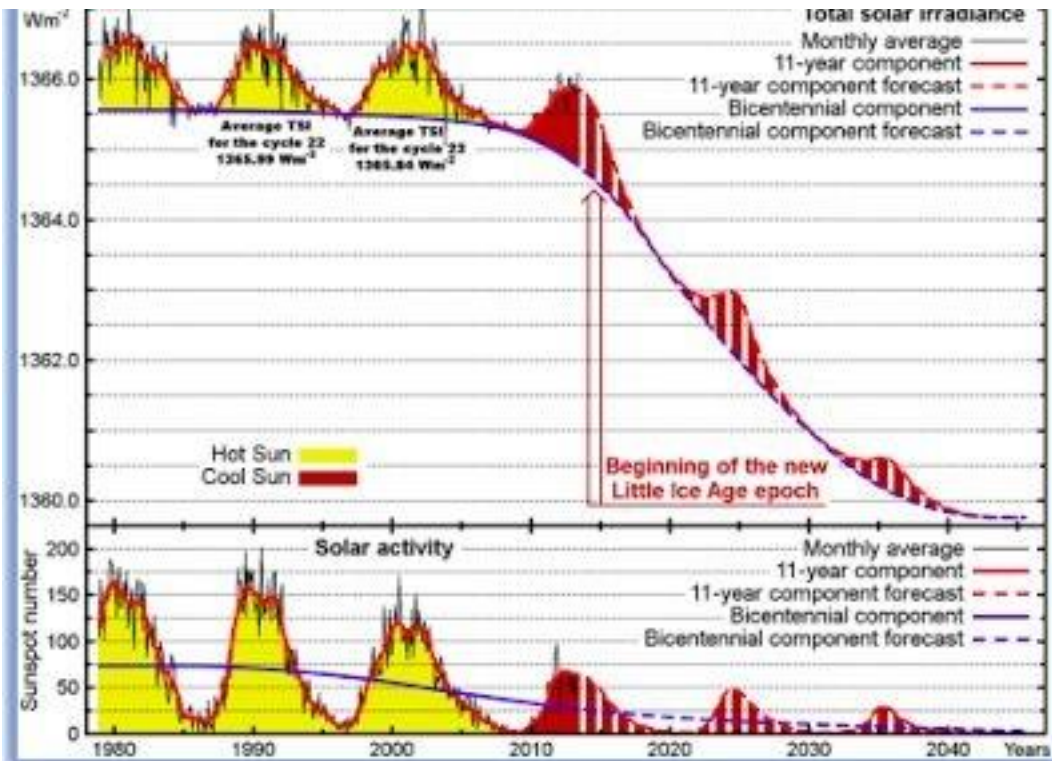
JANUARY 26-27, 1967

CHICAGO'S VERY OWN
WGNI9
WEATHER



The next chart shows the idea that the LITTLE ICE AGE just had a pause in the non-linear unfolding of weather and in fact is continuing.

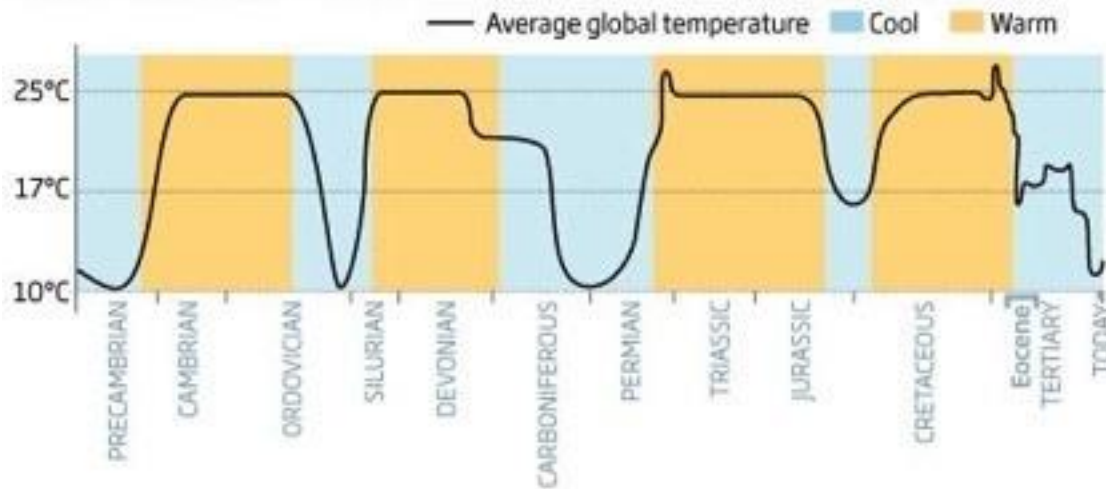
We do not know until we have a longer time frame in centuries not decades.



Earth's history blows hot and cold

NEWSCIENTIST

Global temperatures have risen far higher than today's in the geological past

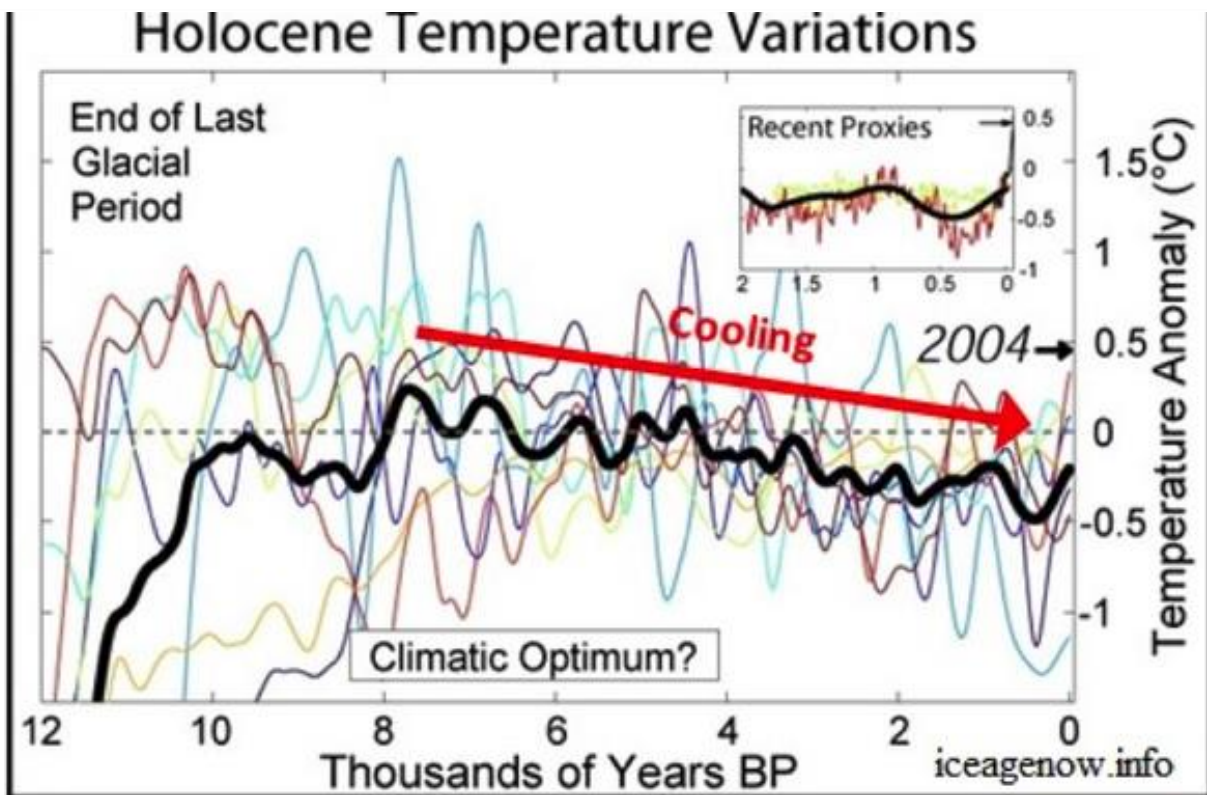
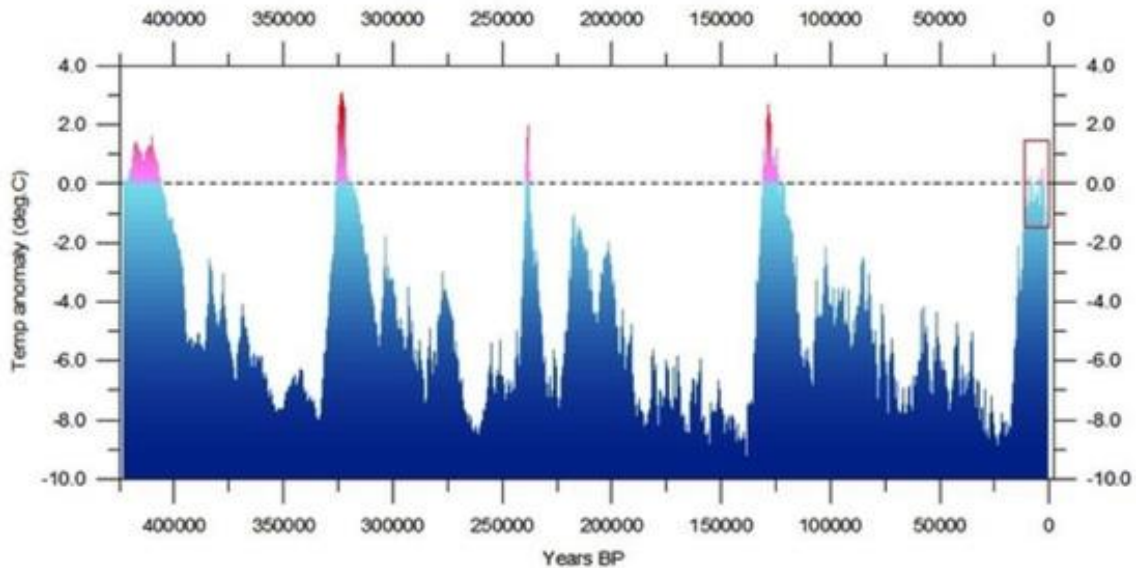


SOURCE: PALEOMAP PROJECT

The Earth has been in an ice age most of the last 400,000 years.

The earth's temperature in each of the last four interglacial periods was several degrees warmer than today. (chart reads left to right)

Reconstructed global temperature over the past 420,000 years based on the Vostok ice core from the Antarctica (Petit et al. 2001)



THE SCIENCE OF GLOBAL WARMING IS NOT SETTLED

“We have found it of paramount importance that in order to progress, we must recognize our ignorance and leave room for doubt. Scientific knowledge is a body of statements of varying degrees of certainty – some most unsure, some nearly sure, but none absolutely certain.” Richard Feynman, *The Value of Science*, 1955.

Harvard-Smithsonian Physicist: Computer Models Used by U.N. Overstate Global Warming



Abstract

An irreducibly simple climate-sensitivity model is designed to empower even non-specialists to research the question how much global warming we may cause. In 1990, the First Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) expressed “substantial confidence” that near-term global warming would occur twice as fast as subsequent observation. Given rising CO₂ concentration, few models predicted no warming since 2001. Between the pre-final and published drafts of the Fifth Assessment Report, IPCC cut its near-term warming projection substantially, substituting “expert assessment” for models’ near-term predictions. Yet its long-range predictions remain unaltered. The model indicates that IPCC’s reduction of the feedback sum from 1.9 to 1.5 W m⁻² K⁻¹ mandates a reduction from 3.2 to 2.2 K in its central climate-sensitivity estimate; that, since feedbacks are likely to be net-negative, a better estimate is 1.0 K; that there is no unrealized global warming in the pipeline; that global warming this century will be <1 K; and that combustion of all recoverable fossil fuels will cause <2.2 K global warming to equilibrium. Resolving the discrepancies between the methodology adopted by IPCC in its Fourth and Fifth Assessment Reports that are highlighted in the present paper is vital. Once those discrepancies are taken into account, the impact

of anthropogenic global warming over the next century, and even as far as equilibrium many millennia hence, may be no more than one-third to one-half of IPCC's current projections.

March 18, 2015 - 1:13 PM

By [Barbara Hollingsworth](#)

<http://www.cnsnews.com/news/arti...>

Carbon dioxide (CO₂) is not a pollutant and the global warming debate has nothing to do with pollution. The average person has been misled and is confused about what the current global warming debate is about - greenhouse gases. None of which has anything to do with air pollution.



The Institute of Public Affairs has been a leading sceptical voice about the science of global warming for more than a decade. The Institute published a book, CLIMATE CHANGE: THE FACTS -

THE SCIENCE IS SETTLED [NOT]

It is quite apparent from the emails that those lobbying for acceptance of the belief in human-induced global warming has worked very hard to create the appearance of a greater consensus than otherwise may have been the case. This has allowed the political slogan 'the science is settled' to gain substantial credence. Of course, it is very well-known that science itself is never settled. After all, if that were the case, the learned journals would all close down and scientists would cease their work and simply teach the history of science. Ludwig von Mises wrote on this very point.

There is no such thing as perfection in human knowledge, nor for that matter in any other human achievement. Omniscience is denied to man.

The most elaborate theory that seems to satisfy completely our thirst for knowledge may one day be amended or supplanted by a new theory. Science does not give us absolute and final certainty. It only gives us assurance within the limits of our mental abilities and the prevailing state of scientific thought. A scientific system is but one station in an endlessly progressing search for knowledge. It is necessarily affected by the insufficiency The global warming lobby was not omniscient; they were extraordinarily arrogant. Not content with subverting the peer-review process, they peddled the notion that their view of the world was ‘absolute’ with a ‘final certainty’. Now it is true that the scientists involved probably did not use the term ‘the science is settled’ themselves. More likely others used the term, perhaps even without permission; nonetheless, the scientists themselves never corrected the usage of the term and their behaviour is consistent with them holding this belief themselves.

We now know from the emails—as recently as 12 October 2009— that the global warming lobby scientists themselves did not believe the science to be settled.

The fact is that we can’t account for the lack of warming at the moment and it is a travesty that we can’t. The CERES data published in the August BAMS 09 supplement on 2008 shows there should be even more warming: but the data are surely wrong.

There has been some debate as to the meaning of this comment. It could be a complaint that funding constraints have led to a decline in the quality of observational data, or it could mean that the underlying scientific understanding is inadequate. Either of these explanations, however, is inconsistent with the idea that the ‘science is settled’. If the science were settled, scientists would be able to ‘account for the lack of warming’. The implicit bias in that statement (by Kevin Trenberth, a climate scientist at the American National Center for Atmospheric Research) is worth noting, when confronted by a divergence between the data and the computer modelling, he chooses the modelling. Of course, what makes this statement suspicious is a somewhat similar comment by Phil Jones in 2005.

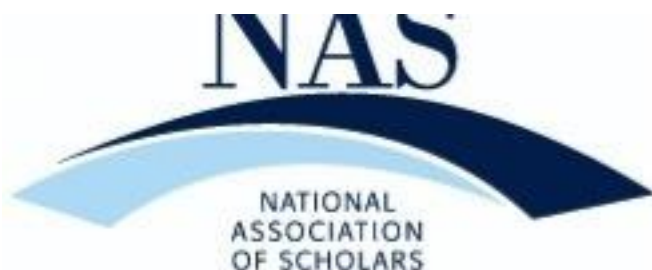
The scientific community would come down on me in no uncertain terms if I said the world had cooled from 1998. OK it has but it is

Professor Tim Flannery, interviewed on the Australian Broadcasting Corporation's Lateline program in November 2009, made this comment after the Climategate scandal had broken.

These people work with models, computer modelling, when the computer modelling and the real world data disagrees you have a problem, that's when science gets engaged. What Kevin Trenberth, one of the most respected climate scientist in the world, is saying is, 'We have to get on our horses and find out what we don't know about the system, we have to understand why the cooling is occurring, because the current modelling doesn't reflect it'. And that's the way science progresses, we can't pretend to have perfect knowledge, we don't. We have to go forward and formulate policy Not only is this statement inconsistent with a 'the science is settled' argument, it is also inconsistent with Flannery's statement on the same program in June 2005.

Well, you can't predict the future; that's one of the things that you learn fairly early on, but if I could just say, the general patterns that we're seeing in the global circulation models—and these are very sophisticated computer tools, really, for looking at climate shift— are saying the same sort of thing that we're actually seeing on the ground. So when the models start confirming what you're observing on the ground, then there's some fairly strong basis for believing that we're understanding what's causing these weather shifts and these rainfall declines, and they do seem to be of a

*The emails do not contain a silver bullet that would kill off the global warming hypothesis. At the time of writing, computer programmers are in the process of examining the codes and data that were hacked at the same time as the emails. If it is shown that the data have been manipulated to show a warning trend, that would escalate what is already a scandal into a **major scientific fraud. [EMPHASIS ADDED]***



PRINCETON, NJ (January 3, 2011)—S. Fred Singer said in an [interview with the National Association of Scholars \(NAS\)](#)

that “the number of skeptical qualified scientists has been growing steadily; I would guess it is about 40% now.”



Singer, a leading scientific skeptic of anthropocentric global warming (AGW), is an atmospheric physicist, and founder of the Science and Environmental Policy Project (SEPP), an organization that began challenging the published findings of the UN’s Intergovernmental Panel on Climate Change (IPCC) in the 1990s. SEPP established the Leipzig Declaration, a statement of dissent from the 1997 Kyoto Protocol that has been signed by over one hundred scientists and meteorologists.

Asked what he would like to see happen in regard to public opinion and policy on climate change, Singer replied,

I would like to see the public look upon global warming as just another scientific controversy and oppose any public policies until the major issues are settled, such as the cause. If mostly natural, as NIPCC concludes, then the public policies currently discussed are pointless, hugely expensive, and wasteful of resources that could better be applied to real societal problems.

NIPCC is the Nongovernmental International Panel on Climate Change, another group established by Singer. In 2009 NIPCC published *Climate Change Reconsidered*, an 880-page report on scientific research that contradicts the models of man-made global warming. Singer believes that global warming exists but that human contributions to it are minimal. In the interview Singer said he believed his efforts in the last twenty years had been successful in disproving the notion that “the science is settled.”

Joshua | November 02, 2012 - 8:28 PM

Climate change is obviously occurring, but what is not so obvious are the factors involved and their respective impact. We don’t know if man plays a major or insignificant role in the equation and we don’t even know if the effects we are currently witnessing are unique or cyclical.

The fact that we hear so much about the melting of the Arctic ice caps and hear virtually nothing about the growth of the Antarctic ice caps is telling- global warmers aren't interested in data that doesn't support their politicized campaign against pollution. Their cause is noble and I support the notion that we should take care of the resources given to us, but using spotty science to promote that cause is unwise. The ends do not justify the means.

Add to the fact that the "solutions" to a problem (which may be man made or man made-up) is cap and trade and carbon credits only further fuels the skepticism- particularly when the very ones who are pushing the global warming agenda are those who are in a position to profit from it (ie Al Gore). Furthermore, the green companies that have been given tremendous government subsidies have a track record of going bankrupt- so again, our "solutions" to a questionable problem do not seem to produce the desired results. They have nearly all been a colossal waste of (often taxpayer) money.

Maybe we should rethink our green strategies and stop using questionable science as a blunt instrument of change.



JAMES MATKIN | February 13, 2015 - 1:07 PM

Some scientists submit solar data contradicts the view there is any significant man made warming. Proponents of global warming are pushed in the corner with this data and refuse to countenance any room for doubt and rather resort to name calling with cult like religious overtones ie "deniers." Fortunately, Canadian government sees the uncertainty in this debate and steps back from taking negative economic action. How is global warming responsible for record freezing winters with mountains of snow and two decades without any increase in warming? Indeed the data is contradictory enough to put in play the question are we entering the next

ice age. It is entirely possible that the sun, and variations in the earth's axis not man are wrecking havoc with our climate. Dr. Abdussamatov points out that over the last 1,000 years deep cold periods have occurred five times. Each is correlated with declines in solar irradiance much like we are experiencing now with no human influence. "A global freeze will come about regardless of whether or not industrialized countries put a cap on their greenhouse gas emissions. The common view of Man's industrial activity is a deciding factor in global warming has emerged from a misinterpretation of cause and effect." Another recent article by climatologist and former NASA Consultant, Joh L. Casey predicts "ICE AGE NOW" with 30 years of record cold temperatures around the globe.

I submit the first and last word on climate change should come from the sage advice of the famous nobel prize winning physicist, Richard P. Feynman.

"The scientist has a lot of experience with ignorance and doubt and uncertainty, and this experience is of very great importance, I think. When a scientist doesn't know the answer to a problem, he is ignorant. When he has a hunch as to what the result is, he is uncertain. And when he is pretty darned sure of what the result is going to be, he is in some doubt. We have found it of paramount importance that in order to progress we must recognize the ignorance and leave room for doubt. Scientific knowledge is a body of statements of varying degrees of certainty—some most unsure, some nearly sure, none absolutely certain." Nobel Prize Scientist Richard P. Feynman.

We must leave room for the "doubt" about mans role in global warming and question if it is real, especially as we struggle with the coldest winters around the world over the past decades.

Roald Larsen | October 01, 2015 - 5:15 PM

100% of real scientist knows there's no man made global warming, cause, if you can't empirical show the effects, real scientists know you have to go back to 0-hypothese. If you don't, you're not a scientist. That means; No Man Made Global Warming!

Les K | November 01, 2015 - 1:17 AM

Cooke's 98% consensus amounted to 76 out of 77 self-described "climate scientists" agreeing.

Chris | November 20, 2015 - 4:49 PM

Dion, that 98% lie was proved fraudulent many years ago. Stop making up stats.

JAMES MATKIN | November 20, 2015 - 7:15 PM

There is no doubt S. Fred Singer's estimate of sceptical scientists about the anthropogenic global warming theory are growing as the evidence of contradicts the theory. The Pacific Islands are increasing by 8% not abrading; the Antarctic ice is Incredibly gaining 100 billion more ice pack annually, there has been no hurricane in North America for > 10 years. The seas rise is only 5 inches over the past 100 years not 6" as thought. Most important the 97% "consensus" study Cook et al (2013) has been thoroughly refuted in scholarly peer-reviewed journals.

Investigative journalists at Popular Technology looked into precisely which papers were classified within Cook's asserted 97 percent. The investigative journalists found Cook and his colleagues strikingly classified papers by such prominent, vigorous skeptics as Willie Soon, Craig Idso, Nicola Scafetta, Nir Shaviv, Nils-Axel Morner and Alan Carlin as supporting the 97-percent consensus. For example Scafetta explained. "What my papers say is that the IPCC [United Nations Intergovernmental Panel on Climate Change] view is erroneous because about 40-70% of the global warming observed from 1900 to 2000 was induced by the sun."



[Judith Curry](#) of the Georgia Institute of Technology and blogger at Climate Etc. talks with EconTalk host [Russ Roberts](#) about climate change. Curry argues that climate change is a "wicked problem" with a great deal of uncertainty surrounding the expected damage as well as the political and technical challenges of dealing with the phenomenon. She emphasizes the complexity of the climate and how much of the basic science remains incomplete. The conversation closes with a discussion of how concerned citizens can improve their understanding of climate change and climate change policy.

<http://www.econtalk.org/archives...>

<http://curry.eas.gatech.edu/>

FEATURES

‘I was tossed out of the tribe’: climate scientist Judith Curry interviewed

For engaging with sceptics, and discussing uncertainties in projections frankly, this Georgia professor is branded a heretic

[David Rose](#)

It is safe to predict that when 20,000 world leaders, officials, green activists and hangers-on convene in Paris next week for the 21st United Nations climate conference, one person you will not see much quoted is Professor Judith Curry. This is a pity. Her record of peer-reviewed publication in the best climate-science journals is second to none, and in America she has become a public intellectual. But on this side of the Atlantic, apparently, she is too ‘challenging’. What is troubling about her pariah status is that her trenchant critique of the supposed consensus on global warming is not derived from warped ideology, let alone funding by fossil-fuel firms, but from solid data and analysis.

Some consider her a heretic. According to Professor Michael Mann of Pennsylvania State University, a vociferous advocate of extreme measures to prevent a climatic Armageddon, she is ‘anti-science’. Curry isn’t fazed by the slur.

‘It’s unfortunate, but he calls anyone who doesn’t agree with him a denier,’ she tells me. ‘Inside the climate community there are a lot of people who don’t like what I’m doing. On the other hand, there is also a large, silent

group who do like it. But the debate has become hard — especially in the US, because it's become so polarised.' Warming alarmists are fond of proclaiming how 97 per cent of scientists agree that the world is getting hotter, and human beings are to blame. They like to reduce the uncertainties of climate science and climate projections to Manichean simplicity. They have managed to eliminate doubt from what should be a nuanced debate about what to do.

Professor Curry, based at the Georgia Institute of Technology in Atlanta, does not dispute for a moment that human-generated carbon dioxide warms the planet. But, she says, the evidence suggests this may be happening more slowly than the alarmists fear.

In the run-up to the Paris conference, said Curry, much ink has been spilled over whether the individual emissions pledges made so far by more than 150 countries — their 'intentional nationally determined contributions', to borrow the jargon — will be enough to stop the planet from crossing the 'dangerous' threshold of becoming 2°C hotter than in pre-industrial times. Much of the conference will consist of attempts to make these targets legally binding. This debate will be conducted on the basis that there is a known, mechanistic relationship between the concentration of carbon dioxide in the atmosphere and how world average temperatures will rise.

Unfortunately, as Curry has shown, there isn't. Any such projection is meaningless, unless it accounts for natural variability and gives a value for 'climate sensitivity' —i.e., how much hotter the world will get if the level of CO₂ doubles. Until 2007, the UN Intergovernmental Panel on Climate Change (IPCC) gave a 'best estimate' of 3°C. But in its latest, 2013 report, the IPCC abandoned this, because the uncertainties are so great. Its 'likely' range is now vast — 1.5°C to 4.5°C.

This isn't all. According to Curry, the claims being made by policymakers suggest they are still making new policy from the old, now discarded assumptions. Recent research suggests the climate sensitivity is significantly less than 3°C. 'There's growing evidence that climate sensitivity is at the lower end of the spectrum, yet this has been totally ignored in the policy debate,' Curry told me. 'Even if the sensitivity is 2.5°C, not 3°C, that makes a substantial difference as to how fast we might get to a world that's 2°C warmer. A sensitivity of 2.5°C makes it much less likely we will see 2°C warming during the 21st century. There are so many

uncertainties, but the policy people say the target is fixed. And if you question this, you will be slagged off as a denier.’

Curry added that her own work, conducted with the British independent scientist Nic Lewis, suggests that the sensitivity value may still lower, in which case the date when the world would be 2 °C warmer would be even further into the future. On the other hand, the inherent uncertainties of climate projection mean that values of 4 °C cannot be ruled out — but if that turns out to be the case, then the measures discussed at Paris and all the previous 20 UN climate conferences would be futile. In any event, ‘the economists and policymakers seem unaware of the large uncertainties in climate sensitivity’, despite its enormous implications.

Meanwhile, the obsessive focus on CO₂ as the driver of climate change means other research on natural climate variability is being neglected. For example, solar experts believe we could be heading towards a ‘grand solar minimum’ — a reduction in solar output (and, ergo, a period of global cooling) similar to that which once saw ice fairs on the Thames. ‘The work to establish the solar-climate connection is lagging.’

Curry’s independence has cost her dear. She began to be reviled after the 2009 ‘Climategate’ scandal, when leaked emails revealed that some scientists were fighting to suppress sceptical views. ‘I started saying that scientists should be more accountable, and I began to engage with sceptic bloggers. I thought that would calm the waters. Instead I was tossed out of the tribe. There’s no way I would have done this if I hadn’t been a tenured professor, fairly near the end of my career. If I were seeking a new job in the US academy, I’d be pretty much unemployable. I can still publish in the peer-reviewed journals. But there’s no way I could get a government research grant to do the research I want to do. Since then, I’ve stopped judging my career by these metrics. I’m doing what I do to stand up for science and to do the right thing.’

She remains optimistic that science will recover its equilibrium, and that the quasi-McCarthyite tide will recede: ‘I think that by 2030, temperatures will not have increased all that much. Maybe then there will be the funding to do the kind of research on natural variability that we need, to get the climate community motivated to look at things like the solar-climate connection.’ She even hopes that rational argument will find a place in the UN: ‘Maybe, too, there will be a closer interaction between the scientists, the economists and policymakers. Wouldn’t that be great?’

<http://www.spectator.co.uk/2015/...>

A Famous Scientist Becomes a Skeptic

Meteorologist Lennart Bengtsson has long been considered a cool head in the often heated conflict over global warming. In an interview, he defends his decision to join an organization that is skeptical of climate change.

Interview Conducted By Axel Bojanowski



Lennart Bengtsson: "I do not believe it makes sense for our generation to believe or pretend that we can solve the problems of the future."

ALARMIST SCIENTISTS MISBEHAVE

Spectacularly Poor Climate Science At NASA

Dr. James Hansen of NASA, has been the world's leading promoter of the idea that the world is headed towards "climate disaster." There is little evidence to back this up.

In 2008, Hansen wrote about "stabilizing" the climate :

Stabilizing atmospheric CO₂ and climate requires that net CO₂ emissions approach zero, because of the long lifetime of CO₂

arxiv.org/ftp/arxiv/papers/0804/0804.1126.pdf

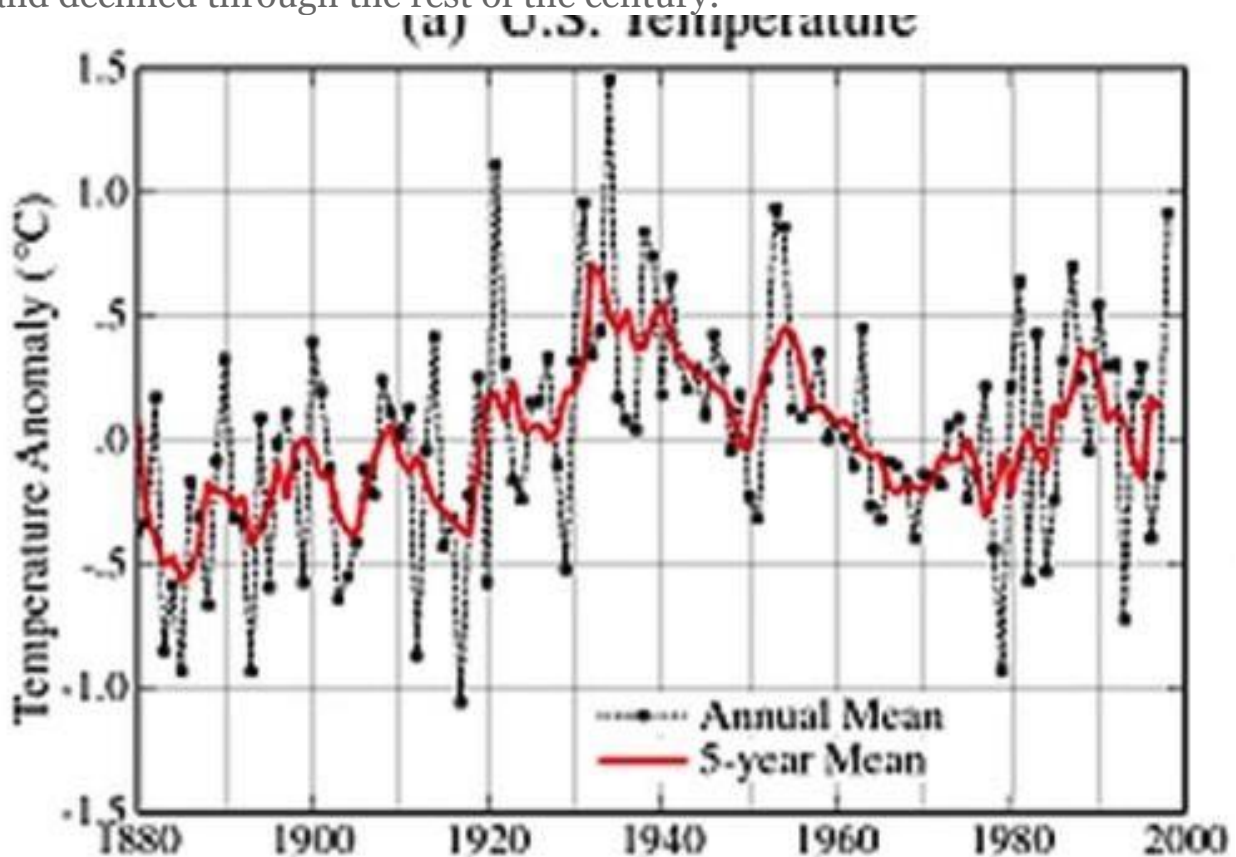
Yet in 1999, he made it quite clear that past climate was not stable, and that there was little evidence to support that idea that the climate was becoming unstable.

Empirical evidence does not lend much support to the notion that climate is headed precipitately toward more extreme heat and drought. The drought of 1999 covered a smaller area than the 1988 drought, when the Mississippi almost dried up. And 1988 was a temporary inconvenience as compared with repeated droughts during the 1930s "Dust Bowl" that

caused an exodus from the prairies, as chronicled in Steinbeck's *Grapes of Wrath*.

[NASA GISS: Science Briefs: Whither U.S. Climate?](#)

In that same 1999 report, he showed that US temperatures peaked in 1934, and declined through the rest of the century.



[NASA fig1x.gif \(500x182\)](#)

In 1989, NOAA and the UK's leading expert agreed with Hansen that US had not warmed.

February 04, 1989

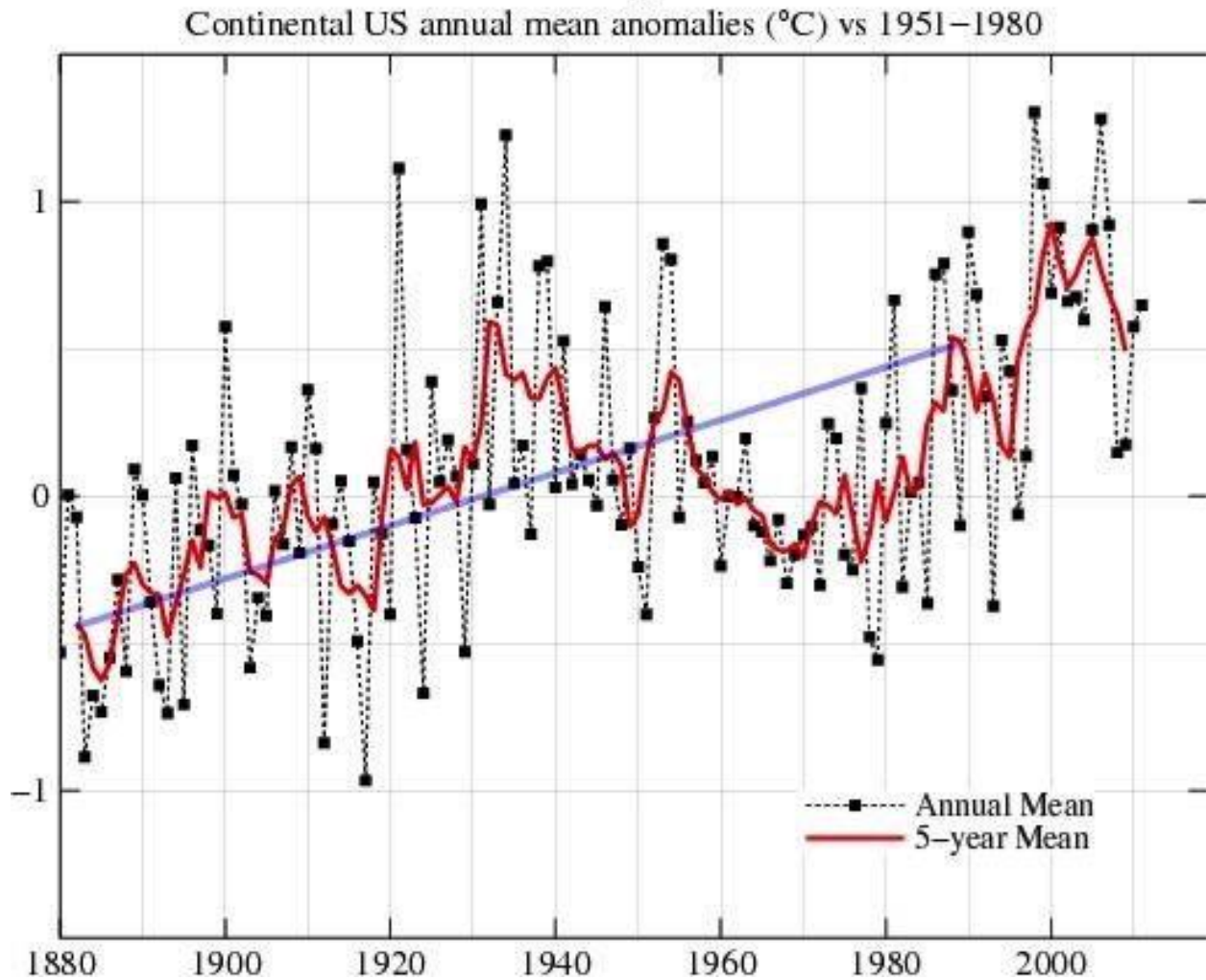
Last week, scientists from the United States Commerce Department's National Oceanic and Atmospheric Administration said that a study of temperature readings for the contiguous 48 states over the last century showed there had been no significant change in average temperature over that period.

Dr. (Phil) Jones said in a telephone interview today that his own results for the 48 states agreed with those findings.

Global Warmth In '88 Is Found To Set a Record – New York Times

But in the year 2000, NASA and NOAA altered the historical US temperature record, which now shows that there was about one degree centigrade US warming during the century before 1989.

The animated image below shows the changes which Dr. Hansen made to the historical US temperature record after the year 1999. He cooled the 1930s, and warmed the 1980s and 1990s. The year 1998 went from being more than half a degree cooler than 1934, to warmer than 1934.



[NASA Fig.D.gif \(513×438\)](#)

Hansen's recent temperature data tampering is not limited to the US. He has done the same thing all over the planet. Below is one recent example in Iceland, where he dramatically cooled the first half of the century, and warmed the present. He appears to be trying to erase evidence that there was a very warm period in much of the Arctic around 1940.

Hansen has never provided any evidence to support the idea that skeptics are either well funded or intentionally misleading the public, yet he frequently repeats this claim.

Dr. Hansen has suggested that fossil fuel corporation CEOs are intentionally committing high crimes against the planet – because they don't believe his spectacularly failed mispredictions.

Hansen went on to say: “CEOs of fossil energy companies know what they are doing and are aware of long-term consequences of continued business as usual. In my opinion, these CEOs should be tried for high crimes against humanity and nature.”

[James Hansen: Try Fossil Fuel CEOs For ‘High Crimes Against Humanity](#)

Additionally Dr. Hansen has been arrested several times for committing crimes in “defense of the planet”



Spectacularly Poor Climate Science At NASA

Sadly, for political and financial gain the overconfident scientists and leading politicians have fudged and misrepresented the data to keep their alarmist warming hypothesis alive.

THE OVERCONFIDENCE EFFECT IN PLAY

How much confidence should we have in our own knowledge? Psychologists Howard Raiffa and Marc Alpert, wondering the same thing, have interviewed hundreds of people in this way. Sometimes they have asked participants to estimate the total egg production in the United States or the number of physicians and surgeons listed in the Yellow Pages of the phone directory for Boston or the number of foreign automobiles imported

into the United States, or even the toll collections of the Panama Canal in millions of dollars. Subjects could choose any range they liked, with the aim of being no more than 2 percent off. The results were amazing. In the final tally, instead of just 2 percent of the respondents being wrong, 40 percent proved incorrect. The researchers dubbed this amazing phenomenon the overconfidence effect.

The overconfidence effect also applies to forecasts, such as stock market performance over a year or your firm's profits over three years. We systematically overestimate our knowledge and our ability to predict—on a massive scale. The overconfidence effect does not deal with whether single estimates are correct or not. Rather, it measures the difference between what people really know and what they think they know (see *The Black Swan*, Taleb). What's surprising is this: Experts suffer even more from the overconfidence effect than laypeople do. If asked to forecast oil prices in five years' time, an economics professor will be as wide of the mark as a zookeeper will. However, the professor will offer his forecast with certitude.

The overconfidence effect does not stop at economics: In surveys, 84 percent of Frenchmen estimate that they are above-average lovers (Taleb). Without the overconfidence effect, that figure should be exactly 50 percent—after all, the statistical “median” means 50 percent should rank higher and 50 percent should rank lower. In another survey, 93 percent of the U.S. students estimated to be “above average” drivers. And 68 percent of the faculty at the University of Nebraska rated themselves in the top 25 percent for teaching ability. Entrepreneurs and those wishing to marry also deem themselves to be different: They believe they can beat the odds. In fact, entrepreneurial activity would be a lot lower if the overconfidence effect did not exist. For example, every restaurateur hopes to establish the next Michelin-starred restaurant, even though statistics show that most close their doors after just three years. The return on investment in the restaurant business lies chronically below zero.

What makes the overconfidence effect so prevalent and its effect so confounding is that it is not driven by incentives; it is raw and innate. And it's not counterbalanced by the opposite effect, “underconfidence,” which doesn't exist. No surprise to some readers: the overconfidence effect is more pronounced in men—women tend not to overestimate their knowledge and abilities as much. Even more troubling: Optimists are not the only victims of the overconfidence effect. Even self-proclaimed pessimists overrate themselves—just less extremely.

In conclusion: Be aware that you tend to overestimate your knowledge. Be skeptical of predictions, especially if they come from so-called experts. And with all plans, favor the pessimistic scenario. This way, you have a chance of judging the situation somewhat realistically.

[The Overconfidence Effect](#)

OVERCONFIDENCE IN RENEWABLES IS DEVASTATING FOR THE POOR

1. Renewables do not work. They cannot provide baseload energy.
2. They are expensive and simply unaffordable for developing countries. A first world indulgence if you like.
3. Renewables "green" credentials are also fairly dubious. As an example, there is a school of thought that the amount of energy that goes into producing wind turbines is actually greater than the energy they produce.
4. There are emerging technologies that could well get coal back in the game for even 1st world countries

Exposed: How world leaders were duped into investing billions over manipulated global warming data

Read more: <http://www.dailymail.co.uk/scien...>

14th October, 2015. Lecture by Dr Patrick Moore in London at the Global Warming Policy Foundation outlining why our CO₂ emissions are wholly beneficial, and may have even prevented the end of life on Earth.

The TRUTH about carbon dioxide (CO₂): Patrick Moore, Sensible Environmentalist

<https://www.youtube.com/watch?v=...> Pragur U.

HIDING THE DECLINE IN TEMPERATURES



From the start the science of climate alarmism has been clouded with fudged and misleading data deliberately used to make the results show more warming when nature failed to cooperate. Stories around the world abound of record colder weather. As I write this article the US is under an unusual March blizzard burying many cities of snow.

Following storm, an icy morning greets Greater Boston

By [John R. Ellement](#) GLOBE STAFF MARCH 15, 2017

The return to work is an icy one - and that won't change any time soon, the National Weather Service said Wednesday.

One day after a powerful nor'easter brought snow, wind and rain to the region, temperatures will remain below freezing throughout Wednesday as

a wave of Arctic air keeps the region in an actual deep freeze at least into Friday.

“Unfortunately, we are looking at a kind of cold pattern and it just kind of keeps reloading,” said Frank Nocera, a weather service meteorologist. “Temperatures should be in the mid to upper 40s for this time of year, but we are not going to crack freezing today.”

Nocera said with the angle of the sun during March, some snow melting will take place even during the cold times only to refreeze overnight when temperatures drop into the teens. And the process known as sublimation, where snow naturally turns into a gas, will also help somewhat.

“There’s really only one day in the next seven days where temperatures will actually get where they should be at this time of year, in the 40s,” Nocera said. “It’s just going to stick around longer. You are not really getting rid of the snow through melting.”

Winter returns with deep snow in parts of Mass.



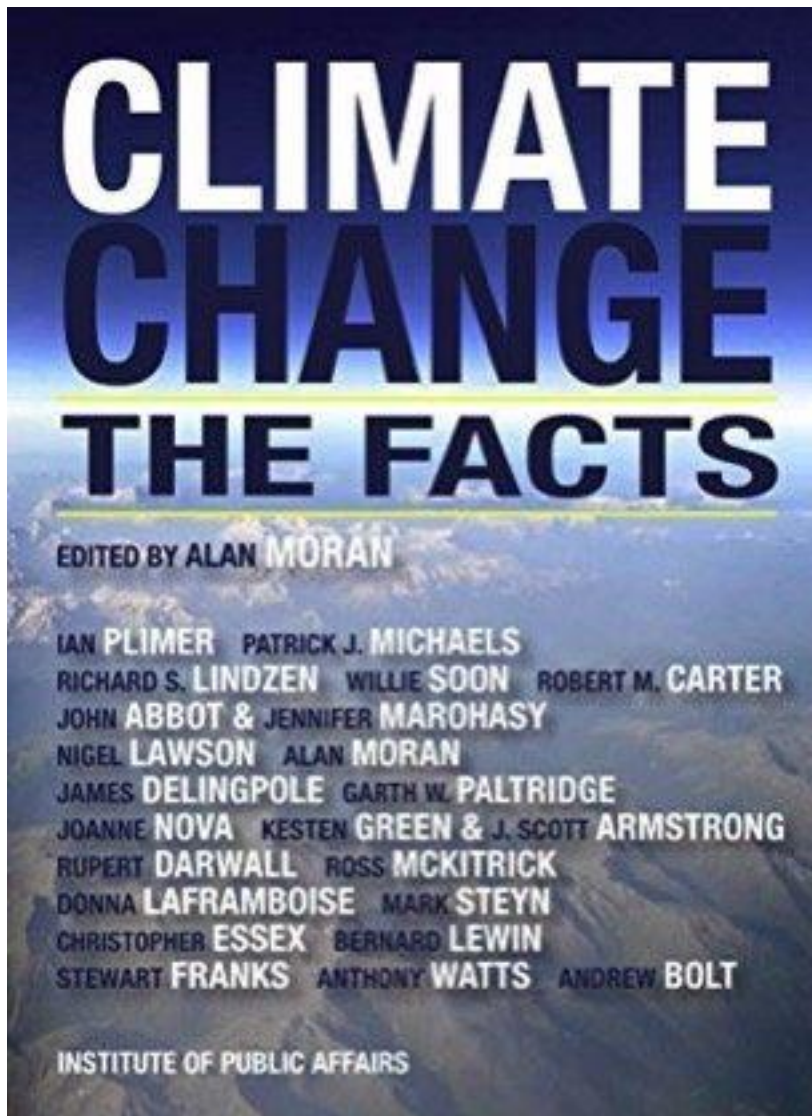
Asia cold snap: Scores dead as freezing 'polar vortex' sweeps across eastern Asia

Asia's 'polar vortex' has seen some regions hit by their coldest weather for more than half a century

Adam Withnall Jan. 25, 2016

<http://www.independent.co.uk/new...>

My intention is to rely on the facts by using a vital compendium of science articles published by the prestigious INSTITUTE OF PUBLIC AFFAIRS in Australia.



The Facts, featuring 22 essays on the science, politics and economics of the climate change debate. Climate Change: The Facts features the world's leading experts and commentators on climate change. Highlights of Climate Change: The Facts include:

Ian Plimer draws on the geological record to dismiss the possibility that human emissions of carbon dioxide will lead to catastrophic consequences for the planet. Patrick Michaels demonstrates the growing chasm between

the predictions of the IPCC and the real world temperature results. Richard Lindzen shows the climate is less sensitive to increases in greenhouse gases than previously thought and argues that a warmer world would have a similar weather variability to today. Willie Soon discusses the often unremarked role of the sun in climate variability. Robert Carter explains why the natural variability of the climate is far greater than any human component. John Abbot and Jennifer Marohasy demonstrate how little success climate models have in predicting important information such as rainfall.

Nigel Lawson warns of the dire economic consequences of abandoning the use of fossil fuels. Alan Moran compares the considerable costs of taking action compared to the relatively minor potential benefits of doing so. James Delingpole looks at the academic qualifications of the leading proponents of catastrophic climate change and finds many lack the credentials of so-called 'sceptics'. Garth Paltridge says science itself will be damaged by the failure of climate forecasts to eventuate. Jo Nova chronicles the extraordinary sums of public money awarded to climate change activists, in contrast to those who question their alarmist warnings. Kesten Green and Scott Armstrong compare climate change alarmism to previous scares raised over the past 200 years. Rupert Darwall explains why an international, legally binding climate agreement has extremely minimal chances of success. Ross McKittrick reviews the 'hockey stick' controversy and what it reveals about the state of climate science.

Donna Laframboise explains how activists have taken charge of the IPCC. Mark Steyn recounts the embarrassing 'Ship of Fools' expedition to Antarctica. Christopher Essex argues the climate system is far more complex than it has been presented and there is much that we still don't know. Bernie Lewin examines how climate change science came to be politicised. Stewart Franks lists all the unexpected developments in climate science that were not foreseen. Anthony Watts highlights the failure of the world to warm over the past 18 years, contrary to the predictions of the IPCC. Andrew Bolt reviews the litany of failed forecasts by climate change activists.

A major amount of analysis is devoted to the more than 100 emails called CLIMATEGATE. The emails give valuable insight into how the distortion of science for political and monetary gain happened.

The classic cheating exposed by the “climate gate emails” is very troubling. Here is a primary confession of fudging from only one of more than 100 email documents -

November 16, 1999: email 0942777075

That background now paves the way to our understanding the historic email which generations of schoolchildren to come will study as the 33 words which summarize one of the most serious scientific frauds in the history of Western science.

Phil Jones to Ray Bradley, Mike Mann, Malcolm Hughes, Keith Briffa, and Tim Osborn, regarding a diagram for a World Meteorological Organization Statement:

I’ve just completed Mike’s Nature trick of adding in the real temperatures to each series for the last 20 years (i.e. from 1981 onwards) and from 1961 for Keith’s to hide the decline. [emphasis added]

This email was sent less than two months after the one analysed above. Clearly, Mike Mann’s problems with Keith Briffa’s data—that it didn’t agree with the real temperature measurements from 1961 onwards—had by this time spread to the data for the other “temperature proxies”, albeit only from 1981 onwards. Jones reveals that Mann did not address this problem by making an honest note of it in the paper that he and his co-authors published in Nature, but rather by fraudulently substituting the real temperature data into the graphs, for the past 20 or 40 years as required.

That Mann did so would, of itself, disqualify him and all of his research from any future consideration in the annals of science; but here we have the other leader of the field, Phil Jones, bragging that he admired the “trick” so much that he adopted it himself. Moreover, his email was sent to the major players who dominated this field. It is their silence and collaboration over the following decade in “hiding the decline” which justifies the use of the word “conspiracy”; a conspiracy which will rob the “discipline” of climate science of any credibility, and which will cast suspicion about the integrity of Western science for many decades to come.

<http://www.lavoisier.com.au/arti...>

THE CLIMATEGATE EMAILS

The Institute of Public Affairs has been a leading sceptical voice about the science of global warming for more than a decade.

We don't believe 'the science is settled'. As a think tank committed to the ideals of free and open enquiry and debate we are not afraid to stand against the mainstream of prevailing elite opinion. Time and time again, the mainstream of elite opinion has been proved wrong.

Since its formation in 1943 the Institute of Public Affairs has a proud record of arguing for the principles of liberal democracy, personal responsibility, and limited government. Often our advocacy of these principles has been unpopular. For example, in the 1940s the IPA stood almost alone in its opposition to bank nationalisation and government control of the economy. In the 1980s the IPA argued passionately that empowerment for Aboriginal people was through education, employment, and individual property rights. The IPA's view on Aboriginal policy was contrary to the mainstream of elite opinion at the time, and the IPA was attacked for having such a position.

*Today, there is the issue of global warming. The IPA is proud to be sceptical about the science of climate change. The IPA believes in free, and honest, and vigorous debate about public policy. That is why the IPA has produced this book *Climate Change: The Facts*.*

Scepticism should be a hallmark of science. A 'sceptic' was once defined as someone who asked questions. Science should be about asking questions. Unfortunately when it comes to the 'science' of climate change, those who dare to ask questions are too often labelled 'deniers'.

(The use of the term 'denier' to describe those who question whether humans have in fact caused catastrophic climate change is a sad reflection on the condition of scientific debate in the twenty-first century.)

Climate Change: The Facts presents a range of analyses on climate change from some of the world's leading scientists and analysts. Although these perspectives could broadly be described as 'sceptical', some of the authors do accept that humans could be responsible for changing the earth's climate. But for them the issue is the extent of any human-induced climate change, and whether what is proposed by those such as the United Nations Intergovernmental Panel on Climate Change (IPCC) to stop global warming will be either ineffective or will produce outcomes worse

than any of the problems that might be caused by any anticipated climate change.

The IPA has published this selection of ‘sceptical’ viewpoints in Climate Change: The Facts because there has been so little debate about the science of climate change. The public has been told by politicians that ‘the science is settled’. In fact, as we know now, ‘the science’ is far from settled. And surely before something is ‘settled’ it should be the subject of rigorous argument, challenge, and debate. This has not happened.

Instead what has occurred is that a small clique of researchers have constructed a consensus and they have refused to consider the contributions of anyone who dares question that consensus. The recently revealed records of the Climatic Research Unit at East Anglia University, the so-called ‘Climategate’ demonstrate the extent to which some researchers have been willing to collude together to intimidate dissenters. Perhaps the most alarming revelation from Climategate is the revelation of the way in which the researchers on whom the IPCC has come to rely have refused to make public the evidence on which they have based their findings. To withhold or destroy evidence is a complete abrogation of the scientific method.

Those who read Climate Change: The Facts will quickly see that there is no such thing as a single or unified ‘sceptical’ position on climate change. Each contributor has a different perspective. From time to time the ‘sceptics’ disagree among themselves. And that is as it should be. The science of climate is complicated and uncertain and there are still many things we don’t know.

Only politicians are arrogant enough to believe they have all the answers.

Melbourne, February 2010

CLIMATEGATE

A failure of governance by

Sinclair Davidson

University of East Anglia’s Climatic Research Unit (CRU) web server and obtained several thousand documents and email files. These documents were subsequently republished on the

There is more to this story than the 'ho hum, nothing to see here' attitude being displayed by those who believe in global warming.

THE EMAIL CONTROVERSY

Early Climategate discussion centred on the contents of the emails. The authors of the emails have confirmed the emails are authentic and have attempted to explain what the emails 'really' meant. Some have argued that the emails are being taken out of context, and that the scientific jargon employed in the emails is different to the plain language meaning that laypersons might otherwise attribute to them. Yet it is difficult to explain away all the information that is contained in the emails by employing these arguments.

At face value, the emails suggest a sustained pattern of very poor behaviour; this includes attempts to subvert the peer-review process, refusal to make data available to journals, attempts to manipulate the editorial stance of journals, attempts to avoid releasing data following Freedom of Information requests, tax evasion, rejoicing at the deaths of opponents, manipulation of results, apparent misappropriation of grant money, and threats to physically assault rivals. Some of this behaviour may be illegal. To be sure, this behaviour does not automatically mean that the results of some of the authors' scientific work itself are wrong or have been fabricated. Nonetheless, it does suggest that greater caution needs to be applied when translating the 'scientific consensus' to public policy.

Table 1.1: Selected quotes from Climategate emails

Quote

Author

Date

'I've just completed Mike's Nature trick of adding in the real temps to each series for the last 20 years (i.e. from 1981 onwards) and from 1961 for Keith's to hide the decline.'

Phil Jones

November 16, 1999

'I can't see either of these papers being in the next IPCC report. Kevin and I will keep them out somehow—even if we have to redefine what the peer-review literature is!'

Phil Jones

July 8, 2004

'If they ever hear there is a Freedom of Information Act now in the UK, I think I'll delete the file rather than send to anyone.'

Phil Jones

February 2, 2005

'The scientific community would come down on me in no uncertain terms if I said the world had cooled from 1998. OK it has but it is only seven years of data and it isn't statistically significant ... As you know, I'm not political. If anything, I would like to see the climate change happen, so the science could be proved right, regardless of the consequences. This isn't being political, it is being selfish.'

Phil Jones

July 5, 2005

'I'll maybe cut the last few points off the filtered curve before I give the talk again as that's trending down as a result of the end effects and the recent cold-ish years.'

Mike Kelly

October 26, 2008

'Next time I see Pat Michaels at a scientific meeting, I'll be tempted to beat the crap out of him. Very tempted.'

Ben Santer

October 9, 2009

'When the FOI requests began here, the FOI person said we had to abide by the requests ... Once they became aware of the types of people we were dealing with, everyone at UEA (in the registry and in the Environmental Sciences school—the head of school and a few others) became very supportive.'

Phil Jones

December 3, 2008

Source: All Climategate emails are available at <http://www.eastangliaemails.com/>

ACADEMIC FREEDOM AND PEER REVIEW

In a society characterised by the division of labour and specialisation, mechanisms must be developed or evolved that facilitate trade. This is the classic ‘lemons problem’ in economics; how does anyone know that the person they are trading with is any good? The same problem applies to academic research; how can anyone know that any piece of work is competent and high-quality research? The mechanism that has evolved in academic circles is the peer-review process. Academic freedom, combined with the peer-review process, is an evolved mechanism that ensures that research produces, over time, scientific results that are more likely to have eliminated error and falsehood.

George Stigler has described academic freedom as being the trivially true, then having that argument challenged causes no harm.

Of course, the difficulty is that many arguments (and perhaps facts) are often uncertain. Stigler tells us that having the argument challenged helps to remove error, or helps to improve understanding of the initial argument. This is the common understanding of academic freedom and the peer-review process.

It is apparent, however, that the scientists involved in the Climategate scandal had a very different understanding of academic freedom and peer-review. When they did not agree with a particular author or work they would describe it as being ‘crap science’. An email between Tom Wigley and Timothy Carter (copied to Phil Jones and Mike Hulme) contained this extraordinary comment:

Hans von Storch is partly to blame—he encourages the publication of crap science ‘in order to stimulate debate’. One approach is to go direct to the publishers and point out the fact that their journal is perceived as being a medium for disseminating misinformation under the guise of refereed work ... Mike’s idea to get editorial board members to resign will probably not work—must get rid of von Storch too, otherwise holes will eventually fill up with people

But these are serious scientists. David Legates is an Associate Professor in climatology at the University of Delaware. Robert C. Balling is a Professor at Arizona State University. Richard Lindzen is a Professor of Meteorology at the Massachusetts Institute of Technology. Patrick J.

Michaels is a Distinguished Senior Fellow at George Mason University and a past president of the American Association of State Climatologists. Fred Singer is a Professor Emeritus of environment science at the University of Virginia.

Furthermore, stimulating debate is precisely what academic journals are meant to do. It is simply astonishing that a scientist could imagine that he was publishing the last word in any topic and that any disagreements were ‘crap science’ and that the editor needed to be removed and the editorial board be stacked with sympathetic voices—as opposed to unsympathetic voices. We see this in an email from Phil Jones:

I will be emailing the journal to tell them I’m having nothing more to do with it until they rid themselves of this troublesome editor. A CRU person is on the editorial board, but papers get dealt with by

Phil Jones is the head of the CRU; in other words he wants to have his own work and that of his colleagues refereed by one of his own subordinates.

It is a comment in an email between Phil Jones and Michael Mann that has generated much media coverage: ‘Kevin and I will keep them out somehow—even if we have to redefine what the peer- IPCC process. Those same academics who are attempting to undermine the position of journal editors and editorial boards are in turn involved in establishing what the peer-reviewed literature is for external consumption and they arbitrarily exclude some or other papers of which they do not approve.

THE FALLOUT

In the first instance the integrity of the peer-review process has been challenged. Herald Sun columnist Andrew Bolt asked ‘Is that the truth, or were you peer-reviewed?’ after yet another study Steyn had an entire column in the Washington Times on peer-review. It is worth quoting at length.

The more frantically they talked up ‘peer review’ as the only legitimate basis for criticism, the more assiduously they turned the process into what James Lewis calls the Chicago machine politics of international science.

The headline in the Wall Street Journal Europe is unimprovable: 'How To Forge A Consensus.' Pressuring publishers, firing editors, blacklisting scientists: That's 'peer review,' climate-style.

The more their echo chamber shriveled, the more Mr. Mann and Mr. Jones insisted they and only they represent the 'peer-reviewed' 'consensus' ... 'Quis custodiet ipsos custodes?' wondered Juvenal: Who watches the watchmen? But the beauty of the climate-change tree-ring circus is that you never need to ask 'Who peer reviews the peer reviewers?' Mr. Mann peer reviewed Mr. Jones, and Mr. Jones peer reviewed Mr. Mann, and anyone who questioned their James Delingpole, writing in the Telegraph, is far more expansive: It's perhaps the single most important fact to emerge from the

Climategate scandal. Peer-review is dead. Meaningless. Utterly void of credibility. More irredeemably defunct than a Norwegian Blue...

What the CRU's hacked emails convincingly demonstrate is that climate scientists in the AGW camp have corrupted the peer-review process. In true Gramscian style they marched on the institutions—capturing the magazines (Science, Scientific American, Nature, etc), the seats of learning (Climate Research Institute; Hadley Centre), the NGO's (Greenpeace, WWF, etc), the political bases (especially the EU), the newspapers (pretty much the whole of the MSM I'm ashamed, as a print journalist, to say)—and made sure that the only point of view deemed academically

Both Delingpole and Steyn suggest there are fundamental problems with climate science and the peer-review process. Both of these individuals, however, are well-known to be climate change sceptics. George Monbiot, however, is decidedly not a climate change sceptic. Rather he is an global warming activist and columnist for The Guardian. In a column on 23 November 2009 he wrote,

It's no use pretending that this isn't a major blow. The emails extracted by a hacker from the climatic research unit at the University of East Anglia could scarcely be more damaging. I am now convinced that they are genuine, and I'm dismayed and deeply shaken by them... I believe that the head of the unit, Phil Jones, should now resign. Monbiot does not believe that the emails undermine the totality of evidence in support of the global warming hypothesis, but does believe that the emails

are evidence of inappropriate behaviour. Indeed, he went on to apologise to his readers.

I apologise. I was too trusting of some of those who provided the evidence I championed. I would have been a better journalist if I

Writing in his The Guardian blog on 25 November, Monbiot again calls for the resignation of Phil Jones and expands on his earlier argument.

Some people say that I am romanticising science, that it is never as open and honest as the Popperian ideal. Perhaps. But I know that opaqueness and secrecy are the enemies of science. There is a word for the apparent repeated attempts to prevent disclosure This is, of course, the core problem identified by the Climategate leaks. The global warming lobby research is tainted by allegations that it is unscientific. This is precisely the charge the global warming lobby has been making for years against its own opponents.

The University of East Anglia, host of the Climatic Research Unit, has announced an inquiry into the whole affair. Similarly, Penn State University has announced an investigation into Professor Michael Mann—an employee who features very prominently in the praising his work on the now notorious hockey stick. (Quite possibly this will not be a serious investigation.) Senator James Inhofe, the ranking Republican on the US Senate Committee on Environment and this is an American body, it will still have some jurisdiction in the matter—the CRU has accepted substantial funding from American government agencies. Senator Inhofe has written to the American academics and American government agencies that have been named in the emails and advised them that he will be conducting an investigation into the affair and that they will need to retain all records. This inquiry is likely to have greater impact than will the internal university investigations.

Donald Kennedy, emeritus president of Stanford University, has written a book entitled Academic Duty; one such duty he identifies is ‘to tell the truth’. He writes:

... the most interesting fact about research misconduct is that it tends to occur in places where the pace of activity, the size of the group, and the scope of work make personal accountability difficult. A terse but perhaps not terribly useful conclusion would be that fraud occurs when the right people aren't paying enough In his 1966 classic, The Organization of

Inquiry, Gordon Tullock made much the same point: 'It is not that scientists are more honest clear that there is a governance failure at the heart of Climategate.

In the first instance, the publishers of the academic journals should have asked harder questions. Is it appropriate that individual academics can blackmail academic publishers into sacking editors and editorial boards? The publishers should have made a full and frank disclosure at the time these events occurred. We know that the CRU was able to avoid, delay or obfuscate on Freedom of Information requests with the full cooperation of those individuals at the University of East Anglia whose jobs it was to ensure compliance. Furthermore, we know that journalists did not investigate global warming claims as carefully as they should have.

CONCLUSION

Irrespective of whether Climategate develops into an even greater scandal than it already is, we know that the mechanisms to ensure that research results are more likely to be accurate and correct have been tainted.

But we can have no confidence in the observations that temperature has increased due to human activity because the mechanisms of science have been subverted. This is not rare in academia. As George Stigler has noted, in a different context:

It has gradually become evident that this community imposes sharp limits on the range of respectable opinion within its ranks.

None of this would matter much, but for the politicisation of climate science. Poor scientific behaviour has become the basis of economic policy making that is likely to have very large repercussions on the world economy and the Australian economy in particular. It is important that economic policy is formulated on a sound empirical basis. Climategate has damaged and perhaps undermined the claims of the global warming lobby.

The great economics writer, Adam Smith, believed that cartels and conspiracies against the public were unstable and would ultimately fall apart. Without the actions of an anonymous hacker (perhaps an internal whistleblower) we might never have discovered the full extent of the machinations of the scientists involved in Climategate.

Doomed Planet

Richard S. Lindzen

to the history of the Earth or any other planet with a fluid envelope. The fact that the developed world went into hysterics over changes in a global mean temperature anomaly of a few tenths of a degree will astound future generations.

Such hysteria simply represents the scientific illiteracy of much of the public, the susceptibility of the public to the substitution of repetition for truth, and the exploitation of these weaknesses by politicians, environmental promoters, and, after twenty years of media drum-beating, many others as well.

Climate is always changing. We have had ice ages and warmer periods when alligators were found in Spitzbergen. Ice ages have occurred in a hundred thousand year cycle for the last 700,000 years, and there have been previous periods that appear to have been being lower than they are now.

More recently, we have had the Medieval Warm Period, and the Little Ice Age. During the latter, alpine glaciers advanced to the chagrin of overrun villages. Since the beginning of the nineteenth century these glaciers have been retreating. Frankly, we do not fully understand either the advance or the retreat.

For small changes in climate associated with tenths of a degree, there is no need for any external cause. The Earth is never exactly in equilibrium. The motions of the massive oceans where heat is moved between deep layers and the surface provides variability on time scales from years to centuries. Recent work suggests that this variability is enough to account for all climate change since the nineteenth. Supporting the notion that man has not been the cause of this unexceptional change in temperature is the fact that there is a distinct signature to greenhouse warming: surface warming should be accompanied by warming in the tropics around an altitude of about nine kilometres that is about 2.5 times greater than at the surface. Measurements show that warming at these levels is only about three-quarters of what is seen at the surface, implying that only about a third of the surface warming is associated with the greenhouse effect, and, quite possibly, not all of even this really small implies that all models predicting significant warming are greatly overestimating warming. This should not be surprising, though inevitably in climate science, when data

conflicts with models, a small coterie of scientists can be counted upon to modify the data. Thus stretching uncertainties in observations and models

That the data should always need correcting to agree with models is totally implausible and indicative of a certain corruption within the climate science community.

It turns out that there is a much more fundamental and unambiguous check of the role of feedbacks in enhancing greenhouse warming that also shows that all models are greatly exaggerating climate sensitivity. Here, it must be noted that the greenhouse effect operates by inhibiting the cooling of the climate by reducing net outgoing radiation.

However, the in fact, lead to much warming (approximately 1°C for a climate models are due to the fact that, within these models, the more important greenhouse substances, water vapor and clouds, act to amplify is referred to as a positive feedback. It means that increases in surface temperature are accompanied by reductions in the net outgoing radiation—thus enhancing the greenhouse warming.

All climate models show such changes when forced by observed surface temperatures. Satellite observations of the Earth's radiation budget allow us to determine whether such a reduction does, in fact, accompany increases in surface temperature in nature. As it turns out, the satellite data show that the feedback in nature is clear that even when all models agree, they can all be wrong, and that this is the situation for the all-important question of climate sensitivity.

According to the United Nation's Intergovernmental Panel on Climate Change (IPCC), the greenhouse forcing from man-made greenhouse gases is already about 86 per cent of what one expects from a from methane, nitrous oxide, freons, and ozone), and alarming predictions depend on models for which the sensitivity to a implies that we should already have seen much more warming than we have seen thus far, even if all the warming we have seen so far were due to man.

This contradiction is rendered more acute by the fact that there has been no statistically significant net global warming for the last fourteen years. Modellers defend this situation by arguing that aerosols have cancelled much of the warming, and that models adequately account for natural unforced internal variability. However, a recent paper points out that aerosols can warm as well as cool, while scientists at the UK's Hadley

Centre for Climate Research recently noted that their model did not appropriately deal with natural internal variability, thus demolishing the basis for the

Interestingly (though not unexpectedly), the Hadley Centre research paper did not stress this. Rather, its authors speculated that natural internal variability might step aside in 2009, allowing warming to resume. The fact that warming has ceased for the past fourteen years is acknowledged. It should be noted that, more recently, German modellers have moved the date for 'resumption' to Climate alarmists respond that some of the hottest years on record have occurred during the past decade. As we are in a relatively warm period, this is not surprising, but it says nothing about trends.

Given that the evidence (and I have noted only a few of many pieces of evidence) strongly implies that anthropogenic global warming has been greatly exaggerated, the basis for alarm due to such warming is similarly diminished. However, a really important point is that the case for alarm would still be weak even if anthropogenic global warming were significant. Polar bears, arctic summer sea ice, regional droughts and floods, coral bleaching, hurricanes, alpine glaciers, malaria, etc. all depend not on some global average of surface temperature anomaly, but on a huge number of regional variables including temperature, humidity, cloud cover, precipitation, and direction and magnitude of wind. The state of the ocean is also often crucial.

Our ability to forecast any of these over periods beyond a few days is minimal. Yet, each catastrophic forecast depends on each of these being in a specific range. The odds of any specific catastrophe actually occurring are almost zero. This was equally true for earlier forecasts of famine for the 1980s, global cooling in the 1970s, Y2K and other panics.

Regionally, year-to-year fluctuations in temperature are over four times larger than fluctuations in the global mean. Much of this variation has to be independent of the global mean; otherwise the global mean would vary much more.

This is simply to note that factors other than global warming are more important to any specific situation. This is not to say that disasters will not occur; they always have occurred and this will not change in the future. Fighting global warming with symbolic gestures will certainly not

change this. However, history tells us that greater wealth and development can profoundly increase our resilience.

In view of the above, one may reasonably ask why there is the current alarm, and, in particular, why the astounding upsurge in alarmism of the past four years.

When an issue like global warming is around for over twenty years, numerous agendas are developed to exploit the issue. The interests of the environmental movement in acquiring more power, influence, and donations are reasonably clear. So too are the true.. Politicians can see the possibility of taxation that will be cheerfully accepted because it is necessary for 'saving' the Earth. Nations have seen how to exploit this issue in order to gain competitive advantages.

The sale of indulgences is already in full swing with organisations selling offsets to one's carbon footprint while sometimes acknowledging that the offsets are irrelevant. The possibilities for corruption are immense.

And finally, there are the numerous well-meaning individuals who have allowed propagandists to convince them that in accepting the alarmist view of anthropogenic global warming, they are displaying intelligence and virtue. For them, their psychological welfare is at stake.

With all this at stake, one can readily suspect that there might be a sense of urgency provoked by the possibility that warming may have ceased and that the case for such warming as was seen being due in significant measure to humans, disintegrating. For those committed to the more venal agendas, the need to act soon, before the public appreciates the situation, is real indeed.

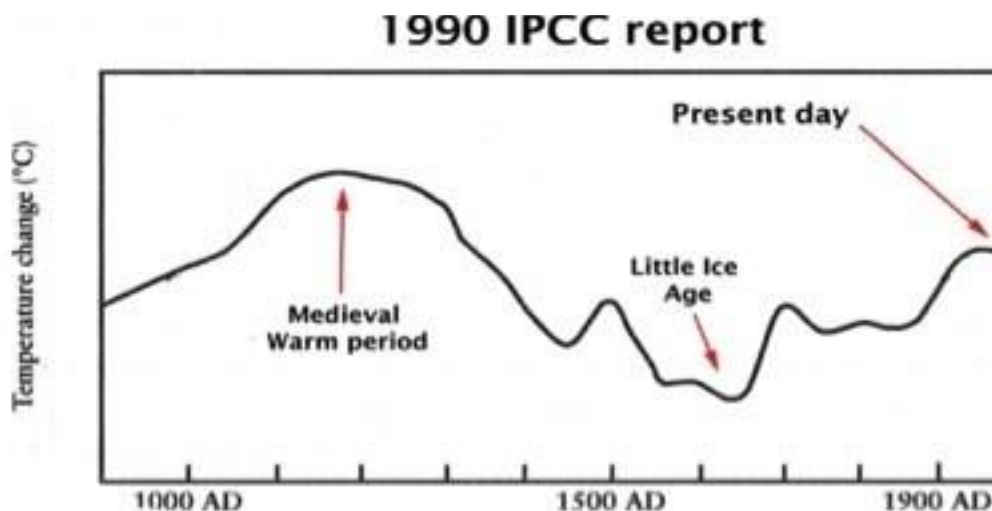
However, for more serious leaders, the need to resist hysteria courageously is clear. Wasting resources on symbolically fighting ever-present climate change is no substitute for prudence. Nor is the assumption that the Earth's climate reached a point of perfection in the middle of the twentieth century a sign of intelligence.

SOURCE: Climate Change: the facts Edited by ALAN MORAN **Introduction** BY John Roskam

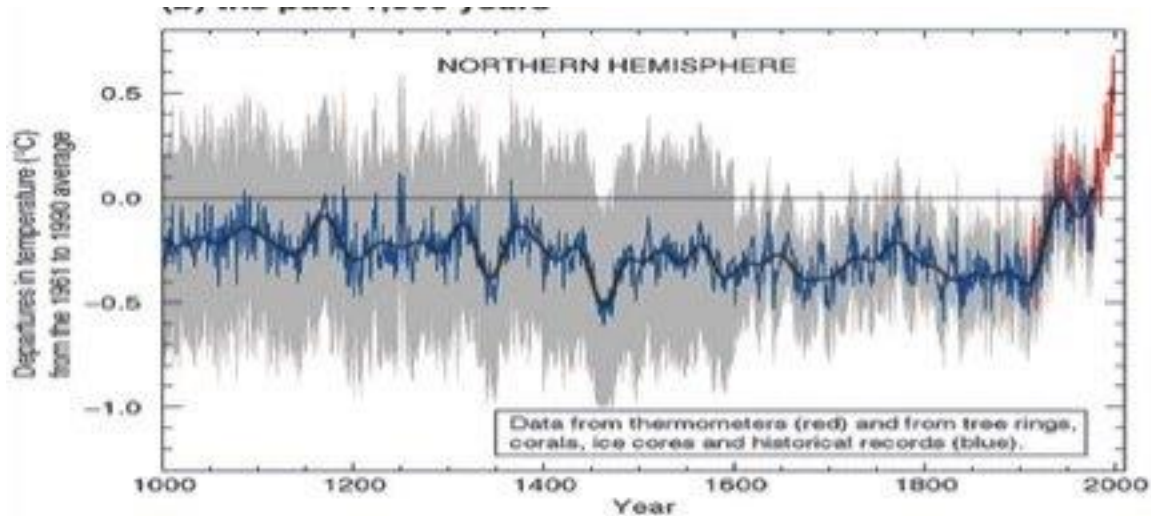
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THE HOCKEY STIKE FUDGE

Climate scientists FUDGING data to support their warming hypothesis started at the beginning with the infamous Michael Mann hockey stick fraud. The misleading data has always been in one direction to overcome the reality of a naturally colder climate. The most infamous and effective deception was the hockey stick graph of Michael Mann showing a dramatic spike in global warming recently. Without the misleading hockey stick graph the Al Gore campaign of fear would not have happened.

”To understand the manipulation see the same time scale with the proper history represented also by the same IPCC below. *In its 1990 report, the IPCC showed the following graph of global temperatures over the last thousand years.*•



This was unexceptional. It showed the established science of the time. It was backed up by a huge amount of data and historical record. It showed the Mediaeval Warm Period, warmer than now, and the Little Ice Age, colder than now, and both entirely natural. But of course this did not suit the purposes of the climate alarm establishment. In its 2001 report, this new graph appeared.



The graph made an immediate sensation. It featured six times in the IPCC's 2001 report. It was brandished around the world as proof positive of dangerous manmade global warming.

In Canada it was distributed to every school. It showed that the Mediaeval Warm Period and the Little Ice Age had not existed. It was exactly what every alarmist wanted to see. It was complete nonsense. It is called the "Hockey Stick" graph because the first flat part resembles the handle of an ice hockey stick, the sudden upturn the blade. The graph was based on two papers in Nature magazine (MBH98 and MBH99). It made the authors famous, especially the lead author, Michael Mann, and greatly advanced their careers in climate alarm. For a long time nobody questioned it or the data it was drawn from. Then a Canadian statistical expert, Steve McIntyre, asked to see the data. Eventually, reluctantly, it was ceded to him. He quickly showed that such data could not yield a Hockey Stick. The graph was pure quackery. The authors had used illegitimate statistical means, especially short-centring the data series for principal component analysis (a statistical method for identifying trends in a mass

This probably represents the worst corruption of science in the history of climate alarm.

Many scientists have been warning politicians for some time that the storm clouds are gathering, and that the IPCC saga is likely to be the biggest scandal in the history of science...

Worse, some scientists at the Climatic Research Unit appear to have been working in league with US scientists who compiled the climate data for the Goddard Institute for Space Studies. The latter data appear to contain

numerous biases which inflate the supposed natural warming of the 20th century. (In fact satellite data shows there has been no global warming since the late 1970s and cooling since 2001, see graph.) In the USA the Competitive Enterprise Institute has now filed three Notices of Intent to File Suit against the Goddard Institute over their 3-year refusal to provide documents requested under the US Freedom of Information Act.

Mathematician Christopher Monckton, former scientific advisor to Margaret Thatcher, describes those implicated by the leaked emails as a "Close-knit clique of climate scientists who invented and now drive the "global warming" fraud -- for fraud is what we now know it to be -- and tampered with temperature data". He adds "I have reported them to the UK's Information Commissioner, with a request that he investigate their offences and, if thought fit, prosecute".

Australia's Professor Ian Plimer agrees with Monckton's position, saying "Here we have the Australian government underpinning the biggest economic decision this country has ever made and it's all based on fraud." <http://www.undeceivingourselves....>

It continues to this day. .

The most recent fudge happened last month. Here is the headline story - **Exposed: How world leaders were duped into investing billions over manipulated global warming data**

- **The Mail on Sunday can reveal a landmark paper exaggerated global warming**
- **It was rushed through and timed to influence the Paris agreement on climate change**
- **America's National Oceanic and Atmospheric Administration broke its own rules**
- **The report claimed the pause in global warming never existed, but it was based on misleading, 'unverified' data**

By [David Rose for The Mail on Sunday](#)

PUBLISHED: 22:57 GMT, 4 February 2017 |

“Dr John Bates’s disclosures about the manipulation of data behind the ‘Pausebuster’ paper is the biggest scientific scandal since ‘Climategate’ in 2009 when, as this paper reported, thousands of leaked emails revealed scientists were trying to block access to data, and using a ‘trick’ to conceal embarrassing flaws in their claims about global warming.

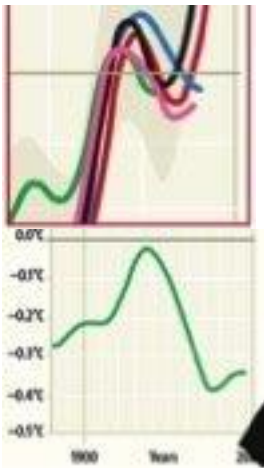
Both scandals suggest a lack of transparency and, according to Dr Bates, a failure to observe proper ethical standards.

Because of NOAA’s failure to ‘archive’ data used in the paper, its results can never be verified.

Like Climategate, this scandal is likely to reverberate around the world, and reignite some of science’s most hotly contested debates.”

Once again natural climate variation shows a colder planet over the past decades which the alarmist scientists wanted to hide.

which the alarmist scientists wanted to hide.



See this graph not publicized-

[The reason? Because this is what it shows after 1961, a dramatic decline in global temperatures"](#)

[World leaders duped by manipulated global warming data](#)

Without valid data the climate debate becomes impossible to assess. Some urge that based on climate history, reduced solar activity and recent colder winters globally with massive snowfall we are heading into the next ice age? Here is a recent book pitching that story.

The truth is the climate is chaotic and nonlinear and changes are measured in thousands of years not decades therefore we do not know. Uncertainty is the only certainty. In 1991 the Globe and Mail in Canada (our national newspaper) published my article urging caution because the science is not settled and any action is only a drop in the ocean. This opinion continues to be valid.

[My article published in 1991 by the GLOBE urged "MORE RESEARCH" on global warming theory . Co2 is essential to plant life. GLOBAL WARMING IS NATURAL. Climate is always changing. Canada is - "ONLY A DROP IN THE OCEAN."](#)

The future is black

Coal is Essential for World Economic Growth and to Alleviate Energy Poverty

Dr. Roger H. Bezdek

Energy Economist and President of MISI

If you could pick just one thing to reduce poverty, by far you would pick energy, business magnate and philanthropist Bill Gates has said. And few could find reason to disagree. I submit only coal can provide the large amount of affordable, reliable energy the world needs for economic growth to reduce energy poverty and to achieve the U.N. development goals. A recent report by the Australia Institute takes issue with this simple concept and that's why the report is seriously flawed.

First, coal is vitally required to facilitate economic growth over the coming decades, especially in the developing nations. All major forecasts indicate that world energy consumption will increase significantly over the next three decades, that almost all of this increased energy will be required in the developing nations, that fossil fuels will continue to provide 80% of world energy, and that coal will continue to be the world's most rapidly growing fuel.

As prominent energy analyst Vaclav Smil notes: "The most fundamental attribute of modern society is simply this: Ours is a high energy civilization based largely on combustion of fossil fuels." In short, fossil fuels – especially coal – will continue to be the driving force behind economic

growth for the foreseeable future. In fact, within five years coal will surpass oil as the world's major energy source.

Second, coal is critically required to reduce energy poverty and to help achieve the U.N. development goals. Nearly 3.5 billion people globally lack sufficient energy for basic needs and 4 million die annually from the effects of indoor air pollution as a result of energy poverty. All forms of energy are needed to address this challenge – especially advanced coal.

A recent study by Robert Bryce emphasized coal's role in alleviating energy poverty, concluding that, between 1990 and 2010, for every person who gained access to electricity from sources such as wind and solar, 13 gained access from coal.

Coal offers the unique attributes of large scale, low cost and lower emissions through advanced clean coal technology such as current supercritical plants. Affordable, reliable electricity is key to reducing energy poverty and to achieving the U.N. development goals, and within 25 years electricity use will double. Coal is currently world's predominant fuel for electricity generation and will remain so.

Finally, coal power generation has been getting cleaner for decades and this improvement continues. For example, in the United States, since 1970 industry has invested over \$100 billion in clean coal technologies, coal power generation has increased 170%, and the key emissions rate for SO₂, NO_x, and particulates has declined 90%.

This represents an incredible environmental success story according to any measure. Further, high-efficiency coal plant technologies are even cleaner: When equipped with advanced controls, these plants can have an emissions rate that is two-thirds lower than the existing fleet and a CO₂ emissions rate that is up to 25% lower than the oldest plants, driving major environmental improvement. As the head of the International Energy Agency notes, "A single, large coal plant, if built with the best-available technology, can reduce emissions by the annual equivalent of taking a million cars off the road."

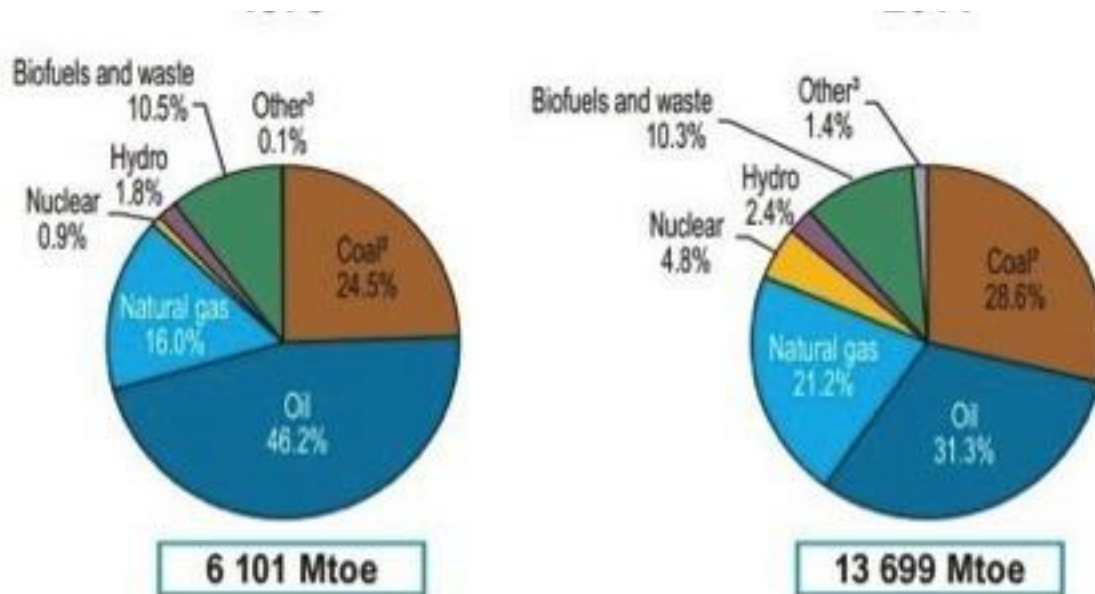
In conclusion, and Dr. Amartya Sen, a Nobel Laureate in Economics, said "Energy use is essential for conquering poverty, and there is a need for increased power in poorer countries." Only coal can provide the large amount of affordable, reliable energy the world needs for economic growth, to reduce energy poverty and to achieve the U.N. development goals.

Dr. Roger H. Bezdek

Dr. Bezdek is an internationally recognized energy economist and President of MISI, in Washington D.C. He has 30 years' experience in research and management in the energy, utility, environmental, and regulatory areas, serving in private industry, academia, and the federal government. He has served as Senior Adviser in the U.S. Treasury Department, as U.S. energy delegate to the EU and NATO, and as a consultant to the White House, federal and state government agencies, and numerous corporations and research organizations. His most recent book is *The Impending World Energy Mess*.

<https://www.advancedenergyforlif...>

The International Energy Agency (IEA) estimate that global energy consumption in 2014 was 13,699 Mtoe or 5.74×10^{20} joules. Mtoe stands for Million Tonnes of Oil Equivalent. The following pie charts, collated by IEA shows the estimated energy use around the globe between 1973 and 2014.



1. World includes international aviation and international marine bunkers.
2. In these graphs, peat and oil shale are aggregated with coal.
3. Includes geothermal, solar, wind, heat, etc.

Comparison between 1973 and 2014 global energy consumption [Image Source: IEA]

Note with massive subsidies to wind and solar renewables over 30 years they have negligible increase in energy consumption from 0.1% to 1.4% while coal consumption moved from 24.5% to 28.6%. Natural gas shows the largest growth trend up 5%.

Energy in India

The future is black

Power is essential for India's long-term growth. But electricity is unlikely to flow fast enough

Jan 21st 2012 | *NAGPUR*

In coal India has something as abundant as people. As more Indians enjoy the trappings of middle-class life and the country industrialises, demand for coal-fired electricity will continue to rise smartly, roughly in line with economic growth. India may not have much oil or gas to call its own but it has the world's fifth-largest coal reserves. And it has successfully raised a mountain of the other raw material needed to turn carbon into sparks: capital. Some \$130 billion has been ploughed into the power industry in the past five years. Of that, \$60 billion or so has come from the private sector—probably the largest-ever private-sector investment India has seen.

One dam thing after another

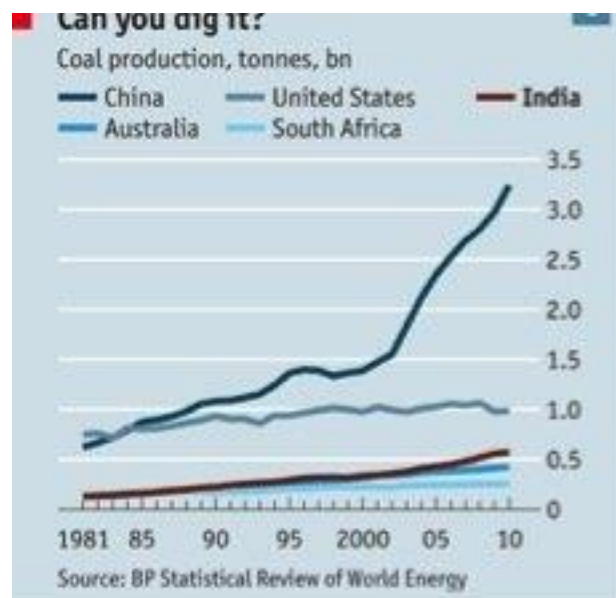
It wasn't always all about coal. Jawaharlal Nehru, the country's first prime minister after independence, was obsessed with hydroelectric dams, calling them the “temples of modern India”. It would have been good for India's environment, and the world's, had many more temples been raised. The fad for hydro trickled away and it now provides only 14% of India's power compared with up to a half in the 1960s.

That seems unlikely to change—India is too chaotic and free a place to manage the feats of national machismo that allowed China to build the Three Gorges dam. Although new projects are planned in places such as Kashmir and neighbouring Bhutan, harnessing Himalayan rivers to power all of India is for now a dream, not a policy.

The subcontinent has plenty of sun and wind, and states including Gujarat and Tamil Nadu are keen to encourage investments in renewable energy.

[These are likely to be niche sources of power, thanks to problems getting land and their high cost.](#)

[The result is that, as in China, fossil fuels will dominate the energy mix \(see chart 2\). Carbon emissions will rise in tandem, by about two-and-a-half times between 2010 and 2030 according to McKinsey, a consultancy. The growth of India's power industry—assuming it is built and largely fired by fossil fuels—would contribute about a tenth of the total global rise in emissions over the period. Most Indians do not feel too guilty, arguing that dirtier rich countries, not poor ones, should show restraint. India's emissions will remain far below those from America and China both in absolute terms and per head.](#)



Fossil hunting

[India has some oil and gas, mainly offshore and in Rajasthan, although production has been faltering. It lags China in developing pipelines from energy-rich Central Asia. Coal, then, is key. India's is not of a high quality—it contains too much ash—but there is lots of it.](#)

SCIENTIFIC AMERICAN

Coal Trumps Solar in India

Activists hope for a renewable energy future but dirty coal remains cheapest

By [Gayathri Vaidyanathan](#) and [ClimateWire](#) | October 19, 2015

A failed solar experiment in the village of Dharnai has underscored the challenges of going solar in India.

Photo by Gayathri Vaidyanathan.

DHARNAI, India—One year ago, environmentalists hailed this tiny village as the future of clean energy in rural India. Today, it is powered by coal.

Dharnai, a community of about 3,200 people in eastern India's Bihar state, had been without electricity for three decades. So when activists with Greenpeace set up a solar-powered microgrid in July of 2014, the excitement was palpable. But, residents said, the problems started almost immediately.

When the former chief minister of Bihar state visited to inaugurate the grid, villagers lined up to protest, chanting, "We want real electricity, not fake electricity!"

By "real," they meant power from the central grid, generated mostly using coal. By "fake," they meant solar.

Analysts say the story of Dharnai illustrates how difficult it can be to provide reliable, high-quality electricity to the world's poor without using the central grid.

Bringing coal-fired power to town

The microgrid operators scrambled to fix the mess. The village electrification committee decided to restrict electricity supply to five hours at nighttime. Greenpeace put up posters telling people not to use energy-hungry appliances such as rice cookers, electric water heaters, irons, space heaters and air coolers.

At present, solar power in Dharnai costs at least three times as much as grid power. It can support only expensive energy-efficient appliances, such as CFL bulbs. A CFL bulb in India costs 700 rupees (\$10), while an incandescent bulb costs 10 rupees (15 cents).

Using the poor as a pro-coal argument

M.V. Ramana, a physicist at Princeton University who has studied energy access in India, questioned the ethics of foisting an expensive solution on the poor, who've historically contributed so little to global warming.

“I strongly encourage [microgrids] for urban, upper classes of people who can afford it,” he said. “But [I would] not do it on the backs of people who are poor and who can’t afford these experiments.”

Grid power, which in India’s case is mostly coal-based, generates enough electricity to power factories, agricultural processing, hospitals, schools and malls, all of which drive human development and create jobs, said Alex Trembath, a senior analyst at the California-based Breakthrough Institute.

Groups that claim that microgrids can fuel similar levels of development are “conducting clean energy and climate policy on the backs of the global poor,” he also argued.

Guay of the Packard Foundation strongly disagreed and said that even a single light bulb powered by a microgrid is valuable to someone without power. Decentralized grids are solutions of the future while the central grid is like “whale oil,” he said.

“It has everything to do with progress,” Guay said. “I don’t think you will see a single person say that the poor should continue to use whale oil in the 21st century and call that ethical and progressive.”

Only a small number of villages are too remote to be hooked to the central grid and would be good candidates for microgrid-only solutions, Ramana said. The government has identified 12,771 such villages. There are also thousands of hamlets where fewer than 100 families live that could benefit, other experts said.

A village’s gratitude for coal

As the sun set in Dharnai on a recent summer evening, Greenpeace’s solar-powered street lamps switched on and pooled white light along the thoroughfare. Villagers chatted on streets that would have once been pitch-dark. Life has improved after Greenpeace came, they said.

Not because the group brought solar. Rather, they said, they appreciate that the group brought the chief minister, who brought in the grid.

“Right now, if I were Prime Minister Modi, I’d be saying, ‘Gee, I can deliver coal-based electricity way cheaper than I can deliver renewables,’” he said.

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<https://www.scientificamerican.c...>

Solar, CCS, Nuclear, and Natural Gas Not Scaling Fast Enough

Coal will dominate China’s power landscape for decades to come and is increasing in Southeast Asia’s energy mix as well. The International Energy Agency reported that coal will replace natural gas as the dominant power-generating fuel in the 10 member states of the Association of Southeast Asian Nations. At the same time, energy consumption in this region is expected to double in the next 20 years, and the Asian Development Bank estimates that coal will account for approximately 83 percent of electricity production in the Asia-Pacific by 2035. Armond Cohen, Cofounder and Executive Director of the Clean Air Task Force, discusses the implications of coal’s growing role in the fuel mix of China and ASEAN countries—as well as India—and assesses the tools and policy options available to reduce the environmental impacts.

April 30, 2014 | [Jacqueline Koch](#)

This April, the National Bureau of Asian Research and the Slade Gorton International Policy Center, in collaboration with the Asia Pacific Foundation of Canada, will co-host the 2014 Pacific Energy Forum, focusing on “New Frontiers in Trans-Pacific Energy Trade,” in Seattle, Washington. The forum gathers high-level policy makers, industry leaders, and government representatives from across the Asia-Pacific region to explore shifting dynamics in the trans-Pacific energy trade and the challenge to help Asia meet its energy demand while safeguarding the environment.

Coal will dominate China’s power landscape for decades to come and is increasing in Southeast Asia’s energy mix as well. The International Energy Agency (IEA) has reported that coal will replace natural gas as the dominant power-generating fuel in the 10 member states of the Association of Southeast Asian Nations (ASEAN). At the same time, energy consumption in this region is expected to double in the next 20 years, and the Asian Development Bank (ADB) estimates that coal will account for approximately 83 percent of electricity production in the Asia-Pacific by 2035. In advance of the 2014 Pacific Energy Forum, NBR spoke with Armond Cohen, Cofounder and Executive Director of the Clean Air Task Force, to explore the implications of coal’s growing role in the fuel mix of

China and ASEAN countries—as well as India—and assess the tools and policy options available to reduce the environmental impacts.

Why is coal growing rapidly in South and Southeast Asian countries?

First and foremost, coal consumption is accelerating because of sheer power demand growth, combined with coal's rapid scalability. China offers a key example. It is already the world's largest coal consumer and has a coal power fleet that is two and half times the size of the United States' fleet. China also expects to move another 100 million people from the countryside to the city in the next 12 years and grow its middle class by 200 million by 2035. Given these projections, China estimates electric demand to roughly double by 2030. Let's also consider India, a nation of 1.2 billion people—four times the US population—where the rapid growth of the middle class is also underway. It has only 211 gigawatts of installed electrical generating capacity, equivalent to approximately one-fifth of the capacity of the United States, and India is expected to triple its electric demand by 2030.

When power demand is growing that rapidly, you build what you can, and this very well may include taking all measures to improve efficiency, scale up renewable resources, and diversify the energy mix to include natural gas and nuclear. However, coal is readily available and transportable (no pipelines required), and coal plants can be built quickly—typically in 18 months. While figures have fallen from a much higher peak a few years ago, China still built approximately one large plant every week in 2013.

There is still considerable discussion about the wind, solar, and even nuclear boom in Asia (China is building 28 nuclear plants), yet these other power sources are slow to develop to scale, so coal is still the winner. This has played a big role in the projections for the coming years: 75 percent of the annual new generating capacity being added in Southeast Asia is expected to be coal-fired. It's also important to remember that only about half of China's coal is used for producing power, while slightly over 40 percent of its coal is used directly for industry—for example, cement and steel.

The second greatest contributor to the rapid rise in coal use is cost. Mining coal in China currently costs as little as \$2–\$4 per million British thermal units (mmbtu). Imported liquefied natural gas (LNG) costs \$15–\$20 per

mmbtu in Asia, and limited domestic gas production—while in the \$10 or more per mmbtu range—is husbanded for industry, not electricity. Ironically, global coal prices have dropped somewhat in recent years due to decreased electric demand from member countries of the Organization for Economic Co-operation and Development (OECD). This trend has been bolstered by the shale gas revolution in the United States, which has freed up U.S. coal for export, helping further depress global coal prices. Even nuclear plants in China are two to three times more expensive to build than coal plants. Coal plants are cheap in China not only because of lower labor costs, but due to lower intellectual property and licensing costs as well as the high level of China's construction management capability. According to the International Energy Agency (IEA), despite recent price drops, wind and solar power in Asia remains three to five times more expensive per kilowatt hour to develop than new coal power plants, ignoring the costs of the generating capacity needed to back up these renewable resources when the sun doesn't shine and wind doesn't blow.

The third factor pushing greater coal use in Asia is availability. China has the world's third largest coal reserves, after the United States and Russia. Australia and India are fourth and fifth. Globally, world proven reserves of coal are sufficient for over 100 years of consumption at current rates. True, India and China have substantial natural gas reserves as well, including shale gas, but they have been slow to scale up conventional production infrastructure, and lifting costs for gas are still much higher than for coal.

As reported by the IEA, coal will replace natural gas as the dominant power-generating fuel in the ten member states of ASEAN. What does this transition represent in terms of the use of cleaner and more efficient coal-burning technology? What are obstacles to more widespread use of this technology, and how could they be overcome?

To date, China's primary strategy has been to introduce more efficient power plants such as supercritical (high temperature), ultra-supercritical, and circulating fluidized bed plants, all of which have higher efficiency factors than the sub-critical plants dominant in OECD countries. Indeed, because of the relative youth of China's coal plants (most have been built since 2000), these plants operate at higher average efficiency than those in the United States! Needless to say, they will not be scrapped any time soon. China is the world's largest market for scrubbers—pollution control

devices—and most new plants are equipped with them, although how often and how well they operate is a matter of dispute.

A second trend is towards gasification and polygeneration—the production of electricity as well as gas, chemicals, and transportation fuels through coal gasification. While this method can provide more economic output per unit of coal, the resultant combustion of the synthetic liquid fuels and synthetic natural gas results in a net addition of carbon dioxide (CO₂) to the atmosphere compared with use of oil for transportation or the use of natural gas.

Ultimately, to reconcile China’s large and growing coal fleet with any reasonable climate goals will require the application of carbon capture and storage (CCS), paired with either gasification or post-combustion capture. In addition, CCS or conversion to natural gas will be required for non-process industrial coal use.

Where will the ASEAN countries be sourcing their coal? What are their options?

China, India, and Australia are the world’s first-, third-, and fourth-largest coal producers, respectively. China and India supply most of their own coal, but imports from Australia and Indonesia are growing as domestic demand outstrips current mining capabilities. Japan has dramatically increased its coal use and imports since the Fukushima nuclear accident in 2011—25 percent alone in the last year—with a resultant increase in CO₂ emissions, and is diversifying its supply source away from Australia and toward the United States and Canada in order to increase its market leverage.

Over the long run, there are many options for coal sourcing to the region. Indonesia, Australia, Russia, and the United States are the largest exporters in the world, while China, Japan, India, South Korea, and Taiwan are the top five importers. Partly due to slack demand in the United States and Europe—as well as gas’s displacement of coal there—and excess capacity in Australia, world coal prices have been on a steady downward trend for several years. Anyone counting on “peak coal” to reduce Asian coal demand will be sorely disappointed in the coming decades.

What are the projected consequences of this surge of coal consumption? What are the other tools or policies available to mitigate it?

The chief consequences of the region's coal surge are environmental and primarily related to climate. Relatively inexpensive scrubbing technologies can reduce emissions of particulates, smog precursors, emissions, and mercury to very low levels. Nevertheless, CO₂ is much tougher to address. Due to their enormous coal dependence, China and India are the world's first- and fourth-largest emitters of CO₂, respectively, with Indonesia ranked fifteenth; Malaysia and Thailand are also in the top 30. By 2035, the IEA estimates that non-OECD Asia plus Japan will account for 56 percent of global energy-related CO₂ emissions.

In principle, there are only three ways to reduce CO₂ from coal-based electricity production. First, you can replace coal use with other fuels or increased energy efficiency. Second, you can increase the efficiency of coal combustion itself. The third strategy is CCS. China and India are beginning to deploy the first two strategies, but not fast enough to change the story dramatically in the next few decades. Japan, as noted, with its nuclear plant closures, is going backwards on reducing CO₂ emissions by deploying more coal and gas. That elevates the importance of CCS. And, as noted before, CCS is really the only strategy available for coal use for certain processes in heavy industry.

Energy efficiency is important—but, given the surge in first-time demand resulting from urbanization and increased wealth, improvements in efficiency are not expected to significantly dent absolute demand growth. Indeed, substantial efficiency improvements are already “baked in” to the high-growth scenarios for Asia; growth would be even higher if efficiency lagged. Improving the efficiency of coal plants is useful, but will only reduce CO₂ emissions at the margin.

Then there are renewables. Each year brings news and discussions regarding the dramatic percent increase in additions of wind and solar power in China, but this is from a very small base. In 2011, China derived 78 percent of its power from coal, and less than 2 percent from wind and solar. In 2013, China added in excess of three times more new coal electricity in kilowatt hours (kWh) than wind and solar combined. While China is building 28 new nuclear plants and aims to have up to 150 on line within two decades, this would still only produce a fraction of the power produced from coal. A recent Bloomberg study predicted that China coal use might peak as percentage of total power supply in the coming decades, but until then (and even after, according to the U.S. Department of Energy) would continue to grow in absolute amounts and still provide well over half

of China's electricity in 2030, even in the best-case scenario. Moreover, this scenario will not be significantly affected by the recent coal plant construction ban in parts of coastal China; substantial development is proposed in the western and northern provinces. Due to the long life of coal plants—lasting 50 years or more—and given that China's plants are mostly less than a decade old, the current and soon-to-be-built plants will continue to retard climate progress for another half-century if nothing is done to address their CO₂ emissions.

However, there are potential game-changers. They include modular, less expensive nuclear plants that could step in to replace coal boilers on an economical retrofit basis, or the “reforming” of natural gas, which removes the carbon and produces hydrogen to make price-competitive carbon-free liquid fuels like ammonia. My organization is working hard with developers to commercialize this technology. But CCS on coal-fired power plants seems like the most likely and necessary option in the near term.

If CCS is a viable option, why has it not gained greater traction?

CCS is a real option for China coal plants both new and existing. But there are two primary barriers for deploying CCS in China, and for that matter, anywhere in the world. The first is the high cost of capturing and compressing the CO₂ emitted by a coal plant. Current CCS technology in the United States and China adds roughly 50 percent to the cost of operating a new coal plant, and as much as 70 percent to the cost of operating an existing plant. The second barrier comes in the task of disposing of the CO₂ once it has been captured. CO₂ disposal requires a dedicated network of pipelines and underground storage sites that can inject it miles underground. With the exception of certain regions in North America, this disposal network does not yet exist.

These two problems—high capture cost and the lack of pipeline and storage site availability—are interconnected. With the right strategy, they can be solved in China and the rest of the world.

A strategic approach to establish widespread CCS in China begins with using recovered CO₂ for enhanced oil recovery (EOR) on a transitional basis. In this process, carbon is injected into a new or depleted oil field, where its properties free up the oil that would otherwise not be extractable. The revenue from EOR can pay for the cost of injection, pipelines, and a substantial portion of the cost of capturing CO₂. After the oil from the fields

is extracted, the second step is to inject the captured CO₂ for permanent storage in the field itself, or in saline aquifers underneath. Shenhua Coal is already undertaking the second step and is currently injecting 100,000 tons of CO₂ per year underground on a pilot basis. Japan also is starting up a pilot project to inject carbon into the seabed floor. My organization is bringing U.S. expertise to China to accelerate EOR using CO₂.

To build this pipeline and EOR network, China needs to start with cheaper sources of CO₂ than what comes from coal-fired power plants. Approximately 7 percent of the industrial CO₂ that is vented worldwide comes from high-purity sources such as ammonia and methanol production. This industrial subset is economical for EOR without the need for subsidies. Conservative estimates show that more than 130 million tons of CO₂ are vented from these sources each year in China alone. In Shaanxi Province, just nine methanol and ammonia plants together vent nearly 24 million tons of pure CO₂.

Once this pipeline and storage site network is built with industrial sources, it will be cheaper and easier to add CCS to China's vast coal power plant fleet. That's because the network can act as a nucleus or hub for capture-cost innovation. This is another area where my organization is pairing companies in China and the United States to work together to develop and demonstrate novel CCS technologies that are more efficient and lower-cost. For example, China's largest power producer, Huaneng, has partnered with U.S. technology start-up Powerspan to develop a lower-cost amine-capture system. With China's manufacturing costs advantages, these partnerships have the potential to drive CCS deployment far faster than a "West only" approach.

A key point to keep in mind is that innovation isn't limited to the back end of capture. In India and China, the use of underground coal gasification—where coal is gasified in the coal seam itself—could reduce CCS costs substantially; this process is being demonstrated at commercial scale and is highly suitable for China and India's coal supply. Chinese universities and industries have substantial scientific and engineering innovation capacity, and we need to increase and pick up the pace of collaboration between East and West to accelerate our CCS options.

You have suggested that we look beyond China when evaluating the implications of increased regional coal consumption. Are there lessons China has to offer in the effort to address the

environmental impacts for ASEAN countries or India? What would you highlight as the most promising examples of China's efforts?

The principal lesson from China is that there are no easy or quick answers to the problem of rapidly accelerating energy consumption and the need to curb CO₂. To tame this massive problem, we will need an unprecedented technological push on multiple fronts. Here, China has pointed the way and offers both lessons and concrete value.

China has shown the unprecedented ability to manage down the costs of all forms of energy, including clean energy. China builds highly efficient coal plants at roughly half the cost of those in the United States and Europe, and has also driven down the price of wind and solar installations to below OECD levels. This is not solely due to labor cost differences; it also has to do with technical innovation and proficiency in the management of large engineering projects. If this capability can be harnessed to CCS and nuclear power, the world will benefit.

On the nuclear front, we are seeing the beginnings of this innovation path. China has begun a substantial nuclear-power development program, with 28 power plants under construction, and is building reactors at much lower costs than in the West, in part due to using several standard designs and typically building several units at each nuclear site. China is constructing advanced Western reactor designs—such as the Westinghouse AP1000 (four units) and Areva EPR (one unit)—and doing so at approximately half the cost of current Western projects building these reactors. China's AP1000 partnership with Westinghouse provides for China's evolution of this technology and associated IP ownership—which has led to design of the larger CAP1400—the first unit of which recently began construction. In addition, China is ahead of the United States and Europe in developing and demonstrating a new generation of reactors that are potentially safer, lower-cost, and, in some cases, produce less high-level nuclear waste, including those using high-temperature gas coolant technology, as well as molten salt reactors that could use thorium (or uranium) fuel. India also has undertaken a thorium demonstration program—primarily focused on using thorium to fuel conventional light-water reactors. Combined with a strengthening of nuclear safety governance and practices through China-Western cooperation, nuclear could be a competitive and highly scalable replacement for new coal plant construction in Asia by 2025 and beyond.

China and India also offer the potential to scale up CCS rapidly, utilizing EOR as a near-term accelerant, and thereby drive costs down through learning. China and India also may have the ability to innovate new CCS technologies with their growing scientific and engineering innovation capabilities. Similar innovations could occur to decarbonize the region's substantial natural gas reserves. For example, natural gas can be processed—sequestering carbon—to produce hydrogen that combines with nitrogen to create ammonia liquid fuel. Produced this way, ammonia is a “zero-carbon” fuel that can be burned in a power plant or car or truck engine. Another way to create zero-carbon ammonia is to use carbon-free electricity (such as nuclear power or renewables) to split water to produce hydrogen, which is then combined with nitrogen to produce liquid ammonia.

The ultimate hope that China, and perhaps all of Asia, offers to solve the global warming and energy problem is this: energy innovation historically tends to occur more rapidly where there is economic growth and the underlying need for more power. Asia's energy demand will grow rapidly in the coming decades, generating the markets in which experimentation can take place. By contrast, shrinking OECD energy markets are largely saturated with existing supply, so producing clean energy involves the costly replacement of functioning equipment. The incremental cost of building something that is new and clean is generally lower than the total cost of replacing something old and dirty. If Asian nations put their strategic minds to finding solutions and collaborate with global companies and nations, the steep Asia energy growth curve could move from being a major global warming liability into a powerful asset.

Jacqueline Koch is the Pacific Energy Forum Communications Advisor. This interview first [appeared](#) on the National Bureau of Asian Research website, and is reprinted with permission.

James Grant Matkin · NO. Renewables are not even in the running. Pretending solar and wind as intermittent sources will fill the gap is a fairytale. Fossil fuels provide 86% of world energy resources and at best this will only fall to 80% by 2035. Coal has the lion's share of fossil fuel energy and will triple over the next two decades largely from India and China expansions. Notwithstanding President Obama's political push against coal and for a green technology revolution, "we remain deeply entrenched in a world dominated by fossil fuels, with the only true revolution now underway involving the shift from one class of such fuels to

another." Michael T. Klare - Salon. America's green energy future is a pipe dream. Coal is at the top of the heap because it is cheap and plentiful where it is most needed at developing nations for economic growth and to alleviate energy poverty. "If you could pick one thing to reduce poverty, by far you would pick energy, business magnate and philanthropist Bill Gates has said." Economic research shows only coal can provide the large amount of affordable, reliable energy the world needs. As the article explains - "When power demand is growing that rapidly, you build what you can, and this very well may include taking all measures to improve efficiency, scale up renewable resources, and diversify the energy mix to include natural gas and nuclear. However, coal is readily available and transportable (no pipelines required), and coal plants can be built quickly—typically in 18 months. While figures have fallen from a much higher peak a few years ago, China still built approximately one large plant every week in 2013." Power demand is growing rapidly in China and India the most populated developing countries in the world. Cost is the imperative for energy and there "really is no free energy lunch." Evolutionary renewable technology may make a contribution to energy supply, but overall it will not make a difference. The coal hard truth is China's new coal investment is 6 times higher than wind and 27 times higher than solar in 2013. India will be even more than China by 2030. <http://thebreakthrough.org/.../energy.../the-coal-hard-truth>. Fortunately climate alarmists have much exaggerated the impact of increased CO₂. Global temperatures are not increasing as predicted, glaciers are not melting that much and some are expanding as are the Pacific Islands. Over the last 100 years oceans only rose 5" and polar bears are thriving. The only imperative is to be sensible and not weaken the economy for an unproved theory.

<http://thebreakthrough.org/index...>

Dr. [Richard C Willson](#) Astrophysics Expert

Re: "...climate alarmists have much exaggerated the impact of CO₂."

The CO₂ anthropogenic global warming (CAGW) hypothesis has proved to be false. The predictions of the global circulation models on which CAGW is based have failed to match observational data both during the 'Industrial Era' and previous history. The thrust of recent research has demonstrated that climate changes continually and is determined by natural forces that humans have no significant control over.

The CAGW hoax to curtail use of fossil fuels is perpetuated by (1) some cynical scientists that want to protect their CAGW careers and government grants; (2) cynical crony capitalists that make money related to carbon cap and trade fees, government subsidies or the related service industries; (3) Hyper-environmental activists who want to make feel-good gestures at public expense; (4) and political ideologues that want to redistribute wealth or impose population limits.

Alternative renewable technologies will not be commercially viable in the foreseeable future. Renewable energy sources like solar and wind supply only 3 % of our energy use and that only works when the sun shines and the wind blows. Significant expansion of renewables will require massive investments in research and infrastructure, potentially distorting other more important social and economic priorities.

Bottom line: Anti-fossil fuel policies based on CAGW are fools errands. There is no reason to sabotage world economies by failing to use fossil fuels, the most cost-effective form of energy, to the maximum extent possible. SUMMARY SESSION ACADEMIA

[James Matkin](#)

I submit research shows the green polemic is not grounded in reality. The world must depend on the lowest-cost energy at the end of the day. Market forces and investment will follow the economics. Coal power trumps alternatives because it is plentiful, cheaper and is the legacy fuel worldwide. Despite climate alarmists and environmental issues new coal plants will double or triple in the decades following (China opens a new coal plant every week). For the 3.5 billion people living in desperate poverty and in the dark today cheap electricity is a matter of social justice and must override the false hope of a carbon free economy, especially when the science behind the theory of global warming is very much disputed.

What's Driving India's Coal Demand Growth

1st Jun 2016

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World Bank suggests India's GDP will grow by 7.9% in 2016, more than twice the global average.² Economic growth and modernization will in turn drive energy demand, especially for coal.

Moreover, Indian appetite for coal will rise as the government enacts policies to assist those affected by energy poverty. The IEA has estimated that around 240 million people, or 20% of the population, remain without access to electricity.¹ Of equal concern, the agency estimates that 840 million people—more than the populations of the U.S. and the European Union combined—use traditional biomass for cooking

Like China before it, India's economic growth will be fueled by coal. Thus, in 2012, 45% of total primary energy demand and 72% of generated electricity demand was met by coal. India currently has approximately 205 GW of coal-fired electricity generation capacity, which will soon be augmented by 113 GW of new coal-fired capacity currently under construction.⁴

GOVERNMENT POLICIES TO MEET GROWING ENERGY NEEDS

The Indian government's policies to meet the growing need for electricity are focused, principally, on developing large-scale coal-fired power plants. Indeed, in March 2015, Arunabha Ghosh, head of the Council on Energy, Environment and Water think tank in New Delhi, told the UK's Financial Times that "whichever way you cut it, coal is going to be front and centre of India's future energy mix..."⁶

Over the next 25 years, electricity demand in India is forecast to grow at over 4% per annum. Under its New Policies Scenario, which modeled energy demand and supplies if all new and proposed policies were fully enacted, the IEA estimates that installed coal capacity will reach almost 500 GW by 2040 (more than three times the 2012 installed capacity) (see Figure 1).

The dominance of coal in India's energy mix can be attributed to two key factors: affordability and access. Although the competitiveness of renewables and gas-fired technology is likely to improve over time, coal is expected to remain the most affordable option through to 2035, driven by low domestic coal prices and limited gas availability.

[What's Driving India's Coal Demand Growth](#)

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Obama's Climate Policy Is a Hot Mess

The president hails the Paris Agreement again—even though it will solve nothing and cost trillions.

By BJORN LOMBORG

June 30, 2016 7:06 p.m. ET

[Obama's Climate Policy Is a Hot Mess](#)

When President Obama flew to Ottawa, Canada, on Wednesday to meet with Canadian Prime Minister Justin Trudeau and Mexican President Enrique Peña Nieto, promoting their climate-change policies was near the top of the agenda. “The Paris Agreement was a turning point for our planet,” the leaders’ joint statement said, referring to the climate pact signed with fanfare in April by nearly 200 nations. “North America has the capacity, resources and the moral imperative to show strong leadership building on the Paris Agreement and promoting its early entry into force.”

Attracting rather less attention than the Ottawa meeting was a June 22 hearing on Capitol Hill. [Testifying](#) before the House Committee on Science, Space and Technology, Environmental Protection Agency Administrator Gina McCarthy extolled the Paris Agreement as an “incredible achievement.” But when repeatedly asked, she wouldn’t explain exactly how much this treaty would actually cut global temperatures.

The Paris Agreement will cost a fortune but do little to reduce global warming. In a peer-reviewed article published in *Global Policy* this year, I looked at the widely hailed major policies that Paris Agreement signatories pledged to undertake and found that they will have a negligible temperature impact. I used the same climate-prediction model that the United Nations uses.

First, consider the Obama administration’s signature climate policy, the Clean Power Plan. The U.N.’s model shows that it will accomplish almost nothing. Even if the policy withstands current legal challenges and its cuts are totally implemented—not for the 14 years that the Paris agreement lasts, but for the rest of the century—the Clean Power Plan would reduce temperatures by 0.023 degrees Fahrenheit by 2100.

President Obama has made grander promises of future carbon cuts, beyond the plan's sweeping restrictions on the power industry, but these are only vaguely outlined now. In the unlikely event that all of these extra cuts also happen, and are adhered to throughout the rest of the century, the combined reduction in temperatures would be 0.057 degrees. In other words, if the U.S. delivers for the whole century on the very ambitious Obama rhetoric, it would postpone global warming by about eight months at the end of the century.

Or consider the Paris Agreement promises from the entire world using the reduction estimate from the United Nations Framework Convention on Climate Change, the organization responsible for the Paris summit. The U.N.'s model reveals a temperature reduction by the end of the century of only 0.08 degrees Fahrenheit. If we generously assume that the promised cuts for 2030 are not only met (which itself would be a U.N. first), but sustained throughout the rest of the century, temperatures in 2100 would drop by 0.3 degrees—the equivalent of postponing warming by less than four years at the end of the century. A cut of 0.3 degrees matches the finding of a Massachusetts Institute of Technology analysis of the Paris Agreement last year.

The costs of the Paris climate pact are likely to run to \$1 trillion to \$2 trillion annually throughout the rest of the century, using the best estimates from the Stanford Energy Modeling Forum and the Asia Modeling Exercise. Spending more than \$100 trillion for such a feeble temperature reduction by the end of the century does not make sense.

Some Paris Agreement supporters defend it by claiming that its real impact on temperatures will be much more significant than the U.N. model predicts. This requires some mental gymnastics and heroic assumptions. The group doing climate modeling for the U.S. State Department assumes that without the Paris Agreement emissions would be much higher than under any realistic scenario. With such an unrealistically pessimistic baseline, they can then magically show that the agreement will cut temperatures by 1.8 degrees Fahrenheit—with about 1.5 degrees of the drop coming from a reduction of these fantasy carbon emissions.

The Climate Action Tracker, widely cited by Paris Agreement fans, predicts a temperature reduction of 1.6 degrees by the end of the century. But that model is based heavily on the assumption that even stronger climate

policies will be adopted in the future—98% of the assumed reductions come after the current Paris Agreement promises to expire in 2030.

Even this wishful thinking won't achieve anything close to the 2 degrees Celsius (3.6 degrees Fahrenheit) reduction that has become the arbitrary but widely adopted benchmark for what will be essential to avoid the worst effects of global warming.

The Paris Agreement is the wrong solution to a real problem. We should focus more on green-energy research and development, like that promoted by [Bill Gates](#) and the Breakthrough Coalition. Mr. Gates has announced that private investors are committing \$7 billion for clean energy R&D, while the White House will double its annual \$5 billion green innovation fund. Sadly, this sorely needed investment is a fraction of the cost of the same administration's misguided carbon-cut policies.

Instead of rhetoric and ever-larger subsidies of today's inefficient green technologies, those who want to combat climate change should focus on dramatically boosting innovation to drive down the cost of future green energy.

The U.S. has already shown the way. With its relentless pursuit of fracking driving down the cost of natural gas, America has made a momentous switch from coal to gas that has done more to drive down carbon-dioxide emissions than any recent climate policy. Turns out that those who gathered in Paris, France, could learn a little from Paris, Texas.

Mr. Lomborg, president of the Copenhagen Consensus Center, is the author of "Cool It" (Knopf, 2007) and "Smartest Targets for the World" (Copenhagen Consensus, 2015).

[JAMES MATKIN](#)



Yes, a cost-benefit analysis highlights the climate alarmists debacle. This is important to head off government mania for new carbon taxes. Australians killed their carbon tax after seeing the gross waste of resources with no impact on the environment. The tax harms export industries subject to world pricing. The tax does not prevent “carbon leakage” when “emissions simply rise overseas” beyond the control of Australia.<http://instituteeforenergyresearch...>

Further, the whole mission of reducing CO₂ to save the planet is foolish. Dr. Patrick Moore explains - “CO₂ is a pollutant only to politicians and bureaucrats.... By itself, it is incapable of warming the climate by more than a fraction of a degree. CO₂ is an essential gas, without which there would be no life on earth. CO₂ is plant food.” <https://www.youtube.com/watch?v=...>

Richard C Willson is a leading climate scientist and he sums up the weak science of CAGW and urges full use of fossil fuels in response to my posting on Academia.



Member, International Advisory Committee for Absolute Radiometry (1988 - present) Member of NASA validation review panel for the EOS/SORCE experiments (2000). Presenter to the NOAA Panel on Strategies for Climate (Nov., 2000.) NASA Medal for Exceptional Scientific Achievement (1981) Ph.D. Atmospheric Physics, University of California at Los Angeles (1975)

“The CO₂ anthropogenic global warming (CAGW) hypothesis has not withstood the test of time. CAGW is based on predictions of the flawed, 1980's vintage global circulation models that have failed to match observational data both since and prior to their fabrication. Climate changes continually and is determined by natural forces that humans have no significant control over.

Increased plant growth in CO₂ enhanced environments is a demonstrated fact. Since CO₂ is not a significant GHG for climate there is no reason not to use it.

Instead of wasting resources on crony capitalist and environmental extremist 'green' energy projects we should use fossil fuels, the most cost-effective form of energy, to the maximum extent possible. Using the CO₂

byproduct in an intelligent way will be a contribution to taking the most intelligent possible path into the future.”

CONCLUSION

There is increased low probability of the earth becoming too hot from fossil fuels carbon dioxide. Now with declining solar radiation in play the concern will shift to the potential of a too cold climate. Scientists are increasingly tuning out the claims that the Earth’s temperatures are predominantly shaped by anthropogenic CO₂ emissions, or that future climate is destined to be alarmingly warm primarily due to the rise in trace atmospheric gases. Instead, solar scientists are continuing to advance our understanding of solar activity and its effect on the Earth system, and their results are progressively suggestive of robust correlations between solar variability and climate changes.

For example, in 2016 alone, there were at least 132 peer-reviewed scientific papers documenting a significant solar influence on climate. Among them there were 18 papers that directly connected centennial-scale periods of low solar activity (the Little Ice Age) with cooler climates, and periods of high solar activity (the Medieval Warm Period and the Modern Warm Period [20th Century]) with high solar activity levels. Another 10 papers warned of an impending solar minimum and concomitant cooling period in the coming decades.<https://www.researchgate.net/pub...>

And this trend of scientists linking climate changes to solar forcing mechanisms — and bypassing an anthropogenic explanation — continues to rage on in 2017.

This reality must cause pause to ignore the plight of the energy impoverished of more than 2 billion needing the cheapest source of power to advance. Denying fossil fuels to them is immoral.

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<https://www.quora.com/What-is-the-tragedy-of-overconfidence-about-global-warming-climate-science/answer/James-Matkin>